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Client: Anchor QEA, LLC. Project: 0900007-01.02 I&J Waterway RI/FS

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BC
Signature

September-04-2013
Date

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Project: 0900007-01.02 I&J Waterway RI/FS

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BC
Signature

September-04-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

September 11, 2013

Dan Berlin
Anchor QEA
720 Olive Way, Suite 1900
Seattle, WA 98101

RE: Client Project: I & J Waterway RI/FS, 0900007-01
ARI Job No.: XB89

Dear Dan:

Please find enclosed the Chain of Custody records (COCs), sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of requested analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile XB89

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: XB89

Chain of Custody Record & Laboratory Request Form

COC#

ANCHOR QEA

Date: 8/21/2013
Laboratory Number: ARI
Project Name: I&J Waterway RI/FS
Project Number: 090007-01.02
Project Manager: Dan Berlin
Phone Number: 206-903-3322
Shipment Method: FedEx

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	SVOC/Pest/PCB	Metals	TS/TOC	Grain Size	Atterberg	Dioxins	Sulfide	NH3/TS/TOC/HVS	Archive										Comments
1	IJ13-SS-102	8/20/2013 14:01	SED	7	X	X		X	X	X	X	X											
2	IJ13-SS-101	8/20/2013 12:46	SED	7	X	X		X	X	X	X	X											
3																							AC
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Additional notes/comments: Refer to Work Plan adendum for analytical methods

Relinquished By:	Company:	Received By:	Company:
[signature] / Anel Blanc	Anchor QEA LLC.	TS [signature]	ARI 7-22-13 700
Signature/Printed Name	Date/Time 8/21/2013 12:00	Signature/Printed Name	Date/Time

Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Page 1 of 1

XB89 : 00003

Chain of Custody Record & Laboratory Request Form

COC#

Date: 8/21/2013
Laboratory Number: ARI
Project Name. I&J Waterway RI/FS
Project Number: 090007-01.02
Project Manager: Dan Berlin
Phone Number: 206-903-3322
Shipment Method: FedEx

ANCHOR QEA

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	SVOC/Pest/PCB	Metals	TS/TOC	Grain Size	Atterberg	Dioxins	Sulfide	Archive	Hold	Comments
1	IJ13-SS-151	8/20/2013 12:46	SED	7	X	X		X	X	X	X	X		
2	IJ13-VC-101-2-3.9	8/20/2013 17:41	SED	6	X	X	X	X	X	X				
3													1	AB
4														
5														
6														
7														
8														
9														
10														
11														
12														

Additional notes/comments: Refer to Work Plan Addendum for analytical methods

Relinquished By:	Company:	Received By:	Company:
Ariel Blanc	Anchor QEA LLC.	ARI	
Signature/Printed Name	Date/Time: 8/21/2013 12:00	Signature/Printed Name	Date/Time: 7-22-13 700
Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Request Form

COC#

Date: 8/21/2013
Laboratory Number: ART
Project Name: I&J Waterway RI/FS
Project Number: 090007-01.02
Project Manager: Dan Berlin
Phone Number: 206-903-3322
Shipment Method: FedEx

ANCHOR QEA

Line	Field Sample ID	Collection Date/Time	Matrix	Archive Containers	SVOC/Pest/PCB	Metals	TS/TOC	Grain Size	Atterberg	Dioxins	Sulfide	[redacted]	Comments
1	IJ13-VC-102-2-4	8/20/2013 16:58	SED	6	X	X	X	X	X	X			
2	IJ13-VC-102-4-5.4	8/20/2013 17:00	SED	6	X	X	X	X	X	X			
3													AB
4													
5													
6													
7													
8													
9													
10													
11													
12													

Additional notes/comments: Refer to Work Plan Addendum for analytical methods

Relinquished By:	Company:	Received By:	Company:
Ariel Blanc	Anchor QEA LLC.	TS	AR-5
Signature/Printed Name	Date/Time: 8/21/2013 12:00	Signature/Printed Name	Date/Time: 8/22/13 700
Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Request Form

COC#

ANCHOR QEA

Date: 8/21/2013
Laboratory Number:
Project Name: I&J Waterway RI/FS
Project Number: 090007-01.02
Project Manager: Dan Berlin
Phone Number: 206-903-3322
Shipment Method: FedE

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	SVOC/Pest/PCB	Metals	TS/TOC	Grain Size	Atterberg	Dioxins	Sulfide	[illegible]	Archive										Comments
1	IJ13-VC-102-0-2	8/20/2013 16:55	SED	3									X										
2	IJ13-VC-101-0-2	8/20/2013 17:35	SED	3									X										
3																							AB
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Additional notes/comments: Refer to ~~analytical methods~~ Work Plan Addendum for analytical methods

Relinquished By:	Company: Anchor QEA LLC.	Received By:	Company:
[signature] Anel Blanc	8/21/2013 12:00	TS	ARI 8-22-13 900
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor — Project Name: LDW Waterway RI/FS

COC No(s): _____ NA — Delivered by: (Fed-Ex) UPS Courier Hand Delivered Other _____

Assigned ARI Job No.: XB89 — Tracking No: 7965 1158 4020 NA

7965 1158 1585 7965 1158 0800

7965 1158 2320

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? (YES) NO

Were custody papers included with the cooler? (YES) NO

Were custody papers properly filled out (ink, signed, etc.) (YES) NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 4.6 5.7 5.3 4.0

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: 90871952

Cooler Accepted by: TS — Date: 8.22.17 — Time: 700

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES (NO)

What kind of packing material was used? (Bubble Wrap) Wet Ice Gel Packs (Baggies) Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA (YES) NO

Were all bottles sealed in individual plastic bags? (YES) NO

Did all bottles arrive in good condition (unbroken)? (YES) NO

Were all bottle labels complete and legible? (YES) NO

Did the number of containers listed on COC match with the number of containers received? (YES) NO

Did all bottle labels and tags agree with custody papers? (YES) NO

Were all bottles used correct for the requested analyses? (YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... (NA) YES NO

Were all VOC vials free of air bubbles? (NA) YES NO

Was sufficient amount of sample sent in each bottle? (YES) NO

Date VOC Trip Blank was made at ARI: (NA)

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

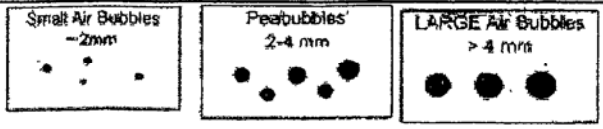
Samples Logged by: TS — Date: 8.22.17 — Time: 900

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By _____ Date: _____



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: XB89

Case Narrative

Client: Anchor QEA
Project: I & J Waterway RI/FS, 0900007-01
ARI Job No.: XB89

Sample receipt

Eight sediment samples were received on August 22, 2013 under ARI job XB89. The cooler temperatures measured by IR thermometer following ARI SOP were 4.0, 4.8, 5.3, and 5.7°C. Select samples were archived upon receipt. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

Semivolatiles by SW8270

The samples and associated laboratory QC were was extracted and analyzed within the method recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration (CCAL) on 9/2/13 fell outside the 20% control limit low for Pentachlorophenol. All detected results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

The CCAL on 9/3/13 fell outside the 20% control limit low Benzoic Acid and Pentachlorophenol. All detected results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recovery of d4-2-Chlorophenol was outside the control limits high for the dilution of sample **IJ13-SS-102**. All other percent recoveries were within control limits. No corrective action was taken.

Diethylphthalate was present in **MB-082613** at a level that was greater than the reporting limit. All detected results for this compound have been flagged with a "B" qualifier. No further corrective action was taken.

The LCS and LCSD percent recoveries were within control limits.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits with wide RPDs for sample **IJ13-VC-101-2-3.9**. No corrective action is required for matrix QC.

SIM Semivolatiles by SW8270

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial calibrations were within method requirements.

The continuing calibrations on 9/2/13 and 9/3/13 fell outside the 20% control limit low for Pentachlorophenol. All detected results for this compound have been flagged with a "Q" qualifier. No further corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

Diethylphthalate was present in **MB-082613** at a level that was greater than the reporting limit. All detected results for this compound have been flagged with a "B" qualifier. No further corrective action was taken.

The LCS and LCSD percent recoveries were within control limits.

The matrix spike duplicate percent recovery of Dimethylphthalate was outside the control limits high for sample **IJ13-VC-101-2-3.9**. No corrective action is required for matrix QC.

Dioxins/Furans by 1613B

The samples was extracted and analyzed within the method recommended holding times.

Analysis was performed using the application specific RTX-Dioxin 2 column, which has a unique isomer separation for the 2378-TCDF, eliminating the need for second column confirmation.

Initial and continuing calibration results were within method requirements.

The surrogate percent recovery of 13C-1,2,3,4,6,7,8-HpCDD was outside the control limits high for the dilution of sample **IJ13-SS-102**. All other extraction and cleanup surrogates were within control limits. No corrective action was taken.

The method blank contained reportable responses below the reporting limits for several compounds. All associated sample results had hits that were greater than ten times the levels found in the blank. No corrective action was taken.

The OPR (Ongoing Precision and Accuracy or LCS) percent recoveries were within control limits.

Specific results have been "EMPC"-flagged indicating a response not meeting requirements of positive identification. The EMPC values are treated as undetects under some programs and as hits under programs with more conservative protocols.
Select results have has been flagged with an "X" on the Form I's due to indication of a co-eluting PDBE.

The TEQ is presented with WHO2005 with ND=0 for undetects and ND=1/2 for undetects, with EMPCs included as hits.

Aroclor PCBs by SW8082

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

The surrogate percent recovery of Decachlorobiphenyl fell outside the control limits low for sample **IJ13-SS-102**. All other surrogate percent recoveries were within control limits. No corrective action was taken.

The method blank was clean at the reporting limit. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within control limits.

Metals and Mercury by SW6010C/7471A

The samples and associated laboratory QC were digested and analyzed within recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries were within control limits.

The duplicate RPD of chromium was outside the control limit for sample **IJ13-SS-102**. All relevant data have been flagged with a "*" qualifier on the Form VI. No further corrective action was taken.

General Chemistry Parameters

The samples and associated laboratory QC were prepared and analyzed within the method recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The SRM percent recoveries were within limits.

The matrix spike percent recovery fell outside the control limits low for sample **IJ13-SS-102**. All other QC parameters were met for this analysis. No corrective action was taken.

The replicate RPDs were within control limits.

Geotechnical Parameters

A laboratory-specific case narrative follows this page.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Anchor QEA, LLC.	**ARI Job No.:** XB89
Client Project: I&J Waterway RI/FS	**Client Project No.:** 0900007-01.02

Case Narrative

1. Six samples were submitted for analysis on August 22, 2013, and were in good condition.
2. The samples were submitted for grain size distribution according to ASTM D422. The samples were prepared according to ASTM D421. An assumed specific gravity of 2.65 was used in the hydrometer calculations. A standard milkshake mixer type device was used to disperse the fine fraction sample for one minute. One sample from this job was chosen for triplicate analysis. The triplicate data can be found on the QA summary table. Due to the sandy nature of one sample, there was not enough fine material to acquire accurate hydrometer readings. One sample required curve fitting between the sand and silt fractions.
3. The Atterberg limits determination was run according to ASTM D4318. Three samples contained large percentages of coarse material retained on the #40 sieve. The sample was air dried and screened over a #40 sieve. The greater than #40 sieve fraction was removed. The less than #40 sieve fraction was moistened and allowed to come to equilibrium over night, and then analyzed.
4. The moisture content was run according to ASTM D2216. A triplicate was run on one sample from this job.
5. The samples contained shell fragments.
6. The samples contained organic particles.
7. The data is provided in summary tables and plots.
8. There were no further anomalies in the samples or test method.

Released by: Gretchen Curtis — Date: 9/10/13
Geotechnical Laboratory Manager

Reviewed by: Max Lynn — Date: 9/10/13
Technician

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: XB89
Client: Anchor QEA, LLC.
Project Event: 0900007-01.02
Project Name: I&J Waterway RI/FS

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	IJ13-SS-102	XB89A	13-17436	Sediment	08/20/13 14:01	08/22/13 07:00
2.	IJ13-SS-101	XB89B	13-17437	Sediment	08/20/13 12:46	08/22/13 07:00
3.	IJ13-SS-151	XB89C	13-17438	Sediment	08/20/13 12:46	08/22/13 07:00
4.	IJ13-VC-101-2-3.9	XB89D	13-17439	Sediment	08/20/13 17:41	08/22/13 07:00
5.	IJ13-VC-102-2-4	XB89E	13-17440	Sediment	08/20/13 16:58	08/22/13 07:00
6.	IJ13-VC-102-4-5.4	XB89F	13-17441	Sediment	08/20/13 17:00	08/22/13 07:00
7.	IJ13-VC-102-0-2	XB89G	13-17442	Sediment	08/20/13 16:55	08/22/13 07:00
8.	IJ13-VC-101-0-2	XB89H	13-17443	Sediment	08/20/13 17:35	08/22/13 07:00

XB89:00014

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

XB89:00015

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

XB89 00016

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

XBB9:00017

Analytical Resources,Incorporated
Analytical Chemists and Consultants

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS - SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis (µg/kg)			SIM Analysis (µg/kg)			LCS, MS Control Limits (%)[2, 12]		RPD[4]
	DL	LOD	LOQ	DL	LOD	LOQ	Full Scan	SIM	
Phenol	8.23	10	**20**	3.67	5	**5**	34 - **120**	30 - 160[3]	≤ 30
bis-(2-Chloroethyl)ether	6.78	10	**20**	--	--	--	36 - **120**	--	≤ 30
2-Chlorophenol	6.47	10	**20**	--	--	--	39 - **120**	--	≤ 30
1,3-Dichlorobenzene	5.07	10	**20**	1.30	2.5	**5**	40 - **120**	30 - **120**	≤ 30
1,4-Dichlorobenzene	4.39	10	**20**	1.91	2.5	**5**	39 - **120**	36 - **120**	≤ 30
1,2-Dichlorobenzene	4.66	10	**20**	1.32	2.5	**5**	40 - **120**	36 - **120**	≤ 30
Benzyl alcohol	14.9	20	**20**	12.1	15	**20**[5]	19 - **120**	25 - 123	≤ 30
2,2'-oxy-*bis*-(1-Chloropropane)	5.67	10	**20**	--	--	--	32 - **120**	--	≤ 30
2-Methylphenol	7.84	10	**20**	1.92	2.5	**5**	28 - **120**	26 - **120**	≤ 30
Hexachloroethane	5.65	10	**20**	--	--	--	38 - **120**	--	≤ 30
N-Nitroso-di-n-propylamine	10.8	15	**20**	15.1	20	**20**[5]	34 - **120**	30 - 160[3]	≤ 30
4-Methylphenol[8]	14.7	15	**20**	2.53	5	**5**	29 - **120**	30 - 160[3]	≤ 30
Nitrobenzene	7.95	10	**20**	--	--	--	36 - **120**	--	≤ 30
Isophorone	7.75	10	**20**	--	--	--	37 - **120**	--	≤ 30
2-Nitrophenol	6.92	10	**20**	--	--	--	30 - **120**	--	≤ 30
2,4-Dimethylphenol	26.8 [13]	50	**100**	10.2	12.5	**25**	**10** - **120**	10 - **120**	≤ 30
bis-(2-Chloroethoxy) methane	6.34	10	**20**	--	--	--	39 - **120**	--	≤ 30
2,4-Dichlorophenol	32.0	50	**100**	--	--	--	28 - **120**	--	≤ 30
1,2,4-Trichlorobenzene	5.96	10	**20**	1.51	2.5	**5**	35 - **120**	35 - **120**	≤ 30
Naphthalene	5.25	10	**20**	--	--	--	43 - **120**	--	≤ 30
Benzoic acid	59.1	100	**200**	--	--	--	**10** - **120**	--	≤ 30
4-Chloroaniline	33.7	50	**100**	--	--	--	11 - **120**	--	≤ 30
Hexachlorobutadiene	5.01	10	**20**	1.42	2.5	**5**	37 - **120**	34 - **120**	≤ 30
4-Chloro-3-methylphenol	28.9	50	**100**	--	--	--	32 - **120**	--	≤ 30
2-Methylnaphthalene	5.67	10	**20**	--	--	--	43 - **120**	--	≤ 30
Hexachlorocyclopentadiene	41.3	50	**100**	--	--	--	**10** - **120**	--	≤ 30
2,4,6-Trichlorophenol	25.4	50	**100**	--	--	--	30 - **120**	--	≤ 30
2,4,5-Trichlorophenol	26.9	50	**100**	--	--	--	28 - **120**	--	≤ 30
2-Chloronaphthalene	4.44	10	**20**	--	--	--	40 - **120**	--	≤ 30
2-Nitroaniline	30.2	50	**100**	--	--	--	31 - 126	--	≤ 30
Acenaphthylene	4.77	10	**20**	--	--	--	42 - **120**	--	≤ 30
Dimethylphthalate	6.44	10	**20**	1.21	2.5	**5**	43 - **120**	38 - **120**	≤ 30
2,6-Dinitrotoluene	26.7	50	**100**	--	--	--	33 - 123	--	≤ 30

Full Scan and SIM DL Revised 7/24/13
DL effective 7/21/13
Full Scan Control limits effective 4/12/13
Sim Control Limits effective 5/22/13

XBBS : 00018

DL1 LOD1, LOQ1 and Control Limits Summary
GC - MS - SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis (µg/kg)			SIM Analysis (µg/kg)			LCS, MS Control Limits (%)2, 12		RPD4
	DL	LOD	LOQ	DL	LOD	LOQ	Full Scan	SIM	
Acenaphthene	5.13	10	**20**	--	--	--	45 - **120**	--	≤ 30
3-Nitroaniline	37.7	50	**100**	--	--	--	22 - **120**	--	≤ 30
2,4-Dinitrophenol	41.3	100	**200**	--	--	--	**10 - 120**	--	≤ 30
Dibenzofuran	4.61	10	**20**	--	--	--	43 - **120**	--	≤ 30
4-Nitrophenol	44.4	50	**100**	--	--	--	15 - 138	--	≤ 30
2,4-Dinitrotoluene	22.9	50	**100**	--	--	--	35 - 127	--	≤ 30
Fluorene	4.95	10	**20**	--	--	--	45 - **120**	--	≤ 30
4-Chlorophenyl-phenylether	6.96	10	**20**	--	--	--	32 - **120**	--	≤ 30
Diethylphthalate	17.7	20	**20**	19.9	20	**20**5	50 - 120	55 - **120**	≤ 30
4-Nitroaniline	34.9	50	**100**	--	--	--	24 - 125	--	≤ 30
4,6-Dinitro-2-methylphenol	50.5	100	**200**	--	--	--	24 - **120**	--	≤ 30
N-Nitrosodiphenylamine	9.57	10	**20**	2.31	2.5	**5**	36 - **120**	27 - **120**	≤ 30
4-Bromophenyl-phenylether	6.07	10	**20**	--	--	--	39 - **120**	--	≤ 30
Hexachlorobenzene	4.74	10	**20**	2.11	2.5	**5**	33 - **120**	32 - **120**	≤ 30
Pentachlorophenol	31.3	50	**100**	10.4	15	**20**5	16 - 120	26 - **120**	≤ 30
Phenanthrene	4.69	10	**20**	--	--	--	49 - **120**	--	≤ 30
Anthracene	5.93	10	**20**	--	--	--	45 - **120**	--	≤ 30
Carbazole	7.37	10	**20**	--	--	--	43 - 135	--	≤ 30
Di-n-butylphthalate	5.31	10	**20**	--	--	--	48 - 126	--	≤ 30
Fluoranthene	4.52	10	**20**	--	--	--	53 - **120**	--	≤ 30
Pyrene	5.55	10	**20**	--	--	--	48 - 121	--	≤ 30
Butylbenzylphthalate	8.05	10	**20**	2.18	2.5	**5**	45 - 132	32 - 142	≤ 30
Benzo(a)anthracene	5.18	10	**20**	--	--	--	49 - **120**	--	≤ 30
3,3'-Dichlorobenzidine	31.2	50	**100**	--	--	--	**10 - 120**	--	≤ 30
Chrysene	5.22	10	**20**	--	--	--	47 - **120**	--	≤ 30
bis-(2-Ethylhexyl)phthalate	28.8	40	**50**6	--	--	--	34 - 130	--	≤ 30
Di-n-octylphthalate	8.72	10	**20**	--	--	--	28 - 124	--	≤ 30
Benzo(b)fluoranthene 9	7.02	10	**20**	--	--	--	42 - 132	--	≤ 30
Benzo(k)fluoranthene 9	5.01	10	**20**	--	--	--	39 - 129	--	≤ 30
Benzofluoranthene-Total 10	10.2	20	**40**	--	--	--	30 - 160**3**	--	≤ 30
Benzo(a)pyrene	6.48	10	**20**	--	--	--	42 - **120**	--	≤ 30
Indeno(1,2,3-cd)pyrene	5.99	10	**20**	--	--	--	42 - 123	--	≤ 30
Dibenzo(a,h)anthracene	6.16	10	**20**	1.38	2.5	**5**	30 - 133	28 - 125	≤ 30
Benzo(g,h,i)perylene	5.82	10	**20**	--	--	--	38 - 126	--	≤ 30

Full Scan and SIM DL Revised 7/24/13
DL effective 7/21/13
Full Scan Control limits effective 4/12/13
Sim Control Limits effective 5/22/13

XBB9 00019

DL_1 LOD_1, LOQ_1 and Control Limits Summary
GC - MS - SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis (µg/kg)			SIM Analysis (µg/kg)			LCS, MS Control Limits (%)[2, 12]		RPD[4]
	DL	LOD	LOQ	DL	LOD	LOQ	Full Scan	SIM	
N-Nitrosodimethylamine	22.4	30	**40**[7]	3.15	10	**25**	17 - **120**	30 - 160[3]	≤ 30
Aniline	16.9	50	**100**	--	--	--	**10** - 134	--	≤ 30
Pyridine	86.6	100	**100**	--	--	--	**10** - 147	--	≤ 30
1-Methylnaphthalene	5.95	10	**20**	--	--	--	42 - **120**	--	≤ 30
Azobenzene (1,2-DP-Hydrazine)	4.61	10	**20**	--	--	--	35 - **120**	--	≤ 30
Retene [11]	4.01	10	**20**	--	--	--	30 - 160[3]	--	≤ 30
Perylene	4.90	10	**20**	--	--	--	30 - 160[3]	--	≤ 30
2,3,4,6 Tetrachlorophenol	5.37	10	**20**	--	--	--	30 - 160[3]	--	≤ 30
Surrogate Standards							**MB / LCS**	**Samples**	**RPD**
2-Fluorophenol							32 - **120**	27 - **120**	≤ 30
Phenol-d_5							32 - **120**	29 - **120**	≤ 30
2-Chlorophenol-d_4							36 - **120**	31 - **120**	≤ 30
1,2-Dichlorobenzene-d_4							37 - **120**	32 - **120**	≤ 30
Nitrobenzene-d_5							33 -**120**	30 - **120**	≤ 30
2-Fluorobiphenyl							35 -**120**	35 - **120**	≤ 30
2,4,6-Tribromophenol							23 - 133	24 - 134	≤ 30
p-Terphenyl-d_{14}							42 - 124	37 - **120**	≤ 30

(1) Detection Limit (DL), Limit of Detection (LOD), Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 120 for the upper limit
(3) 30 - 160 are default values used when there is insufficient data to calculate historic control limits.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) Spiked at 5 ppb
(6) Spiked at 20 ppb
(7) Spiked at 100 ppb
(8) 3-Methylphenol (not calibrated) co-elutes with 4-Methylphennol (calibrated)
(9) Benzo(b)fluoranthene and Benzo(k)fluoranthene are reported as separate analytes only when the height of the valley between the isomer peaks is less than than 50% of the average of the two peak heights, otherwise total Benzofluoranthenes are reported.
(10) Benzo(b)fluoranthene + Benzo(k)fluoranthene
(11) LOD study WC15 (2/5/13)
(12) Control limits calculated using spike recovery data from 3/1/11 through 4/1/13
(13) The DL for 2,4-Dimethylphenol is calculated at a 95% confidence interval, opposed to 99% confidence as for all other analytes. At 99% confidence, the DL for 2,4-Dimethylphenol is 38.6 ug/kg.

Full Scan and SIM DL Revised 7/24/13
DL effective 7/21/13
Full Scan Control limits effective 4/12/13
Sim Control Limits effective 5/22/13

XBS9 : 66626

DL[1], LOD[1], LOQ[1] and Control Limits Summary
Analysis of Sediment Samples for Dioxins & Furans
EPA Method 1613B

Soxhlet (EPA Method 3540C) Extraction using 10 g sample with extract concentrated to 0.02 mL final volume. ARI Bench Sheet 3083F

LOD Spike level = LOQ = 0.1 ppt (ng/kg) = 1 pg/g

Analyte	DL[1] pg/g	LOD[1] pg/g	LOQ[1] pg/g	OPR Control Limit [2,3]	Sample Replicate RPD [3,4]
2,3,7,8-TCDF	0.235	**0.5**	**1**	75 – 158	≤ 25
2,3,7,8-TCDD	0.174	**0.5**	**1**	67 – 158	≤ 25
1,2,3,7,8-PeCDF	0.516	**1.25**	**2.5**	80 – 134	≤ 25
2,3,4,7,8-PeCDF	0.670	**1.0**	**1**	68 – 160	≤ 25
1,2,3,7,8-PeCDD	0.375	**1.0**	**1**	70 – 142	≤ 25
1,2,3,4,7,8-HxCDF	0.714	**1.25**	**2.5**	72 – 134	≤ 25
1,2,3,6,7,8-HxCDF	0.274	**1.25**	**2.5**	84 – 130	≤ 25
2,3,4,6,7,8-HxCDF	0.695	**1.25**	**2.5**	70 – 156	≤ 25
1,2,3,7,8,9-HxCDF	0.892	**1.25**	**2.5**	78 – 130	≤ 25
1,2,3,4,7,8-HxCDD	0.768	**1.25**	**2.5**	70 – 164	≤ 25
1,2,3,6,7,8-HxCDD	0.655	**1.25**	**2.5**	76 – 134	≤ 25
1,2,3,7,8,9-HxCDD	0.475	**1.25**	**2.5**	64 – 162	≤ 25
1,2,3,4,6,7,8-HpCDF	1.109	**1.25**	**2.5**	82 – 122	≤ 25
1,2,3,4,7,8,9-HpCDF	0.875	**1.25**	**2.5**	78 – 138	≤ 25
1,2,3,4,6,7,8-HpCDD	0.750	**1.25**	**2.5**	70 – 140	≤ 25
OCDF	1.516	**2.5**	**5**	63 – 170	≤ 25
OCDD	1.732	**2.5**	**5**	78 – 144	≤ 25

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S

(2) Ongoing precision and recovery (OPR) analyzes as specified in the referenced method.

(3) Method specified control limits.

(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

XB89 : 00021

4

DL[1], LOD[1], LOQ[1] and Control Limits Summary
Analysis of Soil/Sediment Samples for Chlorinated Pesticides
EPA Method 8081B

Microwave (EPA Method 3546) Extraction using 12.5g (dry weight) sample with extract concentrated to 2.5 mL final volume. ARI Bench Sheet 3046F

LOD Spike level = LOQ Concentration

Analyte	DL[1,2] µg/kg	LOD[1] µg/kg	LOQ[1] µg/kg	LCS Control Limit[3,4]	Replicate RPD[5]
alpha-BHC	0.081	0.25	**0.5**	68 – 115	≤ 40
beta-BHC	0.139	0.25	**0.5**	60 – 126	≤ 40
gamma-BHC (Lindane)	0.048	0.25	**0.5**	68 – 134	≤ 40
delta-BHC	0.082	0.25	**0.5**	71 – 154	≤ 40
Heptachlor	0.132	0.25	**0.5**	66 – 115	≤ 40
Aldrin	0.055	0.25	**0.5**	66 – 115	≤ 40
Heptachlor Epoxide	0.085	0.25	**0.5**	65 – 127	≤ 40
trans-Chlordane (*beta*-Chlordane, *gamma*-Chlordane)	0.077	0.25	**0.5**	73 – 136	≤ 40
cis-Chlordane (*alpha*-chlordane)	0.051	0.25	**0.5**	77 – 124	≤ 40
Endosulfan I	0.072	0.25	**0.5**	28 – **100**	≤ 40
4,4'-DDE	0.124	0.5	**1.0**	71 – 149	≤ 40
Dieldrin	0.100	0.5	**1.0**	74 – 131	≤ 40
Endrin	0.215	0.5	**1.0**	72 – 135	≤ 40
Endosulfan II	0.116	0.5	**1.0**	37 – 110	≤ 40
4,4'-DDD	0.135	0.5	**1.0**	76 – 137	≤ 40
Endrin Aldehyde	0.218	0.5	**1.0**	38 – 109	≤ 40
4,4'-DDT	0.192	0.5	**1.0**	58 – 144	≤ 40
Endosulfan Sulfate	0.192	0.5	**1.0**	47 – 148	≤ 40
Endrin Ketone	0.119	0.5	**1.0**	29 – 165	≤ 40
Methoxychlor	0.698	2.5	**5.0**	65 – 123	≤ 40
Hexachlorobutadiene	0.138	0.5	**1.0**	43 – 104	≤ 40
Hexachlorobenzene	0.094	0.5	**1.0**	62 – 119	≤ 40
Surrogate Standard Recovery			**MB / LCS**	**Samples**	**RPD**
Tetrachloro-*m*-xylene (TCMX)			47 – 124	34 – 169	≤ 40
Decachlorobiphenyl			60 – 149	36 – 182	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation as defined in ARI SOP 1018S.
(2) MDL study QZ38
(3) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Control limits calculated using all data from 1/1/12 through 7/31/12.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

XB89 : 00022

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Criteria for Analysis of Solid Matrix Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

Extraction Bench Sheet	Extraction	DL[1] (ppb)	LOD[1] (ppb)	LOQ[1] (ppb)	Analyte	Spike Recovery Control Limits (%)[2,3,5]			RPD[4]
						LCS	MB/LCS Surrogate	Sample Surrogate	
PCB 15-3067F	12g to 4 mL	10.69	17	33	Aroclor 1016	62 – 111	--	--	≤ 40
		14.42	17	33	Aroclor 1260	59 – 118	--	--	
PCB 08-3025F		--	--	--	TCMX	--	58 – 112	53 – 116	
		--	--	--	DCBP	--	59 – 115	35 – 133	
PCB 05-3017F	5 g to 5 mL[6]	8.00	10	20	Aroclor 1016	56 – 115	--	--	≤ 40
		9.28	10	20	Aroclor 1260	58 – 120	--	--	
PCB 06-3026F		--	--	--	TCMX	--	52 – 117	57 – 109	
		--	--	--	DCBP	--	61 – 114	54 – 115	
PCB 18-3098F	5 g to 2.5 mL[6]	4.61	5	10	Aroclor 1016	66 – 114	--	--	≤ 40
		4.97	5	10	Aroclor 1260	63 – 120	--	--	
PCB06-3026F		--	--	--	TCMX	--	57 – 114	71 – 108	
		--	--	--	DCBP	--	59 – 118	53 – 126	
PCB 19-3099F	12.5 g to 2.5 mL[6]	1.56	2	4	Aroclor 1016	64 – **100**	--	--	≤ 40
		0.589	2	4	Aroclor 1260	64 – 107	--	--	
PCB 06-3026F		--	--	--	TCMX	--	54 – **100**	45 – 102	
		--	--	--	DCBP	--	64 – 105	37 – 128	
PCB 12-3019F	5 g to 40 mL	38.2	400	800	Aroclor 1016	30 – 160	--	--	≤ 40
		73.1	400	800	Aroclor 1260	30 – 160	--	--	
		--	--	--	TCMX	--	30 – 160	30 – 160	
		--	--	--	DCBP	--	30 – 160	30 – 160	

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) Control Limits calculated usng all data generated between 6/1/12 and 12/31/12

XB89 : 00023

Quality Control Parameters for Metals Analysis-ICP-OES EPA Methods 200.7 and 6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$
(6) ARI does not analyze for Silicon in solids or tissue samples

XB89:00024

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	LOD[1] mg/kg	LOQ[1] mg/kg	Matrix Spike	LCS	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	LOD[1] mg/kg	LOQ[1] mg/kg	Matrix Spike	LCS	
Mercury	0.0004	0.0025	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

XB89 : 00025

Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: XB89

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: IJ13-SS-102**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 10/17/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 14:44
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.15 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 52.3%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**59**	**350 B**
106-46-7	1,4-Dichlorobenzene	59	< 59 U
100-51-6	**Benzyl Alcohol**	**59**	**59**
95-50-1	1,2-Dichlorobenzene	59	< 59 U
95-48-7	**2-Methylphenol**	**59**	**120**
106-44-5	**4-Methylphenol**	**59**	**1,200**
105-67-9	**2,4-Dimethylphenol**	**300**	**210 J**
65-85-0	**Benzoic Acid**	**590**	**820**
120-82-1	1,2,4-Trichlorobenzene	59	< 59 U
91-20-3	**Naphthalene**	**59**	**1,800**
87-68-3	Hexachlorobutadiene	59	< 59 U
91-57-6	**2-Methylnaphthalene**	**59**	**870**
131-11-3	**Dimethylphthalate**	**59**	**120**
208-96-8	**Acenaphthylene**	**59**	**170**
83-32-9	**Acenaphthene**	**59**	**2,100**
132-64-9	**Dibenzofuran**	**59**	**2,000**
84-66-2	Diethylphthalate	59	< 59 U
86-73-7	**Fluorene**	**59**	**1,800**
86-30-6	**N-Nitrosodiphenylamine**	**59**	**210**
118-74-1	Hexachlorobenzene	59	< 59 U
87-86-5	Pentachlorophenol	300	< 300 U
85-01-8	**Phenanthrene**	**59**	**7,400 E**
120-12-7	**Anthracene**	**59**	**1,200**
84-74-2	Di-n-Butylphthalate	59	< 59 U
206-44-0	**Fluoranthene**	**59**	**11,000 E**
129-00-0	**Pyrene**	**59**	**8,200 E**
85-68-7	Butylbenzylphthalate	59	< 59 U
56-55-3	**Benzo(a)anthracene**	**59**	**2,300**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**150**	**1,400**
218-01-9	**Chrysene**	**59**	**3,400**
117-84-0	Di-n-Octyl phthalate	59	< 59 U
50-32-8	**Benzo(a)pyrene**	**59**	**820**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**59**	**270**
53-70-3	**Dibenz(a,h)anthracene**	**59**	**89**
191-24-2	**Benzo(g,h,i)perylene**	**59**	**280**
TOTBFA	**Total Benzofluoranthenes**	**120**	**2,200**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	85.2%	2-Fluorobiphenyl	94.8%
d14-p-Terphenyl	105%	d4-1,2-Dichlorobenzene	84.0%
d5-Phenol	120%	2-Fluorophenol	112%
2,4,6-Tribromophenol	132%	d4-2-Chlorophenol	120%

10/16/13

XB89: 0000027_REV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: IJ13-SS-102
DILUTION

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/03/13 20:42
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.15 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 6.00
Percent Moisture: 52.3%

CAS Number	Analyte	RL	Result	
108-95-2	**Phenol**	**120**	**300**	**B**
106-46-7	1,4-Dichlorobenzene	120	< 120	U
100-51-6	Benzyl Alcohol	120	< 120	U
95-50-1	1,2-Dichlorobenzene	120	< 120	U
95-48-7	**2-Methylphenol**	**120**	**120**	
106-44-5	**4-Methylphenol**	**120**	**1,200**	
105-67-9	**2,4-Dimethylphenol**	**590**	**220**	**J**
65-85-0	**Benzoic Acid**	**1,200**	**540**	**JQ**
120-82-1	1,2,4-Trichlorobenzene	120	< 120	U
91-20-3	**Naphthalene**	**120**	**2,000**	
87-68-3	Hexachlorobutadiene	120	< 120	U
91-57-6	**2-Methylnaphthalene**	**120**	**840**	
131-11-3	**Dimethylphthalate**	**120**	**150**	
208-96-8	**Acenaphthylene**	**120**	**160**	
83-32-9	**Acenaphthene**	**120**	**2,100**	
132-64-9	**Dibenzofuran**	**120**	**2,000**	
84-66-2	Diethylphthalate	120	< 120	U
86-73-7	**Fluorene**	**120**	**1,700**	
86-30-6	**N-Nitrosodiphenylamine**	**120**	**150**	
118-74-1	Hexachlorobenzene	120	< 120	U
87-86-5	Pentachlorophenol	590	< 590	U
85-01-8	**Phenanthrene**	**120**	**7,300**	
120-12-7	**Anthracene**	**120**	**1,200**	
84-74-2	Di-n-Butylphthalate	120	< 120	U
206-44-0	**Fluoranthene**	**120**	**11,000**	
129-00-0	**Pyrene**	**120**	**8,700**	
85-68-7	Butylbenzylphthalate	120	< 120	U
56-55-3	**Benzo(a)anthracene**	**120**	**2,400**	
117-81-7	**bis(2-Ethylhexyl)phthalate**	**300**	**1,300**	
218-01-9	**Chrysene**	**120**	**3,500**	
117-84-0	Di-n-Octyl phthalate	120	< 120	U
50-32-8	**Benzo(a)pyrene**	**120**	**840**	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**120**	**260**	
53-70-3	**Dibenz(a,h)anthracene**	**120**	**95**	**J**
191-24-2	**Benzo(g,h,i)perylene**	**120**	**250**	
TOTBFA	**Total Benzofluoranthenes**	**240**	**2,300**	

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	87.6%	2-Fluorobiphenyl	97.2%
d14-p-Terphenyl	104%	d4-1,2-Dichlorobenzene	88.8%
d5-Phenol	113%	2-Fluorophenol	116%
2,4,6-Tribromophenol	127%	d4-2-Chlorophenol	122%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: IJ13-SS-101**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89B
LIMS ID: 13-17437
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 15:19
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.75 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 41.2%

CAS Number	Analyte	RL	Result	
108-95-2	**Phenol**	**56**	**220**	**B**
106-46-7	1,4-Dichlorobenzene	56	< 56	U
100-51-6	**Benzyl Alcohol**	**56**	**53**	**J**
95-50-1	1,2-Dichlorobenzene	56	< 56	U
95-48-7	2-Methylphenol	56	< 56	U
106-44-5	**4-Methylphenol**	**56**	**460**	
105-67-9	2,4-Dimethylphenol	280	< 280	U
65-85-0	**Benzoic Acid**	**560**	**330**	**J**
120-82-1	1,2,4-Trichlorobenzene	56	< 56	U
91-20-3	**Naphthalene**	**56**	**440**	
87-68-3	Hexachlorobutadiene	56	< 56	U
91-57-6	**2-Methylnaphthalene**	**56**	**200**	
131-11-3	**Dimethylphthalate**	**56**	**45**	**J**
208-96-8	**Acenaphthylene**	**56**	**110**	
83-32-9	**Acenaphthene**	**56**	**310**	
132-64-9	**Dibenzofuran**	**56**	**300**	
84-66-2	**Diethylphthalate**	**56**	**78**	**B**
86-73-7	**Fluorene**	**56**	**270**	
86-30-6	**N-Nitrosodiphenylamine**	**56**	**59**	
118-74-1	Hexachlorobenzene	56	< 56	U
87-86-5	Pentachlorophenol	280	< 280	U
85-01-8	**Phenanthrene**	**56**	**1,100**	
120-12-7	**Anthracene**	**56**	**350**	
84-74-2	Di-n-Butylphthalate	56	< 56	U
206-44-0	**Fluoranthene**	**56**	**2,400**	
129-00-0	**Pyrene**	**56**	**2,700**	
85-68-7	Butylbenzylphthalate	56	< 56	U
56-55-3	**Benzo(a)anthracene**	**56**	**1,200**	
117-81-7	**bis(2-Ethylhexyl)phthalate**	**140**	**370**	
218-01-9	**Chrysene**	**56**	**1,700**	
117-84-0	Di-n-Octyl phthalate	56	< 56	U
50-32-8	**Benzo(a)pyrene**	**56**	**660**	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**56**	**250**	
53-70-3	**Dibenz(a,h)anthracene**	**56**	**78**	
191-24-2	**Benzo(g,h,i)perylene**	**56**	**260**	
TOTBFA	**Total Benzofluoranthenes**	**110**	**1,800**	

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.8%	2-Fluorobiphenyl	91.2%
d14-p-Terphenyl	95.4%	d4-1,2-Dichlorobenzene	81.6%
d5-Phenol	107%	2-Fluorophenol	105%
2,4,6-Tribromophenol	114%	d4-2-Chlorophenol	110%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: IJ13-SS-151
SAMPLE

Lab Sample ID: XB89C
LIMS ID: 13-17438
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 16:29
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.69 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 41.5%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**56**	**170 B**
106-46-7	1,4-Dichlorobenzene	56	< 56 U
100-51-6	**Benzyl Alcohol**	**56**	**48 J**
95-50-1	1,2-Dichlorobenzene	56	< 56 U
95-48-7	**2-Methylphenol**	**56**	**34 J**
106-44-5	**4-Methylphenol**	**56**	**520**
105-67-9	2,4-Dimethylphenol	280	< 280 U
65-85-0	**Benzoic Acid**	**560**	**340 J**
120-82-1	1,2,4-Trichlorobenzene	56	< 56 U
91-20-3	**Naphthalene**	**56**	**480**
87-68-3	Hexachlorobutadiene	56	< 56 U
91-57-6	**2-Methylnaphthalene**	**56**	**190**
131-11-3	**Dimethylphthalate**	**56**	**56**
208-96-8	**Acenaphthylene**	**56**	**120**
83-32-9	**Acenaphthene**	**56**	**310**
132-64-9	**Dibenzofuran**	**56**	**280**
84-66-2	Diethylphthalate	56	< 56 U
86-73-7	**Fluorene**	**56**	**310**
86-30-6	**N-Nitrosodiphenylamine**	**56**	**45 J**
118-74-1	Hexachlorobenzene	56	< 56 U
87-86-5	Pentachlorophenol	280	< 280 U
85-01-8	**Phenanthrene**	**56**	**1,500**
120-12-7	**Anthracene**	**56**	**400**
84-74-2	Di-n-Butylphthalate	56	< 56 U
206-44-0	**Fluoranthene**	**56**	**4,600**
129-00-0	**Pyrene**	**56**	**3,900**
85-68-7	Butylbenzylphthalate	56	< 56 U
56-55-3	**Benzo(a)anthracene**	**56**	**950**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**140**	**31,000 E**
218-01-9	**Chrysene**	**56**	**1,800**
117-84-0	Di-n-Octyl phthalate	56	< 56 U
50-32-8	**Benzo(a)pyrene**	**56**	**520**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**56**	**210**
53-70-3	**Dibenz(a,h)anthracene**	**56**	**67**
191-24-2	**Benzo(g,h,i)perylene**	**56**	**190**
TOTBFA	**Total Benzofluoranthenes**	**110**	**1,600**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	76.8%	2-Fluorobiphenyl	86.4%
d14-p-Terphenyl	97.2%	d4-1,2-Dichlorobenzene	76.2%
d5-Phenol	107%	2-Fluorophenol	101%
2,4,6-Tribromophenol	112%	d4-2-Chlorophenol	111%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: IJ13-SS-151
DILUTION

Lab Sample ID: XB89C
LIMS ID: 13-17438
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/03/13 21:17
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.69 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 30.0
Percent Moisture: 41.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	560	< 560 U
106-46-7	1,4-Dichlorobenzene	560	< 560 U
100-51-6	Benzyl Alcohol	560	< 560 U
95-50-1	1,2-Dichlorobenzene	560	< 560 U
95-48-7	2-Methylphenol	560	< 560 U
106-44-5	4-Methylphenol	560	< 560 U
105-67-9	2,4-Dimethylphenol	2,800	< 2,800 U
65-85-0	Benzoic Acid	5,600	< 5,600 U
120-82-1	1,2,4-Trichlorobenzene	560	< 560 U
91-20-3	**Naphthalene**	**560**	**340 J**
87-68-3	Hexachlorobutadiene	560	< 560 U
91-57-6	2-Methylnaphthalene	560	< 560 U
131-11-3	Dimethylphthalate	560	< 560 U
208-96-8	Acenaphthylene	560	< 560 U
83-32-9	**Acenaphthene**	**560**	**340 J**
132-64-9	**Dibenzofuran**	**560**	**340 J**
84-66-2	Diethylphthalate	560	< 560 U
86-73-7	**Fluorene**	**560**	**390 J**
86-30-6	N-Nitrosodiphenylamine	560	< 560 U
118-74-1	Hexachlorobenzene	560	< 560 U
87-86-5	Pentachlorophenol	2,800	< 2,800 U
85-01-8	**Phenanthrene**	**560**	**1,500**
120-12-7	**Anthracene**	**560**	**340 J**
84-74-2	Di-n-Butylphthalate	560	< 560 U
206-44-0	**Fluoranthene**	**560**	**4,800**
129-00-0	**Pyrene**	**560**	**4,100**
85-68-7	Butylbenzylphthalate	560	< 560 U
56-55-3	**Benzo(a)anthracene**	**560**	**900**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**1,400**	**27,000**
218-01-9	**Chrysene**	**560**	**2,000**
117-84-0	Di-n-Octyl phthalate	560	< 560 U
50-32-8	**Benzo(a)pyrene**	**560**	**480 J**
193-39-5	Indeno(1,2,3-cd)pyrene	560	< 560 U
53-70-3	Dibenz(a,h)anthracene	560	< 560 U
191-24-2	Benzo(g,h,i)perylene	560	< 560 U
TOTBFA	**Total Benzofluoranthenes**	**1,100**	**1,600**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	D	2-Fluorobiphenyl	D
d14-p-Terphenyl	D	d4-1,2-Dichlorobenzene	D
d5-Phenol	D	2-Fluorophenol	D
2,4,6-Tribromophenol	D	d4-2-Chlorophenol	D

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: IJ13-VC-101-2-3.9
SAMPLE

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 17:05
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.13 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 37.0%

CAS Number	Analyte	RL	Result	
108-95-2	**Phenol**	**20**	**240**	**B**
106-46-7	1,4-Dichlorobenzene	20	< 20	U
100-51-6	Benzyl Alcohol	20	< 20	U
95-50-1	1,2-Dichlorobenzene	20	< 20	U
95-48-7	**2-Methylphenol**	**20**	**130**	
106-44-5	**4-Methylphenol**	**20**	**560**	
105-67-9	**2,4-Dimethylphenol**	**99**	**210**	
65-85-0	**Benzoic Acid**	**200**	**170**	**J**
120-82-1	1,2,4-Trichlorobenzene	20	< 20	U
91-20-3	**Naphthalene**	**20**	**810**	
87-68-3	Hexachlorobutadiene	20	< 20	U
91-57-6	**2-Methylnaphthalene**	**20**	**290**	
131-11-3	Dimethylphthalate	20	< 110	Y
208-96-8	**Acenaphthylene**	**20**	**100**	
83-32-9	**Acenaphthene**	**20**	**100**	
132-64-9	**Dibenzofuran**	**20**	**180**	
84-66-2	**Diethylphthalate**	**20**	**32**	**B**
86-73-7	**Fluorene**	**20**	**120**	
86-30-6	N-Nitrosodiphenylamine	20	< 20	U
118-74-1	Hexachlorobenzene	20	< 20	U
87-86-5	Pentachlorophenol	99	< 99	U
85-01-8	**Phenanthrene**	**20**	**490**	
120-12-7	**Anthracene**	**20**	**100**	
84-74-2	Di-n-Butylphthalate	20	< 20	U
206-44-0	**Fluoranthene**	**20**	**290**	
129-00-0	**Pyrene**	**20**	**310**	
85-68-7	Butylbenzylphthalate	20	< 20	U
56-55-3	**Benzo(a)anthracene**	**20**	**85**	
117-81-7	**bis(2-Ethylhexyl)phthalate**	**49**	**43**	**J**
218-01-9	**Chrysene**	**20**	**120**	
117-84-0	Di-n-Octyl phthalate	20	< 20	U
50-32-8	**Benzo(a)pyrene**	**20**	**88**	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**51**	
53-70-3	Dibenz(a,h)anthracene	20	< 20	U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**79**	
TOTBFA	**Total Benzofluoranthenes**	**40**	**140**	

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	73.6%	2-Fluorobiphenyl	79.8%
d14-p-Terphenyl	83.0%	d4-1,2-Dichlorobenzene	70.4%
d5-Phenol	94.4%	2-Fluorophenol	93.9%
2,4,6-Tribromophenol	87.3%	d4-2-Chlorophenol	97.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: IJ13-VC-102-2-4
SAMPLE

Lab Sample ID: XB89E
LIMS ID: 13-17440
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/03/13 13:03
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.38 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 42.8%

CAS Number	Analyte	RL	Result	
108-95-2	**Phenol**	**58**	**630**	**B**
106-46-7	1,4-Dichlorobenzene	58	< 58	U
100-51-6	Benzyl Alcohol	58	< 58	U
95-50-1	1,2-Dichlorobenzene	58	< 58	U
95-48-7	**2-Methylphenol**	**58**	**620**	
106-44-5	**4-Methylphenol**	**58**	**1,900**	
105-67-9	**2,4-Dimethylphenol**	**290**	**1,300**	
65-85-0	**Benzoic Acid**	**580**	**1,000**	**Q**
120-82-1	1,2,4-Trichlorobenzene	58	< 58	U
91-20-3	**Naphthalene**	**58**	**2,500**	
87-68-3	Hexachlorobutadiene	58	< 58	U
91-57-6	**2-Methylnaphthalene**	**58**	**1,600**	
131-11-3	**Dimethylphthalate**	**58**	**510**	
208-96-8	**Acenaphthylene**	**58**	**250**	
83-32-9	**Acenaphthene**	**58**	**200**	
132-64-9	**Dibenzofuran**	**58**	**890**	
84-66-2	Diethylphthalate	58	< 58	U
86-73-7	**Fluorene**	**58**	**400**	
86-30-6	N-Nitrosodiphenylamine	58	< 58	U
118-74-1	Hexachlorobenzene	58	< 58	U
87-86-5	Pentachlorophenol	290	< 290	U
85-01-8	**Phenanthrene**	**58**	**1,400**	
120-12-7	**Anthracene**	**58**	**380**	
84-74-2	Di-n-Butylphthalate	58	< 58	U
206-44-0	**Fluoranthene**	**58**	**980**	
129-00-0	**Pyrene**	**58**	**860**	
85-68-7	Butylbenzylphthalate	58	< 58	U
56-55-3	**Benzo(a)anthracene**	**58**	**270**	
117-81-7	**bis(2-Ethylhexyl)phthalate**	**140**	**120**	**J**
218-01-9	**Chrysene**	**58**	**350**	
117-84-0	Di-n-Octyl phthalate	58	< 58	U
50-32-8	**Benzo(a)pyrene**	**58**	**250**	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**58**	**90**	
53-70-3	Dibenz(a,h)anthracene	58	< 58	U
191-24-2	**Benzo(g,h,i)perylene**	**58**	**120**	
TOTBFA	**Total Benzofluoranthenes**	**120**	**410**	

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	93.0%	2-Fluorobiphenyl	100%
d14-p-Terphenyl	96.6%	d4-1,2-Dichlorobenzene	83.4%
d5-Phenol	117%	2-Fluorophenol	114%
2,4,6-Tribromophenol	110%	d4-2-Chlorophenol	116%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: IJ13-VC-102-4-5.4
SAMPLE

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/03/13 13:38
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.48 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 35.2%

CAS Number	Analyte	RL	Result	
108-95-2	**Phenol**	**19**	**180**	**B**
106-46-7	1,4-Dichlorobenzene	19	< 19	U
100-51-6	Benzyl Alcohol	19	< 19	U
95-50-1	1,2-Dichlorobenzene	19	< 19	U
95-48-7	**2-Methylphenol**	**19**	**160**	
106-44-5	**4-Methylphenol**	**19**	**510**	
105-67-9	**2,4-Dimethylphenol**	**95**	**420**	
65-85-0	**Benzoic Acid**	**190**	**270**	**Q**
120-82-1	1,2,4-Trichlorobenzene	19	< 19	U
91-20-3	**Naphthalene**	**19**	**1,100**	
87-68-3	Hexachlorobutadiene	19	< 19	U
91-57-6	**2-Methylnaphthalene**	**19**	**430**	
131-11-3	**Dimethylphthalate**	**19**	**140**	
208-96-8	**Acenaphthylene**	**19**	**150**	
83-32-9	**Acenaphthene**	**19**	**76**	
132-64-9	**Dibenzofuran**	**19**	**280**	
84-66-2	**Diethylphthalate**	**19**	**21**	**B**
86-73-7	**Fluorene**	**19**	**140**	
86-30-6	N-Nitrosodiphenylamine	19	< 19	U
118-74-1	Hexachlorobenzene	19	< 19	U
87-86-5	Pentachlorophenol	95	< 95	U
85-01-8	**Phenanthrene**	**19**	**640**	
120-12-7	**Anthracene**	**19**	**140**	
84-74-2	Di-n-Butylphthalate	19	< 19	U
206-44-0	**Fluoranthene**	**19**	**410**	
129-00-0	**Pyrene**	**19**	**420**	
85-68-7	Butylbenzylphthalate	19	< 19	U
56-55-3	**Benzo(a)anthracene**	**19**	**99**	
117-81-7	**bis(2-Ethylhexyl)phthalate**	**48**	**41**	**J**
218-01-9	**Chrysene**	**19**	**140**	
117-84-0	Di-n-Octyl phthalate	19	< 19	U
50-32-8	**Benzo(a)pyrene**	**19**	**94**	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**39**	
53-70-3	Dibenz(a,h)anthracene	19	< 19	U
191-24-2	**Benzo(g,h,i)perylene**	**19**	**59**	
TOTBFA	**Total Benzofluoranthenes**	**38**	**160**	

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	80.4%	2-Fluorobiphenyl	88.8%
d14-p-Terphenyl	89.8%	d4-1,2-Dichlorobenzene	77.6%
d5-Phenol	106%	2-Fluorophenol	107%
2,4,6-Tribromophenol	118%	d4-2-Chlorophenol	106%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
IJ13-SS-102	85.2%	94.8%	105%	84.0%	120%	112%	132%	120%	0
IJ13-SS-102 DL	87.6%	97.2%	104%	88.8%	113%	116%	127%	122%*	1
IJ13-SS-101	82.8%	91.2%	95.4%	81.6%	107%	105%	114%	110%	0
IJ13-SS-151	76.8%	86.4%	97.2%	76.2%	107%	101%	112%	111%	0
IJ13-SS-151 DL	D	D	D	D	D	D	D	D	0
MB-082613	73.8%	76.8%	102%	78.8%	94.9%	94.5%	94.4%	102%	0
LCS-082613	74.2%	76.2%	100%	75.6%	96.8%	95.6%	112%	100%	0
LCSD-082613	70.6%	71.0%	91.0%	71.0%	94.0%	90.4%	102%	93.3%	0
IJ13-VC-101-2-3.9	73.6%	79.8%	83.0%	70.4%	94.4%	93.9%	87.3%	97.5%	0
IJ13-VC-101-2-3.9 MS	75.6%	81.6%	87.4%	76.2%	100%	76.5%	85.3%	112%	0
IJ13-VC-101-2-3.9 MSD	82.2%	85.0%	89.4%	79.4%	101%	29.5%	86.8%	117%	0
IJ13-VC-102-2-4	93.0%	100%	96.6%	83.4%	117%	114%	110%	116%	0
IJ13-VC-102-4-5.4	80.4%	88.8%	89.8%	77.6%	106%	107%	118%	106%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(33-120)	(30-120)
(FBP) = 2-Fluorobiphenyl	(35-120)	(35-120)
(TPH) = d14-p-Terphenyl	(42-124)	(37-120)
(DCB) = d4-1,2-Dichlorobenzene	(37-120)	(32-120)
(PHL) = d5-Phenol	(32-120)	(29-120)
(2FP) = 2-Fluorophenol	(32-120)	(27-120)
(TBP) = 2,4,6-Tribromophenol	(23-133)	(24-134)
(2CP) = d4-2-Chlorophenol	(36-120)	(31-120)

Prep Method: SW3546
Log Number Range: 13-17436 to 13-17441

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS
Page 1 of 1

Sample ID: IJ13-VC-101-2-3.9
MS/MSD

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted MS/MSD: 08/26/13

Date Analyzed MS: 09/02/13 17:40
MSD: 09/02/13 18:15
Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ
GPC Cleanup: Yes

Sample Amount MS: 10.16 g-dry-wt
MSD: 10.14 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.00
MSD: 1.00
Percent Moisture: 37.0 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	240 B	594 B	492	72.0%	603 B	493	73.6%	1.5%
1,4-Dichlorobenzene	< 20 U	401	492	81.5%	422	493	85.6%	5.1%
Benzyl Alcohol	< 20 U	394	492	80.1%	433	493	87.8%	9.4%
1,2-Dichlorobenzene	< 20 U	410	492	83.3%	442	493	89.7%	7.5%
2-Methylphenol	130	487	492	72.6%	535	493	82.2%	9.4%
4-Methylphenol	560	1340	984	79.3%	1430	986	88.2%	6.5%
2,4-Dimethylphenol	210	1570	1480	91.9%	1660	1480	98.0%	5.6%
Benzoic Acid	170 J	1160	2710	36.5%	1300	2710	41.7%	11.4%
1,2,4-Trichlorobenzene	< 20 U	412	492	83.7%	446	493	90.5%	7.9%
Naphthalene	810	1640	492	169%	1470	493	134%	10.9%
Hexachlorobutadiene	< 20 U	418	492	85.0%	447	493	90.7%	6.7%
2-Methylnaphthalene	290	724	492	88.2%	771	493	97.6%	6.3%
Dimethylphthalate	< 110 Y	598	492	122%	649	493	132%	8.2%
Acenaphthylene	100	513	492	83.9%	536	493	88.4%	4.4%
Acenaphthene	100	538	492	89.0%	588	493	99.0%	8.9%
Dibenzofuran	180	611	492	87.6%	696	493	105%	13.0%
Diethylphthalate	32 B	471 B	492	89.2%	578 B	493	111%	20.4%
Fluorene	120	558	492	89.0%	619	493	101%	10.4%
N-Nitrosodiphenylamine	< 20 U	534	492	109%	428	493	86.8%	22.0%
Hexachlorobenzene	< 20 U	525	492	107%	605	493	123%	14.2%
Pentachlorophenol	< 99 U	868 Q	1480	58.6%	951 Q	1480	64.3%	9.1%
Phenanthrene	490	1090	492	122%	1590	493	223%	37.3%
Anthracene	100	567	492	94.9%	635	493	109%	11.3%
Di-n-Butylphthalate	< 20 U	492	492	100%	500	493	101%	1.6%
Fluoranthene	290	744	492	92.3%	1190	493	183%	46.1%
Pyrene	310	798	492	99.2%	1220	493	185%	41.8%
Butylbenzylphthalate	< 20 U	530	492	108%	538	493	109%	1.5%
Benzo(a)anthracene	85	502	492	84.8%	674	493	119%	29.3%
bis(2-Ethylhexyl)phthalate	43 J	590	492	111%	604	493	114%	2.3%
Chrysene	120	561	492	89.6%	805	493	139%	35.7%
Di-n-Octyl phthalate	< 20 U	523	492	106%	550	493	112%	5.0%
Benzo(a)pyrene	88	482	492	80.1%	726	493	129%	40.4%
Indeno(1,2,3-cd)pyrene	51	290	492	48.6%	375	493	65.7%	25.6%
Dibenz(a,h)anthracene	< 20 U	231	492	47.0%	261	493	52.9%	12.2%
Benzo(g,h,i)perylene	79	245	492	33.7%	326	493	50.1%	28.4%
Total Benzofluoranthenes	140	981	984	85.5%	1410	986	129%	35.9%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: IJ13-VC-101-2-3.9
MATRIX SPIKE

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 17:40
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.16 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 37.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	---
106-46-7	1,4-Dichlorobenzene	20	---
100-51-6	Benzyl Alcohol	20	---
95-50-1	1,2-Dichlorobenzene	20	---
95-48-7	2-Methylphenol	20	---
106-44-5	4-Methylphenol	20	---
105-67-9	2,4-Dimethylphenol	98	---
65-85-0	Benzoic Acid	200	---
120-82-1	1,2,4-Trichlorobenzene	20	---
91-20-3	Naphthalene	20	---
87-68-3	Hexachlorobutadiene	20	---
91-57-6	2-Methylnaphthalene	20	---
131-11-3	Dimethylphthalate	20	---
208-96-8	Acenaphthylene	20	---
83-32-9	Acenaphthene	20	---
132-64-9	Dibenzofuran	20	---
84-66-2	Diethylphthalate	20	---
86-73-7	Fluorene	20	---
86-30-6	N-Nitrosodiphenylamine	20	---
118-74-1	Hexachlorobenzene	20	---
87-86-5	Pentachlorophenol	98	---
85-01-8	Phenanthrene	20	---
120-12-7	Anthracene	20	---
84-74-2	Di-n-Butylphthalate	20	---
206-44-0	Fluoranthene	20	---
129-00-0	Pyrene	20	---
85-68-7	Butylbenzylphthalate	20	---
56-55-3	Benzo(a)anthracene	20	---
117-81-7	bis(2-Ethylhexyl)phthalate	49	---
218-01-9	Chrysene	20	---
117-84-0	Di-n-Octyl phthalate	20	---
50-32-8	Benzo(a)pyrene	20	---
193-39-5	Indeno(1,2,3-cd)pyrene	20	---
53-70-3	Dibenz(a,h)anthracene	20	---
191-24-2	Benzo(g,h,i)perylene	20	---
TOTBFA	Total Benzofluoranthenes	39	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	75.6%	2-Fluorobiphenyl	81.6%
d14-p-Terphenyl	87.4%	d4-1,2-Dichlorobenzene	76.2%
d5-Phenol	100%	2-Fluorophenol	76.5%
2,4,6-Tribromophenol	85.3%	d4-2-Chlorophenol	112%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: IJ13-VC-101-2-3.9
MATRIX SPIKE DUPLICATE

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 18:15
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.14 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 37.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	---
106-46-7	1,4-Dichlorobenzene	20	---
100-51-6	Benzyl Alcohol	20	---
95-50-1	1,2-Dichlorobenzene	20	---
95-48-7	2-Methylphenol	20	---
106-44-5	4-Methylphenol	20	---
105-67-9	2,4-Dimethylphenol	99	---
65-85-0	Benzoic Acid	200	---
120-82-1	1,2,4-Trichlorobenzene	20	---
91-20-3	Naphthalene	20	---
87-68-3	Hexachlorobutadiene	20	---
91-57-6	2-Methylnaphthalene	20	---
131-11-3	Dimethylphthalate	20	---
208-96-8	Acenaphthylene	20	---
83-32-9	Acenaphthene	20	---
132-64-9	Dibenzofuran	20	---
84-66-2	Diethylphthalate	20	---
86-73-7	Fluorene	20	---
86-30-6	N-Nitrosodiphenylamine	20	---
118-74-1	Hexachlorobenzene	20	---
87-86-5	Pentachlorophenol	99	---
85-01-8	Phenanthrene	20	---
120-12-7	Anthracene	20	---
84-74-2	Di-n-Butylphthalate	20	---
206-44-0	Fluoranthene	20	---
129-00-0	Pyrene	20	---
85-68-7	Butylbenzylphthalate	20	---
56-55-3	Benzo(a)anthracene	20	---
117-81-7	bis(2-Ethylhexyl)phthalate	49	---
218-01-9	Chrysene	20	---
117-84-0	Di-n-Octyl phthalate	20	---
50-32-8	Benzo(a)pyrene	20	---
193-39-5	Indeno(1,2,3-cd)pyrene	20	---
53-70-3	Dibenz(a,h)anthracene	20	---
191-24-2	Benzo(g,h,i)perylene	20	---
TOTBFA	Total Benzofluoranthenes	39	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.2%	2-Fluorobiphenyl	85.0%
d14-p-Terphenyl	89.4%	d4-1,2-Dichlorobenzene	79.4%
d5-Phenol	101%	2-Fluorophenol	29.5%
2,4,6-Tribromophenol	86.8%	d4-2-Chlorophenol	117%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

Sample ID: LCS-082613
LCS/LCSD

Lab Sample ID: LCS-082613
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted LCS/LCSD: 08/26/13

Date Analyzed LCS: 09/02/13 13:33
LCSD: 09/02/13 14:09
Instrument/Analyst LCS: NT10/YZ
LCSD: NT10/YZ
GPC Cleanup: Yes

Sample Amount LCS: 10.00 g
LCSD: 10.00 g
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	421 B	500	84.2%	396 B	500	79.2%	6.1%
1,4-Dichlorobenzene	402	500	80.4%	389	500	77.8%	3.3%
Benzyl Alcohol	381	500	76.2%	347	500	69.4%	9.3%
1,2-Dichlorobenzene	412	500	82.4%	400	500	80.0%	3.0%
2-Methylphenol	340	500	68.0%	347	500	69.4%	2.0%
4-Methylphenol	735	1000	73.5%	719	1000	71.9%	2.2%
2,4-Dimethylphenol	1020	1500	68.0%	937	1500	62.5%	8.5%
Benzoic Acid	1620	2750	58.9%	1610	2750	58.5%	0.6%
1,2,4-Trichlorobenzene	426	500	85.2%	412	500	82.4%	3.3%
Naphthalene	388	500	77.6%	381	500	76.2%	1.8%
Hexachlorobutadiene	429	500	85.8%	415	500	83.0%	3.3%
2-Methylnaphthalene	381	500	76.2%	372	500	74.4%	2.4%
Dimethylphthalate	477	500	95.4%	460	500	92.0%	3.6%
Acenaphthylene	405	500	81.0%	387	500	77.4%	4.5%
Acenaphthene	415	500	83.0%	399	500	79.8%	3.9%
Dibenzofuran	417	500	83.4%	397	500	79.4%	4.9%
Diethylphthalate	532 B	500	106%	510 B	500	102%	4.2%
Fluorene	404	500	80.8%	391	500	78.2%	3.3%
N-Nitrosodiphenylamine	348	500	69.6%	421	500	84.2%	19.0%
Hexachlorobenzene	510	500	102%	499	500	99.8%	2.2%
Pentachlorophenol	1230 Q	1500	82.0%	1200 Q	1500	80.0%	2.5%
Phenanthrene	501	500	100%	476	500	95.2%	5.1%
Anthracene	449	500	89.8%	434	500	86.8%	3.4%
Di-n-Butylphthalate	540	500	108%	509	500	102%	5.9%
Fluoranthene	494	500	98.8%	472	500	94.4%	4.6%
Pyrene	466	500	93.2%	440	500	88.0%	5.7%
Butylbenzylphthalate	536	500	107%	512	500	102%	4.6%
Benzo(a)anthracene	484	500	96.8%	459	500	91.8%	5.3%
bis(2-Ethylhexyl)phthalate	588	500	118%	544	500	109%	7.8%
Chrysene	503	500	101%	463	500	92.6%	8.3%
Di-n-Octyl phthalate	578	500	116%	517	500	103%	11.1%
Benzo(a)pyrene	475	500	95.0%	437	500	87.4%	8.3%
Indeno(1,2,3-cd)pyrene	448	500	89.6%	418	500	83.6%	6.9%
Dibenz(a,h)anthracene	358	500	71.6%	329	500	65.8%	8.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

Sample ID: LCSD-082613
LCS/LCSD

Lab Sample ID: LCS-082613
LIMS ID: 13-17439
Matrix: Sediment
Date Analyzed LCS: 09/02/13 13:33
LCSD: 09/02/13 14:09

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzo(g,h,i)perylene	399	500	79.8%	360	500	72.0%	10.3%
Total Benzofluoranthenes	998	1000	99.8%	918	1000	91.8%	8.4%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	74.2%	70.6%
2-Fluorobiphenyl	76.2%	71.0%
d14-p-Terphenyl	100%	91.0%
d4-1,2-Dichlorobenzene	75.6%	71.0%
d5-Phenol	96.8%	94.0%
2-Fluorophenol	95.6%	90.4%
2,4,6-Tribromophenol	112%	102%
d4-2-Chlorophenol	100%	93.3%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

XB89MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: ANCHOR QEA, LLC.

ARI Job No: XB89
Project: I&J WATERWAY RI/FS

Lab File ID: XB89MB
Date Extracted: 08/26/13

Instrument ID: NT10
Date Analyzed: 09/02/13

Matrix: SOLID
Time Analyzed: 1554

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	XB89LCSS1	XB89LCSS1	XB89SB	09/02/13
02	XB89LCSDS1	XB89LCSDS1	XB89SBD	09/02/13
03	IJ13-SS-102	XB89A	XB89A	09/02/13
04	IJ13-SS-101	XB89B	XB89B	09/02/13
05	IJ13-SS-151	XB89C	XB89C	09/02/13
06	IJ13-VC-101-2-3.	XB89D	XB89D	09/02/13
07	IJ13-VC-101-2-3	XB89DMS	XB89DMS	09/02/13
08	IJ13-VC-101-2-3	XB89DMSD	XB89DMSD	09/02/13
09	IJ13-VC-102-2-4	XB89E	XB89E3	09/03/13
10	IJ13-VC-102-4-5.	XB89F	XB89F	09/03/13
11	IJ13-SS-102	XB89A	XB89A6	09/03/13
12	IJ13-SS-151	XB89C	XB89C10	09/03/13
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XB89:00041

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: MB-082613
METHOD BLANK

Lab Sample ID: MB-082613
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 15:54
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.00 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**11 J**
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
105-67-9	2,4-Dimethylphenol	100	< 100 U
65-85-0	Benzoic Acid	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
87-68-3	Hexachlorobutadiene	20	< 20 U
91-57-6	2-Methylnaphthalene	20	< 20 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
83-32-9	Acenaphthene	20	< 20 U
132-64-9	Dibenzofuran	20	< 20 U
84-66-2	**Diethylphthalate**	**20**	**130**
86-73-7	Fluorene	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	Phenanthrene	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	50	< 50 U
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
TOTBFA	Total Benzofluoranthenes	40	< 40 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	73.8%	2-Fluorobiphenyl	76.8%
d14-p-Terphenyl	102%	d4-1,2-Dichlorobenzene	78.8%
d5-Phenol	94.9%	2-Fluorophenol	94.5%
2,4,6-Tribromophenol	94.4%	d4-2-Chlorophenol	102%

FORM I

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: I&J WATERWAYRI/FS

DFTPP Injection Date: 08/23/13 DFTPP Injection Time: 1550

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	16.2
68	Less than 2.0% of mass 69	0.5 (1.8)1
69	Mass 69 relative abundance	30.0
70	Less than 2.0% of mass 69	0.1 (0.4)1
127	10.0 - 80.0% of mass 198	42.0
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	28.8
365	Greater than 1.0% of mass 198	3.99
441	0.0 - 24.0% of mass 442	19.8 (15.4)2
442	50.0 - 200.0% of mass 198	128.7
443	15.0 - 24.0% of mass 442	24.7 (19.2)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IC0823A	IC0823A	08/23/13	1604
02		IC0823B	IC0823B	08/23/13	1641
03		IC0823C	IC0823C	08/23/13	1717
04		IC0823D	IC0823D	08/23/13	1753
05		IC0823E	IC0823E	08/23/13	1830
06		IC0823G	IC0823G	08/23/13	1943
07		IC0823H	IC0823H	08/23/13	2020
08		CC0823	CC0823	08/23/13	2220
09					
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XB89:00043

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: I&J WATERWAYRI/FS

DFTPP Injection Date: 09/02/13 DFTPP Injection Time: 1133

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	15.5
68	Less than 2.0% of mass 69	0.5 (1.7)1
69	Mass 69 relative abundance	28.7
70	Less than 2.0% of mass 69	0.1 (0.4)1
127	10.0 - 80.0% of mass 198	41.8
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	30.1
365	Greater than 1.0% of mass 198	4.24
441	0.0 - 24.0% of mass 442	21.7 (14.9)2
442	50.0 - 200.0% of mass 198	146.1
443	15.0 - 24.0% of mass 442	27.4 (18.8)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		CC0902A	CC0902A	09/02/13	1223
02	XB89LCSS1	XB89LCSS1	XB89SB	09/02/13	1333
03	XB89LCSDS1	XB89LCSDS1	XB89SBD	09/02/13	1409
04	IJ13-SS-102	XB89A	XB89A	09/02/13	1444
05	IJ13-SS-101	XB89B	XB89B	09/02/13	1519
06	XB89MBS1	XB89MBS1	XB89MB	09/02/13	1554
07	IJ13-SS-151	XB89C	XB89C	09/02/13	1629
08	IJ13-VC-101-2-3.	XB89D	XB89D	09/02/13	1705
09	IJ13-VC-101-2-3	XB89DMS	XB89DMS	09/02/13	1740
10	IJ13-VC-101-2-3	XB89DMSD	XB89DMSD	09/02/13	1815
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XB89:00044

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: I&J WATERWAYRI/FS

DFTPP Injection Date: 09/03/13 DFTPP Injection Time: 1138

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	15.6
68	Less than 2.0% of mass 69	0.5 (1.7)1
69	Mass 69 relative abundance	28.8
70	Less than 2.0% of mass 69	0.2 (0.8)1
127	10.0 - 80.0% of mass 198	42.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	30.8
365	Greater than 1.0% of mass 198	4.05
441	0.0 - 24.0% of mass 442	20.0 (14.7)2
442	50.0 - 200.0% of mass 198	135.7
443	15.0 - 24.0% of mass 442	26.4 (19.5)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		CC0903	CC0903	09/03/13	1153
02	IJ13-VC-102-2-4	XB89E	XB89E3	09/03/13	1303
03	IJ13-VC-102-4-5.	XB89F	XB89F	09/03/13	1338
04	IJ13-SS-102	XB89A	XB89A6	09/03/13	2042
05	IJ13-SS-151	XB89C	XB89C10	09/03/13	2117
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FORM V SV

XB89:00045

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Calibration Date: 08/23/13

Method = ABN.m
Cal levels = 7

LAB FILE ID: RRF0.2=IC0823C RRF0.5=IC0823G RRF1 =IC0823D
RRF2.5=IC0823H RRF5 =IC0823A RRF10 =IC0823E
RRF20 =IC0823B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	$\overline{RRF}$	%RSD /R^2
Phenol	1.520	1.489	1.526	1.547	1.521	1.439	1.451	1.499	2.7
Bis(2-Chloroethyl)ether	1.055	1.171	1.108	1.249	1.086	1.038	1.010	1.102	7.5
2-Chlorophenol	1.275	1.284	1.245	1.288	1.204	1.183	1.192	1.239	3.7
1,3-Dichlorobenzene	1.474	1.405	1.372	1.362	1.281	1.214	1.214	1.332	7.4
1,4-Dichlorobenzene	1.455	1.295	1.307	1.332	1.235	1.217	1.191	1.290	6.9
1,2-Dichlorobenzene	1.334	1.352	1.281	1.289	1.192	1.141	1.128	1.245	7.3
Benzyl alcohol	0.592	0.522	0.552	0.696	0.720	0.698	0.712	0.642	13.0
2,2'-oxybis(1-Chloropropane)	0.464	0.410	0.374	0.405	0.363	0.364	0.358	0.391	9.8
2-Methylphenol	1.249	1.082	1.151	1.174	1.143	1.087	1.056	1.134	5.8
Hexachloroethane	0.592	0.530	0.536	0.525	0.498	0.488	0.482	0.522	7.2
N-Nitroso-di-n-propylamine	0.705	0.738	0.697	0.711	0.662	0.676	0.643	0.690	4.7
4-Methylphenol	1.077	1.073	1.175	1.210	1.186	1.145	1.097	1.138	4.9
Nitrobenzene	0.315	0.299	0.288	0.289	0.298	0.287	0.285	0.294	3.6
Isophorone	0.593	0.554	0.540	0.559	0.543	0.619	0.598	0.572	5.3
2-Nitrophenol	0.210	0.195	0.191	0.204	0.209	0.209	0.199	0.202	3.7
2,4-Dimethylphenol	0.330	0.330	0.348	0.344	0.341	0.328	0.307	0.332	4.1
Bis(2-Chloroethoxy)methane	0.358	0.355	0.351	0.335	0.338	0.331	0.313	0.340	4.7
2,4-Dichlorophenol	0.279	0.265	0.295	0.294	0.334	0.322	0.269	0.294	8.9
1,2,4-Trichlorobenzene	0.369	0.331	0.344	0.318	0.312	0.301	0.326	0.329	6.8
Naphthalene	0.988	0.900	0.904	0.893	0.878	0.877	0.868	0.901	4.5
Benzoic acid		0.114	0.173	0.244	0.255	0.272	0.249	0.218	0.998
4-Chloroaniline	0.337	0.329	0.308	0.374	0.392	0.414	0.325	0.354	11.1
Hexachlorobutadiene	0.214	0.215	0.192	0.202	0.193	0.191	0.206	0.202	5.1
4-Chloro-3-methylphenol	0.239	0.244	0.285	0.300	0.304	0.305	0.290	0.281	9.9
2-Methylnaphthalene	0.697	0.659	0.668	0.657	0.663	0.655	0.647	0.664	2.4
Hexachlorocyclopentadiene		0.398	0.426	0.413	0.434	0.427	0.430	0.421	3.2
2,4,6-Trichlorophenol	0.363	0.377	0.400	0.388	0.397	0.400	0.398	0.389	3.7
2,4,5-Trichlorophenol	0.369	0.377	0.403	0.418	0.436	0.430	0.419	0.407	6.3
2-Chloronaphthalene	1.021	0.988	1.028	0.939	0.962	0.972	0.964	0.982	3.3
2-Nitroaniline	0.226	0.197	0.244	0.240	0.248	0.243	0.235	0.233	7.5
Acenaphthylene	1.740	1.702	1.679	1.573	1.593	1.550	1.775	1.659	5.3
Dimethylphthalate	1.201	1.181	1.177	1.108	1.078	1.073	0.994	1.116	6.7
2,6-Dinitrotoluene	0.240	0.255	0.278	0.295	0.262	0.258	0.246	0.262	7.2
Acenaphthene	1.044	0.982	0.975	0.936	0.948	0.932	0.949	0.966	4.0
3-Nitroaniline	0.239	0.203	0.246	0.218	0.213	0.220	0.181	0.217	10.0
2,4-Dinitrophenol		0.078	0.148	0.193	0.222	0.233	0.232	0.184	0.999
Dibenzofuran	1.535	1.468	1.494	1.398	1.423	1.420	1.397	1.448	3.6

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-1

XB89 : 00046

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Calibration Date: 08/23/13

Method = ABN.m
Cal levels = 7

LAB FILE ID: RRF0.2=IC0823C RRF0.5=IC0823G RRF1 =IC0823D
RRF2.5=IC0823H RRF5 =IC0823A RRF10 =IC0823E
RRF20 =IC0823B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	___ RRF	%RSD /R^2
4-Nitrophenol		0.118	0.127	0.140	0.158	0.160	0.152	0.142	12.1
2,4-Dinitrotoluene	0.342	0.331	0.370	0.348	0.365	0.358	0.349	0.352	3.8
Fluorene	1.259	1.225	1.226	1.170	1.194	1.169	1.160	1.200	3.1
4-Chlorophenyl-phenylether	0.700	0.621	0.628	0.598	0.584	0.584	0.578	0.613	7.0
Diethylphthalate	1.182	1.140	1.209	1.084	1.177	1.042	0.988	1.117	7.3
4-Nitroaniline	0.230	0.218	0.259	0.254	0.243	0.270	0.247	0.246	7.3
4,6-Dinitro-2-methylphenol	0.090	0.146	0.144	0.178	0.168	0.168	0.158	0.150	19.4
N-Nitrosodiphenylamine (1)	0.452	0.426	0.435	0.425	0.409	0.399	0.363	0.416	7.0
4-Bromophenyl-phenylether	0.233	0.236	0.216	0.225	0.219	0.212	0.211	0.222	4.5
Hexachlorobenzene	0.281	0.307	0.310	0.292	0.277	0.267	0.246	0.283	8.0
Pentachlorophenol		0.136	0.164	0.173	0.187	0.179	0.174	0.169	10.4
Phenanthrene	0.956	0.898	0.918	0.880	0.881	0.885	0.877	0.899	3.2
Anthracene	1.024	0.972	0.961	0.939	0.929	0.965	0.917	0.958	3.7
Carbazole	0.800	0.739	0.749	0.688	0.628	0.663	0.616	0.698	9.8
Di-n-butylphthalate	1.058	1.003	1.013	1.009	1.024	1.037	0.979	1.018	2.5
Fluoranthene	1.197	1.181	1.152	1.132	1.140	1.169	1.131	1.157	2.2
Pyrene	1.170	1.109	1.123	1.086	1.118	1.070	1.092	1.110	2.9
Butylbenzylphthalate	0.454	0.394	0.419	0.394	0.408	0.386	0.376	0.404	6.4
Benzo(a)anthracene	1.160	1.101	1.085	1.021	1.034	0.982	1.020	1.058	5.8
3,3'-Dichlorobenzidine	0.628	0.558	0.569	0.403	0.374	0.454	0.489	0.496	18.7
Chrysene	0.946	0.899	0.951	0.897	0.913	0.888	0.895	0.913	2.8
bis(2-Ethylhexyl)phthalate	0.497	0.417	0.442	0.410	0.420	0.410	0.404	0.428	7.6
Di-n-octylphthalate	0.954	0.819	0.809	0.777	0.765	0.766	0.754	0.806	8.6
Benzo(b)fluoranthene	1.035	0.976	1.052	0.985	1.010	0.982	1.031	1.010	2.9
Benzo(k)fluoranthene	1.082	1.045	1.040	1.034	0.997	0.997	0.946	1.020	4.3
Benzo(a)pyrene	1.012	0.906	0.945	0.906	0.900	0.898	0.880	0.921	4.8
Indeno(1,2,3-cd)pyrene	1.176	1.094	1.174	1.125	1.109	1.115	1.097	1.127	3.0
Dibenzo(a,h)anthracene	0.939	0.864	0.905	0.896	0.854	0.844	0.834	0.876	4.3
Benzo(g,h,i)perylene	1.009	0.930	0.946	0.936	0.939	0.923	0.918	0.943	3.2
N-Nitrosodimethylamine	0.542	0.529	0.522	0.614	0.575	0.619	0.611	0.573	7.4
Aniline	2.944	3.009	2.474	2.766	2.849	3.039	2.960	2.863	6.8
Benzidine		0.322	0.306	0.166	0.139	0.162	0.186	0.214	0.995
Retene	0.466	0.428	0.453	0.431	0.447	0.429	0.443	0.442	3.2
Perylene	0.941	0.854	0.831	0.840	0.813	0.822	0.826	0.847	5.2
Pyridine	0.518	0.514	0.520	0.553	0.524	0.537	0.540	0.529	2.7
1-methylnaphthalene	0.627	0.621	0.599	0.617	0.609	0.599	0.588	0.608	2.3
Azobenzene (1,2-DP-Hydrazine	1.036	0.980	0.972	0.914	0.879	0.870	0.845	0.928	7.5

(1) Cannot be seperated from Diphenylamine
<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-2

XB89:00047

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Calibration Date: 08/23/13

Method = ABN.m
Cal levels = 7

LAB FILE ID: RRF0.2=IC0823C RRF0.5=IC0823G RRF1 =IC0823D
RRF2.5=IC0823H RRF5 =IC0823A RRF10 =IC0823E
RRF20 =IC0823B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	$\overline{RRF}$	%RSD /R^2
2,3,4,6-Tetrachlorophenol	0.288	0.301	0.336	0.330	0.342	0.352	0.338	0.327	7.1
Total Benzofluoranthenes	1.066	1.000	1.032	0.988	0.978	0.969	0.962	0.999	3.8
2-Fluorophenol	1.195	1.146	1.234	1.178	1.142	1.138	1.123	1.165	3.3
Phenol-d5	1.400	1.520	1.477	1.561	1.522	1.520	1.561	1.509	3.7
2-Chlorophenol-d4	1.270	1.220	1.228	1.287	1.252	1.188	1.212	1.237	2.8
1,2-Dichlorobenzene-d4	1.020	0.964	0.966	0.956	0.888	0.853	0.836	0.926	7.4
Nitrobenzene-d5	0.386	0.348	0.342	0.353	0.345	0.350	0.339	0.352	4.5
2-Fluorobiphenyl	1.316	1.320	1.306	1.243	1.257	1.223	1.253	1.274	3.1
2,4,6-Tribromophenol	0.256	0.265	0.263	0.264	0.264	0.268	0.256	0.262	1.7
Terphenyl-d14	0.730	0.654	0.701	0.637	0.646	0.611	0.608	0.655	6.9

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-3

XB89 : 00048

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Cont. Calib. Date: 09/02/13

Init. Calib. Date: 08/23/13 Cont. Calib. Time: 1223

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.499	1.468	0.800	AVRG	-2.1	
Bis(2-Chloroethyl)ether	1.102	1.058	0.700	AVRG	-4.0	
2-Chlorophenol	1.239	1.230	0.800	AVRG	-0.7	
1,3-Dichlorobenzene	1.332	1.285	0.010	AVRG	-3.5	
1,4-Dichlorobenzene	1.290	1.224	0.010	AVRG	-5.1	
1,2-Dichlorobenzene	1.245	1.170	0.010	AVRG	-6.0	
Benzyl alcohol	0.642	0.716	0.010	AVRG	11.5	
2,2'-oxybis(1-Chloropropane)	0.391	0.357	0.010	AVRG	-8.7	
2-Methylphenol	1.134	1.129	0.700	AVRG	-0.4	
Hexachloroethane	0.522	0.496	0.300	AVRG	-5.0	
N-Nitroso-di-n-propylamine	0.690	0.667	0.500	AVRG	-3.3	
4-Methylphenol	1.138	1.158	0.600	AVRG	1.8	
Nitrobenzene	0.294	0.287	0.200	AVRG	-2.4	
Isophorone	0.572	0.538	0.400	AVRG	-5.9	
2-Nitrophenol	0.202	0.216	0.100	AVRG	6.9	
2,4-Dimethylphenol	0.332	0.314	0.200	AVRG	-5.4	
Bis(2-Chloroethoxy)methane	0.340	0.332	0.300	AVRG	-2.4	
2,4-Dichlorophenol	0.294	0.339	0.200	AVRG	15.3	
1,2,4-Trichlorobenzene	0.329	0.307	0.010	AVRG	-6.7	
Naphthalene	0.901	0.876	0.700	AVRG	-2.8	
Benzoic acid	20.00	17.64	0.010	2ORDR	-11.8	
4-Chloroaniline	0.354	0.354	0.010	AVRG	0.0	
Hexachlorobutadiene	0.202	0.188	0.010	AVRG	-6.9	
4-Chloro-3-methylphenol	0.281	0.299	0.200	AVRG	6.4	
2-Methylnaphthalene	0.664	0.664	0.400	AVRG	0.0	
Hexachlorocyclopentadiene	0.421	0.286	0.050	AVRG	-32.1	<-
2,4,6-Trichlorophenol	0.389	0.404	0.200	AVRG	3.8	
2,4,5-Trichlorophenol	0.407	0.442	0.200	AVRG	8.6	
2-Chloronaphthalene	0.982	0.993	0.800	AVRG	1.1	
2-Nitroaniline	0.233	0.240	0.010	AVRG	3.0	
Acenaphthylene	1.659	1.845	0.900	AVRG	11.2	
Dimethylphthalate	1.116	1.114	0.010	AVRG	-0.2	
2,6-Dinitrotoluene	0.262	0.264	0.200	AVRG	0.8	
Acenaphthene	0.966	0.948	0.900	AVRG	-1.9	
3-Nitroaniline	0.217	0.222	0.010	AVRG	2.3	
2,4-Dinitrophenol	20.00	14.38	0.010	2ORDR	-28.1	<-
Dibenzofuran	1.448	1.458	0.800	AVRG	0.7	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

XB89:00049

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Cont. Calib. Date: 09/02/13

Init. Calib. Date: 08/23/13 Cont. Calib. Time: 1223

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	0.142	0.135	0.010	AVRG	-4.9	
2,4-Dinitrotoluene	0.352	0.368	0.200	AVRG	4.5	
Fluorene	1.200	1.199	0.900	AVRG	-0.1	
4-Chlorophenyl-phenylether	0.613	0.600	0.400	AVRG	-2.1	
Diethylphthalate	1.117	1.088	0.010	AVRG	-2.6	
4-Nitroaniline	0.246	0.225	0.010	AVRG	-8.5	
4,6-Dinitro-2-methylphenol	0.150	0.145	0.010	AVRG	-3.3	
N-Nitrosodiphenylamine(1)	0.416	0.398	0.010	AVRG	-4.3	
4-Bromophenyl-phenylether	0.222	0.195	0.100	AVRG	-12.2	
Hexachlorobenzene	0.283	0.231	0.100	AVRG	-18.4	
Pentachlorophenol	0.169	0.127	0.050	AVRG	-24.8	<-
Phenanthrene	0.899	0.858	0.700	AVRG	-4.6	
Anthracene	0.958	0.923	0.700	AVRG	-3.6	
Carbazole	0.698	0.512	0.010	AVRG	-26.6	<-
Di-n-butylphthalate	1.018	1.023	0.010	AVRG	0.5	
Fluoranthene	1.157	1.141	0.600	AVRG	-1.4	
Pyrene	1.110	1.181	0.600	AVRG	6.4	
Butylbenzylphthalate	0.404	0.407	0.010	AVRG	0.7	
Benzo(a)anthracene	1.058	1.040	0.800	AVRG	-1.7	
3,3'-Dichlorobenzidine	0.496	0.403	0.010	AVRG	-18.8	
Chrysene	0.913	0.885	0.700	AVRG	-3.1	
bis(2-Ethylhexyl)phthalate	0.428	0.423	0.010	AVRG	-1.2	
Di-n-octylphthalate	0.806	0.772	0.010	AVRG	-4.2	
Benzo(b)fluoranthene	1.010	1.014	0.700	AVRG	0.4	
Benzo(k)fluoranthene	1.020	0.991	0.700	AVRG	-2.8	
Benzo(a)pyrene	0.921	0.892	0.700	AVRG	-3.1	
Indeno(1,2,3-cd)pyrene	1.127	1.145	0.500	AVRG	1.6	
Dibenzo(a,h)anthracene	0.876	0.874	0.400	AVRG	-0.2	
Benzo(g,h,i)perylene	0.943	0.968	0.500	AVRG	2.6	
N-Nitrosodimethylamine	0.573	0.566	0.010	AVRG	-1.2	
Aniline	2.863	2.703	0.010	AVRG	-5.6	
Benzidine	10.00	4.215	0.010	2ORDR	-57.8	<-
Retene	0.442	0.467	0.010	AVRG	5.6	
Perylene	0.847	0.839	0.010	AVRG	-0.9	
Pyridine	0.529	0.386	0.010	AVRG	-27.0	<-
1-methylnaphthalene	0.608	0.600	0.010	AVRG	-1.3	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

XB89:00050

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Cont. Calib. Date: 09/02/13

Init. Calib. Date: 08/23/13 Cont. Calib. Time: 1223

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	0.928	0.818	0.010	AVRG	-11.8
2,3,4,6-Tetrachlorophenol	0.327	0.325	0.010	AVRG	-0.6
Total Benzofluoranthenes	0.999	0.981	0.010	AVRG	-1.8
2-Fluorophenol	1.165	1.175	0.010	AVRG	0.8
Phenol-d5	1.509	1.538	0.010	AVRG	1.9
2-Chlorophenol-d4	1.237	1.258	0.010	AVRG	1.7
1,2-Dichlorobenzene-d4	0.926	0.860	0.010	AVRG	-7.1
Nitrobenzene-d5	0.352	0.338	0.010	AVRG	-4.0
2-Fluorobiphenyl	1.274	1.292	0.010	AVRG	1.4
2,4,6-Tribromophenol	0.262	0.259	0.010	AVRG	-1.1
Terphenyl-d14	0.655	0.658	0.010	AVRG	0.4

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Cont. Calib. Date: 09/03/13

Init. Calib. Date: 08/23/13 Cont. Calib. Time: 1153

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.499	1.619	0.800	AVRG	8.0	
Bis(2-Chloroethyl)ether	1.102	1.086	0.700	AVRG	-1.4	
2-Chlorophenol	1.239	1.209	0.800	AVRG	-2.4	
1,3-Dichlorobenzene	1.332	1.231	0.010	AVRG	-7.6	
1,4-Dichlorobenzene	1.290	1.227	0.010	AVRG	-4.9	
1,2-Dichlorobenzene	1.245	1.168	0.010	AVRG	-6.2	
Benzyl alcohol	0.642	0.678	0.010	AVRG	5.6	
2,2'-oxybis(1-Chloropropane)	0.391	0.361	0.010	AVRG	-7.7	
2-Methylphenol	1.134	1.096	0.700	AVRG	-3.4	
Hexachloroethane	0.522	0.487	0.300	AVRG	-6.7	
N-Nitroso-di-n-propylamine	0.690	0.678	0.500	AVRG	-1.7	
4-Methylphenol	1.138	1.148	0.600	AVRG	0.9	
Nitrobenzene	0.294	0.274	0.200	AVRG	-6.8	
Isophorone	0.572	0.513	0.400	AVRG	-10.3	
2-Nitrophenol	0.202	0.204	0.100	AVRG	1.0	
2,4-Dimethylphenol	0.332	0.316	0.200	AVRG	-4.8	
Bis(2-Chloroethoxy)methane	0.340	0.332	0.300	AVRG	-2.4	
2,4-Dichlorophenol	0.294	0.334	0.200	AVRG	13.6	
1,2,4-Trichlorobenzene	0.329	0.304	0.010	AVRG	-7.6	
Naphthalene	0.901	0.878	0.700	AVRG	-2.6	
Benzoic acid	20.00	14.53	0.010	2ORDR	-27.4	<-
4-Chloroaniline	0.354	0.318	0.010	AVRG	-10.2	
Hexachlorobutadiene	0.202	0.188	0.010	AVRG	-6.9	
4-Chloro-3-methylphenol	0.281	0.286	0.200	AVRG	1.8	
2-Methylnaphthalene	0.664	0.657	0.400	AVRG	-1.0	
Hexachlorocyclopentadiene	0.421	0.144	0.050	AVRG	-65.8	<-
2,4,6-Trichlorophenol	0.389	0.394	0.200	AVRG	1.3	
2,4,5-Trichlorophenol	0.407	0.420	0.200	AVRG	3.2	
2-Chloronaphthalene	0.982	0.984	0.800	AVRG	0.2	
2-Nitroaniline	0.233	0.238	0.010	AVRG	2.1	
Acenaphthylene	1.659	1.588	0.900	AVRG	-4.3	
Dimethylphthalate	1.116	1.061	0.010	AVRG	-4.9	
2,6-Dinitrotoluene	0.262	0.264	0.200	AVRG	0.8	
Acenaphthene	0.966	0.944	0.900	AVRG	-2.3	
3-Nitroaniline	0.217	0.220	0.010	AVRG	1.4	
2,4-Dinitrophenol	20.00	14.85	0.010	2ORDR	-25.8	<-
Dibenzofuran	1.448	1.435	0.800	AVRG	-0.9	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

XB89 00052

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Cont. Calib. Date: 09/03/13

Init. Calib. Date: 08/23/13 Cont. Calib. Time: 1153

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	0.142	0.113	0.010	AVRG	-20.4	<-
2,4-Dinitrotoluene	0.352	0.362	0.200	AVRG	2.8	
Fluorene	1.200	1.164	0.900	AVRG	-3.0	
4-Chlorophenyl-phenylether	0.613	0.588	0.400	AVRG	-4.1	
Diethylphthalate	1.117	1.206	0.010	AVRG	8.0	
4-Nitroaniline	0.246	0.217	0.010	AVRG	-11.8	
4,6-Dinitro-2-methylphenol	0.150	0.166	0.010	AVRG	10.7	
N-Nitrosodiphenylamine(1)	0.416	0.496	0.010	AVRG	19.2	
4-Bromophenyl-phenylether	0.222	0.222	0.100	AVRG	0.0	
Hexachlorobenzene	0.283	0.294	0.100	AVRG	3.9	
Pentachlorophenol	0.169	0.106	0.050	AVRG	-37.3	<-
Phenanthrene	0.899	0.878	0.700	AVRG	-2.3	
Anthracene	0.958	0.933	0.700	AVRG	-2.6	
Carbazole	0.698	0.589	0.010	AVRG	-15.6	
Di-n-butylphthalate	1.018	1.037	0.010	AVRG	1.9	
Fluoranthene	1.157	1.097	0.600	AVRG	-5.2	
Pyrene	1.110	1.168	0.600	AVRG	5.2	
Butylbenzylphthalate	0.404	0.411	0.010	AVRG	1.7	
Benzo(a)anthracene	1.058	1.002	0.800	AVRG	-5.3	
3,3'-Dichlorobenzidine	0.496	0.386	0.010	AVRG	-22.2	<-
Chrysene	0.913	0.869	0.700	AVRG	-4.8	
bis(2-Ethylhexyl)phthalate	0.428	0.455	0.010	AVRG	6.3	
Di-n-octylphthalate	0.806	0.788	0.010	AVRG	-2.2	
Benzo(b)fluoranthene	1.010	0.960	0.700	AVRG	-5.0	
Benzo(k)fluoranthene	1.020	1.040	0.700	AVRG	2.0	
Benzo(a)pyrene	0.921	0.898	0.700	AVRG	-2.5	
Indeno(1,2,3-cd)pyrene	1.127	1.097	0.500	AVRG	-2.7	
Dibenzo(a,h)anthracene	0.876	0.866	0.400	AVRG	-1.1	
Benzo(g,h,i)perylene	0.943	0.952	0.500	AVRG	1.0	
N-Nitrosodimethylamine	0.573	0.536	0.010	AVRG	-6.4	
Aniline	2.863	2.477	0.010	AVRG	-13.5	
Benzidine	10.00	2.732	0.010	2ORDR	-72.7	<-
Retene	0.442	0.447	0.010	AVRG	1.1	
Perylene	0.847	0.842	0.010	AVRG	-0.6	
Pyridine	0.529	0.404	0.010	AVRG	-23.6	<-
1-methylnaphthalene	0.608	0.591	0.010	AVRG	-2.8	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

XB89:000053

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Cont. Calib. Date: 09/03/13

Init. Calib. Date: 08/23/13 Cont. Calib. Time: 1153

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	0.928	0.795	0.010	AVRG	-14.3
2,3,4,6-Tetrachlorophenol	0.327	0.292	0.010	AVRG	-10.7
Total Benzofluoranthenes	0.999	0.968	0.010	AVRG	-3.1
2-Fluorophenol	1.165	1.109	0.010	AVRG	-4.8
Phenol-d5	1.509	1.485	0.010	AVRG	-1.6
2-Chlorophenol-d4	1.237	1.212	0.010	AVRG	-2.0
1,2-Dichlorobenzene-d4	0.926	0.861	0.010	AVRG	-7.0
Nitrobenzene-d5	0.352	0.318	0.010	AVRG	-9.6
2-Fluorobiphenyl	1.274	1.258	0.010	AVRG	-1.2
2,4,6-Tribromophenol	0.262	0.241	0.010	AVRG	-8.0
Terphenyl-d14	0.655	0.657	0.010	AVRG	0.3

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823A Ical Date: 08/23/13

Instrument ID: NT10 Cont. Cal Date: 09/02/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	152867	8.64	536851	11.09	348566	14.66
	UPPER LIMIT	305734		1073702		697132	
	LOWER LIMIT	76434		268426		174283	
	CCAL	208898	8.41	726452	10.88	460626	14.46
	UPPER LIMIT		8.91		11.38		14.96
	LOWER LIMIT		7.91		10.38		13.96
01	XB89LCSS1	109181	8.41	391443	10.88	243439	14.46
02	XB89LCSDS1	112301	8.41	399488	10.88	254618	14.46
03	IJ13-SS-102	110955	8.42	399487	10.88	243216	14.47
04	IJ13-SS-101	110711	8.42	401871	10.88	246659	14.48
05	XB89MBS1	117053	8.42	425043	10.88	257750	14.47
06	IJ13-SS-151	112270	8.42	407859	10.88	261389	14.47
07	IJ13-VC-101-	102589	8.42	369437	10.88	224315	14.47
08	IJ13-VC-101-	99592	8.42	365220	10.88	233193	14.46
09	IJ13-VC-101-	96248	8.42	353962	10.88	219769	14.45
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

XB89:00055

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823A Ical Date: 08/23/13

Instrument ID: NT10 Cont. Cal Date: 09/02/13

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	ICAL MIDPT	633376		17.72		651036		22.81		696727		25.26	
	UPPER LIMIT	1266752				1302072				1393454			
	LOWER LIMIT	316688				325518				348364			
	CCAL	844952		17.53		822931		22.65		849828		25.07	
	UPPER LIMIT			18.03				23.15				25.57	
	LOWER LIMIT			17.03				22.15				24.57	
01	XB89LCSS1	421642		17.53		440204		22.65		454125		25.07	
02	XB89LCSDS1	437208		17.53		462743		22.66		489347		25.07	
03	IJ13-SS-102	415491		17.55		415734		22.68		453220		25.10	
04	IJ13-SS-101	410419		17.55		403818		22.67		457265		25.10	
05	XB89MBS1	440104		17.54		419922		22.66		443723		25.07	
06	IJ13-SS-151	426794		17.54		428628		22.65		454627		25.07	
07	IJ13-VC-101-	370303		17.54		374048		22.65		421864		25.07	
08	IJ13-VC-101-	377628		17.53		377426		22.65		415701		25.07	
09	IJ13-VC-101-	366742		17.52		366017		22.64		378366		25.07	
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

XB89:00056

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: XB89 | Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823A | Ical Date: 08/23/13

Instrument ID: NT10 | Cont. Cal Date: 09/02/13

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	837259	23.92				
	UPPER LIMIT	1674518					
	LOWER LIMIT	418630					
	CCAL	1059704	23.80				
	UPPER LIMIT		24.30				
	LOWER LIMIT		23.30				
01	XB89LCSS1	548131	23.80				
02	XB89LCSDS1	576745	23.80				
03	IJ13-SS-102	510210	23.81				
04	IJ13-SS-101	517620	23.81				
05	XB89MBS1	508695	23.80				
06	IJ13-SS-151	524732	23.79				
07	IJ13-VC-101-	473765	23.79				
08	IJ13-VC-101-	491592	23.78				
09	IJ13-VC-101-	474951	23.77				
10							
11							
12							
13							
14							
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16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

XB89:00057

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823A Ical Date: 08/23/13

Instrument ID: NT10 Cont. Cal Date: 09/03/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	152867	8.64	536851	11.09	348566	14.66
	UPPER LIMIT	305734		1073702		697132	
	LOWER LIMIT	76434		268426		174283	
	CCAL	179409	8.20	632947	10.62	403036	14.16
	UPPER LIMIT		8.70		11.12		14.66
	LOWER LIMIT		7.70		10.12		13.66
01	IJ13-VC-102-	143463	8.21	528228	10.63	265529	14.17
02	IJ13-VC-102-	146567	8.22	541366	10.63	281671	14.17
03	IJ13-SS-102	143609	8.21	526510	10.63	319499	14.17
04	IJ13-SS-151	154770	8.21	607144	10.64	340193	14.17
05							
06							
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22							
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24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

XB89 00058

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823A Ical Date: 08/23/13

Instrument ID: NT10 Cont. Cal Date: 09/03/13

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	633376	17.72	651036	22.81	696727	25.26
	UPPER LIMIT	1266752		1302072		1393454	
	LOWER LIMIT	316688		325518		348364	
	CCAL	713246	17.20	696534	22.31	701847	24.65
	UPPER LIMIT		17.70		22.81		25.15
	LOWER LIMIT		16.70		21.81		24.15
01	IJ13-VC-102-	422811	17.21	536684	22.33	572551	24.70
02	IJ13-VC-102-	468368	17.23	535829	22.35	562073	24.71
03	IJ13-SS-102	510375	17.23	517043	22.34	540621	24.68
04	IJ13-SS-151	585192	17.22	543426	22.33	580672	24.67
05							
06							
07							
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23							
24							
25							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

XB89 : 00059

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: XB89 | Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823A | Ical Date: 08/23/13

Instrument ID: NT10 | Cont. Cal Date: 09/03/13

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	837259	23.92				
	UPPER LIMIT	1674518					
	LOWER LIMIT	418630					
	CCAL	851900	23.44				
	UPPER LIMIT		23.94				
	LOWER LIMIT		22.94				
01	IJ13-VC-102-	671824	23.46				
02	IJ13-VC-102-	679991	23.47				
03	IJ13-SS-102	664385	23.46				
04	IJ13-SS-151	697115	23.45				
05							
06							
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23							
24							
25							

IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

XB89:00060

SIM Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: XB89

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-SS-102**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 14:44
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.15 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 52.3%

CAS Number	Analyte	LOQ	Result	
53-70-3	**Dibenz(a,h)anthracene**	**15**	**84**	
106-46-7	1,4-Dichlorobenzene	15	< 15	U
120-82-1	1,2,4-Trichlorobenzene	15	< 15	U
118-74-1	Hexachlorobenzene	15	< 15	U
87-68-3	Hexachlorobutadiene	15	< 15	U
131-11-3	**Dimethylphthalate**	**15**	**130**	
84-66-2	Diethylphthalate	59	< 59	U
85-68-7	**Butylbenzylphthalate**	**15**	**9.2**	**J**
95-48-7	**2-Methylphenol**	**15**	**120**	
105-67-9	**2,4-Dimethylphenol**	**74**	**210**	
86-30-6	**N-Nitrosodiphenylamine**	**15**	**180**	
87-86-5	**Pentachlorophenol**	**59**	**37**	**JQ**
95-50-1	1,2-Dichlorobenzene	15	< 15	U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	111%
d14-p-Terphenyl	112%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-SS-101**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89B
LIMS ID: 13-17437
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 15:19
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.75 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 41.2%

CAS Number	Analyte	LOQ	Result	
53-70-3	**Dibenz(a,h)anthracene**	**14**	**79**	
106-46-7	1,4-Dichlorobenzene	14	< 14	U
120-82-1	1,2,4-Trichlorobenzene	14	< 14	U
118-74-1	Hexachlorobenzene	14	< 14	U
87-68-3	Hexachlorobutadiene	14	< 14	U
131-11-3	**Dimethylphthalate**	**14**	**50**	
84-66-2	**Diethylphthalate**	**56**	**66**	**B**
85-68-7	**Butylbenzylphthalate**	**14**	**21**	
95-48-7	**2-Methylphenol**	**14**	**25**	
105-67-9	**2,4-Dimethylphenol**	**70**	**38**	**J**
86-30-6	**N-Nitrosodiphenylamine**	**14**	**58**	
87-86-5	Pentachlorophenol	56	< 56	U
95-50-1	1,2-Dichlorobenzene	14	< 14	U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery	
2-Fluorophenol	101%
d14-p-Terphenyl	96.6%

XB89:00063

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-SS-151**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89C
LIMS ID: 13-17438
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 16:29
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.69 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 41.5%

CAS Number	Analyte	LOQ	Result
53-70-3	**Dibenz(a,h)anthracene**	**14**	**62**
106-46-7	1,4-Dichlorobenzene	14	< 14 U
120-82-1	1,2,4-Trichlorobenzene	14	< 14 U
118-74-1	Hexachlorobenzene	14	< 14 U
87-68-3	Hexachlorobutadiene	14	< 14 U
131-11-3	**Dimethylphthalate**	**14**	**53**
84-66-2	Diethylphthalate	56	< 56 U
85-68-7	Butylbenzylphthalate	14	< 14 U
95-48-7	**2-Methylphenol**	**14**	**30**
105-67-9	**2,4-Dimethylphenol**	**70**	**42 J**
86-30-6	**N-Nitrosodiphenylamine**	**14**	**39**
87-86-5	Pentachlorophenol	56	< 56 U
95-50-1	1,2-Dichlorobenzene	14	< 14 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	96.0%
d14-p-Terphenyl	97.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-VC-101-2-3.9**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 17:05
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.13 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 37.0%

CAS Number	Analyte	LOQ	Result
53-70-3	**Dibenz(a,h)anthracene**	**4.9**	**9.7**
106-46-7	**1,4-Dichlorobenzene**	**4.9**	**3.8 J**
120-82-1	1,2,4-Trichlorobenzene	4.9	< 4.9 U
118-74-1	Hexachlorobenzene	4.9	< 4.9 U
87-68-3	Hexachlorobutadiene	4.9	< 4.9 U
131-11-3	Dimethylphthalate	4.9	< 120 Y
84-66-2	**Diethylphthalate**	**20**	**26 B**
85-68-7	Butylbenzylphthalate	4.9	< 4.9 U
95-48-7	**2-Methylphenol**	**4.9**	**140**
105-67-9	**2,4-Dimethylphenol**	**25**	**250**
86-30-6	N-Nitrosodiphenylamine	4.9	< 4.9 U
87-86-5	Pentachlorophenol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	4.9	< 4.9 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	92.1%
d14-p-Terphenyl	81.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-VC-102-2-4**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89E
LIMS ID: 13-17440
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/03/13 13:03
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.38 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 42.8%

CAS Number	Analyte	LOQ	Result
53-70-3	**Dibenz(a,h)anthracene**	**14**	**36**
106-46-7	**1,4-Dichlorobenzene**	**14**	**18**
120-82-1	1,2,4-Trichlorobenzene	14	< 14 U
118-74-1	Hexachlorobenzene	14	< 14 U
87-68-3	Hexachlorobutadiene	14	< 14 U
131-11-3	**Dimethylphthalate**	**14**	**450**
84-66-2	Diethylphthalate	58	< 58 U
85-68-7	**Butylbenzylphthalate**	**14**	**60**
95-48-7	**2-Methylphenol**	**14**	**600**
105-67-9	**2,4-Dimethylphenol**	**72**	**1,200**
86-30-6	N-Nitrosodiphenylamine	14	< 14 U
87-86-5	**Pentachlorophenol**	**58**	**41 JQ**
95-50-1	**1,2-Dichlorobenzene**	**14**	**9.8 J**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery	
2-Fluorophenol	102%
d14-p-Terphenyl	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-VC-102-4-5.4**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/03/13 13:38
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.48 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 35.2%

CAS Number	Analyte	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	4.8	< 4.8 U
106-46-7	**1,4-Dichlorobenzene**	**4.8**	**5.3**
120-82-1	1,2,4-Trichlorobenzene	4.8	< 4.8 U
118-74-1	Hexachlorobenzene	4.8	< 4.8 U
87-68-3	Hexachlorobutadiene	4.8	< 4.8 U
131-11-3	**Dimethylphthalate**	**4.8**	**150**
84-66-2	**Diethylphthalate**	**19**	**26 B**
85-68-7	**Butylbenzylphthalate**	**4.8**	**29**
95-48-7	**2-Methylphenol**	**4.8**	**150**
105-67-9	**2,4-Dimethylphenol**	**24**	**390**
86-30-6	N-Nitrosodiphenylamine	4.8	< 4.8 U
87-86-5	Pentachlorophenol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	4.8	< 4.8 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	99.3%
d14-p-Terphenyl	91.0%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02

Client ID	FPH	TER	TOT OUT
IJ13-SS-102	111%	112%	0
IJ13-SS-101	101%	96.6%	0
IJ13-SS-151	96.0%	97.2%	0
MB-082613	92.9%	96.0%	0
LCS-082613	93.2%	97.6%	0
LCSD-082613	86.8%	88.4%	0
IJ13-VC-101-2-3.9	92.1%	81.0%	0
IJ13-VC-101-2-3.9 MS	80.0%	86.0%	0
IJ13-VC-101-2-3.9 MSD	77.7%	90.6%	0
IJ13-VC-102-2-4	102%	106%	0
IJ13-VC-102-4-5.4	99.3%	91.0%	0

	LCS/MB LIMITS	QC LIMITS
(FPH) = 2-Fluorophenol	(32-120)	(27-120)
(TER) = d14-p-Terphenyl	(42-124)	(37-120)

Prep Method: SW3546
Log Number Range: 13-17436 to 13-17441

XB89 : 00068

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-VC-101-2-3.9**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted MS/MSD: 08/26/13

Sample Amount MS: 10.16 g-dry-wt
MSD: 10.14 g-dry-wt

Date Analyzed MS: 09/02/13 17:40
MSD: 09/02/13 18:15

Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL

Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ

Dilution Factor MS: 1.00
MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Dibenz(a,h)anthracene	9.7	228	492	44.4%	235	493	45.7%	3.0%
1,4-Dichlorobenzene	3.8 J	352	492	70.8%	375	493	75.3%	6.3%
1,2,4-Trichlorobenzene	< 4.9 U	377	492	76.6%	394	493	79.9%	4.4%
Hexachlorobenzene	< 4.9 U	446	492	90.7%	465	493	94.3%	4.2%
Hexachlorobutadiene	< 4.9 U	368	492	74.8%	384	493	77.9%	4.3%
Dimethylphthalate	< 120 Y	587 E	492	119%	643 E	493	130%	9.1%
Diethylphthalate	26 B	444 B	492	85.0%	488 B	493	93.7%	9.4%
Butylbenzylphthalate	< 4.9 U	556 E	492	113%	594 E	493	120%	6.6%
2-Methylphenol	140	507 E	492	74.6%	539 E	493	80.9%	6.1%
2,4-Dimethylphenol	250	1450 E	1480	81.1%	1490 E	1480	83.8%	2.7%
N-Nitrosodiphenylamine	< 4.9 U	543 E	492	110%	585 E	493	119%	7.4%
Pentachlorophenol	< 20 U	666 Q	1480	45.0%	716 Q	1480	48.4%	7.2%
1,2-Dichlorobenzene	< 4.9 U	369	492	75.0%	387	493	78.5%	4.8%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-VC-101-2-3.9**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 17:40
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.16 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 37.0%

CAS Number	Analyte	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	4.9	---
106-46-7	1,4-Dichlorobenzene	4.9	---
120-82-1	1,2,4-Trichlorobenzene	4.9	---
118-74-1	Hexachlorobenzene	4.9	---
87-68-3	Hexachlorobutadiene	4.9	---
131-11-3	Dimethylphthalate	4.9	---
84-66-2	Diethylphthalate	20	---
85-68-7	Butylbenzylphthalate	4.9	---
95-48-7	2-Methylphenol	4.9	---
105-67-9	2,4-Dimethylphenol	25	---
86-30-6	N-Nitrosodiphenylamine	4.9	---
87-86-5	Pentachlorophenol	20	---
95-50-1	1,2-Dichlorobenzene	4.9	---

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	80.0%
d14-p-Terphenyl	86.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: IJ13-VC-101-2-3.9**
Extraction Method: SW3546 **MATRIX SPIKE DUPLICATE**

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 18:15
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.14 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 37.0%

CAS Number	Analyte	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	4.9	---
106-46-7	1,4-Dichlorobenzene	4.9	---
120-82-1	1,2,4-Trichlorobenzene	4.9	---
118-74-1	Hexachlorobenzene	4.9	---
87-68-3	Hexachlorobutadiene	4.9	---
131-11-3	Dimethylphthalate	4.9	---
84-66-2	Diethylphthalate	20	---
85-68-7	Butylbenzylphthalate	4.9	---
95-48-7	2-Methylphenol	4.9	---
105-67-9	2,4-Dimethylphenol	25	---
86-30-6	N-Nitrosodiphenylamine	4.9	---
87-86-5	Pentachlorophenol	20	---
95-50-1	1,2-Dichlorobenzene	4.9	---

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery	
2-Fluorophenol	77.7%
d14-p-Terphenyl	90.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: LCS-082613**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-082613
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13

Sample Amount LCS: 10.00 g-dry-wt
LCSD: 10.00 g-dry-wt

Date Analyzed LCS: 09/02/13 13:33
LCSD: 09/02/13 14:09

Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

Instrument/Analyst LCS: NT10/YZ
LCSD: NT10/YZ

Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Dibenz(a,h)anthracene	337	500	67.4%	314	500	62.8%	7.1%
1,4-Dichlorobenzene	361	500	72.2%	343	500	68.6%	5.1%
1,2,4-Trichlorobenzene	382	500	76.4%	361	500	72.2%	5.7%
Hexachlorobenzene	442	500	88.4%	413	500	82.6%	6.8%
Hexachlorobutadiene	376	500	75.2%	358	500	71.6%	4.9%
Dimethylphthalate	460	500	92.0%	445	500	89.0%	3.3%
Diethylphthalate	473 B	500	94.6%	461 B	500	92.2%	2.6%
Butylbenzylphthalate	548 E	500	110%	512 E	500	102%	6.8%
2-Methylphenol	350	500	70.0%	345	500	69.0%	1.4%
2,4-Dimethylphenol	927	1500	61.8%	865	1500	57.7%	6.9%
N-Nitrosodiphenylamine	330	500	66.0%	376	500	75.2%	13.0%
Pentachlorophenol	891 Q	1500	59.4%	847 Q	1500	56.5%	5.1%
1,2-Dichlorobenzene	370	500	74.0%	352	500	70.4%	5.0%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
2-Fluorophenol	93.2%	86.8%
d14-p-Terphenyl	97.6%	88.4%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

XB89MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: ANCHOR QEA, LLC.

ARI Job No: XB89
Project: I&J WATERWAY RI/FS

Lab File ID: XB89MB
Date Extracted: 08/26/13

Instrument ID: NT10
Date Analyzed: 09/02/13

Matrix: SOLID
Time Analyzed: 1554

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	XB89LCSS1	XB89LCSS1	XB89SB	09/02/13
02	XB89LCSDS1	XB89LCSDS1	XB89SBD	09/02/13
03	IJ13-SS-102	XB89A	XB89A	09/02/13
04	IJ13-SS-101	XB89B	XB89B	09/02/13
05	IJ13-SS-151	XB89C	XB89C	09/02/13
06	IJ13-VC-101-2-3.	XB89D	XB89D	09/02/13
07	IJ13-VC-101-2-3	XB89DMS	XB89DMS	09/02/13
08	IJ13-VC-101-2-3	XB89DMSD	XB89DMSD	09/02/13
09	IJ13-VC-102-2-4	XB89E	XB89E3	09/03/13
10	IJ13-VC-102-4-5.	XB89F	XB89F	09/03/13
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FORM IV SV

XB89 : 00073

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: MB-082613**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-082613
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/09/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13
Date Analyzed: 09/02/13 15:54
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes
Silica Gel Cleanup: No
Alumina Cleanup: No

Sample Amount: 10.00 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	5.0	< 5.0 U
106-46-7	1,4-Dichlorobenzene	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0 U
118-74-1	Hexachlorobenzene	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	5.0	< 5.0 U
131-11-3	Dimethylphthalate	5.0	< 5.0 U
84-66-2	**Diethylphthalate**	**20**	**120**
85-68-7	Butylbenzylphthalate	5.0	< 5.0 U
95-48-7	2-Methylphenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	25	< 25 U
86-30-6	N-Nitrosodiphenylamine	5.0	< 5.0 U
87-86-5	Pentachlorophenol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	5.0	< 5.0 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	92.9%
d14-p-Terphenyl	96.0%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: I&J WATERWAYRI/FS

DFTPP Injection Date: 08/23/13 DFTPP Injection Time: 1550

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	16.2
68	Less than 2.0% of mass 69	0.5 (1.8)1
69	Mass 69 relative abundance	30.0
70	Less than 2.0% of mass 69	0.1 (0.4)1
127	10.0 - 80.0% of mass 198	42.0
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	28.8
365	Greater than 1.0% of mass 198	3.99
441	0.0 - 24.0% of mass 442	19.8 (15.4)2
442	50.0 - 200.0% of mass 198	128.7
443	15.0 - 24.0% of mass 442	24.7 (19.2)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IC0823A	IC0823A	08/23/13	1604
02		IC0823C	IC0823C	08/23/13	1717
03		IC0823D	IC0823D	08/23/13	1753
04		IC0823F	IC0823F	08/23/13	1907
05		IC0823G	IC0823G	08/23/13	1943
06		IC0823H	IC0823H	08/23/13	2020
07		IC0823I	IC0823I	08/23/13	2056
08					
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XB89:00075

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: I&J WATERWAYRI/FS

DFTPP Injection Date: 09/02/13 DFTPP Injection Time: 1133

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	15.5
68	Less than 2.0% of mass 69	0.5 (1.7)1
69	Mass 69 relative abundance	28.7
70	Less than 2.0% of mass 69	0.1 (0.4)1
127	10.0 - 80.0% of mass 198	41.8
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	30.1
365	Greater than 1.0% of mass 198	4.24
441	0.0 - 24.0% of mass 442	21.7 (14.9)2
442	50.0 - 200.0% of mass 198	146.1
443	15.0 - 24.0% of mass 442	27.4 (18.8)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		CC0902B	CC0902B	09/02/13	1258
02	XB89LCSS1	XB89LCSS1	XB89SB	09/02/13	1333
03	XB89LCSDS1	XB89LCSDS1	XB89SBD	09/02/13	1409
04	IJ13-SS-102	XB89A	XB89A	09/02/13	1444
05	IJ13-SS-101	XB89B	XB89B	09/02/13	1519
06	XB89MBS1	XB89MBS1	XB89MB	09/02/13	1554
07	IJ13-SS-151	XB89C	XB89C	09/02/13	1629
08	IJ13-VC-101-2-3.	XB89D	XB89D	09/02/13	1705
09	IJ13-VC-101-2-3	XB89DMS	XB89DMS	09/02/13	1740
10	IJ13-VC-101-2-3	XB89DMSD	XB89DMSD	09/02/13	1815
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FORM V SV

XB89:00076

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: I&J WATERWAYRI/FS

DFTPP Injection Date: 09/03/13 DFTPP Injection Time: 1138

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	15.6
68	Less than 2.0% of mass 69	0.5 (1.7)1
69	Mass 69 relative abundance	28.8
70	Less than 2.0% of mass 69	0.2 (0.8)1
127	10.0 - 80.0% of mass 198	42.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	30.8
365	Greater than 1.0% of mass 198	4.05
441	0.0 - 24.0% of mass 442	20.0 (14.7)2
442	50.0 - 200.0% of mass 198	135.7
443	15.0 - 24.0% of mass 442	26.4 (19.5)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		CC0903A	CC0903A	09/03/13	1228
02	IJ13-VC-102-2-4	XB89E	XB89E3	09/03/13	1303
03	IJ13-VC-102-4-5.	XB89F	XB89F	09/03/13	1338
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FORM V SV

XB89:00077

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Calibration Date: 08/23/13

Method = SIM.b/SIMABN2.m
Cal levels = 7

LAB FILE ID: RRF0.05=IC0823F RRF0.1=IC0823I RRF0.2=IC0823C
RRF0.5=IC0823G RRF1 =IC0823D RRF2.5=IC0823H
RRF5 =IC0823A

COMPOUND	RRF 0.05	RRF 0.1	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	$\overline{RRF}$	%RSD /R^2
Phenol	1.220	1.411	1.417	1.398	1.433	1.476	1.424	1.397	5.8
1,3-Dichlorobenzene	1.440	1.509	1.447	1.367	1.340	1.345	1.246	1.385	6.3
1,4-Dichlorobenzene	1.431	1.501	1.418	1.326	1.287	1.308	1.206	1.354	7.4
1,2-Dichlorobenzene	1.329	1.422	1.366	1.260	1.249	1.255	1.157	1.291	6.8
Benzyl alcohol	0.567	0.602	0.728	0.717	0.753	0.833	0.836	0.719	14.4
2-Methylphenol	0.927	1.108	1.202	1.162	1.195	1.204	1.168	1.138	8.7
N-Nitroso-di-n-propylamine	0.588	0.664	0.662	0.647	0.661	0.660	0.628	0.644	4.3
4-Methylphenol	1.024	1.133	1.188	1.166	1.220	1.229	1.206	1.166	6.1
2,4-Dimethylphenol	0.308	0.346	0.366	0.345	0.348	0.346	0.323	0.340	5.6
1,2,4-Trichlorobenzene	0.354	0.379	0.373	0.347	0.341	0.334	0.309	0.348	6.8
Hexachlorobutadiene	0.204	0.227	0.215	0.205	0.198	0.200	0.182	0.204	6.8
Dimethylphthalate	1.141	1.217	1.299	1.155	1.193	1.137	1.118	1.180	5.3
Diethylphthalate	1.551	1.551	1.538	1.378	1.397	1.325	1.273	1.430	8.1
N-Nitrosodiphenylamine (1)	0.395	0.435	0.431	0.416	0.427	0.404	0.391	0.414	4.3
Hexachlorobenzene	0.304	0.313	0.290	0.267	0.269	0.248	0.238	0.276	10.2
Pentachlorophenol	0.081	0.106	0.123	0.139	0.162	0.167	0.176	0.136	0.999
Butylbenzylphthalate	0.389	0.392	0.427	0.388	0.411	0.394	0.403	0.400	3.6
Dibenzo(a,h)anthracene	0.960	0.995	1.064	0.963	0.962	0.920	0.885	0.964	5.8
N-Nitrosodimethylamine	0.462	0.557	0.532	0.533	0.557	0.610	0.574	0.546	8.4
2-Fluorophenol	1.234	1.272	1.269	1.195	1.200	1.226	1.177	1.225	3.0
Terphenyl-d14	0.426	0.435	0.429	0.401	0.416	0.401	0.396	0.415	3.8

(1) Cannot be seperated from Diphenylamine
<- Outside QC limits: %RSD <20% or R^2 > 0.990

XB89:00078

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Cont. Calib. Date: 09/02/13

Init. Calib. Date: 08/23/13 Cont. Calib. Time: 1258

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.397	1.406	0.800	AVRG	0.6	
1,3-Dichlorobenzene	1.385	1.363	0.010	AVRG	-1.6	
1,4-Dichlorobenzene	1.354	1.296	0.010	AVRG	-4.3	
1,2-Dichlorobenzene	1.291	1.253	0.010	AVRG	-2.9	
Benzyl alcohol	0.719	0.776	0.010	AVRG	7.9	
2-Methylphenol	1.138	1.204	0.700	AVRG	5.8	
N-Nitroso-di-n-propylamine	0.644	0.648	0.500	AVRG	0.6	
4-Methylphenol	1.166	1.232	0.600	AVRG	5.7	
2,4-Dimethylphenol	0.340	0.337	0.200	AVRG	-0.9	
1,2,4-Trichlorobenzene	0.348	0.349	0.010	AVRG	0.3	
Hexachlorobutadiene	0.204	0.196	0.010	AVRG	-3.9	
Dimethylphthalate	1.180	1.241	0.010	AVRG	5.2	
Diethylphthalate	1.430	1.380	0.010	AVRG	-3.5	
N-Nitrosodiphenylamine(1)	0.414	0.439	0.010	AVRG	6.0	
Hexachlorobenzene	0.276	0.274	0.100	AVRG	-0.7	
Pentachlorophenol	2.000	0.9047	0.050	2ORDR	-54.8	<-
Butylbenzylphthalate	0.400	0.438	0.010	AVRG	9.5	
Dibenzo(a,h)anthracene	0.964	0.963	0.400	AVRG	-0.1	
N-Nitrosodimethylamine	0.546	0.564	0.010	AVRG	3.3	
2-Fluorophenol	1.225	1.242	0.010	AVRG	1.4	
Terphenyl-d14	0.415	0.441	0.010	AVRG	6.3	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Instrument ID: NT10 Cont. Calib. Date: 09/03/13

Init. Calib. Date: 08/23/13 Cont. Calib. Time: 1228

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.397	1.516	0.800	AVRG	8.5	
1,3-Dichlorobenzene	1.385	1.331	0.010	AVRG	-3.9	
1,4-Dichlorobenzene	1.354	1.293	0.010	AVRG	-4.5	
1,2-Dichlorobenzene	1.291	1.258	0.010	AVRG	-2.6	
Benzyl alcohol	0.719	0.740	0.010	AVRG	2.9	
2-Methylphenol	1.138	1.244	0.700	AVRG	9.3	
N-Nitroso-di-n-propylamine	0.644	0.663	0.500	AVRG	3.0	
4-Methylphenol	1.166	1.248	0.600	AVRG	7.0	
2,4-Dimethylphenol	0.340	0.338	0.200	AVRG	-0.6	
1,2,4-Trichlorobenzene	0.348	0.346	0.010	AVRG	-0.6	
Hexachlorobutadiene	0.204	0.196	0.010	AVRG	-3.9	
Dimethylphthalate	1.180	1.231	0.010	AVRG	4.3	
Diethylphthalate	1.430	1.392	0.010	AVRG	-2.6	
N-Nitrosodiphenylamine(1)	0.414	0.428	0.010	AVRG	3.4	
Hexachlorobenzene	0.276	0.269	0.100	AVRG	-2.5	
Pentachlorophenol	2.000	0.7112	0.050	2ORDR	-64.4	<-
Butylbenzylphthalate	0.400	0.454	0.010	AVRG	13.5	
Dibenzo(a,h)anthracene	0.964	0.976	0.400	AVRG	1.2	
N-Nitrosodimethylamine	0.546	0.536	0.010	AVRG	-1.8	
2-Fluorophenol	1.225	1.198	0.010	AVRG	-2.2	
Terphenyl-d14	0.415	0.448	0.010	AVRG	8.0	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823D Ical Date: 08/23/13

Instrument ID: NT10 Cont. Cal Date: 09/02/13

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	ICAL MIDPT	160515		8.64		576038		11.09		314384		14.66	
	UPPER LIMIT	321030				1152076				628768			
	LOWER LIMIT	80258				288019				157192			
	CCAL	218814		8.41		781966		10.87		419854		14.46	
	UPPER LIMIT			8.91				11.37				14.96	
	LOWER LIMIT			7.91				10.37				13.96	
01	XB89LCSS1	122018		8.41		439443		10.87		236279		14.47	
02	XB89LCSDS1	127144		8.41		456555		10.88		244944		14.46	
03	IJ13-SS-102	123473		8.41		458735		10.88		238897		14.47	
04	IJ13-SS-101	125104		8.42		453494		10.89		241188		14.47	
05	XB89MBS1	130286		8.42		479575		10.88		250405		14.47	
06	IJ13-SS-151	129752		8.42		473848		10.88		250056		14.47	
07	IJ13-VC-101-	114742		8.42		420497		10.89		218396		14.47	
08	IJ13-VC-101-	110537		8.42		411906		10.89		228123		14.46	
09	IJ13-VC-101-	107857		8.42		404270		10.88		214843		14.46	
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

XB89:00081

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823D Ical Date: 08/23/13

Instrument ID: NT10 Cont. Cal Date: 09/02/13

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	686356	17.72	741751	22.81	800926	25.26
	UPPER LIMIT	1372712		1483502		1601852	
	LOWER LIMIT	343178		370876		400463	
	CCAL	920186	17.53	910324	22.66	961718	25.07
	UPPER LIMIT		18.03		23.16		25.57
	LOWER LIMIT		17.03		22.16		24.57
01	XB89LCSS1	484659	17.53	508338	22.66	534475	25.07
02	XB89LCSDS1	512435	17.53	519036	22.66	564983	25.07
03	IJ13-SS-102	481294	17.55	463025	22.69	539031	25.10
04	IJ13-SS-101	486576	17.56	469937	22.68	540909	25.10
05	XB89MBS1	529171	17.54	487682	22.66	523139	25.07
06	IJ13-SS-151	503341	17.54	481769	22.66	553690	25.07
07	IJ13-VC-101-	432782	17.53	425856	22.66	488769	25.08
08	IJ13-VC-101-	447788	17.53	447228	22.65	479787	25.08
09	IJ13-VC-101-	434136	17.52	420096	22.64	448144	25.06
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

XB89 : 00082

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823D Ical Date: 08/23/13

Instrument ID: NT10 Cont. Cal Date: 09/03/13

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	ICAL MIDPT	160515		8.64		576038		11.09		314384		14.66	
	UPPER LIMIT	321030				1152076				628768			
	LOWER LIMIT	80258				288019				157192			
	CCAL	202060		8.21		727669		10.63		394983		14.16	
	UPPER LIMIT			8.71				11.13				14.66	
	LOWER LIMIT			7.71				10.13				13.66	
01	IJ13-VC-102-	161534		8.21		598521		10.63		269605		14.17	
02	IJ13-VC-102-	161022		8.21		614648		10.63		271764		14.18	
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

XB89:00083

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: XB89 Project: I&J WATERWAYRI/FS

Ical Midpoint ID: IC0823D Ical Date: 08/23/13

Instrument ID: NT10 Cont. Cal Date: 09/03/13

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	ICAL MIDPT	686356		17.72		741751		22.81		800926		25.26	
	UPPER LIMIT	1372712				1483502				1601852			
	LOWER LIMIT	343178				370876				400463			
	CCAL	857122		17.20		820445		22.32		824118		24.65	
	UPPER LIMIT			17.70				22.82				25.15	
	LOWER LIMIT			16.70				21.82				24.15	
01	IJ13-VC-102-	486910		17.22		605141		22.34		664588		24.70	
02	IJ13-VC-102-	542573		17.22		613885		22.35		644512		24.71	
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25													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

XB89:00084

Dioxin Analysis
Report and Summary QC Forms

ARI Job ID: XB89

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-SS-102**

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 21:02
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.76	0.65-0.89		0.995	3.48	
2,3,7,8-TCDD	0.71	0.65-0.89		0.995	0.911	J
1,2,3,7,8-PeCDF	1.40	1.32-1.78		0.995	4.79	X
2,3,4,7,8-PeCDF	1.49	1.32-1.78		0.995	4.43	
1,2,3,7,8-PeCDD	1.54	1.32-1.78		0.995	5.50	
1,2,3,4,7,8-HxCDF	1.21	1.05-1.43		0.995	18.0	
1,2,3,6,7,8-HxCDF	1.23	1.05-1.43		0.995	7.66	
2,3,4,6,7,8-HxCDF	1.16	1.05-1.43		0.995	7.00	
1,2,3,7,8,9-HxCDF	1.17	1.05-1.43		0.995	8.68	
1,2,3,4,7,8-HxCDD	1.23	1.05-1.43		0.995	10.3	
1,2,3,6,7,8-HxCDD	1.25	1.05-1.43		0.995	68.2	
1,2,3,7,8,9-HxCDD	1.23	1.05-1.43		0.995	20.8	
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20		0.995	214	
1,2,3,4,7,8,9-HpCDF	0.99	0.88-1.20		0.995	18.2	
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20		9.95	2,680	#
OCDF	0.86	0.76-1.02		1.99	664	
OCDD	0.89	0.76-1.02		19.9	20,200	#

Homologue Group	EDL	RL	Result	
Total TCDF		0.995	29.8	EMPC
Total TCDD		0.995	26.9	EMPC
Total PeCDF		1.99	84.9	EMPC
Total PeCDD		0.995	79.2	
Total HxCDF		1.99	402	EMPC
Total HxCDD		1.99	1,410	
Total HpCDF		1.99	902	EMPC
Total HpCDD		1.99	13,800	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 57.7

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 57.7

#-Result from diluted secondary analysis.

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-SS-102**

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 21:02
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	24.5	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	39.3	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	66.4	24-185	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	73.6	21-178	
13C-1,2,3,7,8-PeCDD	1.56	1.32-1.78	73.5	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	86.1	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	84.6	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	82.7	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	93.9	29-147	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	92.3	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	88.1	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	64.5	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	67.9	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	81.3	23-140	
13C-OCDD	0.89	0.76-1.02	43.9	17-157	
37Cl4-2,3,7,8-TCDD			39.6	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B
Page 1 of 1

Sample ID: IJ13-SS-102
DILUTION

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 14:47
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 10.0

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-1,2,3,4,6,7,8-HpCDD	1.10	0.88-1.20	165	23-140	*
13C-OCDD	0.91	0.76-1.02	116	17-157	
37Cl4-2,3,7,8-TCDD			67.7	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-SS-101**

Lab Sample ID: XB89B
LIMS ID: 13-17437
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 21:57
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.74	0.65-0.89		0.995	2.70	
2,3,7,8-TCDD	0.61	0.65-0.89		0.995	0.712	JEMPC
1,2,3,7,8-PeCDF	1.40	1.32-1.78		0.995	2.54	X
2,3,4,7,8-PeCDF	1.51	1.32-1.78		0.995	2.57	
1,2,3,7,8-PeCDD	1.64	1.32-1.78		0.995	4.36	
1,2,3,4,7,8-HxCDF	1.15	1.05-1.43		0.995	8.92	
1,2,3,6,7,8-HxCDF	1.13	1.05-1.43		0.995	4.34	
2,3,4,6,7,8-HxCDF	1.18	1.05-1.43		0.995	3.58	
1,2,3,7,8,9-HxCDF	1.15	1.05-1.43		0.995	3.36	
1,2,3,4,7,8-HxCDD	1.25	1.05-1.43		0.995	7.58	
1,2,3,6,7,8-HxCDD	1.23	1.05-1.43		0.995	44.0	
1,2,3,7,8,9-HxCDD	1.24	1.05-1.43		0.995	15.2	
1,2,3,4,6,7,8-HpCDF	1.00	0.88-1.20		0.995	162	
1,2,3,4,7,8,9-HpCDF	1.04	0.88-1.20		0.995	10.1	
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		0.995	1,500	
OCDF	0.86	0.76-1.02		1.99	675	
OCDD	0.89	0.76-1.02		1.99	12,400	E

Homologue Group	EDL	RL	Result	
Total TCDF		0.995	24.3	EMPC
Total TCDD		0.995	25.0	EMPC
Total PeCDF		1.99	53.0	
Total PeCDD		0.995	44.7	EMPC
Total HxCDF		1.99	237	EMPC
Total HxCDD		1.99	513	
Total HpCDF		1.99	617	EMPC
Total HpCDD		1.99	4,900	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 35.5

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 35.5

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-SS-101**

Lab Sample ID: XB89B
LIMS ID: 13-17437
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 21:57
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.79	0.65-0.89	31.2	24-169	
13C-2,3,7,8-TCDD	0.79	0.65-0.89	44.1	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	67.1	24-185	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	71.9	21-178	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	77.4	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	73.0	26-152	
13C-1,2,3,6,7,8-HxCDF	0.51	0.43-0.59	72.5	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	70.8	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	79.7	29-147	
13C-1,2,3,4,7,8-HxCDD	1.24	1.05-1.43	78.8	32-141	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	75.4	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	55.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	56.2	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.06	0.88-1.20	67.6	23-140	
13C-OCDD	0.89	0.76-1.02	36.9	17-157	
37Cl4-2,3,7,8-TCDD			43.8	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-SS-151**
Page 1 of 1

Lab Sample ID: XB89C
LIMS ID: 13-17438
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 22:49
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.68	0.65-0.89		1.00	2.43	
2,3,7,8-TCDD	0.58	0.65-0.89		1.00	0.684	JEMPC
1,2,3,7,8-PeCDF	1.49	1.32-1.78		1.00	2.83	
2,3,4,7,8-PeCDF	1.44	1.32-1.78		1.00	2.95	
1,2,3,7,8-PeCDD	1.52	1.32-1.78		1.00	4.42	
1,2,3,4,7,8-HxCDF	1.20	1.05-1.43		1.00	10.4	
1,2,3,6,7,8-HxCDF	1.25	1.05-1.43		1.00	4.95	
2,3,4,6,7,8-HxCDF	1.19	1.05-1.43		1.00	4.31	
1,2,3,7,8,9-HxCDF	1.26	1.05-1.43		1.00	3.95	
1,2,3,4,7,8-HxCDD	1.24	1.05-1.43		1.00	8.12	
1,2,3,6,7,8-HxCDD	1.21	1.05-1.43		1.00	44.2	
1,2,3,7,8,9-HxCDD	1.23	1.05-1.43		1.00	17.4	
1,2,3,4,6,7,8-HpCDF	1.01	0.88-1.20		1.00	145	
1,2,3,4,7,8,9-HpCDF	0.97	0.88-1.20		1.00	11.4	
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		1.00	1,710	
OCDF	0.87	0.76-1.02		2.00	791	
OCDD	0.89	0.76-1.02		2.00	13,700	E

Homologue Group	EDL	RL	Result	
Total TCDF		1.00	21.3	EMPC
Total TCDD		1.00	25.4	EMPC
Total PeCDF		2.00	56.5	EMPC
Total PeCDD		1.00	52.3	
Total HxCDF		2.00	259	EMPC
Total HxCDD		2.00	665	
Total HpCDF		2.00	634	EMPC
Total HpCDD		2.00	6,410	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 38.7

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 38.7

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-SS-151**

Lab Sample ID: XB89C
LIMS ID: 13-17438
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 22:49
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.78	0.65-0.89	43.5	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	57.2	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	83.2	24-185	
13C-2,3,4,7,8-PeCDF	1.58	1.32-1.78	88.0	21-178	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	90.0	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	84.6	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	83.5	26-123	
13C-2,3,4,6,7,8-HxCDF	0.51	0.43-0.59	80.1	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	85.2	29-147	
13C-1,2,3,4,7,8-HxCDD	1.29	1.05-1.43	86.7	32-141	
13C-1,2,3,6,7,8-HxCDD	1.23	1.05-1.43	87.0	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	66.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	69.6	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	82.4	23-140	
13C-OCDD	0.89	0.76-1.02	52.0	17-157	
37Cl4-2,3,7,8-TCDD			58.4	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-VC-101-2-3.9**

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 23:42
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.75	0.65-0.89		1.00	3.02	
2,3,7,8-TCDD	0.63	0.65-0.89		1.00	0.790	JEMPC
1,2,3,7,8-PeCDF	1.43	1.32-1.78		1.00	2.15	X
2,3,4,7,8-PeCDF	1.45	1.32-1.78		1.00	2.40	
1,2,3,7,8-PeCDD	1.44	1.32-1.78		1.00	2.99	
1,2,3,4,7,8-HxCDF	1.13	1.05-1.43		1.00	3.67	
1,2,3,6,7,8-HxCDF	1.16	1.05-1.43		1.00	2.58	
2,3,4,6,7,8-HxCDF	1.16	1.05-1.43		1.00	2.28	
1,2,3,7,8,9-HxCDF	1.19	1.05-1.43		1.00	0.748	J
1,2,3,4,7,8-HxCDD	1.38	1.05-1.43		1.00	1.99	
1,2,3,6,7,8-HxCDD	1.27	1.05-1.43		1.00	6.53	
1,2,3,7,8,9-HxCDD	1.27	1.05-1.43		1.00	3.57	
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20		1.00	40.8	
1,2,3,4,7,8,9-HpCDF	0.93	0.88-1.20		1.00	1.69	
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20		1.00	87.6	
OCDF	0.85	0.76-1.02		2.00	67.3	
OCDD	0.88	0.76-1.02		2.00	662	

Homologue Group	EDL	RL	Result	
Total TCDF		1.00	59.3	EMPC
Total TCDD		1.00	92.9	EMPC
Total PeCDF		2.00	71.1	EMPC
Total PeCDD		1.00	92.3	EMPC
Total HxCDF		2.00	61.1	EMPC
Total HxCDD		2.00	154	
Total HpCDF		2.00	109	
Total HpCDD		2.00	238	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 8.52

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 8.52

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-VC-101-2-3.9**

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 23:42
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	61.2	24-169	
13C-2,3,7,8-TCDD	0.79	0.65-0.89	63.9	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	79.1	24-185	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	78.0	21-178	
13C-1,2,3,7,8-PeCDD	1.58	1.32-1.78	82.4	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	72.0	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	71.3	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	70.8	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	81.9	29-147	
13C-1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	76.4	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	74.0	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	61.2	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	65.2	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	69.6	23-140	
13C-OCDD	0.89	0.76-1.02	54.0	17-157	
37Cl4-2,3,7,8-TCDD			63.4	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-VC-102-2-4**

Lab Sample ID: XB89E
LIMS ID: 13-17440
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/29/13 00:34
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.72	0.65-0.89		0.992	10.4	
2,3,7,8-TCDD	0.76	0.65-0.89		0.992	2.08	
1,2,3,7,8-PeCDF	1.53	1.32-1.78		0.992	4.18	X
2,3,4,7,8-PeCDF	1.44	1.32-1.78		0.992	7.42	
1,2,3,7,8-PeCDD	1.56	1.32-1.78		0.992	10.9	
1,2,3,4,7,8-HxCDF	1.14	1.05-1.43		0.992	10.3	
1,2,3,6,7,8-HxCDF	1.20	1.05-1.43		0.992	8.96	
2,3,4,6,7,8-HxCDF	1.17	1.05-1.43		0.992	9.07	
1,2,3,7,8,9-HxCDF	1.19	1.05-1.43		0.992	3.63	
1,2,3,4,7,8-HxCDD	1.17	1.05-1.43		0.992	6.61	
1,2,3,6,7,8-HxCDD	1.23	1.05-1.43		0.992	30.4	
1,2,3,7,8,9-HxCDD	1.25	1.05-1.43		0.992	12.3	
1,2,3,4,6,7,8-HpCDF	1.00	0.88-1.20		0.992	287	
1,2,3,4,7,8,9-HpCDF	1.00	0.88-1.20		0.992	8.11	
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		0.992	331	
OCDF	0.86	0.76-1.02		1.98	407	
OCDD	0.89	0.76-1.02		1.98	2,230	

Homologue Group	EDL	RL	Result	
Total TCDF		0.992	191	EMPC
Total TCDD		0.992	169	
Total PeCDF		1.98	360	EMPC
Total PeCDD		0.992	203	
Total HxCDF		1.98	346	EMPC
Total HxCDD		1.98	360	
Total HpCDF		1.98	747	EMPC
Total HpCDD		1.98	949	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 31.6

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 31.6

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-VC-102-2-4**

Lab Sample ID: XB89E
LIMS ID: 13-17440
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/29/13 00:34
Instrument/Analyst: AS1/PK

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.78	0.65-0.89	47.3	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	57.8	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	75.9	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	75.2	21-178	
13C-1,2,3,7,8-PeCDD	1.58	1.32-1.78	86.9	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	79.0	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	75.6	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	76.3	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	80.8	29-147	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	83.0	32-141	
13C-1,2,3,6,7,8-HxCDD	1.23	1.05-1.43	79.3	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	61.4	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	62.5	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	72.6	23-140	
13C-OCDD	0.90	0.76-1.02	42.2	17-157	
37Cl4-2,3,7,8-TCDD			58.0	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-VC-102-4-5.4**
Page 1 of 1

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/29/13 01:27
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.77	0.65-0.89		0.964	3.01	
2,3,7,8-TCDD	0.57	0.65-0.89		0.964	0.960	JEMPC
1,2,3,7,8-PeCDF	1.28	1.32-1.78		0.964	1.95	XEMPC
2,3,4,7,8-PeCDF	1.22	1.32-1.78		0.964	2.31	EMPC
1,2,3,7,8-PeCDD	1.48	1.32-1.78		0.964	4.07	
1,2,3,4,7,8-HxCDF	1.19	1.05-1.43		0.964	3.26	
1,2,3,6,7,8-HxCDF	1.24	1.05-1.43		0.964	2.97	
2,3,4,6,7,8-HxCDF	1.27	1.05-1.43		0.964	2.65	
1,2,3,7,8,9-HxCDF	1.13	1.05-1.43		0.964	0.845	J
1,2,3,4,7,8-HxCDD	1.26	1.05-1.43		0.964	2.43	
1,2,3,6,7,8-HxCDD	1.21	1.05-1.43		0.964	8.46	
1,2,3,7,8,9-HxCDD	1.27	1.05-1.43		0.964	4.44	
1,2,3,4,6,7,8-HpCDF	1.02	0.88-1.20		0.964	58.6	
1,2,3,4,7,8,9-HpCDF	0.92	0.88-1.20		0.964	2.10	
1,2,3,4,6,7,8-HpCDD	1.02	0.88-1.20		0.964	92.0	
OCDF	0.87	0.76-1.02		1.93	95.6	
OCDD	0.88	0.76-1.02		1.93	519	

Homologue Group	EDL	RL	Result	
Total TCDF		0.964	66.5	EMPC
Total TCDD		0.964	101	EMPC
Total PeCDF		1.93	88.0	EMPC
Total PeCDD		0.964	86.7	
Total HxCDF		1.93	76.0	EMPC
Total HxCDD		1.93	134	EMPC
Total HpCDF		1.93	152	EMPC
Total HpCDD		1.93	239	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 10.3

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 10.3

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: IJ13-VC-102-4-5.4**

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/29/13 01:27
Instrument/Analyst: AS1/PK

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	56.9	24-169	
13C-2,3,7,8-TCDD	0.79	0.65-0.89	58.2	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	68.2	24-185	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	66.6	21-178	
13C-1,2,3,7,8-PeCDD	1.55	1.32-1.78	76.6	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	68.6	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	62.4	26-123	
13C-2,3,4,6,7,8-HxCDF	0.51	0.43-0.59	75.4	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	80.4	29-147	
13C-1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	78.7	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	76.3	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	61.4	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	65.9	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	73.3	23-140	
13C-OCDD	0.89	0.76-1.02	55.9	17-157	
37Cl4-2,3,7,8-TCDD			57.9	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-082613**

Lab Sample ID: OPR-082613
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 13:55
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	RL	Result
2,3,7,8-TCDF	0.71	0.65-0.89	1.00	21.3
2,3,7,8-TCDD	0.78	0.65-0.89	1.00	21.5
1,2,3,7,8-PeCDF	1.50	1.32-1.78	1.00	116
2,3,4,7,8-PeCDF	1.51	1.32-1.78	1.00	114
1,2,3,7,8-PeCDD	1.54	1.32-1.78	1.00	105
1,2,3,4,7,8-HxCDF	1.20	1.05-1.43	1.00	106
1,2,3,6,7,8-HxCDF	1.21	1.05-1.43	1.00	110
2,3,4,6,7,8-HxCDF	1.19	1.05-1.43	1.00	109
1,2,3,7,8,9-HxCDF	1.18	1.05-1.43	1.00	107
1,2,3,4,7,8-HxCDD	1.24	1.05-1.43	1.00	107
1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	1.00	109
1,2,3,7,8,9-HxCDD	1.23	1.05-1.43	1.00	111
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20	1.00	118
1,2,3,4,7,8,9-HpCDF	0.98	0.88-1.20	1.00	110
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	1.00	108
OCDF	0.88	0.76-1.02	2.00	216
OCDD	0.89	0.76-1.02	2.00	224

Homologue Group	EDL	RL	Result	
Total TCDF		1.00	22.1	EMPC
Total TCDD		1.00	22.5	EMPC
Total PeCDF		2.00	236	EMPC
Total PeCDD		1.00	106	EMPC
Total HxCDF		2.00	434	EMPC
Total HxCDD		2.00	329	EMPC
Total HpCDF		2.00	229	EMPC
Total HpCDD		2.00	113	

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-082613**

Lab Sample ID: OPR-082613
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 13:55
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	93.1	22-152	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	87.6	20-175	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	107	21-192	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	91.5	13-328	
13C-1,2,3,7,8-PeCDD	1.56	1.32-1.78	92.2	21-227	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	83.9	19-202	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	94.0	21-159	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	82.0	22-176	
13C-1,2,3,7,8,9-HxCDF	0.51	0.43-0.59	82.6	17-205	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	89.4	21-193	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	85.5	25-163	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	74.7	21-158	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	78.0	20-186	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	80.6	26-166	
13C-OCDD	0.89	0.76-1.02	67.2	13-198	
37Cl4-2,3,7,8-TCDD			87.8	31-191	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-082613**

Lab Sample ID: OPR-082613
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 13:55
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	OPR	Spiked	Recovery	Limits
2,3,7,8-TCDF	21.3	20.0	106	75-158
2,3,7,8-TCDD	21.5	20.0	108	67-158
1,2,3,7,8-PeCDF	116	100	116	80-134
2,3,4,7,8-PeCDF	114	100	114	68-160
1,2,3,7,8-PeCDD	105	100	105	70-142
1,2,3,4,7,8-HxCDF	106	100	106	72-134
1,2,3,6,7,8-HxCDF	110	100	110	84-130
2,3,4,6,7,8-HxCDF	109	100	109	70-156
1,2,3,7,8,9-HxCDF	107	100	107	78-130
1,2,3,4,7,8-HxCDD	107	100	107	70-164
1,2,3,6,7,8-HxCDD	109	100	109	76-134
1,2,3,7,8,9-HxCDD	111	100	111	64-162
1,2,3,4,6,7,8-HpCDF	118	100	118	82-132
1,2,3,4,7,8,9-HpCDF	110	100	110	78-138
1,2,3,4,6,7,8-HpCDD	108	100	108	70-140
OCDF	216	200	108	63-170
OCDD	224	200	112	78-144

Reported in pg/g

4DF - FORM IV-HR CDD
CDD/CDF METHOD BLANK SUMMARY
HIGH RESOLUTION

Blank No.
XB89MB

Lab Name: ANALYTICAL RESOURCES, INC. Contract: ANCHOR

Lab Code: XB89 Project: I&J WATERWAY

Matrix:(Soil/Water/Ash/Tissue/Oil) SOIL Lab Sample ID: XB89MBS

Sample wt/vol: 10 (g/ml) g Lab File ID: 13082804

Water Sample Prep: (sep/spe) Date Received: 22-AUG-13

GC Column: RTX-DIOXIN2 ID: 0.25 mm Date Extracted: 26-AUG-13

Instrument ID: AUTOSPEC1 Date Analyzed: 28-AUG-13

Client Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
XB89OPR	XB89OPR	13082805	08/28/13
IJ13-SS-102	XB89A 10X	13082806	08/28/13
IJ13-SS-102	XB89A	13082813	08/28/13
IJ13-SS-101	XB89B	13082814	08/28/13
IJ13-SS-151	XB89C	13082815	08/28/13
IJ13-VC-101-2-3.9	XB89D	13082816	08/28/13
IJ13-VC-102-2-4	XB89E	13082817	08/28/13
IJ13-VC-102-4-5.4	XB89F	13082818	08/28/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: MB-082613**

Lab Sample ID: MB-082613
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 13:05
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF		0.65-0.89	0.0220	1.00	< 0.0220	U
2,3,7,8-TCDD		0.65-0.89	0.0300	1.00	< 0.0300	U
1,2,3,7,8-PeCDF	1.25	1.32-1.78		1.00	0.0620	JEMPC
2,3,4,7,8-PeCDF		1.32-1.78	0.0420	1.00	< 0.0420	U
1,2,3,7,8-PeCDD		1.32-1.78	0.0540	1.00	< 0.0540	U
1,2,3,4,7,8-HxCDF		1.05-1.43	0.0340	1.00	< 0.0340	U
1,2,3,6,7,8-HxCDF		1.05-1.43	0.0320	1.00	< 0.0320	U
2,3,4,6,7,8-HxCDF		1.05-1.43	0.0360	1.00	< 0.0360	U
1,2,3,7,8,9-HxCDF		1.05-1.43	0.0420	1.00	< 0.0420	U
1,2,3,4,7,8-HxCDD		1.05-1.43	0.0620	1.00	< 0.0620	U
1,2,3,6,7,8-HxCDD	3.64	1.05-1.43		1.00	0.0720	JEMPC
1,2,3,7,8,9-HxCDD		1.05-1.43	0.0660	1.00	< 0.0660	U
1,2,3,4,6,7,8-HpCDF	0.90	0.88-1.20		1.00	0.0466	J
1,2,3,4,7,8,9-HpCDF	1.28	0.88-1.20		1.00	0.0440	JEMPC
1,2,3,4,6,7,8-HpCDD	1.08	0.88-1.20		1.00	0.846	J
OCDF		0.76-1.02	0.0820	2.00	< 0.0820	U
OCDD	0.85	0.76-1.02		2.00	4.45	

Homologue Group	EDL	RL	Result	
Total TCDF	0.0220	1.00	< 0.0220	U
Total TCDD	0.0300	1.00	0.0658	
Total PeCDF		2.00	0.0627	EMPC
Total PeCDD	0.0540	1.00	0.176	EMPC
Total HxCDF	0.0420	2.00	0.0294	EMPC
Total HxCDD		2.00	0.698	EMPC
Total HpCDF		2.00	0.0908	EMPC
Total HpCDD		2.00	2.38	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.02

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.08

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: MB-082613**

Lab Sample ID: MB-082613
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized: MW
Reported: 08/30/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13
Date Analyzed: 08/28/13 13:05
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	101	24-169	
13C-2,3,7,8-TCDD	0.79	0.65-0.89	88.1	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	103	24-185	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	90.1	21-178	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	91.6	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	90.6	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	99.6	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	87.7	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	86.2	29-147	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	95.2	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	92.1	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	77.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	81.2	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	87.2	23-140	
13C-OCDD	0.89	0.76-1.02	70.4	17-157	
37Cl4-2,3,7,8-TCDD			88.6	35-197	

Reported in Percent Recovery

5DFA - FORM V-HR CDD-1
CDD/CDF WINDOW DEFINING MIX (WDM) SUMMARY
HIGH RESOLUTION

Standard No.: CS3

Lab Name: ANALYTICAL RESOURCES, INC. Contract: ANCHOR

Lab Code: XB89 Project: I&J WATERWAY

GC Column: RTX-DIOXIN2 ID: 0.25 mm Lab File ID: 13082802

Instrument ID: AUTOSPEC1 Date Analyzed: 28-AUG-13

Time Analyzed: 11:15

CDD/CDF	RT First Eluting	RT Last Eluting
TCDD	23.87	27.32
TCDF	22.58	27.57
PeCDD	29.09	32.22
PeCDF	27.42	32.60
HxCDD	34.31	37.02
HxCDF	33.51	37.47
HpCDD	40.08	41.34
HpCDF	39.53	42.23

5DFB - FORM V-HR CDD-2
CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
HIGH RESOLUTION

Standard No.
TETRA ISC

Lab Name: ANALYTICAL RESOURCES, INC.
Lab Code: XB89
GC Column: RTX-DIOXIN2 ID: .25 mm
Instrument: AUTOSPEC1

Contract: ANCHOR
Project: I&J WATERWAY
Lab File ID: 13082803
Date Analyzed: 28-AUG-13
Time Analyzed: 12:05

Percent Valley determination for RTX-DIOXIN2 column -

1278-TCDD/2378-TCDD: 11.4

3467-TCDF/2378-TCDF: 14.0

QC Limits:
Percent Valley between TCDD/TCDF isomers must be less than or equal to 25%

5DFB - FORM V-HR CDD-3
CDD/CDF ANALTYICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Lab Name: ANALYTICAL RESOURCES, INC. Contract: ANCHOR

Lab Code: XB89 Project: I&J WATERWAY

GC Column: RTX-DIOXIN2 ID: 0.25 mm Instrument ID: AUTOSPEC1

Init. Calib. Date(s): 18-JUL-13

Init: Calib. Times: 12:34 to 19:02

The Analytical Sequence of standards, samples, blanks, and Laboratory Control Samples (LCS) is as follows:

Client Sample No.	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
CS3	CS3	13082802	08/28/13	1115
ISC	ISC	13082803	08/28/13	1205
XB89MB	XB89MBS	13082804	08/28/13	1305
XB89OPR	XB89OPR	13082805	08/28/13	1355
IJ13-SS-102	XB89A 10X	13082806	08/28/13	1447
CS3	CS3	13082812	08/28/13	2001
IJ13-SS-102	XB89A	13082813	08/28/13	2102
IJ13-SS-101	XB89B	13082814	08/28/13	2157
IJ13-SS-151	XB89C	13082815	08/28/13	2249
IJ13-VC-101-2-3.9	XB89D	13082816	08/28/13	2342
IJ13-VC-102-2-4	XB89E	13082817	08/29/13	0034
IJ13-VC-102-4-5.4	XB89F	13082818	08/29/13	0127
CS3	CS3	13082819	08/29/13	0219

6DFA - Form VI-HR CDD-1
CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES	Contract:	ANCHOR
Lab Code:	XB89	Case No.:	I&J WATERWAY
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CSL:	18-Jul-13	Init.Calib.Time CSL:	12:34:52
Init.Calib.Date CS1:	18-Jul-13	Init.Calib.Time CS1:	15:34:56
Init.Calib.Date CS2:	18-Jul-13	Init.Calib.Time CS2:	16:25:18
Init.Calib.Date CS3:	18-Jul-13	Init.Calib.Time CS3:	17:17:44
Init.Calib.Date CS4:	18-Jul-13	Init.Calib.Time CS4:	18:09:59
Init.Calib.Date CS5:	18-Jul-13	Init.Calib.Time CS5:	19:02:18

Target Analytes	RR/RRF						Mean RR/RRF	% RSD	Limits (% +/-)
	CSL	CS1	CS2	CS3	CS4	CS5			
2378-TCDD	0.00	0.93	1.01	0.98	1.01	1.04	0.99	4.3	20.0
2378-TCDF	0.00	0.90	0.85	0.84	0.86	0.89	0.87	2.9	20.0
12378-PeCDF	0.89	0.84	0.85	0.86	0.88	0.91	0.87	2.9	20.0
12378-PeCDD	1.03	0.96	0.96	0.96	0.96	0.99	0.98	2.9	20.0
23478-PeCDF	0.86	0.85	0.86	0.88	0.90	0.93	0.88	3.2	20.0
123478-HxCDF	1.09	1.01	1.04	1.03	1.04	1.07	1.05	2.9	20.0
123678-HxCDF	1.04	1.00	1.02	1.00	1.03	1.06	1.02	2.4	20.0
123478-HxCDD	0.94	0.98	0.95	0.96	0.96	1.00	0.97	2.4	20.0
123678-HxCDD	0.92	0.85	0.91	0.90	0.91	0.91	0.90	3.1	20.0
123789-HxCDD[2]	0.92	0.94	0.88	0.91	0.90	0.93	0.91	2.2	20.0
234678-HxCDF	1.02	1.10	1.07	1.09	1.12	1.13	1.09	3.6	20.0
123789-HxCDF	0.94	0.94	0.97	0.95	0.97	0.99	0.96	2.1	20.0
1234678-HpCDF	1.18	1.24	1.19	1.22	1.22	1.24	1.21	2.3	20.0
1234678-HpCDD	1.04	1.01	0.96	0.99	0.99	1.00	1.00	2.6	20.0
1234789-HpCDF	1.17	1.18	1.17	1.21	1.23	1.25	1.20	2.8	20.0
OCDD	0.99	0.98	0.96	0.97	0.98	0.99	0.98	1.2	20.0
OCDF[1]	1.08	1.02	1.01	1.04	1.09	1.15	1.06	4.9	20.0
37CL-2378-TCDD	1.16	1.09	1.05	1.03	1.04	1.17	1.09	5.8	20.0

(1) The Relative Response (RR) is calculated based on the labeled analogs of the other two HxCDDs
(2) The RR is calculated based on the labeled analog of OCDD.

Labeled Compounds	RR/RRF						Mean RR/RRF	% RSD	Limits (% +/-)
	CSL	CS1	CS2	CS3	CS4	CS5			
13C-2378-TCDD	0.97	0.93	0.94	0.95	0.94	1.04	0.96	4.0	35.0
13C-12378-PeCDD	0.74	0.70	0.72	0.70	0.72	0.90	0.75	10.5	35.0
13C-123478-HxCDD	0.97	0.99	1.00	1.01	1.02	1.02	1.00	2.0	35.0
13C-123678-HxCDD	1.00	1.06	1.07	1.05	1.06	1.07	1.05	2.4	35.0
13C-1234678-HpCDD	0.86	0.89	0.89	0.88	0.88	0.88	0.88	1.5	35.0
13C-OCDD	0.75	0.76	0.76	0.77	0.77	0.84	0.77	4.3	35.0
13C-2378-TCDF	1.48	1.38	1.38	1.40	1.41	1.47	1.42	3.2	35.0
13C-12378-PeCDF	1.14	1.08	1.12	1.08	1.11	1.41	1.16	10.9	35.0
13C-23478-PeCDF	1.10	1.05	1.10	1.05	1.08	1.37	1.13	10.9	35.0
13C-123478-HxCDF	1.17	1.21	1.22	1.20	1.22	1.21	1.21	1.4	35.0
13C-123678-HxCDF	1.22	1.26	1.28	1.27	1.28	1.28	1.27	1.9	35.0
13C-234678-HxCDF	1.20	1.16	1.14	1.15	1.13	1.16	1.16	1.9	35.0
13C-123789-HxCDF	1.09	1.12	1.11	1.13	1.12	1.15	1.12	1.7	35.0
13C-1234678-HpCDF	0.98	1.04	1.06	1.04	1.05	1.06	1.04	2.9	35.0
13C-1234789-HpCDF	0.78	0.78	0.79	0.80	0.78	0.80	0.79	1.4	35.0

6DFB - Form VI-HR CDD-2
CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES	Contract:	ANCHOR
Lab Code:	XB89	Case No.:	I&J WATERWAY
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CSL:	18-Jul-13	Init.Calib.Time CSL:	12:34:52
Init.Calib.Date CS1:	18-Jul-13	Init.Calib.Time CS1:	15:34:56
Init.Calib.Date CS2:	18-Jul-13	Init.Calib.Time CS2:	16:25:18
Init.Calib.Date CS3:	18-Jul-13	Init.Calib.Time CS3:	17:17:44
Init.Calib.Date CS4:	18-Jul-13	Init.Calib.Time CS4:	18:09:59
Init.Calib.Date CS5:	18-Jul-13	Init.Calib.Time CS5:	19:02:18

Target Analytes	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ratio QC Limits#
		CSL	CS1	CS2	CS3	CS4	CS5		
2378-TCDD	320/322	0.00	0.77	0.82	0.79	0.78	0.77		0.65 - 0.89
2378-TCDF	304/306	0.00	0.66	0.73	0.71	0.70	0.73		0.65 - 0.89
12378-PeCDF	340/342	1.46	1.40	1.37	1.45	1.51	1.50		1.32 - 1.78
12378-PeCDD	356/358	1.67	1.63	1.52	1.57	1.53	1.54		1.32 - 1.78
23478-PeCDF	340/342	1.57	1.48	1.42	1.45	1.48	1.49		1.32 - 1.78
123478-HxCDF	374/376	1.06	1.16	1.18	1.17	1.20	1.19		1.05 - 1.43
123678-HxCDF	374/376	1.17	1.20	1.17	1.18	1.18	1.20		1.05 - 1.43
123478-HxCDD	390/392	1.30	1.29	1.21	1.25	1.23	1.25		1.05 - 1.43
123678-HxCDD	390/392	1.19	1.28	1.26	1.24	1.25	1.24		1.05 - 1.43
123789-HxCDD	390/392	1.21	1.13	1.19	1.24	1.24	1.24		1.05 - 1.43
234678-HxCDF	374/376	1.29	1.14	1.17	1.18	1.21	1.18		1.05 - 1.43
123789-HxCDF	374/376	1.39	1.19	1.22	1.18	1.18	1.20		1.05 - 1.43
1234678-HpCDF	408/410	0.93	0.98	0.98	0.97	0.99	1.00		0.89 - 1.21
1234678-HpCDD	424/426	1.11	1.04	1.05	1.05	1.04	1.03		0.89 - 1.21
1234789-HpCDF	408/410	1.07	0.97	0.96	1.01	0.98	0.99		0.89 - 1.21
OCDD	458/460	0.85	0.87	0.91	0.88	0.90	0.89		0.76 - 1.02
OCDF	442/444	0.86	0.84	0.86	0.84	0.85	0.86		0.76 - 1.02

Labeled Compounds	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ratio QC Limits
		CSL	CS1	CS2	CS3	CS4	CS5		
13C-2378-TCDD	332/334	0.77	0.77	0.79	0.78	0.78	0.78		0.65 - 0.89
13C-12378-PeCDD	368/370	1.58	1.55	1.54	1.59	1.57	1.57		1.32 - 1.78
13C-123478-HxCDD	402/404	1.28	1.26	1.25	1.26	1.24	1.26		1.05 - 1.43
13C-123678-HxCDD	402/404	1.23	1.24	1.23	1.24	1.22	1.24		1.05 - 1.43
13C-1234678-HpCDD	436/438	1.05	1.03	1.05	1.06	1.05	1.05		0.89 - 1.21
13C-OCDD	470/472	0.89	0.89	0.88	0.88	0.87	0.88		0.76 - 1.02
13C-2378-TCDF	316/318	0.78	0.78	0.78	0.77	0.77	0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1.56	1.55	1.56	1.58	1.55	1.57		1.32 - 1.78
13C-23478-PeCDF	352/354	1.57	1.55	1.57	1.56	1.57	1.57		1.32 - 1.78
13C-123478-HxCDF	384/386	0.52	0.52	0.52	0.52	0.52	0.52		0.43 - 0.59
13C-123678-HxCDF	384/386	0.53	0.53	0.53	0.51	0.52	0.52		0.43 - 0.59
13C-234678-HxCDF	384/386	0.52	0.52	0.52	0.51	0.52	0.52		0.43 - 0.59
13C-123789-HxCDF	384/386	0.52	0.52	0.52	0.52	0.52	0.53		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.44	0.45	0.45	0.45	0.45	0.45		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.44	0.45	0.44	0.44	0.45	0.45		0.37 - 0.51

Internal Standards	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ion Ratio QC Limits
		CSL	CS1	CS2	CS3	CS4	CS5		
13C-1234-TCDD	332/334	0.78	0.79	0.79	0.80	0.79	0.78		0.65 - 0.89
13C-123789-HxCDD	402/404	1.23	1.24	1.24	1.21	1.24	1.25		1.05 - 1.43

(#) Quality Control (QC) limits represent ±15% window around the theoretical ion abundance ratio. The laboratory must flag any analyte in any calibration solution which does not meet the ion abundance ratio QC limit by placing an asterisk in the flag column.

XB89 : 00109

7DFA - Form VII-HR CDD-1
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name.	ANALYTICAL RESOURCES	Contract	ANCHOR
Lab Code:	XB89	Case No :	I&J WATERWAY
TO No.:		SDG No :	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID·	AUTOSPEC1	Lab File ID·	13082802
Date Analysed	28-Aug-13	Time Analysed	11·15·18
Init.Calib.Date.	18-JUL-13	Init.Calib.Time:	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	1.01	0.99	1.3		0.78		0.65 - 0.89
2378-TCDF	304/306	0.89	0.87	2.9		0.72		0.65 - 0.89
12378-PeCDF	340/342	0.88	0.87	1.1		1.49		1.32 - 1.78
12378-PeCDD	356/358	0.94	0.98	-3.5		1.56		1 32 - 1.78
23478-PeCDF	340/342	0.90	0.88	2.6		1.45		1 32 - 1.78
123478-HxCDF	374/376	1.04	1.05	-1.2		1.18		1.05 - 1.43
123678-HxCDF	374/376	1.02	1 02	-0.6		1.18		1.05 - 1.43
123478-HxCDD	390/392	0.96	0.97	-1.0		1.24		1.05 - 1.43
123678-HxCDD	390/392	0 90	0.90	0 2		1.25		1.05 - 1.43
123789-HxCDD	390/392	0.91	0.91	-0.5		1.22		1.05 - 1.43
234678-HxCDF	374/376	1.09	1.09	-0.1		1.19		1.05 - 1.43
123789-HxCDF	374/376	0.96	0.96	0.1		1.19		1.05 - 1.43
1234678-HpCDF	408/410	1.20	1.21	-1.4		0.98		0.89 - 1.21
1234678-HpCDD	424/426	0.99	1.00	-0.6		1.04		0.89 - 1.21
1234789-HpCDF	408/410	1.22	1.20	1 8		0.98		0.89 - 1.21
OCDD	458/460	0.97	0.98	-0.6		0.88		0.76 - 1.02
OCDF	442/444	1.07	1.06	0.7		0 87		0.76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	0.92	0.96	-4.6		0.79		0.65 - 0.89
13C-12378-PeCDD	368/370	0.70	0.75	-6.2		1.56		1 32 - 1.78
13C-123478-HxCDD	402/404	1.02	1.00	1.6		1.26		1.05 - 1.43
13C-123678-HxCDD	402/404	1.07	1.05	1.6		1.24		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.84	0.88	-5.1		1.05		0.89 - 1.21
13C-OCDD	470/472	0.70	0.77	-9.9		0.87		0.76 - 1.02
13C-2378-TCDF	316/318	1.36	1.42	-4.0		0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1.06	1.16	-8.9		1.57		1.32 - 1.78
13C-23478-PeCDF	352/354	1.03	1.13	-9.0		1.58		1.32 - 1.78
13C-123478-HxCDF	384/386	1.16	1.21	-4.2		0.52		0.43 - 0 59
13C-123678-HxCDF	384/386	1 22	1.27	-3.3		0 53		0.43 - 0.59
13C-234678-HxCDF	384/386	1.16	1.16	0.1		0.52		0.43 - 0.59
13C-123789-HxCDF	384/386	1.06	1.12	-5.4		0.51		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.97	1.04	-7.1		0.44		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.74	0.79	-5 9		0.45		0.37 - 0.51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	1.01	1.09	-7.5		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0.79		0.65 - 0.89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1.23		1.05 - 1.43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES	Contract:	ANCHOR
Lab Code:	XB89	Case No.:	I&J WATERWAY
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13082802
Date Analysed	28-Aug-13	Time Analysed	11:15:18
Init.Calib.Date:	18-JUL-13	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1.00	26.72
2378-TCDF	1.00	26.09
12378-PeCDF	1.00	30.22
12378-PeCDD	1.00	31.82
23478-PeCDF	1.00	31.57
123478-HxCDF	1.00	35.24
123678-HxCDF	1.00	35.39
123478-HxCDD	1.00	36.47
123678-HxCDD	1.00	36.59
123789-HxCDD	1.01	37.02
234678-HxCDF	1.00	36.34
123789-HxCDF	1.00	37.47
1234678-HpCDF	1.00	39.53
1234678-HpCDD	1.00	41.34
1234789-HpCDF	1.00	42.23
OCDD	1.00	47.25
OCDF	1 01	47.52

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	26.71
13C-12378-PeCDD	1.23	31.80
13C-123478-HxCDD	0.98	36.45
13C-123678-HxCDD	0.99	36.58
13C-1234678-HpCDD	1.12	41.33
13C-OCDD	1.28	47.23
13C-2378-TCDF	1.01	26.06
13C-12378-PeCDF	1.17	30.20
13C-23478-PeCDF	1 22	31.55
13C-123478-HxCDF	0.95	35.22
13C-123678-HxCDF	0.96	35.36
13C-234678-HxCDF	0.98	36.32
13C-123789-HxCDF	1.01	37.46
13C-1234678-HpCDF	1.07	39.51
13C-1234789-HpCDF	1.14	42.21

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	26.72

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	25.88
13C-123789-HxCDD	0.00	37.01

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound).

XB89:00111

7DFA - Form VII-HR CDD-1
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name.	ANALYTICAL RESOURCES	Contract:	ANCHOR
Lab Code:	XB89	Case No.:	I&J WATERWAY
TO No.:		SDG No.:	
GC Column.	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID	13082812
Date Analysed	28-Aug-13	Time Analysed	20.01:36
Init.Calib.Date.	18-JUL-13	Init.Calib.Time:	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	0.99	0.99	-0.7		0.78		0.65 - 0.89
2378-TCDF	304/306	0.89	0.87	3 0		0.72		0.65 - 0.89
12378-PeCDF	340/342	0.90	0 87	2.6		1.51		1.32 - 1.78
12378-PeCDD	356/358	0.96	0.98	-1.4		1.54		1.32 - 1.78
23478-PeCDF	340/342	0.92	0.88	5 1		1.48		1.32 - 1.78
123478-HxCDF	374/376	1.04	1.05	-0.3		1.21		1.05 - 1.43
123678-HxCDF	374/376	1.02	1.02	0.0		1.19		1.05 - 1.43
123478-HxCDD	390/392	0.97	0.97	0.0		1.25		1.05 - 1.43
123678-HxCDD	390/392	0.90	0.90	0.0		1.26		1.05 - 1.43
123789-HxCDD	390/392	0.87	0.91	-4.3		1.24		1.05 - 1.43
234678-HxCDF	374/376	1.11	1.09	1.6		1.20		1.05 - 1.43
123789-HxCDF	374/376	0.97	0.96	1.1		1.18		1.05 - 1.43
1234678-HpCDF	408/410	1.22	1.21	0.5		1 00		0.89 - 1.21
1234678-HpCDD	424/426	0.99	1.00	-0.8		1.06		0.89 - 1.21
1234789-HpCDF	408/410	1.23	1.20	2.5		0.98		0.89 - 1.21
OCDD	458/460	0.98	0.98	-0.1		0.89		0.76 - 1.02
OCDF	442/444	1.07	1.06	0.4		0.89		0.76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	0.90	0.96	-6.8		0.78		0.65 - 0 89
13C-12378-PeCDD	368/370	0 87	0.75	16.5		1.57		1.32 - 1.78
13C-123478-HxCDD	402/404	1 09	1.00	8.6		1.28		1.05 - 1.43
13C-123678-HxCDD	402/404	1 13	1.05	7.1		1.20		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.76	0.88	-13.3		1.03		0.89 - 1.21
13C-OCDD	470/472	0.71	0.77	-7.8		0.89		0.76 - 1.02
13C-2378-TCDF	316/318	1.37	1.42	-3.6		0.77		0.65 - 0.89
13C-12378-PeCDF	352/354	0.97	1.16	-16.0		1.58		1.32 - 1.78
13C-23478-PeCDF	352/354	0.98	1.13	-13.0		1.56		1.32 - 1.78
13C-123478-HxCDF	384/386	1.26	1.21	4.6		0.52		0.43 - 0 59
13C-123678-HxCDF	384/386	1.33	1.27	4.7		0.53		0.43 - 0.59
13C-234678-HxCDF	384/386	1.31	1.16	13.4		0.52		0 43 - 0.59
13C-123789-HxCDF	384/386	1.11	1.12	-0.6		0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0 91	1.04	-12.7		0.44		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.68	0.79	-14.2		0.45		0.37 - 0.51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	0.98	1 09	-10.1		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0.80		0.65 - 0.89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1.25		1.05 - 1.43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column

7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES	Contract:	ANCHOR
Lab Code:	XB89	Case No.:	I&J WATERWAY
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13082812
Date Analysed	28-Aug-13	Time Analysed	20:01:36
Init.Calib.Date:	18-JUL-13	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1.00	26.71
2378-TCDF	1.00	26.08
12378-PeCDF	1.00	30.21
12378-PeCDD	1.00	31.81
23478-PeCDF	1.00	31.56
123478-HxCDF	1.00	35.23
123678-HxCDF	1.00	35.39
123478-HxCDD	1.00	36.46
123678-HxCDD	1.00	36.59
123789-HxCDD	1.01	37.02
234678-HxCDF	1.00	36.33
123789-HxCDF	1.00	37.47
1234678-HpCDF	1 00	39.52
1234678-HpCDD	1.00	41.34
1234789-HpCDF	1.00	42.23
OCDD	1.00	47.24
OCDF	1.01	47.52

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	26.69
13C-12378-PeCDD	1.23	31 79
13C-123478-HxCDD	0.99	36 45
13C-123678-HxCDD	0.99	36 57
13C-1234678-HpCDD	1.12	41.32
13C-OCDD	1.28	47.23
13C-2378-TCDF	1.01	26.05
13C-12378-PeCDF	1.17	30.20
13C-23478-PeCDF	1.22	31.55
13C-123478-HxCDF	0.95	35.21
13C-123678-HxCDF	0.96	35.36
13C-234678-HxCDF	0.98	36.31
13C-123789-HxCDF	1.01	37.46
13C-1234678-HpCDF	1.07	39 51
13C-1234789-HpCDF	1.14	42.20

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	26.71

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	25.87
13C-123789-HxCDD	0.00	37.00

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound).

7DFA - Form VII-HR CDD-1
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name.	ANALYTICAL RESOURCES	Contract:	ANCHOR
Lab Code.	XB89	Case No :	I&J WATERWAY
TO No.		SDG No :	
GC Column:	RTX-DIOXIN2	ID (mm)	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13082819
Date Analysed	29-Aug-13	Time Analysed	02:19:17
Init Calib.Date:	18-JUL-13	Init.Calib.Time.	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	1 00	0.99	0.7		0.74		0.65 - 0.89
2378-TCDF	304/306	0.90	0 87	3.7		0.74		0 65 - 0.89
12378-PeCDF	340/342	0.89	0.87	2 0		1.50		1.32 - 1.78
12378-PeCDD	356/358	0.99	0.98	1 7		1.52		1.32 - 1.78
23478-PeCDF	340/342	0.90	0.88	2.6		1.48		1.32 - 1.78
123478-HxCDF	374/376	1.02	1.05	-3.0		1.20		1.05 - 1.43
123678-HxCDF	374/376	1.03	1.02	0.4		1.20		1.05 - 1.43
123478-HxCDD	390/392	0.97	0.97	0.0		1.25		1 05 - 1.43
123678-HxCDD	390/392	0.89	0.90	-1.0		1.24		1.05 - 1.43
123789-HxCDD	390/392	0.81	0.91	-11.4		1.23		1.05 - 1.43
234678-HxCDF	374/376	1.10	1.09	0.9		1.20		1.05 - 1.43
123789-HxCDF	374/376	0.97	0.96	0 8		1.21		1.05 - 1.43
1234678-HpCDF	408/410	1.22	1.21	0 8		1.00		0.89 - 1.21
1234678-HpCDD	424/426	0.99	1.00	-0.6		1.05		0.89 - 1.21
1234789-HpCDF	408/410	1.23	1.20	2.6		0.99		0.89 - 1.21
OCDD	458/460	0.98	0.98	-0.2		0.89		0.76 - 1.02
OCDF	442/444	1 09	1.06	2.1		0.89		0 76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	0.87	0.96	-9.2		0.80		0.65 - 0.89
13C-12378-PeCDD	368/370	0.86	0.75	15.3		1.57		1.32 - 1.78
13C-123478-HxCDD	402/404	1.17	1.00	16.5		1.29		1.05 - 1.43
13C-123678-HxCDD	402/404	1.18	1.05	12.2		1.22		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.87	0.88	-1.2		1.05		0.89 - 1.21
13C-OCDD	470/472	0.76	0.77	-2.2		0.88		0 76 - 1.02
13C-2378-TCDF	316/318	1.35	1.42	-4.9		0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1.06	1.16	-8.6		1.58		1.32 - 1.78
13C-23478-PeCDF	352/354	1.06	1.13	-5.9		1.57		1.32 - 1.78
13C-123478-HxCDF	384/386	1.43	1.21	18.7		0.51		0.43 - 0.59
13C-123678-HxCDF	384/386	1.33	1.27	5.4		0.52		0.43 - 0.59
13C-234678-HxCDF	384/386	1.31	1.16	13 2		0.52		0.43 - 0.59
13C-123789-HxCDF	384/386	1.11	1.12	-1 4		0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.95	1.04	-8.9		0.45		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.75	0.79	-4.8		0 44		0.37 - 0.51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	0.95	1.09	-13.3		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0.79		0.65 - 0.89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1.26		1.05 - 1.43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES	Contract:	ANCHOR
Lab Code:	XB89	Case No.:	I&J WATERWAY
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13082819
Date Analysed	29-Aug-13	Time Analysed	02:19:17
Init.Calib.Date:	18-JUL-13	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1.00	26.71
2378-TCDF	1.00	26.06
12378-PeCDF	1.00	30.21
12378-PeCDD	1.00	31.81
23478-PeCDF	1.00	31.56
123478-HxCDF	1.00	35.23
123678-HxCDF	1.00	35.39
123478-HxCDD	1.00	36.46
123678-HxCDD	1.00	36.59
123789-HxCDD	1.01	37.02
234678-HxCDF	1.00	36.33
123789-HxCDF	1.00	37.47
1234678-HpCDF	1.00	39.53
1234678-HpCDD	1.00	41.34
1234789-HpCDF	1.00	42.24
OCDD	1.00	47.25
OCDF	1.01	47.53

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	26.69
13C-12378-PeCDD	1.23	31.80
13C-123478-HxCDD	0.98	36.45
13C-123678-HxCDD	0.99	36.57
13C-1234678-HpCDD	1.12	41.33
13C-OCDD	1.28	47.23
13C-2378-TCDF	1.01	26.05
13C-12378-PeCDF	1.17	30.19
13C-23478-PeCDF	1.22	31.55
13C-123478-HxCDF	0.95	35.22
13C-123678-HxCDF	0.96	35.36
13C-234678-HxCDF	0.98	36.32
13C-123789-HxCDF	1.01	37.46
13C-1234678-HpCDF	1.07	39.51
13C-1234789-HpCDF	1.14	42.22

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	26.71

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	25.87
13C-123789-HxCDD	0.00	37.01

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound).

PCB Analysis
Report and Summary QC Forms

ARI Job ID: XB89

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: IJ13-SS-102**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 19:23
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.27 g-dry-wt
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 52.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	48	< 48 Y
11097-69-1	**Aroclor 1254**	**19**	**80**
11096-82-5	Aroclor 1260	19	< 19 U
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	34.8%
Tetrachlorometaxylene	71.8%

XB89 00117

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: IJ13-SS-101**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89B
LIMS ID: 13-17437
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 19:45
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.33 g-dry-wt
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 41.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	38	< 38 Y
11097-69-1	**Aroclor 1254**	**19**	**190**
11096-82-5	Aroclor 1260	38	< 38 Y
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	68.0%
Tetrachlorometaxylene	77.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: IJ13-SS-151**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XB89C
LIMS ID: 13-17438
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 20:07
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.29 g-dry-wt
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 41.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	28	< 28 Y
11097-69-1	**Aroclor 1254**	**19**	**81**
11096-82-5	Aroclor 1260	19	< 19 U
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	68.0%
Tetrachlorometaxylene	75.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: IJ13-VC-101-2-3.9
SAMPLE

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 20:29
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.06 g-dry-wt
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 37.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	**Aroclor 1254**	**20**	**44**
11096-82-5	Aroclor 1260	20	< 20 U
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	77.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: IJ13-VC-102-2-4
SAMPLE

Lab Sample ID: XB89E
LIMS ID: 13-17440
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 20:51
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.18 g-dry-wt
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 42.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	Aroclor 1254	19	< 19 U
11096-82-5	Aroclor 1260	24	< 24 Y
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	67.8%
Tetrachlorometaxylene	71.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546

Sample ID: IJ13-VC-102-4-5.4
SAMPLE

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 21:13
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.22 g-dry-wt
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 35.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	Aroclor 1254	19	< 19 U
11096-82-5	Aroclor 1260	19	< 19 U
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	69.5%
Tetrachlorometaxylene	66.2%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
IJ13-SS-102	34.8%*	54-115	71.8%	57-109	1
IJ13-SS-101	68.0%	54-115	77.0%	57-109	0
IJ13-SS-151	68.0%	54-115	75.8%	57-109	0
IJ13-VC-101-2-3.9	78.2%	54-115	77.8%	57-109	0
IJ13-VC-102-2-4	67.8%	54-115	71.2%	57-109	0
MB-082613	86.2%	61-114	89.0%	52-117	0
LCS-082613	87.2%	61-114	88.0%	52-117	0
LCSD-082613	84.2%	61-114	86.0%	52-117	0
IJ13-VC-102-4-5.4	69.5%	54-115	66.2%	57-109	0
IJ13-VC-102-4-5.4 MS	86.8%	54-115	76.8%	57-109	0
IJ13-VC-102-4-5.4 MSD	80.5%	54-115	78.0%	57-109	0

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 13-17436 to 13-17441

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: IJ13-VC-102-4-5.4
MS/MSD

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted MS/MSD: 08/26/13

Date Analyzed MS: 08/31/13 21:35
MSD: 08/31/13 21:57
Instrument/Analyst MS: ECD7/PK
MSD: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 5.19 g-dry-wt
MSD: 5.22 g-dry-wt
Final Extract Volume MS: 5.0 mL
MSD: 5.0 mL
Dilution Factor MS: 1.00
MSD: 1.00
Silica Gel: No

Percent Moisture: 35.2%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 19 U	348	482	72.2%	365	479	76.2%	4.8%
Aroclor 1260	< 19 U	330	482	68.5%	360	479	75.2%	8.7%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: IJ13-VC-102-4-5.4**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 21:35
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.19 g-dry-wt
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 35.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	---
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	Aroclor 1254	19	< 19 U
11096-82-5	Aroclor 1260	19	---
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	86.8%
Tetrachlorometaxylene	76.8%

XB89 06125

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546

Sample ID: IJ13-VC-102-4-5.4
MATRIX SPIKE DUP

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 21:57
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.22 g-dry-wt
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 35.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	---
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	Aroclor 1254	19	< 19 U
11096-82-5	Aroclor 1260	19	---
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.5%
Tetrachlorometaxylene	78.0%

XB89:00126

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: LCS-082613
LCS/LCSD

Lab Sample ID: LCS-082613
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 08/26/13

Date Analyzed LCS: 08/31/13 18:39
LCSD: 08/31/13 19:01
Instrument/Analyst LCS: ECD7/PK
LCSD: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Final Extract Volume LCS: 5.00 mL
LCSD: 5.00 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Silica Gel: No

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	423	500	84.6%	413	500	82.6%	2.4%
Aroclor 1260	403	500	80.6%	392	500	78.4%	2.8%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	87.2%	84.2%
Tetrachlorometaxylene	88.0%	86.0%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

PCB METHOD BLANK SUMMARY

BLANK NO.

XB89MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No.: XB89

Project: I&J WATERWAY RI/FS

Lab Sample ID: XB89MBS1

Lab File ID: 0831A021

Date Extracted: 08/26/13

Matrix: SOLID

Date Analyzed: 08/31/13

Instrument ID: ECD7

Time Analyzed: 1817

GC Columns: ZB5/ZB35

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	XB89LCSS1	XB89LCSS1	08/31/13
02	XB89LCSDS1	XB89LCSDS1	08/31/13
03	IJ13-SS-102	XB89A	08/31/13
04	IJ13-SS-101	XB89B	08/31/13
05	IJ13-SS-151	XB89C	08/31/13
06	IJ13-VC-101-2-3.9	XB89D	08/31/13
07	IJ13-VC-102-2-4	XB89E	08/31/13
08	IJ13-VC-102-4-5.4	XB89F	08/31/13
09	IJ13-VC-102-4-5 MS	XB89FMS	08/31/13
10	IJ13-VC-102-4-5 MSD	XB89FMSD	08/31/13

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: MB-082613**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-082613
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/03/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/13
Date Analyzed: 08/31/13 18:17
Instrument/Analyst: ECD7/PK
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.00 g
Final Extract Volume: 5.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	Aroclor 1254	20	< 20 U
11096-82-5	Aroclor 1260	20	< 20 U
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	86.2%
Tetrachlorometaxylene	89.0%

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 08/16/13

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	5.63- 5.83	0.8903	0.9041	0.9498	0.9577	0.9444	0.9697	0.9360	3.4
DCB	14.49-14.69	1.2299	1.1917	1.2122	1.1523	1.0462	1.0926	1.1541	6.2

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	7.64- 7.84	0.0273	0.0265	0.0261	0.0246	0.0232	0.0231	0.0251	7.1
2	8.16- 8.36	0.0906	0.0870	0.0870	0.0838	0.0803	0.0805	0.0849	4.8
3	8.35- 8.55	0.0383	0.0356	0.0346	0.0327	0.0308	0.0309	0.0338	8.7
4	8.78- 8.98	0.0260	0.0224	0.0210	0.0192	0.0178	0.0176	0.0207	15.5

AROCLOR AVERAGE %RSD = 9.0

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	11.94-12.14	0.0878	0.0749	0.0729	0.0707	0.0628	0.0653	0.0724	12.2
2	12.26-12.46	0.0826	0.0740	0.0737	0.0726	0.0650	0.0680	0.0726	8.3
3	12.63-12.83	0.1765	0.1683	0.1746	0.1732	0.1555	0.1630	0.1685	4.8
4	13.02-13.22	0.0928	0.0881	0.0910	0.0911	0.0830	0.0875	0.0889	4.0
5	13.20-13.40	0.0411	0.0393	0.0402	0.0394	0.0356	0.0376	0.0389	5.0

AROCLOR AVERAGE %RSD = 6.9

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 08/16/13

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	5.27- 5.47	1.0726	1.0294	1.0397	0.9954	0.9529	0.9926	1.0137	4.2
DCB	14.51-14.71	1.3928	1.3417	1.3533	1.2564	1.1110	1.1655	1.2701	8.9

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	6.53- 6.73	0.0231	0.0213	0.0204	0.0179	0.0163	0.0158	0.0191	15.2
2	7.41- 7.61	0.0524	0.0481	0.0461	0.0410	0.0371	0.0363	0.0435	14.8
3	8.22- 8.42	0.1076	0.0975	0.0947	0.0863	0.0802	0.0774	0.0906	12.6
4	8.82- 9.02	0.0342	0.0303	0.0286	0.0251	0.0228	0.0225	0.0272	16.9

AROCLOR AVERAGE %RSD = 14.9

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	11.83-12.03	0.1461	0.1322	0.1271	0.1165	0.1012	0.1044	0.1212	14.2
2	12.37-12.57	0.1149	0.1060	0.1026	0.0944	0.0815	0.0836	0.0972	13.5
3	12.64-12.84	0.2212	0.2039	0.2001	0.1872	0.1650	0.1722	0.1916	10.9
4	13.20-13.40	0.1505	0.1411	0.1367	0.1260	0.1098	0.1133	0.1296	12.4

AROCLOR AVERAGE %RSD = 12.8

XB89 00131

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 08/16/13

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	6.191	6.09- 6.29	0.01047
2	6.400	6.30- 6.50	0.00882
3	6.523	6.42- 6.62	0.02581

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.523	6.42- 6.62	0.01676
2	7.745	7.64- 7.84	0.01009
3	8.265	8.16- 8.36	0.03326
4	8.451	8.35- 8.55	0.01329

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	7.744	7.64- 7.84	0.02024
2	8.263	8.16- 8.36	0.06803
3	8.449	8.35- 8.55	0.02662
4	9.413	9.31- 9.51	0.02526

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	8.258	8.16- 8.36	0.04241
2	8.877	8.78- 8.98	0.02784
3	9.414	9.31- 9.51	0.03930
4	9.884	9.78- 9.98	0.05027

XB89:00132

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 08/16/13

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	10.225	10.13-10.33	0.05173
2	10.614	10.51-10.71	0.03215
3	10.756	10.66-10.86	0.06302
4	11.115	11.01-11.21	0.06473
5	11.810	11.71-11.91	0.06350

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	12.359	12.26-12.46	0.09418
2	12.730	12.63-12.83	0.21788
3	13.126	13.03-13.23	0.07113
4	13.305	13.20-13.40	0.08471
5	13.885	13.78-13.98	0.06554

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	13.237	13.14-13.34	0.23504
2	13.303	13.20-13.40	0.20825
3	13.649	13.55-13.75	0.17509
4	14.285	14.19-14.39	0.44546

XB89:00133

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 08/16/13

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	6.198	6.10- 6.30	0.01384
2	6.496	6.40- 6.60	0.00800
3	6.630	6.53- 6.73	0.02437
4	7.522	7.42- 7.62	0.00820

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.630	6.53- 6.73	0.01693
2	7.511	7.41- 7.61	0.01908
3	8.320	8.22- 8.42	0.03634
4	8.921	8.82- 9.02	0.01209

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.626	6.53- 6.73	0.01624
2	7.505	7.41- 7.61	0.03391
3	8.316	8.22- 8.42	0.07149
4	9.384	9.28- 9.48	0.02836

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	7.505	7.40- 7.60	0.01676
2	8.315	8.22- 8.42	0.04624
3	8.918	8.82- 9.02	0.03391
4	10.325	10.22-10.42	0.04884

XB89:00134

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 08/16/13

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	10.029	9.93-10.13	0.03166
2	10.214	10.11-10.31	0.04041
3	10.908	10.81-11.01	0.06762
4	11.162	11.06-11.26	0.06877
5	11.933	11.83-12.03	0.05003

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	12.480	12.38-12.58	0.11686
2	12.748	12.65-12.85	0.23160
3	13.255	13.15-13.35	0.10124
4	13.312	13.21-13.41	0.15309
5	13.941	13.84-14.04	0.07625

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	13.254	13.15-13.35	0.23853
2	13.317	13.22-13.42	0.22390
3	13.664	13.56-13.76	0.18010
4	14.316	14.22-14.42	0.46823

XB89:00135

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 08/16/13

Date Analyzed :08/31/13

Lab Standard ID: AR1248 Time Analyzed :1733

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	8.26	8.16	8.36	245.0	250.0	-2.0
Aroclor-1248-2	8.88	8.78	8.98	243.1	250.0	-2.7
Aroclor-1248-3	9.41	9.31	9.51	242.9	250.0	-2.8
Aroclor-1248-4	9.88	9.78	9.98	241.6	250.0	-3.4

AVERAGE %D = 2.7

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 08/16/13

Date Analyzed :08/31/13

Lab Standard ID: AR1248 Time Analyzed :1733

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	7.50	7.40	7.60	244.6	250.0	-2.2
Aroclor-1248-2	8.32	8.22	8.42	244.0	250.0	-2.4
Aroclor-1248-3	8.92	8.82	9.02	243.1	250.0	-2.8
Aroclor-1248-4	10.32	10.22	10.42	242.4	250.0	-3.0

AVERAGE %D = 2.6

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 08/16/13

Date Analyzed :08/31/13

Lab Standard ID: AR1660 Time Analyzed :1755

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	7.74	7.64	7.84	241.1	250.0	-3.5
Aroclor-1016-2	8.26	8.16	8.36	242.3	250.0	-3.1
Aroclor-1016-3	8.45	8.35	8.55	236.6	250.0	-5.3
Aroclor-1016-4	8.87	8.78	8.98	227.7	250.0	-8.9

AVERAGE %D = 5.2

Date Analyzed :08/31/13

Lab Standard ID: AR1660 Time Analyzed :1755

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	12.04	11.94	12.14	213.7	250.0	-14.5
Aroclor-1260-2	12.36	12.26	12.46	219.0	250.0	-12.4
Aroclor-1260-3	12.73	12.63	12.83	225.5	250.0	-9.8
Aroclor-1260-4	13.12	13.02	13.22	225.9	250.0	-9.6
Aroclor-1260-5	13.30	13.20	13.40	224.4	250.0	-10.2

AVERAGE %D = 11.3

XB89 : 00135

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 08/16/13

Date Analyzed :08/31/13

Lab Standard ID: AR1660 Time Analyzed :1755

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.62	6.53	6.73	237.5	250.0	-5.0
Aroclor-1016-2	7.50	7.41	7.61	234.3	250.0	-6.3
Aroclor-1016-3	8.32	8.22	8.42	236.4	250.0	-5.4
Aroclor-1016-4	8.92	8.82	9.02	228.4	250.0	-8.6

AVERAGE %D = 6.3

Date Analyzed :08/31/13

Lab Standard ID: AR1660 Time Analyzed :1755

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	11.93	11.83	12.03	211.0	250.0	-15.6
Aroclor-1260-2	12.47	12.37	12.57	214.1	250.0	-14.4
Aroclor-1260-3	12.74	12.64	12.84	216.0	250.0	-13.6
Aroclor-1260-4	13.31	13.20	13.40	214.8	250.0	-14.1

AVERAGE %D = 14.4

XB89:00139

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 08/16/13

Date Analyzed :08/31/13

Lab Standard ID: AR1254 Time Analyzed :2219

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	10.23	10.13	10.33	243.1	250.0	-2.7
Aroclor-1254-2	10.61	10.51	10.71	243.0	250.0	-2.8
Aroclor-1254-3	10.76	10.66	10.86	241.0	250.0	-3.6
Aroclor-1254-4	11.11	11.01	11.21	241.9	250.0	-3.2
Aroclor-1254-5	11.81	11.71	11.91	238.2	250.0	-4.7

AVERAGE %D = 3.4

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 08/16/13

Date Analyzed :08/31/13

Lab Standard ID: AR1254 Time Analyzed :2219

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	10.03	9.93	10.13	242.0	250.0	-3.2
Aroclor-1254-2	10.21	10.11	10.31	243.1	250.0	-2.8
Aroclor-1254-3	10.91	10.81	11.01	240.5	250.0	-3.8
Aroclor-1254-4	11.16	11.06	11.26	241.1	250.0	-3.6
Aroclor-1254-5	11.93	11.83	12.03	236.6	250.0	-5.4

AVERAGE %D = 3.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 08/16/13

Date Analyzed :08/31/13

Lab Standard ID: AR1660 Time Analyzed :2241

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	7.74	7.64	7.84	241.6	250.0	-3.4
Aroclor-1016-2	8.27	8.16	8.36	242.6	250.0	-2.9
Aroclor-1016-3	8.45	8.35	8.55	236.3	250.0	-5.5
Aroclor-1016-4	8.88	8.78	8.98	227.6	250.0	-8.9

AVERAGE %D = 5.2

Date Analyzed :08/31/13

Lab Standard ID: AR1660 Time Analyzed :2241

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	12.04	11.94	12.14	233.0	250.0	-6.8
Aroclor-1260-2	12.36	12.26	12.46	237.1	250.0	-5.1
Aroclor-1260-3	12.73	12.63	12.83	242.5	250.0	-3.0
Aroclor-1260-4	13.12	13.02	13.22	241.5	250.0	-3.4
Aroclor-1260-5	13.30	13.20	13.40	238.6	250.0	-4.6

AVERAGE %D = 4.6

XB89:00142

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 08/16/13

Date Analyzed :08/31/13

Lab Standard ID: AR1660 Time Analyzed :2241

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.63	6.53	6.73	237.9	250.0	-4.8
Aroclor-1016-2	7.51	7.41	7.61	234.1	250.0	-6.4
Aroclor-1016-3	8.32	8.22	8.42	236.4	250.0	-5.4
Aroclor-1016-4	8.92	8.82	9.02	227.6	250.0	-9.0

AVERAGE %D = 6.4

Date Analyzed :08/31/13

Lab Standard ID: AR1660 Time Analyzed :2241

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	11.93	11.83	12.03	228.1	250.0	-8.7
Aroclor-1260-2	12.48	12.37	12.57	229.0	250.0	-8.4
Aroclor-1260-3	12.75	12.64	12.84	230.0	250.0	-8.0
Aroclor-1260-4	13.31	13.20	13.40	224.7	250.0	-10.1

AVERAGE %D = 8.8

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD7

Init. Calib. Date: 08/16/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	5152160	2.789	3127538	14.850
	UPPER LIMIT	10304320	2.889	6255076	14.950
	LOWER LIMIT	2576080	2.689	1563769	14.750

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		IB	08/16/13	1602	5185527	2.786	3155881	14.850
02		0.25PPMAR166	08/16/13	1624	5152160	2.789	3127538	14.850
03		0.02PPMAR166	08/16/13	1646	5264425	2.789	3295005	14.849
04		0.05PPMAR166	08/16/13	1708	5178793	2.786	3224361	14.850
05		1 PPM AR1660	08/16/13	1730	5527850	2.787	3445693	14.849
06		0.1PPMAR1660	08/16/13	1752	5263584	2.784	3283177	14.849
07		0.5PPMAR1660	08/16/13	1814	5358861	2.787	3481825	14.849
08		AR1242	08/16/13	1836	5400016	2.787	3365225	14.849
09		AR1248	08/16/13	1858	5136414	2.787	3172566	14.850
10		AR1254	08/16/13	1920	5382616	2.787	3353659	14.849
11		AR2162	08/16/13	1942	4964961	2.786	3172575	14.849
12		AR3268	08/16/13	2004	5247271	2.787	3294036	14.849
13		AR1248	08/31/13	1733	5422646	2.786	3560697	14.848
14		AR1660	08/31/13	1755	5362678	2.785	3651110	14.848
15	XB89MBS1	XB89MBS1	08/31/13	1817	5500293	2.789	3820680	14.848
16	XB89LCSS1	XB89LCSS1	08/31/13	1839	5412329	2.787	3810325	14.848
17	XB89LCSDS1	XB89LCSDS1	08/31/13	1901	5407586	2.787	3822038	14.848
18	IJ13-SS-102	XB89A	08/31/13	1923	5626101	2.785	3318600	14.848
19	IJ13-SS-101	XB89B	08/31/13	1945	5673503	2.788	3283893	14.849
20	IJ13-SS-151	XB89C	08/31/13	2007	5751503	2.786	3460481	14.848
21	IJ13-VC-101-	XB89D	08/31/13	2029	5519972	2.787	2993899	14.848
22	IJ13-VC-102-	XB89E	08/31/13	2051	5169635	2.787	3033231	14.849
23	IJ13-VC-102-	XB89F	08/31/13	2113	5456705	2.788	2981265	14.847
24	IJ13-VC-102-	XB89FMS	08/31/13	2135	5215806	2.787	3083004	14.847
25	IJ13-VC-102-	XB89FMSD	08/31/13	2157	5295978	2.789	3035925	14.848
26		AR1254	08/31/13	2219	5345601	2.788	3226090	14.848
27		AR1660	08/31/13	2241	5427476	2.788	3308299	14.847

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR

ARI Job No.: XB89 Project: I&J WATERWAY

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD7

Init. Calib. Date: 08/16/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	9632630	3.190	5043723	15.214
	UPPER LIMIT	19265260	3.290	10087446	15.314
	LOWER LIMIT	4816315	3.090	2521862	15.114

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		IB	08/16/13	1602	9633105	3.189	5093248	15.214
02		0.25PPMAR166	08/16/13	1624	9632630	3.190	5043723	15.214
03		0.02PPMAR166	08/16/13	1646	9795148	3.190	5274126	15.213
04		0.05PPMAR166	08/16/13	1708	9612529	3.189	5155247	15.213
05		1 PPM AR1660	08/16/13	1730	9924788	3.187	5485487	15.213
06		0.1PPMAR1660	08/16/13	1752	9750145	3.187	5195633	15.214
07		0.5PPMAR1660	08/16/13	1814	9779170	3.188	5472977	15.214
08		AR1242	08/16/13	1836	9858115	3.190	5314232	15.213
09		AR1248	08/16/13	1858	9373785	3.189	5031942	15.213
10		AR1254	08/16/13	1920	9840275	3.189	5335172	15.213
11		AR2162	08/16/13	1942	8999005	3.188	5034651	15.213
12		AR3268	08/16/13	2004	9564571	3.189	5246838	15.213
13		AR1248	08/31/13	1733	9623876	3.186	5562760	15.211
14		AR1660	08/31/13	1755	9619328	3.184	5659022	15.211
15	XB89MBS1	XB89MBS1	08/31/13	1817	9648035	3.187	5867876	15.211
16	XB89LCSS1	XB89LCSS1	08/31/13	1839	9382845	3.187	5872347	15.211
17	XB89LCSDS1	XB89LCSDS1	08/31/13	1901	9420905	3.186	5869656	15.211
18	IJ13-SS-102	XB89A	08/31/13	1923	8860950	3.185	5570144	15.210
19	IJ13-SS-101	XB89B	08/31/13	1945	9054549	3.187	5301174	15.210
20	IJ13-SS-151	XB89C	08/31/13	2007	9248061	3.185	5528338	15.210
21	IJ13-VC-101-	XB89D	08/31/13	2029	8942957	3.187	4974160	15.210
22	IJ13-VC-102-	XB89E	08/31/13	2051	8355715	3.186	4799225	15.211
23	IJ13-VC-102-	XB89F	08/31/13	2113	8818625	3.187	5001071	15.211
24	IJ13-VC-102-	XB89FMS	08/31/13	2135	8483459	3.186	4909161	15.210
25	IJ13-VC-102-	XB89FMSD	08/31/13	2157	8607869	3.188	4893180	15.210
26		AR1254	08/31/13	2219	9336674	3.186	5008712	15.210
27		AR1660	08/31/13	2241	9597149	3.187	5126934	15.210

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

Metals Analysis
Report and Summary QC Forms

ARI Job ID: XB89

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
IJ13-SS-102	XB89A	13-17436	
IJ13-SS-102D	XB89ADUP	13-17436	
IJ13-SS-102S	XB89ASPK	13-17436	
IJ13-SS-101	XB89B	13-17437	
PBS	XB89MB1	13-17437	
LCSS	XB89MB1SPK	13-17437	
IJ13-SS-151	XB89C	13-17438	
IJ13-VC-101-2-3.9	XB89D	13-17439	
IJ13-VC-102-2-4	XB89E	13-17440	
IJ13-VC-102-4-5.4	XB89F	13-17441	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 9/3/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: IJ13-SS-102
SAMPLE

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Percent Total Solids: 44.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/26/13	6010C	08/29/13	**7440-38-2**	**Arsenic**	10	**10**	
3050B	08/26/13	6010C	08/29/13	**7440-43-9**	**Cadmium**	0.4	**0.6**	
3050B	08/26/13	6010C	08/29/13	**7440-47-3**	**Chromium**	1	**41**	
3050B	08/26/13	6010C	08/29/13	**7440-50-8**	**Copper**	0.4	**58.2**	
3050B	08/26/13	6010C	08/29/13	**7439-92-1**	**Lead**	4	**25**	
CLP	08/26/13	7471A	08/30/13	**7439-97-6**	**Mercury**	0.05	**0.15**	
3050B	08/26/13	6010C	08/29/13	**7440-02-0**	**Nickel**	2	**62**	
3050B	08/26/13	6010C	08/29/13	7440-22-4	Silver	0.6	0.6	U
3050B	08/26/13	6010C	08/29/13	**7440-66-6**	**Zinc**	2	**150**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: IJ13-SS-101
SAMPLE

Lab Sample ID: XB89B
LIMS ID: 13-17437
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Percent Total Solids: 50.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/26/13	6010C	08/29/13	**7440-38-2**	**Arsenic**	10	**10**	
3050B	08/26/13	6010C	08/29/13	**7440-43-9**	**Cadmium**	0.4	**0.5**	
3050B	08/26/13	6010C	08/29/13	**7440-47-3**	**Chromium**	1	**35**	
3050B	08/26/13	6010C	08/29/13	**7440-50-8**	**Copper**	0.4	**58.6**	
3050B	08/26/13	6010C	08/29/13	**7439-92-1**	**Lead**	4	**31**	
CLP	08/26/13	7471A	08/30/13	**7439-97-6**	**Mercury**	0.05	**0.14**	
3050B	08/26/13	6010C	08/29/13	**7440-02-0**	**Nickel**	2	**90**	
3050B	08/26/13	6010C	08/29/13	7440-22-4	Silver	0.6	0.6	U
3050B	08/26/13	6010C	08/29/13	**7440-66-6**	**Zinc**	2	**212**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: IJ13-SS-151
SAMPLE

Lab Sample ID: XB89C
LIMS ID: 13-17438
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Percent Total Solids: 52.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/26/13	6010C	08/29/13	**7440-38-2**	**Arsenic**	9	**10**	
3050B	08/26/13	6010C	08/29/13	7440-43-9	Cadmium	0.4	0.4	U
3050B	08/26/13	6010C	08/29/13	**7440-47-3**	**Chromium**	0.9	**31.0**	
3050B	08/26/13	6010C	08/29/13	**7440-50-8**	**Copper**	0.4	**44.0**	
3050B	08/26/13	6010C	08/29/13	**7439-92-1**	**Lead**	4	**33**	
CLP	08/26/13	7471A	08/30/13	**7439-97-6**	**Mercury**	0.04	**0.11**	
3050B	08/26/13	6010C	08/29/13	**7440-02-0**	**Nickel**	2	**68**	
3050B	08/26/13	6010C	08/29/13	7440-22-4	Silver	0.6	0.6	U
3050B	08/26/13	6010C	08/29/13	**7440-66-6**	**Zinc**	2	**210**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: IJ13-VC-101-2-3.9
SAMPLE

Lab Sample ID: XB89D
LIMS ID: 13-17439
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Percent Total Solids: 63.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/26/13	6010C	08/29/13	7440-38-2	Arsenic	8	8	U
3050B	08/26/13	6010C	08/29/13	**7440-43-9**	**Cadmium**	0.3	**0.7**	
3050B	08/26/13	6010C	08/29/13	**7440-47-3**	**Chromium**	0.8	**43.4**	
3050B	08/26/13	6010C	08/29/13	**7440-50-8**	**Copper**	0.3	**37.6**	
3050B	08/26/13	6010C	08/29/13	**7439-92-1**	**Lead**	3	**26**	
CLP	08/26/13	7471A	08/30/13	**7439-97-6**	**Mercury**	0.04	**0.09**	
3050B	08/26/13	6010C	08/29/13	**7440-02-0**	**Nickel**	2	**41**	
3050B	08/26/13	6010C	08/29/13	7440-22-4	Silver	0.5	0.5	U
3050B	08/26/13	6010C	08/29/13	**7440-66-6**	**Zinc**	2	**75**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: IJ13-VC-102-2-4
SAMPLE

Lab Sample ID: XB89E
LIMS ID: 13-17440
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Percent Total Solids: 56.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/26/13	6010C	08/30/13	7440-38-2	Arsenic	20	20	U
3050B	08/26/13	6010C	08/30/13	7440-43-9	Cadmium	0.8	0.8	U
3050B	08/26/13	6010C	08/30/13	**7440-47-3**	**Chromium**	2	**41**	
3050B	08/26/13	6010C	08/30/13	**7440-50-8**	**Copper**	0.8	**64.3**	
3050B	08/26/13	6010C	08/30/13	**7439-92-1**	**Lead**	8	**34**	
CLP	08/26/13	7471A	08/30/13	**7439-97-6**	**Mercury**	0.03	**0.29**	
3050B	08/26/13	6010C	08/30/13	**7440-02-0**	**Nickel**	4	**53**	
3050B	08/26/13	6010C	08/30/13	7440-22-4	Silver	1	1	U
3050B	08/26/13	6010C	08/30/13	**7440-66-6**	**Zinc**	4	**113**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: IJ13-VC-102-4-5.4
SAMPLE

Lab Sample ID: XB89F
LIMS ID: 13-17441
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Percent Total Solids: 66.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/26/13	6010C	08/30/13	**7440-38-2**	**Arsenic**	7	**9**	
3050B	08/26/13	6010C	08/30/13	**7440-43-9**	**Cadmium**	0.3	**0.4**	
3050B	08/26/13	6010C	08/30/13	**7440-47-3**	**Chromium**	0.7	**31.8**	
3050B	08/26/13	6010C	08/30/13	**7440-50-8**	**Copper**	0.3	**38.0**	
3050B	08/26/13	6010C	08/30/13	**7439-92-1**	**Lead**	3	**37**	
CLP	08/26/13	7471A	08/30/13	**7439-97-6**	**Mercury**	0.03	**0.15**	
3050B	08/26/13	6010C	08/30/13	**7440-02-0**	**Nickel**	1	**37**	
3050B	08/26/13	6010C	08/30/13	7440-22-4	Silver	0.4	0.4	U
3050B	08/26/13	6010C	08/30/13	**7440-66-6**	**Zinc**	1	**62**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: IJ13-SS-102
MATRIX SPIKE

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010C	10	450	431	102%	
Cadmium	6010C	0.6	113	108	104%	
Chromium	6010C	41	151	108	102%	
Copper	6010C	58.2	183	108	116%	
Lead	6010C	25	461	431	101%	
Mercury	7471A	0.15	0.70	0.477	115%	
Nickel	6010C	62	172	108	102%	
Silver	6010C	0.6 U	109	108	101%	
Zinc	6010C	150	264	108	106%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: IJ13-SS-102
DUPLICATE

Lab Sample ID: XB89A
LIMS ID: 13-17436
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010C	10	10 U	0.0%	+/- 10	L
Cadmium	6010C	0.6	0.5	18.2%	+/- 0.4	L
Chromium	6010C	41	68	49.5%	+/- 20%	*
Copper	6010C	58.2	52.3	10.7%	+/- 20%	
Lead	6010C	25	21	17.4%	+/- 4	L
Mercury	7471A	0.15	0.16	6.5%	+/- 0.05	L
Nickel	6010C	62	73	16.3%	+/- 20%	
Silver	6010C	0.6 U	0.7 U	0.0%	+/- 0.6	L
Zinc	6010C	150	144	4.1%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

XB89:00155

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: XB89LCS
LIMS ID: 13-17437
Matrix: Sediment
Data Release Authorized:
Reported: 09/02/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010C	202	200	101%	
Cadmium	6010C	51.5	50.0	103%	
Chromium	6010C	53.0	50.0	106%	
Copper	6010C	51.0	50.0	102%	
Lead	6010C	201	200	100%	
Mercury	7471A	0.54	0.50	108%	
Nickel	6010C	52	50	104%	
Silver	6010C	50.9	50.0	102%	
Zinc	6010C	53	50	106%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: XB89MB
LIMS ID: 13-17437
Matrix: Sediment
Data Release Authorized:
Reported: 09/11/13

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/26/13	6010C	08/29/13	7440-38-2	Arsenic	5	5	U
3050B	08/26/13	6010C	08/29/13	7440-43-9	Cadmium	0.2	0.2	U
3050B	08/26/13	6010C	08/29/13	7440-47-3	Chromium	0.5	0.5	U
3050B	08/26/13	6010C	08/29/13	7440-50-8	Copper	0.2	0.2	U
3050B	08/26/13	6010C	08/29/13	7439-92-1	Lead	2	2	U
CLP	08/26/13	7471A	08/30/13	7439-97-6	Mercury	0.02	0.02	U
3050B	08/26/13	6010C	08/29/13	7440-02-0	Nickel	1	1	U
3050B	08/26/13	6010C	08/29/13	7440-22-4	Silver	0.3	0.3	U
3050B	08/26/13	6010C	08/29/13	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

XB89:00157

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

UNITS: ug/L

SDG: XB89

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP082971	2000.0	1994.34	**99.7**	2000.0	2025.80	**101.3**	1964.04	**98.2**	1959.97	**98.0**	1927.46	**96.4**	1933.78	**96.7**
Cadmium	CD	ICP	IP082971	1000.0	1014.93	**101.5**	1000.0	1021.76	**102.2**	993.00	**99.3**	985.15	**98.5**	955.16	**95.5**	958.64	**95.9**
Chromium	CR	ICP	IP082971	1000.0	996.84	**99.7**	1000.0	986.57	**98.7**	970.50	**97.1**	958.30	**95.8**	940.68	**94.1**	934.44	**93.4**
Copper	CU	ICP	IP082971	1000.0	1009.56	**101.0**	1000.0	997.71	**99.8**	993.64	**99.4**	991.11	**99.1**	956.33	**95.6**	964.22	**96.4**
Lead	PB	ICP	IP082971	2000.0	2032.62	**101.6**	2000.0	2061.33	**103.1**	1999.05	**100.0**	1998.01	**99.9**	1959.97	**98.0**	1964.16	**98.2**
Mercury	HG	CVA	HG083002	8.0	8.31	**103.9**	4.0	4.22	**105.5**	4.24	**106.0**	4.30	**107.5**	4.29	**107.3**	4.30	**107.5**
Nickel	NI	ICP	IP082971	1000.0	1001.99	**100.2**	1000.0	987.50	**98.8**	964.90	**96.5**	958.49	**95.8**	941.55	**94.2**	935.67	**93.6**
Silver	AG	ICP	IP082971	1000.0	1016.08	**101.6**	1000.0	1003.61	**100.4**	996.20	**99.6**	1000.28	**100.0**	972.89	**97.3**	975.60	**97.6**
Zinc	ZN	ICP	IP082971	1000.0	1024.69	**102.5**	1000.0	1022.48	**102.2**	997.87	**99.8**	981.38	**98.1**	957.54	**95.8**	953.72	**95.4**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

XB89:00158

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

UNITS: ug/L

SDG: XB89

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Arsenic	AS	ICP	IP082971	2000.0	2013.38	**100.7**	2001.60	**100.1**	1966.83	**98.3**						
Cadmium	CD	ICP	IP082971	1000.0	1061.06	**106.1**	1061.14	**106.1**	986.67	**98.7**						
Chromium	CR	ICP	IP082971	1000.0	1060.29	**106.0**	1062.92	**106.3**	965.12	**96.5**						
Copper	CU	ICP	IP082971	1000.0	1058.97	**105.9**	1056.62	**105.7**	995.18	**99.5**						
Lead	PB	ICP	IP082971	2000.0	2048.49	**102.4**	2044.22	**102.2**	2000.75	**100.0**						
Mercury	HG	CVA	HG083002	4.0	4.30	**107.5**										
Nickel	NI	ICP	IP082971	1000.0	1094.61	**109.5**	1097.38	**109.7**	959.17	**95.9**						
Silver	AG	ICP	IP082971	1000.0	1035.40	**103.5**	1034.71	**103.5**	994.15	**99.4**						
Zinc	ZN	ICP	IP082971	1000.0	1079.39	**107.9**	1087.28	**108.7**	982.35	**98.2**						

Control Limits: Mercury 80-120; Other Metals 90-110

XB89 66156

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP083071	2000.0	2040.12	**102.0**	2000.0	2034.77	**101.7**	2040.42	**102.0**						
Cadmium	CD	ICP	IP083071	1000.0	1045.56	**104.6**	1000.0	1042.85	**104.3**	1044.05	**104.4**						
Chromium	CR	ICP	IP083071	1000.0	1040.98	**104.1**	1000.0	1040.36	**104.0**	1043.06	**104.3**						
Copper	CU	ICP	IP083071	1000.0	1040.37	**104.0**	1000.0	1033.00	**103.3**	1038.17	**103.8**						
Lead	PB	ICP	IP083071	2000.0	2020.35	**101.0**	2000.0	2014.94	**100.7**	2022.60	**101.1**						
Nickel	NI	ICP	IP083071	1000.0	1017.62	**101.8**	1000.0	1018.77	**101.9**	1026.36	**102.6**						
Silver	AG	ICP	IP083071	1000.0	1047.55	**104.8**	1000.0	1044.98	**104.5**	1052.70	**105.3**						
Zinc	ZN	ICP	IP083071	1000.0	1009.15	**100.9**	1000.0	1010.85	**101.1**	1017.96	**101.8**						

XB89:66166

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

UNITS: ug/L

SDG: XB89

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	ICP	IP082971	50.0	48.82	**97.6**										
Cadmium	CD	ICP	IP082971	2.0	2.14	**107.0**										
Chromium	CR	ICP	IP082971	5.0	5.72	**114.4**										
Copper	CU	ICP	IP082971	2.0	2.01	**100.5**										
Lead	PB	ICP	IP082971	20.0	19.85	**99.3**										
Mercury	HG	CVA	HG083002	0.1	0.11	**110.0**										
Nickel	NI	ICP	IP082971	10.0	10.88	**108.8**										
Silver	AG	ICP	IP082971	3.0	3.05	**101.7**										
Zinc	ZN	ICP	IP082971	10.0	9.35	**93.5**										

Control Limits: no control limits have been established by the EPA at this time.

XB89:SG191

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	ICP	IP083071	50.0	51.94	**103.9**	51.94	**103.9**								
Cadmium	CD	ICP	IP083071	2.0	1.89	**94.5**	1.96	**98.0**								
Chromium	CR	ICP	IP083071	5.0	5.66	**113.2**	5.51	**110.2**								
Copper	CU	ICP	IP083071	2.0	1.92	**96.0**	1.92	**96.0**								
Lead	PB	ICP	IP083071	20.0	20.12	**100.6**	20.62	**103.1**								
Nickel	NI	ICP	IP083071	10.0	8.39	**83.9**	8.98	**89.8**								
Silver	AG	ICP	IP083071	3.0	3.19	**106.3**	3.48	**116.0**								
Zinc	ZN	ICP	IP083071	10.0	9.62	**96.2**	10.23	**102.3**								

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

XB89:00162

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	ICP	IP082971	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Cadmium	CD	ICP	IP082971	5.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chromium	CR	ICP	IP082971	10.0	5.0	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Copper	CU	ICP	IP082971	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Lead	PB	ICP	IP082971	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U
Mercury	HG	CVA	HG083002	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	NI	ICP	IP082971	40.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U
Silver	AG	ICP	IP082971	10.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Zinc	ZN	ICP	IP082971	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

XB89:00163

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Arsenic	AS	ICP	IP082971	10.0	50.0	50.0	U	50.0	U	50.0	U						
Cadmium	CD	ICP	IP082971	5.0	2.0	2.0	U	2.0	U	2.0	U						
Chromium	CR	ICP	IP082971	10.0	5.0	5.0	U	5.0	U	5.0	U						
Copper	CU	ICP	IP082971	25.0	2.0	2.0	U	2.0	U	2.0	U						
Lead	PB	ICP	IP082971	3.0	20.0	20.0	U	20.0	U	20.0	U						
Mercury	HG	CVA	HG083002	0.2	0.1	0.1	U										
Nickel	NI	ICP	IP082971	40.0	10.0	10.0	U	10.0	U	10.0	U						
Silver	AG	ICP	IP082971	10.0	3.0	3.0	U	3.0	U	3.0	U						
Zinc	ZN	ICP	IP082971	20.0	10.0	10.0	U	10.0	U	10.0	U						

XB89:00164

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	ICP	IP083071	10.0	50.0	50.0	U	50.0	U	50.0	U						
Cadmium	CD	ICP	IP083071	5.0	2.0	2.0	U	2.0	U	2.0	U						
Chromium	CR	ICP	IP083071	10.0	5.0	5.0	U	5.0	U	5.0	U						
Copper	CU	ICP	IP083071	25.0	2.0	2.0	U	2.0	U	2.0	U						
Lead	PB	ICP	IP083071	3.0	20.0	20.0	U	20.0	U	20.0	U						
Nickel	NI	ICP	IP083071	40.0	10.0	10.0	U	10.0	U	10.0	U						
Silver	AG	ICP	IP083071	10.0	3.0	3.0	U	3.0	U	3.0	U						
Zinc	ZN	ICP	IP083071	20.0	10.0	10.0	U	10.0	U	10.0	U						

XB89.66165

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

ICS SOURCE: I.V.

RUNID: IP082971

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	194306.1	193321.5	**96.7**						
Antimony		1000	30.4	1028.3	**102.8**						
Arsenic		1000	4.9	993.7	**99.4**						
Barium		1000	-0.7	966.7	**96.7**						
Beryllium		1000	0.1	973.8	**97.4**						
Boron			0.1	-0.1							
Cadmium		1000	1.4	1014.2	**101.4**						
Calcium	100000	100000	96658.4	95731.3	**95.7**						
Chromium		1000	-0.1	979.1	**97.9**						
Cobalt		1000	1.1	949.1	**94.9**						
Copper		1000	-0.6	1039.1	**103.9**						
Iron	200000	200000	189889.8	189145.5	**94.6**						
Lead		1000	-7.4	972.4	**97.2**						
Magnesium	100000	100000	95099.1	94738.4	**94.7**						
Manganese		1000	0.4	923.1	**92.3**						
Molybdenum			1.4	1.6							
Nickel		1000	0.2	945.2	**94.5**						
Potassium			31.7	429.0							
Selenium		1000	-14.2	965.1	**96.5**						
Silicon			-11.4	-16.1							
Silver		1000	-1.1	1036.9	**103.7**						
Sodium			14.9	11.7							
Strontium			3.9	3.8							
Thallium		1000	0.6	934.9	**93.5**						
Tin			1.4	1.7							
Titanium			1.9	1.9							
Vanadium		1000	-2.3	973.4	**97.3**						
Zinc		1000	-3.6	935.2	**93.5**						

XB89:00166

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

ICS SOURCE: I.V.

RUNID: IP083071

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	202509.2	202672.3	**101.3**						
Antimony		1000	3.6	1011.4	**101.1**						
Arsenic		1000	25.2	1043.5	**104.4**						
Barium		1000	0.4	998.8	**99.9**						
Beryllium		1000	0.0	984.3	**98.4**						
Boron			16.4	5.7							
Cadmium		1000	-1.9	1047.3	**104.7**						
Calcium	100000	100000	101549.8	102346.0	**102.3**						
Chromium		1000	0.2	1000.2	**100.0**						
Cobalt		1000	2.1	965.1	**96.5**						
Copper		1000	0.4	1044.8	**104.5**						
Iron	200000	200000	199813.2	201092.5	**100.5**						
Lead		1000	-3.6	974.9	**97.5**						
Magnesium	100000	100000	103815.0	101007.1	**101.0**						
Manganese		1000	0.0	947.1	**94.7**						
Molybdenum			3.8	4.3							
Nickel		1000	1.2	953.7	**95.4**						
Potassium			21.9	-6.5							
Selenium		1000	27.9	1040.6	**104.1**						
Silicon			-9.6	-7.4							
Silver		1000	-1.1	1067.0	**106.7**						
Sodium			23.9	16.3							
Strontium			5.3	5.3							
Thallium		1000	7.8	953.5	**95.4**						
Tin			-10.0	-10.4							
Titanium			3.5	3.4							
Vanadium		1000	0.4	982.4	**98.2**						
Zinc		1000	-2.1	946.7	**94.7**						

XB89-66151

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Arsenic	AS	ICP	OPTIMA ICP 2	197.20		10	50.0	4/1/2012	30000.0	6/10/2013
Cadmium	CD	ICP	OPTIMA ICP 2	228.80		5	2.0	4/1/2012	20000.0	6/10/2013
Chromium	CR	ICP	OPTIMA ICP 2	267.72		10	5.0	4/1/2012	100000.0	6/10/2013
Copper	CU	ICP	OPTIMA ICP 2	324.75		25	2.0	4/1/2012	40000.0	6/10/2013
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2012	300000.0	6/10/2013
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Nickel	NI	ICP	OPTIMA ICP 2	231.60		40	10.0	4/1/2012	100000.0	6/10/2013
Silver	AG	ICP	OPTIMA ICP 2	328.07		10	3.0	4/1/2012	5000.0	6/10/2013
Zinc	ZN	ICP	OPTIMA ICP 2	213.86		20	10.0	4/1/2012	100000.0	6/10/2013

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

IEC DATE: 8/28/2013

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	13.5116900	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.1189220	0.0000000	-1.1562270	1.6205640	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	-0.0061620	0.0000000	-0.1808730	0.0000000	0.0000000	0.1270190
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.67	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	2.1037380	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	5.4930220	0.0000000	0.0000000	0.0000000	0.0000000	0.1385480	0.0000000	0.0000000	0.0114790
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0087760	0.0000000	0.0000000	0.0000000	0.0000000	-0.0448500
Cobalt	228.62	0.0000000	0.0000000	0.0906750	0.0000000	0.0000000	0.0000000	0.0000000	-0.0404570	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1617900	0.0000000	0.0000000	-0.0469400
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.0775070	0.0000000	0.0000000
Lead	220.35	-0.2924960	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1375770	-1.7455340	1.4164220	0.0554560
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1033640	0.0000000	-1.6776030	-1.2063230	0.0000000	0.6336010
Manganese	257.61	0.0054660	0.0000000	0.0000000	0.0000000	0.0039450	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0131320	0.0000000	0.0000000	0.0494370	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0543800	0.0000000	0.5156780	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.7783440	0.0000000	-0.6443870	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.9719930	0.4226130	0.0000000	-0.1427340
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0825120	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0849920	0.0000000	0.0000000	0.1906300	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.9208100	0.0000000	0.0601420
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0178620	0.0000000	0.0000000	-0.0659320	0.0000000	0.0000000

XB89 : SDG

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

IEC DATE: 8/28/2013

SDG: XB89

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	16.0812590	0.0000000	0.0000000	0.0000000	1.9531650	0.0000000	15.6704600	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.8263670	0.0000000	-3.8485090	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.4165090	0.0000000	0.0000000	0.0000000	-32.1596340	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1266550	0.0000000	0.0000000	0.0000000	0.0000000	0.2235440	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0102770	0.0000000	0.2401990	0.0000000
Boron	249.67	0.0000000	0.0000000	-1.0759410	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9387840	0.0000000	0.0000000	0.0000000	0.0000000	0.0597550	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0820970	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3212800	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1256200	0.1682020	0.0000000	0.0000000	1.7253070	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0045628	0.0000000	0.3004190	0.0000000	0.0000000	0.0000000	0.1851800	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	7.2530080	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-5.2138260	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0021200	0.0000000	0.0000000	0.0000000	-0.1832430	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5439300	0.0000000	0.4201630	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5911140	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2887870	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	287.1603720	0.0000000	0.0000000	306.9999840
Thallium	190.80	0.0000000	0.0000000	-1.5891790	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.6439390	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0384380	-0.4873020	-0.2074990	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.9474070	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1525200	-0.5409400	0.0000000	0.0000000	0.0000000	0.5527510	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2376970	0.0000000	-0.0608720	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

XB89 SDG 19

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 8/26/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
IJ13-SS-102	XB89A	0.242	0.0	50.0
IJ13-SS-102D	XB89ADUP	0.239	0.0	50.0
IJ13-SS-102S	XB89ASPK	0.237	0.0	50.0
IJ13-SS-101	XB89B	0.206	0.0	50.0
IJ13-SS-151	XB89C	0.222	0.0	50.0
IJ13-VC-101-2-3.9	XB89D	0.200	0.0	50.0
IJ13-VC-102-2-4	XB89E	0.267	0.0	50.0
IJ13-VC-102-4-5.4	XB89F	0.247	0.0	50.0
PBS	XB89MB1	0.200	0.0	50.0
LCSW	XB89MB1SPK	0.200	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS

SDG: XB89

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 8/26/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
IJ13-SS-102	XB89A	1.043	0.0	50.0
IJ13-SS-102D	XB89ADUP	1.040	0.0	50.0
IJ13-SS-102S	XB89ASPK	1.047	0.0	50.0
IJ13-SS-101	XB89B	1.005	0.0	50.0
IJ13-SS-151	XB89C	1.003	0.0	50.0
IJ13-VC-101-2-3.9	XB89D	1.028	0.0	50.0
IJ13-VC-102-2-4	XB89E	1.079	0.0	50.0
IJ13-VC-102-4-5.4	XB89F	1.086	0.0	50.0
PBS	XB89MB1	1.000	0.0	50.0
LCSS	XB89MB1SPK	1.000	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS INSTRUMENT ID: OPTIMA ICP 2 START DATE: 8/29/2013

SDG: XB89 RUNID: IP082971 METHOD: ICP END DATE: 8/29/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09415		X		X					X		X	X								X	X									X
S2	S2	1.00	09460									X		X	X																		
S3	S3	1.00	09475		X		X																X	X									X
S4	S4	1.00	09502																														
S5	S5	1.00	09524																														
ZZZZZZ	ZZZZZZ	1.00	09553																														
ZZZZZZ	ZZZZZZ	1.00	09585																														
ICV	ICV	1.00	10102		X		X					X		X	X								X	X									X
ICB	ICB	1.00	10134		X		X					X		X	X								X	X									X
CRI	CRII	1.00	10180		X		X					X		X	X								X	X									X
ICSA	ICSAI	1.00	10221		X		X					X		X	X								X	X									X
ICSAB	ICSABI	1.00	10261		X		X					X		X	X								X	X									X
CCV	CCV1	1.00	10312		X		X					X		X	X								X	X									X
CCB	CCB1	1.00	10353		X		X					X		X	X								X	X									X
ZZZZZZ	MDLCHKMB	1.00	10402																														
ZZZZZZ	MDLCHK1	1.00	10444																														
ZZZZZZ	MDLCHK2	1.00	10485																														
ZZZZZZ	MDLCHK3	1.00	10531																														
ZZZZZZ	VG98MB1	5.00	10571																														
ZZZZZZ	VG98B	5.00	11014																														
ZZZZZZ	VG98ADUP	5.00	11060																														
ZZZZZZ	VG98A	5.00	11102																														
ZZZZZZ	VG98ASPK	5.00	11143																														
CCV	CCV2	1.00	11185		X		X					X		X	X								X	X									X
CCB	CCB2	1.00	11231		X		X					X		X	X								X	X									X
ZZZZZZ	VG94MB1	1.00	11273																														
ZZZZZZ	VG96MB	1.00	11315																														
ZZZZZZ	VG96F	1.00	11360																														
ZZZZZZ	VG96G	1.00	11402																														
ZZZZZZ	VG94EDUP	1.00	11443																														
ZZZZZZ	VG94E	1.00	11485																														
ZZZZZZ	VG94ESPK	1.00	11530																														
ZZZZZZ	VG70K	5.00	11571																														
ZZZZZZ	VG96MBSPK	1.00	12011																														
ZZZZZZ	VG94MB1SPK	1.00	12051																														

FORM XIV

XB89:00173

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS INSTRUMENT ID: OPTIMA ICP 2 START DATE: 8/29/2013

SDG: XB89 RUNID: IP082971 METHOD: ICP END DATE: 8/29/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCV	CCV3	1.00	12091		X		X					X		X	X								X	X									X
CCB	CCB3	1.00	12133		X		X					X		X	X								X	X									X
ZZZZZZ	VH06MB	1.00	12175																														
ZZZZZZ	VH06B	1.00	12220																														
ZZZZZZ	VH06B	10.00	12344																														
ZZZZZZ	VH06C	10.00	12392																														
ZZZZZZ	VH06D	10.00	12435																														
ZZZZZZ	VH06ADUP	10.00	12483																														
ZZZZZZ	VH06A	10.00	12531																														
ZZZZZZ	VH06ASPK	10.00	12575																														
ZZZZZZ	VH06MBSPK	1.00	13021																														
CCV	CCV4	1.00	13061		X		X					X		X	X								X	X									X
CCB	CCB4	1.00	13103		X		X					X		X	X								X	X									X
ZZZZZZ	VG76MB	1.00	13145																														
ZZZZZZ	VH09MB	5.00	13190																														
ZZZZZZ	VH09B	5.00	13234																														
ZZZZZZ	VH09ADUP	5.00	13275																														
ZZZZZZ	VH09A	5.00	13321																														
ZZZZZZ	VH09ASPK	5.00	13363																														
ZZZZZZ	VG76ADUP	1.00	13405																														
ZZZZZZ	VG76A	1.00	13445																														
ZZZZZZ	VG76ASPK	1.00	13485																														
ZZZZZZ	VG76MBSPK	1.00	13521																														
CCV	CCV5	1.00	13561		X		X					X		X	X								X	X									X
CCB	CCB5	1.00	14003		X		X					X		X	X								X	X									X
CCV	CCV6	1.00	15223		X		X					X		X	X								X	X									X
CCB	CCB6	1.00	15265		X		X					X		X	X								X	X									X
ZZZZZZ	VH07MB2	1.00	15310																														
ZZZZZZ	VH07MB	1.00	15352																														
ZZZZZZ	VH07Ddi	1.00	15393																														
ZZZZZZ	VH07CdiDUP	1.00	15435																														
ZZZZZZ	VH07Cdi	1.00	15480																														
ZZZZZZ	VH07CdiSPK	1.00	15522																														
ZZZZZZ	D1	1.00	15562																														
CCV	CCV7	1.00	16003		X		X					X		X	X								X	X									X

FORM XIV

XB89:00174

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS INSTRUMENT ID: OPTIMA ICP 2 START DATE: 8/29/2013

SDG: XB89 RUNID: IP082971 METHOD: ICP END DATE: 8/29/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCB	CCB7	1.00	16045		X		X					X		X	X								X	X									X
ZZZZZZ	ZZZZZZ	5.00	16091																														
ZZZZZZ	VH28MB	5.00	16141																														
ZZZZZZ	VH28A	5.00	16185																														
ZZZZZZ	VH28C	5.00	16232																														
ZZZZZZ	VH28BDUP	5.00	16275																														
ZZZZZZ	VH28B	5.00	16321																														
ZZZZZZ	VH28BSPK	5.00	16363																														
CCV	CCV8	1.00	16405		X		X					X		X	X								X	X									X
CCB	CCB8	1.00	16451		X		X					X		X	X								X	X									X
ZZZZZZ	RINSE	1.00	16493																														
ZZZZZZ	RINSE2	1.00	16534																														
ZZZZZZ	RINSE3	1.00	16580																														
ZZZZZZ	RINSE4	1.00	17021																														
ZZZZZZ	DI	1.00	17063																														
ZZZZZZ	DI2	1.00	17105																														
ZZZZZZ	DI3	1.00	17150																														
ZZZZZZ	DI4	1.00	17192																														
S0	S0	1.00	09311		X		X					X		X	X								X	X									X
S2	S2	1.00	09352									X		X	X																		
S3	S3	1.00	09372		X		X																X	X									X
S4	S4	1.00	09400																														
S5	S5	1.00	09421																														
ICV	ICV	1.00	09464		X		X					X		X	X								X	X									X
ICB	ICB	1.00	09504		X		X					X		X	X								X	X									X
CRI	CRII	1.00	09550		X		X					X		X	X								X	X									X
ICSA	ICSAI	1.00	09591		X		X					X		X	X								X	X									X
ICSAB	ICSABI	1.00	10033		X		X					X		X	X								X	X									X
CCV	CCV1	1.00	10083		X		X					X		X	X								X	X									X
CCB	CCB1	1.00	10124		X		X					X		X	X								X	X									X
ZZZZZZ	XB72RMB1	1.00	10165																														
ZZZZZZ	XB72RBDUP	1.00	10211																														
ZZZZZZ	XB72RB	1.00	10252																														
ZZZZZZ	XB72RBSPK	1.00	10294																														
ZZZZZZ	ZZZZZZ	1.00	10334																														

FORM XIV

XB89:00175

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS INSTRUMENT ID: OPTIMA ICP 2 START DATE: 8/29/2013

SDG: XB89 RUNID: IP082971 METHOD: ICP END DATE: 8/29/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	XB72RC	1.00	10374																														
ZZZZZZ	XB72RJ	1.00	10415																														
ZZZZZZ	XB72RMB1SPK	1.00	10461																														
CCV	CCV2	1.00	10501		X		X					X		X	X								X	X									X
CCB	CCB2	1.00	10541		X		X					X		X	X								X	X									X
ZZZZZZ	XC05MB1	1.00	10583																														
ZZZZZZ	XB99MB	1.00	11024																														
ZZZZZZ	XB99A	1.00	11070																														
ZZZZZZ	XC05A	1.00	11112																														
ZZZZZZ	XC05E	1.00	11153																														
ZZZZZZ	XC05J	1.00	11195																														
ZZZZZZ	XC05L	1.00	11240																														
ZZZZZZ	XC05M	1.00	11282																														
ZZZZZZ	XC05MB1SPK	1.00	11323																														
ZZZZZZ	XB99MBSPK	1.00	11363																														
CCV	CCV3	1.00	11404		X		X					X		X	X								X	X									X
CCB	CCB3	1.00	11444		X		X					X		X	X								X	X									X
ZZZZZZ	XC05KDUP	1.00	11485																														
ZZZZZZ	XC05K	1.00	11531																														
ZZZZZZ	XC05KSPK	1.00	11573																														
ZZZZZZ	ZZZZZZ	1.00	12013																														
ZZZZZZ	XC05N	1.00	12053																														
CCV	CCV4	1.00	12095		X		X					X		X	X								X	X									X
CCB	CCB4	1.00	12135		X		X					X		X	X								X	X									X
ZZZZZZ	XC15MB1	1.00	12181																														
ZZZZZZ	XC15CDUP	1.00	12222																														
ZZZZZZ	XC15C	1.00	12264																														
ZZZZZZ	XC15CSPK	1.00	12305																														
ZZZZZZ	ZZZZZZ	1.00	12350																														
ZZZZZZ	XC15MB1SPK	1.00	12390																														
CCV	CCV5	1.00	12430		X		X					X		X	X								X	X									X
CCB	CCB5	1.00	12471		X		X					X		X	X								X	X									X
S2	S2	1.00	12551									X		X	X																		
S3	S3	1.00	12571		X		X																X	X									X
CCV	CCV6	1.00	13001		X		X					X		X	X								X	X									X

FORM XIV

XB89:00176

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS INSTRUMENT ID: OPTIMA ICP 2 START DATE: 8/29/2013

SDG: XB89 RUNID: IP082971 METHOD: ICP END DATE: 8/29/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCB	CCB6	1.00	13041		X		X					X		X	X								X	X									X
PBS	XB89MB1	2.00	13083		X		X					X		X	X								X	X									X
IJ13-SS-102D	XB89ADUP	2.00	13124		X		X					X		X	X								X	X									X
IJ13-SS-102	XB89A	2.00	13170		X		X					X		X	X								X	X									X
IJ13-SS-102S	XB89ASPK	2.00	13212		X		X					X		X	X								X	X									X
ZZZZZZ	ZZZZZZ	2.00	13244																														
IJ13-SS-101	XB89B	2.00	13280		X		X					X		X	X								X	X									X
IJ13-SS-151	XB89C	2.00	13320		X		X					X		X	X								X	X									X
IJ13-VC-101-2-3.9	XB89D	2.00	13361		X		X					X		X	X								X	X									X
IJ13-VC-102-2-4	XB89E	2.00	13401																														
LCSS	XB89MB1SPK	2.00	13443		X		X					X		X	X								X	X									X
CCV	CCV7	1.00	13483		X		X					X		X	X								X	X									X
CCB	CCB7	1.00	13524		X		X					X		X	X								X	X									X
ZZZZZZ	XC27MB	2.00	13565																														
IJ13-VC-102-4-5.4	XB89F	2.00	14011																														
ZZZZZZ	XC27ADUP	2.00	14053																														
ZZZZZZ	XC27A	2.00	14093																														
ZZZZZZ	XC27ASPK	2.00	14133																														
ZZZZZZ	XC27B	2.00	14165																														
ZZZZZZ	XC27MBSPK	2.00	14205																														
CCV	CCV8	1.00	14245		X		X					X		X	X								X	X									X
CCB	CCB8	1.00	14290		X		X					X		X	X								X	X									X

XB89:00177

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 8/30/2013

SDG: XB89 | RUNID: IP083071 | METHOD: ICP | END DATE: 8/30/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09222		X		X					X		X	X								X	X									X
S2	S2	1.00	09263									X		X	X																		
S3	S3	1.00	09284		X		X																X	X									X
S4	S4	1.00	09311																														
S5	S5	1.00	09333																														
ICV	ICV	1.00	09364		X		X					X		X	X								X	X									X
ICB	ICB	1.00	09404		X		X					X		X	X								X	X									X
CRI	CRII	1.00	09450		X		X					X		X	X								X	X									X
ICSA	ICSAI	1.00	09491		X		X					X		X	X								X	X									X
ICSAB	ICSABI	1.00	09533		X		X					X		X	X								X	X									X
CCV	CCV1	1.00	09573		X		X					X		X	X								X	X									X
CCB	CCB1	1.00	10013		X		X					X		X	X								X	X									X
ZZZZZZ	XC27MB	2.00	10055																														
IJ13-VC-102-2-4	XB89E	5.00	10101		X		X					X		X	X								X	X									X
IJ13-VC-102-4-5.4	XB89F	2.00	10142		X		X					X		X	X								X	X									X
ZZZZZZ	XC27ADUP	2.00	10184																														
ZZZZZZ	XC27A	2.00	10224																														
ZZZZZZ	XC27ASPK	2.00	10265																														
ZZZZZZ	XC27B	2.00	10305																														
ZZZZZZ	XC27MBSPK	2.00	10345																														
CCV	CCV2	1.00	10385		X		X					X		X	X								X	X									X
CCB	CCB2	1.00	10430		X		X					X		X	X								X	X									X

XB89 : 69178

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS | INSTRUMENT ID: CETAC MERCURY | START DATE: 8/30/2013

SDG: XB89 | RUNID: HG083002 | METHOD: CVA | END DATE: 8/30/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	14305														X																
S0.1	S0.1	1.00	14323														X																
S0.5	S0.5	1.00	14340														X																
S1	S1	1.00	14354														X																
S2	S2	1.00	14372														X																
S5	S5	1.00	14385														X																
S10	S10	1.00	14403														X																
ICV	AICV	1.00	14470														X																
ICB	ICB	1.00	14490														X																
CCV	ACCV1	1.00	14504														X																
CCB	CCB1	1.00	14522														X																
CRA	CRA	1.00	14540														X																
ZZZZZZ	XC83MB1	1.00	14554																														
ZZZZZZ	XC83MB1SPK	1.00	14571																														
ZZZZZZ	XC83A	1.00	14585																														
ZZZZZZ	XC83ADUP	1.00	15002																														
ZZZZZZ	XC83ASPK	1.00	15020																														
ZZZZZZ	XC83B	1.00	15034																														
ZZZZZZ	XB75MB1	1.00	15052																														
ZZZZZZ	XB75MB1SPK	1.00	15065																														
ZZZZZZ	XB75A	1.00	15083																														
CCV	ACCV2	1.00	15101														X																
CCB	CCB2	1.00	15115														X																
ZZZZZZ	XB75ADUP	1.00	15133																														
ZZZZZZ	XB75ASPK	1.00	15150																														
ZZZZZZ	XB75B	1.00	15164																														
ZZZZZZ	XB75C	1.00	15182																														
ZZZZZZ	XB75D	1.00	15195																														
ZZZZZZ	XB75E	1.00	15213																														
ZZZZZZ	XB75F	1.00	15230																														
ZZZZZZ	XB75G	1.00	15244																														
ZZZZZZ	XB75H	1.00	15262																														
ZZZZZZ	XB75I	1.00	15280																														
CCV	ACCV3	1.00	15294														X																
CCB	CCB3	1.00	15312														X																

FORM XIV

XB89 001 78

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: I&J Waterway RI/FS INSTRUMENT ID: CETAC MERCURY START DATE: 8/30/2013

SDG: XB89 RUNID: HG083002 METHOD: CVA END DATE: 8/30/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	XB75J	1.00	15330																														
ZZZZZZ	XB75K	1.00	15344																														
ZZZZZZ	XB75L	1.00	15361																														
ZZZZZZ	XB76MB1	1.00	15375																														
ZZZZZZ	XB76MB1SPK	1.00	15392																														
ZZZZZZ	XB76A	1.00	15410																														
ZZZZZZ	XB76ADUP	1.00	15424																														
ZZZZZZ	XB76ASPK	1.00	15441																														
ZZZZZZ	XB76B	1.00	15455																														
ZZZZZZ	XB76C	1.00	15473																														
CCV	ACCV4	1.00	15491														X																
CCB	CCB4	1.00	15505														X																
ZZZZZZ	XB76D	1.00	15523																														
ZZZZZZ	XB76E	1.00	15541																														
ZZZZZZ	XB76F	1.00	15554																														
ZZZZZZ	XB76G	1.00	15572																														
ZZZZZZ	XB76H	1.00	15590																														
ZZZZZZ	XB76I	1.00	16004																														
ZZZZZZ	XB76J	1.00	16021																														
ZZZZZZ	XB76K	1.00	16035																														
ZZZZZZ	XB76L	1.00	16053																														
PBW	XB89MB1	1.00	16070														X																
CCV	ACCV5	1.00	16084														X																
CCB	CCB5	1.00	16102														X																
LCSW	XB89MB1SPK	1.00	16120														X																
IJ13-SS-102	XB89A	1.00	16134														X																
IJ13-SS-102D	XB89ADUP	1.00	16152														X																
IJ13-SS-102S	XB89ASPK	1.00	16170														X																
IJ13-SS-101	XB89B	1.00	16183														X																
IJ13-SS-151	XB89C	1.00	16201														X																
IJ13-VC-101-2-3.9	XB89D	1.00	16215														X																
IJ13-VC-102-2-4	XB89E	1.00	16233														X																
IJ13-VC-102-4-5.4	XB89F	1.00	16250														X																
CCV	ACCV6	1.00	16264														X																
CCB	CCB6	1.00	16282														X																

FORM XIV

XB89:00180

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: XB89

SAMPLE RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Client ID: IJ13-SS-102
ARI ID: 13-17436 XB89A

Analyte	Date	Method	Units	RL	Sample
Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	43.97
Preserved Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	47.84
Total Volatile Solids	08/26/13 082613#1	SM2540E	Percent	0.01	10.98
N-Ammonia	08/26/13 082613#1	EPA 350.1M	mg-N/kg	1.07	39.6
Sulfide	08/26/13 082613#1	EPA 376.2	mg/kg	208	3,380
Total Organic Carbon	09/03/13 090313#1	Plumb,1981	Percent	0.020	5.40

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

XB89:00182

SAMPLE RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Client ID: IJ13-SS-101
ARI ID: 13-17437 XB89B

Analyte	Date	Method	Units	RL	Sample
Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	52.30
Preserved Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	49.71
Total Volatile Solids	08/26/13 082613#1	SM2540E	Percent	0.01	8.03
N-Ammonia	08/26/13 082613#1	EPA 350.1M	mg-N/kg	0.37	25.7
Sulfide	08/26/13 082613#1	EPA 376.2	mg/kg	195	2,860
Total Organic Carbon	09/03/13 090313#1	Plumb,1981	Percent	0.020	3.43

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

XB89:00183

SAMPLE RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Client ID: IJ13-SS-151
ARI ID: 13-17438 XB89C

Analyte	Date	Method	Units	RL	Sample
Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	55.57
Preserved Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	52.30
Total Volatile Solids	08/26/13 082613#1	SM2540E	Percent	0.01	6.53
N-Ammonia	08/26/13 082613#1	EPA 350.1M	mg-N/kg	0.34	26.0
Sulfide	08/26/13 082613#1	EPA 376.2	mg/kg	190	2,600
Total Organic Carbon	09/03/13 090313#1	Plumb,1981	Percent	0.020	3.10

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.

XB89:00184

SAMPLE RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Client ID: IJ13-VC-101-2-3.9
ARI ID: 13-17439 XB89D

Analyte	Date	Method	Units	RL	Sample
Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	64.29
Total Organic Carbon	09/03/13 090313#1	Plumb,1981	Percent	0.020	7.58

RL Analytical reporting limit
U Undetected at reported detection limit

XB89:00185

SAMPLE RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Client ID: IJ13-VC-102-2-4
ARI ID: 13-17440 XB89E

Analyte	Date	Method	Units	RL	Sample
Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	58.23
Total Organic Carbon	09/03/13 090313#1	Plumb,1981	Percent	0.198	20.1

RL Analytical reporting limit
U Undetected at reported detection limit

XB89:00186

SAMPLE RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Client ID: IJ13-VC-102-4-5.4
ARI ID: 13-17441 XB89F

Analyte	Date	Method	Units	RL	Sample
Total Solids	08/26/13 082613#1	SM2540B	Percent	0.01	64.57
Total Organic Carbon	09/03/13 090313#1	Plumb,1981	Percent	0.020	5.60

RL Analytical reporting limit
U Undetected at reported detection limit

XB89:00187

MS/MSD RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: XB89A Client ID: IJ13-SS-102						
N-Ammonia	08/26/13	mg-N/kg	39.6	244	226	90.5%
Sulfide	08/26/13	mg/kg	3,380	3,520	320	43.8%
Total Organic Carbon	09/03/13	Percent	5.40	9.48	4.48	91.0%

XB89:00188

REPLICATE RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: 08/20/13
Date Received: 08/22/13

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: XB89A Client ID: IJ13-SS-102					
Total Solids	08/26/13	Percent	43.97	45.00 46.44	2.7%
Preserved Total Solids	08/26/13	Percent	47.84	49.44 50.27	2.5%
Total Volatile Solids	08/26/13	Percent	10.98	10.98 10.16	4.4%
N-Ammonia	08/26/13	mg-N/kg	39.6	40.1 39.2	1.1%
Sulfide	08/26/13	mg/kg	3,380	3,230 3,100	4.3%
Total Organic Carbon	09/03/13	Percent	5.40	5.38 4.76	7.0%

XB89:00189

LAB CONTROL RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Sulfide EPA 376.2	PREP	08/26/13	mg/kg	165	154	106.9%
Total Organic Carbon Plumb,1981	ICVL	09/03/13	Percent	0.102	0.100	102.0%

XB89:00190

METHOD BLANK RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank	QC ID
Total Solids	08/26/13	Percent	< 0.01 U	ICB
Preserved Total Solids	08/26/13	Percent	< 0.01 U	ICB
Total Volatile Solids	08/26/13	Percent	< 0.01 U	ICB
N-Ammonia	08/26/13	mg-N/kg	< 0.10 U	PREP
Sulfide	08/26/13	mg/kg	< 1.00 U	PREP
Total Organic Carbon	09/03/13	Percent	< 0.020 U	ICB

XB89:00191

STANDARD REFERENCE RESULTS-CONVENTIONALS
XB89-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 09/05/13

Project: I&J Waterway RI/FS
Event: 0900007-01.02
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
N-Ammonia ERA #040912	08/26/13	mg-N/kg	102	100	102.0%
Total Organic Carbon NIST 1941B	09/03/13	Percent	2.77	2.99	92.6%

XB89:00192

Geotechnical Analysis
Report and Summary QC Forms

ARI Job ID: XB89

GEOTECHNICAL ANALYSIS DATA SHEET
Moisture Content by Method ASTM D2216

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: gk
Reported: 09/10/13
Date Received: 08/22/13
Page 1 of 1

QC Report No: XB89-Anchor QEA, LLC.
Project: I&J Waterway RI/FS
0900007-01.02

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result	RPD
IJ13-SS-102 XB89A 13-17436	08/20/13	Sediment	08/29/13 08:49	107.74	
IJ13-SS-101 XB89B 13-17437	08/20/13	Sediment	08/29/13 08:49	84.40	
IJ13-SS-151 XB89C 13-17438	08/20/13	Sediment	08/29/13 08:49	65.45	
IJ13-VC-101-2-3.9 XB89D 13-17439	08/20/13	Sediment	08/29/13 08:49	58.38	
IJ13-VC-102-2-4 XB89E 13-17440	08/20/13	Sediment	08/29/13 08:49	75.01	
IJ13-VC-102-2-4 XB89ELR	08/20/13	Sediment	08/29/13 08:49	74.28	1.0 %
IJ13-VC-102-2-4 XB89ELT	08/20/13	Sediment	08/29/13 08:49	75.47	0.6 %
IJ13-VC-102-4-5.4 XB89F 13-17441	08/20/13	Sediment	08/29/13 08:49	46.94	

Reported in Percent

Anchor QEA, LLC
I&J Waterway RI/FS
0900007-01 02

Percent Finer (Passing) Than the Indicated Size

Sieve Size (microns)	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4 (4750)	#10 (2000)	#20 (850)	#40 (425)	#60 (250)	#100 (150)	#200 (75)	32	22	13	9	7	3.2	1 3
IJ13-VC-102-2-4	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	99 9	99 2	98 5	97 4	94 0	83 1	67 4	51 7	43 5	36 1	31.2	21 4	14 8
	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100.0	99 9	99 2	98.4	97 2	93 7	82.9	66 0	52 0	43 7	37 1	31 3	22 3	14 8
	100 0	100 0	100 0	100 0	100 0	100 0	100.0	100 0	99 8	99.2	98 6	97.4	94 1	83 6	67 2	51 6	42 6	36 9	31 1	22 9	14 7
IJ13-SS-102	100 0	100.0	100 0	100.0	94 9	87 7	84 4	76 1	67 1	59 5	55 1	49.9	43 5	35.8	35 1	33 5	30 5	28 5	25 9	16 3	10 0
IJ13-SS-101	100 0	100 0	100 0	100 0	100 0	94 9	91 2	84 6	74 0	61 4	49 3	38.0	29 5	24 0	23 3	22 1	21 3	20 4	18 8	11 9	7 8
IJ13-SS-151	100 0	100.0	100 0	100.0	100 0	92 7	84 8	75.8	66 0	54 9	44 1	33 6	26 1	21 1	20 8	19.4	18.0	16 9	12 7	9 5	6 3
IJ13-VC-101-2-3 9	100 0	100.0	100 0	100.0	100 0	95 7	95 7	93 8	89 6	83 4	76 2	66.8	54.0	42 6	36 5	27 4	22 8	19 6	15.6	10 4	7 8
IJ13-VC-102-4-5.4	100 0	100 0	100 0	100.0	94 2	90 4	88 6	87 3	84 9	79 5	75 5	71 0	61 5	49 5	43 9	38 8	33.1	24 2	20.3	15 3	11 4

Testing performed according to ASTM D421/D422

XB89

XB89 : 66155

Anchor QEA, LLC
I&J Waterway RI/FS
0900007-01 02

Percent Retained in Each Size Fraction

Description	% Coarse Gravel				% Gravel			% Coarse Sand	% Medium Sand		% Fine Sand			% Very Coarse Silt	% Coarse Silt	% Medium Silt	% Fine Silt	% Fine Silt	% Very Fine Silt	% Clay	
Particle Size (microns)	3-2"	2-1 1/2"	1 1/2"-1"	1-3/4"	3/4-1/2"	1/2-3/8"	3/8"-4750	4750-2000	2000-850	850-425	425-250	250-150	150-75	75-32	32-22	22-13	13-9	9-7	7-3 2	3 2-1.3	<1 3
IJ13-VC-102-2-4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 1	0 7	0 7	1 1	3 4	10 8	15 8	15 6	8.2	7 4	4 9	9 9	6.6	14 8
	0 0	0 0	0 0	0 0	0 0	0 0	0.0	0 1	0 7	0 7	1 3	3 5	10 8	17 0	14 0	8.2	6 6	5 8	9 1	7 4	14.8
	0 0	0.0	0 0	0 0	0 0	0.0	0 0	0 1	0 7	0 6	1 1	3.3	10 5	16 4	15 6	9.0	5 7	5 7	8 2	8 2	14 7
IJ13-SS-102	0 0	0.0	0 0	5 1	7 2	3 3	8.4	9 0	7 6	4 4	5 2	6.4	7 7	0 6	1 7	2.9	2 1	2.5	9 6	6 3	10 0
IJ13-SS-101	0 0	0 0	0 0	0.0	5 1	3 7	6 7	10 6	12.6	12 1	11 3	8.5	5 5	0 7	1 2	0 8	0 8	1 6	6 9	4 1	7 8
IJ13-SS-151	0 0	0 0	0 0	0.0	7 3	7.8	9 1	9 8	11 1	10 8	10 4	7.6	4.9	0 3	1 4	1 4	1 1	4 2	3 2	3.2	6 3
IJ13-VC-101-2-3 9	0 0	0.0	0 0	0.0	4.3	0.0	1 9	4.2	6.2	7 2	9 4	12 8	11 4	6.1	9 1	4.6	3 3	3 9	5 2	2 6	7 8
IJ13-VC-102-4-5 4	0 0	0 0	0 0	5 8	3.9	1 8	1 3	2 3	5 4	3 9	4 5	9.5	12 0	5.7	5 1	5 7	8 9	3 8	5 1	3 8	11 4

XB89

XB89-SS150

Client	Anchor QEA, LLC	Project No	I&J Waterway RI/FS
ARI Triplicate Sample ID	XB89 E	Project	0900007-01 02
Client Triplicate Sample ID	IJ13-VC-102-2-4	Page	1 of 1

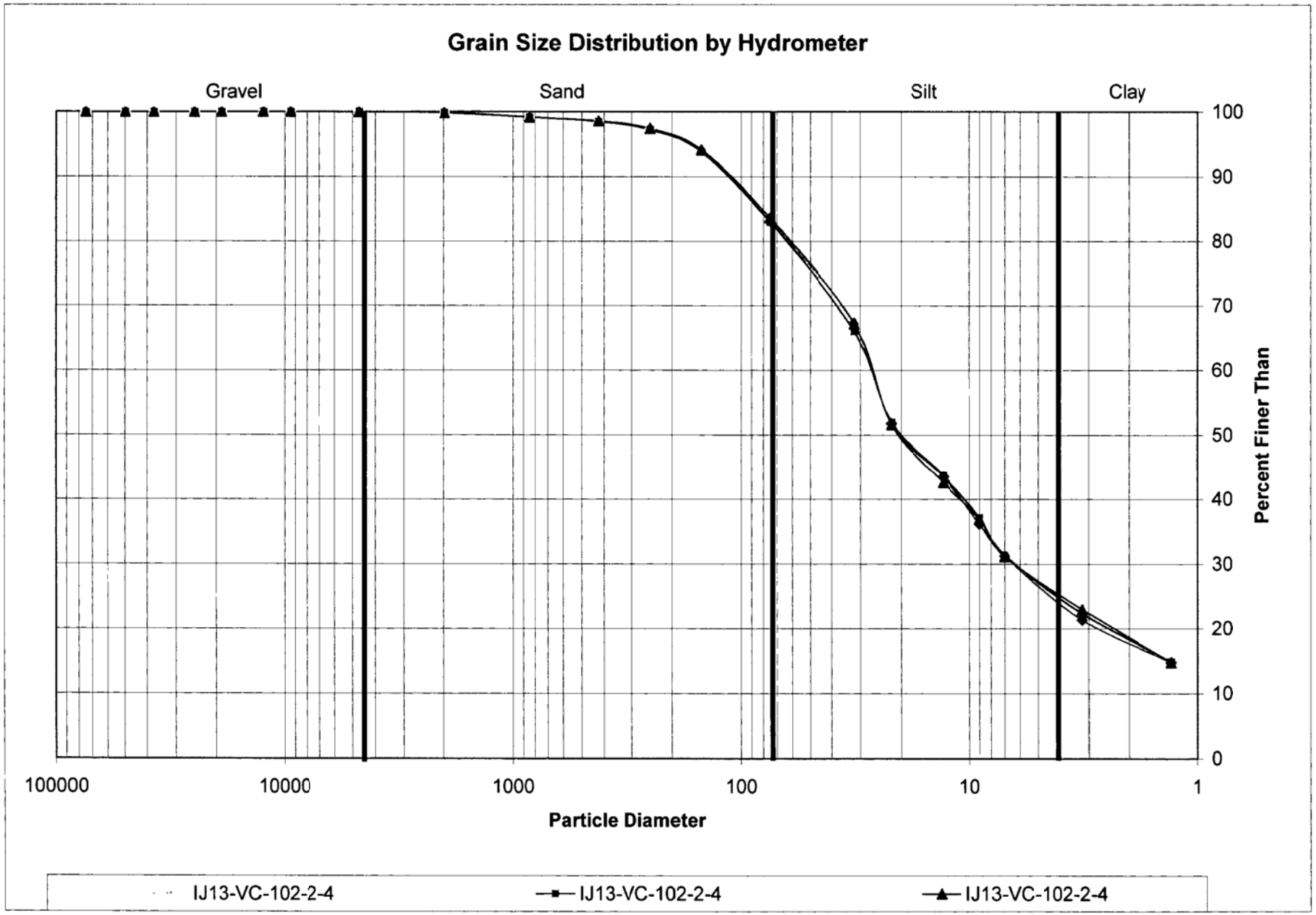
Relative Standard Deviation, By Size

Sample ID	75000	50000	37500	25000	19000	12500	9500	4750	2000	850	425	250	150	75	32	22	13	9	7	3 2	1 3
IJ13-VC-102-2-4	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	99 9	99 2	98 5	97 4	94 0	83 1	67 4	51 7	43 5	36 1	31 2	21 4	14 8
IJ13-VC-102-2-4	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	99 9	99 2	98 4	97 2	93 7	82 9	66 0	52 0	43 7	37 1	31 3	22 3	14 8
IJ13-VC-102-2-4	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	99 8	99 2	98 6	97 4	94 1	83 6	67 2	51 6	42 6	36 9	31 1	22 9	14 7
AVE	100 00	100 00	100 00	100 00	100 00	100 00	100 00	99 98	99 88	99 17	98 50	97 33	93 95	83 23	66 83	51 77	43 28	36 71	31 23	22 19	14 79
STDEV	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 03	0 03	0 02	0 06	0 12	0 20	0 33	0 74	0 19	0 61	0 51	0 11	0 79	0 05
%RSD	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 03	0 03	0 02	0 06	0 12	0 21	0 40	1 10	0 36	1 40	1 38	0 36	3 57	0 36

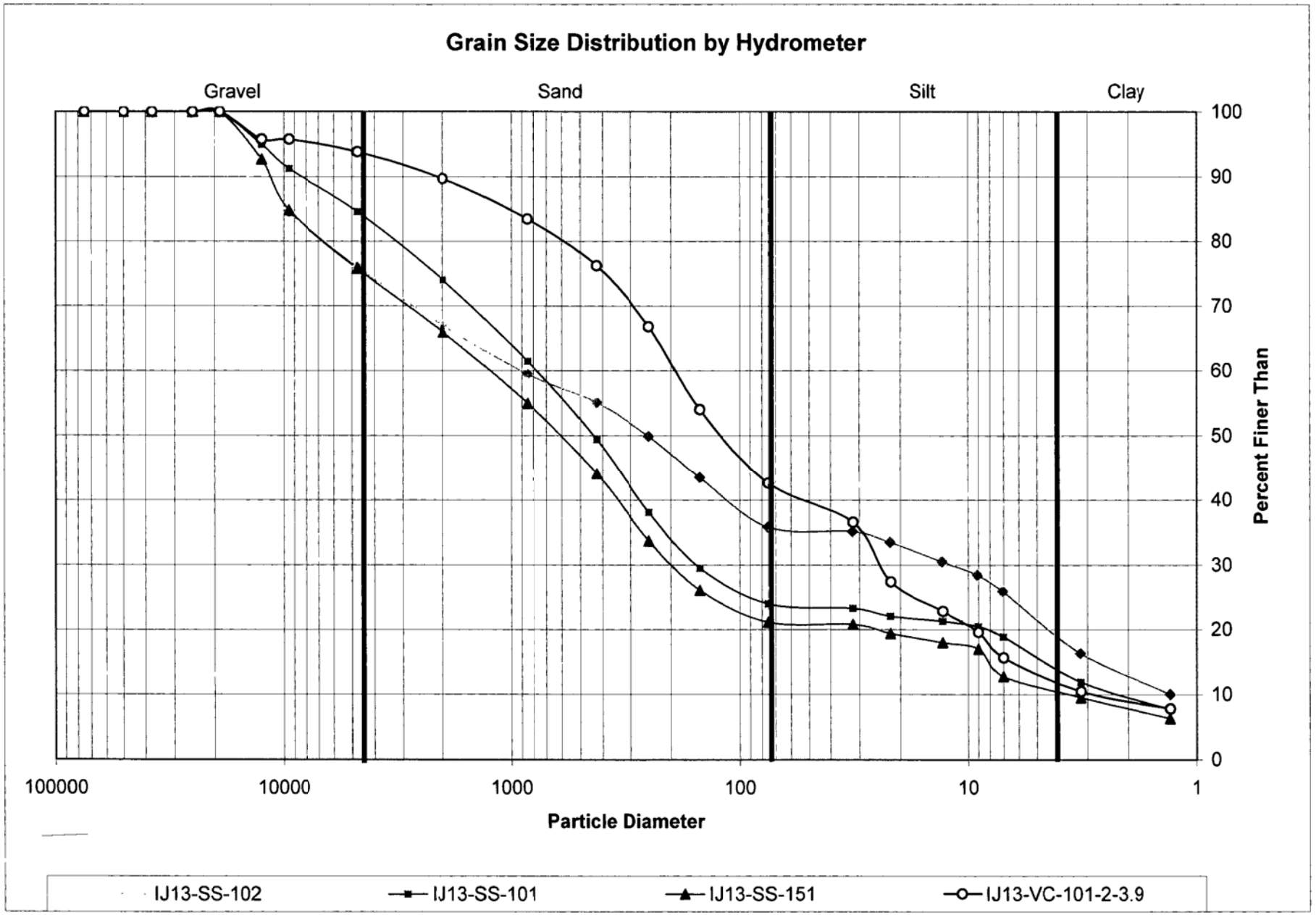
This Triplicate applies to the Batch Containing the Following Samples

Sample ID	Date Sampled	Date Set up	Date Started	Date Complete	Data Qualifiers
IJ13-VC-102-2-4	8/20/2013	8/28/2013	9/3/2013	9/6/2013	
	8/20/2013	8/28/2013	9/3/2013	9/6/2013	
	8/20/2013	8/28/2013	9/3/2013	9/6/2013	
IJ13-SS-102	8/20/2013	8/28/2013	9/3/2013	9/6/2013	
IJ13-SS-101	8/20/2013	8/28/2013	9/3/2013	9/6/2013	
IJ13-SS-151	8/20/2013	8/28/2013	9/3/2013	9/6/2013	
IJ13-VC-101-2-3 9	8/20/2013	8/28/2013	9/3/2013	9/6/2013	
IJ13-VC-102-4-5 4	8/20/2013	8/28/2013	9/3/2013	9/6/2013	

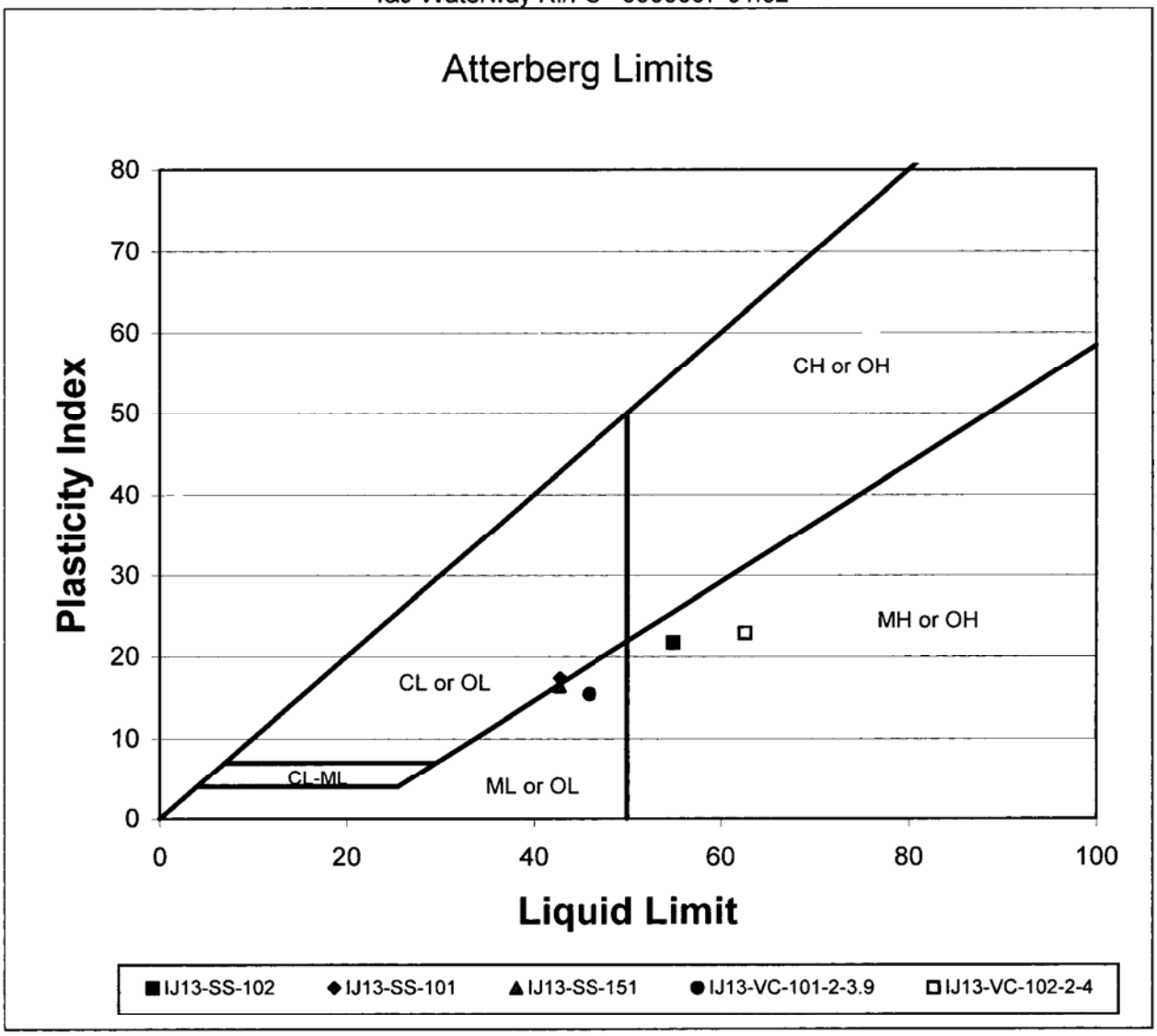
XB89 : 6615


Grain Size Distribution by Hydrometer
Gravel
Sand
Silt
Clay
100
90
80
70
60
50
40
30
20
10
0
Percent Finer Than
100000
10000
1000
100
10
1
Particle Diameter
IJ13-VC-102-2-4
IJ13-VC-102-2-4
IJ13-VC-102-2-4

XB89:00198


Grain Size Distribution by Hydrometer
Gravel
Sand
Silt
Clay
100
90
80
70
60
50
40
30
20
10
0
Percent Finer Than
100000
10000
1000
100
10
1
Particle Diameter
IJ13-SS-102
IJ13-SS-101
IJ13-SS-151
IJ13-VC-101-2-3.9

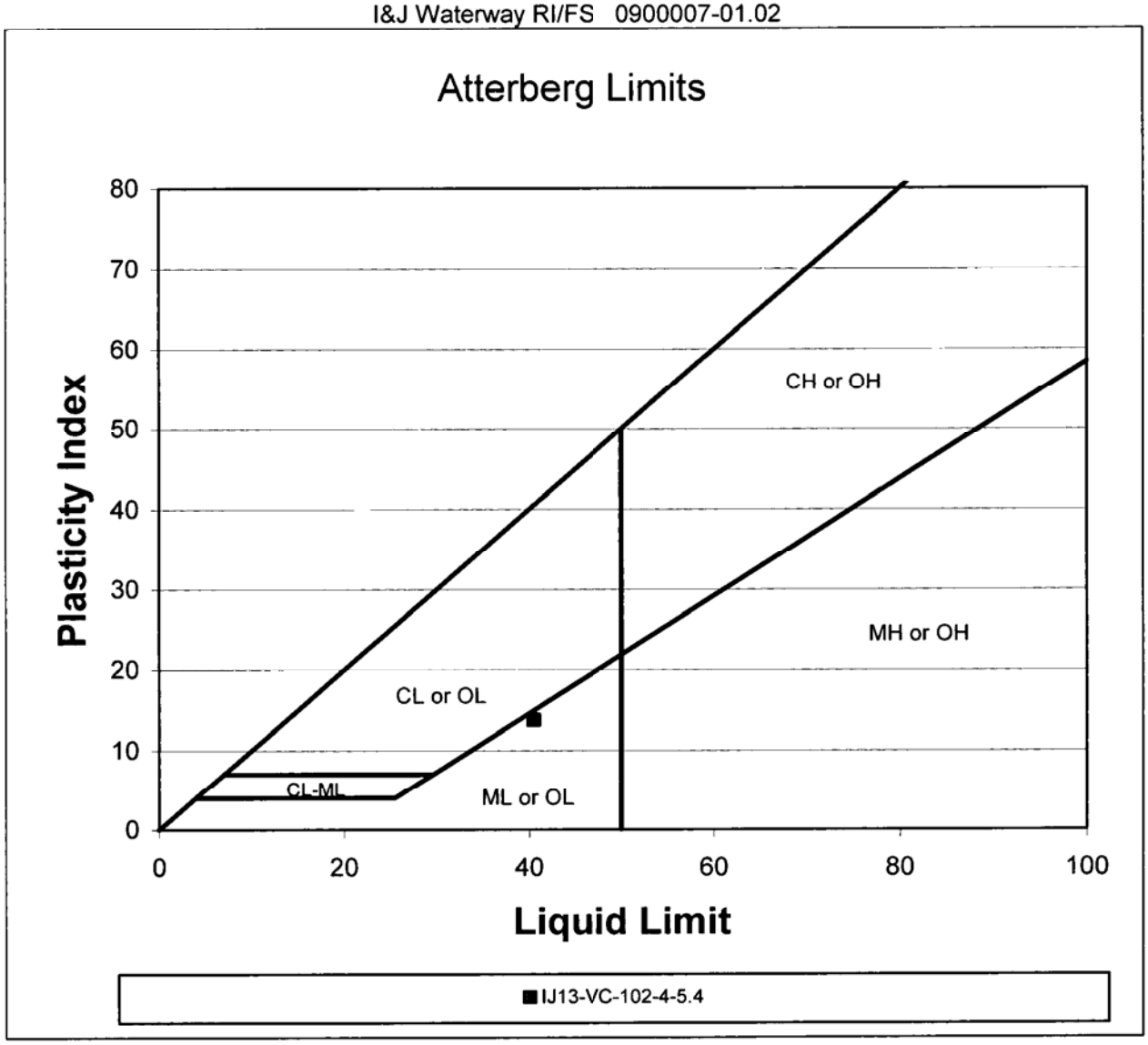
Anchor QEA, LLC.
I&J Waterway RI/FS 0900007-01.02



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
IJ13-SS-102	107.74	21.7	54.9	33.2	MH
IJ13-SS-101	84.40	17.3	42.8	25.5	CL
IJ13-SS-151	65.45	16.4	42.7	26.3	ML
IJ13-VC-101-2-3.9	58.38	15.4	46.0	30.6	ML
IJ13-VC-102-2-4	75.01	22.9	62.6	39.7	MH

XB89

Anchor QEA, LLC.
I&J Waterway RI/FS 0900007-01.02



Sample Identification	As-Received Moisture Content	Plasticity Index	Liquid Limit	Plastic Limit	USCS
IJ13-VC-102-4-5.4	46.94	13.8	40.5	26.7	ML

XB89

Total Solids

ARI Job ID: XB89

Extractions Total Solids-extts
Data By: Coung Truong
Created: 8/22/13

Worklist: 1192
Analyst: SR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% TS	pH	5g	10g	12.5g
1.	XB89A 13-17436 IJ13-SS-102	1.17	12.76	6.70	47.7	NR	10.48	20.96	26.21
2.	XB89B 13-17437 IJ13-SS-101	1.16	12.08	7.58	58.8	NR	8.50	17.01	21.26
3.	XB89C 13-17438 IJ13-SS-151	1.17	12.04	7.53	58.5	NR	8.55	17.09	21.37
4.	XB89D 13-17439 IJ13-VC-101-2-3.9	1.17	13.12	8.70	63.0	NR	7.94	15.87	19.84
5.	XB89E 13-17440 IJ13-VC-102-2-4	1.18	12.66	7.75	57.2	NR	8.74	17.48	21.85
6.	XB89F 13-17441 IJ13-VC-102-4-5.4	1.18	13.45	9.13	64.8	NR	7.72	15.43	19.29

XB89:00203

Extractions Total Solids-extts
Data By: Coung Truong
Created: 8/22/13

Worklist: 1192
Analyst: SR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% TS	pH	5g	10g	12.5g
1.	XB89A 13-17436 IJ13-SS-102	1.17	12.76	6.70	47.7	NR	10.48	20.96	26.21
2.	XB89B 13-17437 IJ13-SS-101	1.16	12.08	7.58	58.8	NR	8.50	17.01	21.26
3.	XB89C 13-17438 IJ13-SS-151	1.17	12.04	7.53	58.5	NR	8.55	17.09	21.37
4.	XB89D 13-17439 IJ13-VC-101-2-3.9	1.17	13.12	8.70	63.0	NR	7.94	15.87	19.84
5.	XB89E 13-17440 IJ13-VC-102-2-4	1.18	12.66	7.75	57.2	NR	8.74	17.48	21.85
6.	XB89F 13-17441 IJ13-VC-102-4-5.4	1.18	13.45	9.13	64.8	NR	7.72	15.43	19.29

XB89:00204

Extractions Total Solids-extts
Data By: Coung Truong
Created: 8/22/13

Worklist: 1192
Analyst: CT
Comments:

Oven ID: 615

Balance ID: B139298662

Samples In: Date: 08/22/13 Time: 1720 Temp: 106 Analyst: YC

Samples Out: Date: 08/23/13 Time: 0625 Temp: 104°C Analyst: SR

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% TS	pH	5g	10g	12.5g
1.	XB89A 13-17436 IJ13-SS-102	1.17	12.76	6.70		NR			
2.	XB89B 13-17437 IJ13-SS-101	1.16	12.08	7.58		NR			
3.	XB89C 13-17438 IJ13-SS-151	1.17	12.04	7.53		NR			
4.	XB89D 13-17439 IJ13-VC-101-2-3.9	1.17	13.12	8.70		NR			
5.	XB89E 13-17440 IJ13-VC-102-2-4	1.18	12.66	7.75		NR			
6.	XB89F 13-17441 IJ13-VC-102-4-5.4	1.18	13.45	9.13		NR			

XB89:00205

Solids Data Entry Report Checked by: DM Date: 8/27/13
Date: 08/27/13 Data Analyst: CB

Solids Determination performed on 08/26/13 by CB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
XB89	A	IJ13-SS-102	1.012	10.276	5.113	44.27
XB89	B	IJ13-SS-101	1.012	10.888	6.029	50.80
XB89	C	IJ13-SS-151	1.002	10.556	6.017	52.49
XB89	D	IJ13-VC-101-2-3.9	0.989	10.366	6.911	63.15
XB89	E	IJ13-VC-102-2-4	0.995	10.723	6.446	56.03
XB89	F	IJ13-VC-102-4-5.4	0.962	10.439	7.250	66.35

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section metals

Oven Identification: 07 **Balance ID:** 068755

Samples in Oven: Date: 8-26-13 Time: 1055 Temp: 105°C Analyst: CB

Removed from Oven: Date: 8-27-13 Time: 0745 Temp: 102°C Analyst: CB

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
XB89 A	1.012	10.276	5.113	-	J
" B	1.012	10.588	CB 8/27/13 6.029 ~~6.029~~	-	J
" C	1.002	10.556	6.017	-	J
" D	0.989	10.366	6.911	-	J
" E	0.995	10.723	6.446	-	J
" F	0.962	10.439	7.250	-	J
			CB 8-26-13		

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

XB89 : 00207

Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: XB89

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

(8270D) BAN/SIM SVOA PSDDA–Soil/Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test BAN/SIM SVOA PSDDA # 9 (BANSBANSDMP)

PSDDA (5-20ppb)

ARI Job No(s) XB89 Page 1 of 1 Batch set up by: ~~SH~~

Bottle #	Extraction Requirements	Weight Extracted (eq. to 10g dry wt)	(REQ) GPC (1:1) 1 or (2)	Final Effective Volume	Volume to Lab	Comments	Verify Client ID / Analyst/Date
	XB89 MBS	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	Microwave 1 2 (3) M 08/26/13 Analyst/Date
	SBS	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	
	SBS Dup.	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	KD 80-85°C (1) 2 3 4 5 6 YL 08/26/13 Analyst/Date
	~~QLS~~	~~10.00g~~	~~(1:1) Y / N~~	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	
	~~QLS (SIM)~~	~~10.00g~~	~~(1:1) Y / N~~	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	TurboVap (1) 2 3 AC Analyst/Date
4	XB89 A	21.28	(1:1) (Y) / N	1mL	1mL		
4	B	18.28	(1:1) (Y) / N	1mL	1mL		GPC Prep Filter (1:1) AC 8-29-13 Analyst/Date
5	C	18.27	(1:1) (Y) / N	1mL	1mL		
3	D	16.08	(1:1) (Y) / N	1mL	1mL		
3 *	Dmso	16.13	(1:1) (Y) / N	1mL	1mL		Post GPC KD 80-85°C (1) 2 3 4 5 6 SR 08/30/13 Analyst/Date
3 *	Dmsd	16.09	(1:1) (Y) / N	1mL	1mL		
3	E	18.15	(1:1) (Y) / N	1mL	1mL		
3	F	16.18	(1:1) (Y) / N	1mL	1mL		TurboVap (1) 2 3 AC 8-30-13 Analyst/Date
Analyst/Date	NL 08/26/13 M 08/26/13		AC 8-29-13	AC 8-30-13	AC 8-30-13	Reviewed by/Date AC 8-30-13	

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (B###861)	100/150µg/mL	50µL	6/28/14	M	~~SH~~
Full List Spike (Freezer)	7 (B###695)	100µg/mL	50µL	12/18/13	M	~~SH~~
Base Spike	56(B###696)	200µg/mL	50µL	12/18/13	M	~~SH~~
Acid Spike	38(B###697)	100/200µg/mL	50µL	12/18/13	M	~~SH~~
~~QLS Spike (14 in Freezer)~~	~~14( )~~	~~10/100µg/mL~~	~~20µL~~			
~~SIM QLS Spike (Freezer)~~	~~25( )~~	~~1µg/mL~~	~~50µL~~			

Extraction Time: 9:34 Balance ID: B146462614

SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 DCM/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-rehomogenize while hot then let cool 15 min in cold water. Re-homogenize while cool. 7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 80:20 DCM/ACE (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD (small ~~or large~~ drying column with pre-deactivated glasswool-Blanks=5g sulfate)) to 5mL at 80- 85°C. 12. GPC Req. 13. (After GPC): KD at 80-85°. 14. TurboVap. 15. Vial in DCM.

A. Need Total Solids Y /(N) B. Archive/Freeze Y /(N)

Reagent and Solutions Identification

(8270D) BAN/SIM SVOA PSDDA–Soil/Sediment
Microwave (3546) (SOP # 3304S)

ARI Job No(s) XB89

(8270D) BAN/SIM SVOA PSDDA Soil/Sediment/Solid/Other:	Analyst/Date
Microwave Station: Pre-Deactivated Sodium Sulfate: (H157) Anhydrous Sodium Sulfate: (B001432) 1:1 Methylene Chloride/Acetone: (B001503) 80:20 Methylene Chloride/Acetone: (B001463) Methylene Chloride: (B001359) Pre-Deactivated Glasswool: (H204)	Microwave M 08/26/13
Pre-GPC KD Station: Pre-Deactivated Glasswool: (H ~~157~~ 204) Anhydrous Sodium Sulfate: (H157) Methylene Chloride: (B001352)	Pre-GPC KD AC 08/26/13
GPC Filter Prep: Methylene Chloride: (B001359)	GPC Filter Prep AC 8-29-13
GPC Station: Acetone: (B001744) Methylene Chloride: (B001359)	GPC AC 8-29-13
Post GPC KD Station: Methylene Chloride: (B001422)	Post GPC KD SR 08/30/13
Vialing Station: Methylene Chloride: (B001422) Hexane: ( )	Vialing AC 8-30-13

Incorporated
Analytical Chemists and
Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: XB89

Client ID: Anchor QEA, LLC

Parameter: BAN/SIM SVOA

Client Project: I & J Waterway RI/FS

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☒ Standing Water Decanted (Not shared)= A, B, C	YL 08/22/13
☐ Standing Water Homogenized (Shared samples)=	
☒ Clay/Clumps (Difficult to homogenize)= Like clay D, E, F	YL 08/22/13
☒ Rocks (%+size)? 20% small & med A, B, C, <5% small rad CD D, F	YL 08/22/13
☐ Organics (Leaves/sticks/grass)=	
☒ Oily, obvious fuel/sulfur odors= & wage odor A, B, C, , E,	YL 08/22/13
☒ Other (Details)= <5% shell fragment C,	YL 08/22/13
XB89-A due to sample weigh, surrogate and samples	M 08/26/13
have to splitted into multi vessels, sample will combined	
after 2nd time if microwaved.	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
(Centrifuge#1 used for all Centrifugations)	

3056F

Revision 009
08/14/12

XB89:00211

Semivolatile Raw Data
Initial Calibration

ARI Job ID: XB89

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS,SVOA Initial Calibration Notes

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date(s): 08/23/13 Internal Standard ID B000928 Expiration 6/26/14

DFTPP Tune Meets Criteria?	YES / NO	Minimum Response Factors Met/	YES / NO
DDT Breakdown <20%?	YES / NO	ICV Exceeding ±20%?	YES / NO
Peak Tailing Factor ≤2?	YES / NO	ICV Exceeding ±30%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	Linear Fits Used?	YES / NO
Q flag applied?	YES / NO	Quadratic Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Calibration Points Dropped?	YES / NO
Spectral Library Updated?	YES / NO		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Supelco	B000112	10/15/13	UCT-Q	2055-1	12/05/13
	2044-2	01/2514		2054-1	12/13/13
	B000931	2/20/14		20532	8/13/13.
	B000943	7/3/14			
	B000676	12/14/13			

Detail problems, corrective actions and/or other pertinent information below:

- Benzoic Acid, 2.4 Dinitrophenol, Benzidine – quadratic fit.

- Low point of the curve dropped for Benzoic Acid, 2.4 Dinitrophenol, 4 nitrophenol, PCP, Benzidine, Hexachlorocyclopentadiene.

Analyst: YZ **Date:** 8/26/13.

Reviewer: VD **Date:** 8/27/13

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 8/20/13 Analysis: ~~BSN~~ SIMAM Analyst: YZ

GC Program: ABN2 Column No: 277719 Column Type: 5% - SemiVol

Instrument Tune (.U or .CT.): B0828C4 EM Voltage: 2153

Calibration File: DC0823 Curve Date: 8/23/13 Injection Vol.: 1uL

IS/SS	Ical/Ccal		LCS/ICV
B928	B942	B943	2055-1
	B676	2054-2	2054-1
	B931		2053-2

Document All Maintenance Tasks In Element

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130823.b

	Time	Filename	LabID	ClientId	DF													
1	1550	df0823.d	DFTPP	DFTPP	1	NO ISTDS FOUND												
2	1604	ic0823a.d	IC0823A		1	8.64	152867	11.09	536851	14.66	348566	17.72	633376	22.81	651036	25.26	696727	23.92	837259
3	1641	ic0823b.d	IC0823B		1	8.65	128870	11.10	455155	14.67	290082	17.73	534833	22.82	546444	25.27	588311	23.93	736875
4	1717	ic0823c.d	IC0823C		1	8.65	136395	11.09	493798	14.65	318478	17.72	579034	22.81	616127	25 26	654682	23.92	752660
5	1753	ic0823d.d	IC0823D		1	8.64	141401	11.09	509787	14.65	320679	17.72	595717	22.80	638067	25.25	679396	23.92	789657
6	1830	ic0823e.d	IC0823E		1	8.65	127966	11.09	445700	14.66	291839	17.72	530873	22.82	571853	25.26	613368	23.93	743215
7	1943	ic0823g.d	IC0823G		1	8.65	128614	11.09	464682	14.66	296272	17.72	532150	22.80	590152	25.25	642181	23.92	726421
8	2020	ic0823h.d	IC0823H		1	8.65	121889	11.09	447997	14.66	297523	17.72	537629	22.81	592454	25.25	627504	23.92	737973
9	2132	icv0823.d	ICV0823		1	8.65	129610	11.09	460928	14.66	292417	17.72	558226	22.81	595437	25.26	646524	23.92	763435
10	2205	df0823a.d	DFTPP	DFTPP	1	NO ISTDS FOUND												
11	2220	cc0823.d	CC0823		1	8.64	138895	11.09	490825	14.66	320586	17.72	578555	22.81	618949	25.26	676569	23.92	809162
12	2256	xb15mb.d	XB15MBS1	XB15MBS1	1	8.64	109669	11.09	407932	14.64	255519	17.70	458281	22.80	482859	25.24	500122	23.91	570643
13	2332	xb15sb.d	XB15LCSS1	XB15LCSS1	1	8.63	115242	11.08	399922	14.64	259145	17.70	474224	22.80	512092	25.24	516323	23.91	637768
14	0008	xb15a.d	XB15A	EX-15-13.0	1	8.64	107018	11.09	388249	14.64	247750	17.70	407986	22.79	415637	25.24	424162	23.90	510832
15	0045	xb15b.d	XB15B	EX-16-11.0	1	8.64	136552	11.09	500092	14.65	305843	17.71	509216	22.82	514924	25.27	522085	23.94	657904
16	0121	xb15c.d	XB15C	EX-17-15.0	1	8.64	134256	11.09	509034	14.65	314564	17.71	537002	22.81	498552	25.27	490874	23.94	617829
17	0157	xb15d.d	XB15D	EX-18-15.0	1	8.63	129157	11.08	486372	14.64	297635	17.70	524937	22.81	519124	25.25	494035	23.92	629226
18	0233	xb15e.d	XB15E	EX-19-14.0	1	8.63	127514	11.08	469214	14.64	293311	17.71	500535	22.82	499582	25.27	526557	23.94	639269
19	0309	xb15ems.d	XB15EMS	EX-19-14.0 M	1	8.63	123632	11.08	450772	14.65	288823	17.71	473508	22.82	470479	25.27	517562	23.94	605667
20	0346	xb15emsd.d	XB15EMSD	EX-19-14.0 M	1	8.63	123421	11.08	449231	14.64	282639	17.71	485094	22.82	483873	25.27	537245	23.94	623059
21	0422	xb15f.d	XB15F	EX-20-16.0	1	8.63	127160	11.08	475692	14.64	298465	17.71	524613	22.81	548640	25.26	549110	23.93	653241
22	0458	xb15g.d	XB15G	EX-21-16.0	1	8.63	121700	11.08	446108	14.64	284122	17.70	507524	22.81	546981	25.26	528737	23.93	663971
23	0534	xb15h.d	XB15H		1	NO ISTDS FOUND												
24	0610	xb15i.d	XB15I	DUP-S-3	1	8.63	129045	11.08	463329	14.64	290739	17.70	535632	22.80	573697	25.25	566956	23.92	698253

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In Element

YZ 8/20/13

XB20130214

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130823.b/ABN.m
Batch File: /chem1/nt10.i/20130823.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	ic0823a	ic0823b	ic0823c	ic0823d	ic0823e	ic0823g	ic0823h
INJ.DATE:	23-AUG-2013	23-AUG-2013	23-AUG-2013	23-AUG-2013	23-AUG-2013	23-AUG-2013	23-AUG-2013
INJ.TIME:	16:04	16:41	17:17	17:53	18:30	19:43	20:20

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.335	6.351	6.335	6.335	6.343	6.335	6.335	6.335	3.335-9.335	6.339	0.006
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.785	15.785-21.785	+++++	+++++
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.645	5.645-11.645	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.455	14.455-20.455	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.696	17.696-23.696	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.219	16.219-22.219	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.949	19.949-25.949	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.195	16.195-22.195	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.503	17.503-23.503	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.827	4.827-10.827	+++++	+++++
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.842	12.842-18.842	+++++	+++++
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 YZ Date: 8/26/13
Reviewer 2 Date: 8/27/13

XBG 9225

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130823.b/ABN.m
Batch File: /chem1/nt10.i/20130823.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.383	13.383-19.383	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	23.920	23.928	23.920	23.920	23.928	23.920	23.920	23.920	20.920-26.920	23.922	0.004
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.571	12.571-18.571	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.447	8.447-14.447	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

XB89:00216

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130823.b/ABN.m
Batch File: /chem1/nt10.i/20130823.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.252	7.252-13.252	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	15.333	15.340	15.333	15.333	15.333	15.325	15.332	15.333	12.333-18.333	15.333	0.005
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.761	13.761-19.761	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.923	13.923-19.923	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.085	11.085-17.085	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	16.129	16.144	16.129	16.129	16.137	16.121	16.129	16.129	13.129-19.129	16.131	0.007
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.324	14.324-20.324	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.115	12.115-18.115	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.270	12.270-18.270	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.519	13.519-19.519	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.019	10.019-16.019	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.095	11.095-17.095	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.118	11.118-17.118	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.572	8.572-14.572	+++++	+++++

XB89:00217

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130823.b/ABN.m
Batch File: /chem1/nt10.i/20130823.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.243	6.243-12.243	+++++	+++++
105 1-methylnaphthalene	12.733	12.741	12.726	12.726	12.733	12.733	12.733	12.733	9.733-15.733	12.732	0.005
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.642	24.642-30.642	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.953	22.953-28.953	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.750	24.750-30.750	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.464	23.464-29.464	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.099	24.099-30.099	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.513	21.513-27.513	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.132	22.132-28.132	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.528	16.528-22.528	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$ 2 Phenol-d5	7.935	7.958	7.935	7.935	7.943	7.935	7.935	7.935	4.935-10.935	7.939	0.009
3 Phenol	7.966	7.981	7.958	7.958	7.974	7.958	7.958	7.966	4.966-10.966	7.965	0.009
4 Bis(2-Chloroethyl)ethe	8.151	8.167	8.151	8.143	8.159	8.151	8.151	8.151	5.151-11.151	8.153	0.007
$ 5 2-Chlorophenol-d4	8.221	8.228	8.213	8.213	8.221	8.213	8.221	8.221	5.221-11.221	8.218	0.006

XB89:00218

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130823.b/ABN.m
Batch File: /chem1/nt10.i/20130823.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	6 2-Chlorophenol	8.252	8.259	8.244	8.244	8.252	8.244	8.251	8.252	5.252-11.252	8.249	0.006
	7 1,3-Dichlorobenzene	8.538	8.546	8.538	8.538	8.538	8.538	8.538	8.538	5.538-11.538	8.539	0.003
*	8 1,4-Dichlorobenzene-d4	8.639	8.647	8.646	8.639	8.647	8.646	8.646	8.639	5.639-11.639	8.644	0.004
	9 1,4-Dichlorobenzene	8.670	8.678	8.678	8.670	8.678	8.677	8.677	8.670	5.670-11.670	8.675	0.004
$	10 1,2-Dichlorobenzene-d4	8.926	8.934	8.926	8.926	8.934	8.926	8.926	8.926	5.926-11.926	8.928	0.004
	11 Benzyl alcohol	8.887	8.903	8.895	8.887	8.895	8.887	8.887	8.887	5.887-11.887	8.891	0.006
	12 1,2-Dichlorobenzene	8.957	8.965	8.957	8.949	8.957	8.957	8.957	8.957	5.957-11.957	8.957	0.005
	13 2-Methylphenol	9.089	9.097	9.081	9.081	9.089	9.089	9.089	9.089	6.089-12.089	9.088	0.005
	14 2,2'-oxybis(1-Chloropr	9.143	9.159	9.159	9.143	9.159	9.158	9.143	9.143	6.143-12.143	9.152	0.008
	15 4-Methylphenol	9.376	9.392	9.376	9.368	9.384	9.368	9.376	9.376	6.376-12.376	9.377	0.008
	16 N-Nitroso-di-n-propyla	9.392	9.415	9.392	9.384	9.399	9.391	9.391	9.392	6.392-12.392	9.395	0.010
	17 Hexachloroethane	9.601	9.601	9.601	9.601	9.601	9.601	9.601	9.601	6.601-12.601	9.601	0.000
$	18 Nitrobenzene-d5	9.679	9.694	9.679	9.679	9.687	9.678	9.679	9.679	6.679-12.679	9.682	0.006
	19 Nitrobenzene	9.718	9.733	9.718	9.710	9.725	9.717	9.717	9.718	6.718-12.718	9.720	0.007
	20 Isophorone	10.191	10.222	10.183	10.175	10.199	10.183	10.183	10.191	7.191-13.191	10.191	0.016
	21 2-Nitrophenol	10.338	10.346	10.338	10.330	10.338	10.338	10.338	10.338	7.338-13.338	10.338	0.004
	22 2,4-Dimethylphenol	10.415	10.438	10.415	10.415	10.423	10.415	10.415	10.415	7.415-13.415	10.419	0.009
	23 Bis(2-Chloroethoxy)met	10.615	10.631	10.615	10.615	10.623	10.615	10.615	10.615	7.615-13.615	10.618	0.006
	24 Benzoic acid	10.654	10.823	10.477	10.523	10.723	10.492	10.584	10.654	7.654-13.654	10.611	0.129
	25 2,4-Dichlorophenol	10.808	10.816	10.800	10.800	10.808	10.800	10.808	10.808	7.808-13.808	10.806	0.006
	26 1,2,4-Trichlorobenzene	10.977	10.985	10.978	10.977	10.985	10.977	10.977	10.977	7.978-13.977	10.980	0.004
*	27 Naphthalene-d8	11.093	11.101	11.093	11.093	11.093	11.093	11.093	11.093	8.093-14.093	11.094	0.003
	28 Naphthalene	11.132	11.147	11.132	11.132	11.140	11.132	11.132	11.132	8.132-14.132	11.135	0.006
	29 4-Chloroaniline	11.248	11.271	11.240	11.240	11.255	11.240	11.240	11.248	8.248-14.248	11.248	0.012

XQC 9215

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130823.b/ABN.m
Batch File: /chem1/nt10.i/20130823.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	11.387	11.395	11.387	11.387	11.395	11.387	11.387	11.387	8.387-14.387	11.389	0.004
31 4-Chloro-3-methylpheno	12.215	12.230	12.215	12.207	12.223	12.215	12.215	12.215	9.215-15.215	12.217	0.007
32 2-Methylnaphthalene	12.532	12.540	12.532	12.524	12.532	12.532	12.532	12.532	9.532-15.532	12.532	0.005
33 Hexachlorocyclopentadi	12.857	12.857	12.850	12.849	12.857	12.857	12.857	12.857	9.857-15.857	12.855	0.004
34 2,4,6-Trichlorophenol	13.105	13.113	13.097	13.097	13.105	13.097	13.097	13.105	10.105-16.105	13.101	0.006
35 2,4,5-Trichlorophenol	13.167	13.182	13.167	13.167	13.167	13.166	13.167	13.167	10.167-16.167	13.169	0.006
$ 36 2-Fluorobiphenyl	13.283	13.291	13.283	13.283	13.291	13.283	13.283	13.283	10.283-16.283	13.285	0.004
37 2-Chloronaphthalene	13.523	13.531	13.515	13.515	13.523	13.515	13.515	13.523	10.523-16.523	13.519	0.006
38 2-Nitroaniline	13.732	13.747	13.724	13.724	13.739	13.724	13.724	13.732	10.732-16.732	13.731	0.009
39 Dimethylphthalate	14.126	14.142	14.119	14.119	14.127	14.118	14.119	14.126	11.126-17.126	14.124	0.009
40 Acenaphthylene	14.366	14.374	14.366	14.366	14.366	14.366	14.366	14.366	11.366-17.366	14.367	0.003
41 2,6-Dinitrotoluene	14.235	14.258	14.227	14.227	14.243	14.227	14.235	14.235	11.235-17.235	14.236	0.011
* 42 Acenaphthene-d10	14.660	14.668	14.652	14.652	14.660	14.660	14.660	14.660	11.660-17.660	14.659	0.005
43 3-Nitroaniline	14.575	14.598	14.567	14.567	14.583	14.567	14.567	14.575	11.575-17.575	14.575	0.012
44 Acenaphthene	14.722	14.737	14.722	14.722	14.730	14.722	14.722	14.722	11.722-17.722	14.725	0.006
45 2,4-Dinitrophenol	14.792	14.823	14.799	14.784	14.799	14.784	14.784	14.792	11.792-17.792	14.795	0.014
46 Dibenzofuran	15.085	15.093	15.078	15.077	15.085	15.077	15.085	15.085	12.085-18.085	15.083	0.006
47 4-Nitrophenol	14.923	14.954	14.954	14.915	14.931	14.923	14.915	14.923	11.923-17.923	14.931	0.017
48 2,4-Dinitrotoluene	15.062	15.085	15.054	15.054	15.070	15.054	15.054	15.062	12.062-18.062	15.062	0.012
49 Fluorene	15.789	15.797	15.789	15.789	15.789	15.789	15.789	15.789	12.789-18.789	15.790	0.003
50 Diethylphthalate	15.588	15.603	15.580	15.580	15.596	15.580	15.580	15.588	12.588-18.588	15.587	0.009
51 4-Chlorophenyl-phenyle	15.804	15.812	15.804	15.804	15.804	15.804	15.804	15.804	12.804-18.804	15.805	0.003
52 4-Nitroaniline	15.835	15.874	15.812	15.812	15.843	15.812	15.820	15.835	12.835-18.835	15.830	0.023
53 4,6-Dinitro-2-methylph	15.897	15.928	15.882	15.882	15.905	15.881	15.889	15.897	12.897-18.897	15.895	0.017

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Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130823.b/ABN.m
Batch File: /chem1/nt10.i/20130823.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
54 N-Nitrosodiphenylamine	16.044	16.059	16.044	16.044	16.052	16.044	16.044	16.044	13.044-19.044	16.047	0.006
$ 55 2,4,6-Tribromophenol	16.283	16.291	16.275	16.275	16.283	16.275	16.275	16.283	13.283-19.283	16.280	0.006
56 4-Bromophenyl-phenylet	16.815	16.823	16.807	16.807	16.815	16.815	16.815	16.815	13.815-19.815	16.814	0.005
57 Hexachlorobenzene	16.915	16.923	16.915	16.908	16.916	16.907	16.915	16.915	13.915-19.915	16.914	0.005
58 Pentachlorophenol	17.326	17.334	17.326	17.318	17.326	17.318	17.318	17.326	14.326-20.326	17.324	0.006
* 59 Phenanthrene-d10	17.720	17.728	17.720	17.720	17.720	17.720	17.720	17.720	14.720-20.720	17.721	0.003
60 Phenanthrene	17.767	17.782	17.767	17.767	17.775	17.767	17.767	17.767	14.767-20.767	17.770	0.006
61 Anthracene	17.875	17.883	17.875	17.867	17.875	17.867	17.875	17.875	14.875-20.875	17.874	0.005
62 Carbazole	18.223	18.223	18.216	18.208	18.216	18.207	18.215	18.223	15.223-21.223	18.215	0.006
63 Di-n-butylphthalate	18.981	18.982	18.974	18.974	18.982	18.973	18.974	18.981	15.981-21.981	18.977	0.004
64 Fluoranthene	20.173	20.181	20.173	20.173	20.173	20.173	20.173	20.173	17.173-23.173	20.174	0.003
65 Pyrene	20.606	20.614	20.606	20.598	20.606	20.598	20.606	20.606	17.606-23.606	20.605	0.005
$ 66 Terphenyl-d14	20.923	20.931	20.924	20.916	20.924	20.915	20.916	20.923	17.923-23.923	20.921	0.006
67 Butylbenzylphthalate	21.837	21.845	21.837	21.837	21.845	21.837	21.837	21.837	18.837-24.837	21.839	0.004
68 Benzo(a)anthracene	22.797	22.805	22.790	22.789	22.797	22.789	22.789	22.797	19.797-25.797	22.794	0.006
* 69 Chrysene-d12	22.813	22.821	22.813	22.805	22.821	22.805	22.813	22.813	19.813-25.813	22.813	0.006
70 3,3'-Dichlorobenzidine	22.759	22.774	22.759	22.758	22.766	22.758	22.758	22.759	19.759-25.759	22.762	0.006
71 Chrysene	22.859	22.875	22.851	22.851	22.859	22.851	22.851	22.859	19.859-25.859	22.857	0.009
72 bis(2-Ethylhexyl)phtha	22.867	22.875	22.867	22.867	22.867	22.867	22.867	22.867	19.867-25.867	22.868	0.003
73 Di-n-octylphthalate	23.935	23.943	23.935	23.927	23.935	23.927	23.927	23.935	20.935-26.935	23.933	0.006
74 Benzo(b)fluoranthene	24.578	24.593	24.570	24.570	24.578	24.570	24.570	24.578	21.578-27.578	24.576	0.009
75 Benzo(k)fluoranthene	24.624	24.640	24.617	24.616	24.632	24.616	24.616	24.624	21.624-27.624	24.623	0.009
187 Total Benzofluoranthen	24.624	24.640	24.617	24.570	24.632	24.616	24.616	24.624	21.624-27.624	24.616	0.022
76 Benzo(a)pyrene	25.159	25.174	25.151	25.151	25.159	25.151	25.151	25.159	22.159-28.159	25.156	0.009

XB89:00221

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130823.b/ABN.m
Batch File: /chem1/nt10.i/20130823.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	77 Perylene-d12	25.259	25.267	25.259	25.251	25.259	25.251	25.251	25.259	22.259-28.259	25.257	0.006
	78 Indeno(1,2,3-cd)pyrene	27.545	27.584	27.529	27.529	27.560	27.537	27.537	27.545	24.545-30.545	27.546	0.020
	79 Dibenzo(a,h)anthracene	27.591	27.622	27.584	27.576	27.599	27.576	27.583	27.591	24.591-30.591	27.590	0.017
	80 Benzo(g,h,i)perylene	28.236	28.283	28.221	28.220	28.252	28.220	28.220	28.236	25.236-31.236	28.236	0.024
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
	90 N-Nitrosodimethylamine	4.181	4.235	4.189	4.181	4.181	4.181	4.173	4.181	1.181-7.181	4.189	0.021
	91 Aniline	8.035	8.051	8.035	8.035	8.043	8.035	8.035	8.035	5.035-11.035	8.039	0.006
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
	93 Benzidine	20.451	20.459	20.452	20.451	20.452	20.451	20.451	20.451	17.451-23.451	20.453	0.003
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
	98 Retene	21.171	21.179	21.164	21.163	21.171	21.163	21.163	21.171	18.171-24.171	21.168	0.006
	99 Perylene	25.313	25.329	25.306	25.298	25.314	25.298	25.306	25.313	22.313-28.313	25.309	0.011
	100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
	101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
	102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
	103 Pyridine	4.243	4.289	4.266	4.250	4.235	4.250	4.243	4.243	1.243-7.243	4.254	0.018
	188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.874	8.874-14.874	+++++	+++++
	189 N-Nitrosomethylethylam	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.818	2.818-8.818	+++++	+++++

XBS 69222

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Averaged.

Calibration File Names:
Level 1: /chem1/nt10.i/20130823.b/ic0823c.d
Level 2: /chem1/nt10.i/20130823.b/ic0823g.d
Level 3: /chem1/nt10.i/20130823.b/ic0823d.d
Level 4: /chem1/nt10.i/20130823.b/ic0823h.d
Level 5: /chem1/nt10.i/20130823.b/ic0823a.d
Level 6: /chem1/nt10.i/20130823.b/ic0823e.d
Level 7: /chem1/nt10.i/20130823.b/ic0823b.d

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	

XBGS 09223

Analytical Resources, Inc.

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
120 2,3,4,6-Tetrachlorophenol	0.28831	0.30094	0.33590	0.32950	0.34186	0.35173	0.33833	AVRG		0.32665		7.09341	
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

XBBB 69224

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
111 Azobenzene (1,2-DP-Hydrazine)	1.03624	0.98042	0.97257	0.91394	0.87884	0.87025						
	0.84490						AVRG		0.92817		7.52961	
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						QUAD	0.000e+00	0.000e+00	0.000e+00	0.000e+00	<-

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
105 1-methylnaphthalene	0.62694	0.62067	0.59892	0.61724	0.60928	0.59938						
	0.58856						AVRG		0.60871		2.26174	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	

XB89 . 00226

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
3 Phenol	1.52029	1.48917	1.52647	1.54731	1.52078	1.43909					
	1.45064						AVRG		1.49911		2.72875
4 Bis(2-Chloroethyl)ether	1.05532	1.17144	1.10783	1.24929	1.08630	1.03839					
	1.00959						AVRG		1.10259		7.54835

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
6 2-Chlorophenol	1.27483	1.28446	1.24460	1.28781	1.20427	1.18326					
	1.19181						AVRG		1.23872		3.65560
7 1,3-Dichlorobenzene	1.47439	1.40532	1.37187	1.36243	1.28082	1.21369					
	1.21410						AVRG		1.33180		7.42581
9 1,4-Dichlorobenzene	1.45533	1.29529	1.30661	1.33194	1.23489	1.21663					
	1.19065						AVRG		1.29019		6.91006
11 Benzyl alcohol	0.59196	0.52231	0.55157	0.69565	0.72030	0.69769					
	0.71160						AVRG		0.64158		13.03491
12 1,2-Dichlorobenzene	1.33421	1.35226	1.28073	1.28925	1.19161	1.14107					
	1.12850						AVRG		1.24538		7.32438
13 2-Methylphenol	1.24873	1.08200	1.15128	1.17392	1.14313	1.08748					
	1.05587						AVRG		1.13463		5.81363
14 2,2'-oxybis(1-Chloropropane)	0.46395	0.40978	0.37451	0.40470	0.36322	0.36402					
	0.35791						AVRG		0.39116		9.75039

XB89:00228

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
15 4-Methylphenol	1.07702	1.07267	1.17476	1.21015	1.18555	1.14519					
	1.09684						AVRG		1.13745		4.88825
16 N-Nitroso-di-n-propylamine	0.70486	0.73790	0.69700	0.71085	0.66151	0.67551					
	0.64312						AVRG		0.69011		4.66467
17 Hexachloroethane	0.59225	0.53008	0.53584	0.52500	0.49836	0.48837					
	0.48239						AVRG		0.52176		7.19656
19 Nitrobenzene	0.31543	0.29903	0.28814	0.28882	0.29806	0.28664					
	0.28545						AVRG		0.29451		3.63527
20 Isophorone	0.59263	0.55405	0.54008	0.55913	0.54300	0.61862					
	0.59768						AVRG		0.57217		5.34240
21 2-Nitrophenol	0.20972	0.19464	0.19126	0.20355	0.20917	0.20896					
	0.19944						AVRG		0.20239		3.70107
22 2,4-Dimethylphenol	0.32985	0.32977	0.34779	0.34370	0.34097	0.32828					
	0.30704						AVRG		0.33249		4.09363

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
23 Bis(2-Chloroethoxy)methane	0.35857 0.31284	0.35505	0.35103	0.33461	0.33758	0.33119	AVRG		0.34012		4.71466
24 Benzoic acid	+++++ 0.24899	0.11445	0.17302	0.24389	0.25522	0.27239	AVRG		0.21799		28.06820 <-
25 2,4-Dichlorophenol	0.27898 0.26871	0.26545	0.29512	0.29429	0.33436	0.32201	AVRG		0.29413		8.88205
26 1,2,4-Trichlorobenzene	0.36922 0.32557	0.33144	0.34443	0.31802	0.31252	0.30108	AVRG		0.32890		6.84998
28 Naphthalene	0.98761 0.86847	0.89959	0.90452	0.89338	0.87850	0.87711	AVRG		0.90131		4.46306
29 4-Chloroaniline	0.33666 0.32487	0.32931	0.30819	0.37448	0.39160	0.41450	AVRG		0.35423		11.14437
30 Hexachlorobutadiene	0.21397 0.20626	0.21511	0.19216	0.20195	0.19268	0.19140	AVRG		0.20193		5.07295

Analytical Resources, Inc.

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Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
31 4-Chloro-3-methylphenol	0.23925 0.28993	0.24385	0.28539	0.29955	0.30454	0.30468	AVRG		0.28103		9.93937
32 2-Methylnaphthalene	0.69709 0.64688	0.65888	0.66751	0.65667	0.66316	0.65529	AVRG		0.66364		2.42630
33 Hexachlorocyclopentadiene	+++++ 0.42958	0.39766	0.42551	0.41295	0.43366	0.42735	AVRG		0.42112		3.19280
34 2,4,6-Trichlorophenol	0.36304 0.39851	0.37688	0.39965	0.38753	0.39742	0.39986	AVRG		0.38898		3.65917
35 2,4,5-Trichlorophenol	0.36869 0.41884	0.37729	0.40343	0.41751	0.43625	0.43030	AVRG		0.40747		6.34490
37 2-Chloronaphthalene	1.02117 0.96421	0.98807	1.02821	0.93879	0.96167	0.97253	AVRG		0.98209		3.32373
38 2-Nitroaniline	0.22598 0.23544	0.19677	0.24386	0.24016	0.24809	0.24279	AVRG		0.23330		7.54768

XB89 : 00231

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
39 Dimethylphthalate	1.20071	1.18094	1.17734	1.10829	1.07838	1.07349					
	0.99404						AVRG		1.11617		6.67558
40 Acenaphthylene	1.73984	1.70154	1.67924	1.57314	1.59317	1.54985					
	1.77465						AVRG		1.65877		5.26424
41 2,6-Dinitrotoluene	0.23961	0.25489	0.27754	0.29466	0.26242	0.25805					
	0.24621						AVRG		0.26191		7.18651
43 3-Nitroaniline	0.23907	0.20275	0.24641	0.21806	0.21284	0.21992					
	0.18148						AVRG		0.21722		10.02234
44 Acenaphthene	1.04403	0.98202	0.97473	0.93565	0.94758	0.93258					
	0.94908						AVRG		0.96652		4.02548
45 2,4-Dinitrophenol	+++++	0.07800	0.14804	0.19309	0.22250	0.23324					
	0.23193						AVRG		0.18446		33.25514 <-
46 Dibenzofuran	1.53537	1.46819	1.49425	1.39812	1.42327	1.42008					
	1.39708						AVRG		1.44805		3.63813

XB89:00232

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
47 4-Nitrophenol	+++++	0.11776	0.12721	0.14045	0.15792	0.16033					
	0.15160						AVRG		0.14254		12.10481
48 2,4-Dinitrotoluene	0.34194	0.33128	0.36985	0.34858	0.36532	0.35769					
	0.34949						AVRG		0.35202		3.80590
49 Fluorene	1.25880	1.22474	1.22619	1.17033	1.19411	1.16946					
	1.16015						AVRG		1.20054		3.07730
50 Diethylphthalate	1.18219	1.13993	1.20886	1.08379	1.17703	1.04258					
	0.98811						AVRG		1.11750		7.31279
51 4-Chlorophenyl-phenylether	0.70058	0.62065	0.62834	0.59784	0.58442	0.58434					
	0.57853						AVRG		0.61353		6.98503
52 4-Nitroaniline	0.23006	0.21750	0.25913	0.25414	0.24295	0.27039					
	0.24684						AVRG		0.24586		7.25565
53 4,6-Dinitro-2-methylphenol	0.09047	0.14621	0.14368	0.17786	0.16761	0.16854					
	0.15833						AVRG		0.15039		19.38094

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
54 N-Nitrosodiphenylamine	0.45227	0.42565	0.43488	0.42543	0.40864	0.39870					
	0.36270						AVRG		0.41547		6.98126
56 4-Bromophenyl-phenylether	0.23287	0.23589	0.21567	0.22474	0.21865	0.21213					
	0.21061						AVRG		0.22151		4.49599
57 Hexachlorobenzene	0.28102	0.30695	0.30971	0.29220	0.27724	0.26743					
	0.24567						AVRG		0.28289		7.96321
58 Pentachlorophenol	+++++	0.13658	0.16392	0.17309	0.18739	0.17871					
	0.17381						AVRG		0.16892		10.42096
60 Phenanthrene	0.95625	0.89802	0.91753	0.88037	0.88093	0.88531					
	0.87669						AVRG		0.89930		3.20358
61 Anthracene	1.02419	0.97164	0.96070	0.93937	0.92879	0.96464					
	0.91708						AVRG		0.95806		3.68860
62 Carbazole	0.80040	0.73905	0.74935	0.68772	0.62813	0.66310					
	0.61582						AVRG		0.69766		9.75073

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Di-n-butylphthalate	1.05773	1.00306	1.01274	1.00886	1.02384	1.03745					
	0.97950						AVRG		1.01760		2.47530
64 Fluoranthene	1.19734	1.18096	1.15185	1.13210	1.14025	1.16948					
	1.13127						AVRG		1.15761		2.21464
65 Pyrene	1.16960	1.10935	1.12280	1.08605	1.11757	1.06952					
	1.09211						AVRG		1.10957		2.92141
67 Butylbenzylphthalate	0.45384	0.39403	0.41890	0.39358	0.40833	0.38616					
	0.37598						AVRG		0.40440		6.41178
68 Benzo(a)anthracene	1.16031	1.10110	1.08488	1.02060	1.03430	0.98191					
	1.02047						AVRG		1.05765		5.75191
70 3,3'-Dichlorobenzidine	0.62812	0.55827	0.56871	0.40320	0.37393	0.45443					
	0.48887						AVRG		0.49650		18.73366
71 Chrysene	0.94630	0.89919	0.95102	0.89698	0.91312	0.88797					
	0.89513						AVRG		0.91282		2.80988

XB89 : 00235

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
72 bis(2-Ethylhexyl)phthalate	0.49730	0.41697	0.44170	0.40997	0.41953	0.41010	0.40354	AVRG		0.42844		7.63857
73 Di-n-octylphthalate	0.95371	0.81919	0.80899	0.77710	0.76465	0.76622	0.75370	AVRG		0.80622		8.60299
74 Benzo(b)fluoranthene	1.03461	0.97577	1.05169	0.98544	1.01024	0.98253	1.03112	AVRG		1.01020		2.94731
75 Benzo(k)fluoranthene	1.08230	1.04525	1.04017	1.03429	0.99715	0.99744	0.94596	AVRG		1.02037		4.31704
187 Total Benzofluoranthenes	1.06611	1.00028	1.03245	0.98786	0.97801	0.96859	0.96186	AVRG		0.99932		3.76312
76 Benzo(a)pyrene	1.01200	0.90652	0.94467	0.90592	0.90018	0.89793	0.88057	AVRG		0.92111		4.83051
78 Indeno(1,2,3-cd)pyrene	1.17553	1.09421	1.17372	1.12507	1.10931	1.11473	1.09690	AVRG		1.12707		3.02762

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
79 Dibenzo(a,h)anthracene	0.93930 0.83417	0.86391	0.90541	0.89585	0.85355	0.84414	AVRG		0.87662		4.33828
80 Benzo(g,h,i)perylene	1.00870 0.91773	0.92962	0.94606	0.93643	0.93873	0.92291	AVRG		0.94288		3.24263
90 N-Nitrosodimethylamine	0.54174 0.61116	0.52946	0.52243	0.61413	0.57501	0.61941	AVRG		0.57333		7.37780
91 Aniline	2.94439 2.96044	3.00869	2.47359	2.76643	2.84931	3.03947	AVRG		2.86319		6.83283
92 1,2-Diphenylhydrazine	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
93 Benzidine	+++++ 0.18556	0.32251	0.30601	0.16628	0.13925	0.16221	AVRG		0.21364		37.20962 <-
96 p-Cymene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

XB89:00237

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
98 Retene	0.46636	0.42849	0.45270	0.43091	0.44732	0.42920						
	0.44314						AVRG		0.44259		3.20168	
99 Perylene	0.94137	0.85413	0.83115	0.83988	0.81316	0.82158						
	0.82641						AVRG		0.84681		5.16419	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
103 Pyridine	0.51842	0.51391	0.51960	0.55299	0.52444	0.53702						
	0.53959						AVRG		0.52942		2.67052	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
189 N-Nitrosomethylethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 1 2-Fluorophenol	1.19521	1.14656	1.23365	1.17775	1.14197	1.13851						
	1.12343						AVRG		1.16530		3.33986	
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 2 Phenol-d5	1.39976	1.52008	1.47668	1.56146	1.52246	1.51956						
	1.56142						AVRG		1.50877		3.71927	
$ 5 2-Chlorophenol-d4	1.26969	1.21996	1.22819	1.28737	1.25200	1.18768						
	1.21259						AVRG		1.23679		2.80610	
$ 10 1,2-Dichlorobenzene-d4	1.02057	0.96444	0.96599	0.95649	0.88848	0.85308						
	0.83556						AVRG		0.92637		7.35467	

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 18 Nitrobenzene-d5	0.38627	0.34766	0.34220	0.35290	0.34473	0.34952					
	0.33910						AVRG		0.35177		4.51746
$ 36 2-Fluorobiphenyl	1.31613	1.31979	1.30618	1.24341	1.25722	1.22329					
	1.25317						AVRG		1.27417		3.06145
$ 55 2,4,6-Tribromophenol	0.25641	0.26519	0.26284	0.26404	0.26384	0.26824					
	0.25595						AVRG		0.26236		1.73504
$ 66 Terphenyl-d14	0.73001	0.65434	0.70139	0.63708	0.64640	0.61147					
	0.60771						AVRG		0.65549		6.90841
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

XB89:00241

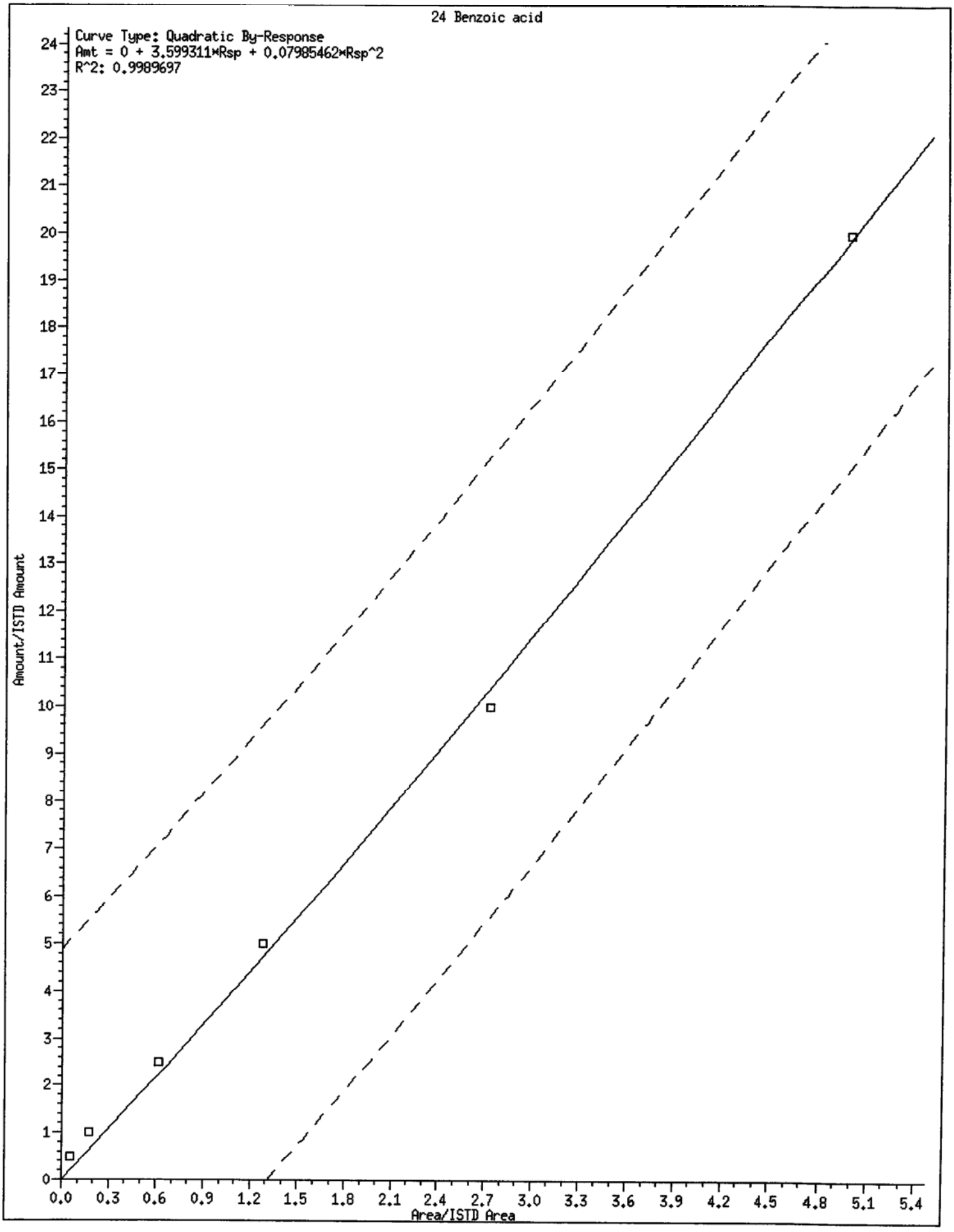
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

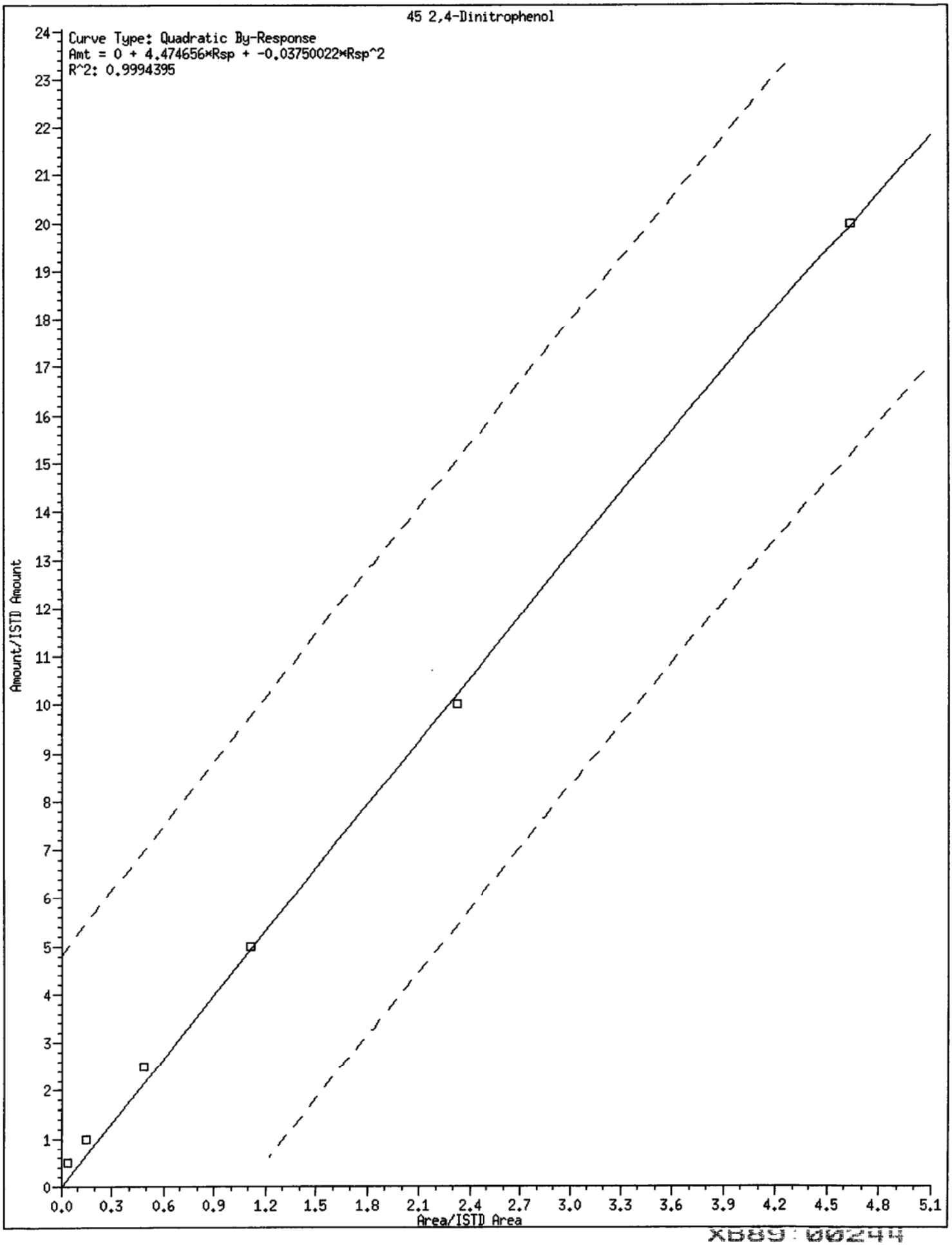
Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 09:20 yev

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

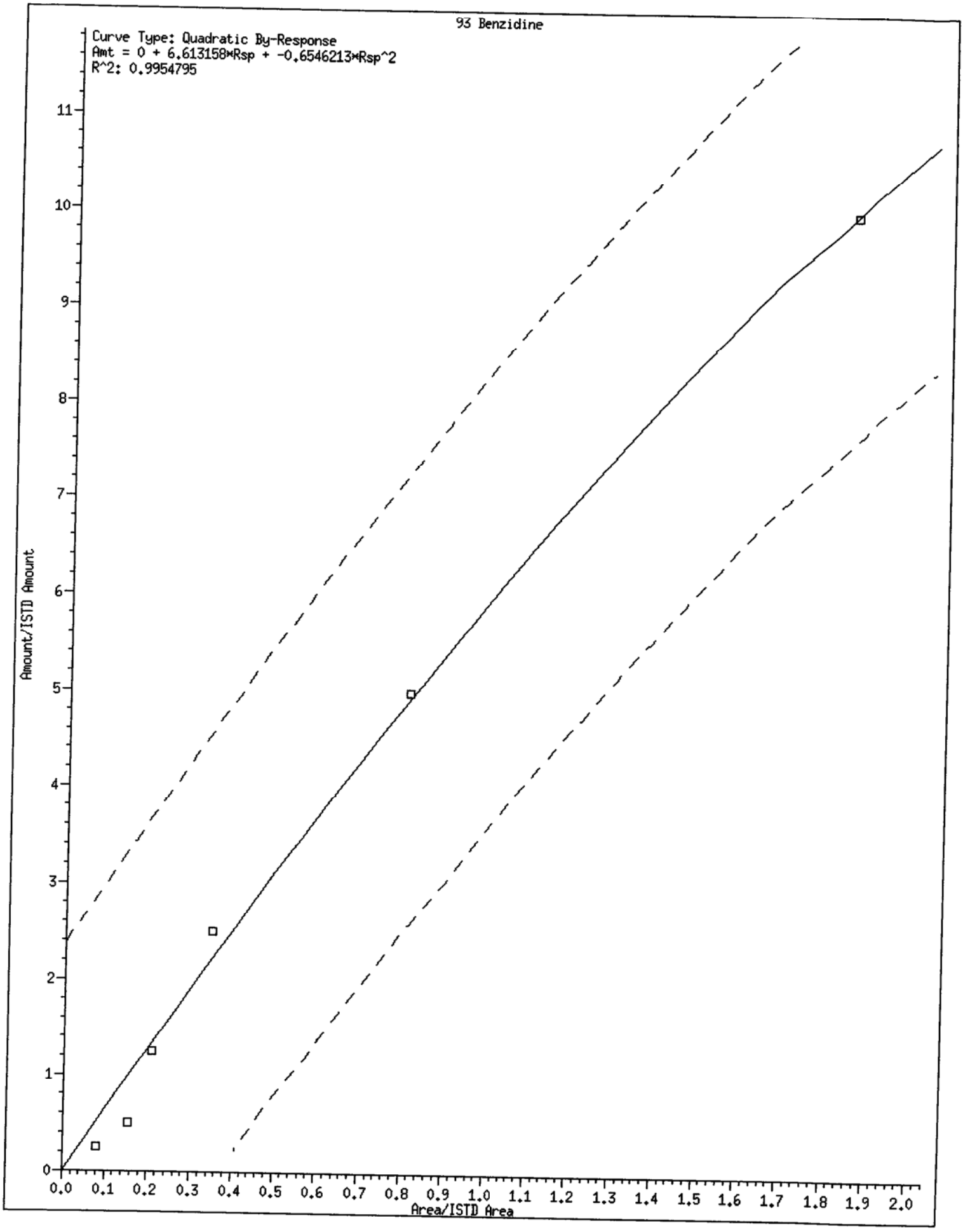
XB83 : 00242


24 Benzoic acid
Curve Type: Quadratic By-Response
Amt = 0 + 3.599311*Rsp + 0.07985462*Rsp^2
R^2: 0.9989697
Amount/ISTD Amount
Area/ISTD Area
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
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

XB89:00243


45 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 4.474656*Rsp + -0.03750022*Rsp^2
R^2: 0.9994395
Amount/ISTD Amount
Area/ISTD Area
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
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

XB89 00244


93 Benzidine
Curve Type: Quadratic By-Response
Amt = 0 + 6.613158*Rsp + -0.6546213*Rsp^2
R^2: 0.9954795
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
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
1.7
1.8
1.9
2.0

XB89 : 00245

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Calibration File Names:
Level 1: /chem1/nt10.i/20130823.b/ic0823c.d
Level 2: /chem1/nt10.i/20130823.b/ic0823g.d
Level 3: /chem1/nt10.i/20130823.b/ic0823d.d
Level 4: /chem1/nt10.i/20130823.b/ic0823h.d
Level 5: /chem1/nt10.i/20130823.b/ic0823a.d
Level 6: /chem1/nt10.i/20130823.b/ic0823e.d
Level 7: /chem1/nt10.i/20130823.b/ic0823b.d

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
120 2,3,4,6-Tetrachlorophenol	0.28831	0.30094	0.33590	0.32950	0.34186	0.35173	0.33833	AVRG		0.32665		7.09341	
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
116 Dibutyl Phenyl Phosphate	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
115 Tributyl Phosphate	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
114 Beta-Pinene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
113 Diphenyl Oxide	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
112 Biphenyl	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
111 Azobenzene (1,2-DP-Hydrazine)	1.03624 0.84490	0.98042	0.97257	0.91394	0.87884	0.87025	AVRG		0.92817		7.52961	
110 Tetrachloroguaiacol	+++++ +++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+00	0.000e+00	0.000e+00	0.000e+00	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
106 Guaiacol	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
105 1-methylnaphthalene	0.62694 0.58856	0.62067	0.59892	0.61724	0.60928	0.59938	AVRG		0.60871		2.26174	
151 1,2,4,5-Tetrachlorobenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
152 Benzo(e)pyrene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
153 Chlorpyrifos	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
154 Diazinon	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
155 Kelthane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
3 Phenol	1.52029	1.48917	1.52647	1.54731	1.52078	1.43909					
	1.45064						AVRG		1.49911		2.72875
4 Bis(2-Chloroethyl)ether	1.05532	1.17144	1.10783	1.24929	1.08630	1.03839					
	1.00959						AVRG		1.10259		7.54835

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
6 2-Chlorophenol	1.27483	1.28446	1.24460	1.28781	1.20427	1.18326					
	1.19181						AVRG		1.23872		3.65560
7 1,3-Dichlorobenzene	1.47439	1.40532	1.37187	1.36243	1.28082	1.21369					
	1.21410						AVRG		1.33180		7.42581
9 1,4-Dichlorobenzene	1.45533	1.29529	1.30661	1.33194	1.23489	1.21663					
	1.19065						AVRG		1.29019		6.91006
11 Benzyl alcohol	0.59196	0.52231	0.55157	0.69565	0.72030	0.69769					
	0.71160						AVRG		0.64158		13.03491
12 1,2-Dichlorobenzene	1.33421	1.35226	1.28073	1.28925	1.19161	1.14107					
	1.12850						AVRG		1.24538		7.32438
13 2-Methylphenol	1.24873	1.08200	1.15128	1.17392	1.14313	1.08748					
	1.05587						AVRG		1.13463		5.81363
14 2,2'-oxybis(1-Chloropropane)	0.46395	0.40978	0.37451	0.40470	0.36322	0.36402					
	0.35791						AVRG		0.39116		9.75039

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
15 4-Methylphenol	1.07702 1.09684	1.07267	1.17476	1.21015	1.18555	1.14519	AVRG		1.13745		4.88825
16 N-Nitroso-di-n-propylamine	0.70486 0.64312	0.73790	0.69700	0.71085	0.66151	0.67551	AVRG		0.69011		4.66467
17 Hexachloroethane	0.59225 0.48239	0.53008	0.53584	0.52500	0.49836	0.48837	AVRG		0.52176		7.19656
19 Nitrobenzene	0.31543 0.28545	0.29903	0.28814	0.28882	0.29806	0.28664	AVRG		0.29451		3.63527
20 Isophorone	0.59263 0.59768	0.55405	0.54008	0.55913	0.54300	0.61862	AVRG		0.57217		5.34240
21 2-Nitrophenol	0.20972 0.19944	0.19464	0.19126	0.20355	0.20917	0.20896	AVRG		0.20239		3.70107
22 2,4-Dimethylphenol	0.32985 0.30704	0.32977	0.34779	0.34370	0.34097	0.32828	AVRG		0.33249		4.09363

Analytical Resources, Inc.

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
23 Bis(2-Chloroethoxy)methane	0.35857	0.35505	0.35103	0.33461	0.33758	0.33119					
	0.31284						AVRG		0.34012		4.71466
24 Benzoic acid	+++++	26592	88205	273153	685063	1214058					
	2266578						QUAD	0.000e+00	3.59931	0.07985	0.99897
25 2,4-Dichlorophenol	0.27898	0.26545	0.29512	0.29429	0.33436	0.32201					
	0.26871						AVRG		0.29413		8.88205
26 1,2,4-Trichlorobenzene	0.36922	0.33144	0.34443	0.31802	0.31252	0.30108					
	0.32557						AVRG		0.32890		6.84998
28 Naphthalene	0.98761	0.89959	0.90452	0.89338	0.87850	0.87711					
	0.86847						AVRG		0.90131		4.46306
29 4-Chloroaniline	0.33666	0.32931	0.30819	0.37448	0.39160	0.41450					
	0.32487						AVRG		0.35423		11.14437
30 Hexachlorobutadiene	0.21397	0.21511	0.19216	0.20195	0.19268	0.19140					
	0.20626						AVRG		0.20193		5.07295

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
31 4-Chloro-3-methylphenol	0.23925	0.24385	0.28539	0.29955	0.30454	0.30468					
	0.28993						AVRG		0.28103		9.93937
32 2-Methylnaphthalene	0.69709	0.65888	0.66751	0.65667	0.66316	0.65529					
	0.64688						AVRG		0.66364		2.42630
33 Hexachlorocyclopentadiene	+++++	0.39766	0.42551	0.41295	0.43366	0.42735					
	0.42958						AVRG		0.42112		3.19280
34 2,4,6-Trichlorophenol	0.36304	0.37688	0.39965	0.38753	0.39742	0.39986					
	0.39851						AVRG		0.38898		3.65917
35 2,4,5-Trichlorophenol	0.36869	0.37729	0.40343	0.41751	0.43625	0.43030					
	0.41884						AVRG		0.40747		6.34490
37 2-Chloronaphthalene	1.02117	0.98807	1.02821	0.93879	0.96167	0.97253					
	0.96421						AVRG		0.98209		3.32373
38 2-Nitroaniline	0.22598	0.19677	0.24386	0.24016	0.24809	0.24279					
	0.23544						AVRG		0.23330		7.54768

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
39 Dimethylphthalate	1.20071	1.18094	1.17734	1.10829	1.07838	1.07349					
	0.99404						AVRG		1.11617		6.67558
40 Acenaphthylene	1.73984	1.70154	1.67924	1.57314	1.59317	1.54985					
	1.77465						AVRG		1.65877		5.26424
41 2,6-Dinitrotoluene	0.23961	0.25489	0.27754	0.29466	0.26242	0.25805					
	0.24621						AVRG		0.26191		7.18651
43 3-Nitroaniline	0.23907	0.20275	0.24641	0.21806	0.21284	0.21992					
	0.18148						AVRG		0.21722		10.02234
44 Acenaphthene	1.04403	0.98202	0.97473	0.93565	0.94758	0.93258					
	0.94908						AVRG		0.96652		4.02548
45 2,4-Dinitrophenol	+++++	11554	47472	143620	387772	680684					
	1345574						QUAD	0.000e+00	4.47466	-0.03750	0.99944
46 Dibenzofuran	1.53537	1.46819	1.49425	1.39812	1.42327	1.42008					
	1.39708						AVRG		1.44805		3.63813

Analytical Resources, Inc.

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
47 4-Nitrophenol	+++++ 0.15160	0.11776	0.12721	0.14045	0.15792	0.16033	AVRG		0.14254		12.10481
48 2,4-Dinitrotoluene	0.34194 0.34949	0.33128	0.36985	0.34858	0.36532	0.35769	AVRG		0.35202		3.80590
49 Fluorene	1.25880 1.16015	1.22474	1.22619	1.17033	1.19411	1.16946	AVRG		1.20054		3.07730
50 Diethylphthalate	1.18219 0.98811	1.13993	1.20886	1.08379	1.17703	1.04258	AVRG		1.11750		7.31279
51 4-Chlorophenyl-phenylether	0.70058 0.57853	0.62065	0.62834	0.59784	0.58442	0.58434	AVRG		0.61353		6.98503
52 4-Nitroaniline	0.23006 0.24684	0.21750	0.25913	0.25414	0.24295	0.27039	AVRG		0.24586		7.25565
53 4,6-Dinitro-2-methylphenol	0.09047 0.15833	0.14621	0.14368	0.17786	0.16761	0.16854	AVRG		0.15039		19.38094

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Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
54 N-Nitrosodiphenylamine	0.45227	0.42565	0.43488	0.42548	0.40864	0.39870					
	0.36270						AVRG		0.41547		6.98126
56 4-Bromophenyl-phenylether	0.23287	0.23589	0.21567	0.22474	0.21865	0.21213					
	0.21061						AVRG		0.22151		4.49599
57 Hexachlorobenzene	0.28102	0.30695	0.30971	0.29220	0.27724	0.26743					
	0.24567						AVRG		0.28289		7.96321
58 Pentachlorophenol	+++++	0.13658	0.16392	0.17309	0.18739	0.17871					
	0.17381						AVRG		0.16892		10.42096
60 Phenanthrene	0.95625	0.89802	0.91753	0.88037	0.88093	0.88531					
	0.87669						AVRG		0.89930		3.20358
61 Anthracene	1.02419	0.97164	0.96070	0.93937	0.92879	0.96464					
	0.91708						AVRG		0.95806		3.68860
62 Carbazole	0.80040	0.73905	0.74935	0.68772	0.62813	0.66310					
	0.61582						AVRG		0.69766		9.75073

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Di-n-butylphthalate	1.05773	1.00306	1.01274	1.00886	1.02384	1.03745					
	0.97950						AVRG		1.01760		2.47530
64 Fluoranthene	1.19734	1.18096	1.15185	1.13210	1.14025	1.16948					
	1.13127						AVRG		1.15761		2.21464
65 Pyrene	1.16960	1.10935	1.12280	1.08605	1.11757	1.06952					
	1.09211						AVRG		1.10957		2.92141
67 Butylbenzylphthalate	0.45384	0.39403	0.41890	0.39358	0.40833	0.38616					
	0.37598						AVRG		0.40440		6.41178
68 Benzo(a)anthracene	1.16031	1.10110	1.08488	1.02060	1.03430	0.98191					
	1.02047						AVRG		1.05765		5.75191
70 3,3'-Dichlorobenzidine	0.62812	0.55827	0.56871	0.40320	0.37393	0.45443					
	0.48887						AVRG		0.49650		18.73366
71 Chrysene	0.94630	0.89919	0.95102	0.89698	0.91312	0.88797					
	0.89513						AVRG		0.91282		2.80988

Analytical Resources, Inc.

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
72 bis(2-Ethylhexyl)phthalate	0.49730	0.41697	0.44170	0.40997	0.41953	0.41010					
	0.40354						AVRG		0.42844		7.63857
73 Di-n-octylphthalate	0.95371	0.81919	0.80899	0.77710	0.76465	0.76622					
	0.75370						AVRG		0.80622		8.60299
74 Benzo(b)fluoranthene	1.03461	0.97577	1.05169	0.98544	1.01024	0.98253					
	1.03112						AVRG		1.01020		2.94731
75 Benzo(k)fluoranthene	1.08230	1.04525	1.04017	1.03429	0.99715	0.99744					
	0.94596						AVRG		1.02037		4.31704
187 Total Benzofluoranthenes	1.06611	1.00028	1.03245	0.98786	0.97801	0.96869					
	0.96186						AVRG		0.99932		3.76312
76 Benzo(a)pyrene	1.01200	0.90652	0.94467	0.90592	0.90018	0.89793					
	0.88057						AVRG		0.92111		4.83051
78 Indeno(1,2,3-cd)pyrene	1.17553	1.09421	1.17372	1.12507	1.10931	1.11473					
	1.09690						AVRG		1.12707		3.02762

Analytical Resources, Inc.

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
79 Dibenzo(a,h)anthracene	0.93930	0.86391	0.90541	0.89585	0.85355	0.84414					
	0.83417						AVRG		0.87662		4.33828
80 Benzo(g,h,i)perylene	1.00870	0.92962	0.94606	0.93643	0.93873	0.92291					
	0.91773						AVRG		0.94288		3.24263
90 N-Nitrosodimethylamine	0.54174	0.52946	0.52243	0.61413	0.57501	0.61941					
	0.61116						AVRG		0.57333		7.37780
91 Aniline	2.94439	3.00869	2.47359	2.76643	2.84931	3.03947					
	2.96044						AVRG		2.86319		6.83283
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
93 Benzidine	+++++	47583	97626	123140	226636	463802					
	1013994						QUAD	0.000e+00	6.61316	-0.65462	0.99548
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

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Analytical Resources, Inc.

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Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
98 Retene	0.46636	0.42849	0.45270	0.43091	0.44732	0.42920						
	0.44314						AVRG		0.44259		3.20168	
99 Perylene	0.94137	0.85413	0.83115	0.83988	0.81316	0.82158						
	0.82641						AVRG		0.84681		5.16419	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
103 Pyridine	0.51842	0.51391	0.51960	0.55299	0.52444	0.53702						
	0.53959						AVRG		0.52942		2.67052	

XB89:00261

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00 <-
189 N-Nitrosomethylethylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00 <-
$ 1 2-Fluorophenol	1.19521	1.14656	1.23365	1.17775	1.14197	1.13851					
	1.12343						AVRG		1.16530		3.33986
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00 <-
$ 2 Phenol-d5	1.39976	1.52008	1.47668	1.56146	1.52246	1.51956					
	1.56142						AVRG		1.50877		3.71927
$ 5 2-Chlorophenol-d4	1.26969	1.21996	1.22819	1.28737	1.25200	1.18768					
	1.21259						AVRG		1.23679		2.80610
$ 10 1,2-Dichlorobenzene-d4	1.02057	0.96444	0.96599	0.95649	0.88848	0.85308					
	0.83556						AVRG		0.92637		7.35467

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 18 Nitrobenzene-d5	0.38527	0.34766	0.34220	0.35290	0.34473	0.34952					
	0.33910						AVRG		0.35177		4.51746
$ 36 2-Fluorobiphenyl	1.31613	1.31979	1.30618	1.24341	1.25722	1.22329					
	1.25317						AVRG		1.27417		3.06145
$ 55 2,4,6-Tribromophenol	0.25641	0.26519	0.26284	0.26404	0.26384	0.26824					
	0.25595						AVRG		0.26236		1.73504
$ 66 Terphenyl-d14	0.73001	0.65434	0.70139	0.63708	0.64640	0.61147					
	0.60771						AVRG		0.65549		6.90841
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

XDB9_0225

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

XB89 : 00264

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-AUG-2013 16:04
End Cal Date : 23-AUG-2013 20:20
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130823.b/ABN.m
Cal Date : 26-Aug-2013 13:32 yev

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

XB09 . 00265

Analytical Resources, Inc.

YZ 8/26/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130823.b/ic0823a.d
Lab Smp Id: IC0823A
Inj Date : 23-AUG-2013 16:04
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0823A
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130823.b/ABN.m
Meth Date : 26-Aug-2013 13:32 yev Quant Type: ISTD
Cal Date : 23-AUG-2013 16:04 Cal File: ic0823a.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.335	6.335	(0.733)	218212	5.00000	4.900
$	2 Phenol-d5	99	7.935	7.935	(0.919)	290917	5.00000	5.045
	3 Phenol	94	7.966	7.958	(0.922)	290597	5.00000	5.072
$	5 2-Chlorophenol-d4	132	8.221	8.220	(0.952)	239237	5.00000	5.062
	4 Bis(2-Chloroethyl)ether	93	8.151	8.151	(0.944)	207574	5.00000	4.926
	6 2-Chlorophenol	128	8.252	8.251	(0.955)	230117	5.00000	4.861
	7 1,3-Dichlorobenzene	146	8.538	8.538	(0.988)	244743	5.00000	4.809
*	8 1,4-Dichlorobenzene-d4	152	8.639	8.639	(1.000)	152867	4.00000	
	9 1,4-Dichlorobenzene	146	8.670	8.677	(1.004)	235967	5.00000	4.786
$	10 1,2-Dichlorobenzene-d4	152	8.926	8.926	(1.033)	169775	5.00000	4.796
	12 1,2-Dichlorobenzene	146	8.957	8.957	(1.037)	227697	5.00000	4.784
	11 Benzyl alcohol	108	8.887	8.887	(1.029)	137638	5.00000	5.613
	14 2,2'-oxybis(1-Chloropropane)	121	9.143	9.159	(1.058)	69406	5.00000	4.643
	13 2-Methylphenol	108	9.089	9.089	(1.052)	218434	5.00000	5.037
	17 Hexachloroethane	117	9.601	9.601	(1.111)	95228	5.00000	4.776
	16 N-Nitroso-di-n-propylamine	70	9.392	9.391	(1.087)	126404	5.00000	4.793
	15 4-Methylphenol	108	9.376	9.376	(1.085)	226540	5.00000	5.211
$	18 Nitrobenzene-d5	82	9.679	9.679	(0.872)	231339	5.00000	4.900
	19 Nitrobenzene	77	9.718	9.717	(0.876)	200017	5.00000	5.060
	20 Isophorone	82	10.191	10.183	(0.919)	364388	5.00000	4.745
	21 2-Nitrophenol	139	10.338	10.338	(0.932)	140364	5.00000	5.167
	22 2,4-Dimethylphenol	107	10.415	10.415	(0.939)	457631	10.0000	10.26
	23 Bis(2-Chloroethoxy)methane	93	10.615	10.615	(0.957)	226538	5.00000	4.963
	24 Benzoic acid	105	10.654	10.654	(0.960)	685063	20.0000	23.41
	25 2,4-Dichlorophenol	162	10.808	10.800	(0.974)	448753	10.0000	11.37
	26 1,2,4-Trichlorobenzene	180	10.977	10.977	(0.990)	209721	5.00000	4.751
*	27 Naphthalene-d8	136	11.093	11.093	(1.000)	536851	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.132	11.132	(1.003)	589527	5.00000	4.873
	29 4-Chloroaniline	127	11.248	11.247	(1.014)	525583	10.0000	11.06
	30 Hexachlorobutadiene	225	11.387	11.387	(1.026)	129301	5.00000	4.771
	31 4-Chloro-3-methylphenol	107	12.215	12.215	(1.101)	408734	10.0000	10.84
	32 2-Methylnaphthalene	142	12.532	12.532	(1.130)	445021	5.00000	4.996
	33 Hexachlorocyclopentadiene	237	12.857	12.849	(0.877)	377896	10.0000	10.30
	34 2,4,6-Trichlorophenol	196	13.105	13.097	(0.894)	346318	10.0000	10.22
	35 2,4,5-Trichlorophenol	196	13.167	13.167	(0.898)	380153	10.0000	10.71
$	36 2-Fluorobiphenyl	172	13.283	13.283	(0.906)	547780	5.00000	4.933
	37 2-Chloronaphthalene	162	13.523	13.515	(0.922)	419005	5.00000	4.896
	38 2-Nitroaniline	65	13.732	13.732	(0.937)	216191	10.0000	10.63
	39 Dimethylphthalate	163	14.126	14.119	(0.964)	469859	5.00000	4.831
	40 Acenaphthylene	152	14.366	14.366	(0.980)	694154	5.00000	4.802
	41 2,6-Dinitrotoluene	165	14.235	14.235	(0.971)	228679	10.0000	10.02
*	42 Acenaphthene-d10	164	14.660	14.660	(1.000)	348566	4.00000	
	43 3-Nitroaniline	138	14.575	14.575	(0.994)	185476	10.0000	9.799
	44 Acenaphthene	153	14.722	14.722	(1.004)	412869	5.00000	4.902
	45 2,4-Dinitrophenol	184	14.792	14.791	(1.009)	387772	20.0000	19.73
	46 Dibenzofuran	168	15.085	15.085	(1.029)	620129	5.00000	4.914
	47 4-Nitrophenol	109	14.923	14.915	(1.018)	137611	10.0000	11.08
	48 2,4-Dinitrotoluene	165	15.062	15.062	(1.027)	318346	10.0000	10.38
	50 Diethylphthalate	149	15.588	15.588	(1.063)	512841	5.00000	5.266
	49 Fluorene	166	15.789	15.789	(1.077)	520281	5.00000	4.973
	51 4-Chlorophenyl-phenylether	204	15.804	15.804	(1.078)	254634	5.00000	4.763
	52 4-Nitroaniline	138	15.835	15.827	(1.080)	211709	10.0000	9.882
	53 4,6-Dinitro-2-methylphenol	198	15.897	15.897	(0.897)	530812	20.0000	22.29
	54 N-Nitrosodiphenylamine	169	16.044	16.044	(0.905)	323526	5.00000	4.918
$	55 2,4,6-Tribromophenol	330	16.283	16.275	(1.111)	114957	5.00000	5.028
	56 4-Bromophenyl-phenylether	248	16.815	16.807	(0.949)	173110	5.00000	4.935
	57 Hexachlorobenzene	284	16.915	16.907	(0.955)	219500	5.00000	4.900
	58 Pentachlorophenol	266	17.326	17.318	(0.978)	296718	10.0000	11.09
*	59 Phenanthrene-d10	188	17.720	17.720	(1.000)	633376	4.00000	
	60 Phenanthrene	178	17.767	17.767	(1.003)	697452	5.00000	4.898
	61 Anthracene	178	17.875	17.875	(1.009)	735345	5.00000	4.847
	62 Carbazole	167	18.223	18.215	(1.028)	497304	5.00000	4.678
	63 Di-n-butylphthalate	149	18.981	18.974	(1.071)	810598	5.00000	5.031
	64 Fluoranthene	202	20.173	20.173	(1.138)	902756	5.00000	4.925
	65 Pyrene	202	20.606	20.606	(0.903)	909473	5.00000	5.036
$	66 Terphenyl-d14	244	20.923	20.916	(0.917)	526036	5.00000	4.931
	67 Butylbenzylphthalate	149	21.837	21.837	(0.957)	332295	5.00000	5.049
	68 Benzo(a)anthracene	228	22.797	22.789	(0.999)	841706	5.00000	4.890
*	69 Chrysene-d12	240	22.813	22.813	(1.000)	651036	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.759	22.758	(0.998)	608609	10.0000	7.531
	71 Chrysene	228	22.859	22.859	(1.002)	743094	5.00000	5.002
	72 bis(2-Ethylhexyl)phthalate	149	22.867	22.867	(0.956)	439070	5.00000	4.896
*	134 Di-n-octylphthalate-d4	153	23.920	23.920	(1.000)	837259	4.00000	
	73 Di-n-octylphthalate	149	23.935	23.927	(1.001)	800266	5.00000	4.742

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	24.578	24.570	(0.973)	879828	5.00000	5.000
75	Benzo(k)fluoranthene	252	24.624	24.624	(0.975)	868429	5.00000	4.886
76	Benzo(a)pyrene	252	25.159	25.151	(0.996)	783973	5.00000	4.886
* 77	Perylene-d12	264	25.259	25.259	(1.000)	696727	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.545	27.545	(1.090)	966105	5.00000	4.921
79	Dibenzo(a,h)anthracene	278	27.591	27.591	(1.092)	743363	5.00000	4.868
80	Benzo(g,h,i)perylene	276	28.236	28.228	(1.118)	817545	5.00000	4.978
90	N-Nitrosodimethylamine	74	4.181	4.188	(0.484)	219750	10.0000	10.03
91	Aniline	93	8.035	8.035	(0.930)	544457	5.00000	4.976
93	Benzidine	184	20.451	20.451	(0.896)	226636	10.0000	8.891
103	Pyridine	79	4.243	4.250	(0.491)	200425	10.0000	9.906
105	1-methylnaphthalene	142	12.733	12.725	(1.148)	408868	5.00000	5.005 (M)
111	Azobenzene (1,2-DP-Hydrazine)	77	16.129	16.129	(1.100)	382918	5.00000	4.734
187	Total Benzofluoranthenes	252	24.624	24.624	(0.975)	1703520	10.0000	9.787
99	Perylene	252	25.313	25.306	(1.002)	708186	5.00000	4.801
98	Retene	219	21.171	21.163	(0.928)	364030	5.00000	5.053
120	2,3,4,6-Tetrachlorophenol	232	15.333	15.325	(1.046)	148949	5.00000	5.233

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0823a.d
Lab Smp Id: IC0823A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Calibration Date: 23-AUG-2013
Calibration Time: 22:20

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	152867	0.00
27 Naphthalene-d8	536851	268426	1073702	536851	0.00
42 Acenaphthene-d10	348566	174283	697132	348566	0.00
59 Phenanthrene-d10	633376	316688	1266752	633376	0.00
69 Chrysene-d12	651036	325518	1302072	651036	0.00
134 Di-n-octylphthala	837259	418630	1674518	837259	0.00
77 Perylene-d12	696727	348364	1393454	696727	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.64	8.14	9.14	8.64	0.00
27 Naphthalene-d8	11.09	10.59	11.59	11.09	0.00
42 Acenaphthene-d10	14.66	14.16	15.16	14.66	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.81	22.31	23.31	22.81	0.00
134 Di-n-octylphthala	23.92	23.42	24.42	23.92	0.00
77 Perylene-d12	25.26	24.76	25.76	25.26	0.00

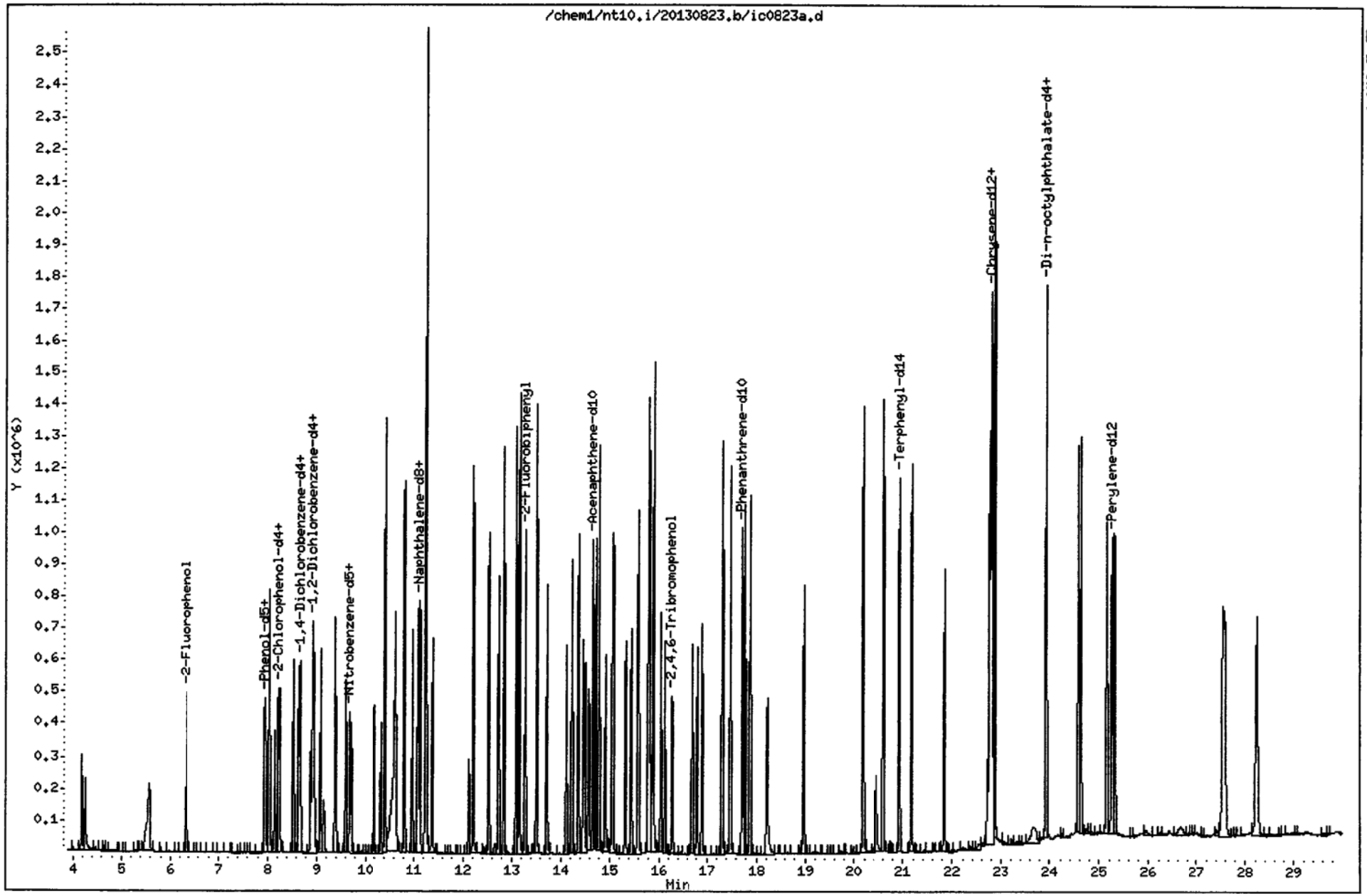
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130823.b/ic0823a.d
Date : 23-AUG-2013 16:04
Client ID:
Sample Info: IC0823A

Instrument: nt10.i

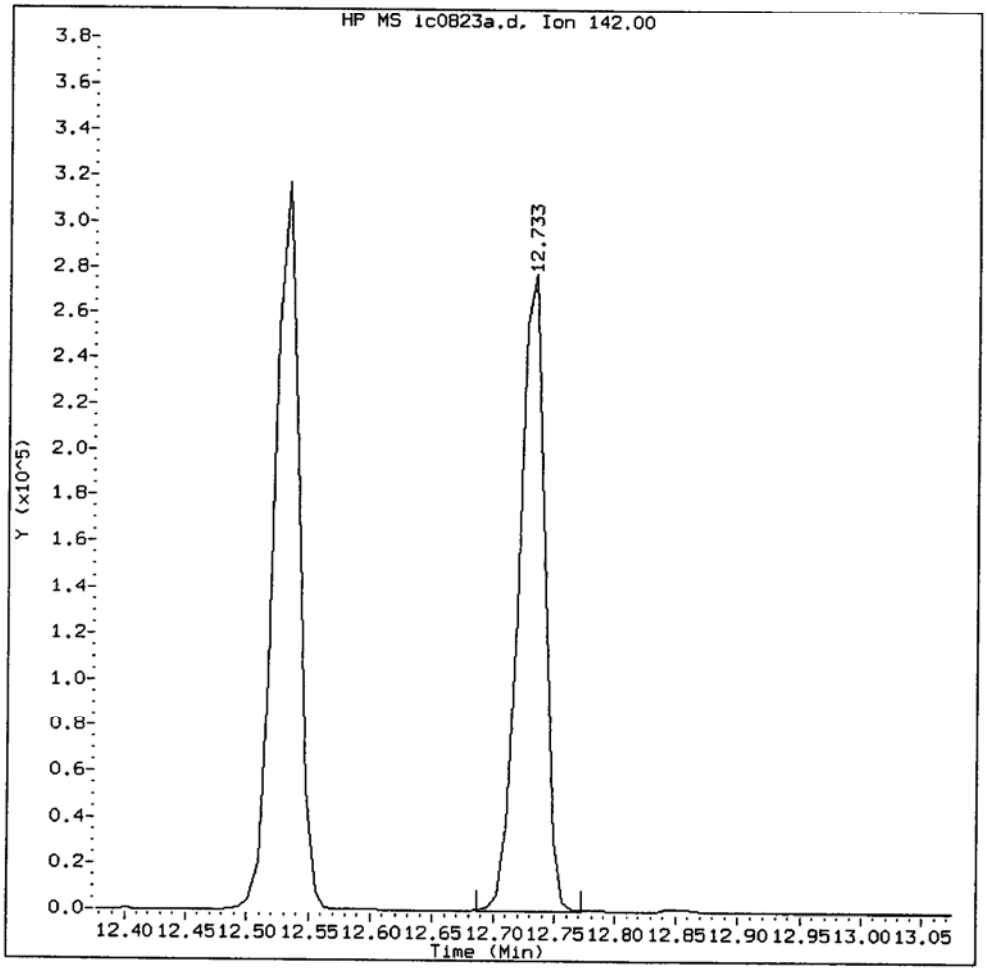
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0823A, /chem1/nt10.i/20130823.b/ic0823a.d

1-methylnaphthalene Amount: 5.00 Area: 408868



MANUAL INTEGRATION for 1-methylnaphthalene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 8/26/13

CO-ELUTION SUMMARY FOR FILE - ic0823a.d

Lab ID: IC0823A, Method: ABN.m, Instrument: nt10.i, Date: 23-AUG-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 8/26/13

Data file : /chem1/nt10.i/20130823.b/ic0823b.d
Lab Smp Id: IC0823B
Inj Date : 23-AUG-2013 16:41
Operator : VTS/YZ
Smp Info : IC0823B
Inst ID: nt10.i
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130823.b/ABN.m
Meth Date : 26-Aug-2013 13:32 yev
Quant Type: ISTD
Cal Date : 23-AUG-2013 16:04
Cal File: ic0823a.d
Als bottle: 3
Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.351	6.335	(0.734)	723880	20.0000	19.28
$	2 Phenol-d5	99	7.958	7.935	(0.920)	1006102	20.0000	20.70
	3 Phenol	94	7.981	7.958	(0.923)	934723	20.0000	19.35
$	5 2-Chlorophenol-d4	132	8.228	8.220	(0.952)	781335	20.0000	19.61
	4 Bis(2-Chloroethyl)ether	93	8.167	8.151	(0.944)	650527	20.0000	18.31
	6 2-Chlorophenol	128	8.259	8.251	(0.955)	767941	20.0000	19.24
	7 1,3-Dichlorobenzene	146	8.546	8.538	(0.988)	782306	20.0000	18.23
*	8 1,4-Dichlorobenzene-d4	152	8.647	8.639	(1.000)	128870	4.00000	
	9 1,4-Dichlorobenzene	146	8.678	8.677	(1.004)	767193	20.0000	18.46
$	10 1,2-Dichlorobenzene-d4	152	8.934	8.926	(1.033)	538393	20.0000	18.04
	12 1,2-Dichlorobenzene	146	8.965	8.957	(1.037)	727150	20.0000	18.12
	11 Benzyl alcohol	108	8.903	8.887	(1.030)	458521	20.0000	22.18
	14 2,2'-oxybis(1-Chloropropane)	121	9.159	9.159	(1.059)	230619	20.0000	18.30
	13 2-Methylphenol	108	9.097	9.089	(1.052)	680352	20.0000	18.61
	17 Hexachloroethane	117	9.601	9.601	(1.110)	310827	20.0000	18.49
	16 N-Nitroso-di-n-propylamine	70	9.415	9.391	(1.089)	414397	20.0000	18.64
	15 4-Methylphenol	108	9.392	9.376	(1.086)	706747	20.0000	19.29
$	18 Nitrobenzene-d5	82	9.694	9.679	(0.873)	771718	20.0000	19.28
	19 Nitrobenzene	77	9.733	9.717	(0.877)	649615	20.0000	19.38
	20 Isophorone	82	10.222	10.183	(0.921)	1360195	20.0000	20.89
	21 2-Nitrophenol	139	10.346	10.338	(0.932)	453879	20.0000	19.71
	22 2,4-Dimethylphenol	107	10.438	10.415	(0.940)	1397522	40.0000	36.94
	23 Bis(2-Chloroethoxy)methane	93	10.631	10.615	(0.958)	711959	20.0000	18.40
	24 Benzoic acid	105	10.823	10.654	(0.975)	2266578	80.0000	91.37(H)
	25 2,4-Dichlorophenol	162	10.816	10.800	(0.974)	1223048	40.0000	36.54
	26 1,2,4-Trichlorobenzene	180	10.985	10.977	(0.990)	740924	20.0000	19.80
*	27 Naphthalene-d8	136	11.101	11.093	(1.000)	455155	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.147	11.132	(1.004)	1976434	20.0000	19.27
	29 4-Chloroaniline	127	11.271	11.247	(1.015)	1478678	40.0000	36.69
	30 Hexachlorobutadiene	225	11.395	11.387	(1.026)	469398	20.0000	20.43
	31 4-Chloro-3-methylphenol	107	12.230	12.215	(1.102)	1319636	40.0000	41.27
	32 2-Methylnaphthalene	142	12.540	12.532	(1.130)	1472163	20.0000	19.50
	33 Hexachlorocyclopentadiene	237	12.857	12.849	(0.877)	1246134	40.0000	40.80
	34 2,4,6-Trichlorophenol	196	13.113	13.097	(0.894)	1156002	40.0000	40.98
	35 2,4,5-Trichlorophenol	196	13.182	13.167	(0.899)	1214988	40.0000	41.12
$	36 2-Fluorobiphenyl	172	13.291	13.283	(0.906)	1817610	20.0000	19.67
	37 2-Chloronaphthalene	162	13.531	13.515	(0.922)	1398501	20.0000	19.64
	38 2-Nitroaniline	65	13.747	13.732	(0.937)	682957	40.0000	40.37
	39 Dimethylphthalate	163	14.142	14.119	(0.964)	1441767	20.0000	17.81
	40 Acenaphthylene	152	14.374	14.366	(0.980)	2573975	20.0000	21.40
	41 2,6-Dinitrotoluene	165	14.258	14.235	(0.972)	714201	40.0000	37.60
*	42 Acenaphthene-d10	164	14.668	14.660	(1.000)	290082	4.00000	
	43 3-Nitroaniline	138	14.598	14.575	(0.995)	526448	40.0000	33.42
	44 Acenaphthene	153	14.737	14.722	(1.005)	1376549	20.0000	19.64
	45 2,4-Dinitrophenol	184	14.823	14.791	(1.011)	1345574	80.0000	79.80
	46 Dibenzofuran	168	15.093	15.085	(1.029)	2026333	20.0000	19.30
	47 4-Nitrophenol	109	14.954	14.915	(1.019)	439755	40.0000	42.54
	48 2,4-Dinitrotoluene	165	15.085	15.062	(1.028)	1013803	40.0000	39.71
	50 Diethylphthalate	149	15.603	15.588	(1.064)	1433159	20.0000	17.68
	49 Fluorene	166	15.797	15.789	(1.077)	1682690	20.0000	19.33
	51 4-Chlorophenyl-phenylether	204	15.812	15.804	(1.078)	839101	20.0000	18.86
	52 4-Nitroaniline	138	15.874	15.827	(1.082)	716040	40.0000	40.16
	53 4,6-Dinitro-2-methylphenol	198	15.928	15.897	(0.898)	1693569	80.0000	84.22
	54 N-Nitrosodiphenylamine	169	16.059	16.044	(0.906)	969914	20.0000	17.46
$	55 2,4,6-Tribromophenol	330	16.291	16.275	(1.111)	371233	20.0000	19.51
	56 4-Bromophenyl-phenylether	248	16.823	16.807	(0.949)	563218	20.0000	19.02
	57 Hexachlorobenzene	284	16.923	16.907	(0.955)	656961	20.0000	17.37
	58 Pentachlorophenol	266	17.334	17.318	(0.978)	929596	40.0000	41.16
*	59 Phenanthrene-d10	188	17.728	17.720	(1.000)	534833	4.00000	
	60 Phenanthrene	178	17.782	17.767	(1.003)	2344401	20.0000	19.50
	61 Anthracene	178	17.883	17.875	(1.009)	2452415	20.0000	19.14
	62 Carbazole	167	18.223	18.215	(1.028)	1646813	20.0000	19.96
	63 Di-n-butylphthalate	149	18.982	18.974	(1.071)	2619336	20.0000	19.25
	64 Fluoranthene	202	20.181	20.173	(1.138)	3025213	20.0000	19.55
	65 Pyrene	202	20.614	20.606	(0.903)	2983875	20.0000	19.69
$	66 Terphenyl-d14	244	20.931	20.916	(0.917)	1660399	20.0000	18.54
	67 Butylbenzylphthalate	149	21.845	21.837	(0.957)	1027269	20.0000	18.59
	68 Benzo(a)anthracene	228	22.805	22.789	(0.999)	2788160	20.0000	19.30
*	69 Chrysene-d12	240	22.821	22.813	(1.000)	546444	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.774	22.758	(0.998)	2671393	40.0000	39.38
	71 Chrysene	228	22.875	22.859	(1.002)	2445705	20.0000	19.61
	72 bis(2-Ethylhexyl)phthalate	149	22.875	22.867	(0.956)	1486782	20.0000	18.84
*	134 Di-n-octylphthalate-d4	153	23.928	23.920	(1.000)	736875	4.00000	
	73 Di-n-octylphthalate	149	23.943	23.927	(1.001)	2776905	20.0000	18.70

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	24.593	24.570	(0.973)	3033094	20.0000	20.41
	75 Benzo(k)fluoranthene	252	24.640	24.624	(0.975)	2782584	20.0000	18.54
	76 Benzo(a)pyrene	252	25.174	25.151	(0.996)	2590257	20.0000	19.12
*	77 Perylene-d12	264	25.267	25.259	(1.000)	588311	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.584	27.545	(1.092)	3226600	20.0000	19.46
	79 Dibenzo(a,h)anthracene	278	27.622	27.591	(1.093)	2453759	20.0000	19.03
	80 Benzo(g,h,i)perylene	276	28.283	28.228	(1.119)	2699559	20.0000	19.47
	90 N-Nitrosodimethylamine	74	4.235	4.188	(0.490)	787597	40.0000	42.64
	91 Aniline	93	8.051	8.035	(0.931)	1907559	20.0000	20.68
	93 Benzidine	184	20.459	20.451	(0.897)	1013994	40.0000	40.07
	103 Pyridine	79	4.289	4.250	(0.496)	695368	40.0000	40.77
	105 1-methylnaphthalene	142	12.741	12.725	(1.148)	1339437	20.0000	19.34 (H)
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.144	16.129	(1.101)	1225456	20.0000	18.21
	187 Total Benzofluoranthenes	252	24.640	24.624	(0.975)	5658736	40.0000	38.50
	99 Perylene	252	25.329	25.306	(1.002)	2430926	20.0000	19.52
	98 Retene	219	21.179	21.163	(0.928)	1210761	20.0000	20.02
	120 2,3,4,6-Tetrachlorophenol	232	15.340	15.325	(1.046)	490712	20.0000	20.71

QC Flag Legend

H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0823b.d
Lab Smp Id: IC0823B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Calibration Date: 23-AUG-2013
Calibration Time: 22:20

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	128870	-15.70
27 Naphthalene-d8	536851	268426	1073702	455155	-15.22
42 Acenaphthene-d10	348566	174283	697132	290082	-16.78
59 Phenanthrene-d10	633376	316688	1266752	534833	-15.56
69 Chrysene-d12	651036	325518	1302072	546444	-16.07
134 Di-n-octylphthala	837259	418630	1674518	736875	-11.99
77 Perylene-d12	696727	348364	1393454	588311	-15.56

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.64	8.14	9.14	8.65	0.09
27 Naphthalene-d8	11.09	10.59	11.59	11.10	0.07
42 Acenaphthene-d10	14.66	14.16	15.16	14.67	0.05
59 Phenanthrene-d10	17.72	17.22	18.22	17.73	0.05
69 Chrysene-d12	22.81	22.31	23.31	22.82	0.04
134 Di-n-octylphthala	23.92	23.42	24.42	23.93	0.03
77 Perylene-d12	25.26	24.76	25.76	25.27	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

XBB9 : 06276

Data File: /chem1/nt10.i/20130823.b/ic0823b.d

Date : 23-AUG-2013 16:41

Client ID:

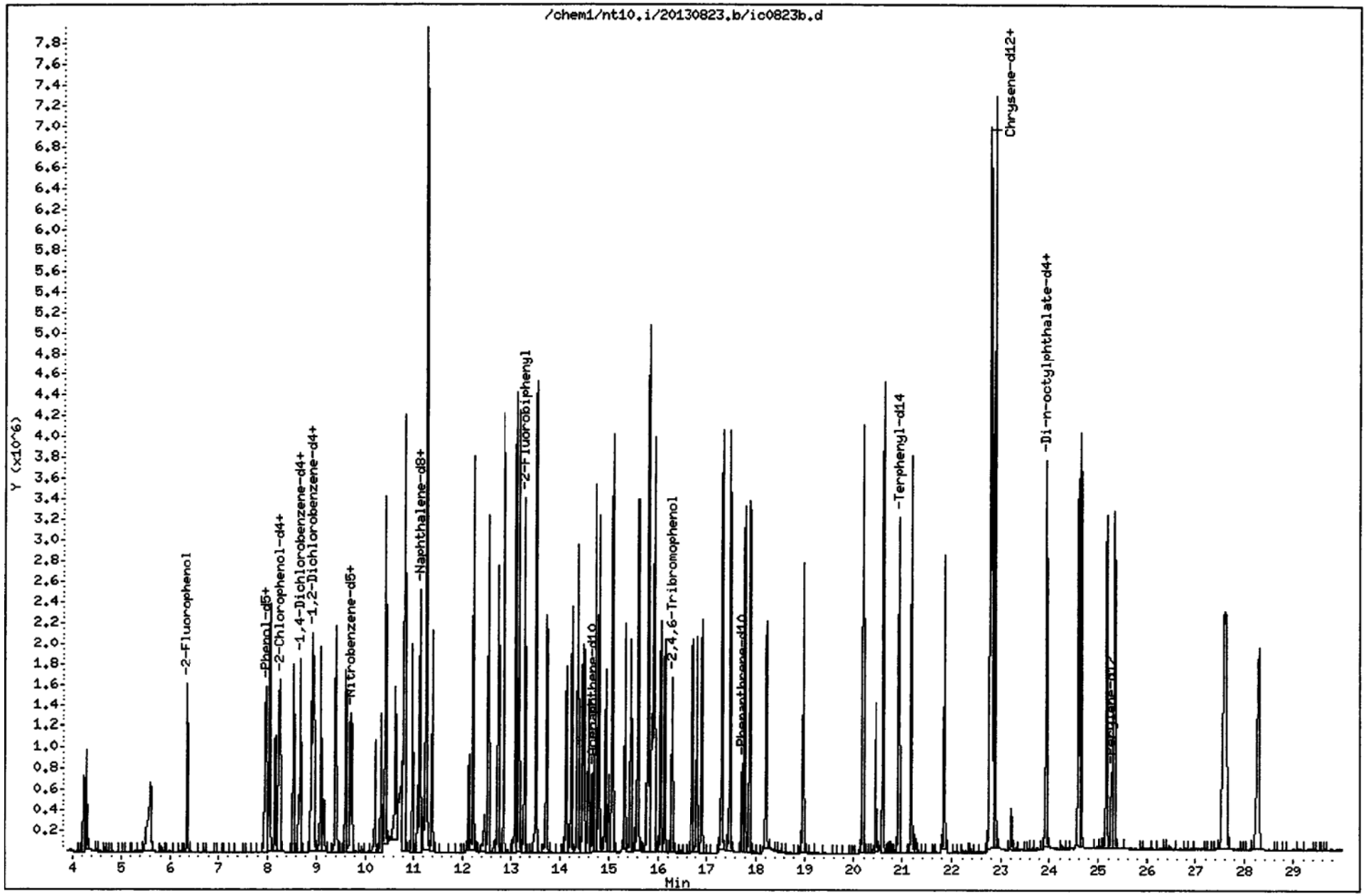
Sample Info: IC0823B

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic0823b.d

Lab ID: IC0823B, Method: ABN.m, Instrument: nt10.i, Date: 23-AUG-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

XB89 . 00278

Analytical Resources, Inc.

YZ 8/26/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130823.b/ic0823c.d
Lab Smp Id: IC0823C
Inj Date : 23-AUG-2013 17:17
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0823C
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130823.b/ABN.m
Meth Date : 26-Aug-2013 13:32 yev Quant Type: ISTD
Cal Date : 23-AUG-2013 16:04 Cal File: ic0823a.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.335	6.335	(0.733)	8151	0.20000	0.2051
$	2 Phenol-d5	99	7.935	7.935	(0.918)	9546	0.20000	0.1855
	3 Phenol	94	7.958	7.958	(0.920)	10368	0.20000	0.2028
$	5 2-Chlorophenol-d4	132	8.213	8.220	(0.950)	8659	0.20000	0.2053
	4 Bis(2-Chloroethyl)ether	93	8.151	8.151	(0.943)	7197	0.20000	0.1914
	6 2-Chlorophenol	128	8.244	8.251	(0.953)	8694	0.20000	0.2058
	7 1,3-Dichlorobenzene	146	8.538	8.538	(0.987)	10055	0.20000	0.2214
*	8 1,4-Dichlorobenzene-d4	152	8.646	8.639	(1.000)	136395	4.00000	
	9 1,4-Dichlorobenzene	146	8.678	8.677	(1.004)	9925	0.20000	0.2256
$	10 1,2-Dichlorobenzene-d4	152	8.926	8.926	(1.032)	6960	0.20000	0.2203
	12 1,2-Dichlorobenzene	146	8.957	8.957	(1.036)	9099	0.20000	0.2143
	11 Benzyl alcohol	108	8.895	8.887	(1.029)	4037	0.20000	0.1845 (M)
	14 2,2'-oxybis(1-Chloropropane)	121	9.159	9.159	(1.059)	3164	0.20000	0.2372
	13 2-Methylphenol	108	9.081	9.089	(1.050)	8516	0.20000	0.2201
	17 Hexachloroethane	117	9.601	9.601	(1.110)	4039	0.20000	0.2270
	16 N-Nitroso-di-n-propylamine	70	9.392	9.391	(1.086)	4807	0.20000	0.2043
	15 4-Methylphenol	108	9.376	9.376	(1.084)	7345	0.20000	0.1894
$	18 Nitrobenzene-d5	82	9.679	9.679	(0.872)	9537	0.20000	0.2196
	19 Nitrobenzene	77	9.718	9.717	(0.876)	7788	0.20000	0.2142
	20 Isophorone	82	10.183	10.183	(0.918)	14632	0.20000	0.2072
	21 2-Nitrophenol	139	10.338	10.338	(0.932)	5178	0.20000	0.2072
	22 2,4-Dimethylphenol	107	10.415	10.415	(0.939)	16288	0.40000	0.3968
	23 Bis(2-Chloroethoxy)methane	93	10.615	10.615	(0.957)	8853	0.20000	0.2108
	24 Benzoic acid	105	10.477	10.654	(0.944)	6746	0.80000	0.2507 (M)
	25 2,4-Dichlorophenol	162	10.800	10.800	(0.974)	13776	0.40000	0.3794
	26 1,2,4-Trichlorobenzene	180	10.978	10.977	(0.990)	9116	0.20000	0.2245
*	27 Naphthalene-d8	136	11.093	11.093	(1.000)	493798	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.132	11.132	(1.003)	24384	0.20000	0.2191
	29 4-Chloroaniline	127	11.240	11.247	(1.013)	16624	0.40000	0.3802
	30 Hexachlorobutadiene	225	11.387	11.387	(1.026)	5283	0.20000	0.2119
	31 4-Chloro-3-methylphenol	107	12.215	12.215	(1.101)	11814	0.40000	0.3405
	32 2-Methylnaphthalene	142	12.532	12.532	(1.130)	17211	0.20000	0.2101
	33 Hexachlorocyclopentadiene	237	12.850	12.849	(0.877)	11127	0.40000	0.3319
	34 2,4,6-Trichlorophenol	196	13.097	13.097	(0.894)	11562	0.40000	0.3733
	35 2,4,5-Trichlorophenol	196	13.167	13.167	(0.899)	11742	0.40000	0.3619 (M)
$	36 2-Fluorobiphenyl	172	13.283	13.283	(0.907)	20958	0.20000	0.2066
	37 2-Chloronaphthalene	162	13.515	13.515	(0.922)	16261	0.20000	0.2080
	38 2-Nitroaniline	65	13.724	13.732	(0.937)	7197	0.40000	0.3875
	39 Dimethylphthalate	163	14.119	14.119	(0.964)	19120	0.20000	0.2151
	40 Acenaphthylene	152	14.366	14.366	(0.980)	27705	0.20000	0.2098
	41 2,6-Dinitrotoluene	165	14.227	14.235	(0.971)	7631	0.40000	0.3659
*	42 Acenaphthene-d10	164	14.652	14.660	(1.000)	318478	4.00000	
	43 3-Nitroaniline	138	14.567	14.575	(0.994)	7614	0.40000	0.4402
	44 Acenaphthene	153	14.722	14.722	(1.005)	16625	0.20000	0.2160
	45 2,4-Dinitrophenol	184	14.799	14.791	(1.010)	1799	0.80000	0.1011
	46 Dibenzofuran	168	15.078	15.085	(1.029)	24449	0.20000	0.2121
	47 4-Nitrophenol	109	14.954	14.915	(1.021)	2428	0.40000	0.2139 (M)
	48 2,4-Dinitrotoluene	165	15.054	15.062	(1.027)	10890	0.40000	0.3885
	50 Diethylphthalate	149	15.580	15.588	(1.063)	18825	0.20000	0.2116
	49 Fluorene	166	15.789	15.789	(1.078)	20045	0.20000	0.2097
	51 4-Chlorophenyl-phenylether	204	15.804	15.804	(1.079)	11156	0.20000	0.2284
	52 4-Nitroaniline	138	15.812	15.827	(1.079)	7327	0.40000	0.3743 (MH)
	53 4,6-Dinitro-2-methylphenol	198	15.882	15.897	(0.896)	10477	0.80000	0.4813
	54 N-Nitrosodiphenylamine	169	16.044	16.044	(0.905)	13094	0.20000	0.2177
$	55 2,4,6-Tribromophenol	330	16.275	16.275	(1.111)	4083	0.20000	0.1955
	56 4-Bromophenyl-phenylether	248	16.807	16.807	(0.948)	6742	0.20000	0.2103
	57 Hexachlorobenzene	284	16.915	16.907	(0.955)	8136	0.20000	0.1987
	58 Pentachlorophenol	266	17.326	17.318	(0.978)	6295	0.40000	0.2574
*	59 Phenanthrene-d10	188	17.720	17.720	(1.000)	579034	4.00000	
	60 Phenanthrene	178	17.767	17.767	(1.003)	27685	0.20000	0.2127
	61 Anthracene	178	17.875	17.875	(1.009)	29652	0.20000	0.2138
	62 Carbazole	167	18.216	18.215	(1.028)	23173	0.20000	0.2316
	63 Di-n-butylphthalate	149	18.974	18.974	(1.071)	30623	0.20000	0.2079
	64 Fluoranthene	202	20.173	20.173	(1.138)	34665	0.20000	0.2069
	65 Pyrene	202	20.606	20.606	(0.903)	36031	0.20000	0.2108
$	66 Terphenyl-d14	244	20.924	20.916	(0.917)	22489	0.20000	0.2227
	67 Butylbenzylphthalate	149	21.837	21.837	(0.957)	13981	0.20000	0.2244
	68 Benzo(a)anthracene	228	22.790	22.789	(0.999)	35745	0.20000	0.2194
*	69 Chrysene-d12	240	22.813	22.813	(1.000)	616127	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.759	22.758	(0.998)	38700	0.40000	0.5060
	71 Chrysene	228	22.851	22.859	(1.002)	29152	0.20000	0.2073
	72 bis(2-Ethylhexyl)phthalate	149	22.867	22.867	(0.956)	18715	0.20000	0.2321
*	134 Di-n-octylphthalate-d4	153	23.920	23.920	(1.000)	752660	4.00000	
	73 Di-n-octylphthalate	149	23.935	23.927	(1.001)	35891	0.20000	0.2366

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	24.570	24.570	(0.973)	33867	0.20000	0.2048
75	Benzo(k)fluoranthene	252	24.617	24.624	(0.975)	35428	0.20000	0.2121
76	Benzo(a)pyrene	252	25.151	25.151	(0.996)	33127	0.20000	0.2197
* 77	Perylene-d12	264	25.259	25.259	(1.000)	654682	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.529	27.545	(1.090)	38480	0.20000	0.2086
79	Dibenzo(a,h)anthracene	278	27.584	27.591	(1.092)	30747	0.20000	0.2143
80	Benzo(g,h,i)perylene	276	28.221	28.228	(1.117)	33019	0.20000	0.2140
90	N-Nitrosodimethylamine	74	4.189	4.188	(0.484)	7389	0.40000	0.3780
91	Aniline	93	8.035	8.035	(0.929)	20080	0.20000	0.2057
93	Benzidine	184	20.452	20.451	(0.896)	23243	0.40000	0.9942
103	Pyridine	79	4.266	4.250	(0.493)	7071	0.40000	0.3917
105	1-methylnaphthalene	142	12.726	12.725	(1.147)	15479	0.20000	0.2060(H)
111	Azobenzene (1,2-DP-Hydrazine)	77	16.129	16.129	(1.101)	16501	0.20000	0.2233
187	Total Benzofluoranthenes	252	24.617	24.624	(0.975)	69796	0.40000	0.4267
99	Perylene	252	25.306	25.306	(1.002)	30815	0.20000	0.2223
98	Retene	219	21.164	21.163	(0.928)	14367	0.20000	0.2107
120	2,3,4,6-Tetrachlorophenol	232	15.333	15.325	(1.046)	4591	0.20000	0.1765

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0823c.d
Lab Smp Id: IC0823C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Calibration Date: 23-AUG-2013
Calibration Time: 22:20

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	136395	-10.78
27 Naphthalene-d8	536851	268426	1073702	493798	-8.02
42 Acenaphthene-d10	348566	174283	697132	318478	-8.63
59 Phenanthrene-d10	633376	316688	1266752	579034	-8.58
69 Chrysene-d12	651036	325518	1302072	616127	-5.36
134 Di-n-octylphthala	837259	418630	1674518	752660	-10.10
77 Perylene-d12	696727	348364	1393454	654682	-6.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.64	8.14	9.14	8.65	0.09
27 Naphthalene-d8	11.09	10.59	11.59	11.09	0.00
42 Acenaphthene-d10	14.66	14.16	15.16	14.65	-0.05
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.81	22.31	23.31	22.81	0.00
134 Di-n-octylphthala	23.92	23.42	24.42	23.92	0.00
77 Perylene-d12	25.26	24.76	25.76	25.26	0.00

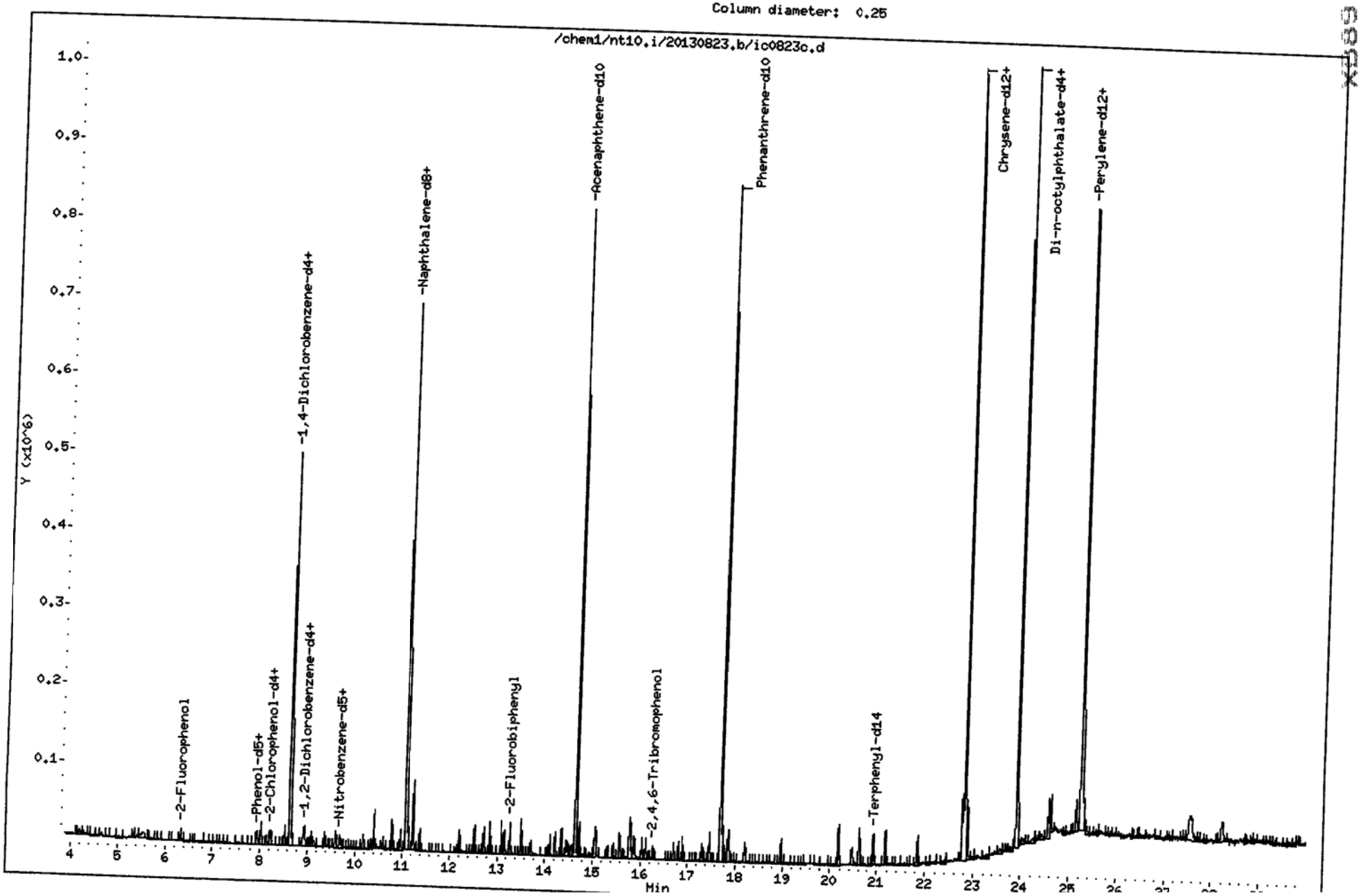
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130823.b/ic0823c.d
Date : 23-AUG-2013 17:17
Client ID:
Sample Info: IC0823C

Column phase: ZB-5msi

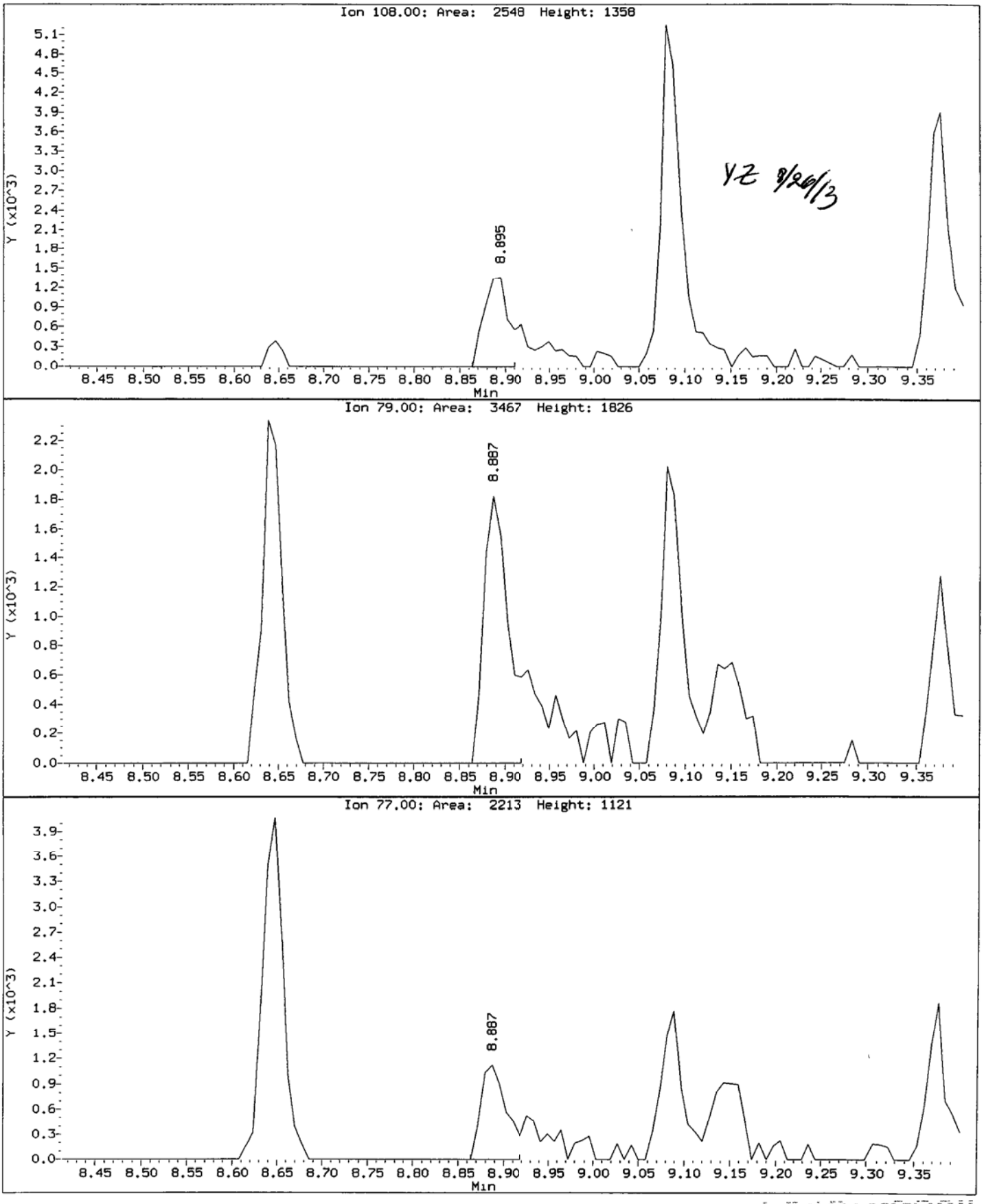
Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130823.b/ic0823c.d
Injection Date: 23-AUG-2013 17:17
Instrument: nt10.i
Client Sample ID:

Compound: Benzyl alcohol
CAS Number: 100-51-6

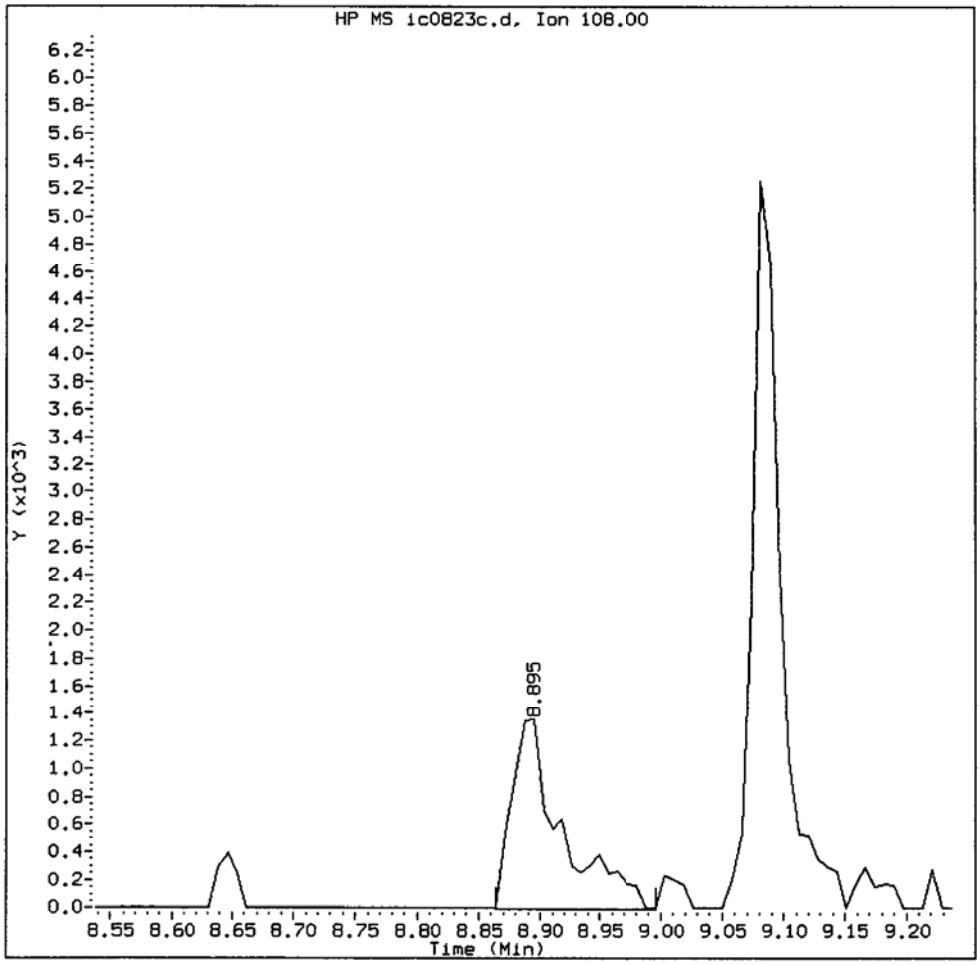


YZ 8/29/13

XB89:00284

IC0823C, /chem1/nt10.i/20130823.b/ic0823c.d

Benzyl alcohol Amount: 0.18 Area: 4037



MANUAL INTEGRATION for Benzyl alcohol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

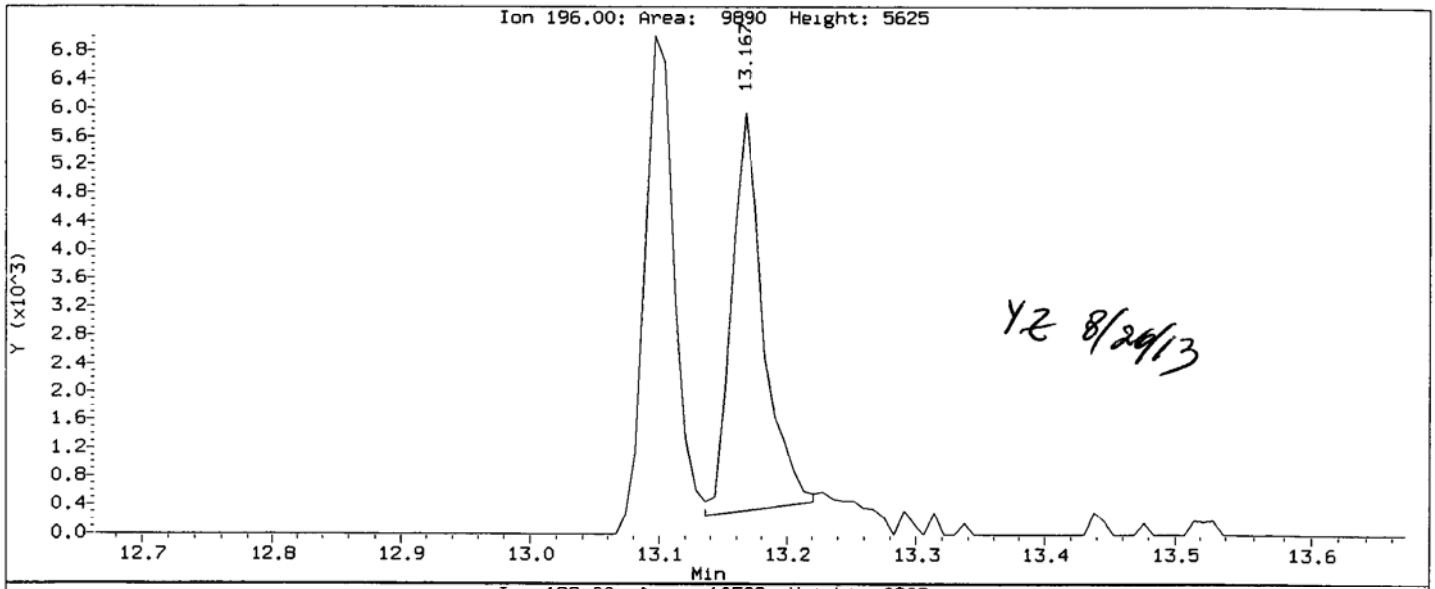
5. Other _____

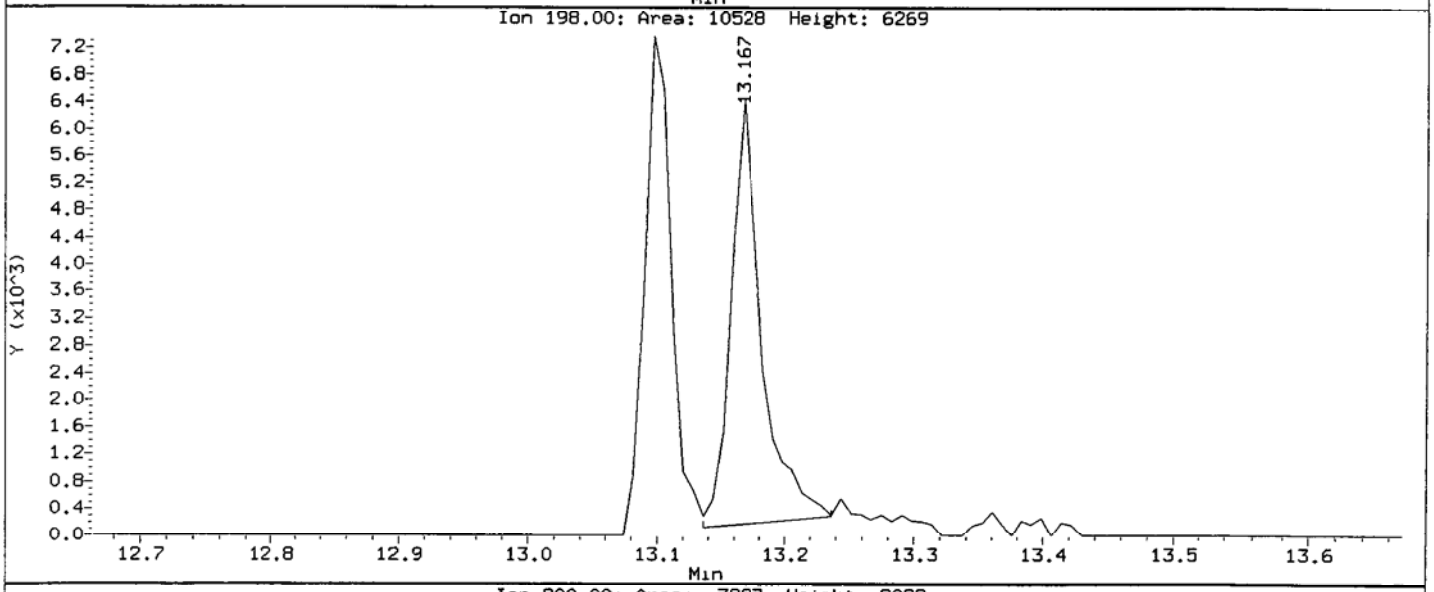
Analyst: VE Date: 8/24/13

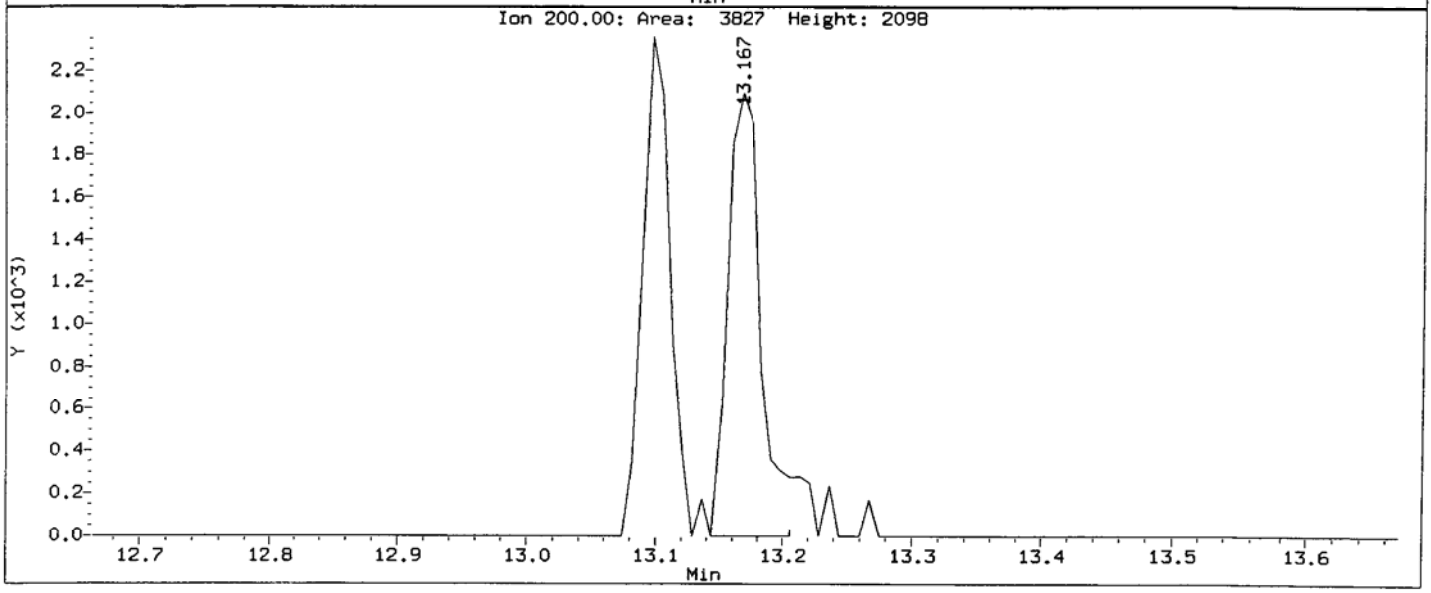
XBB9:00285

Data File: /chem1/nt10.i/20130823.b/ic0823c.d
Injection Date: 23-AUG-2013 17:17
Instrument: nt10.i
Client Sample ID:

Compound: 2,4,5-Trichlorophenol
CAS Number: 95-95-4

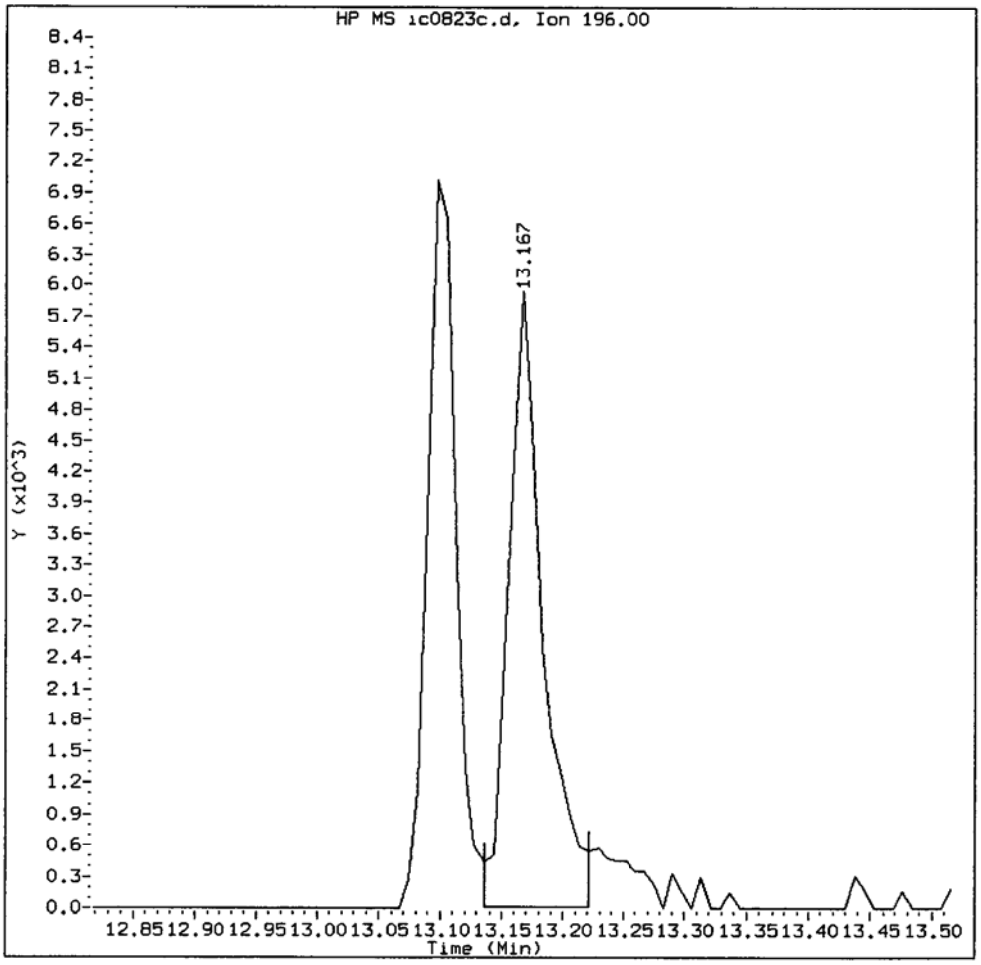






IC0823C, /chem1/nt10.i/20130823.b/ic0823c.d

2,4,5-Trichlorophenol Amount: 0.36 Area: 11742



MANUAL INTEGRATION for 2,4,5-Trichlorophenol

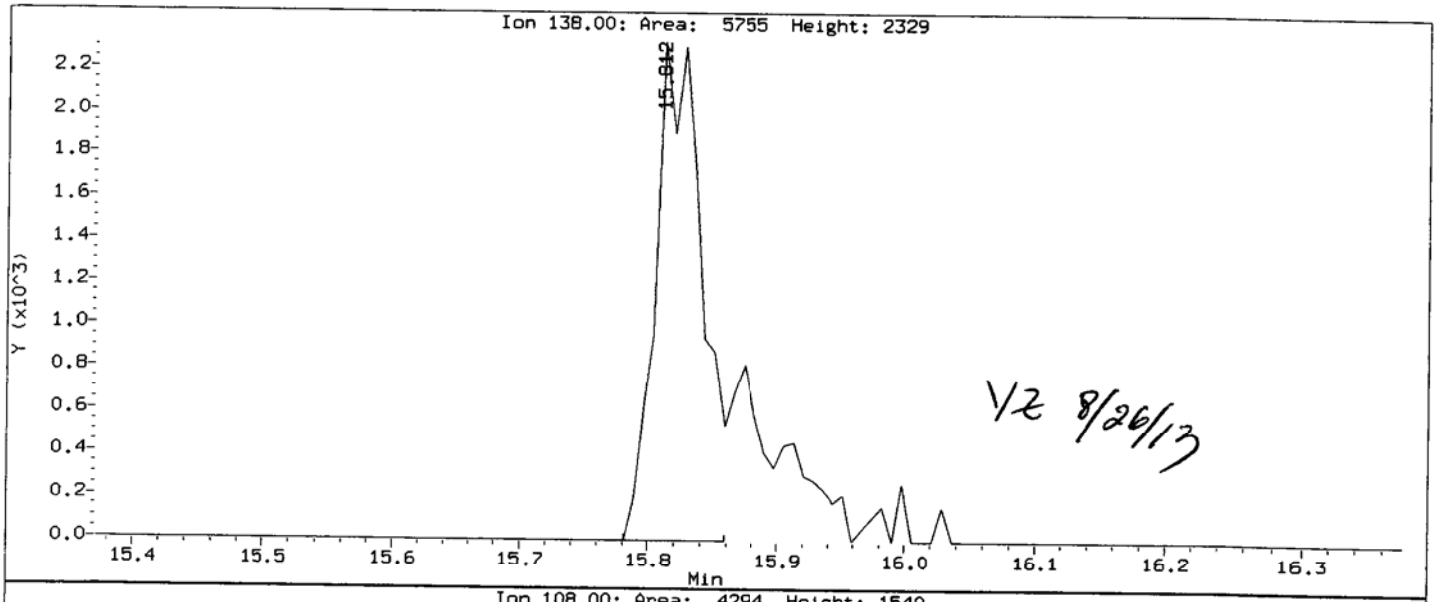
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

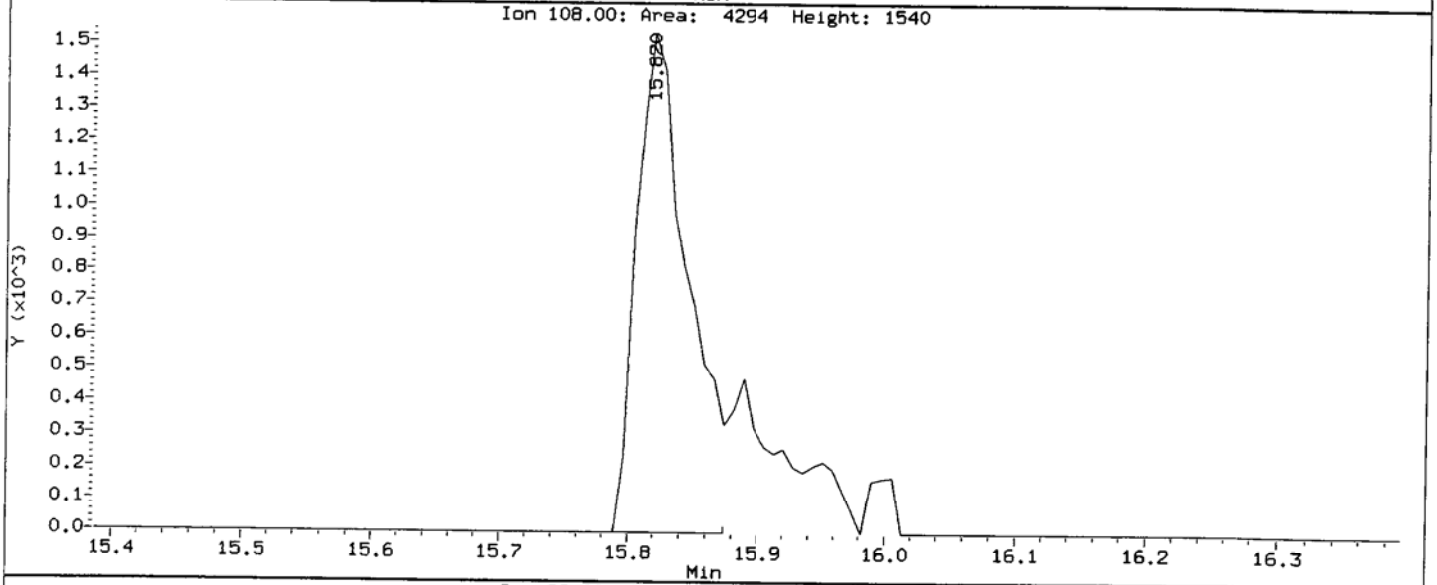
Analyst: VZ Date: 8/26/13

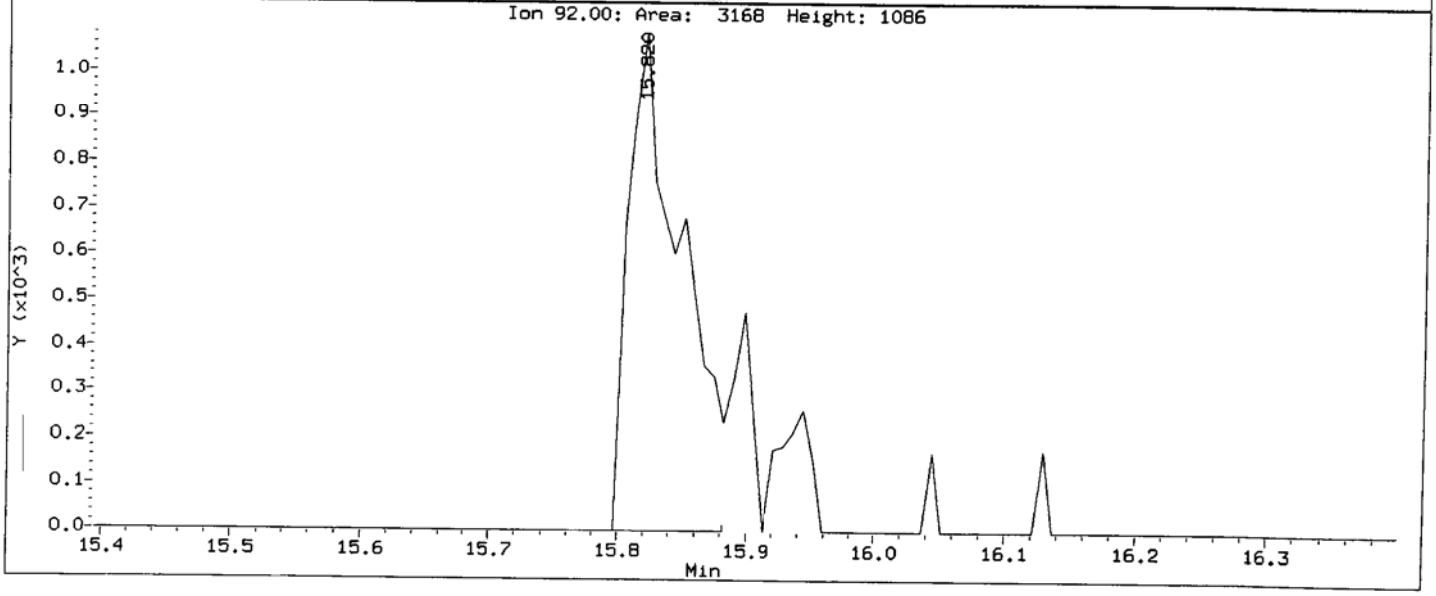
Data File: /chem1/nt10.1/20130823.b/1c0823c.d
Injection Date: 23-AUG-2013 17:17
Instrument: nt10.1
Client Sample ID:

Compound: 4-Nitroaniline
CAS Number: 100-01-6



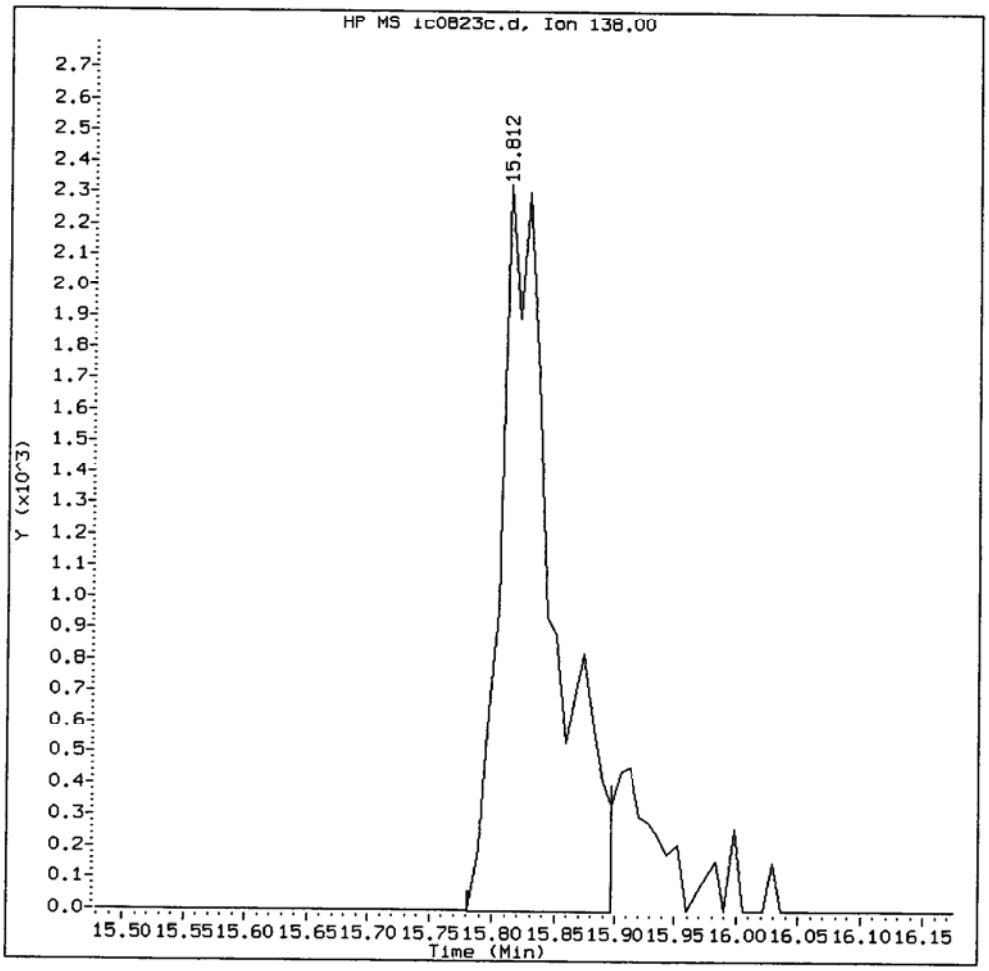
VZ 8/26/13





IC0823C, /chem1/nt10.i/20130823.b/ic0823c.d

4-Nitroaniline Amount: 0.37 Area: 7327



MANUAL INTEGRATION for 4-Nitroaniline

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 8/26/13

XB89:00289

CO-ELUTION SUMMARY FOR FILE - ic0823c.d

Lab ID: IC0823C, Method: ABN.m, Instrument: nt10.i, Date: 23-AUG-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 8/26/13

Data file : /chem1/nt10.i/20130823.b/ic0823d.d
Lab Smp Id: IC0823D
Inj Date : 23-AUG-2013 17:53
Operator : VTS/YZ
Smp Info : IC0823D
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130823.b/ABN.m
Meth Date : 26-Aug-2013 13:32 yev
Cal Date : 23-AUG-2013 16:04
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i
Quant Type: ISTD
Cal File: ic0823a.d
Calibration Sample, Level: 3
Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.335	6.335	(0.733)	43610	1.00000	1.059
$	2 Phenol-d5	99	7.935	7.935	(0.919)	52201	1.00000	0.9787
	3 Phenol	94	7.958	7.958	(0.921)	53961	1.00000	1.018
$	5 2-Chlorophenol-d4	132	8.213	8.220	(0.951)	43417	1.00000	0.9931
	4 Bis(2-Chloroethyl)ether	93	8.143	8.151	(0.943)	39162	1.00000	1.005
	6 2-Chlorophenol	128	8.244	8.251	(0.954)	43997	1.00000	1.005
	7 1,3-Dichlorobenzene	146	8.538	8.538	(0.988)	48496	1.00000	1.030
*	8 1,4-Dichlorobenzene-d4	152	8.639	8.639	(1.000)	141401	4.00000	
	9 1,4-Dichlorobenzene	146	8.670	8.677	(1.004)	46189	1.00000	1.013
$	10 1,2-Dichlorobenzene-d4	152	8.926	8.926	(1.033)	34148	1.00000	1.043
	12 1,2-Dichlorobenzene	146	8.949	8.957	(1.036)	45274	1.00000	1.028
	11 Benzyl alcohol	108	8.887	8.887	(1.029)	19498	1.00000	0.8597
	14 2,2'-oxybis(1-Chloropropane)	121	9.143	9.159	(1.058)	13239	1.00000	0.9574
	13 2-Methylphenol	108	9.081	9.089	(1.051)	40698	1.00000	1.015
	17 Hexachloroethane	117	9.601	9.601	(1.111)	18942	1.00000	1.027
	16 N-Nitroso-di-n-propylamine	70	9.384	9.391	(1.086)	24639	1.00000	1.010
	15 4-Methylphenol	108	9.368	9.376	(1.084)	41528	1.00000	1.033
$	18 Nitrobenzene-d5	82	9.679	9.679	(0.872)	43612	1.00000	0.9728
	19 Nitrobenzene	77	9.710	9.717	(0.875)	36723	1.00000	0.9784
	20 Isophorone	82	10.175	10.183	(0.917)	68832	1.00000	0.9439
	21 2-Nitrophenol	139	10.330	10.338	(0.931)	24376	1.00000	0.9450
	22 2,4-Dimethylphenol	107	10.415	10.415	(0.939)	88650	2.00000	2.092
	23 Bis(2-Chloroethoxy)methane	93	10.615	10.615	(0.957)	44738	1.00000	1.032
	24 Benzoic acid	105	10.523	10.654	(0.949)	88205	4.00000	3.175
	25 2,4-Dichlorophenol	162	10.800	10.800	(0.974)	75224	2.00000	2.007
	26 1,2,4-Trichlorobenzene	180	10.977	10.977	(0.990)	43897	1.00000	1.047
*	27 Naphthalene-d8	136	11.093	11.093	(1.000)	509787	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.132	11.132	(1.003)	115278	1.00000	1.004
	29 4-Chloroaniline	127	11.240	11.247	(1.013)	78556	2.00000	1.740
	30 Hexachlorobutadiene	225	11.387	11.387	(1.026)	24490	1.00000	0.9516
	31 4-Chloro-3-methylphenol	107	12.207	12.215	(1.100)	72743	2.00000	2.031
	32 2-Methylnaphthalene	142	12.524	12.532	(1.129)	85072	1.00000	1.006
	33 Hexachlorocyclopentadiene	237	12.849	12.849	(0.877)	68226	2.00000	2.021
	34 2,4,6-Trichlorophenol	196	13.097	13.097	(0.894)	64079	2.00000	2.055
	35 2,4,5-Trichlorophenol	196	13.167	13.167	(0.899)	64685	2.00000	1.980
$	36 2-Fluorobiphenyl	172	13.283	13.283	(0.907)	104716	1.00000	1.025
	37 2-Chloronaphthalene	162	13.515	13.515	(0.922)	82431	1.00000	1.047
	38 2-Nitroaniline	65	13.724	13.732	(0.937)	39100	2.00000	2.091
	39 Dimethylphthalate	163	14.119	14.119	(0.964)	94387	1.00000	1.055
	40 Acenaphthylene	152	14.366	14.366	(0.980)	134624	1.00000	1.012
	41 2,6-Dinitrotoluene	165	14.227	14.235	(0.971)	44501	2.00000	2.119
*	42 Acenaphthene-d10	164	14.652	14.660	(1.000)	320679	4.00000	
	43 3-Nitroaniline	138	14.567	14.575	(0.994)	39510	2.00000	2.269
	44 Acenaphthene	153	14.722	14.722	(1.005)	78144	1.00000	1.008
	45 2,4-Dinitrophenol	184	14.784	14.791	(1.009)	47472	4.00000	2.646
	46 Dibenzofuran	168	15.077	15.085	(1.029)	119794	1.00000	1.032
	47 4-Nitrophenol	109	14.915	14.915	(1.018)	20396	2.00000	1.785
	48 2,4-Dinitrotoluene	165	15.054	15.062	(1.027)	59301	2.00000	2.101
	50 Diethylphthalate	149	15.580	15.588	(1.063)	96914	1.00000	1.082
	49 Fluorene	166	15.789	15.789	(1.078)	98303	1.00000	1.021
	51 4-Chlorophenyl-phenylether	204	15.804	15.804	(1.079)	50374	1.00000	1.024
	52 4-Nitroaniline	138	15.812	15.827	(1.079)	41549	2.00000	2.108
	53 4,6-Dinitro-2-methylphenol	198	15.882	15.897	(0.896)	85590	4.00000	3.822
	54 N-Nitrosodiphenylamine	169	16.044	16.044	(0.905)	64766	1.00000	1.047
$	55 2,4,6-Tribromophenol	330	16.275	16.275	(1.111)	21072	1.00000	1.002
	56 4-Bromophenyl-phenylether	248	16.807	16.807	(0.948)	32120	1.00000	0.9736
	57 Hexachlorobenzene	284	16.908	16.907	(0.954)	46125	1.00000	1.095
	58 Pentachlorophenol	266	17.318	17.318	(0.977)	48826	2.00000	1.941
*	59 Phenanthrene-d10	188	17.720	17.720	(1.000)	595717	4.00000	
	60 Phenanthrene	178	17.767	17.767	(1.003)	136647	1.00000	1.020
	61 Anthracene	178	17.867	17.875	(1.008)	143076	1.00000	1.003
	62 Carbazole	167	18.208	18.215	(1.028)	111600	1.00000	1.090
	63 Di-n-butylphthalate	149	18.974	18.974	(1.071)	150826	1.00000	0.9952
	64 Fluoranthene	202	20.173	20.173	(1.138)	171544	1.00000	0.9950
	65 Pyrene	202	20.598	20.606	(0.903)	179106	1.00000	1.012
$	66 Terphenyl-d14	244	20.916	20.916	(0.917)	111883	1.00000	1.070
	67 Butylbenzylphthalate	149	21.837	21.837	(0.958)	66821	1.00000	1.036
	68 Benzo(a)anthracene	228	22.789	22.789	(0.999)	173057	1.00000	1.026
*	69 Chrysene-d12	240	22.805	22.813	(1.000)	638067	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.758	22.758	(0.998)	181437	2.00000	2.291
	71 Chrysene	228	22.851	22.859	(1.002)	151704	1.00000	1.042
	72 bis(2-Ethylhexyl)phthalate	149	22.867	22.867	(0.956)	87197	1.00000	1.031
*	134 Di-n-octylphthalate-d4	153	23.920	23.920	(1.000)	789657	4.00000	
	73 Di-n-octylphthalate	149	23.927	23.927	(1.000)	159706	1.00000	1.003

XB89 : 00292

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	24.570	24.570	(0.973)	178629	1.00000	1.041
	75 Benzo(k)fluoranthene	252	24.616	24.624	(0.975)	176672	1.00000	1.019
	76 Benzo(a)pyrene	252	25.151	25.151	(0.996)	160451	1.00000	1.026
*	77 Perylene-d12	264	25.251	25.259	(1.000)	679396	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.529	27.545	(1.090)	199355	1.00000	1.041
	79 Dibenzo(a,h)anthracene	278	27.576	27.591	(1.092)	153783	1.00000	1.033
	80 Benzo(g,h,i)perylene	276	28.220	28.228	(1.118)	160688	1.00000	1.003
	90 N-Nitrosodimethylamine	74	4.181	4.188	(0.484)	36936	2.00000	1.822
	91 Aniline	93	8.035	8.035	(0.930)	87442	1.00000	0.8639
	93 Benzidine	184	20.451	20.451	(0.897)	97626	2.00000	3.986
	103 Pyridine	79	4.250	4.250	(0.492)	36736	2.00000	1.963
	105 1-methylnaphthalene	142	12.726	12.725	(1.147)	76330	1.00000	0.9839(H)
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.129	16.129	(1.101)	77971	1.00000	1.048
	187 Total Benzofluoranthenes	252	24.570	24.624	(0.973)	350721	2.00000	2.066
	99 Perylene	252	25.298	25.306	(1.002)	141170	1.00000	0.9815
	98 Retene	219	21.163	21.163	(0.928)	72214	1.00000	1.023
	120 2,3,4,6-Tetrachlorophenol	232	15.333	15.325	(1.046)	26929	1.00000	1.028

QC Flag Legend

H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0823d.d
Lab Smp Id: IC0823D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Calibration Date: 23-AUG-2013
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	141401	-7.50
27 Naphthalene-d8	536851	268426	1073702	509787	-5.04
42 Acenaphthene-d10	348566	174283	697132	320679	-8.00
59 Phenanthrene-d10	633376	316688	1266752	595717	-5.95
69 Chrysene-d12	651036	325518	1302072	638067	-1.99
134 Di-n-octylphthala	837259	418630	1674518	789657	-5.69
77 Perylene-d12	696727	348364	1393454	679396	-2.49

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.64	8.14	9.14	8.64	0.00
27 Naphthalene-d8	11.09	10.59	11.59	11.09	0.00
42 Acenaphthene-d10	14.66	14.16	15.16	14.65	-0.05
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.81	22.31	23.31	22.80	-0.03
134 Di-n-octylphthala	23.92	23.42	24.42	23.92	0.00
77 Perylene-d12	25.26	24.76	25.76	25.25	-0.03

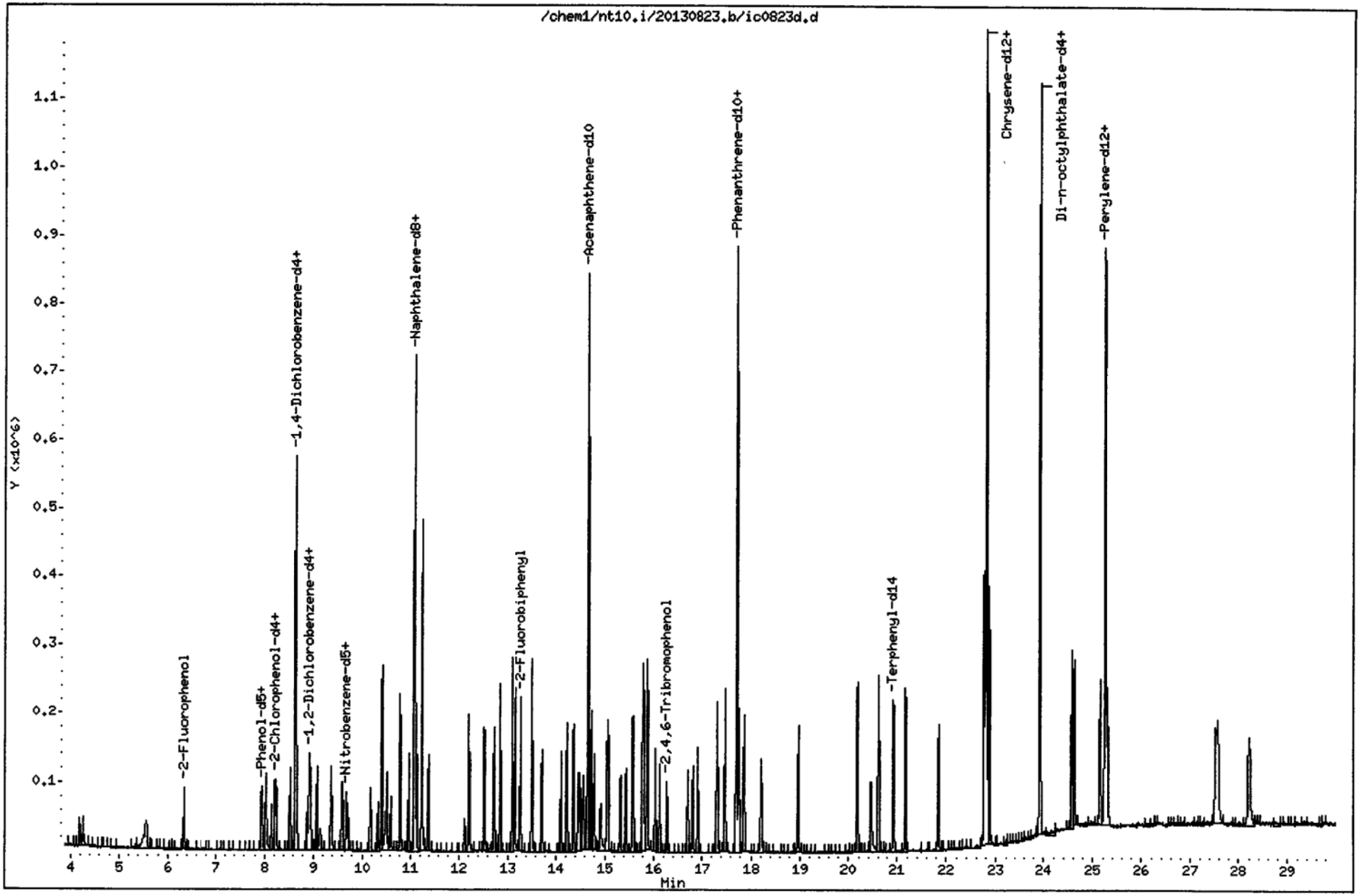
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130823.b/ic0823d.d
Date : 23-AUG-2013 17:53
Client ID:
Sample Info: IC0823D

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



XB89 00295

CO-ELUTION SUMMARY FOR FILE - ic0823d.d

Lab ID: IC0823D, Method: ABN.m, Instrument: nt10.i, Date: 23-AUG-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 8/26/13

Data file : /chem1/nt10.i/20130823.b/ic0823e.d
Lab Smp Id: IC0823E
Inj Date : 23-AUG-2013 18:30
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0823E
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130823.b/ABN.m
Meth Date : 26-Aug-2013 13:32 yev Quant Type: ISTD
Cal Date : 23-AUG-2013 16:04 Cal File: ic0823a.d
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.343	6.335	(0.734)	364226	10.0000	9.770
$	2 Phenol-d5	99	7.943	7.935	(0.919)	486130	10.0000	10.07
	3 Phenol	94	7.974	7.958	(0.922)	460386	10.0000	9.600
$	5 2-Chlorophenol-d4	132	8.221	8.220	(0.951)	379958	10.0000	9.603
	4 Bis(2-Chloroethyl)ether	93	8.159	8.151	(0.944)	332198	10.0000	9.418
	6 2-Chlorophenol	128	8.252	8.251	(0.954)	378544	10.0000	9.552
	7 1,3-Dichlorobenzene	146	8.538	8.538	(0.987)	388279	10.0000	9.113
*	8 1,4-Dichlorobenzene-d4	152	8.647	8.639	(1.000)	127966	4.00000	
	9 1,4-Dichlorobenzene	146	8.678	8.677	(1.004)	389217	10.0000	9.430
$	10 1,2-Dichlorobenzene-d4	152	8.934	8.926	(1.033)	272914	10.0000	9.209
	12 1,2-Dichlorobenzene	146	8.957	8.957	(1.036)	365045	10.0000	9.162
	11 Benzyl alcohol	108	8.895	8.887	(1.029)	223203	10.0000	10.87
	14 2,2'-oxybis(1-Chloropropane)	121	9.159	9.159	(1.059)	116457	10.0000	9.306
	13 2-Methylphenol	108	9.089	9.089	(1.051)	347902	10.0000	9.584
	17 Hexachloroethane	117	9.601	9.601	(1.110)	156238	10.0000	9.360
	16 N-Nitroso-di-n-propylamine	70	9.399	9.391	(1.087)	216106	10.0000	9.788
	15 4-Methylphenol	108	9.384	9.376	(1.085)	366362	10.0000	10.07
$	18 Nitrobenzene-d5	82	9.687	9.679	(0.873)	389458	10.0000	9.936
	19 Nitrobenzene	77	9.725	9.717	(0.877)	319384	10.0000	9.733
	20 Isophorone	82	10.199	10.183	(0.919)	689300	10.0000	10.81
	21 2-Nitrophenol	139	10.338	10.338	(0.932)	232834	10.0000	10.32
	22 2,4-Dimethylphenol	107	10.423	10.415	(0.940)	731566	20.0000	19.75
	23 Bis(2-Chloroethoxy)methane	93	10.623	10.615	(0.958)	369028	10.0000	9.737
	24 Benzoic acid	105	10.723	10.654	(0.967)	1214058	40.0000	49.98
	25 2,4-Dichlorophenol	162	10.808	10.800	(0.974)	717594	20.0000	21.90
	26 1,2,4-Trichlorobenzene	180	10.985	10.977	(0.990)	335473	10.0000	9.154
*	27 Naphthalene-d8	136	11.093	11.093	(1.000)	445700	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.140	11.132	(1.004)	977316	10.0000	9.731
	29 4-Chloroaniline	127	11.255	11.247	(1.015)	923712	20.0000	23.40
	30 Hexachlorobutadiene	225	11.395	11.387	(1.027)	213263	10.0000	9.478
	31 4-Chloro-3-methylphenol	107	12.223	12.215	(1.102)	678970	20.0000	21.68
	32 2-Methylnaphthalene	142	12.532	12.532	(1.130)	730159	10.0000	9.874
	33 Hexachlorocyclopentadiene	237	12.857	12.849	(0.877)	623590	20.0000	20.30
	34 2,4,6-Trichlorophenol	196	13.105	13.097	(0.894)	583478	20.0000	20.56
	35 2,4,5-Trichlorophenol	196	13.167	13.167	(0.898)	627885	20.0000	21.12
$	36 2-Fluorobiphenyl	172	13.291	13.283	(0.907)	892508	10.0000	9.601
	37 2-Chloronaphthalene	162	13.523	13.515	(0.922)	709555	10.0000	9.903
	38 2-Nitroaniline	65	13.739	13.732	(0.937)	354284	20.0000	20.81
	39 Dimethylphthalate	163	14.127	14.119	(0.964)	783216	10.0000	9.618
	40 Acenaphthylene	152	14.366	14.366	(0.980)	1130764	10.0000	9.343
	41 2,6-Dinitrotoluene	165	14.243	14.235	(0.972)	376548	20.0000	19.71
*	42 Acenaphthene-d10	164	14.660	14.660	(1.000)	291839	4.00000	
	43 3-Nitroaniline	138	14.583	14.575	(0.995)	320901	20.0000	20.25
	44 Acenaphthene	153	14.730	14.722	(1.005)	680410	10.0000	9.649
	45 2,4-Dinitrophenol	184	14.799	14.791	(1.009)	680684	40.0000	40.93
	46 Dibenzofuran	168	15.085	15.085	(1.029)	1036085	10.0000	9.807
	47 4-Nitrophenol	109	14.931	14.915	(1.018)	233948	20.0000	22.50
	48 2,4-Dinitrotoluene	165	15.070	15.062	(1.028)	521934	20.0000	20.32
	50 Diethylphthalate	149	15.596	15.588	(1.064)	760666	10.0000	9.330
	49 Fluorene	166	15.789	15.789	(1.077)	853233	10.0000	9.741
	51 4-Chlorophenyl-phenylether	204	15.804	15.804	(1.078)	426333	10.0000	9.524
	52 4-Nitroaniline	138	15.843	15.827	(1.081)	394546	20.0000	22.00
	53 4,6-Dinitro-2-methylphenol	198	15.905	15.897	(0.898)	894743	40.0000	44.83
	54 N-Nitrosodiphenylamine	169	16.052	16.044	(0.906)	529143	10.0000	9.596
$	55 2,4,6-Tribromophenol	330	16.283	16.275	(1.111)	195707	10.0000	10.22
	56 4-Bromophenyl-phenylether	248	16.815	16.807	(0.949)	281540	10.0000	9.577
	57 Hexachlorobenzene	284	16.916	16.907	(0.955)	354925	10.0000	9.453
	58 Pentachlorophenol	266	17.326	17.318	(0.978)	474373	20.0000	21.16
*	59 Phenanthrene-d10	188	17.720	17.720	(1.000)	530873	4.00000	
	60 Phenanthrene	178	17.775	17.767	(1.003)	1174963	10.0000	9.844
	61 Anthracene	178	17.875	17.875	(1.009)	1280259	10.0000	10.07
	62 Carbazole	167	18.216	18.215	(1.028)	880059	10.0000	10.21
	63 Di-n-butylphthalate	149	18.982	18.974	(1.071)	1376889	10.0000	10.20
	64 Fluoranthene	202	20.173	20.173	(1.138)	1552116	10.0000	10.10
	65 Pyrene	202	20.606	20.606	(0.903)	1529026	10.0000	9.639
$	66 Terphenyl-d14	244	20.924	20.916	(0.917)	874174	10.0000	9.328
	67 Butylbenzylphthalate	149	21.845	21.837	(0.957)	552073	10.0000	9.549
	68 Benzo(a)anthracene	228	22.797	22.789	(0.999)	1403769	10.0000	9.284
*	69 Chrysene-d12	240	22.821	22.813	(1.000)	571853	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.766	22.758	(0.998)	1299338	20.0000	18.31
	71 Chrysene	228	22.859	22.859	(1.002)	1269476	10.0000	9.728
	72 bis(2-Ethylhexyl)phthalate	149	22.867	22.867	(0.956)	761987	10.0000	9.572
*	134 Di-n-octylphthalate-d4	153	23.928	23.920	(1.000)	743215	4.00000	
	73 Di-n-octylphthalate	149	23.935	23.927	(1.000)	1423658	10.0000	9.504

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	24.578	24.570	(0.973)	1506638	10.0000	9.726
75	Benzo(k)fluoranthene	252	24.632	24.624	(0.975)	1529488	10.0000	9.775
76	Benzo(a)pyrene	252	25.159	25.151	(0.996)	1376911	10.0000	9.748
* 77	Perylene-d12	264	25.259	25.259	(1.000)	613368	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.560	27.545	(1.091)	1709355	10.0000	9.891
79	Dibenzo(a,h)anthracene	278	27.599	27.591	(1.093)	1294422	10.0000	9.630
80	Benzo(g,h,i)perylene	276	28.252	28.228	(1.118)	1415211	10.0000	9.788
90	N-Nitrosodimethylamine	74	4.181	4.188	(0.484)	396320	20.0000	21.61
91	Aniline	93	8.043	8.035	(0.930)	972373	10.0000	10.62
93	Benzidine	184	20.452	20.451	(0.896)	463802	20.0000	19.73
103	Pyridine	79	4.235	4.250	(0.490)	343601	20.0000	20.29
105	1-methylnaphthalene	142	12.733	12.725	(1.148)	667857	10.0000	9.847(H)
111	Azobenzene (1,2-DP-Hydrazine)	77	16.137	16.129	(1.101)	634931	10.0000	9.376
187	Total Benzofluoranthenes	252	24.632	24.624	(0.975)	2970830	20.0000	19.39
99	Perylene	252	25.314	25.306	(1.002)	1259822	10.0000	9.702
98	Retene	219	21.171	21.163	(0.928)	613604	10.0000	9.698
120	2,3,4,6-Tetrachlorophenol	232	15.333	15.325	(1.046)	256621	10.0000	10.77

QC Flag Legend

H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0823e.d
Lab Smp Id: IC0823E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Calibration Date: 23-AUG-2013
Calibration Time: 22:20

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	127966	-16.29
27 Naphthalene-d8	536851	268426	1073702	445700	-16.98
42 Acenaphthene-d10	348566	174283	697132	291839	-16.27
59 Phenanthrene-d10	633376	316688	1266752	530873	-16.18
69 Chrysene-d12	651036	325518	1302072	571853	-12.16
134 Di-n-octylphthala	837259	418630	1674518	743215	-11.23
77 Perylene-d12	696727	348364	1393454	613368	-11.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.64	8.14	9.14	8.65	0.09
27 Naphthalene-d8	11.09	10.59	11.59	11.09	0.00
42 Acenaphthene-d10	14.66	14.16	15.16	14.66	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.81	22.31	23.31	22.82	0.04
134 Di-n-octylphthala	23.92	23.42	24.42	23.93	0.03
77 Perylene-d12	25.26	24.76	25.76	25.26	0.00

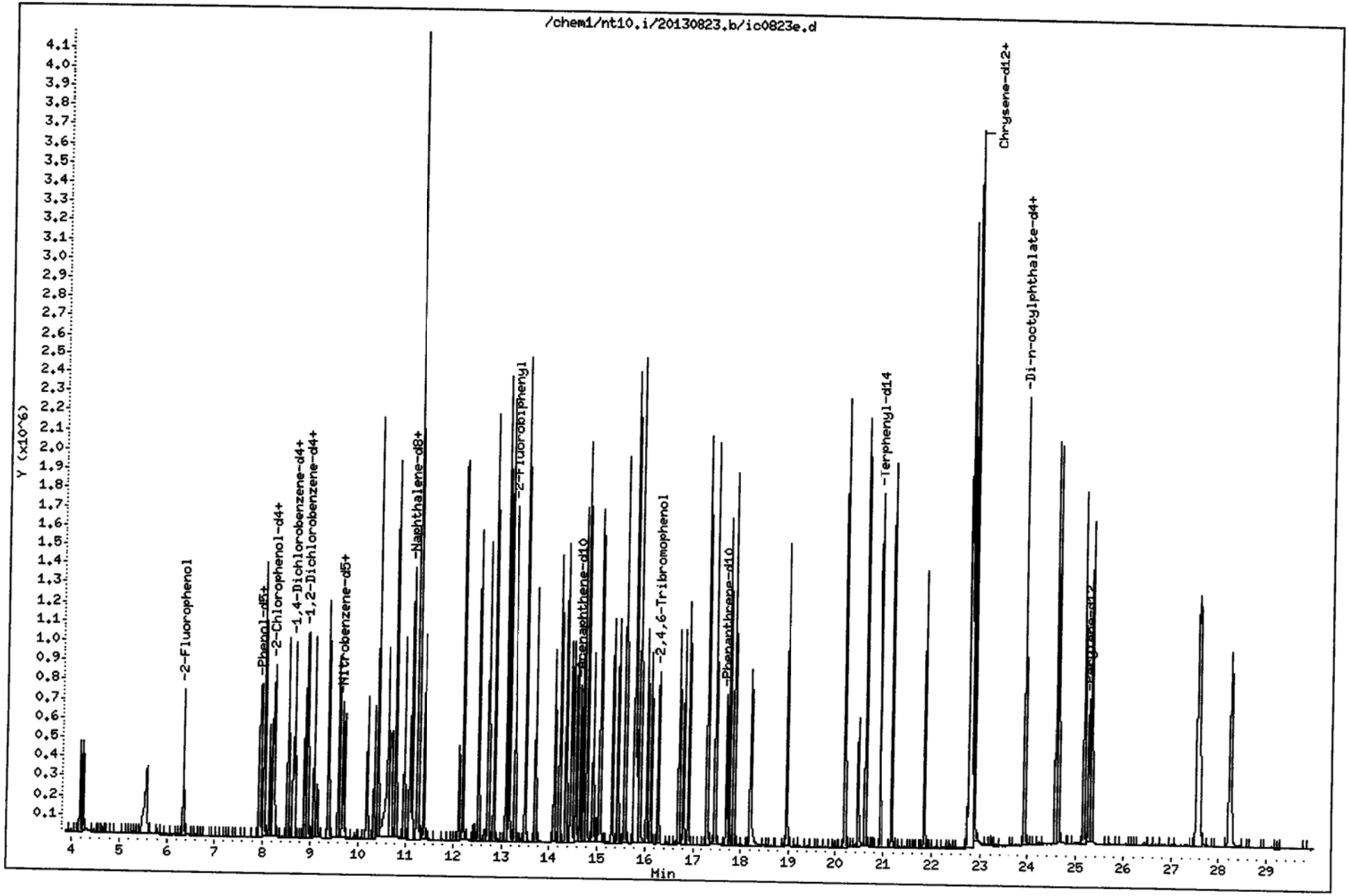
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130823.b/ic0823e.d
Date : 23-AUG-2013 18:30
Client ID:
Sample Info: IC0823E

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



XB89 : 00301

CO-ELUTION SUMMARY FOR FILE - ic0823e.d

Lab ID: IC0823E, Method: ABN.m, Instrument: nt10.i, Date: 23-AUG-2013

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

XBB9 00362

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130823.b/ic0823g.d
Lab Smp Id: IC0823G
Inj Date : 23-AUG-2013 19:43
Operator : VTS/YZ Inst ID: nt10.i

YZ 8/26/13

Smp Info : IC0823G
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130823.b/ABN.m
Meth Date : 26-Aug-2013 13:32 yev Quant Type: ISTD
Cal Date : 23-AUG-2013 16:04 Cal File: ic0823a.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.335	6.335	(0.733)	18433	0.50000	0.4920
$	2 Phenol-d5	99	7.935	7.935	(0.918)	24438	0.50000	0.5037
	3 Phenol	94	7.958	7.958	(0.920)	23941	0.50000	0.4967
$	5 2-Chlorophenol-d4	132	8.213	8.220	(0.950)	19613	0.50000	0.4932
	4 Bis(2-Chloroethyl)ether	93	8.151	8.151	(0.943)	18833	0.50000	0.5312
	6 2-Chlorophenol	128	8.244	8.251	(0.953)	20650	0.50000	0.5185
	7 1,3-Dichlorobenzene	146	8.538	8.538	(0.987)	22593	0.50000	0.5276
*	8 1,4-Dichlorobenzene-d4	152	8.646	8.639	(1.000)	128614	4.00000	
	9 1,4-Dichlorobenzene	146	8.677	8.677	(1.004)	20824	0.50000	0.5020
$	10 1,2-Dichlorobenzene-d4	152	8.926	8.926	(1.032)	15505	0.50000	0.5205
	12 1,2-Dichlorobenzene	146	8.957	8.957	(1.036)	21740	0.50000	0.5429
	11 Benzyl alcohol	108	8.887	8.887	(1.028)	8397	0.50000	0.4070
	14 2,2'-oxybis(1-Chloropropane)	121	9.158	9.159	(1.059)	6588	0.50000	0.5238(M)
	13 2-Methylphenol	108	9.089	9.089	(1.051)	17395	0.50000	0.4768
	17 Hexachloroethane	117	9.601	9.601	(1.110)	8522	0.50000	0.5080
	16 N-Nitroso-di-n-propylamine	70	9.391	9.391	(1.086)	11863	0.50000	0.5346
	15 4-Methylphenol	108	9.368	9.376	(1.083)	17245	0.50000	0.4715
$	18 Nitrobenzene-d5	82	9.678	9.679	(0.872)	20194	0.50000	0.4942
	19 Nitrobenzene	77	9.717	9.717	(0.876)	17369	0.50000	0.5077
	20 Isophorone	82	10.183	10.183	(0.918)	32182	0.50000	0.4842
	21 2-Nitrophenol	139	10.338	10.338	(0.932)	11306	0.50000	0.4809
	22 2,4-Dimethylphenol	107	10.415	10.415	(0.939)	38310	1.00000	0.9918
	23 Bis(2-Chloroethoxy)methane	93	10.615	10.615	(0.957)	20623	0.50000	0.5219
	24 Benzoic acid	105	10.492	10.654	(0.946)	26592	2.00000	1.050(M)
	25 2,4-Dichlorophenol	162	10.800	10.800	(0.974)	30837	1.00000	0.9025
	26 1,2,4-Trichlorobenzene	180	10.977	10.977	(0.990)	19252	0.50000	0.5039
*	27 Naphthalene-d8	136	11.093	11.093	(1.000)	464682	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.132	11.132	(1.003)	52253	0.50000	0.4990
	29 4-Chloroaniline	127	11.240	11.247	(1.013)	38256	1.00000	0.9296
	30 Hexachlorobutadiene	225	11.387	11.387	(1.026)	12495	0.50000	0.5326
	31 4-Chloro-3-methylphenol	107	12.215	12.215	(1.101)	28328	1.00000	0.8677
	32 2-Methylnaphthalene	142	12.532	12.532	(1.130)	38271	0.50000	0.4964
	33 Hexachlorocyclopentadiene	237	12.857	12.849	(0.877)	29454	1.00000	0.9443
	34 2,4,6-Trichlorophenol	196	13.097	13.097	(0.893)	27915	1.00000	0.9689
	35 2,4,5-Trichlorophenol	196	13.166	13.167	(0.898)	27945	1.00000	0.9259
$	36 2-Fluorobiphenyl	172	13.283	13.283	(0.906)	48877	0.50000	0.5179
	37 2-Chloronaphthalene	162	13.515	13.515	(0.922)	36592	0.50000	0.5030
	38 2-Nitroaniline	65	13.724	13.732	(0.936)	14574	1.00000	0.8434
	39 Dimethylphthalate	163	14.118	14.119	(0.963)	43735	0.50000	0.5290
	40 Acenaphthylene	152	14.366	14.366	(0.980)	63015	0.50000	0.5129
	41 2,6-Dinitrotoluene	165	14.227	14.235	(0.970)	18879	1.00000	0.9732
*	42 Acenaphthene-d10	164	14.660	14.660	(1.000)	296272	4.00000	
	43 3-Nitroaniline	138	14.567	14.575	(0.994)	15017	1.00000	0.9334
	44 Acenaphthene	153	14.722	14.722	(1.004)	36368	0.50000	0.5080
	45 2,4-Dinitrophenol	184	14.784	14.791	(1.008)	11554	2.00000	0.6978
	46 Dibenzofuran	168	15.077	15.085	(1.028)	54373	0.50000	0.5070
	47 4-Nitrophenol	109	14.923	14.915	(1.018)	8722	1.00000	0.8261 (M)
	48 2,4-Dinitrotoluene	165	15.054	15.062	(1.027)	24537	1.00000	0.9411
	50 Diethylphthalate	149	15.580	15.588	(1.063)	42216	0.50000	0.5100
	49 Fluorene	166	15.789	15.789	(1.077)	45357	0.50000	0.5101
	51 4-Chlorophenyl-phenylether	204	15.804	15.804	(1.078)	22985	0.50000	0.5058
	52 4-Nitroaniline	138	15.812	15.827	(1.079)	16110	1.00000	0.8847
	53 4,6-Dinitro-2-methylphenol	198	15.881	15.897	(0.896)	38902	2.00000	1.944
	54 N-Nitrosodiphenylamine	169	16.044	16.044	(0.905)	28314	0.50000	0.5123
$	55 2,4,6-Tribromophenol	330	16.275	16.275	(1.110)	9821	0.50000	0.5054
	56 4-Bromophenyl-phenylether	248	16.815	16.807	(0.949)	15691	0.50000	0.5325
	57 Hexachlorobenzene	284	16.907	16.907	(0.954)	20418	0.50000	0.5425
	58 Pentachlorophenol	266	17.318	17.318	(0.977)	18170	1.00000	0.8085
*	59 Phenanthrene-d10	188	17.720	17.720	(1.000)	532150	4.00000	
	60 Phenanthrene	178	17.767	17.767	(1.003)	59735	0.50000	0.4993
	61 Anthracene	178	17.867	17.875	(1.008)	64632	0.50000	0.5071
	62 Carbazole	167	18.207	18.215	(1.028)	49161	0.50000	0.5357
	63 Di-n-butylphthalate	149	18.973	18.974	(1.071)	66722	0.50000	0.4929
	64 Fluoranthene	202	20.173	20.173	(1.138)	78556	0.50000	0.5101
	65 Pyrene	202	20.598	20.606	(0.903)	81836	0.50000	0.4999
$	66 Terphenyl-d14	244	20.915	20.916	(0.917)	48270	0.50000	0.4991
	67 Butylbenzylphthalate	149	21.837	21.837	(0.958)	29067	0.50000	0.4872
	68 Benzo(a)anthracene	228	22.789	22.789	(0.999)	81227	0.50000	0.5205
*	69 Chrysene-d12	240	22.805	22.813	(1.000)	590152	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.758	22.758	(0.998)	82366	1.00000	1.124
	71 Chrysene	228	22.851	22.859	(1.002)	66332	0.50000	0.4925
	72 bis(2-Ethylhexyl)phthalate	149	22.867	22.867	(0.956)	37862	0.50000	0.4866
*	134 Di-n-octylphthalate-d4	153	23.920	23.920	(1.000)	726421	4.00000	
	73 Di-n-octylphthalate	149	23.927	23.927	(1.000)	74385	0.50000	0.5080

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	24.570	24.570	(0.973)	78328	0.50000	0.4830
	75 Benzo(k)fluoranthene	252	24.616	24.624	(0.975)	83905	0.50000	0.5122
	76 Benzo(a)pyrene	252	25.151	25.151	(0.996)	72769	0.50000	0.4921
*	77 Perylene-d12	264	25.251	25.259	(1.000)	642181	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.537	27.545	(1.091)	87835	0.50000	0.4854
	79 Dibenzo(a,h)anthracene	278	27.576	27.591	(1.092)	69348	0.50000	0.4927
	80 Benzo(g,h,i)perylene	276	28.220	28.228	(1.118)	74623	0.50000	0.4930
	90 N-Nitrosodimethylamine	74	4.181	4.188	(0.484)	17024	1.00000	0.9235
	91 Aniline	93	8.035	8.035	(0.929)	48370	0.50000	0.5254
	93 Benzidine	184	20.451	20.451	(0.897)	47583	1.00000	2.116
	103 Pyridine	79	4.250	4.250	(0.492)	16524	1.00000	0.9707
	105 1-methylnaphthalene	142	12.733	12.725	(1.148)	36052	0.50000	0.5098 (H)
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.121	16.129	(1.100)	36309	0.50000	0.5282
	187 Total Benzofluoranthenes	252	24.616	24.624	(0.975)	160591	1.00000	1.001
	99 Perylene	252	25.298	25.306	(1.002)	68563	0.50000	0.5043
	98 Retene	219	21.163	21.163	(0.928)	31609	0.50000	0.4841
	120 2,3,4,6-Tetrachlorophenol	232	15.325	15.325	(1.045)	11145	0.50000	0.4606

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0823g.d
Lab Smp Id: IC0823G
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Calibration Date: 23-AUG-2013
Calibration Time: 22:20

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	128614	-15.87
27 Naphthalene-d8	536851	268426	1073702	464682	-13.44
42 Acenaphthene-d10	348566	174283	697132	296272	-15.00
59 Phenanthrene-d10	633376	316688	1266752	532150	-15.98
69 Chrysene-d12	651036	325518	1302072	590152	-9.35
134 Di-n-octylphthala	837259	418630	1674518	726421	-13.24
77 Perylene-d12	696727	348364	1393454	642181	-7.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.64	8.14	9.14	8.65	0.09
27 Naphthalene-d8	11.09	10.59	11.59	11.09	0.00
42 Acenaphthene-d10	14.66	14.16	15.16	14.66	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.81	22.31	23.31	22.80	-0.03
134 Di-n-octylphthala	23.92	23.42	24.42	23.92	0.00
77 Perylene-d12	25.26	24.76	25.76	25.25	-0.03

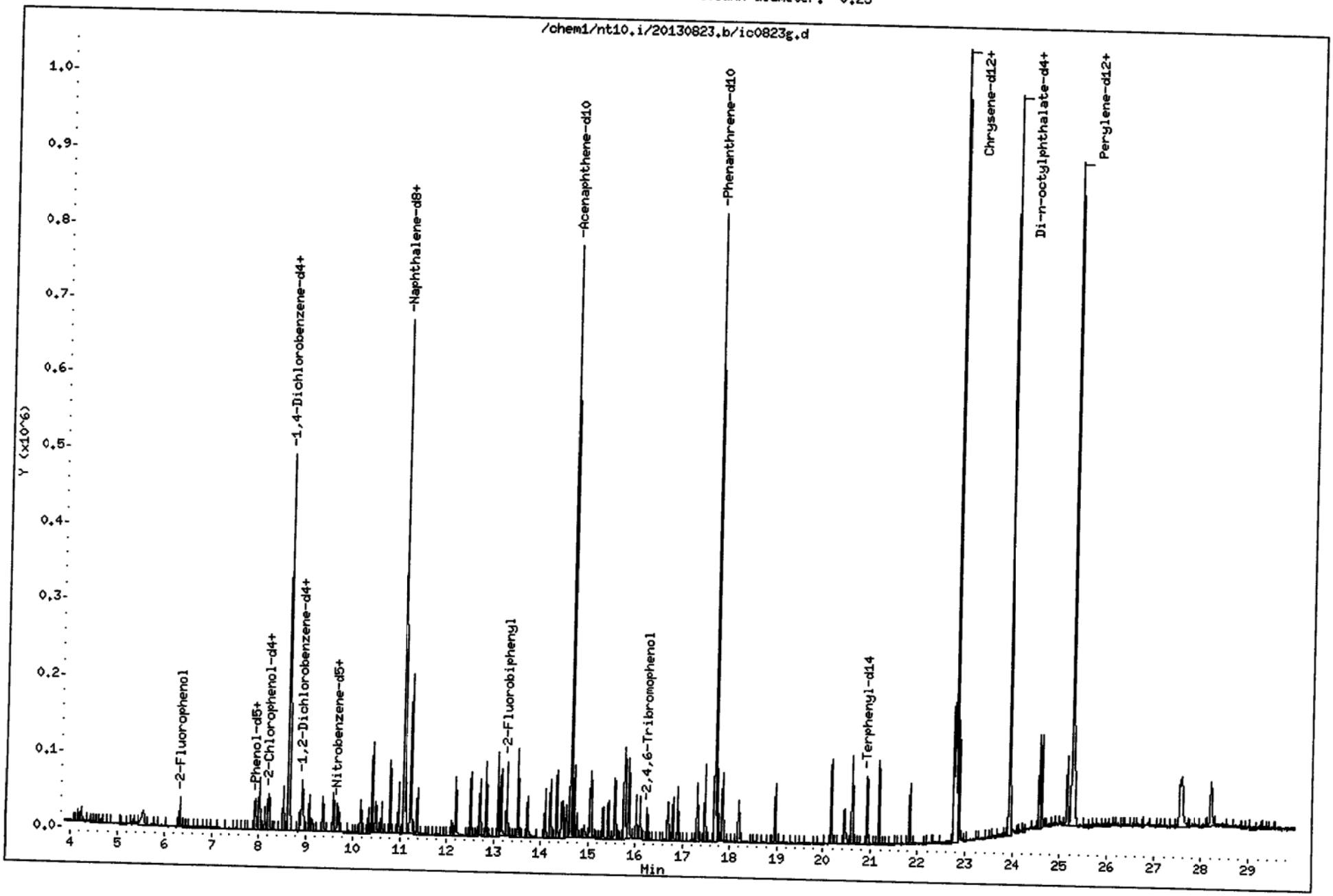
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130823.b/ic0823g.d
Date : 23-AUG-2013 19:43
Client ID:
Sample Info: IC0823G

Instrument: nt10.i

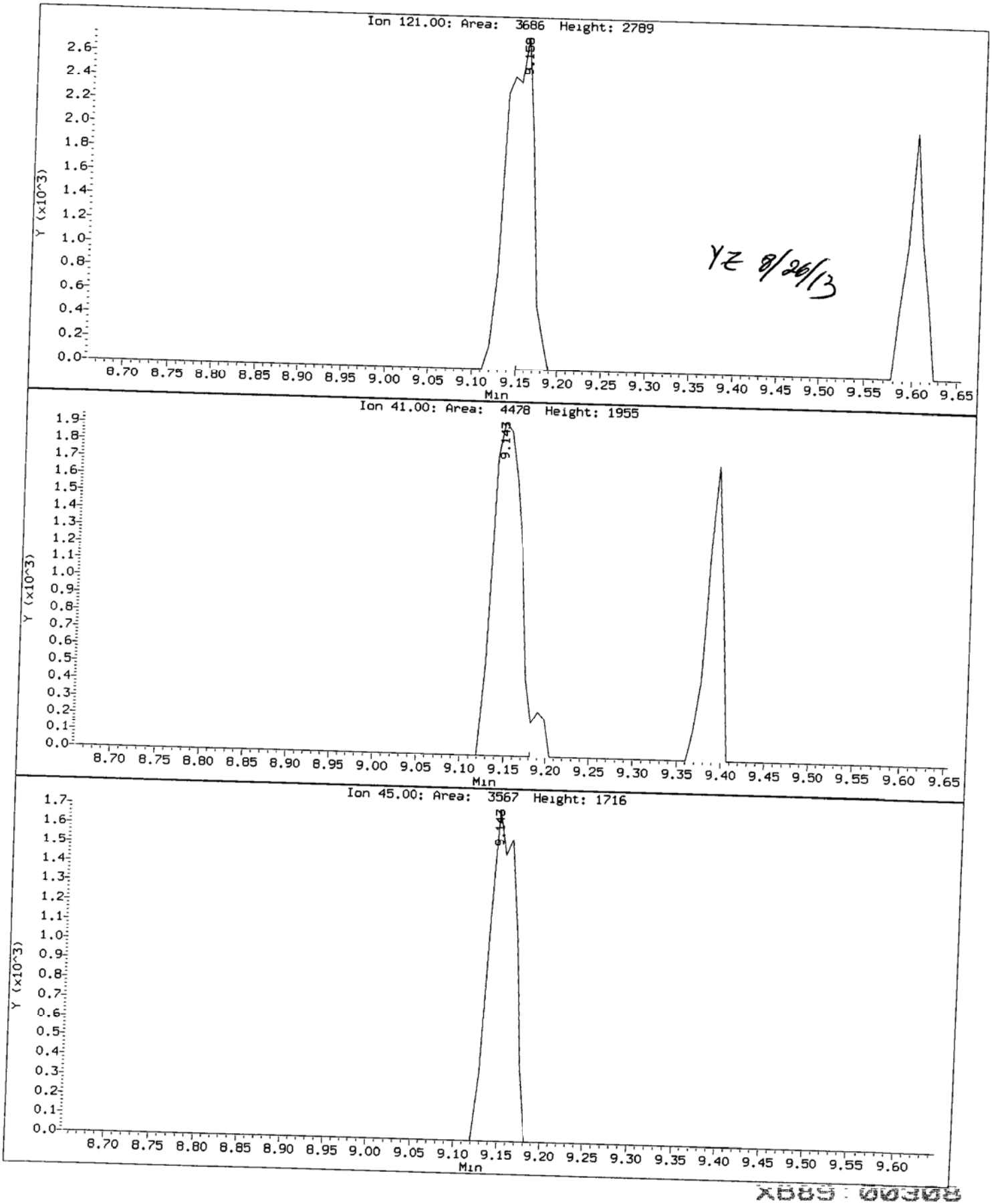
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



Data File: /chem1/nt10.i/20130823.b/ic0823g.d
Injection Date: 23-AUG-2013 19:43
Instrument: nt10.i
Client Sample ID:

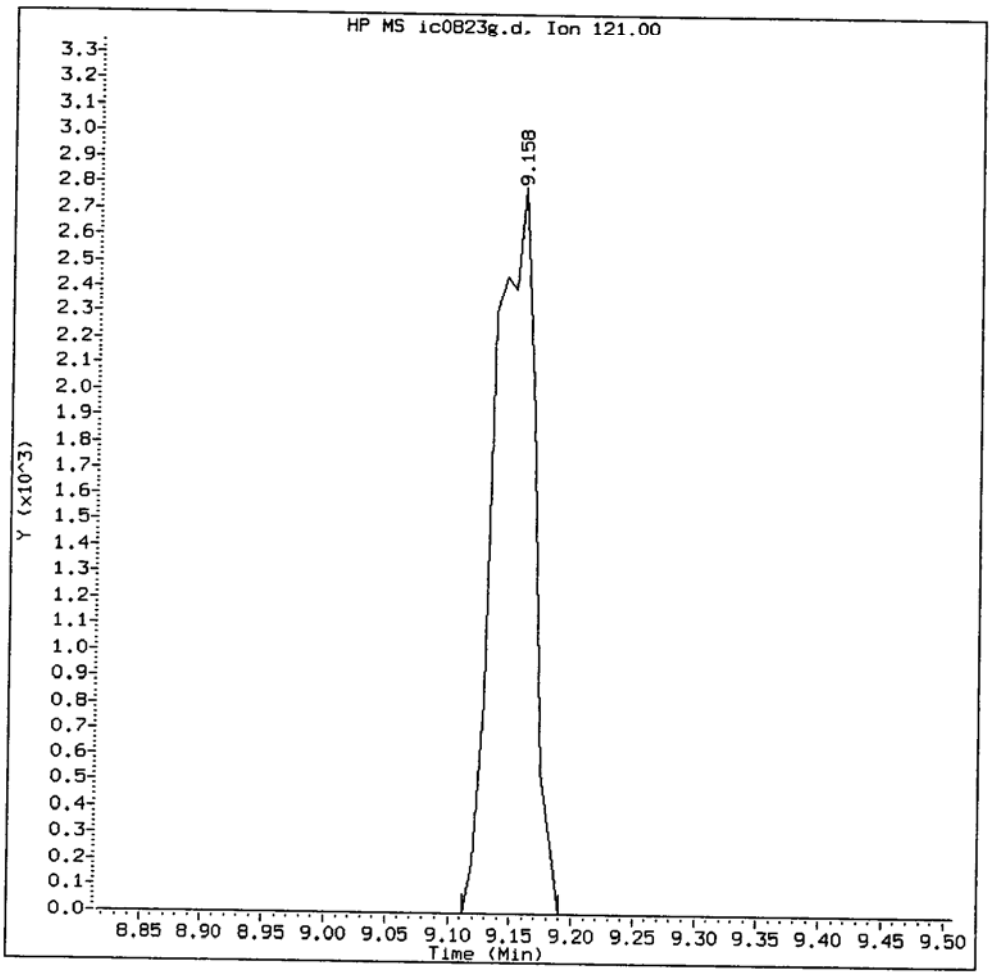
Compound: 2,2'-oxybis(1-Chloropropane)
CAS Number: 108-60-1



XB89 : 00308

IC0823G, /chem1/nt10.i/20130823.b/ic0823g.d

2,2'-oxybis(1-Chloropropane) Amount: 0.52 Area: 6588



MANUAL INTEGRATION for 2,2'-oxybis(1-Chloropropane)

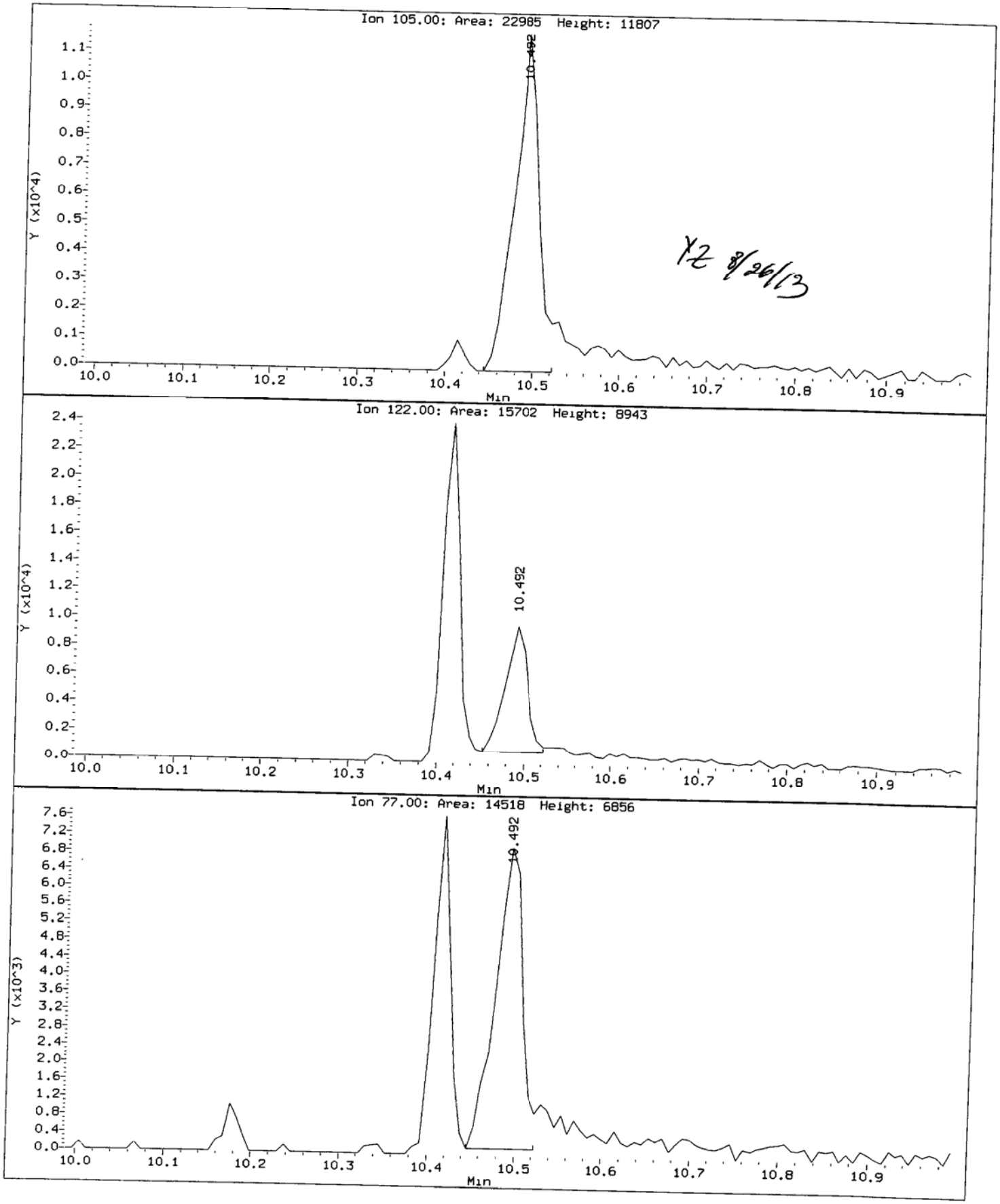
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 8/26/13

Data File: /chem1/nt10.i/20130823.b/ic0823g.d
Injection Date: 23-AUG-2013 19:43
Instrument: nt10.i
Client Sample ID:

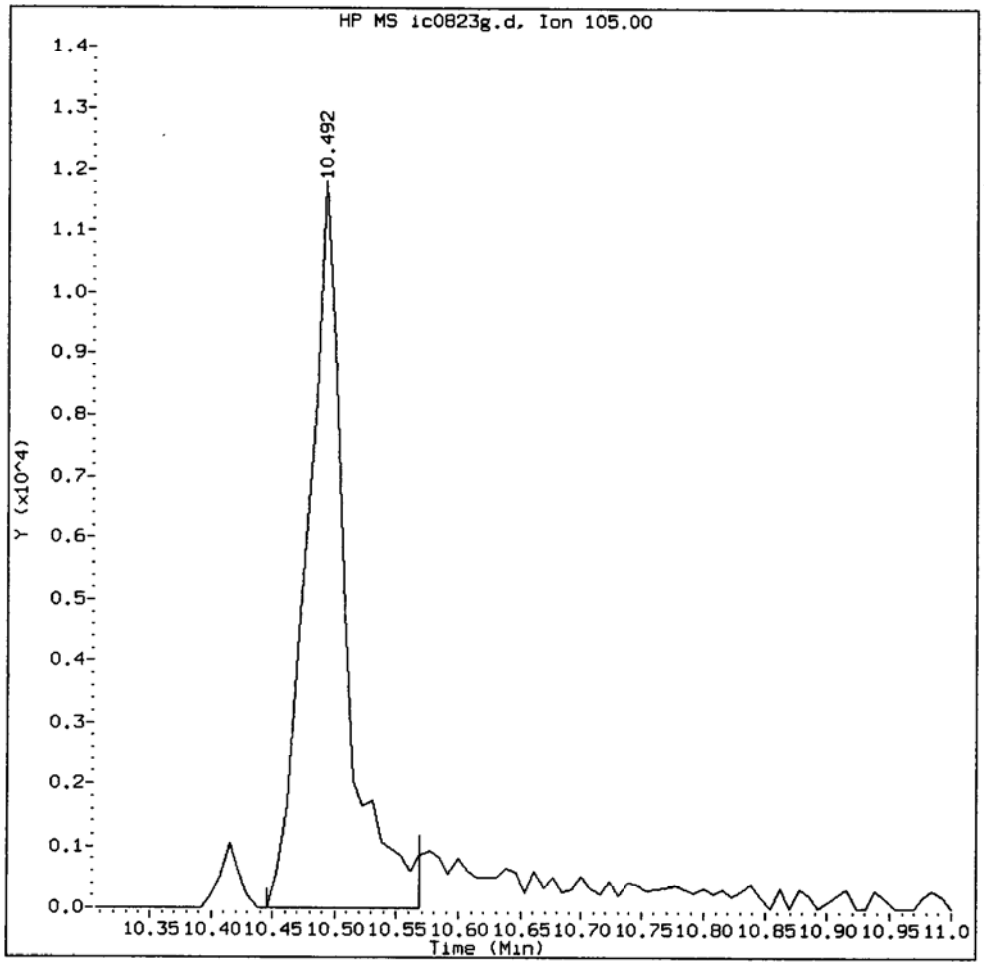
Compound: Benzoic acid
CAS Number: 65-85-0



XB89:00310

IC0823G, /chem1/nt10.i/20130823.b/ic0823g.d

Benzoic acid Amount: 1.05 Area: 26592



MANUAL INTEGRATION for Benzoic acid

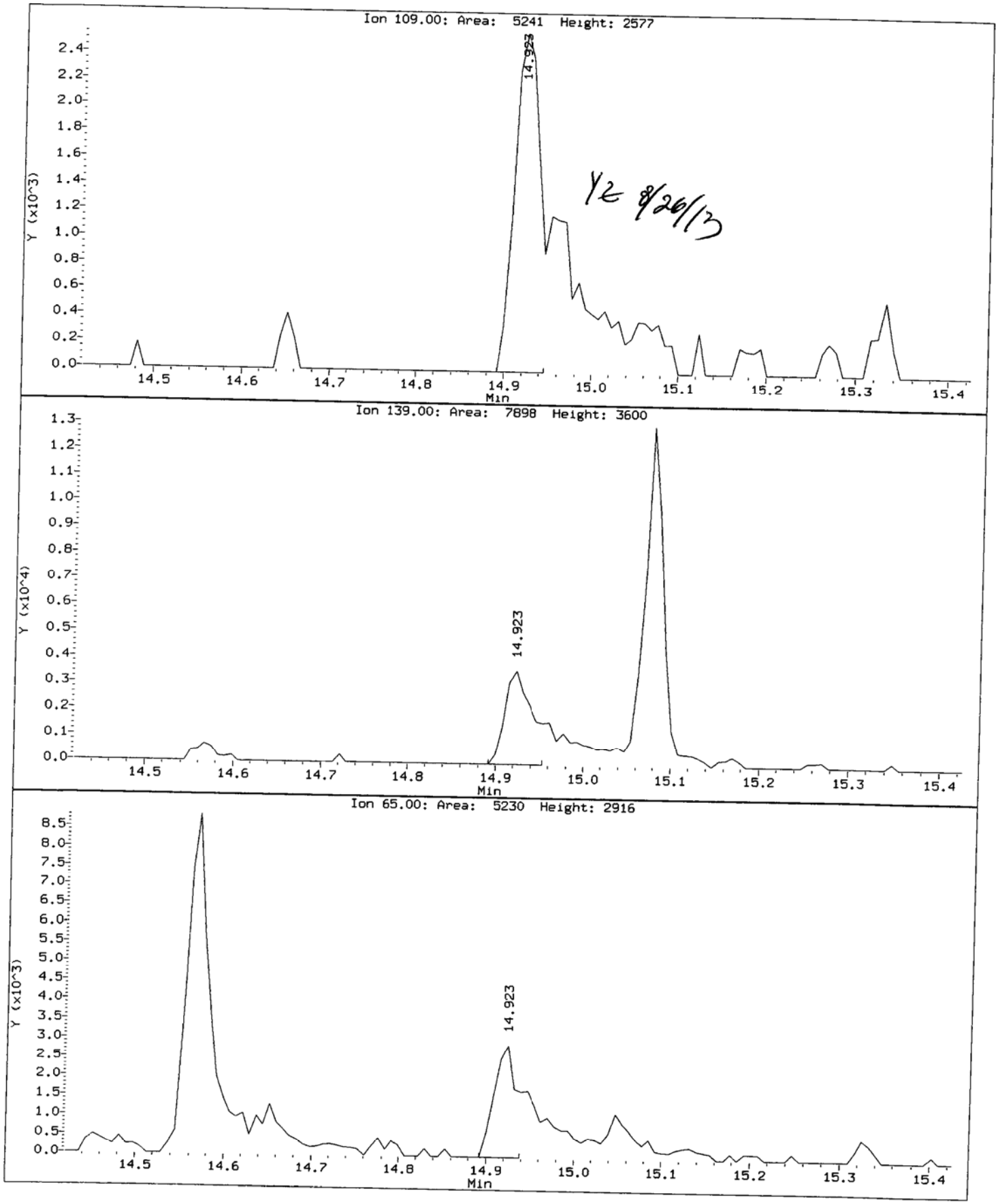
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VB Date: 8/29/13

Data File: /chem1/nt10.i/20130823.b/ic0823g.d
Injection Date: 23-AUG-2013 19:43
Instrument: nt10.i
Client Sample ID:

Compound: 4-Nitrophenol
CAS Number: 100-02-7

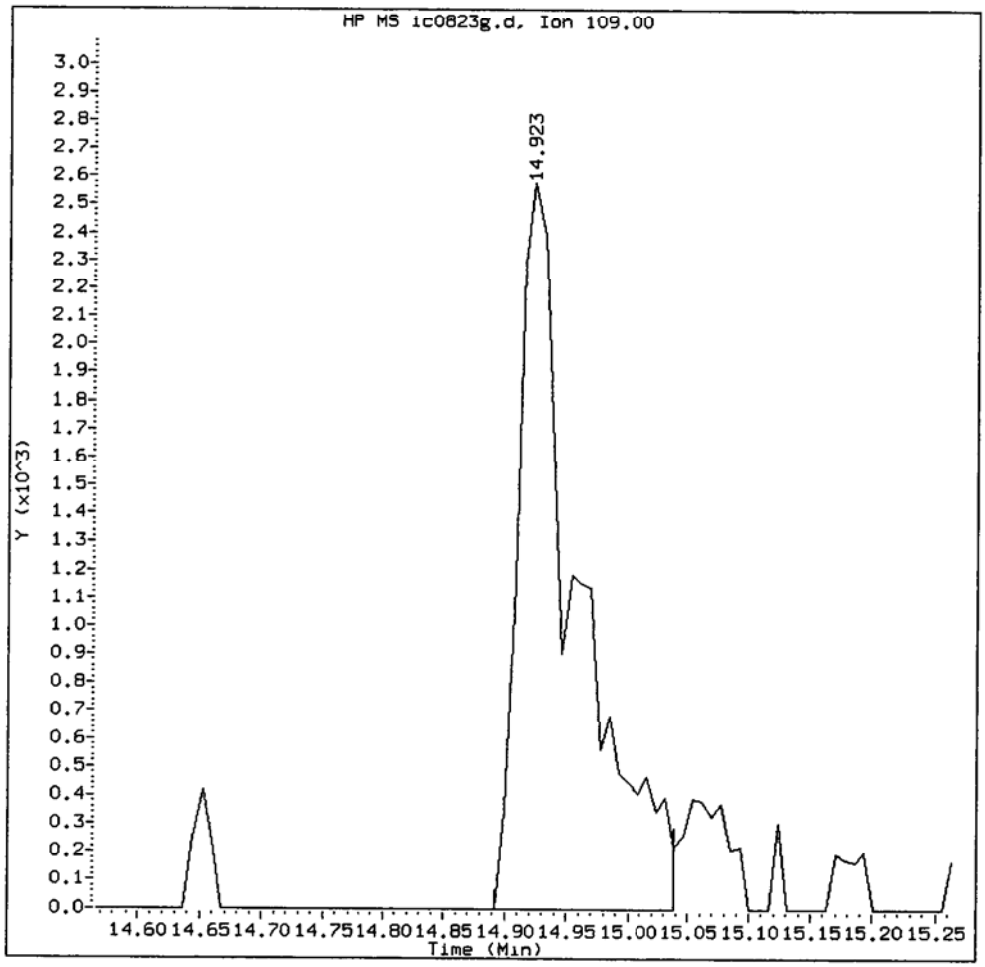


YZ 8/26/13

XB89:00312

IC0823G, /chem1/nt10.i/20130823.b/ic0823g.d

4-Nitrophenol Amount: 0.83 Area: 8722



MANUAL INTEGRATION for 4-Nitrophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VE Date: 8/26/13

CO-ELUTION SUMMARY FOR FILE - ic0823g.d

Lab ID: IC0823G, Method: ABN.m, Instrument: nt10.i, Date: 23-AUG-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130823.b/ic0823h.d
Lab Smp Id: IC0823H
Inj Date : 23-AUG-2013 20:20
Operator : VTS/YZ
Smp Info : IC0823H
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130823.b/ABN.m
Meth Date : 26-Aug-2013 13:32 yev
Cal Date : 23-AUG-2013 16:04
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

YZ 9/24/13

Quant Type: ISTD
Cal File: ic0823a.d
Calibration Sample, Level: 4

Compound Sublist: PSDDAICAL.sub

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.335	6.335	(0.733)	89722	2.50000	2.527
$	2 Phenol-d5	99	7.935	7.935	(0.918)	118953	2.50000	2.587
	3 Phenol	94	7.958	7.958	(0.920)	117875	2.50000	2.580
$	5 2-Chlorophenol-d4	132	8.221	8.220	(0.951)	98073	2.50000	2.602
	4 Bis(2-Chloroethyl)ether	93	8.151	8.151	(0.943)	95172	2.50000	2.833
	6 2-Chlorophenol	128	8.251	8.251	(0.954)	98106	2.50000	2.599
	7 1,3-Dichlorobenzene	146	8.538	8.538	(0.987)	103791	2.50000	2.557
*	8 1,4-Dichlorobenzene-d4	152	8.646	8.639	(1.000)	121889	4.00000	
	9 1,4-Dichlorobenzene	146	8.677	8.677	(1.004)	101468	2.50000	2.581
$	10 1,2-Dichlorobenzene-d4	152	8.926	8.926	(1.032)	72866	2.50000	2.581
	12 1,2-Dichlorobenzene	146	8.957	8.957	(1.036)	98216	2.50000	2.588
	11 Benzyl alcohol	108	8.887	8.887	(1.028)	52995	2.50000	2.711
	14 2,2'-oxybis(1-Chloropropane)	121	9.143	9.159	(1.057)	30830	2.50000	2.587
	13 2-Methylphenol	108	9.089	9.089	(1.051)	89430	2.50000	2.587
	17 Hexachloroethane	117	9.601	9.601	(1.110)	39995	2.50000	2.516
	16 N-Nitroso-di-n-propylamine	70	9.391	9.391	(1.086)	54153	2.50000	2.575
	15 4-Methylphenol	108	9.376	9.376	(1.084)	92190	2.50000	2.660
$	18 Nitrobenzene-d5	82	9.679	9.679	(0.872)	98811	2.50000	2.508
	19 Nitrobenzene	77	9.717	9.717	(0.876)	80870	2.50000	2.452
	20 Isophorone	82	10.183	10.183	(0.918)	156555	2.50000	2.443
	21 2-Nitrophenol	139	10.338	10.338	(0.932)	56994	2.50000	2.514
	22 2,4-Dimethylphenol	107	10.415	10.415	(0.939)	192473	5.00000	5.169
	23 Bis(2-Chloroethoxy)methane	93	10.615	10.615	(0.957)	93690	2.50000	2.459
	24 Benzoic acid	105	10.584	10.654	(0.954)	273153	10.0000	11.19
	25 2,4-Dichlorophenol	162	10.808	10.800	(0.974)	164799	5.00000	5.003
	26 1,2,4-Trichlorobenzene	180	10.977	10.977	(0.990)	89045	2.50000	2.417
*	27 Naphthalene-d8	136	11.093	11.093	(1.000)	447997	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.132	11.132	(1.003)	250146	2.50000	2.478
	29 4-Chloroaniline	127	11.240	11.247	(1.013)	209706	5.00000	5.286
	30 Hexachlorobutadiene	225	11.387	11.387	(1.026)	56545	2.50000	2.500
	31 4-Chloro-3-methylphenol	107	12.215	12.215	(1.101)	167745	5.00000	5.330
	32 2-Methylnaphthalene	142	12.532	12.532	(1.130)	183866	2.50000	2.474
	33 Hexachlorocyclopentadiene	237	12.857	12.849	(0.877)	153578	5.00000	4.903
	34 2,4,6-Trichlorophenol	196	13.097	13.097	(0.893)	144125	5.00000	4.981
	35 2,4,5-Trichlorophenol	196	13.167	13.167	(0.898)	155275	5.00000	5.123
$	36 2-Fluorobiphenyl	172	13.283	13.283	(0.906)	231215	2.50000	2.440
	37 2-Chloronaphthalene	162	13.515	13.515	(0.922)	174569	2.50000	2.390
	38 2-Nitroaniline	65	13.724	13.732	(0.936)	89316	5.00000	5.147
	39 Dimethylphthalate	163	14.119	14.119	(0.963)	206089	2.50000	2.482
	40 Acenaphthylene	152	14.366	14.366	(0.980)	292528	2.50000	2.371
	41 2,6-Dinitrotoluene	165	14.235	14.235	(0.971)	109587	5.00000	5.625
*	42 Acenaphthene-d10	164	14.660	14.660	(1.000)	297523	4.00000	
	43 3-Nitroaniline	138	14.567	14.575	(0.994)	81098	5.00000	5.019
	44 Acenaphthene	153	14.722	14.722	(1.004)	173986	2.50000	2.420
	45 2,4-Dinitrophenol	184	14.784	14.791	(1.008)	143620	10.0000	8.605
	46 Dibenzofuran	168	15.085	15.085	(1.029)	259983	2.50000	2.414
	47 4-Nitrophenol	109	14.915	14.915	(1.017)	52234	5.00000	4.927
	48 2,4-Dinitrotoluene	165	15.054	15.062	(1.027)	129638	5.00000	4.951
	50 Diethylphthalate	149	15.580	15.588	(1.063)	201533	2.50000	2.425
	49 Fluorene	166	15.789	15.789	(1.077)	217625	2.50000	2.437
	51 4-Chlorophenyl-phenylether	204	15.804	15.804	(1.078)	111169	2.50000	2.436
	52 4-Nitroaniline	138	15.820	15.827	(1.079)	94515	5.00000	5.168
	53 4,6-Dinitro-2-methylphenol	198	15.889	15.897	(0.897)	239062	10.0000	11.83
	54 N-Nitrosodiphenylamine	169	16.044	16.044	(0.905)	142970	2.50000	2.560
$	55 2,4,6-Tribromophenol	330	16.275	16.275	(1.110)	49098	2.50000	2.516
	56 4-Bromophenyl-phenylether	248	16.815	16.807	(0.949)	75516	2.50000	2.536
	57 Hexachlorobenzene	284	16.915	16.907	(0.955)	98185	2.50000	2.582
	58 Pentachlorophenol	266	17.318	17.318	(0.977)	116325	5.00000	5.124
*	59 Phenanthrene-d10	188	17.720	17.720	(1.000)	537629	4.00000	
	60 Phenanthrene	178	17.767	17.767	(1.003)	295820	2.50000	2.447
	61 Anthracene	178	17.875	17.875	(1.009)	315645	2.50000	2.451
	62 Carbazole	167	18.215	18.215	(1.028)	231088	2.50000	2.526
	63 Di-n-butylphthalate	149	18.974	18.974	(1.071)	338995	2.50000	2.479
	64 Fluoranthene	202	20.173	20.173	(1.138)	380407	2.50000	2.445
	65 Pyrene	202	20.606	20.606	(0.903)	402145	2.50000	2.447
$	66 Terphenyl-d14	244	20.916	20.916	(0.917)	235902	2.50000	2.430
	67 Butylbenzylphthalate	149	21.837	21.837	(0.957)	145738	2.50000	2.433
	68 Benzo(a)anthracene	228	22.789	22.789	(0.999)	377913	2.50000	2.412
*	69 Chrysene-d12	240	22.813	22.813	(1.000)	592454	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.758	22.758	(0.998)	298595	5.00000	4.060
	71 Chrysene	228	22.851	22.859	(1.002)	332137	2.50000	2.457
	72 bis(2-Ethylhexyl)phthalate	149	22.867	22.867	(0.956)	189091	2.50000	2.392
*	134 Di-n-octylphthalate-d4	153	23.920	23.920	(1.000)	737973	4.00000	
	73 Di-n-octylphthalate	149	23.927	23.927	(1.000)	358424	2.50000	2.410

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	24.570	24.570	(0.973)	386478	2.50000	2.439
	75 Benzo(k)fluoranthene	252	24.616	24.624	(0.975)	405639	2.50000	2.534
	76 Benzo(a)pyrene	252	25.151	25.151	(0.996)	355291	2.50000	2.459
*	77 Perylene-d12	264	25.251	25.259	(1.000)	627504	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.537	27.545	(1.091)	441240	2.50000	2.496
	79 Dibenzo(a,h)anthracene	278	27.583	27.591	(1.092)	351344	2.50000	2.555
	80 Benzo(g,h,i)perylene	276	28.220	28.228	(1.118)	367259	2.50000	2.483
	90 N-Nitrosodimethylamine	74	4.173	4.188	(0.483)	93569	5.00000	5.356
	91 Aniline	93	8.035	8.035	(0.929)	210748	2.50000	2.416
	93 Benzidine	184	20.451	20.451	(0.896)	123140	5.00000	5.385
	103 Pyridine	79	4.243	4.250	(0.491)	84254	5.00000	5.223
	105 1-methylnaphthalene	142	12.733	12.725	(1.148)	172825	2.50000	2.535(H)
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.129	16.129	(1.100)	169949	2.50000	2.462
	187 Total Benzofluoranthenes	252	24.616	24.624	(0.975)	774859	5.00000	4.943
	99 Perylene	252	25.306	25.306	(1.002)	329394	2.50000	2.480
	98 Retene	219	21.163	21.163	(0.928)	159559	2.50000	2.434
	120 2,3,4,6-Tetrachlorophenol	232	15.332	15.325	(1.046)	61272	2.50000	2.522

QC Flag Legend

H - Operator selected an alternate compound hit.

X889:66317

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0823h.d
Lab Smp Id: IC0823H
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Calibration Date: 23-AUG-2013
Calibration Time: 22:20

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	121889	-20.26
27 Naphthalene-d8	536851	268426	1073702	447997	-16.55
42 Acenaphthene-d10	348566	174283	697132	297523	-14.64
59 Phenanthrene-d10	633376	316688	1266752	537629	-15.12
69 Chrysene-d12	651036	325518	1302072	592454	-9.00
134 Di-n-octylphthala	837259	418630	1674518	737973	-11.86
77 Perylene-d12	696727	348364	1393454	627504	-9.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.64	8.14	9.14	8.65	0.09
27 Naphthalene-d8	11.09	10.59	11.59	11.09	0.00
42 Acenaphthene-d10	14.66	14.16	15.16	14.66	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.81	22.31	23.31	22.81	0.00
134 Di-n-octylphthala	23.92	23.42	24.42	23.92	0.00
77 Perylene-d12	25.26	24.76	25.76	25.25	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

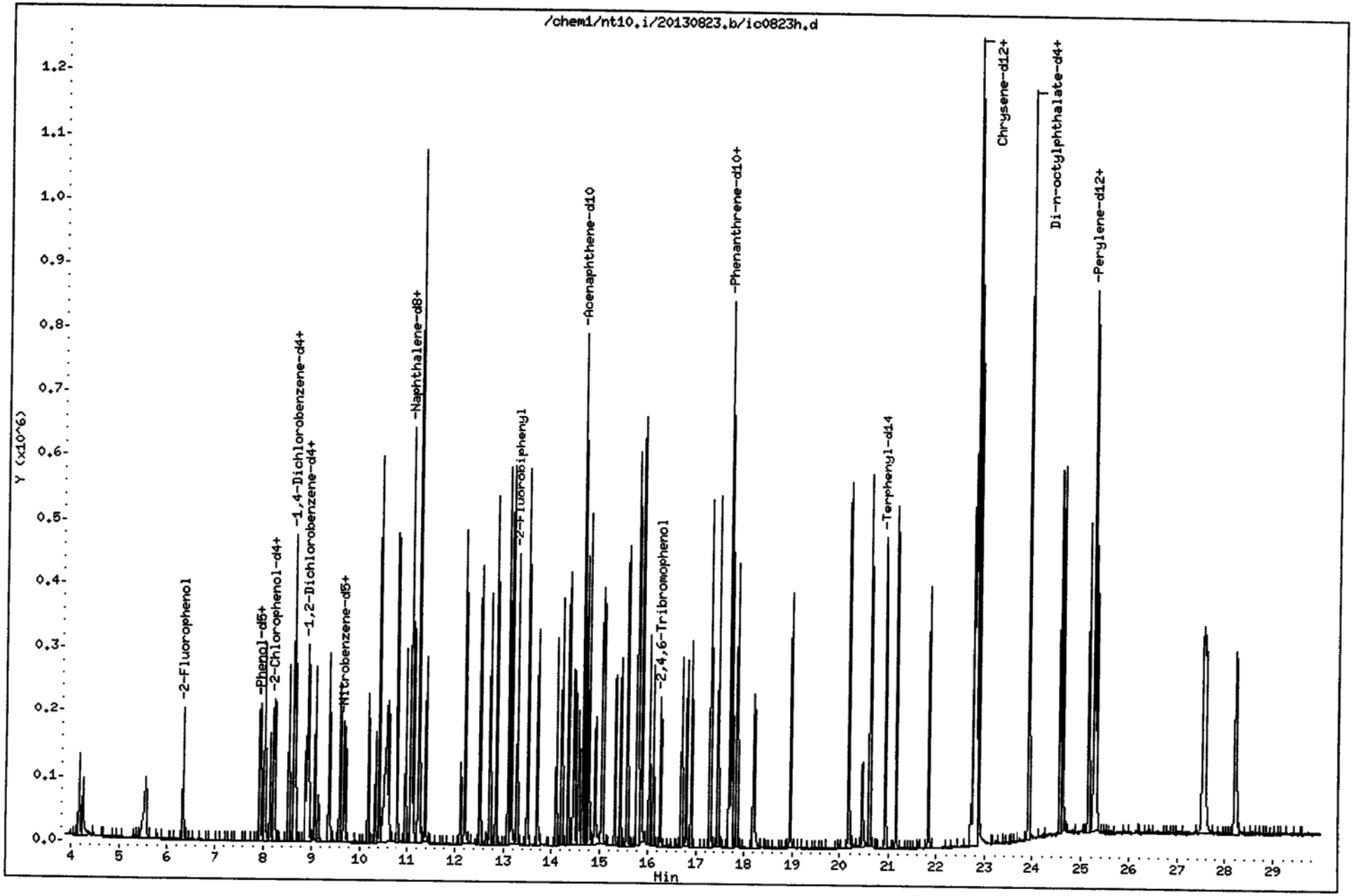
Data File: /chem1/nt10.i/20130823.b/ic0823h.d
Date : 23-AUG-2013 20:20
Client ID:
Sample Info: IC0823H

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

XD030 00519



CO-ELUTION SUMMARY FOR FILE - ic0823h.d

Lab ID: IC0823H, Method: ABN.m, Instrument: nt10.i, Date: 23-AUG-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130823.b/icv0823.d
Lab Smp Id: ICV0823
Inj Date : 23-AUG-2013 21:32
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ICV0823
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130823.b/ABN.m
Meth Date : 26-Aug-2013 13:32 yev Quant Type: ISTD
Cal Date : 23-AUG-2013 22:20 Cal File: cc0823.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	Compound Not Detected.					
$	2 Phenol-d5	99	Compound Not Detected.					
	3 Phenol	94	7.966	7.958	(0.921)	529784	11.1361	11.14
$	5 2-Chlorophenol-d4	132	Compound Not Detected.					
	4 Bis(2-Chloroethyl)ether	93	8.151	8.151	(0.943)	320328	9.50401	9.504
	6 2-Chlorophenol	128	8.252	8.251	(0.954)	425584	10.7384	10.74
	7 1,3-Dichlorobenzene	146	8.538	8.538	(0.987)	397941	9.38264	9.383
*	8 1,4-Dichlorobenzene-d4	152	8.646	8.639	(1.000)	129610	4.00000	
	9 1,4-Dichlorobenzene	146	8.677	8.677	(1.004)	392554	9.75255	9.753
$	10 1,2-Dichlorobenzene-d4	152	8.646	8.926	(1.000)	129610	4.65027	4.650(R)
	12 1,2-Dichlorobenzene	146	8.957	8.957	(1.036)	365381	9.59849	9.598
	11 Benzyl alcohol	108	8.895	8.887	(1.029)	200529	9.38563	9.386
	14 2,2'-oxybis(1-Chloropropane)	121	9.159	9.159	(1.059)	112172	9.46270	9.463
	13 2-Methylphenol	108	9.089	9.089	(1.051)	409657	11.4436	11.44
	17 Hexachloroethane	117	9.601	9.601	(1.110)	157630	9.70573	9.706
	16 N-Nitroso-di-n-propylamine	70	9.407	9.391	(1.088)	203352	9.23023	9.230
	15 4-Methylphenol	108	9.384	9.376	(1.085)	427249	11.2743	11.27
$	18 Nitrobenzene-d5	82	Compound Not Detected.					
	19 Nitrobenzene	77	9.725	9.717	(0.877)	330703	9.78796	9.788
	20 Isophorone	82	10.199	10.183	(0.919)	630224	10.0507	10.05
	21 2-Nitrophenol	139	10.338	10.338	(0.932)	256816	11.1492	11.15
	22 2,4-Dimethylphenol	107	10.423	10.415	(0.940)	845812	22.1618	22.16
	23 Bis(2-Chloroethoxy)methane	93	10.623	10.615	(0.958)	353946	9.19944	9.199
	24 Benzoic acid	105	10.746	10.654	(0.969)	1410806	45.4161	45.42
	25 2,4-Dichlorophenol	162	10.808	10.800	(0.974)	815043	23.4494	23.45
	26 1,2,4-Trichlorobenzene	180	10.985	10.977	(0.990)	339846	9.19879	9.199
*	27 Naphthalene-d8	136	11.093	11.093	(1.000)	460928	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	28 Naphthalene	128	11.140	11.132	(1.004)	955491	9.42844	9.428
	29 4-Chloroaniline	127	11.248	11.247	(1.014)	758691	16.0287	16.03
	30 Hexachlorobutadiene	225	11.395	11.387	(1.027)	218214	9.79358	9.794
	31 4-Chloro-3-methylphenol	107	12.223	12.215	(1.102)	770556	21.9339	21.93
	32 2-Methylnaphthalene	142	12.532	12.532	(1.130)	681090	8.95437	8.954
	33 Hexachlorocyclopentadiene	237	12.857	12.849	(0.877)	618574	19.3755	19.38
	34 2,4,6-Trichlorophenol	196	13.105	13.097	(0.894)	677697	23.1562	23.16
	35 2,4,5-Trichlorophenol	196	13.167	13.167	(0.898)	736587	23.3381	23.34
$	36 2-Fluorobiphenyl	172	13.167	13.283	(0.898)	1217	0.01329	0.01329(R)
	37 2-Chloronaphthalene	162	13.523	13.515	(0.922)	700436	9.87895	9.879
	38 2-Nitroaniline	65	13.739	13.732	(0.937)	335682	18.9133	18.91
	39 Dimethylphthalate	163	14.126	14.119	(0.964)	740677	9.29415	9.294
	40 Acenaphthylene	152	14.366	14.366	(0.980)	1272149	11.0315	11.03
	41 2,6-Dinitrotoluene	165	14.243	14.235	(0.972)	376230	19.6020	19.60
*	42 Acenaphthene-d10	164	14.660	14.660	(1.000)	292417	4.00000	
	43 3-Nitroaniline	138	14.583	14.575	(0.995)	377380	22.5250	22.52
	44 Acenaphthene	153	14.730	14.722	(1.005)	676791	9.97370	9.974
	45 2,4-Dinitrophenol	184	14.807	14.791	(1.010)	810940	48.1102	48.11
	46 Dibenzofuran	168	15.085	15.085	(1.029)	951791	9.21973	9.220
	47 4-Nitrophenol	109	14.931	14.915	(1.018)	273553	23.3321	23.33
	48 2,4-Dinitrotoluene	165	15.070	15.062	(1.028)	525875	19.5499	19.55
	50 Diethylphthalate	149	15.595	15.588	(1.064)	784254	8.79230	8.792
	49 Fluorene	166	15.789	15.789	(1.077)	833421	9.85601	9.856
	51 4-Chlorophenyl-phenylether	204	15.804	15.804	(1.078)	414124	9.59215	9.592
	52 4-Nitroaniline	138	15.851	15.827	(1.081)	378290	18.9947	18.99
	53 4,6-Dinitro-2-methylphenol	198	15.913	15.897	(0.898)	1042020	40.4470	40.45
	54 N-Nitrosodiphenylamine	169	16.052	16.044	(0.906)	507091	8.67409	8.674
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	16.815	16.807	(0.949)	274453	9.16932	9.169
	57 Hexachlorobenzene	284	16.915	16.907	(0.955)	361143	9.21949	9.219
	58 Pentachlorophenol	266	17.326	17.318	(0.978)	545209	21.0604	21.06
*	59 Phenanthrene-d10	188	17.720	17.720	(1.000)	558226	4.00000	
	60 Phenanthrene	178	17.774	17.767	(1.003)	1150469	9.16095	9.161
	61 Anthracene	178	17.875	17.875	(1.009)	1227876	9.20469	9.205
	62 Carbazole	167	18.215	18.215	(1.028)	986850	11.0028	11.00
	63 Di-n-butylphthalate	149	18.981	18.974	(1.071)	1324619	9.14878	9.149
	64 Fluoranthene	202	20.173	20.173	(1.138)	1527760	9.38990	9.390
	65 Pyrene	202	20.606	20.606	(0.903)	1527420	9.37923	9.379
$	66 Terphenyl-d14	244	Compound Not Detected.					
	67 Butylbenzylphthalate	149	21.837	21.837	(0.957)	548490	8.97519	8.975
	68 Benzo(a)anthracene	228	22.797	22.789	(0.999)	1439605	9.32152	9.322
*	69 Chrysene-d12	240	22.813	22.813	(1.000)	595437	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.766	22.758	(0.998)	1222840	21.6520	21.65
	71 Chrysene	228	22.859	22.859	(1.002)	1260995	9.59757	9.598
	72 bis(2-Ethylhexyl)phthalate	149	22.867	22.867	(0.956)	732978	9.38940	9.389
*	134 Di-n-octylphthalate-d4	153	23.920	23.920	(1.000)	763435	4.00000	
	73 Di-n-octylphthalate	149	23.935	23.927	(1.001)	1351558	9.07593	9.076

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
74	Benzo(b)fluoranthene	252	24.578	24.570	(0.973)	1555886	9.87620	9.876
75	Benzo(k)fluoranthene	252	24.624	24.624	(0.975)	1533993	9.12435	9.124
76	Benzo(a)pyrene	252	25.159	25.151	(0.996)	1358662	9.17627	9.176
* 77	Perylene-d12	264	25.259	25.259	(1.000)	646524	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.560	27.545	(1.091)	1743476	9.58982	9.590
79	Dibenzo(a,h)anthracene	278	27.599	27.591	(1.093)	1312477	9.48778	9.488
80	Benzo(g,h,i)perylene	276	28.252	28.228	(1.118)	1442970	9.62815	9.628
90	N-Nitrosodimethylamine	74	4.204	4.188	(0.486)	384145	18.6170	18.62
91	Aniline	93	8.043	8.035	(0.930)	867630	8.53090	8.531
93	Benzidine	184	20.451	20.451	(0.896)	1250814	45.5538	45.55(R)
103	Pyridine	79	4.258	4.250	(0.492)	348441	19.4849	19.48
105	1-methylnaphthalene	142	12.733	12.725	(1.148)	625814	9.12575	9.126
111	Azobenzene (1,2-DP-Hydrazine)	77	16.129	16.129	(1.100)	645841	9.80886	9.809
187	Total Benzofluoranthenes	252	24.578	24.624	(0.973)	3036697	19.1124	19.11
99	Perylene	252	25.313	25.306	(1.002)	1432853	10.9507	10.95
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	15.333	15.325	(1.046)	1546	0.06103	0.06103(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: icv0823.d
Lab Smp Id: ICV0823
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Calibration Date: 23-AUG-2013
Calibration Time: 22:20

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	129610	-15.21
27 Naphthalene-d8	536851	268426	1073702	460928	-14.14
42 Acenaphthene-d10	348566	174283	697132	292417	-16.11
59 Phenanthrene-d10	633376	316688	1266752	558226	-11.86
69 Chrysene-d12	651036	325518	1302072	595437	-8.54
134 Di-n-octylphthala	837259	418630	1674518	763435	-8.82
77 Perylene-d12	696727	348364	1393454	646524	-7.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.64	8.14	9.14	8.65	0.09
27 Naphthalene-d8	11.09	10.59	11.59	11.09	0.00
42 Acenaphthene-d10	14.66	14.16	15.16	14.66	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.81	22.31	23.31	22.81	0.00
134 Di-n-octylphthala	23.92	23.42	24.42	23.92	0.00
77 Perylene-d12	25.26	24.76	25.76	25.26	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: NONE
Lab Smp Id: ICV0823
Level:
Data Type: MS DATA
SpikeList File: ICVS.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Client SDG: 20130823
Fraction: SV

Operator: VTS/YZ
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
3 Phenol	10.00	11.14	111.36	
4 Bis(2-Chloroethyl)	10.00	9.504	95.04	
6 2-Chlorophenol	10.00	10.74	107.38	
7 1,3-Dichlorobenzen	10.00	9.383	93.83	
9 1,4-Dichlorobenzen	10.00	9.753	97.53	
11 Benzyl alcohol	10.00	9.386	93.86	
12 1,2-Dichlorobenzen	10.00	9.598	95.98	
13 2-Methylphenol	10.00	11.44	114.44	
14 2,2'-oxybis(1-Chlo	10.00	9.463	94.63	
15 4-Methylphenol	10.00	11.27	112.74	
16 N-Nitroso-di-n-pro	10.00	9.230	92.30	
17 Hexachloroethane	10.00	9.706	97.06	
19 Nitrobenzene	10.00	9.788	97.88	
20 Isophorone	10.00	10.05	100.51	
21 2-Nitrophenol	10.00	11.15	111.49	
22 2,4-Dimethylphenol	20.00	22.16	110.81	
23 Bis(2-Chloroethoxy	10.00	9.199	91.99	
24 Benzoic acid	40.00	45.42	113.54	
25 2,4-Dichlorophenol	20.00	23.45	117.25	
26 1,2,4-Trichloroben	10.00	9.199	91.99	
28 Naphthalene	10.00	9.428	94.28	
29 4-Chloroaniline	20.00	16.03	80.14	
30 Hexachlorobutadien	10.00	9.794	97.94	
31 4-Chloro-3-methylp	20.00	21.93	109.67	
32 2-Methylnaphthalen	10.00	8.954	89.54	
33 Hexachlorocyclopen	20.00	19.38	96.88	
34 2,4,6-Trichlorophe	20.00	23.16	115.78	
35 2,4,5-Trichlorophe	20.00	23.34	116.69	
37 2-Chloronaphthalen	10.00	9.879	98.79	
38 2-Nitroaniline	20.00	18.91	94.57	
39 Dimethylphthalate	10.00	9.294	92.94	
40 Acenaphthylene	10.00	11.03	110.32	
41 2,6-Dinitrotoluene	20.00	19.60	98.01	

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
43 3-Nitroaniline	20.00	22.52	112.62	
44 Acenaphthene	10.00	9.974	99.74	
45 2,4-Dinitrophenol	40.00	48.11	120.28	
46 Dibenzofuran	10.00	9.220	92.20	
47 4-Nitrophenol	20.00	23.33	116.66	
48 2,4-Dinitrotoluene	20.00	19.55	97.75	
49 Fluorene	10.00	9.856	98.56	
50 Diethylphthalate	10.00	8.792	87.92	
51 4-Chlorophenyl-phe	10.00	9.592	95.92	
52 4-Nitroaniline	20.00	18.99	94.97	
53 4,6-Dinitro-2-meth	40.00	40.45	101.12	
54 N-Nitrosodiphenyla	10.00	8.674	86.74	
56 4-Bromophenyl-phen	10.00	9.169	91.69	
57 Hexachlorobenzene	10.00	9.219	92.19	
58 Pentachlorophenol	20.00	21.06	105.30	
60 Phenanthrene	10.00	9.161	91.61	
61 Anthracene	10.00	9.205	92.05	
63 Di-n-butylphthalat	10.00	9.149	91.49	
64 Fluoranthene	10.00	9.390	93.90	
65 Pyrene	10.00	9.379	93.79	
67 Butylbenzylphthala	10.00	8.975	89.75	
68 Benzo(a)anthracene	10.00	9.322	93.22	
70 3,3'-Dichlorobenzi	20.00	21.65	108.26	
71 Chrysene	10.00	9.598	95.98	
72 bis(2-Ethylhexyl)p	10.00	9.389	93.89	
73 Di-n-octylphthalat	10.00	9.076	90.76	
74 Benzo(b)fluoranthe	10.00	9.876	98.76	
75 Benzo(k)fluoranthe	10.00	9.124	91.24	
76 Benzo(a)pyrene	10.00	9.176	91.76	
78 Indeno(1,2,3-cd)py	10.00	9.590	95.90	
79 Dibenzo(a,h)anthra	10.00	9.488	94.88	
80 Benzo(g,h,i)peryle	10.00	9.628	96.28	
90 N-Nitrosodimethyla	20.00	18.62	93.08	
91 Aniline	10.00	8.531	85.31	
93 Benzidine	20.00	45.55	227.77*	
105 1-methylnaphthalen	10.00	9.126	91.26	
120 2,3,4,6-Tetrachlor	10.00	0.06103	0.61*	
151 1,2,4,5-Tetrachlo	10.00	0.000	*	
110 Tetrachloroguaiac	20.00	0.000	*	
109 3,4,5-Trichlorogu	10.00	0.000	*	
181 3,4,6-Trichlorogu	10.00	0.000	*	
108 4,5,6-Trichlorogu	10.00	0.000	*	
184 3,4-Dichloroguaia	10.00	0.000	*	
107 4,5-Dichloroguaia	20.00	0.000	*	
182 4,6-Dichloroguaia	20.00	0.000	*	
185 4-Chloroguaiacol	5.000	0.000	*	
106 Guaiacol	10.00	0.000	*	

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: NONE
Lab Smp Id: ICV0823
Level:
Data Type: MS DATA
SpikeList File: ICVS.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130823.b/ABN.m
Misc Info:

Client SDG: 20130823
Fraction: SV

Operator: VTS/YZ
SampleType: LCS
Quant Type: ISTD

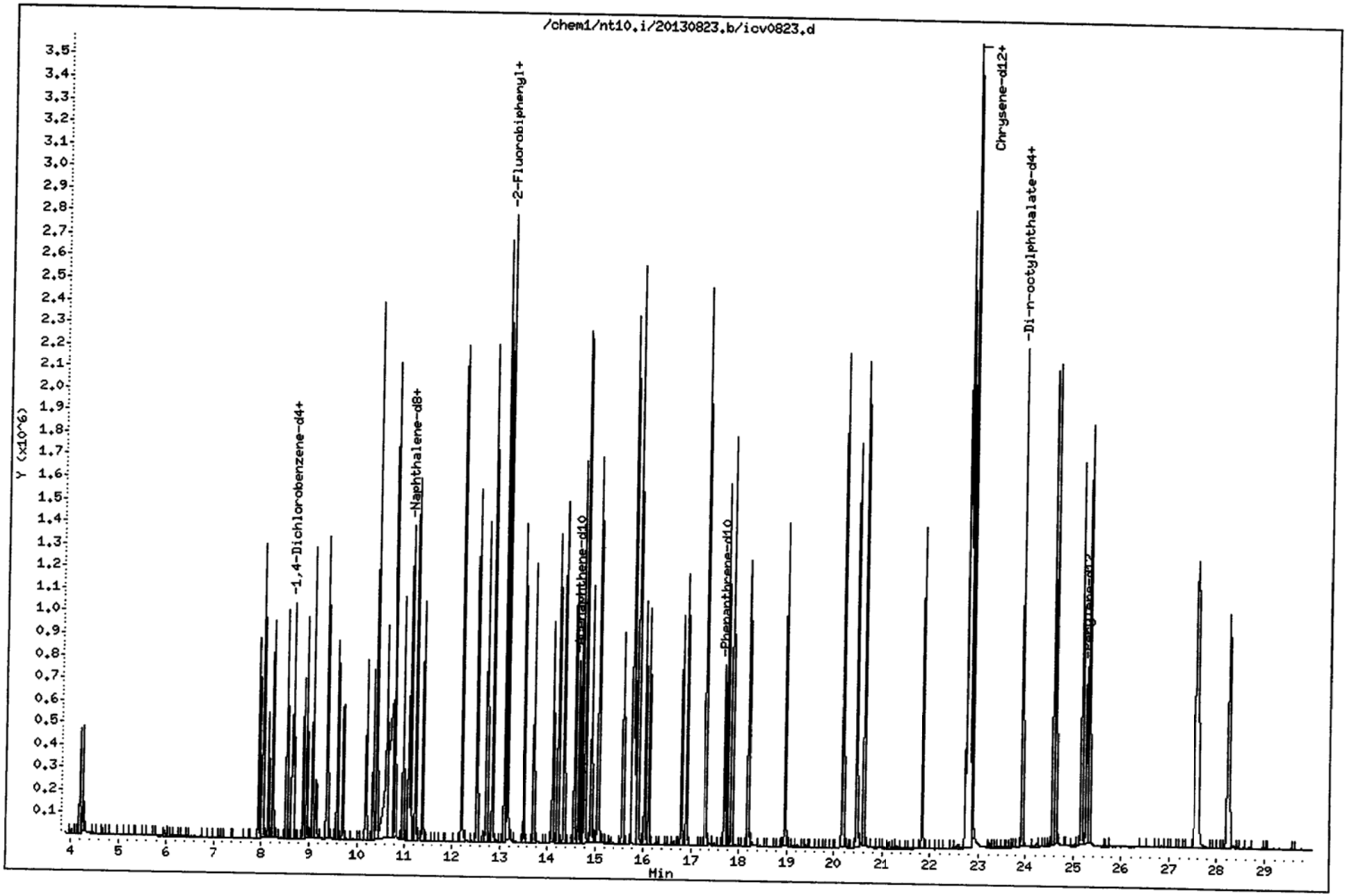
SURROGATE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	7.500	0.000	*	
$ 2 Phenol-d5	7.500	0.000	*	
$ 5 2-Chlorophenol-d4	7.500	0.000	*	
$ 10 1,2-Dichlorobenzen	5.000	4.650	93.01	
$ 18 Nitrobenzene-d5	5.000	0.000	*	
$ 36 2-Fluorobiphenyl	5.000	0.01329	0.27	
$ 55 2,4,6-Tribromophe	7.500	0.000	*	
$ 66 Terphenyl-d14	5.000	0.000	*	

Data File: /chem1/nt10.i/20130823.b/icv0823.d
Date : 23-AUG-2013 21:32
Client ID:
Sample Info: ICV0823

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



XB89:00328

CO-ELUTION SUMMARY FOR FILE - icv0823.d

Lab ID: ICV0823, Method: ABN.m, Instrument: nt10.i, Date: 23-AUG-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20130823.b/df0823.d

Date : 23-AUG-2013 15:50

Client ID: DFTPP

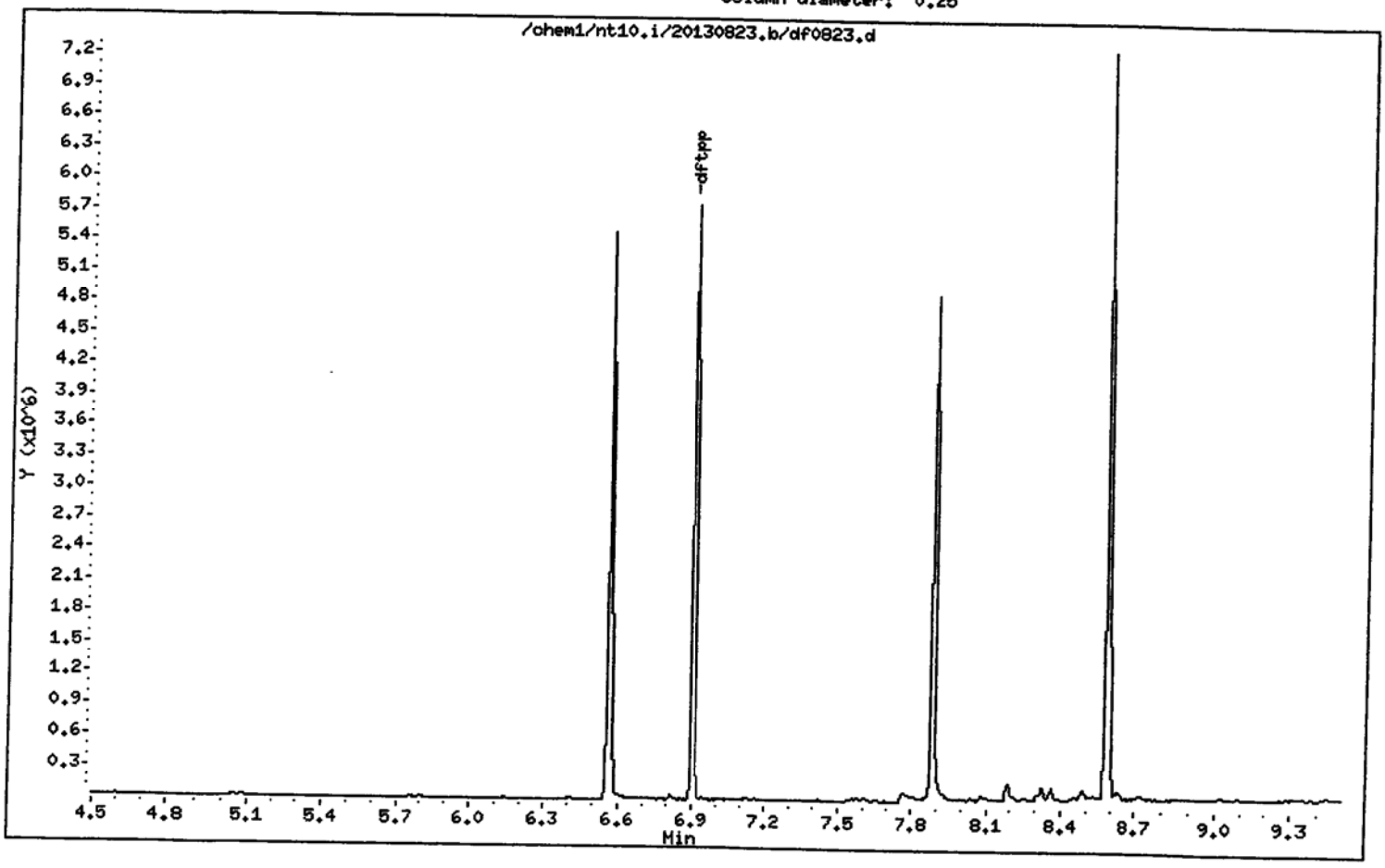
Sample Info: DFTPP

Instrument: nt10.i

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



XBB9 : 00330

Data File: /chem1/nt10.i/20130823.b/df0823.d

Date : 23-AUG-2013 15:50

Client ID: DFTPP

Instrument: nt10.i

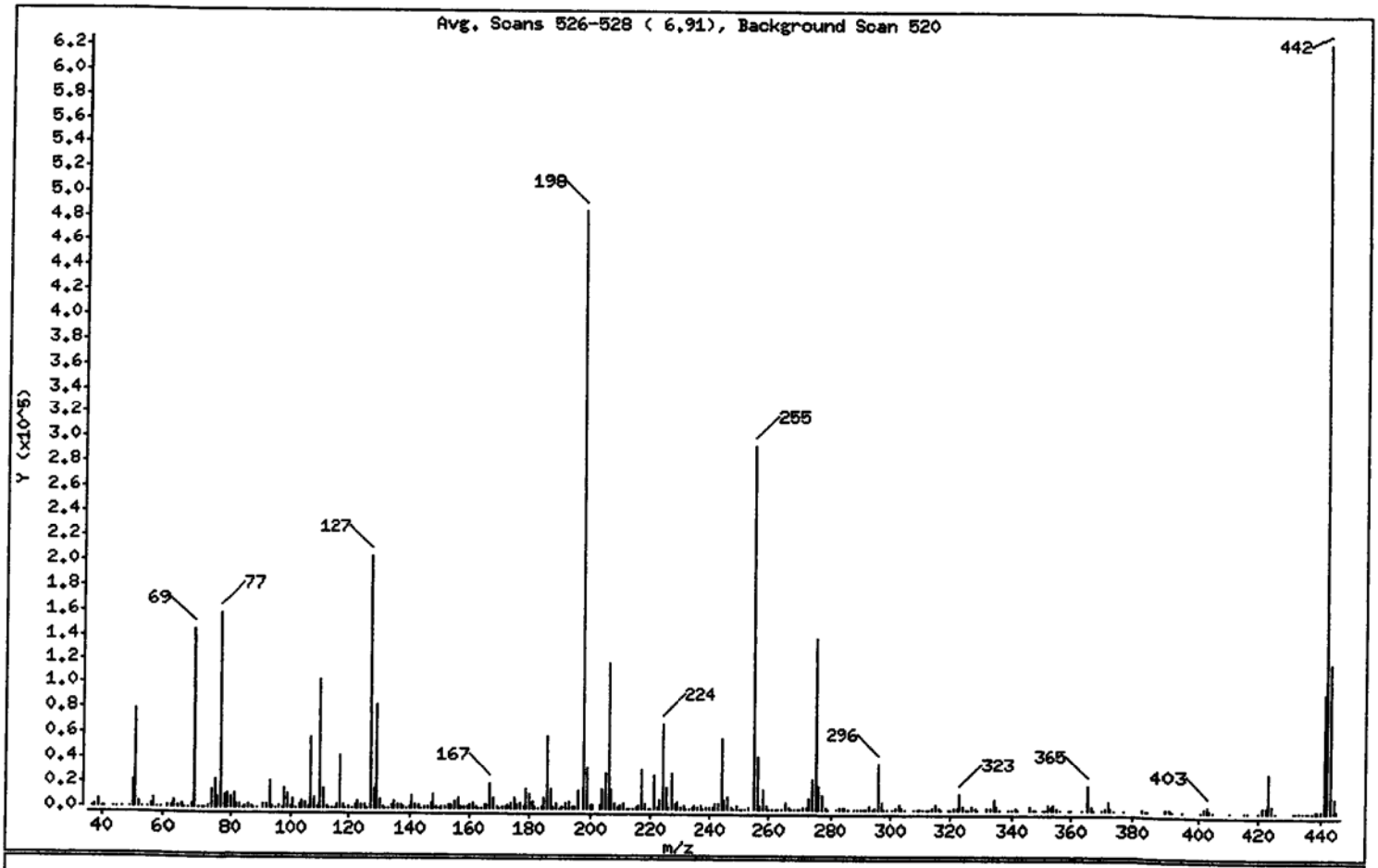
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	16.20
68	Less than 2.00% of mass 69	0.53 (1.77)
69	Mass 69 relative abundance	30.00
70	Less than 2.00% of mass 69	0.12 (0.41)
127	10.00 - 80.00% of mass 198	41.99
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.93
275	10.00 - 60.00% of mass 198	28.79
365	Greater than 1.00% of mass 198	3.99
441	0.01 - 24.00% of mass 442	19.80 (15.38)
442	50.00 - 200.00% of mass 198	128.71
443	15.00 - 24.00% of mass 442	24.72 (19.21)

XB89 : 00331

Data File: /chem1/nt10.i/20130823.b/df0823.d

Date : 23-AUG-2013 15:50

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0823.d

Spectrum: Avg. Scans 526-528 (6.91), Background Scan 520

Location of Maximum: 442.00

Number of points: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	432	130.00	6901	218.00	4416	311.00	118
38.00	1147	131.00	1301	219.00	474	312.00	85
39.00	6123	132.00	642	220.00	189	313.00	359
40.00	464	133.00	240	221.00	27696	314.00	1987
41.00	32	134.00	2239	222.00	933	315.00	4365
44.00	198	135.00	6293	223.00	7620	316.00	2062
45.00	80	136.00	3049	224.00	68536	317.00	449
47.00	50	137.00	2698	225.00	17008	319.00	64
49.00	625	138.00	766	226.00	2014	320.00	222
50.00	21680	139.00	413	227.00	28704	321.00	1345
51.00	78720	140.00	895	228.00	3777	322.00	854
52.00	3864	141.00	10483	229.00	5993	323.00	12928
53.00	206	142.00	3127	230.00	1064	324.00	2307
55.00	526	143.00	2413	231.00	2607	325.00	268
56.00	3410	144.00	683	232.00	509	326.00	352
57.00	7332	145.00	750	233.00	511	327.00	2288
58.00	386	146.00	1867	234.00	1875	328.00	1197
59.00	193	147.00	4990	235.00	2210	329.00	332
61.00	1718	148.00	11335	236.00	1359	332.00	1004
62.00	1778	149.00	1985	237.00	2329	333.00	1201
63.00	5674	150.00	696	238.00	427	334.00	8450
64.00	795	151.00	1105	239.00	1054	335.00	2298
65.00	2715	152.00	1012	240.00	962	336.00	249
66.00	223	153.00	3381	241.00	1855	339.00	246
67.00	142	154.00	2400	242.00	3620	340.00	306
68.00	2581	155.00	6414	243.00	4333	341.00	1900
69.00	145792	156.00	8310	244.00	57600	342.00	440
70.00	595	157.00	2023	245.00	7807	346.00	2886
71.00	510	158.00	1824	246.00	10460	347.00	479
72.00	135	159.00	1508	247.00	1975	348.00	70
73.00	965	160.00	3404	248.00	517	350.00	136
74.00	13898	161.00	4652	249.00	2302	351.00	416
75.00	23584	162.00	1460	250.00	533	352.00	4326
76.00	8064	163.00	529	251.00	558	353.00	2909
77.00	158144	164.00	687	252.00	612	354.00	4391

XBB9 : 00332

Data File: /chem1/nt10.i/20130823.b/df0823.d

Date : 23-AUG-2013 15:50

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0823.d

Spectrum: Avg. Scans 526-528 (6.91), Background Scan 520

Location of Maximum: 442.00

Number of points: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	10586	165.00	3548	253.00	1585	355.00	881
79.00	11096	166.00	3228	255.00	295424	356.00	73
80.00	8375	167.00	19640	256.00	42440	359.00	421
81.00	12186	168.00	8015	257.00	3150	360.00	72
82.00	3088	169.00	1559	258.00	16165	363.00	149
83.00	2617	170.00	687	259.00	2906	365.00	19416
84.00	316	171.00	1034	260.00	520	366.00	2611
85.00	2067	172.00	1905	261.00	624	367.00	204
86.00	3077	173.00	2781	262.00	125	370.00	374
87.00	1595	174.00	4276	263.00	64	371.00	1289
88.00	617	175.00	8383	264.00	601	372.00	7411
89.00	313	176.00	2710	265.00	6411	373.00	1804
91.00	3090	177.00	3917	266.00	812	374.00	149
92.00	2956	178.00	1470	267.00	280	377.00	73
93.00	20992	179.00	16080	268.00	108	383.00	2069
94.00	1582	180.00	10930	269.00	69	384.00	561
95.00	123	181.00	5112	270.00	691	385.00	140
96.00	827	182.00	819	271.00	1333	390.00	1082
97.00	110	183.00	611	272.00	1247	391.00	734
98.00	15398	184.00	1276	273.00	9325	392.00	557
99.00	11460	185.00	8059	274.00	24536	395.00	56
100.00	1211	186.00	59296	275.00	139904	401.00	584
101.00	7776	187.00	16504	276.00	18424	402.00	3203
102.00	550	188.00	1832	277.00	10827	403.00	4840
103.00	2379	189.00	3935	278.00	1799	404.00	1874
104.00	5089	190.00	599	279.00	287	405.00	89
105.00	4364	191.00	1868	282.00	426	410.00	55
106.00	1558	192.00	4844	283.00	1131	415.00	312
107.00	58160	193.00	5506	284.00	920	416.00	52
108.00	9235	194.00	1470	285.00	1782	420.00	80
109.00	1816	195.00	1018	286.00	465	421.00	4710
110.00	103528	196.00	14816	288.00	69	422.00	3847
111.00	16504	198.00	486016	289.00	500	423.00	31216
112.00	2013	199.00	33704	290.00	450	424.00	6029
113.00	653	200.00	2621	291.00	449	425.00	459

XB89:00333

Data File: /chem1/nt10.i/20130823.b/df0823.d

Date : 23-AUG-2013 15:50

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0823.d

Spectrum: Avg. Scans 526-528 (6.91), Background Scan 520

Location of Maximum: 442.00

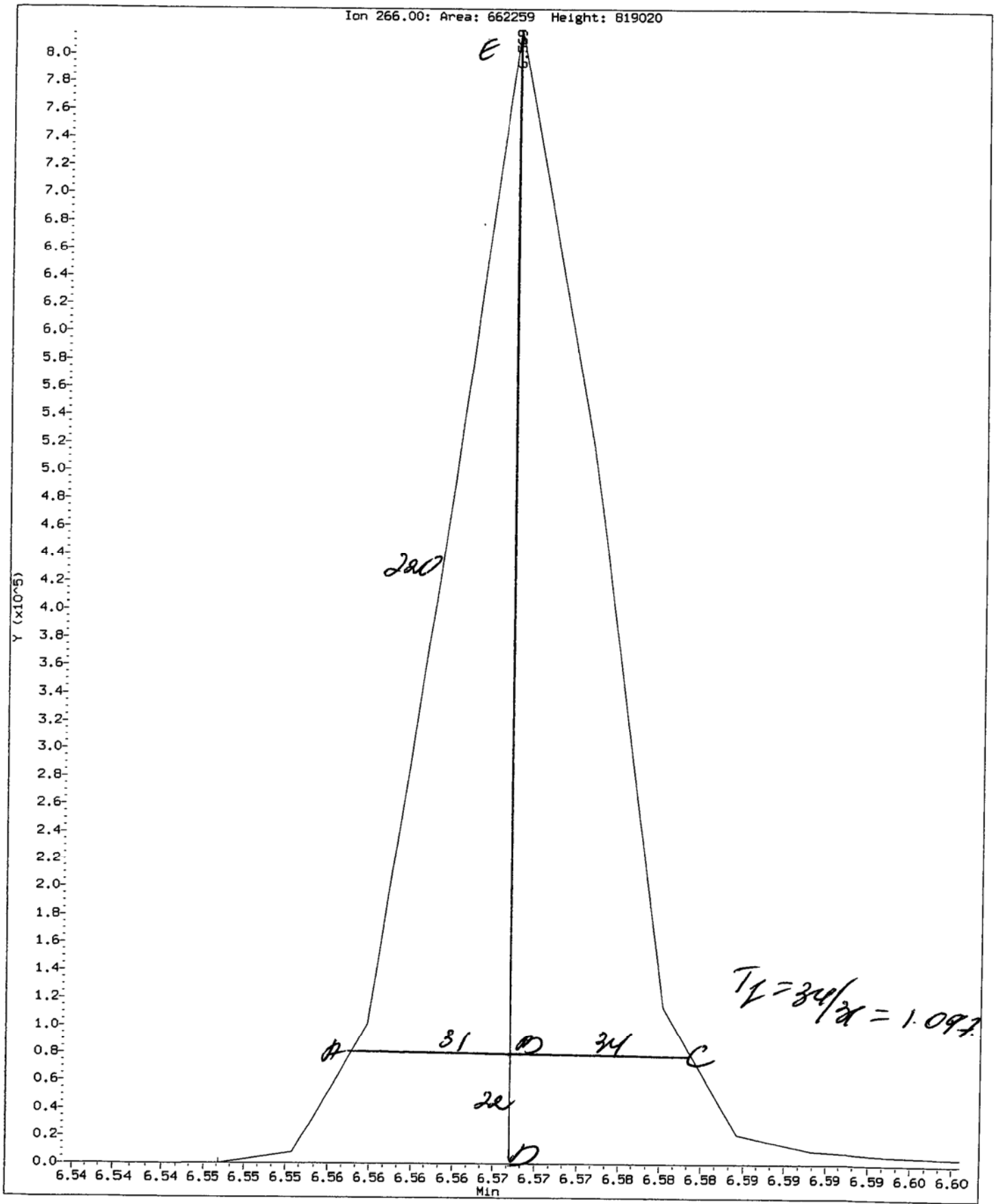
Number of points: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	155	201.00	2662	292.00	701	431.00	62
115.00	195	203.00	3544	293.00	2384	432.00	57
116.00	3251	204.00	16272	294.00	662	433.00	356
117.00	43680	205.00	28272	295.00	850	434.00	195
118.00	3032	206.00	118168	296.00	37832	435.00	331
119.00	584	207.00	15478	297.00	5374	436.00	443
120.00	727	208.00	3821	298.00	420	437.00	399
121.00	355	209.00	921	299.00	72	438.00	1586
122.00	3418	210.00	2781	301.00	491	439.00	2119
123.00	6161	211.00	4492	302.00	772	440.00	1229
124.00	3002	212.00	614	303.00	4603	441.00	96208
125.00	2193	213.00	405	304.00	1308	442.00	625536
126.00	515	214.00	161	305.00	118	443.00	120152
127.00	204096	215.00	1171	308.00	540	444.00	10956
128.00	15741	216.00	2495	309.00	402	445.00	761
129.00	83592	217.00	32264	310.00	575		

XBBS-00334

Data File: /chem1/nt10.i/20130823.b/DDT.b/df0823.d
Injection Date: 23-AUG-2013 15:50
Instrument: nt10.i
Client Sample ID: DFTPP

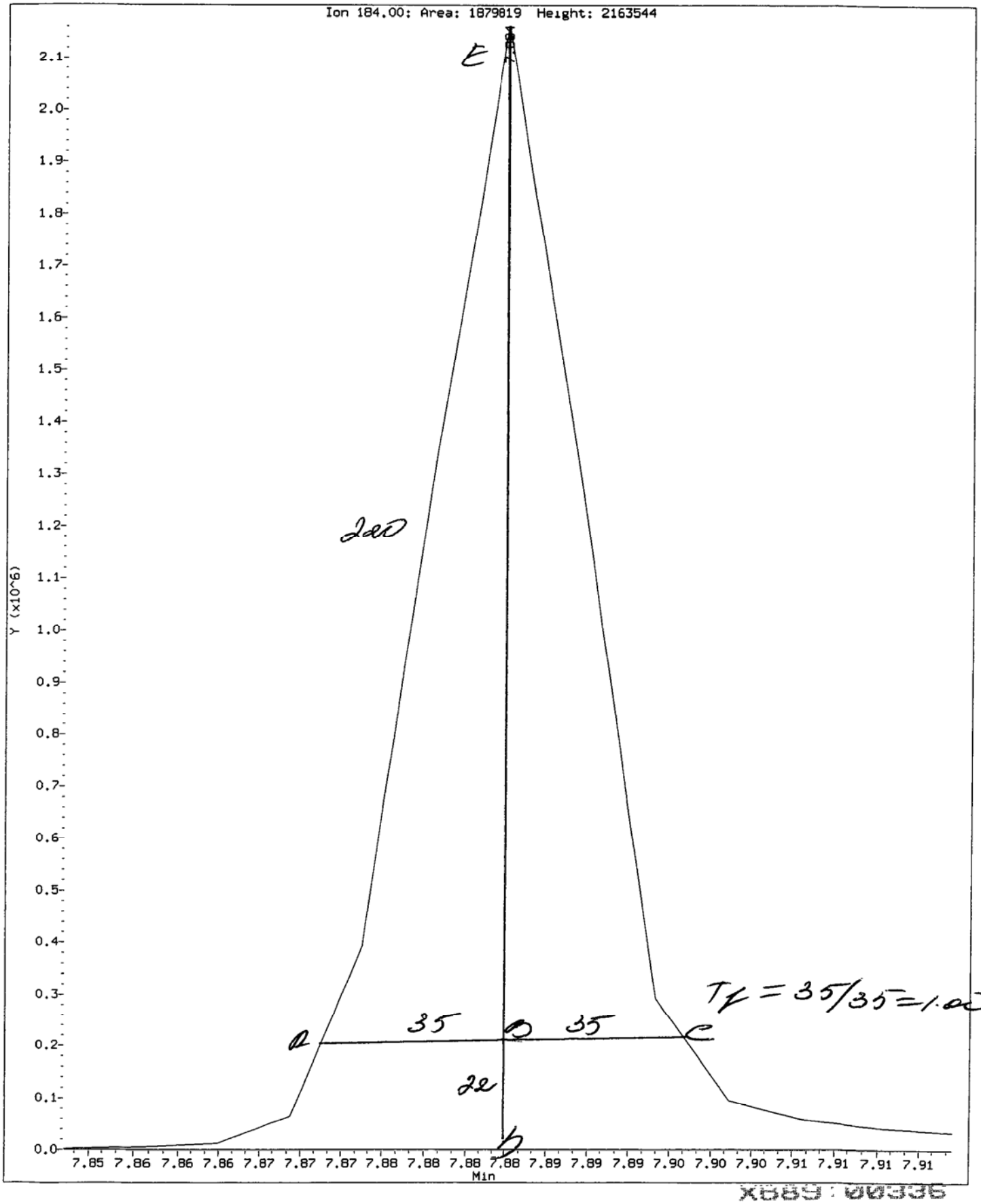
Compound: Pentachlorophenol
CAS Number: 87-86-5



XB89:00335

Data File: /chem1/nt10.i/20130823.b/DDT.b/df0823.d
Injection Date: 23-AUG-2013 15:50
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



X689 : 00336

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130823.b/DDT.b/df0823.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130823.b/DDT.b/sw846ddt.m Misc: 11-
Analysis Date: 23-AUG-2013 15:50 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.569	662258
Benzidine	7.884	1879819
4,4'-DDE	8.034	3233
4,4'-DDD	8.360	19306
4,4'-DDT	8.590	1457234

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(3233 + 19306) * 100}{(3233 + 19306 + 1457234)}$$

DDT Percent Breakdown = 1.5 %

XB89:00337

Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: XB89

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

GC/MS SVOA Analyst Notes / Data Review Checklist

ARI WORK Order: XB89 Client ID: Anchor QEA

METHOD: **8270D**(SIM-SVOA) **KRONE**(Butyl Tins) **8270D**(SVOA) **8270D**(OP-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 08/23/13 Analysis Start Date: 09/02/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
DFTPP Tune met Criteria?	Y / N / ✓	Internal Standard within 50-200%?	Y / N / ✓
DDT Breakdown <20%?	Y / N / ✓	Retention Times within Windows?	Y / N / ✓
Peak Tailing Factor ≤2?	Y / N / ✓	Method Blank in Control?	Y / N / ✓
CCAL Meets %D?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / ✓
ICAL Q Flag applied?	~~Y~~ / N / ✓	LCS / LCSD RPD ≤ ~~30%~~ 120%?	NA / ✓
CCAL Q flag applied?	Y / N / ✓	MS / MSD Recovery in Control?	Y / N / ✓
Surrogate Recovery met?	Y / N / ✓	MS / MSD RPD ≤ ~~30%~~ 1-76%?	NA / ✓
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N / ✓
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N / ✓

Detail problems, corrective actions and/or other pertinent information below.

- Sample A,B,C,E were run @ 3x dilution due to dark color of the extracts.
- Sample E, F were re-run on 09/03/13 due to IS failure.
- Samples A, C were re-run on 09/03/13 @ bigger dilution.

2 of 2

(Review 1) Analyst: YZ **Date:** 9/9/13

(Review 2) Reviewer: [signature] **Date:** 9/9/13

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 09/02/13 Analysis: ABN/SIM ABN Analyst: YZ

GC Program: ABN21 Column No: 227719 Column Type: ZB- Semivoa

Instrument Tune (.U or .CT.): 13022841 EM Voltage: 2225

Calibration File: DF0902 Curve Date: 8/23/13 Injection Vol.: 1ul

IS/SS	Ical/Ccal		LCS/ICV
B928	B112	B943	
	B676	2064-2	
	B931		

Document All Maintenance Tasks In Element

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130902.b

	Time	Filename	LabID	ClientId	DF												
1	1133	df0902.d	DFTPP	DFTPP	1	|NO ISTDS FOUND||											
2	1223	cc0902a.d	CC0902A		1	| 8.41	208898	||10.88	726452	||14.46	460626	||17.53	844952	||22.65	822931	||25.07	849828	||23.80	1059704|
3	1554	xb89mb.d	XB89MBS1	XB89MBS1	1	| 8.42	117053	||10.88	425043	||14.47	257750	||17.54	440104	||22.66	419922	||25.07	443723	||23.80	508695|
4	1333	xb89sb.d	XB89LCSS1	XB89LCSS1	1	| 8.41	109181	||10.88	391443	||14.46	243439	||17.53	421642	||22.65	440204	||25.07	454125	||23.80	548131|
5	1409	xb89sbd.d	XB89LCSDS1	XB89LCSDS1	1	| 8.41	112301	||10.88	399488	||14.46	254618	||17.53	437208	||22.66	462743	||25.07	489347	||23.80	576745|
6	1444	xb89a.d	XB89A	IJ13-SS-102	3	| 8.42	110955	||10.88	399487	||14.47	243216	||17.55	415491	||22.68	415734	||25.10	453220	||23.81	510210|
7	1519	xb89b.d	XB89B	IJ13-SS-101	3	| 8.42	110711	||10.88	401871	||14.48	246659	||17.55	410419	||22.67	403818	||25.10	457265	||23.81	517620|
8	1629	xb89c.d	XB89C	IJ13-SS-151	3	| 8.42	112270	||10.88	407859	||14.47	261389	||17.54	426794	||22.65	428628	||25.07	454627	||23.79	524732|
9	1705	xb89d.d	XB89D	IJ13-VC-101-	1	| 8.42	102589	||10.88	369437	||14.47	224315	||17.54	370303	||22.65	374048	||25.07	421864	||23.79	473765|
10	1740	xb89dms d	XB89DMS	IJ13-VC-101-	1	| 8.42	99592	||10.88	365220	||14.46	233193	||17.53	377628	||22.65	377426	||25.07	415701	||23.78	491592|
11	1815	xb89dmsd.d	XB89DMSD	IJ13-VC-101-	1	| 8.42	96248	||10.88	353962	||14.45	219769	||17.52	366742	||22.64	366017	||25.07	378366	||23.77	474951|
12	1850	xb89e.d	XB89E		1	| 8.42	116975	||10.88	445586	||14.46	263525	||17.53	388908	||22.69	390122	||25.17	244494	||23.82	519521|
13	1926	xb89f.d	XB89F		1	| 8.41	97215	||10.87	358317	||14.44	208239	||17.51	371483	||22.64	357421	||25.07	264412	||23.77	469930|

YZ 9/9/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In Element

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20130902.b

ARI Job No.: XB89 Method: ABN.m Instrument: nt10.i Date: 02-SEP-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1554	xb89mb.d	XB89MBS1	XB89MBS1	1	NO MANUAL INTEGRATION
1333	xb89sb.d	XB89LCSS1	XB89LCSS1	1	NO MANUAL INTEGRATION
1409	xb89sbd.d	XB89LCSDS1	XB89LCSDS1	1	NO MANUAL INTEGRATION
1444	xb89a.d	XB89A	IJ13-SS-10	3	Benzo(k)fluoranthene,
1519	xb89b.d	XB89B	IJ13-SS-10	3	Benzo(k)fluoranthene,
1629	xb89c.d	XB89C	IJ13-SS-15	3	Phenol, Benzo(k)fluoranthene,
1705	xb89d.d	XB89D	IJ13-VC-10	1	Benzo(k)fluoranthene,
1740	xb89dms.d	XB89DMS	IJ13-VC-10	1	NO MANUAL INTEGRATION
1815	xb89dmsd.d	XB89DMSD	IJ13-VC-10	1	NO MANUAL INTEGRATION
2042	xb89a6.d	XB89A	IJ13-SS-10	6	NO MANUAL INTEGRATION
2117	xb89c10.d	XB89C	IJ13-SS-15	30	Benzo(k)fluoranthene,
1303	xb89e3.d	XB89E	IJ13-VC-10	3	Benzyl alcohol,
1338	xb89f.d	XB89F	IJ13-VC-10	1	Total Benzofluoranthenes,

XB89.00341

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20130902.b

Instrument: nt10.i Date: 02-SEP-2013 Method: ABN.m

INITIAL CAL: 23-AUG-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 02-SEP-2013

Compound	%D
Hexachlorocyclopentadiene	32.0
2,4-Dinitrophenol	-28.1
Pentachlorophenol	-24.9
Carbazole	-26.6
Benzidine	-57.9
Pyridine	-27.0

Data File: /chem1/nt10.i/20130902.b/df0902.d

Date : 02-SEP-2013 11:33

Client ID: DFTPP

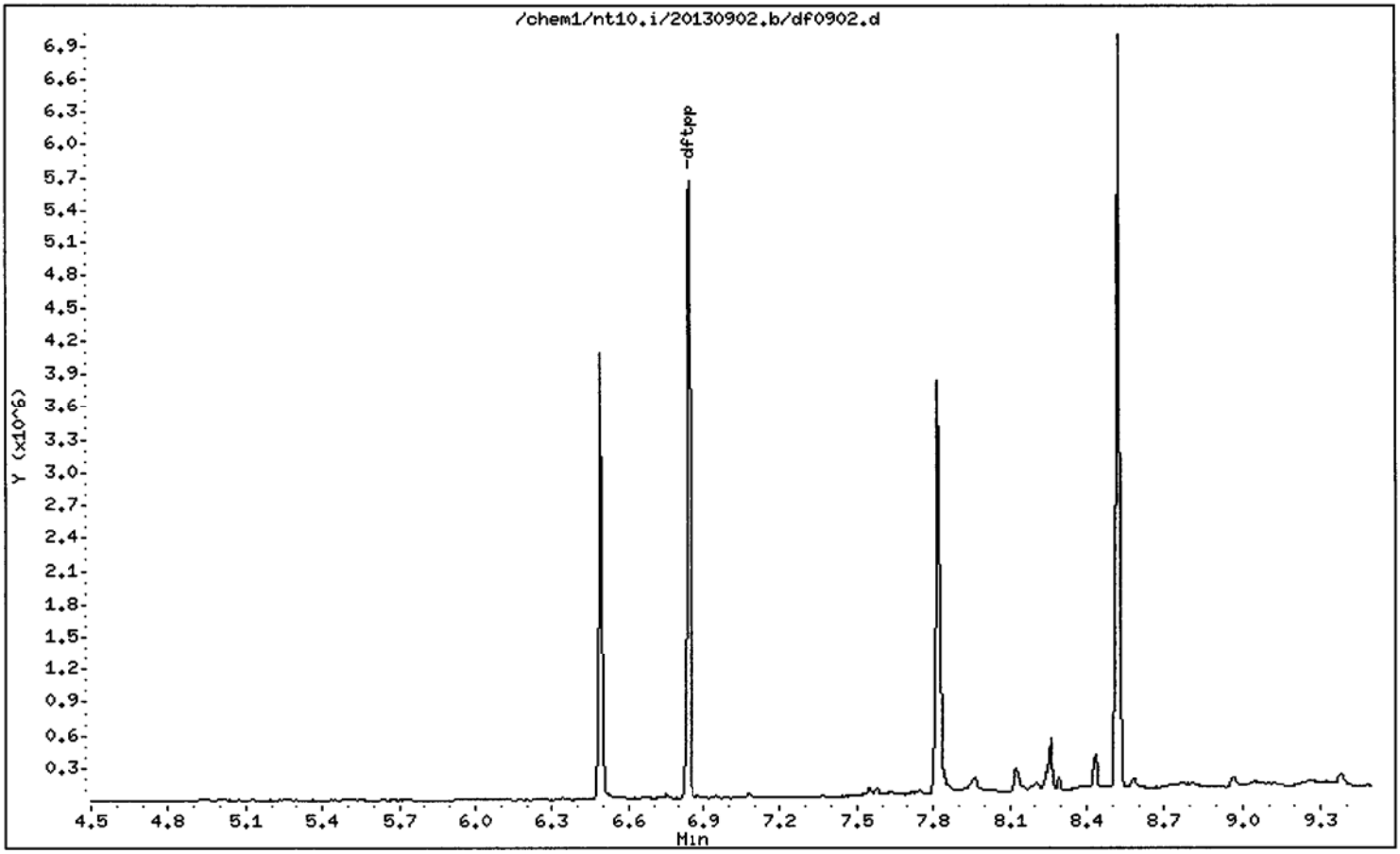
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130902.b/df0902.d

Date : 02-SEP-2013 11:33

Client ID: DFTPP

Instrument: nt10.i

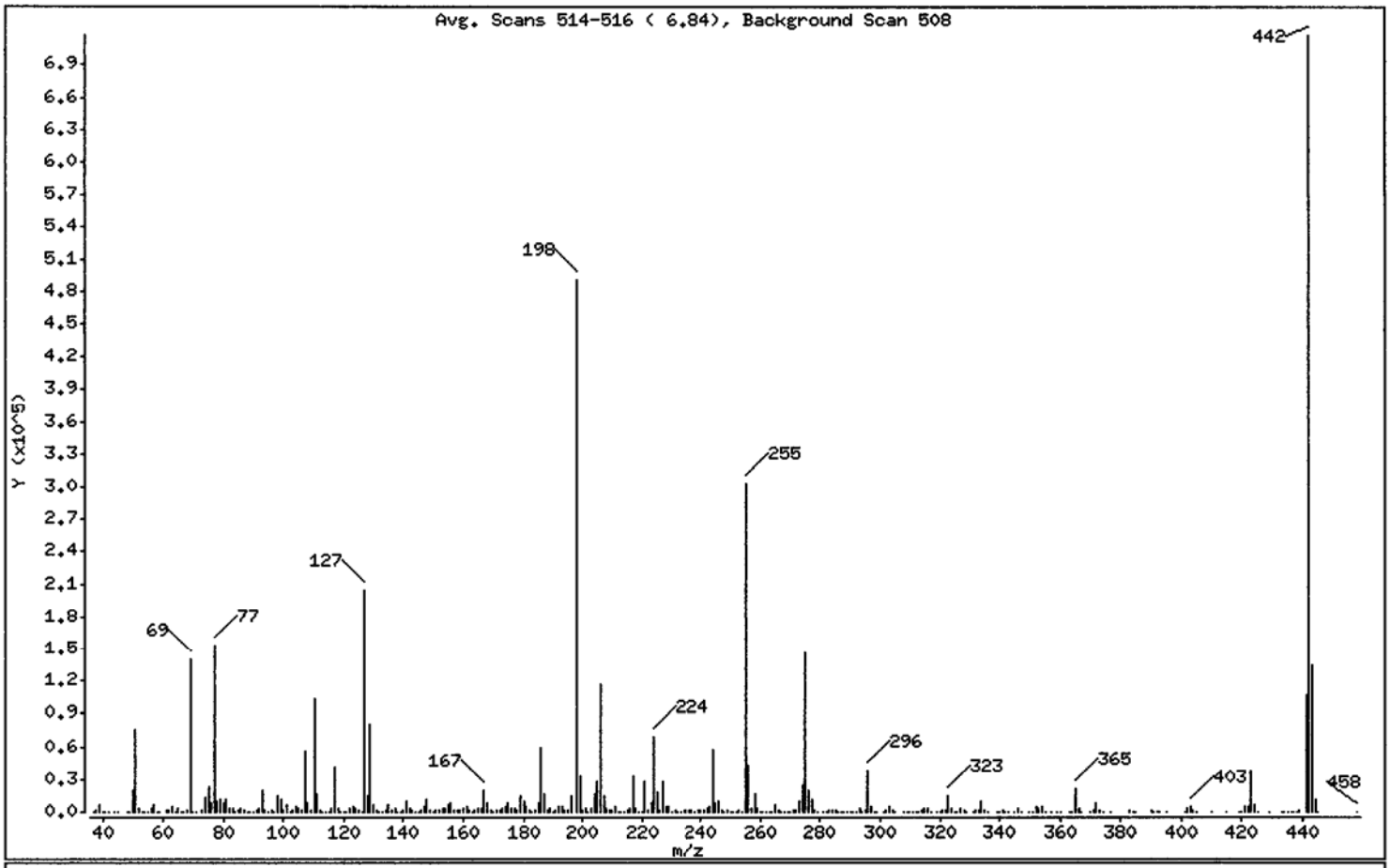
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	15.55
68	Less than 2.00% of mass 69	0.49 (1.70)
69	Mass 69 relative abundance	28.66
70	Less than 2.00% of mass 69	0.11 (0.39)
127	10.00 - 80.00% of mass 198	41.79
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 60.00% of mass 198	30.06
365	Greater than 1.00% of mass 198	4.24
441	0.01 - 24.00% of mass 442	21.70 (14.85)
442	50.00 - 200.00% of mass 198	146.14
443	15.00 - 24.00% of mass 442	27.44 (18.77)

XB89 00344

Date : 02-SEP-2013 11:33

Client ID: DFTPP Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: df0902.d
Spectrum: Avg. Scans 514-516 (6.84), Background Scan 508
Location of Maximum: 442.00
Number of points: 352

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	316	131.00	1443	221.00	28672	314.00	2062
38.00	1302	132.00	717	222.00	2294	315.00	4101
39.00	5821	133.00	225	223.00	7430	316.00	2587
40.00	612	134.00	2399	224.00	69376	317.00	580
41.00	191	135.00	6640	225.00	17688	319.00	106
42.00	108	136.00	2410	226.00	1911	320.00	331
44.00	144	137.00	3158	227.00	28016	321.00	1455
45.00	11	138.00	784	228.00	4417	322.00	827
48.00	52	139.00	471	229.00	5709	323.00	14146
49.00	674	140.00	1012	230.00	760	324.00	2592
50.00	20408	141.00	10039	231.00	2449	325.00	306
51.00	76264	142.00	3728	232.00	570	326.00	252
52.00	3834	143.00	2309	233.00	676	327.00	2685
53.00	308	144.00	806	234.00	1650	328.00	1250
54.00	157	145.00	328	235.00	2149	329.00	218
55.00	564	146.00	1751	236.00	1639	331.00	143
56.00	3124	147.00	5192	237.00	2221	332.00	1115
57.00	6939	148.00	11361	238.00	323	333.00	1326
58.00	371	149.00	1841	239.00	1082	334.00	9353
59.00	28	150.00	670	240.00	975	335.00	2424
61.00	1747	151.00	1089	241.00	1832	336.00	214
62.00	1783	152.00	936	242.00	4013	339.00	174
63.00	5539	153.00	3470	243.00	4353	340.00	299
64.00	816	154.00	2635	244.00	57904	341.00	2035
65.00	2870	155.00	6471	245.00	8336	342.00	479
66.00	264	156.00	8595	246.00	9688	343.00	77
67.00	400	157.00	2013	247.00	2265	345.00	68
68.00	2390	158.00	2040	248.00	587	346.00	3026
69.00	140608	159.00	1467	249.00	2348	347.00	517
70.00	555	160.00	3336	250.00	449	350.00	190
71.00	390	161.00	4237	251.00	688	351.00	338
73.00	1074	162.00	1513	252.00	727	352.00	4777
74.00	13897	163.00	327	253.00	1517	353.00	3205
75.00	23016	164.00	868	254.00	612	354.00	4723
76.00	7543	165.00	3703	255.00	302912	355.00	818

XB89 : 00345

Date : 02-SEP-2013 11:33

Client ID: DFTPP Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: df0902.d
Spectrum: Avg. Scans 514-516 (6.84), Background Scan 508
Location of Maximum: 442.00
Number of points: 352

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	153088	166.00	3165	256.00	43384	357.00	109
78.00	10384	167.00	19056	257.00	3369	359.00	416
79.00	10829	168.00	7979	258.00	16280	360.00	62
80.00	8509	169.00	1753	259.00	2618	363.00	93
81.00	11927	170.00	712	260.00	583	364.00	309
82.00	3056	171.00	848	261.00	647	365.00	20784
83.00	2489	172.00	2096	262.00	176	366.00	2838
84.00	240	173.00	2772	263.00	64	367.00	126
85.00	1856	174.00	4660	264.00	245	370.00	634
86.00	3449	175.00	8275	265.00	6770	371.00	1183
87.00	1782	176.00	2486	266.00	832	372.00	8551
88.00	534	177.00	3932	267.00	358	373.00	2232
89.00	256	178.00	1567	268.00	330	374.00	270
90.00	63	179.00	15377	269.00	133	377.00	93
91.00	2398	180.00	10363	270.00	335	383.00	2427
92.00	3345	181.00	5165	271.00	1392	384.00	597
93.00	19464	182.00	868	272.00	1172	385.00	70
94.00	1518	183.00	494	273.00	10324	390.00	1473
95.00	157	184.00	1359	274.00	25464	391.00	662
96.00	971	185.00	7930	275.00	147456	392.00	704
97.00	135	186.00	60008	276.00	19520	393.00	106
98.00	14450	187.00	16912	277.00	10942	395.00	112
99.00	11182	188.00	1445	278.00	1788	401.00	597
100.00	1219	189.00	3754	279.00	432	402.00	3494
101.00	7267	190.00	749	281.00	184	403.00	5159
102.00	381	191.00	2006	282.00	463	404.00	1885
103.00	2318	192.00	4825	283.00	1532	405.00	169
104.00	4715	193.00	5293	284.00	1002	410.00	243
105.00	4098	194.00	1528	285.00	2099	415.00	297
106.00	1686	195.00	1270	286.00	293	419.00	58
107.00	55488	196.00	15083	287.00	61	420.00	122
108.00	8157	198.00	490560	288.00	161	421.00	4931
109.00	1058	199.00	33344	289.00	556	422.00	4341
110.00	103568	200.00	2341	290.00	547	423.00	37600
111.00	15685	201.00	2812	291.00	426	424.00	6645

Data File: /chem1/nt10.i/20130902.b/df0902.d

Date : 02-SEP-2013 11:33

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

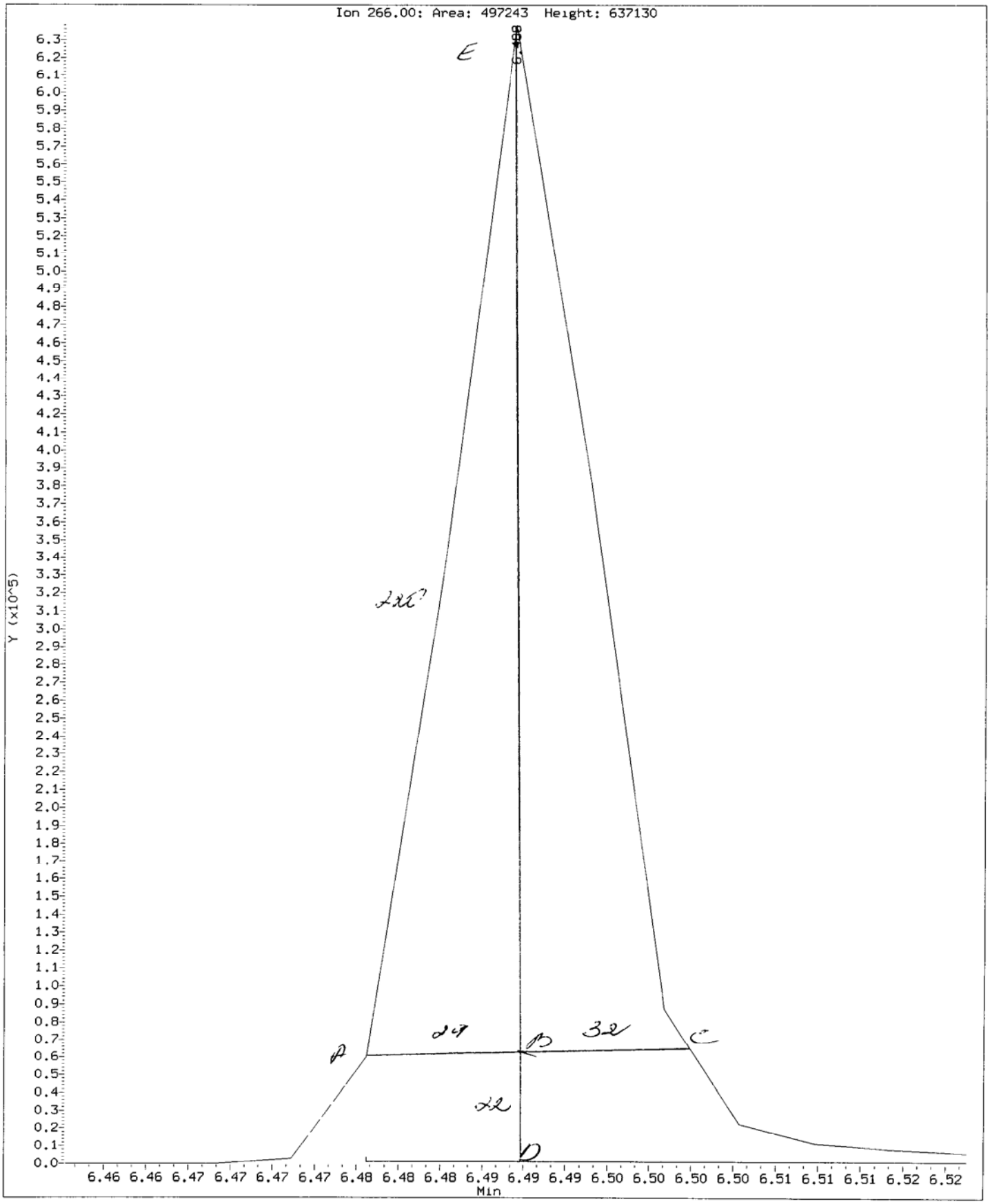
Data File: df0902.d
Spectrum: Avg. Scans 514-516 (6.84), Background Scan 508
Location of Maximum: 442.00
Number of points: 352

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	2037	202.00	134	292.00	637	425.00	616
113.00	678	203.00	3538	293.00	2716	429.00	131
114.00	201	204.00	16184	294.00	789	433.00	53
115.00	546	205.00	28336	295.00	857	434.00	373
116.00	3377	206.00	117800	296.00	37304	435.00	169
117.00	40608	207.00	14723	297.00	5474	436.00	468
118.00	2873	208.00	3745	298.00	391	437.00	810
119.00	455	209.00	1418	299.00	197	438.00	572
120.00	596	210.00	2160	301.00	592	439.00	2460
121.00	226	211.00	4763	302.00	902	441.00	106472
122.00	3709	212.00	581	303.00	4433	442.00	716928
123.00	5450	213.00	449	304.00	1241	443.00	134592
124.00	2777	214.00	197	305.00	189	444.00	12327
125.00	2336	215.00	1273	308.00	755	445.00	752
126.00	142	216.00	2555	309.00	462	458.00	73
127.00	204992	217.00	32256	310.00	735		
128.00	15263	218.00	3936	311.00	179		
129.00	81072	219.00	579	312.00	153		
130.00	6826	220.00	229	313.00	525		

XB89 06347

Data File: /chem1/nt10.1/20130902.b/ddt.b/df0902.d
Injection Date: 02-SEP-2013 11:33
Instrument: nt10.1
Client Sample ID: DFTPP

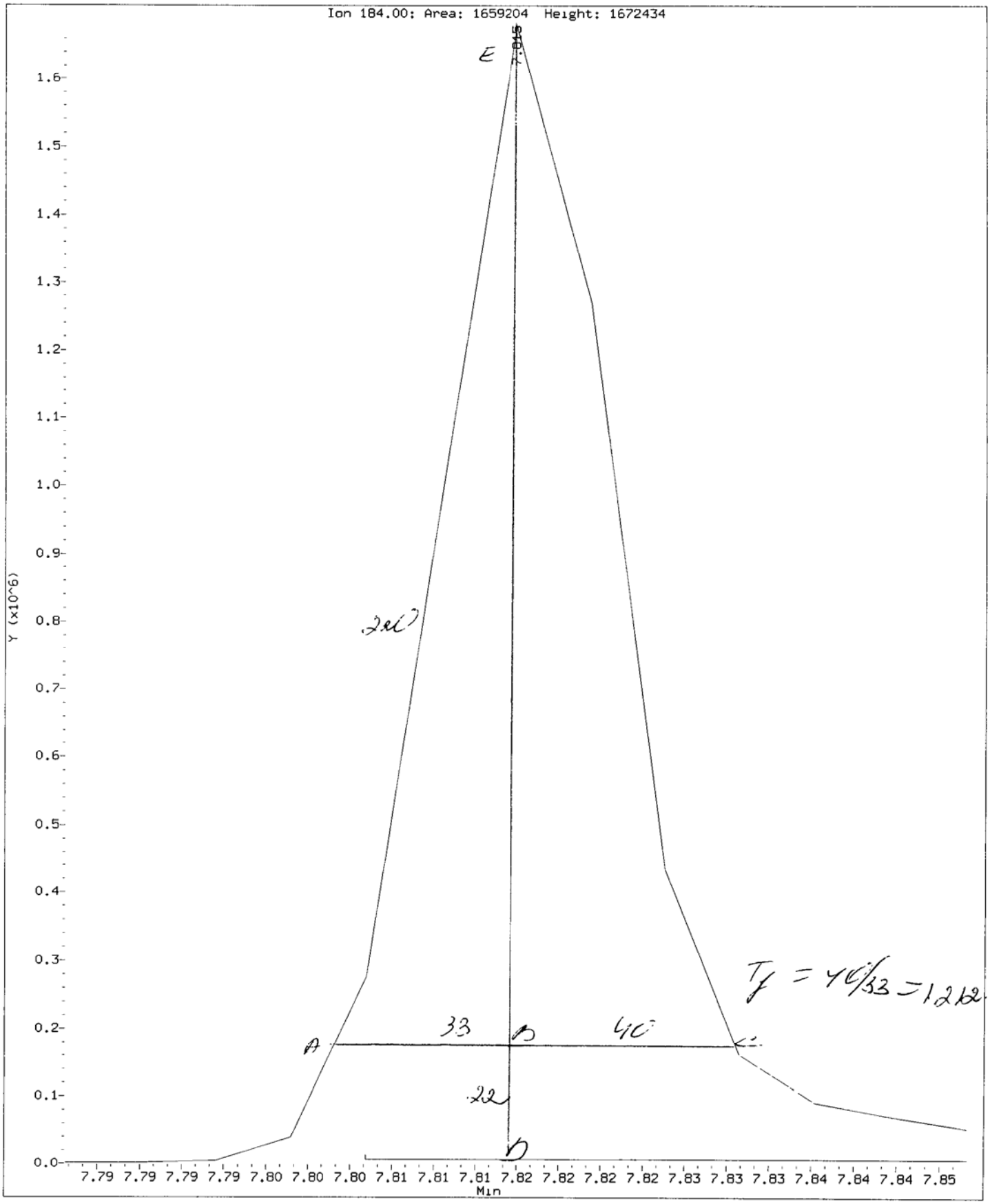
Compound: Pentachlorophenol
CAS Number: 87-86-5



XBB9 00348

Data File: /chem1/nt10.i/20130902.b/ddt.b/df0902.d
Injection Date: 02-SEP-2013 11:33
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



XB89:00349

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130902.b/ddt.b/df0902.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130902.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 02-SEP-2013 11:33 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.488	497243
Benzidine	7.815	1659204
4,4'-DDE	7.965	6619
4,4'-DDD	8.259	87106
4,4'-DDT	8.521	1274250

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 6619 + 87106) * 100}{(\ 6619 + 87106 + 1274250)}$$

DDT Percent Breakdown = 6.9 %

XB89:00350

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 02-SEP-2013 12:23
Lab File ID: cc0902a.d Init. Cal. Date(s): 23-AUG-2013 23-AUG-2013
Analysis Type: Init. Cal. Times: 16:04 20:20
Lab Sample ID: CC0902A Quant Type: ISTD
Method: /chem1/nt10.i/20130902.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.16530	1.17489	1.17489	0.010	0.82279	20.00000	Averaged	
$ 2 Phenol-d5	1.50877	1.53784	1.53784	0.010	1.92628	20.00000	Averaged	
3 Phenol	1.49911	1.46754	1.46754	0.100	-2.10568	20.00000	Averaged	
$ 5 2-Chlorophenol-d4	1.23679	1.25754	1.25754	0.010	1.67835	20.00000	Averaged	
4 Bis(2-Chloroethyl)ether	1.10259	1.05827	1.05827	0.700	-4.02006	20.00000	Averaged	
6 2-Chlorophenol	1.23872	1.23019	1.23019	0.800	-0.68845	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.33180	1.28546	1.28546	0.010	-3.47997	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.29019	1.22380	1.22380	0.010	-5.14566	20.00000	Averaged	
$ 10 1,2-Dichlorobenzene-d4	0.92637	0.86031	0.86031	0.010	-7.13146	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.24538	1.16966	1.16966	0.010	-6.07964	20.00000	Averaged	
11 Benzyl alcohol	0.64158	0.71570	0.71570	0.010	11.55264	20.00000	Averaged	
14 2,2'-oxybis(1-Chloropropane	0.39116	0.35690	0.35690	0.010	-8.75829	20.00000	Averaged	
13 2-Methylphenol	1.13463	1.12937	1.12937	0.700	-0.46324	20.00000	Averaged	
17 Hexachloroethane	0.52176	0.49589	0.49589	0.300	-4.95752	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.69011	0.66738	0.66738	0.500	-3.29334	20.00000	Averaged	
15 4-Methylphenol	1.13745	1.15806	1.15806	0.600	1.81151	20.00000	Averaged	
$ 18 Nitrobenzene-d5	0.35177	0.33804	0.33804	0.010	-3.90321	20.00000	Averaged	
19 Nitrobenzene	0.29451	0.28670	0.28670	0.200	-2.65303	20.00000	Averaged	
20 Isophorone	0.57217	0.53775	0.53775	0.300	-6.01667	20.00000	Averaged	
21 2-Nitrophenol	0.20239	0.21647	0.21647	0.100	6.95343	20.00000	Averaged	
22 2,4-Dimethylphenol	0.33249	0.31364	0.31364	0.200	-5.66814	20.00000	Averaged	
23 Bis(2-Chloroethoxy)methane	0.34012	0.33200	0.33200	0.050	-2.38750	20.00000	Averaged	
24 Benzoic acid	17.64237	20.00000	0.23876	0.010	-11.78816	20.00000	Quadratic	
25 2,4-Dichlorophenol	0.29413	0.33929	0.33929	0.100	15.35442	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.32890	0.30743	0.30743	0.010	-6.52660	20.00000	Averaged	
28 Naphthalene	0.90131	0.87592	0.87592	0.100	-2.81724	20.00000	Averaged	
29 4-Chloroaniline	0.35423	0.35432	0.35432	0.010	0.02673	20.00000	Averaged	
30 Hexachlorobutadiene	0.20193	0.18819	0.18819	0.010	-6.80556	20.00000	Averaged	
31 4-Chloro-3-methylphenol	0.28103	0.29875	0.29875	0.200	6.30697	20.00000	Averaged	
32 2-Methylnaphthalene	0.66364	0.66413	0.66413	0.300	0.07406	20.00000	Averaged	
33 Hexachlorocyclopentadiene	0.42112	0.28631	0.28631	0.001	-32.01175	20.00000	Averaged	<-
34 2,4,6-Trichlorophenol	0.38898	0.40426	0.40426	0.200	3.92702	20.00000	Averaged	
35 2,4,5-Trichlorophenol	0.40747	0.44229	0.44229	0.200	8.54470	20.00000	Averaged	
$ 36 2-Fluorobiphenyl	1.27417	1.29228	1.29228	0.010	1.42141	20.00000	Averaged	
37 2-Chloronaphthalene	0.98209	0.99290	0.99290	0.700	1.10043	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 02-SEP-2013 12:23
Lab File ID: cc0902a.d Init. Cal. Date(s): 23-AUG-2013 23-AUG-2013
Analysis Type: Init. Cal. Times: 16:04 20:20
Lab Sample ID: CC0902A Quant Type: ISTD
Method: /chem1/nt10.i/20130902.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
38 2-Nitroaniline	0.23330	0.23999	0.23999	0.010	2.86961	20.00000	Averaged	
39 Dimethylphthalate	1.11617	1.11405	1.11405	0.010	-0.18964	20.00000	Averaged	
40 Acenaphthylene	1.65877	1.84491	1.84491	0.900	11.22148	20.00000	Averaged	
41 2,6-Dinitrotoluene	0.26191	0.26443	0.26443	0.100	0.95961	20.00000	Averaged	
43 3-Nitroaniline	0.21722	0.22252	0.22252	0.010	2.43778	20.00000	Averaged	
44 Acenaphthene	0.96652	0.94836	0.94836	0.100	-1.87898	20.00000	Averaged	
45 2,4-Dinitrophenol	14.37789	20.00000	0.16176	0.030	-28.11056	20.00000	Quadratic	<-
46 Dibenzofuran	1.44805	1.45839	1.45839	0.800	0.71422	20.00000	Averaged	
47 4-Nitrophenol	0.14254	0.13462	0.13462	0.010	-5.55689	20.00000	Averaged	
48 2,4-Dinitrotoluene	0.35202	0.36796	0.36796	0.200	4.52832	20.00000	Averaged	
50 Diethylphthalate	1.11750	1.08812	1.08812	0.010	-2.62908	20.00000	Averaged	
49 Fluorene	1.20054	1.19869	1.19869	0.100	-0.15360	20.00000	Averaged	
51 4-Chlorophenyl-phenylether	0.61353	0.60014	0.60014	0.100	-2.18229	20.00000	Averaged	
52 4-Nitroaniline	0.24586	0.22501	0.22501	0.010	-8.48017	20.00000	Averaged	
53 4,6-Dinitro-2-methylphenol	0.15039	0.14489	0.14489	0.001	-3.65166	20.00000	Averaged	
54 N-Nitrosodiphenylamine	0.41547	0.39834	0.39834	0.010	-4.12500	20.00000	Averaged	
$ 55 2,4,6-Tribromophenol	0.26236	0.25911	0.25911	0.010	-1.23790	20.00000	Averaged	
56 4-Bromophenyl-phenylether	0.22151	0.19523	0.19523	0.100	-11.86264	20.00000	Averaged	
57 Hexachlorobenzene	0.28289	0.23126	0.23126	0.100	-18.24985	20.00000	Averaged	
58 Pentachlorophenol	0.16892	0.12679	0.12679	0.010	-24.94177	20.00000	Averaged	<-
60 Phenanthrene	0.89930	0.85849	0.85849	0.700	-4.53828	20.00000	Averaged	
61 Anthracene	0.95806	0.92280	0.92280	0.700	-3.67988	20.00000	Averaged	
62 Carbazole	0.69766	0.51188	0.51188	0.010	-26.62807	20.00000	Averaged	<-
63 Di-n-butylphthalate	1.01760	1.02335	1.02335	0.010	0.56545	20.00000	Averaged	
64 Fluoranthene	1.15761	1.14076	1.14076	0.600	-1.45565	20.00000	Averaged	
65 Pyrene	1.10957	1.18103	1.18103	0.600	6.44038	20.00000	Averaged	
$ 66 Terphenyl-d14	0.65549	0.65817	0.65817	0.010	0.41001	20.00000	Averaged	
67 Butylbenzylphthalate	0.40440	0.40729	0.40729	0.010	0.71363	20.00000	Averaged	
68 Benzo(a)anthracene	1.05765	1.04004	1.04004	0.700	-1.66563	20.00000	Averaged	
70 3,3'-Dichlorobenzidine	0.49650	0.40261	0.40261	0.010	-18.91013	20.00000	Averaged	
71 Chrysene	0.91282	0.88466	0.88466	0.700	-3.08412	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.42844	0.42288	0.42288	0.010	-1.29823	20.00000	Averaged	
73 Di-n-octylphthalate	0.80622	0.77239	0.77239	0.010	-4.19666	20.00000	Averaged	
74 Benzo(b)fluoranthene	1.01020	1.01455	1.01455	0.700	0.43029	20.00000	Averaged	
75 Benzo(k)fluoranthene	1.02037	0.99118	0.99118	0.700	-2.86031	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 02-SEP-2013 12:23
Lab File ID: cc0902a.d Init. Cal. Date(s): 23-AUG-2013 23-AUG-2013
Analysis Type: Init. Cal. Times: 16:04 20:20
Lab Sample ID: CC0902A Quant Type: ISTD
Method: /chem1/nt10.i/20130902.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 Benzo(a)pyrene	0.92111	0.89221	0.89221	0.700	-3.13795	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.12707	1.14536	1.14536	0.500	1.62273	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	0.87662	0.87452	0.87452	0.400	-0.23923	20.00000	Averaged	
80 Benzo(g,h,i)perylene	0.94288	0.96844	0.96844	0.500	2.71068	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.57333	0.56618	0.56618	0.010	-1.24785	20.00000	Averaged	
91 Aniline	2.86319	2.70269	2.70269	0.010	-5.60548	20.00000	Averaged	
93 Benzidine	4.21468	10.00000	0.06477	0.010	-57.85317	20.00000	Quadratic	<-
103 Pyridine	0.52942	0.38642	0.38642	0.010	-27.01197	20.00000	Averaged	<-
105 1-methylnaphthalene	0.60871	0.60023	0.60023	0.010	-1.39278	20.00000	Averaged	
111 Azobenzene (1,2-DP-Hydrazin	0.92817	0.81788	0.81788	0.010	-11.88247	20.00000	Averaged	
187 Total Benzofluoranthenes	0.99932	0.98088	0.98088	0.010	-1.84578	20.00000	Averaged	
99 Perylene	0.84681	0.83903	0.83903	0.010	-0.91884	20.00000	Averaged	
98 Retene	0.44259	0.46713	0.46713	0.010	5.54384	20.00000	Averaged	
120 2,3,4,6-Tetrachlorophenol	0.32665	0.32544	0.32544	0.010	-0.37033	20.00000	Averaged	

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 9/5/13

Data file : /chem1/nt10.i/20130902.b/cc0902a.d
Lab Smp Id: CC0902A
Inj Date : 02-SEP-2013 12:23
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC0902A
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 05-Sep-2013 15:20 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.105	6.105	(0.726)	306789	5.00000	5.041
$	2	Phenol-d5	99	7.736	7.736	(0.920)	401564	5.00000	5.096
	3	Phenol	94	7.759	7.759	(0.923)	383208	5.00000	4.895
$	5	2-Chlorophenol-d4	132	7.991	7.991	(0.950)	328373	5.00000	5.084
	4	Bis(2-Chloroethyl)ether	93	7.929	7.929	(0.943)	276338	5.00000	4.799
	6	2-Chlorophenol	128	8.021	8.021	(0.954)	321231	5.00000	4.966
	7	1,3-Dichlorobenzene	146	8.300	8.300	(0.987)	335662	5.00000	4.826
*	8	1,4-Dichlorobenzene-d4	152	8.409	8.409	(1.000)	208898	4.00000	
	9	1,4-Dichlorobenzene	146	8.440	8.440	(1.004)	319562	5.00000	4.743
$	10	1,2-Dichlorobenzene-d4	152	8.696	8.696	(1.034)	224646	5.00000	4.643
	12	1,2-Dichlorobenzene	146	8.719	8.719	(1.037)	305425	5.00000	4.696
	11	Benzyl alcohol	108	8.673	8.673	(1.031)	186886	5.00000	5.578
	14	2,2'-oxybis(1-Chloropropane)	121	8.929	8.929	(1.062)	93194	5.00000	4.562
	13	2-Methylphenol	108	8.882	8.882	(1.056)	294905	5.00000	4.977
	17	Hexachloroethane	117	9.363	9.363	(1.114)	129488	5.00000	4.752
	16	N-Nitroso-di-n-propylamine	70	9.185	9.185	(1.092)	174268	5.00000	4.835
	15	4-Methylphenol	108	9.177	9.177	(1.091)	302395	5.00000	5.091
$	18	Nitrobenzene-d5	82	9.464	9.464	(0.870)	306962	5.00000	4.805
	19	Nitrobenzene	77	9.495	9.495	(0.873)	260339	5.00000	4.867
	20	Isophorone	82	9.975	9.975	(0.917)	488308	5.00000	4.699
	21	2-Nitrophenol	139	10.122	10.122	(0.931)	196565	5.00000	5.348
	22	2,4-Dimethylphenol	107	10.222	10.222	(0.940)	569615	10.0000	9.433
	23	Bis(2-Chloroethoxy)methane	93	10.415	10.415	(0.957)	301481	5.00000	4.881
	24	Benzoic acid	105	10.538	10.538	(0.969)	867224	20.0000	17.64(M)
	25	2,4-Dichlorophenol	162	10.599	10.599	(0.974)	616198	10.0000	11.54
	26	1,2,4-Trichlorobenzene	180	10.761	10.761	(0.989)	279168	5.00000	4.674
*	27	Naphthalene-d8	136	10.877	10.877	(1.000)	726452	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.916	10.916	(1.004)	795391	5.00000	4.859
	29 4-Chloroaniline	127	11.047	11.047	(1.016)	643500	10.0000	10.00
	30 Hexachlorobutadiene	225	11.179	11.179	(1.028)	170889	5.00000	4.660
	31 4-Chloro-3-methylphenol	107	12.038	12.038	(1.107)	542568	10.0000	10.63
	32 2-Methylnaphthalene	142	12.324	12.324	(1.133)	603074	5.00000	5.004
	33 Hexachlorocyclopentadiene	237	12.649	12.649	(0.875)	329706	10.0000	6.799
	34 2,4,6-Trichlorophenol	196	12.912	12.912	(0.893)	465532	10.0000	10.39
	35 2,4,5-Trichlorophenol	196	12.974	12.974	(0.897)	509325	10.0000	10.85
$	36 2-Fluorobiphenyl	172	13.090	13.090	(0.905)	744073	5.00000	5.071
	37 2-Chloronaphthalene	162	13.315	13.315	(0.921)	571693	5.00000	5.055
	38 2-Nitroaniline	65	13.547	13.547	(0.937)	276367	10.0000	10.29
	39 Dimethylphthalate	163	13.942	13.942	(0.964)	641453	5.00000	4.991
	40 Acenaphthylene	152	14.166	14.166	(0.980)	1062269	5.00000	5.561
	41 2,6-Dinitrotoluene	165	14.058	14.058	(0.972)	304503	10.0000	10.10
*	42 Acenaphthene-d10	164	14.460	14.460	(1.000)	460626	4.00000	
	43 3-Nitroaniline	138	14.398	14.398	(0.996)	256241	10.0000	10.24
	44 Acenaphthene	153	14.522	14.522	(1.004)	546051	5.00000	4.906
	45 2,4-Dinitrophenol	184	14.615	14.615	(1.011)	372544	20.0000	14.38
	46 Dibenzofuran	168	14.885	14.885	(1.029)	839717	5.00000	5.036
	47 4-Nitrophenol	109	14.777	14.777	(1.022)	155025	10.0000	9.444
	48 2,4-Dinitrotoluene	165	14.885	14.885	(1.029)	423730	10.0000	10.45
	50 Diethylphthalate	149	15.411	15.411	(1.066)	626519	5.00000	4.869
	49 Fluorene	166	15.597	15.597	(1.079)	690187	5.00000	4.992
	51 4-Chlorophenyl-phenylether	204	15.612	15.612	(1.080)	345549	5.00000	4.891
	52 4-Nitroaniline	138	15.658	15.658	(1.083)	259113	10.0000	9.152
	53 4,6-Dinitro-2-methylphenol	198	15.720	15.720	(0.897)	612142	20.0000	19.27
	54 N-Nitrosodiphenylamine	169	15.859	15.859	(0.905)	420718	5.00000	4.794
$	55 2,4,6-Tribromophenol	330	16.091	16.091	(1.113)	149191	5.00000	4.938
	56 4-Bromophenyl-phenylether	248	16.623	16.623	(0.948)	206203	5.00000	4.407
	57 Hexachlorobenzene	284	16.715	16.715	(0.954)	244257	5.00000	4.088
	58 Pentachlorophenol	266	17.141	17.141	(0.978)	267822	10.0000	7.506
*	59 Phenanthrene-d10	188	17.528	17.528	(1.000)	844952	4.00000	
	60 Phenanthrene	178	17.575	17.575	(1.003)	906724	5.00000	4.773
	61 Anthracene	178	17.683	17.683	(1.009)	974655	5.00000	4.816
	62 Carbazole	167	18.039	18.039	(1.029)	540646	5.00000	3.669
	63 Di-n-butylphthalate	149	18.812	18.812	(1.073)	1080852	5.00000	5.028
	64 Fluoranthene	202	19.996	19.996	(1.141)	1204856	5.00000	4.927
	65 Pyrene	202	20.422	20.422	(0.902)	1214885	5.00000	5.322
$	66 Terphenyl-d14	244	20.755	20.755	(0.916)	677039	5.00000	5.021
	67 Butylbenzylphthalate	149	21.691	21.691	(0.958)	418963	5.00000	5.036
	68 Benzo(a)anthracene	228	22.636	22.636	(0.999)	1069849	5.00000	4.917
*	69 Chrysene-d12	240	22.651	22.651	(1.000)	822931	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.613	22.613	(0.998)	828309	10.0000	8.109
	71 Chrysene	228	22.698	22.698	(1.002)	910022	5.00000	4.846
	72 bis(2-Ethylhexyl)phthalate	149	22.729	22.729	(0.955)	560162	5.00000	4.935
*	134 Di-n-octylphthalate-d4	153	23.797	23.797	(1.000)	1059704	4.00000	
	73 Di-n-octylphthalate	149	23.805	23.805	(1.000)	1023129	5.00000	4.790

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	24.409	24.409	(0.974)	1077739	5.00000	5.022
75	Benzo(k)fluoranthene	252	24.455	24.455	(0.976)	1052915	5.00000	4.857
76	Benzo(a)pyrene	252	24.966	24.966	(0.996)	947781	5.00000	4.843
* 77	Perylene-d12	264	25.067	25.067	(1.000)	849828	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.253	27.253	(1.087)	1216695	5.00000	5.081
79	Dibenzo(a,h)anthracene	278	27.299	27.299	(1.089)	928990	5.00000	4.988
80	Benzo(g,h,i)perylene	276	27.905	27.905	(1.113)	1028762	5.00000	5.136
90	N-Nitrosodimethylamine	74	3.935	3.935	(0.468)	295684	10.0000	9.875
91	Aniline	93	7.813	7.813	(0.929)	705734	5.00000	4.720
93	Benzidine	184	20.298	20.298	(0.896)	133253	10.0000	4.215
103	Pyridine	79	3.989	3.989	(0.474)	201804	10.0000	7.299
105	1-methylnaphthalene	142	12.525	12.525	(1.152)	545052	5.00000	4.930
111	Azobenzene (1,2-DP-Hydrazine)	77	15.936	15.936	(1.102)	470920	5.00000	4.406
187	Total Benzofluoranthenes	252	24.455	24.455	(0.976)	2083946	10.0000	9.815
99	Perylene	252	25.121	25.121	(1.002)	891289	5.00000	4.954
98	Retene	219	21.002	21.002	(0.927)	480517	5.00000	5.277
120	2,3,4,6-Tetrachlorophenol	232	15.148	15.148	(1.048)	187384	5.00000	4.981

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0902a.d
Lab Smp Id: CC0902A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info:

Calibration Date: 02-SEP-2013
Calibration Time: 10:25

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	208898	36.65
27 Naphthalene-d8	536851	268426	1073702	726452	35.32
42 Acenaphthene-d10	348566	174283	697132	460626	32.15
59 Phenanthrene-d10	633376	316688	1266752	844952	33.40
69 Chrysene-d12	651036	325518	1302072	822931	26.40
134 Di-n-octylphthala	837259	418630	1674518	1059704	26.57
77 Perylene-d12	696727	348364	1393454	849828	21.97

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.41	0.00
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.00
42 Acenaphthene-d10	14.46	13.96	14.96	14.46	0.00
59 Phenanthrene-d10	17.53	17.03	18.03	17.53	0.00
69 Chrysene-d12	22.65	22.15	23.15	22.65	0.00
134 Di-n-octylphthala	23.80	23.30	24.30	23.80	0.00
77 Perylene-d12	25.07	24.57	25.57	25.07	0.00

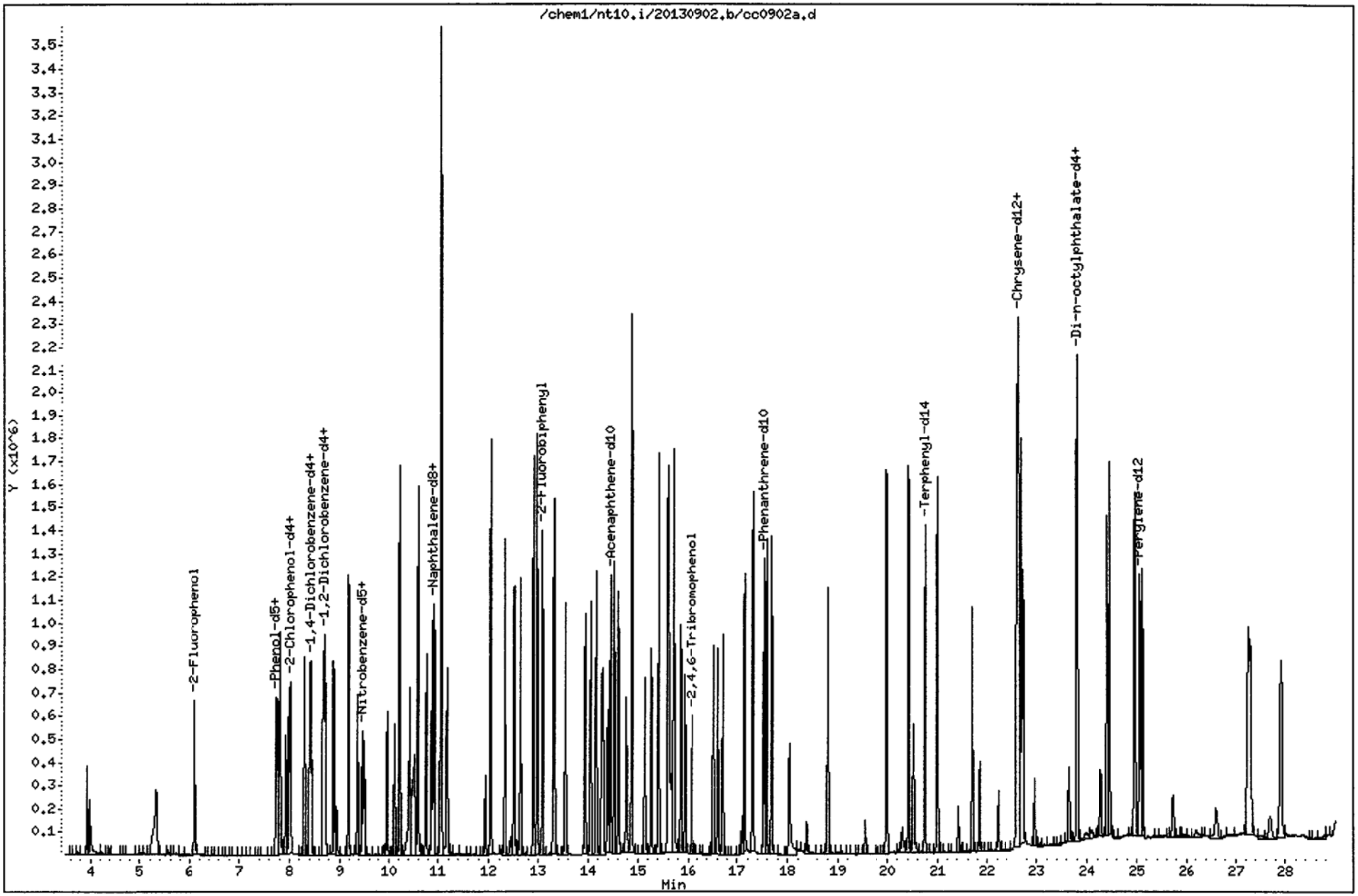
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130902.b/cc0902a.d
Date : 02-SEP-2013 12:23
Client ID:
Sample Info: CC0902A

Instrument: nt10.i

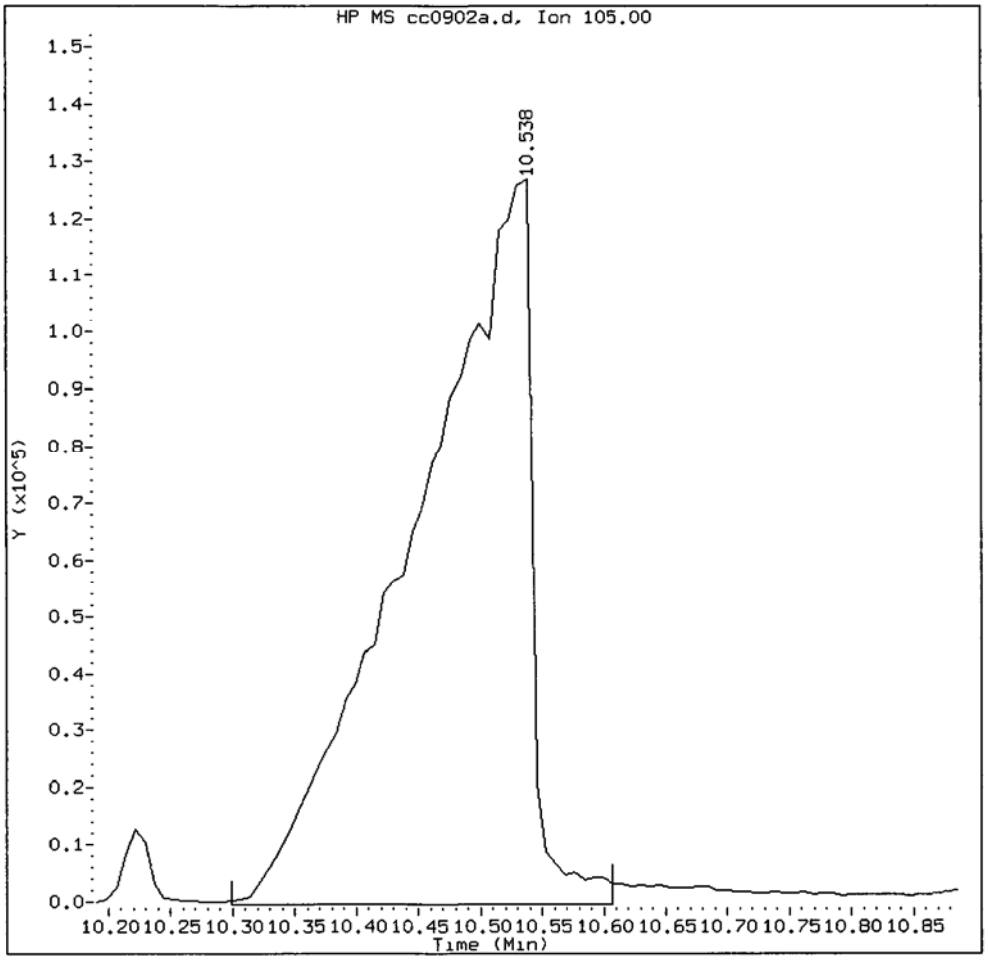
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CC0902A, /chem1/nt10.i/20130902.b/cc0902a.d

Benzoic acid Amount: 17.64 Area: 867224



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 9/5/13

XB89:00359

CO-ELUTION SUMMARY FOR FILE - cc0902a.d

Lab ID: CC0902A, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

XB89 00360

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 9/5/13

Data file : /chem1/nt10.i/20130902.b/xb89mb.d
Lab Smp Id: XB89MBS1 Client Smp ID: XB89MBS1
Inj Date : 02-SEP-2013 15:54
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89MBS1
Misc Info : 13-17439
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 02-Sep-2013 12:48 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.113	6.105	(0.726)	243800	7.09113	709.1
$	2	Phenol-d5	99	7.743	7.736	(0.920)	320428	7.12029	712.0
	3	Phenol	94	7.766	7.759	(0.923)	4926	0.11470 J	11.47(R)
$	5	2-Chlorophenol-d4	132	7.998	7.991	(0.950)	282075	7.66512	766.5
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.416	8.409	(1.000)	117053	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.703	8.696	(1.034)	99173	3.93928	393.9
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.464	9.464	(0.869)	132645	3.69275	369.3
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.885	10.877	(1.000)	425043	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.098	13.090	(0.905)	319384	3.83546	383.5
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.467	14.460	(1.000)	257750	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.410	15.411	(1.065)	89234	1.27267	127.3(R)
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	16.098	16.091	(1.113)	118128	7.07506	707.5
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.536	17.528	(1.000)	440104	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	Compound Not Detected.					
65	Pyrene	202	Compound Not Detected.					
$ 66	Terphenyl-d14	244	20.770	20.755	(0.917)	351857	5.09234	509.2
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	Compound Not Detected.					
* 69	Chrysene-d12	240	22.659	22.651	(1.000)	419922	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	Compound Not Detected.					
72	bis(2-Ethylhexyl)phthalate	149	22.736	22.729	(0.955)	9041	0.16811	16.81(R)
* 134	Di-n-octylphthalate-d4	153	23.797	23.797	(1.000)	508695	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	Compound Not Detected.					
* 77	Perylene-d12	264	25.074	25.067	(1.000)	443723	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	Compound Not Detected.					
99	Perylene	252	Compound Not Detected.					
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89mb.d
Lab Smp Id: XB89MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: XB89MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	117053	-23.43
27 Naphthalene-d8	536851	268426	1073702	425043	-20.83
42 Acenaphthene-d10	348566	174283	697132	257750	-26.05
59 Phenanthrene-d10	633376	316688	1266752	440104	-30.51
69 Chrysene-d12	651036	325518	1302072	419922	-35.50
134 Di-n-octylphthala	837259	418630	1674518	508695	-39.24
77 Perylene-d12	696727	348364	1393454	443723	-36.31

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.42	0.09
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.07
42 Acenaphthene-d10	14.46	13.96	14.96	14.47	0.05
59 Phenanthrene-d10	17.53	17.03	18.03	17.54	0.04
69 Chrysene-d12	22.65	22.15	23.15	22.66	0.03
134 Di-n-octylphthala	23.80	23.30	24.30	23.80	0.00
77 Perylene-d12	25.07	24.57	25.57	25.07	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43 3-Nitroaniline	1500	0.000	*	22-120
44 Acenaphthene	500.0	0.000	*	45-120
45 2,4-Dinitrophenol	2750	0.000	*	10-120
46 Dibenzofuran	500.0	0.000	*	43-120
47 4-Nitrophenol	1500	0.000	*	15-138
48 2,4-Dinitrotoluene	1500	0.000	*	35-127
49 Fluorene	500.0	0.000	*	45-120
50 Diethylphthalate	500.0	127.3	25.45*	50-120
51 4-Chlorophenyl-ph	500.0	0.000	*	32-120
52 4-Nitroaniline	1500	0.000	*	24-125
53 4,6-Dinitro-2-met	2750	0.000	*	24-120
54 N-Nitrosodiphenyl	500.0	0.000	*	36-120
56 4-Bromophenyl-phe	500.0	0.000	*	39-120
57 Hexachlorobenzene	500.0	0.000	*	33-120
58 Pentachlorophenol	1500	0.000	*	16-120
60 Phenanthrene	500.0	0.000	*	49-120
61 Anthracene	500.0	0.000	*	45-120
62 Carbazole	500.0	0.000	*	43-135
63 Di-n-butylphthala	500.0	0.000	*	48-126
64 Fluoranthene	500.0	0.000	*	53-120
65 Pyrene	500.0	0.000	*	48-121
67 Butylbenzylphthal	500.0	0.000	*	45-132
68 Benzo(a)anthracene	500.0	0.000	*	49-120
70 3,3'-Dichlorobenz	1500	0.000	*	10-120
71 Chrysene	500.0	0.000	*	47-120
72 bis(2-Ethylhexyl)p	500.0	16.81	3.36*	34-130
73 Di-n-octylphthala	500.0	0.000	*	28-124
74 Benzo(b)fluoranth	500.0	0.000	*	42-132
75 Benzo(k)fluoranth	500.0	0.000	*	39-129
76 Benzo(a)pyrene	500.0	0.000	*	42-120
78 Indeno(1,2,3-cd)p	500.0	0.000	*	42-120
79 Dibenzo(a,h)anthr	500.0	0.000	*	30-120
80 Benzo(g,h,i)peryl	500.0	0.000	*	38-126
91 Aniline	1500	0.000	*	10-134
111 Azobenzene (1,2-D	500.0	0.000	*	35-120
90 N-Nitrosodimethyl	1500	0.000	*	17-120
105 1-methylnaphthale	500.0	0.000	*	42-120
103 Pyridine	1000	0.000	*	10-147
187 Total Benzofluora	1000	0.000	*	30-160

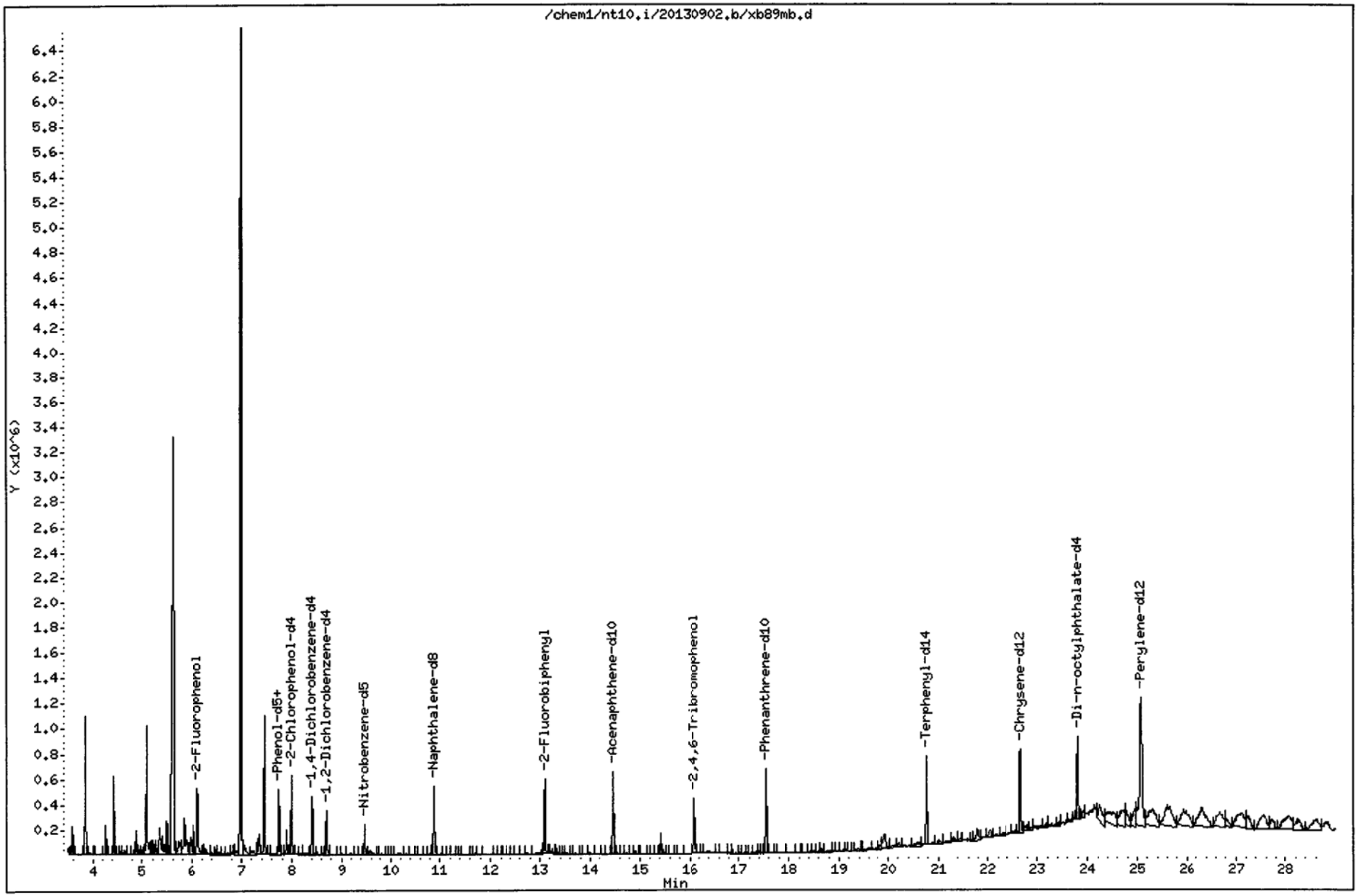
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	709.1	94.55	27-120

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	750.0	712.0	94.94	29-120
$ 5 2-Chlorophenol-d4	750.0	766.5	102.20	31-120
$ 10 1,2-Dichlorobenzen	500.0	393.9	78.79	32-120
$ 18 Nitrobenzene-d5	500.0	369.3	73.86	30-120
$ 36 2-Fluorobiphenyl	500.0	383.5	76.71	35-120
$ 55 2,4,6-Tribromophen	750.0	707.5	94.33	24-134
$ 66 Terphenyl-d14	500.0	509.2	101.85	37-120

Data File: /chem1/nt10.i/20130902.b/xb89mb.d
Date : 02-SEP-2013 15:54
Client ID: XB89MBS1
Sample Info: XB89MBS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



XB89:00367

Data File: /chem1/nt10.i/20130902.b/xb89mb.d

Date : 02-SEP-2013 15:54

Client ID: XB89MBS1

Instrument: nt10.i

Sample Info: XB89MBS1

Volume Injected (uL): 1.0

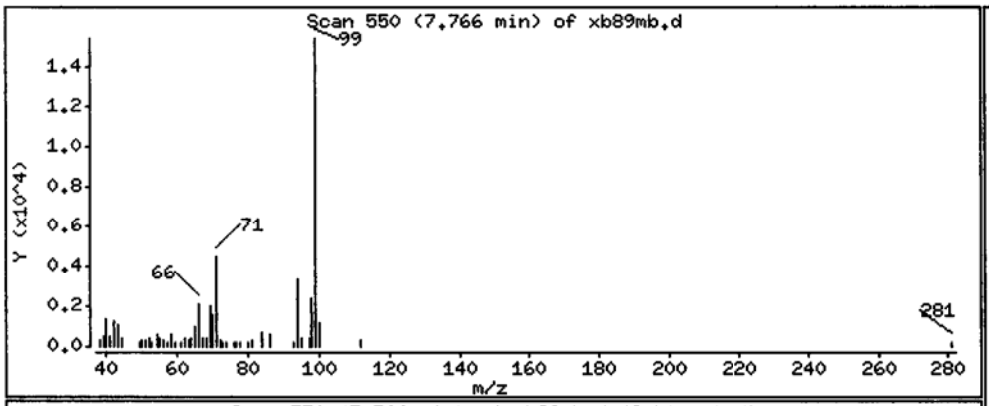
Operator: VTS/YZ

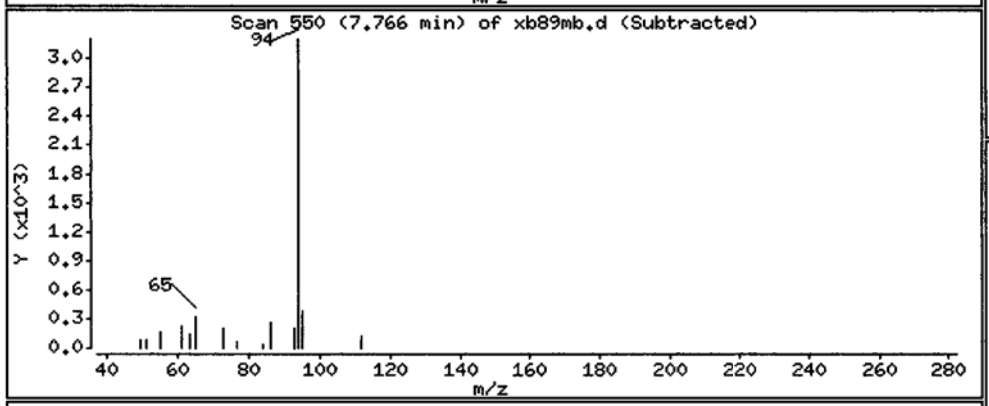
Column phase: ZB-5msi

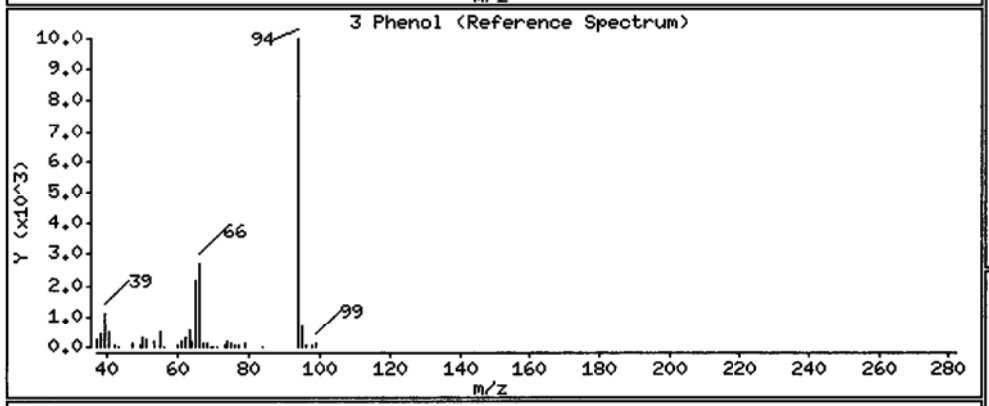
Column diameter: 0.25

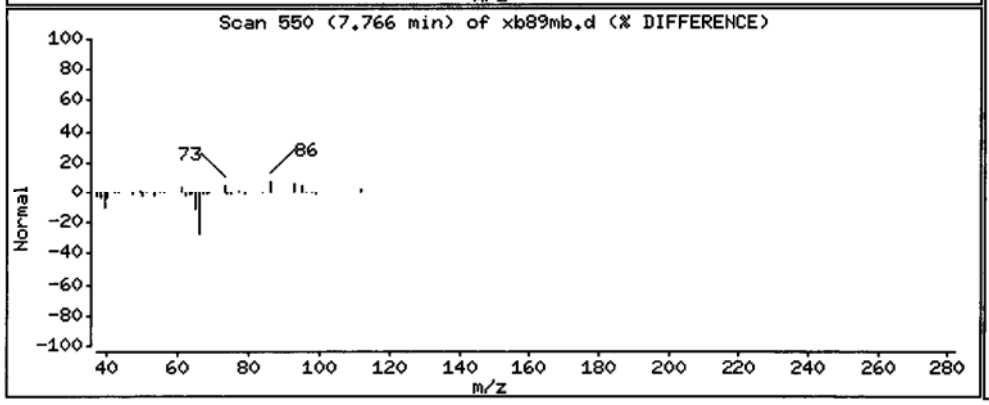
3 Phenol

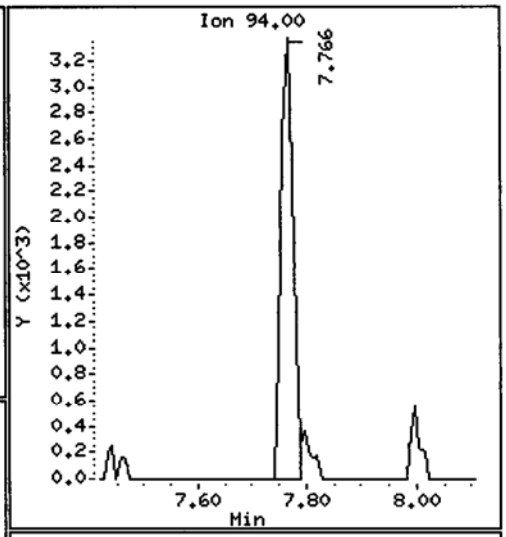
Concentration: 11.47 ug/kg

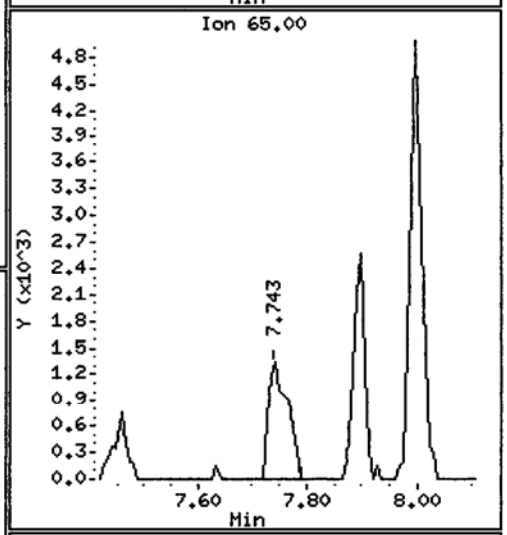


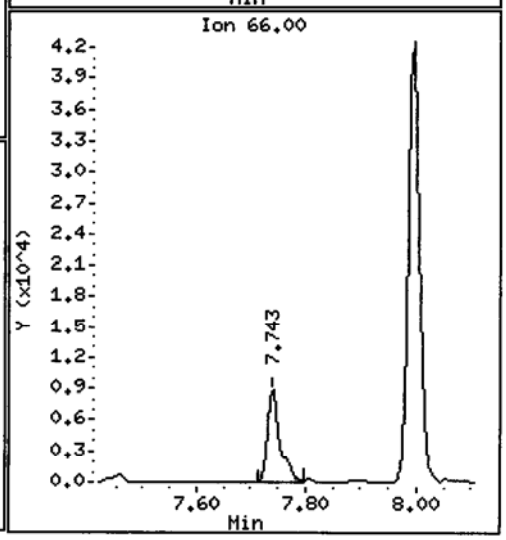












Data File: /chem1/nt10.i/20130902.b/xb89mb.d

Date : 02-SEP-2013 15:54

Client ID: XB89MBS1

Instrument: nt10.i

Sample Info: XB89MBS1

Volume Injected (uL): 1.0

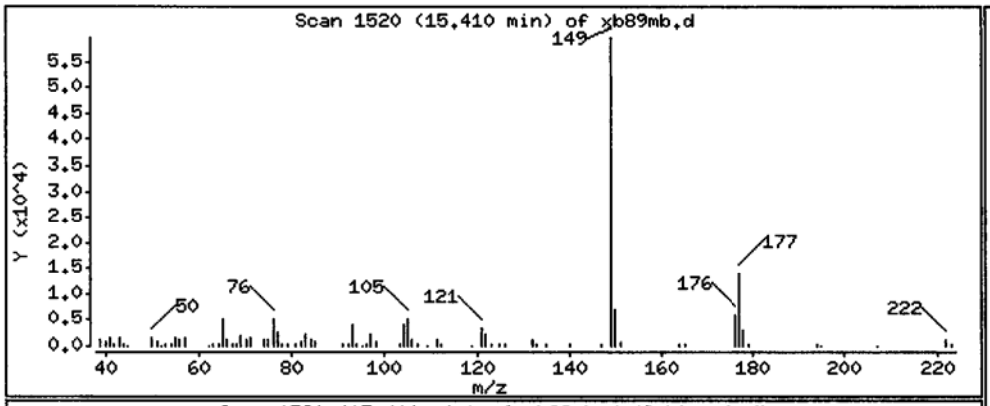
Operator: VTS/YZ

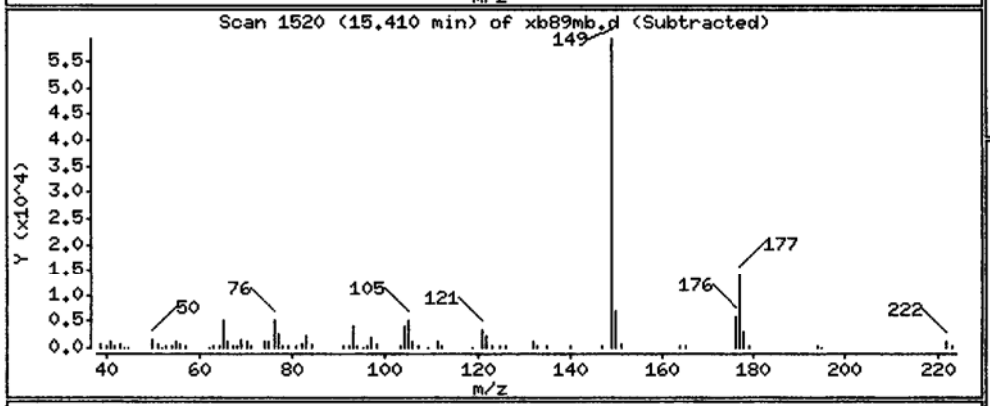
Column phase: ZB-5msi

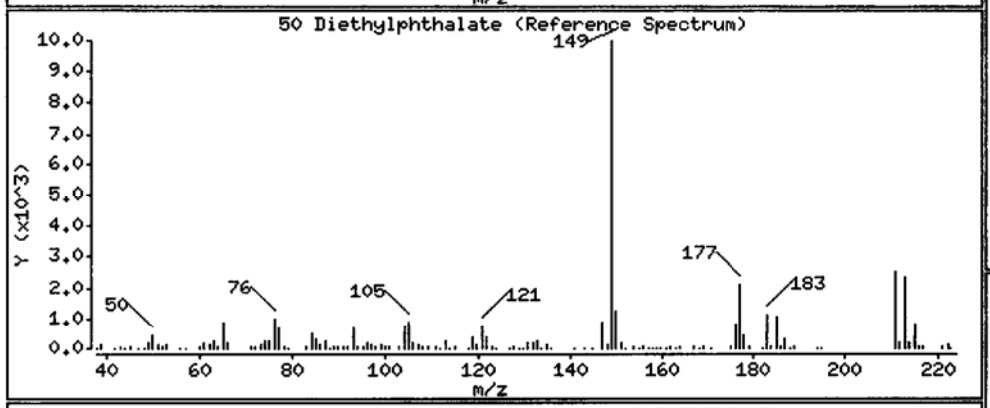
Column diameter: 0.25

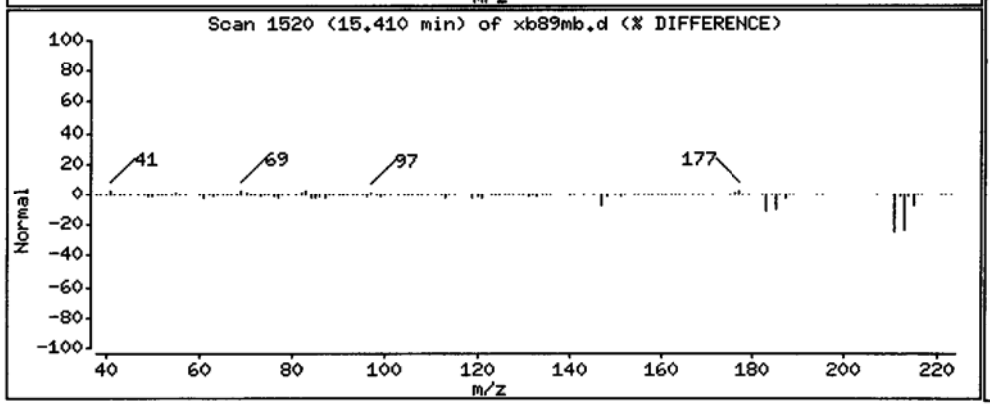
50 Diethylphthalate

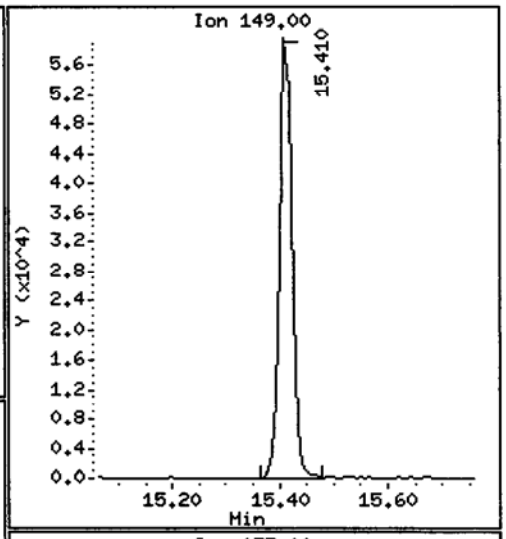
Concentration: 127.3 ug/kg

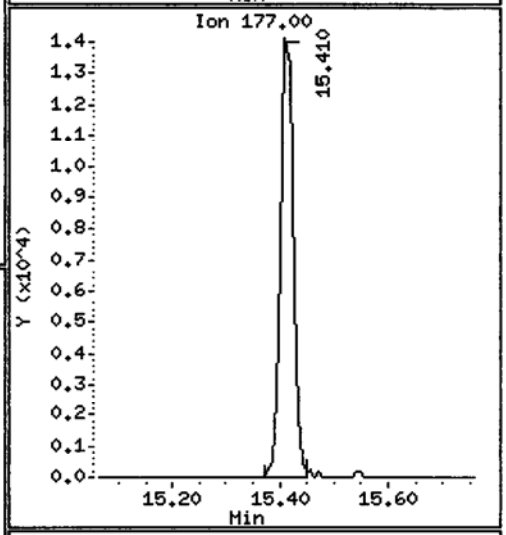


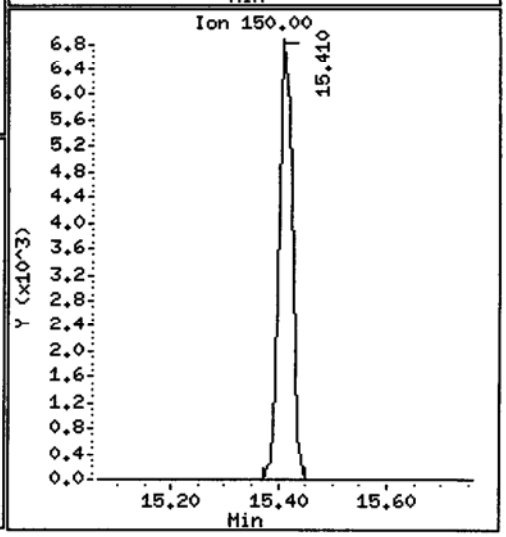












XB89 : 00369

Data File: /chem1/nt10.i/20130902.b/xb89mb.d

Date : 02-SEP-2013 15:54

Client ID: XB89MBS1

Instrument: nt10.i

Sample Info: XB89MBS1

Volume Injected (uL): 1.0

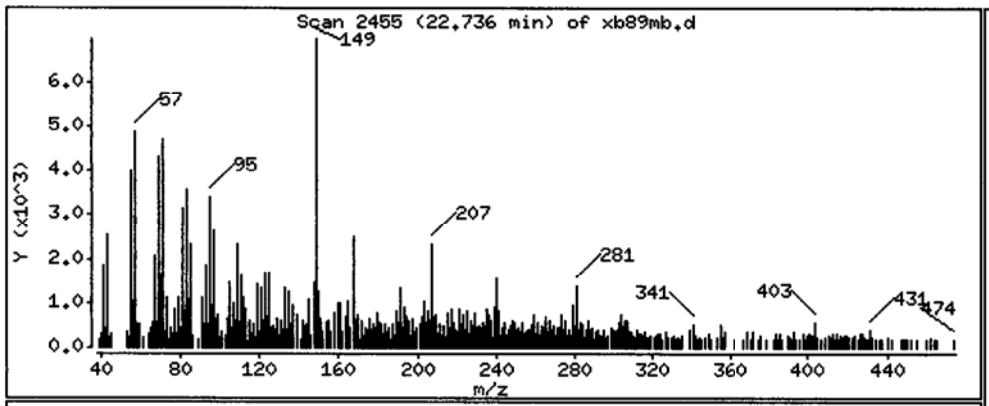
Operator: VTS/YZ

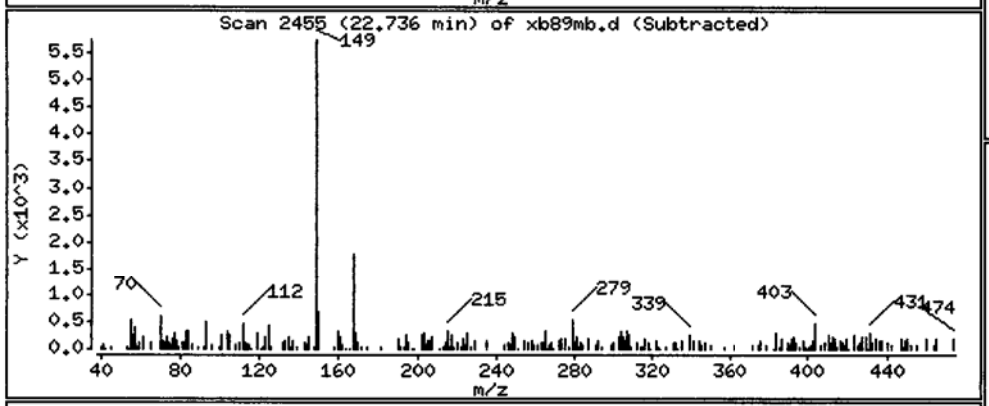
Column phase: ZB-5msi

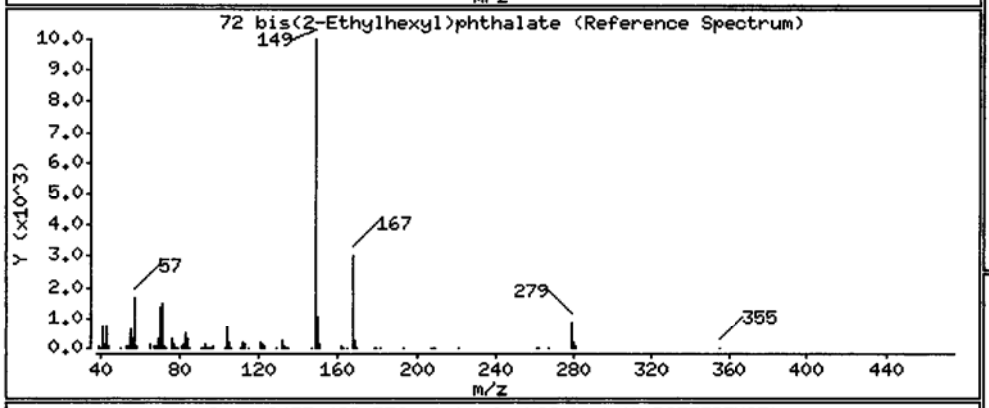
Column diameter: 0.25

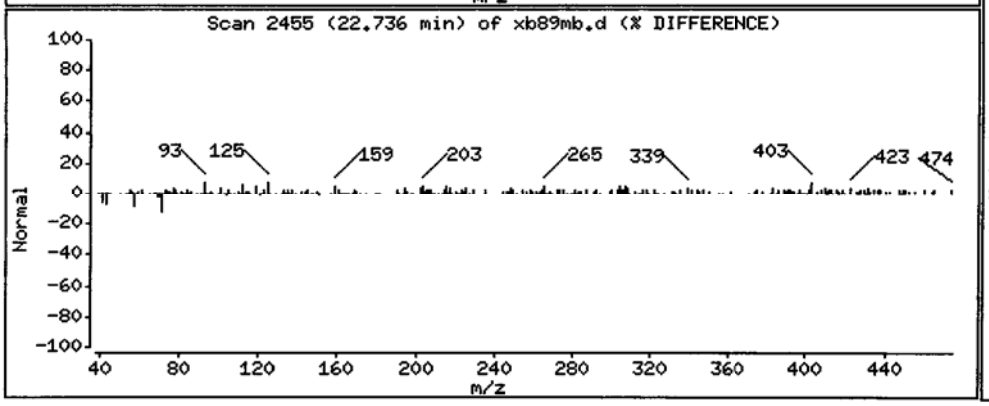
72 bis(2-Ethylhexyl)phthalate

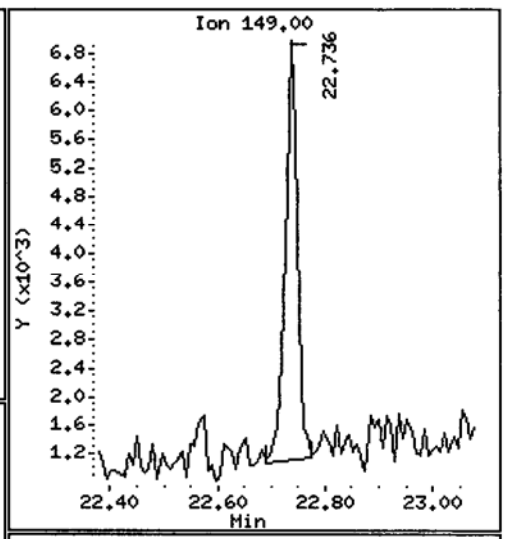
Concentration: 16.81 ug/kg

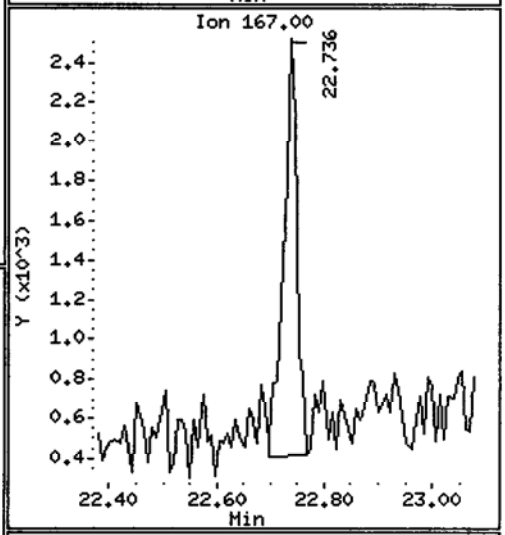


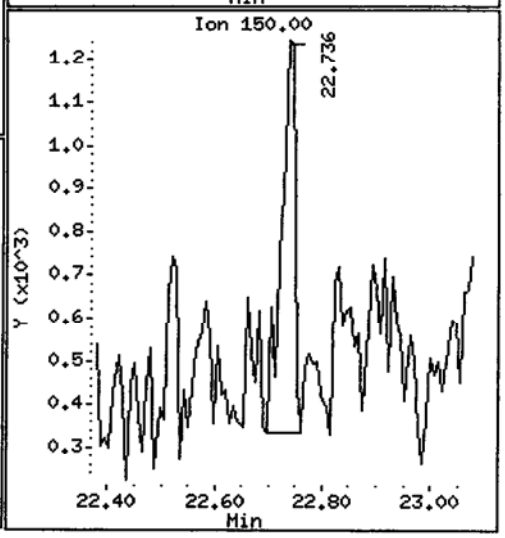












CO-ELUTION SUMMARY FOR FILE - xb89mb.d

Lab ID: XB89MBS1, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130902.b/xb89sb.d
Lab Smp Id: XB89LCSS1 Client Smp ID: XB89LCSS1
Inj Date : 02-SEP-2013 13:33
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89LCSS1
Misc Info : 13-17439
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 05-Sep-2013 15:20 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

YZ 9/7/13

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.105	6.105	(0.726)	229775	7.16507	716.5
$	2 Phenol-d5	99	7.736	7.736	(0.920)	304809	7.26157	726.2
	3 Phenol	94	7.759	7.759	(0.923)	168590	4.20876	420.9
$	5 2-Chlorophenol-d4	132	7.991	7.991	(0.950)	258760	7.53853	753.9
	4 Bis(2-Chloroethyl)ether	93	7.929	7.929	(0.943)	113784	3.93911	393.9
	6 2-Chlorophenol	128	8.021	8.021	(0.954)	124311	3.70211	370.2
	7 1,3-Dichlorobenzene	146	8.300	8.300	(0.987)	135411	3.85930	385.9
*	8 1,4-Dichlorobenzene-d4	152	8.409	8.409	(1.000)	109181	4.00000	
	9 1,4-Dichlorobenzene	146	8.440	8.440	(1.004)	134451	4.02500	402.5
$	10 1,2-Dichlorobenzene-d4	152	8.696	8.696	(1.034)	88809	3.78195	378.2
	12 1,2-Dichlorobenzene	146	8.727	8.719	(1.038)	131630	4.12294	412.3
	11 Benzyl alcohol	108	8.680	8.673	(1.032)	74361	3.80650	380.6
	14 2,2'-oxybis(1-Chloropropane)	121	8.929	8.929	(1.062)	40618	4.16954	417.0
	13 2-Methylphenol	108	8.882	8.882	(1.056)	104730	3.39740	339.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	9.363	9.363	(1.114)	53646	3.96337	396.3
	16 N-Nitroso-di-n-propylamine	70	9.177	9.185	(1.091)	71829	3.94311	394.3
	15 4-Methylphenol	108	9.185	9.177	(1.092)	232264	7.34792	734.8
$	18 Nitrobenzene-d5	82	9.464	9.464	(0.870)	122639	3.70725	370.7
	19 Nitrobenzene	77	9.495	9.495	(0.873)	115547	4.11839	411.8
	20 Isophorone	82	9.968	9.975	(0.916)	214836	4.08246	408.2
	21 2-Nitrophenol	139	10.122	10.122	(0.931)	73863	3.48682	348.7
	22 2,4-Dimethylphenol	107	10.222	10.222	(0.940)	311946	10.1633	1016
	23 Bis(2-Chloroethoxy)methane	93	10.414	10.415	(0.957)	137486	4.23162	423.2
	24 Benzoic acid	105	10.476	10.538	(0.963)	379744	16.2528	1625
	25 2,4-Dichlorophenol	162	10.599	10.599	(0.974)	384250	11.5726	1157
	26 1,2,4-Trichlorobenzene	180	10.761	10.761	(0.989)	128017	4.25511	425.5
*	27 Naphthalene-d8	136	10.877	10.877	(1.000)	391443	4.00000	
	28 Naphthalene	128	10.916	10.916	(1.004)	332510	3.87911	387.9
	29 4-Chloroaniline	127	10.916	11.047	(1.004)	43772	1.26237	126.2(R)
	30 Hexachlorobutadiene	225	11.179	11.179	(1.028)	79024	4.29095	429.1
	31 4-Chloro-3-methylphenol	107	12.038	12.038	(1.107)	361684	12.3712	1237
	32 2-Methylnaphthalene	142	12.324	12.324	(1.133)	247871	3.81385	381.4
	33 Hexachlorocyclopentadiene	237	12.649	12.649	(0.875)	176838	10.1486	1015
	34 2,4,6-Trichlorophenol	196	12.912	12.912	(0.893)	282222	11.4710	1147
	35 2,4,5-Trichlorophenol	196	12.982	12.974	(0.898)	308785	11.4715	1147
$	36 2-Fluorobiphenyl	172	13.090	13.090	(0.905)	299457	3.80756	380.8
	37 2-Chloronaphthalene	162	13.322	13.315	(0.921)	261965	4.33520	433.5
	38 2-Nitroaniline	65	13.547	13.547	(0.937)	188149	12.8817	1288
	39 Dimethylphthalate	163	13.942	13.942	(0.964)	323301	4.76838	476.8
	40 Acenaphthylene	152	14.166	14.166	(0.980)	454237	4.04554	404.6
	41 2,6-Dinitrotoluene	165	14.058	14.058	(0.972)	228642	14.2077	1421
*	42 Acenaphthene-d10	164	14.460	14.460	(1.000)	243439	4.00000	
	43 3-Nitroaniline	138	14.390	14.398	(0.995)	58937	4.35209	435.2
	44 Acenaphthene	153	14.530	14.522	(1.005)	239529	4.15005	415.0
	45 2,4-Dinitrophenol	184	14.615	14.615	(1.011)	168463	17.1126	1711
	46 Dibenzofuran	168	14.885	14.885	(1.029)	370511	4.17442	417.4
	47 4-Nitrophenol	109	14.769	14.777	(1.021)	99509	12.1456	1215
	48 2,4-Dinitrotoluene	165	14.885	14.885	(1.029)	324557	14.4931	1449
	50 Diethylphthalate	149	15.411	15.411	(1.066)	352503	5.32300	532.3
	49 Fluorene	166	15.596	15.597	(1.079)	294591	4.03814	403.8
	51 4-Chlorophenyl-phenylether	204	15.620	15.612	(1.080)	156423	4.28272	428.3
	52 4-Nitroaniline	138	15.651	15.658	(1.082)	109445	7.99218	799.2
	53 4,6-Dinitro-2-methylphenol	198	15.720	15.720	(0.897)	410769	26.8945	2689
	54 N-Nitrosodiphenylamine	169	15.859	15.859	(0.905)	146301	3.48429	348.4
$	55 2,4,6-Tribromophenol	330	16.091	16.091	(1.113)	132978	8.43268	843.3
	56 4-Bromophenyl-phenylether	248	16.623	16.623	(0.948)	79769	3.87612	387.6
	57 Hexachlorobenzene	284	16.723	16.715	(0.954)	124443	5.10483	510.5
	58 Pentachlorophenol	266	17.141	17.141	(0.978)	163936	12.2664	1227
*	59 Phenanthrene-d10	188	17.528	17.528	(1.000)	421642	4.00000	
	60 Phenanthrene	178	17.575	17.575	(1.003)	452953	5.00537	500.5
	61 Anthracene	178	17.683	17.683	(1.009)	437021	4.49272	449.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	18.039	18.039	(1.029)	404107	7.48931	748.9(R)
63	Di-n-butylphthalate	149	18.812	18.812	(1.073)	582665	5.40146	540.1
64	Fluoranthene	202	19.996	19.996	(1.141)	594246	4.94185	494.2
65	Pyrene	202	20.429	20.422	(0.902)	605577	4.65922	465.9
$ 66	Terphenyl-d14	244	20.762	20.755	(0.917)	361824	4.99532	499.5
67	Butylbenzylphthalate	149	21.699	21.691	(0.958)	240036	5.35525	535.5
68	Benzo(a)anthracene	228	22.636	22.636	(0.999)	553401	4.83500	483.5
* 69	Chrysene-d12	240	22.651	22.651	(1.000)	440204	4.00000	
70	3,3'-Dichlorobenzidine	252	22.613	22.613	(0.998)	9560	0.21576	21.58(R)
71	Chrysene	228	22.698	22.698	(1.002)	489346	5.02624	502.6
72	bis(2-Ethylhexyl)phthalate	149	22.737	22.729	(0.955)	340614	5.87786	587.8
* 134	Di-n-octylphthalate-d4	153	23.797	23.797	(1.000)	548131	4.00000	
73	Di-n-octylphthalate	149	23.813	23.805	(1.001)	611696	5.77930	577.9
74	Benzo(b)fluoranthene	252	24.409	24.409	(0.974)	561171	4.87200	487.2
75	Benzo(k)fluoranthene	252	24.455	24.455	(0.976)	575351	5.11288	511.3
76	Benzo(a)pyrene	252	24.966	24.966	(0.996)	481457	4.75308	475.3
* 77	Perylene-d12	264	25.067	25.067	(1.000)	454125	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.253	27.253	(1.087)	582429	4.47906	447.9
79	Dibenzo(a,h)anthracene	278	27.299	27.299	(1.089)	354993	3.57548	357.5
80	Benzo(g,h,i)perylene	276	27.897	27.905	(1.113)	438341	3.98678	398.7
90	N-Nitrosodimethylamine	74	3.951	3.935	(0.470)	161044	10.4209	1042
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	4.036	3.989	(0.480)	15962	1.51337	151.3
105	1-methylnaphthalene	142	12.525	12.525	(1.152)	239452	4.07651	407.7
111	Azobenzene (1,2-DP-Hydrazine)	77	15.944	15.936	(1.103)	220554	4.43094	443.1
187	Total Benzofluoranthenes	252	24.455	24.455	(0.976)	1111787	9.98368	998.4
99	Perylene	252	25.113	25.121	(1.002)	241147	2.53156	253.2
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	15.148	15.148	(1.048)	80937	4.08642	408.6

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89sb.d
Lab Smp Id: XB89LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: XB89LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	109181	-28.58
27 Naphthalene-d8	536851	268426	1073702	391443	-27.09
42 Acenaphthene-d10	348566	174283	697132	243439	-30.16
59 Phenanthrene-d10	633376	316688	1266752	421642	-33.43
69 Chrysene-d12	651036	325518	1302072	440204	-32.38
134 Di-n-octylphthala	837259	418630	1674518	548131	-34.53
77 Perylene-d12	696727	348364	1393454	454125	-34.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.41	0.00
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.00
42 Acenaphthene-d10	14.46	13.96	14.96	14.46	0.00
59 Phenanthrene-d10	17.53	17.03	18.03	17.53	0.00
69 Chrysene-d12	22.65	22.15	23.15	22.65	0.00
134 Di-n-octylphthala	23.80	23.30	24.30	23.80	0.00
77 Perylene-d12	25.07	24.57	25.57	25.07	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89LCSS1 Client Smp ID: XB89LCSS1
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	420.9	84.18	34-120
4	Bis(2-Chloroethyl)	500.0	393.9	78.78	36-120
6	2-Chlorophenol	500.0	370.2	74.04	39-120
7	1,3-Dichlorobenzen	500.0	385.9	77.19	40-120
9	1,4-Dichlorobenzen	500.0	402.5	80.50	39-120
11	Benzyl alcohol	500.0	380.6	76.13	19-120
12	1,2-Dichlorobenzen	500.0	412.3	82.46	32-120
13	2-Methylphenol	500.0	339.7	67.95	28-120
14	2,2'-oxybis(1-Chlo	500.0	417.0	83.39	32-120
15	4-Methylphenol	1000	734.8	73.48	29-120
16	N-Nitroso-di-n-pro	500.0	394.3	78.86	30-120
17	Hexachloroethane	500.0	396.3	79.27	38-120
19	Nitrobenzene	500.0	411.8	82.37	36-120
20	Isophorone	500.0	408.2	81.65	37-120
21	2-Nitrophenol	500.0	348.7	69.74	37-120
22	2,4-Dimethylphenol	1500	1016	67.76	10-120
23	Bis(2-Chloroethoxy	500.0	423.2	84.63	39-120
24	Benzoic acid	2750	1625	59.10	10-120
25	2,4-Dichlorophenol	1500	1157	77.15	28-120
26	1,2,4-Trichloroben	500.0	425.5	85.10	35-120
28	Naphthalene	500.0	387.9	77.58	43-120
29	4-Chloroaniline	1500	126.2	8.42*	11-120
30	Hexachlorobutadien	500.0	429.1	85.82	37-120
31	4-Chloro-3-methylp	1500	1237	82.47	32-120
32	2-Methylnaphthalen	500.0	381.4	76.28	43-120
33	Hexachlorocyclopen	1500	1015	67.66	10-120
34	2,4,6-Trichlorophe	1500	1147	76.47	30-120
35	2,4,5-Trichlorophe	1500	1147	76.48	28-120
37	2-Chloronaphthalen	500.0	433.5	86.70	40-120
38	2-Nitroaniline	1500	1288	85.88	31-126
39	Dimethylphthalate	500.0	476.8	95.37	43-120
40	Acenaphthylene	500.0	404.6	80.91	42-120
41	2,6-Dinitrotoluene	1500	1421	94.72	33-123

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43 3-Nitroaniline	1500	435.2	29.01	22-120
44 Acenaphthene	500.0	415.0	83.00	45-120
45 2,4-Dinitrophenol	2750	1711	62.23	10-120
46 Dibenzofuran	500.0	417.4	83.49	43-120
47 4-Nitrophenol	1500	1215	80.97	15-138
48 2,4-Dinitrotoluene	1500	1449	96.62	35-127
49 Fluorene	500.0	403.8	80.76	45-120
50 Diethylphthalate	500.0	532.3	106.46	50-120
51 4-Chlorophenyl-phe	500.0	428.3	85.65	32-120
52 4-Nitroaniline	1500	799.2	53.28	24-125
53 4,6-Dinitro-2-meth	2750	2689	97.80	24-120
54 N-Nitrosodiphenyla	500.0	348.4	69.69	36-120
56 4-Bromophenyl-phen	500.0	387.6	77.52	39-120
57 Hexachlorobenzene	500.0	510.5	102.10	33-120
58 Pentachlorophenol	1500	1227	81.78	16-120
60 Phenanthrene	500.0	500.5	100.11	49-120
61 Anthracene	500.0	449.3	89.85	45-120
62 Carbazole	500.0	748.9	149.79*	43-135
63 Di-n-butylphthalat	500.0	540.1	108.03	48-126
64 Fluoranthene	500.0	494.2	98.84	53-120
65 Pyrene	500.0	465.9	93.18	48-121
67 Butylbenzylphthala	500.0	535.5	107.11	45-132
68 Benzo(a)anthracene	500.0	483.5	96.70	49-120
70 3,3'-Dichlorobenzi	1500	21.58	1.44*	10-120
71 Chrysene	500.0	502.6	100.52	47-120
72 bis(2-Ethylhexyl)p	500.0	587.8	117.56	34-130
73 Di-n-octylphthalat	500.0	577.9	115.59	28-124
74 Benzo(b)fluoranthe	500.0	487.2	97.44	42-132
75 Benzo(k)fluoranthe	500.0	511.3	102.26	39-129
76 Benzo(a)pyrene	500.0	475.3	95.06	42-120
78 Indeno(1,2,3-cd)py	500.0	447.9	89.58	42-120
79 Dibenzo(a,h)anthra	500.0	357.5	71.51	30-120
80 Benzo(g,h,i)peryle	500.0	398.7	79.74	38-126
91 Aniline	1500	0.000	*	10-134
111 Azobenzene (1,2-DP	500.0	443.1	88.62	35-120
90 N-Nitrosodimethyla	1500	1042	69.47	17-120
105 1-methylnaphthalen	500.0	407.7	81.53	42-120
103 Pyridine	1000	151.3	15.13	10-147
187 Total Benzofluoran	1000	998.4	99.84	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	716.5	95.53	27-120

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	750.0	726.2	96.82	29-120
$ 5 2-Chlorophenol-d4	750.0	753.9	100.51	31-120
$ 10 1,2-Dichlorobenzen	500.0	378.2	75.64	32-120
$ 18 Nitrobenzene-d5	500.0	370.7	74.15	30-120
$ 36 2-Fluorobiphenyl	500.0	380.8	76.15	35-120
$ 55 2,4,6-Tribromophen	750.0	843.3	112.44	24-134
$ 66 Terphenyl-d14	500.0	499.5	99.91	37-120

Data File: /chem1/nt10.i/20130902.b/xb89sb.d

Date : 02-SEP-2013 13:33

Client ID: XB89LCSS1

Sample Info: XB89LCSS1

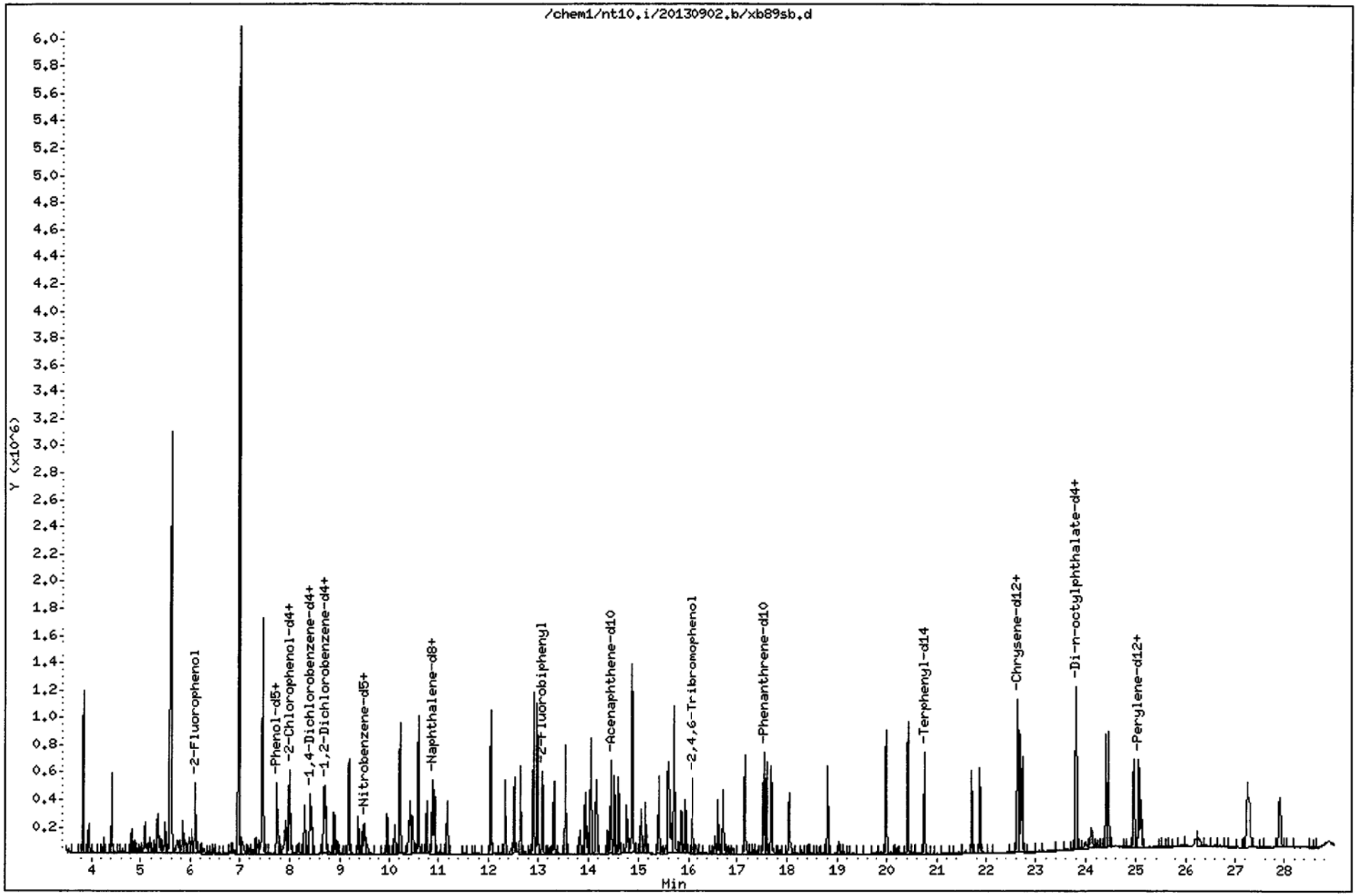
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25



XB89:00379

CO-ELUTION SUMMARY FOR FILE - xb89sb.d

Lab ID: XB89LCSS1, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 9/5/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130902.b/xb89sbd.d
Lab Smp Id: XB89LCSDS1 Client Smp ID: XB89LCSDS1
Inj Date : 02-SEP-2013 14:09
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89LCSDS1
Misc Info : 13-17439
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 05-Sep-2013 15:20 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 6 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.105	6.105	(0.726)	223795	6.78471	678.5
$	2 Phenol-d5	99	7.736	7.736	(0.920)	304358	7.04937	704.9
	3 Phenol	94	7.759	7.759	(0.923)	163265	3.96259	396.3
$	5 2-Chlorophenol-d4	132	7.991	7.991	(0.950)	247152	7.00031	700.0
	4 Bis(2-Chloroethyl)ether	93	7.929	7.929	(0.943)	114158	3.84226	384.2
	6 2-Chlorophenol	128	8.021	8.021	(0.954)	126026	3.64891	364.9
	7 1,3-Dichlorobenzene	146	8.300	8.300	(0.987)	137441	3.80833	380.8
*	8 1,4-Dichlorobenzene-d4	152	8.409	8.409	(1.000)	112301	4.00000	
	9 1,4-Dichlorobenzene	146	8.440	8.440	(1.004)	133716	3.89179	389.2
$	10 1,2-Dichlorobenzene-d4	152	8.696	8.696	(1.034)	85646	3.54592	354.6
	12 1,2-Dichlorobenzene	146	8.727	8.719	(1.038)	131361	4.00021	400.0
	11 Benzyl alcohol	108	8.680	8.673	(1.032)	69628	3.46520	346.5
	14 2,2'-oxybis(1-Chloropropane)	121	8.929	8.929	(1.062)	39935	3.98553	398.6
	13 2-Methylphenol	108	8.882	8.882	(1.056)	110035	3.47032	347.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	9.363	9.363	(1.114)	51856	3.72469	372.5
	16 N-Nitroso-di-n-propylamine	70	9.177	9.185	(1.091)	70793	3.77827	377.8
	15 4-Methylphenol	108	9.185	9.177	(1.092)	233926	7.19490	719.5
$	18 Nitrobenzene-d5	82	9.464	9.464	(0.870)	119100	3.52777	352.8
	19 Nitrobenzene	77	9.495	9.495	(0.873)	114984	4.01579	401.6
	20 Isophorone	82	9.967	9.975	(0.916)	209074	3.89295	389.3
	21 2-Nitrophenol	139	10.122	10.122	(0.931)	74511	3.44657	344.7
	22 2,4-Dimethylphenol	107	10.222	10.222	(0.940)	293579	9.37231	937.2
	23 Bis(2-Chloroethoxy)methane	93	10.414	10.415	(0.957)	136251	4.10916	410.9
	24 Benzoic acid	105	10.476	10.538	(0.963)	383203	16.0705	1607
	25 2,4-Dichlorophenol	162	10.599	10.599	(0.974)	383873	11.3284	1133
	26 1,2,4-Trichlorobenzene	180	10.761	10.761	(0.989)	126408	4.11701	411.7
*	27 Naphthalene-d8	136	10.877	10.877	(1.000)	399488	4.00000	
	28 Naphthalene	128	10.916	10.916	(1.004)	333156	3.80838	380.8
	29 4-Chloroaniline	127	11.070	11.047	(1.018)	11564	0.32679	32.68(R)
	30 Hexachlorobutadiene	225	11.179	11.179	(1.028)	78030	4.15165	415.2
	31 4-Chloro-3-methylphenol	107	12.045	12.038	(1.107)	356367	11.9439	1194
	32 2-Methylnaphthalene	142	12.324	12.324	(1.133)	246695	3.71931	371.9
	33 Hexachlorocyclopentadiene	237	12.649	12.649	(0.875)	174805	9.59150	959.1
	34 2,4,6-Trichlorophenol	196	12.912	12.912	(0.893)	284305	11.0483	1105
	35 2,4,5-Trichlorophenol	196	12.982	12.974	(0.898)	312811	11.1108	1111
$	36 2-Fluorobiphenyl	172	13.090	13.090	(0.905)	292107	3.55104	355.1
	37 2-Chloronaphthalene	162	13.322	13.315	(0.921)	255523	4.04293	404.3
	38 2-Nitroaniline	65	13.547	13.547	(0.937)	198433	12.9893	1299
	39 Dimethylphthalate	163	13.942	13.942	(0.964)	326402	4.60275	460.3
	40 Acenaphthylene	152	14.166	14.166	(0.980)	454996	3.87438	387.4
	41 2,6-Dinitrotoluene	165	14.058	14.058	(0.972)	224870	13.3598	1336
*	42 Acenaphthene-d10	164	14.460	14.460	(1.000)	254618	4.00000	
	43 3-Nitroaniline	138	14.398	14.398	(0.996)	73781	5.20901	520.9
	44 Acenaphthene	153	14.529	14.522	(1.005)	241164	3.99492	399.5
	45 2,4-Dinitrophenol	184	14.614	14.615	(1.011)	171127	16.6200	1662
	46 Dibenzofuran	168	14.893	14.885	(1.030)	368510	3.96959	397.0
	47 4-Nitrophenol	109	14.777	14.777	(1.022)	95637	11.1605	1116
	48 2,4-Dinitrotoluene	165	14.885	14.885	(1.029)	327137	13.9669	1397
	50 Diethylphthalate	149	15.411	15.411	(1.066)	353209	5.09949	509.9
	49 Fluorene	166	15.596	15.597	(1.079)	298115	3.90703	390.7
	51 4-Chlorophenyl-phenylether	204	15.620	15.612	(1.080)	161260	4.22130	422.1
	52 4-Nitroaniline	138	15.658	15.658	(1.083)	127316	8.88900	888.9
	53 4,6-Dinitro-2-methylphenol	198	15.720	15.720	(0.897)	430472	27.1811	2718
	54 N-Nitrosodiphenylamine	169	15.859	15.859	(0.905)	183294	4.20989	421.0
$	55 2,4,6-Tribromophenol	330	16.090	16.091	(1.113)	126779	7.68660	768.7
	56 4-Bromophenyl-phenylether	248	16.622	16.623	(0.948)	76855	3.60156	360.2
	57 Hexachlorobenzene	284	16.723	16.715	(0.954)	126129	4.98979	499.0
	58 Pentachlorophenol	266	17.149	17.141	(0.978)	166952	12.0473	1205
*	59 Phenanthrene-d10	188	17.528	17.528	(1.000)	437208	4.00000	
	60 Phenanthrene	178	17.574	17.575	(1.003)	447124	4.76504	476.5
	61 Anthracene	178	17.683	17.683	(1.009)	437792	4.34041	434.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	18.046	18.039	(1.030)	407994	7.29214	729.2(R)
63	Di-n-butylphthalate	149	18.812	18.812	(1.073)	569558	5.09197	509.2
64	Fluoranthene	202	19.996	19.996	(1.141)	588671	4.72119	472.1
65	Pyrene	202	20.429	20.422	(0.902)	600494	4.39508	439.5
$ 66	Terphenyl-d14	244	20.762	20.755	(0.916)	346388	4.54928	454.9
67	Butylbenzylphthalate	149	21.699	21.691	(0.958)	241072	5.11640	511.6
68	Benzo(a)anthracene	228	22.636	22.636	(0.999)	551827	4.58642	458.6
* 69	Chrysene-d12	240	22.659	22.651	(1.000)	462743	4.00000	
70	3,3'-Dichlorobenzidine	252	22.628	22.613	(0.999)	5306	0.11392	11.39(R)
71	Chrysene	228	22.698	22.698	(1.002)	474347	4.63487	463.5
72	bis(2-Ethylhexyl)phthalate	149	22.737	22.729	(0.955)	331418	5.43542	543.5
* 134	Di-n-octylphthalate-d4	153	23.797	23.797	(1.000)	576745	4.00000	
73	Di-n-octylphthalate	149	23.813	23.805	(1.001)	575270	5.16550	516.5
74	Benzo(b)fluoranthene	252	24.409	24.409	(0.974)	558282	4.49805	449.8
75	Benzo(k)fluoranthene	252	24.455	24.455	(0.976)	566677	4.67333	467.3
76	Benzo(a)pyrene	252	24.966	24.966	(0.996)	477128	4.37130	437.1
* 77	Perylene-d12	264	25.067	25.067	(1.000)	489347	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.253	27.253	(1.087)	586038	4.18243	418.2
79	Dibenzo(a,h)anthracene	278	27.299	27.299	(1.089)	352168	3.29172	329.2
80	Benzo(g,h,i)perylene	276	27.905	27.905	(1.113)	426150	3.59693	359.7
90	N-Nitrosodimethylamine	74	3.951	3.935	(0.470)	166443	10.4710	1047
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	4.020	3.989	(0.478)	16310	1.50340	150.3
105	1-methylnaphthalene	142	12.525	12.525	(1.152)	243409	4.06043	406.0
111	Azobenzene (1,2-DP-Hydrazine)	77	15.944	15.936	(1.103)	222704	4.27770	427.8
187	Total Benzofluoranthenes	252	24.409	24.455	(0.974)	1101364	9.17822	917.8
99	Perylene	252	25.113	25.121	(1.002)	238619	2.32472	232.5
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	15.148	15.148	(1.048)	87226	4.21059	421.1

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89sbd.d
Lab Smp Id: XB89LCSDS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: XB89LCSDS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	112301	-26.54
27 Naphthalene-d8	536851	268426	1073702	399488	-25.59
42 Acenaphthene-d10	348566	174283	697132	254618	-26.95
59 Phenanthrene-d10	633376	316688	1266752	437208	-30.97
69 Chrysene-d12	651036	325518	1302072	462743	-28.92
134 Di-n-octylphthala	837259	418630	1674518	576745	-31.12
77 Perylene-d12	696727	348364	1393454	489347	-29.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.41	0.00
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.00
42 Acenaphthene-d10	14.46	13.96	14.96	14.46	0.00
59 Phenanthrene-d10	17.53	17.03	18.03	17.53	0.00
69 Chrysene-d12	22.65	22.15	23.15	22.66	0.03
134 Di-n-octylphthala	23.80	23.30	24.30	23.80	0.00
77 Perylene-d12	25.07	24.57	25.57	25.07	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89LCSDS1 Client Smp ID: XB89LCSDS1
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: LCSD
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	396.3	79.25	34-120
4	Bis(2-Chloroethyl)	500.0	384.2	76.85	36-120
6	2-Chlorophenol	500.0	364.9	72.98	39-120
7	1,3-Dichlorobenzen	500.0	380.8	76.17	40-120
9	1,4-Dichlorobenzen	500.0	389.2	77.84	39-120
11	Benzyl alcohol	500.0	346.5	69.30	19-120
12	1,2-Dichlorobenzen	500.0	400.0	80.00	32-120
13	2-Methylphenol	500.0	347.0	69.41	28-120
14	2,2'-oxybis(1-Chlo	500.0	398.6	79.71	32-120
15	4-Methylphenol	1000	719.5	71.95	29-120
16	N-Nitroso-di-n-pro	500.0	377.8	75.57	30-120
17	Hexachloroethane	500.0	372.5	74.49	38-120
19	Nitrobenzene	500.0	401.6	80.32	36-120
20	Isophorone	500.0	389.3	77.86	37-120
21	2-Nitrophenol	500.0	344.7	68.93	37-120
22	2,4-Dimethylphenol	1500	937.2	62.48	10-120
23	Bis(2-Chloroethoxy	500.0	410.9	82.18	39-120
24	Benzoic acid	2750	1607	58.44	10-120
25	2,4-Dichlorophenol	1500	1133	75.52	28-120
26	1,2,4-Trichloroben	500.0	411.7	82.34	35-120
28	Naphthalene	500.0	380.8	76.17	43-120
29	4-Chloroaniline	1500	32.68	2.18*	11-120
30	Hexachlorobutadien	500.0	415.2	83.03	37-120
31	4-Chloro-3-methylp	1500	1194	79.63	32-120
32	2-Methylnaphthalen	500.0	371.9	74.39	43-120
33	Hexachlorocyclopen	1500	959.1	63.94	10-120
34	2,4,6-Trichlorophe	1500	1105	73.66	30-120
35	2,4,5-Trichlorophe	1500	1111	74.07	28-120
37	2-Chloronaphthalen	500.0	404.3	80.86	40-120
38	2-Nitroaniline	1500	1299	86.60	31-126
39	Dimethylphthalate	500.0	460.3	92.05	43-120
40	Acenaphthylene	500.0	387.4	77.49	42-120
41	2,6-Dinitrotoluene	1500	1336	89.07	33-123

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43 3-Nitroaniline	1500	520.9	34.73	22-120
44 Acenaphthene	500.0	399.5	79.90	45-120
45 2,4-Dinitrophenol	2750	1662	60.44	10-120
46 Dibenzofuran	500.0	397.0	79.39	43-120
47 4-Nitrophenol	1500	1116	74.40	15-138
48 2,4-Dinitrotoluene	1500	1397	93.11	35-127
49 Fluorene	500.0	390.7	78.14	45-120
50 Diethylphthalate	500.0	509.9	101.99	50-120
51 4-Chlorophenyl-phe	500.0	422.1	84.43	32-120
52 4-Nitroaniline	1500	888.9	59.26	24-125
53 4,6-Dinitro-2-meth	2750	2718	98.84	24-120
54 N-Nitrosodiphenyla	500.0	421.0	84.20	36-120
56 4-Bromophenyl-phen	500.0	360.2	72.03	39-120
57 Hexachlorobenzene	500.0	499.0	99.80	33-120
58 Pentachlorophenol	1500	1205	80.32	16-120
60 Phenanthrene	500.0	476.5	95.30	49-120
61 Anthracene	500.0	434.0	86.81	45-120
62 Carbazole	500.0	729.2	145.84*	43-135
63 Di-n-butylphthalat	500.0	509.2	101.84	48-126
64 Fluoranthene	500.0	472.1	94.42	53-120
65 Pyrene	500.0	439.5	87.90	48-121
67 Butylbenzylphthala	500.0	511.6	102.33	45-132
68 Benzo(a)anthracene	500.0	458.6	91.73	49-120
70 3,3'-Dichlorobenzi	1500	11.39	0.76*	10-120
71 Chrysene	500.0	463.5	92.70	47-120
72 bis(2-Ethylhexyl)p	500.0	543.5	108.71	34-130
73 Di-n-octylphthalat	500.0	516.5	103.31	28-124
74 Benzo(b)fluoranthe	500.0	449.8	89.96	42-132
75 Benzo(k)fluoranthe	500.0	467.3	93.47	39-129
76 Benzo(a)pyrene	500.0	437.1	87.43	42-120
78 Indeno(1,2,3-cd)py	500.0	418.2	83.65	42-120
79 Dibenzo(a,h)anthra	500.0	329.2	65.83	30-120
80 Benzo(g,h,i)peryle	500.0	359.7	71.94	38-126
91 Aniline	1500	0.000	*	10-134
111 Azobenzene (1,2-DP	500.0	427.8	85.55	35-120
90 N-Nitrosodimethyla	1500	1047	69.81	17-120
105 1-methylnaphthalen	500.0	406.0	81.21	42-120
103 Pyridine	1000	150.3	15.03	10-147
187 Total Benzofluoran	1000	917.8	91.78	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	678.5	90.46	27-120

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	750.0	704.9	93.99	29-120
$ 5 2-Chlorophenol-d4	750.0	700.0	93.34	31-120
$ 10 1,2-Dichlorobenzen	500.0	354.6	70.92	32-120
$ 18 Nitrobenzene-d5	500.0	352.8	70.56	30-120
$ 36 2-Fluorobiphenyl	500.0	355.1	71.02	35-120
$ 55 2,4,6-Tribromophen	750.0	768.7	102.49	24-134
$ 66 Terphenyl-d14	500.0	454.9	90.99	37-120

Data File: /chem1/nt10.i/20130902.b/xb89sbd.d

Date : 02-SEP-2013 14:09

Client ID: XB89LCSDS1

Sample Info: XB89LCSDS1

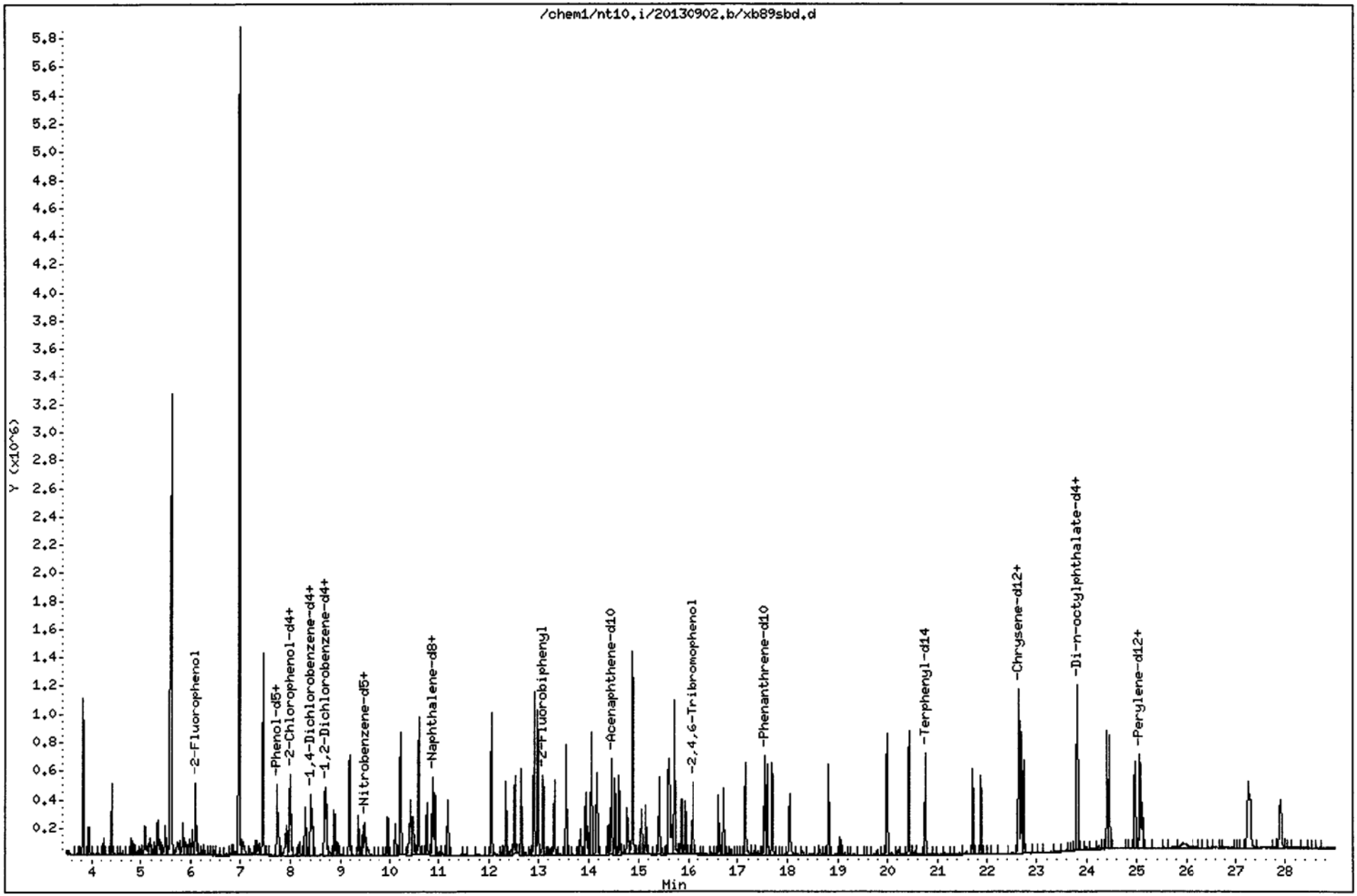
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25



XB89 : 00368

CO-ELUTION SUMMARY FOR FILE - xb89sbd.d

Lab ID: XB89LCSDS1, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130902.b/xb89a.d
Lab Smp Id: XB89A Client Smp ID: IJ13-SS-102
Inj Date : 02-SEP-2013 14:44
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89A
Misc Info : 13-17436
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 02-Sep-2013 12:48 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 7
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	21.30000	Weight of sample extracted (g)
M	52.30000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.121	6.105	(0.727)	91010	2.79259	824.6
$ 2	Phenol-d5	99	7.744	7.736	(0.920)	127448	2.98769	882.2
3	Phenol	94	7.774	7.759	(0.924)	47990	1.17889	348.1
$ 5	2-Chlorophenol-d4	132	7.998	7.991	(0.950)	104308	2.99025	882.9
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.416	8.409	(1.000)	110955	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.696	8.696	(1.033)	33309	1.39579	412.1
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	8.688	8.673	(1.032)	3909	0.19690	58.14
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	8.898	8.882	(1.057)	12812	0.40897	120.8
17	Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.200	9.177	(1.093)	133477	4.15517	1227
$	18 Nitrobenzene-d5	82	9.472	9.464	(0.871)	47817	1.41635	418.2
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.230	10.222	(0.940)	22505	0.71846	212.1
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	10.415	10.538	(0.957)	65937	2.76523	816.5(H)
	25 2,4 Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.877	10.877	(1.000)	399487	4.00000	
	28 Naphthalene	128	10.924	10.916	(1.004)	532203	6.08374	1796
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.332	12.324	(1.134)	195263	2.94390	869.3
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.098	13.090	(0.905)	123893	1.57673	465.6
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	13.949	13.942	(0.964)	28312	0.41796	123.4
	40 Acenaphthylene	152	14.174	14.166	(0.980)	65914	0.58758	173.5
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.468	14.460	(1.000)	243216	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.537	14.522	(1.005)	402270	6.97607	2060
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.893	14.885	(1.029)	586494	6.61389	1953
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.419	15.411	(1.066)	12850	0.19422 J	57.35
	49 Fluorene	166	15.604	15.597	(1.079)	437275	5.99949	1771
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	15.882	15.859	(0.905)	28973	0.70023	206.8
$	55 2,4,6-Tribromophenol	330	16.114	16.091	(1.114)	51967	3.29846	973.9
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.551	17.528	(1.000)	415491	4.00000	
	60 Phenanthrene	178	17.606	17.575	(1.003)	2219242	24.8869 E	7348
	61 Anthracene	178	17.698	17.683	(1.008)	400736	4.18069	1234
	62 Carbazole	167	18.054	18.039	(1.029)	76283	1.43468	423.6

B2RL 9/6/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
63	Di-n-butylphthalate	149	~~18.766~~	~~18.812~~	~~(1.069)~~	~~19402~~	~~0.10252~~	~~53.89~~
64	Fluoranthene	202	20.043	19.996	(1.142)	4290724	36.2106	10690
65	Pyrene	202	20.476	20.422	(0.903)	3391436	27.6291	8158
$ 66	Terphenyl-d14	244	20.786	20.755	(0.916)	119996	1.75417	518.0
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	22.667	22.636	(0.999)	851743	7.87960	2327
* 69	Chrysene-d12	240	22.682	22.651	(1.000)	415734	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.729	22.698	(1.002)	1057330	11.4994	3395
72	bis(2-Ethylhexyl)phthalate	149	22.752	22.729	(0.955)	255774	4.74186	1400
* 134	Di-n-octylphthalate-d4	153	23.813	23.797	(1.000)	510210	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	24.432	24.409	(0.973)	605344	5.26600	1555
75	Benzo(k)fluoranthene	252	24.479	24.455	(0.975)	273872	2.43863	720.1(M)
76	Benzo(a)pyrene	252	24.997	24.966	(0.996)	281017	2.77982	820.8
* 77	Perylene-d12	264	25.098	25.067	(1.000)	453220	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.307	27.253	(1.088)	119903	0.92393	272.8
79	Dibenzo(a,h)anthracene	278	27.346	27.299	(1.090)	29464	0.29735	87.80
80	Benzo(g,h,i)perylene	276	27.967	27.905	(1.114)	102867	0.93746	276.8
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	12.533	12.525	(1.152)	157044	2.61974	773.5
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	24.432	24.455	(0.973)	812975	7.31497	2160
99	Perylene	252	25.145	25.121	(1.002)	137024	1.44135	425.6
98	Retene	219	21.033	21.002	(0.927)	140988	2.90396	857.5
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89a.d
Lab Smp Id: XB89A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17436

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: IJ13-SS-102
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	110955	-27.42
27 Naphthalene-d8	536851	268426	1073702	399487	-25.59
42 Acenaphthene-d10	348566	174283	697132	243216	-30.22
59 Phenanthrene-d10	633376	316688	1266752	415491	-34.40
69 Chrysene-d12	651036	325518	1302072	415734	-36.14
134 Di-n-octylphthala	837259	418630	1674518	510210	-39.06
77 Perylene-d12	696727	348364	1393454	453220	-34.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.42	0.09
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.00
42 Acenaphthene-d10	14.46	13.96	14.96	14.47	0.05
59 Phenanthrene-d10	17.53	17.03	18.03	17.55	0.13
69 Chrysene-d12	22.65	22.15	23.15	22.68	0.14
134 Di-n-octylphthala	23.80	23.30	24.30	23.81	0.07
77 Perylene-d12	25.07	24.57	25.57	25.10	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89A Client Smp ID: IJ13-SS-102
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17436

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	738.2	824.6	111.70	27-120
$ 2 Phenol-d5	738.2	882.2	119.51	29-120
$ 5 2-Chlorophenol-d4	738.2	882.9	119.61	31-120
$ 10 1,2-Dichlorobenzen	492.1	412.1	83.75	32-120
$ 18 Nitrobenzene-d5	492.1	418.2	84.98	30-120
$ 36 2-Fluorobiphenyl	492.1	465.6	94.60	35-120
$ 55 2,4,6-Tribromophen	738.2	973.9	131.94	24-134
$ 66 Terphenyl-d14	492.1	518.0	105.25	37-120

Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Sample Info: XB89A

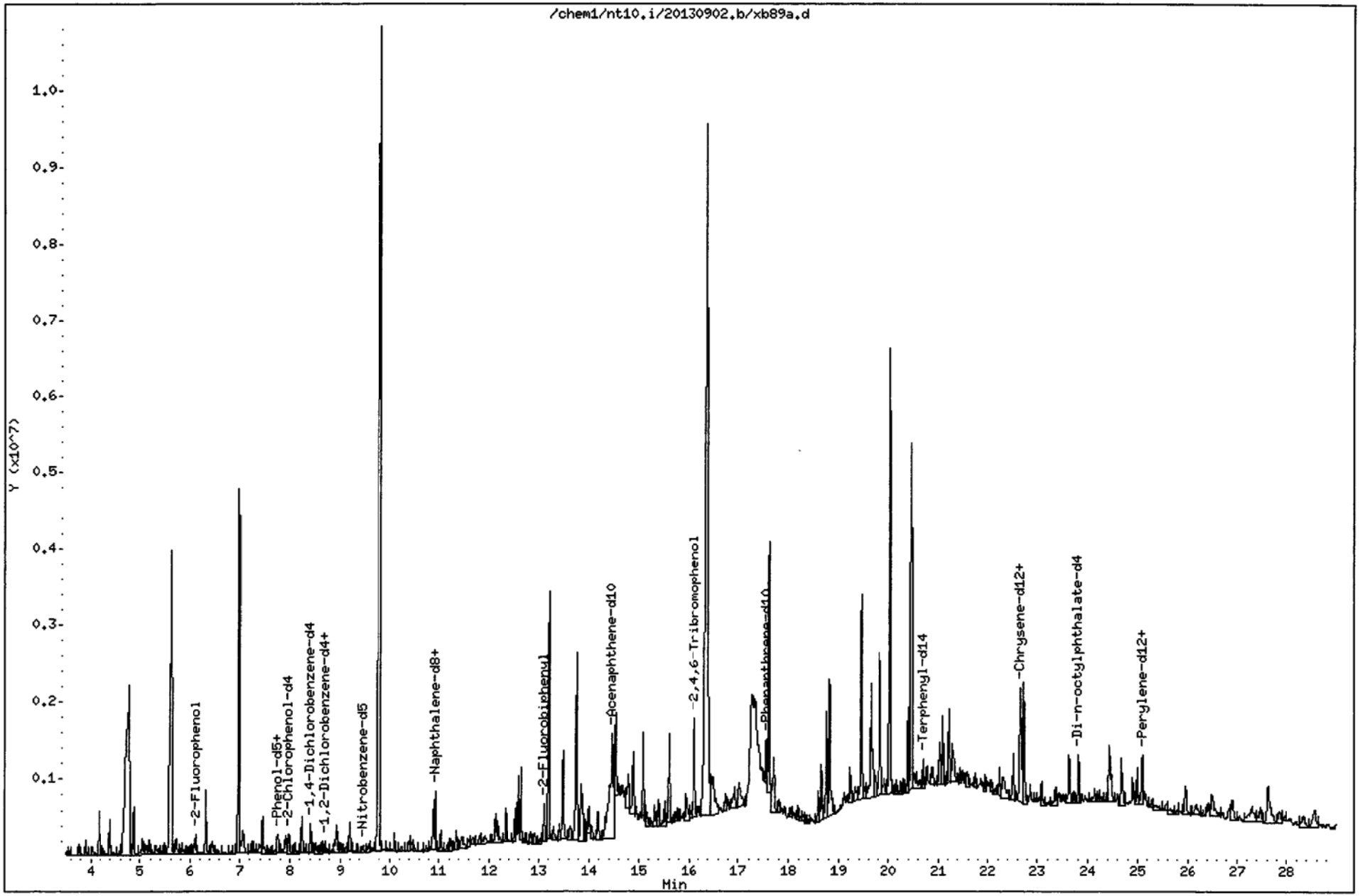
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25



XB89 : 00395

Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

Operator: VTS/YZ

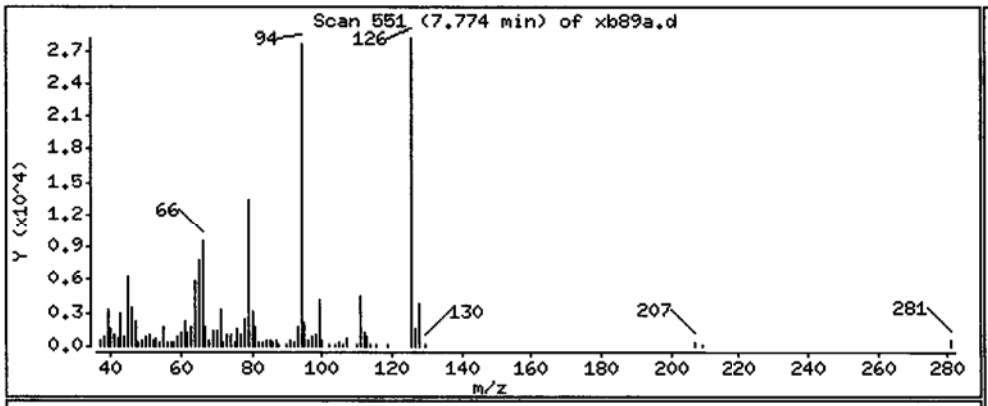
Column phase: ZB-5msi

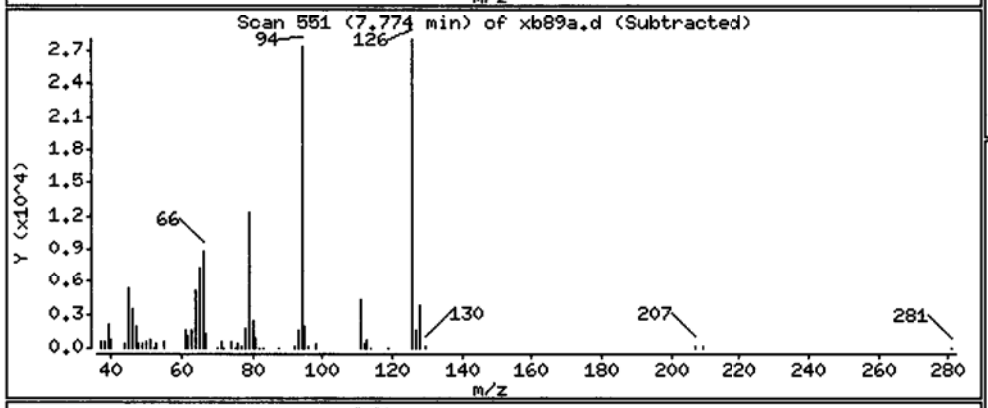
Column diameter: 0.25

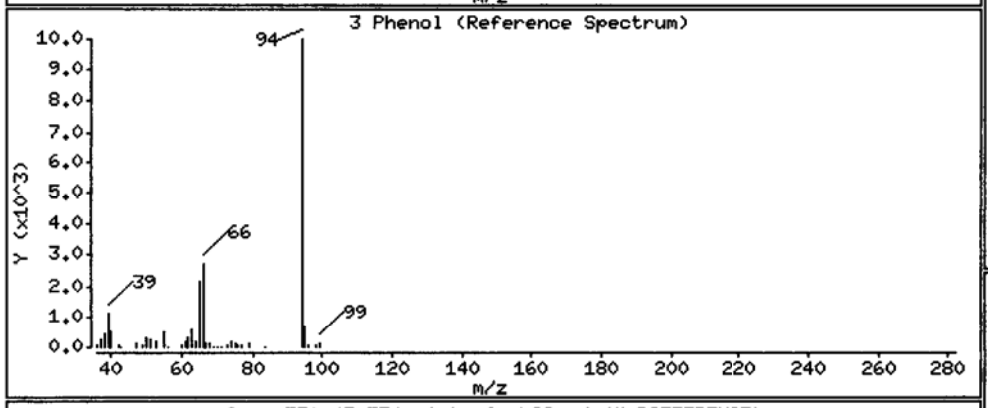
3 Phenol

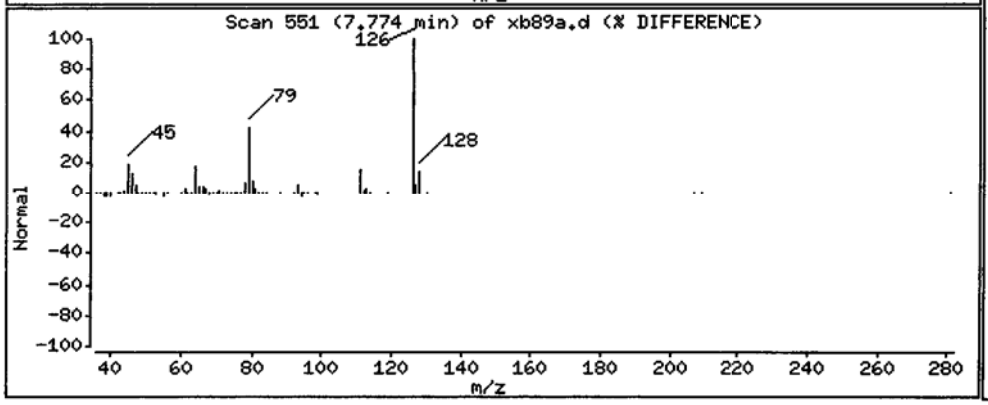
Concentration: 348.1 ug/kg

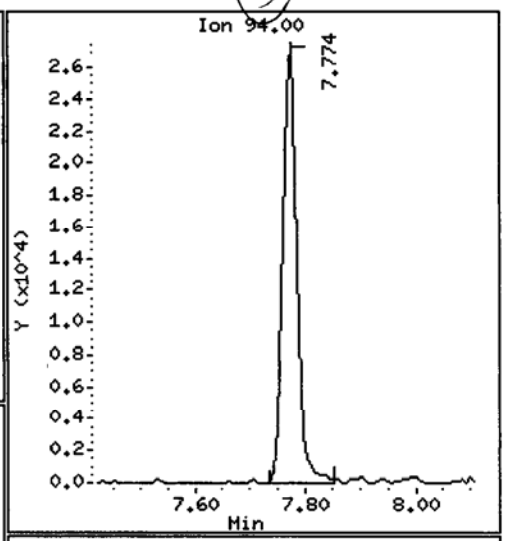
(B)

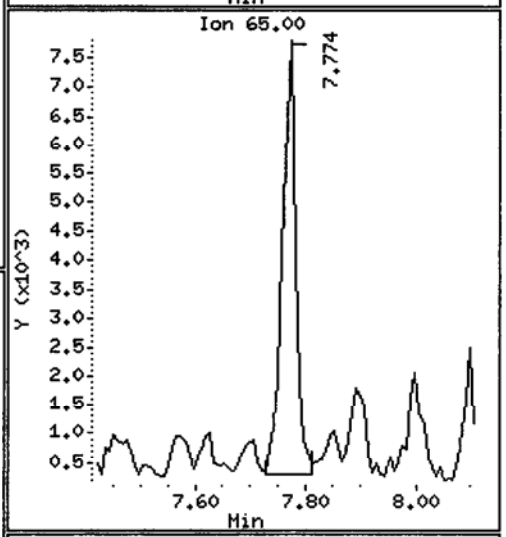


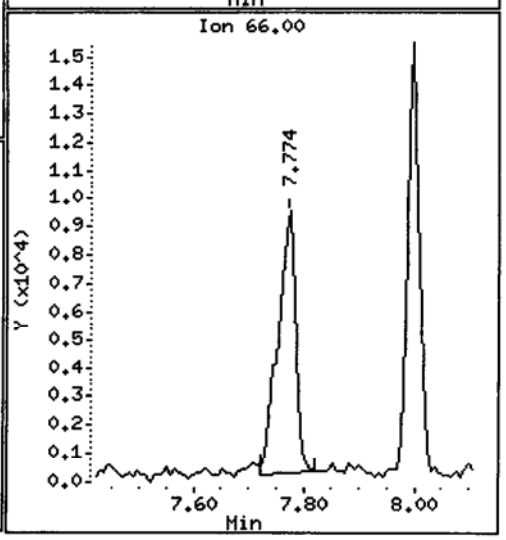












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

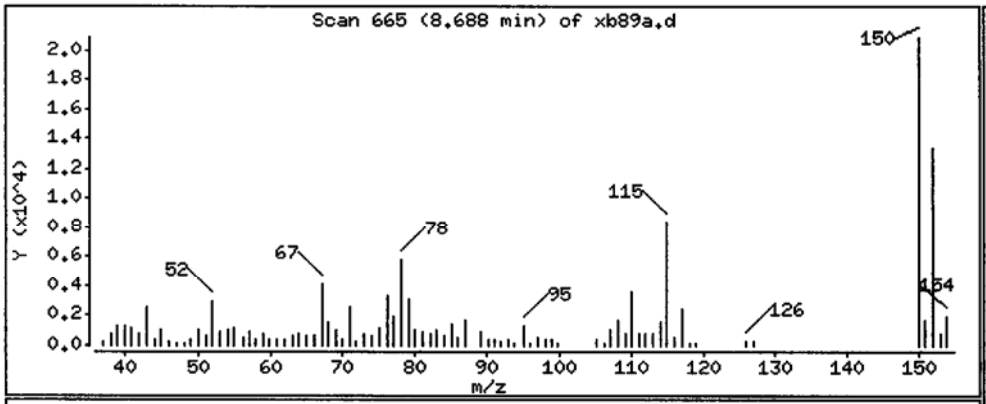
Operator: VTS/YZ

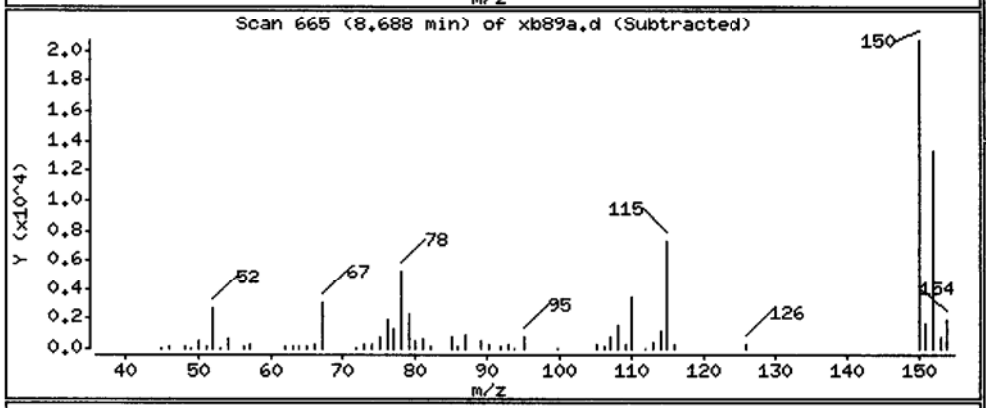
Column phase: ZB-5msi

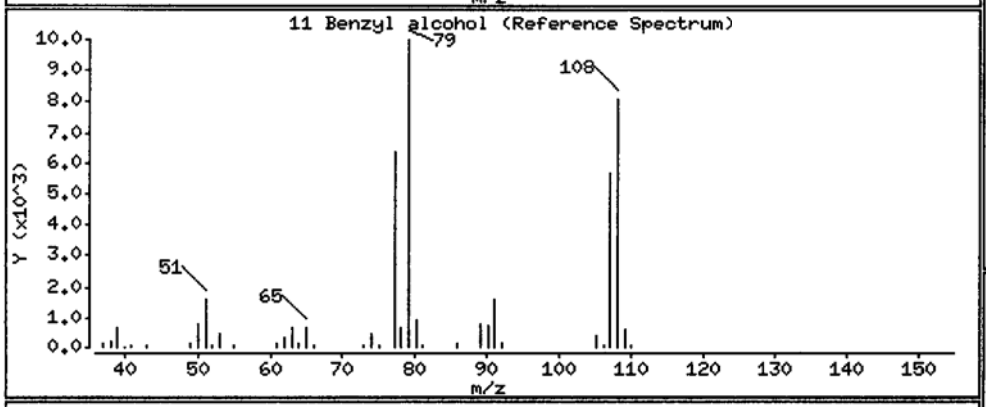
Column diameter: 0.25

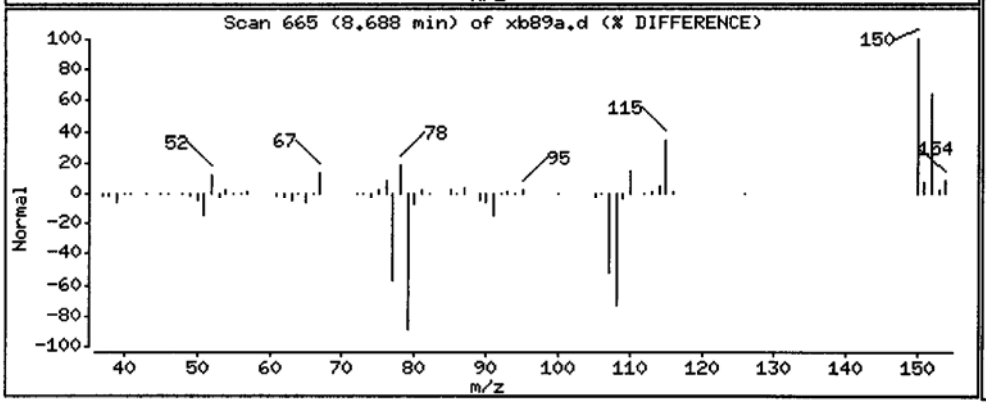
11 Benzyl alcohol

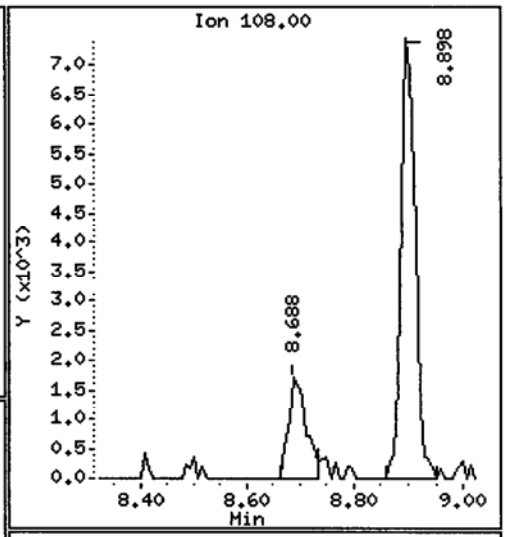
Concentration: 58.14 ug/kg

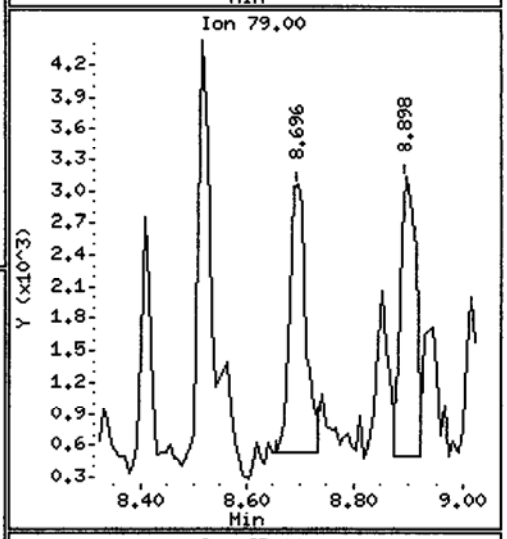


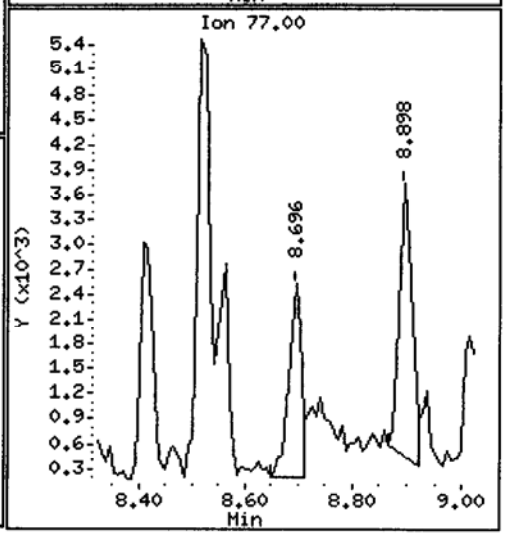












XB89:00397

Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

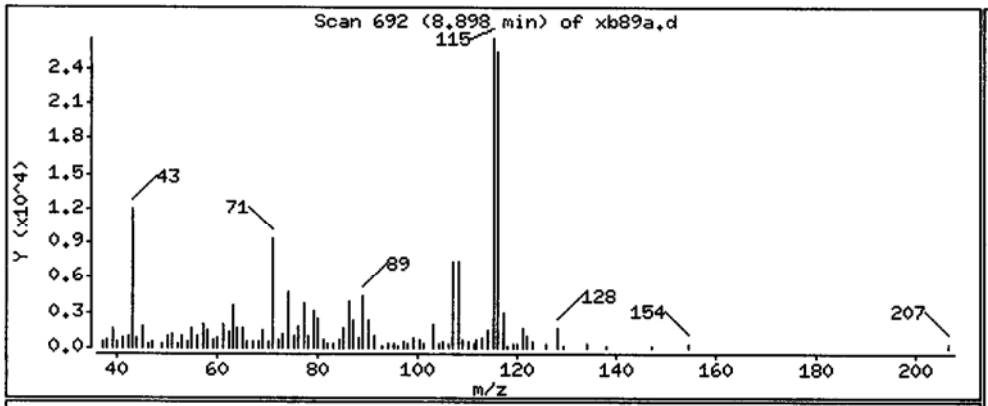
Operator: VTS/YZ

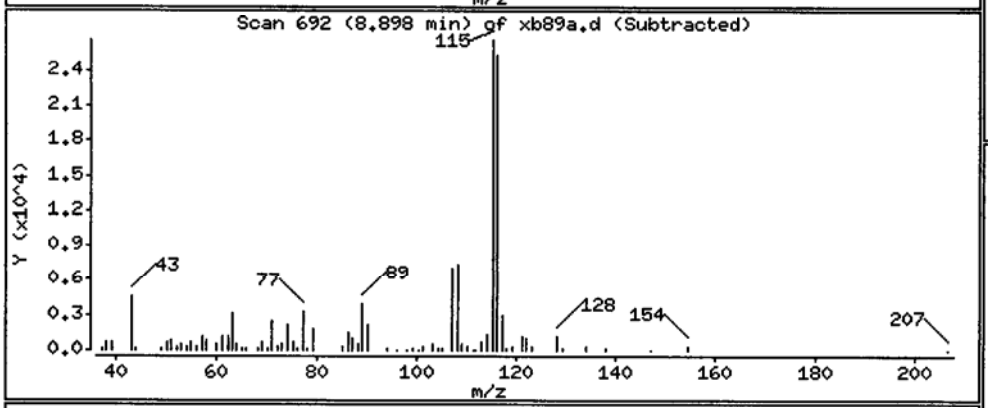
Column phase: ZB-5msi

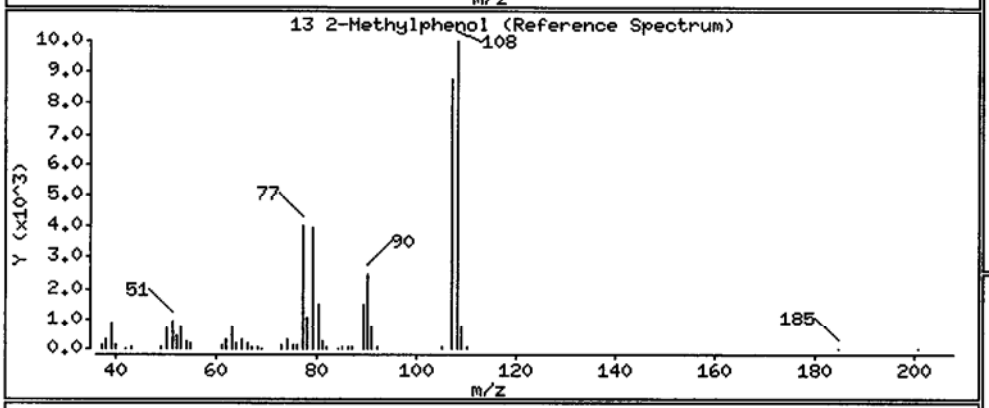
Column diameter: 0.25

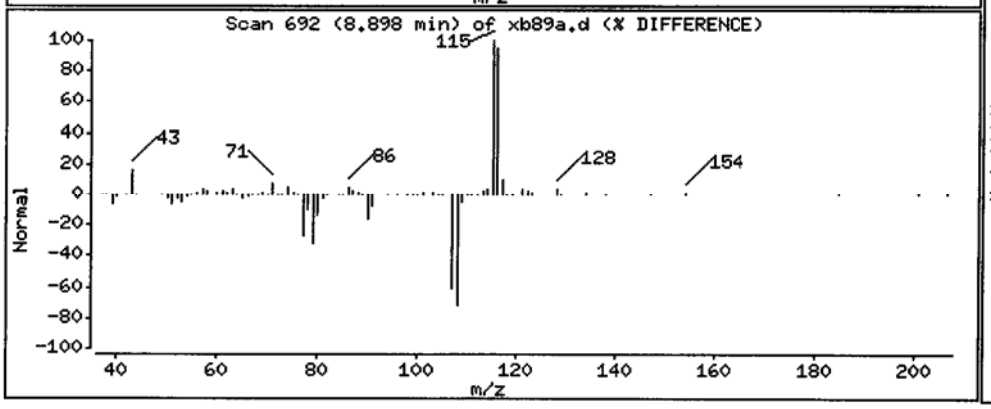
13 2-Methylphenol

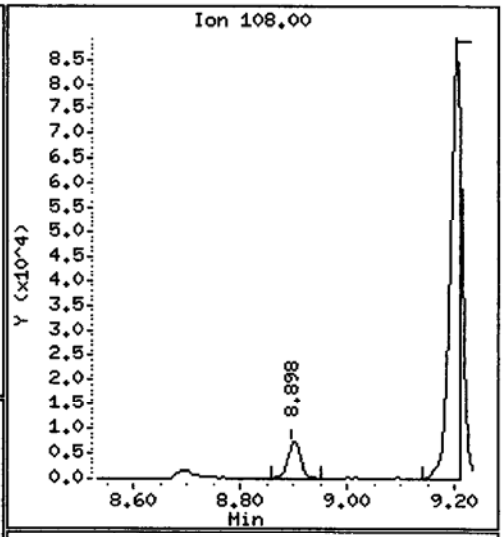
Concentration: 120.8 ug/kg

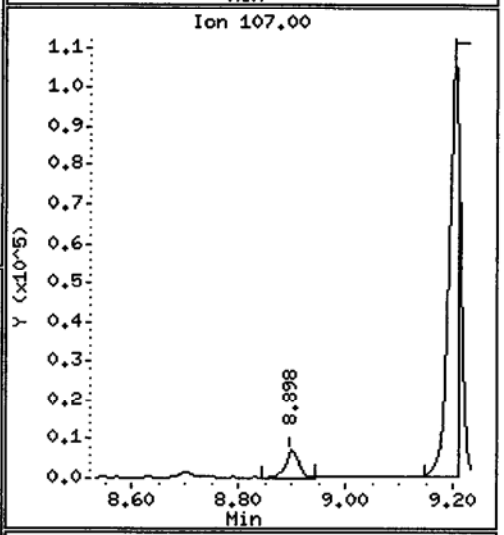


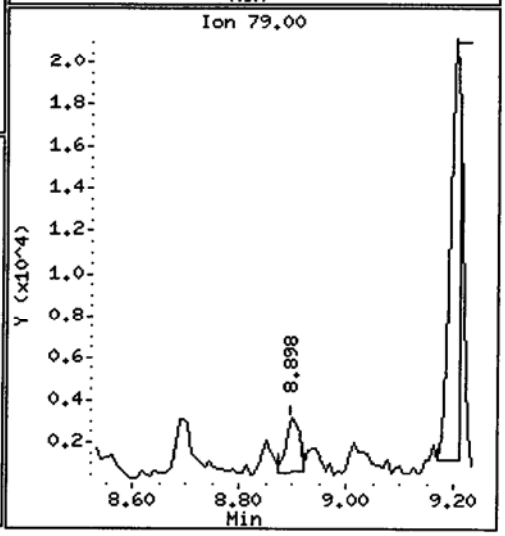












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

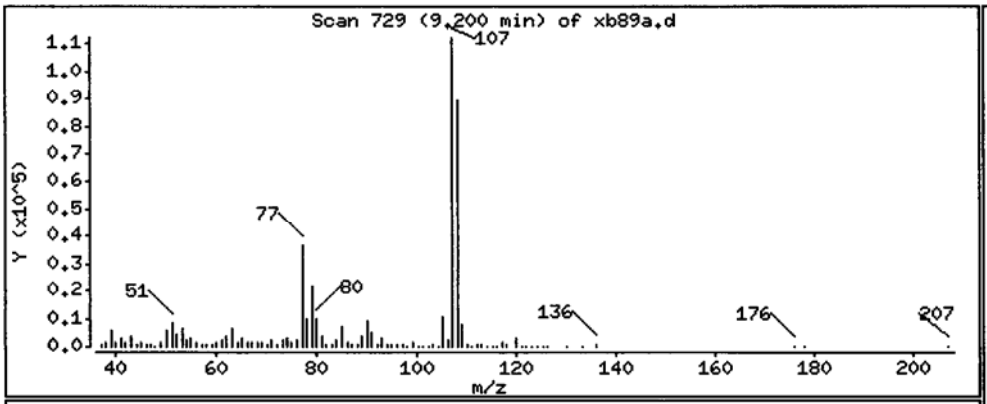
Operator: VTS/YZ

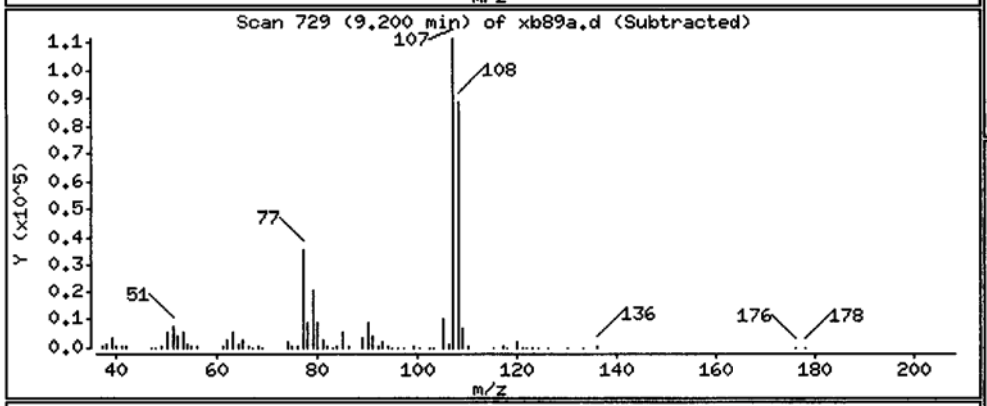
Column phase: ZB-5msi

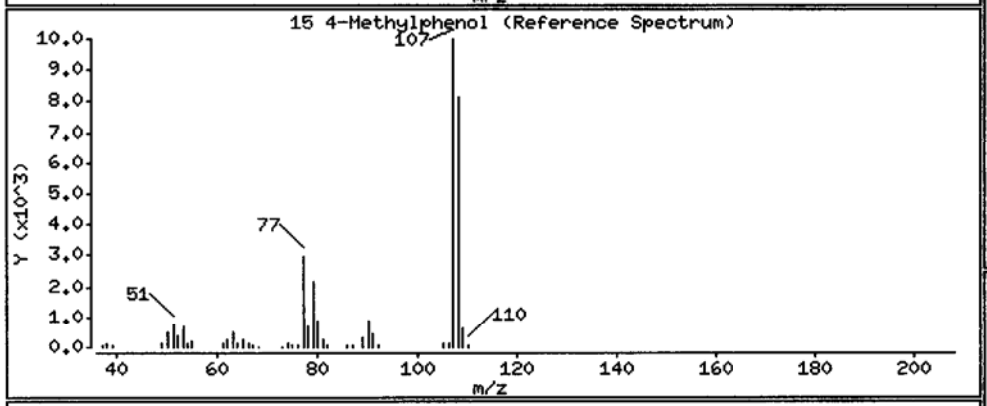
Column diameter: 0.25

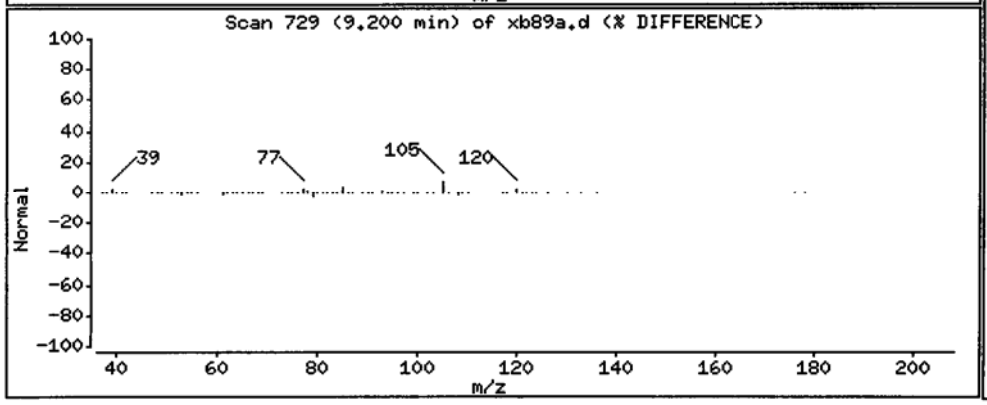
15 4-Methylphenol

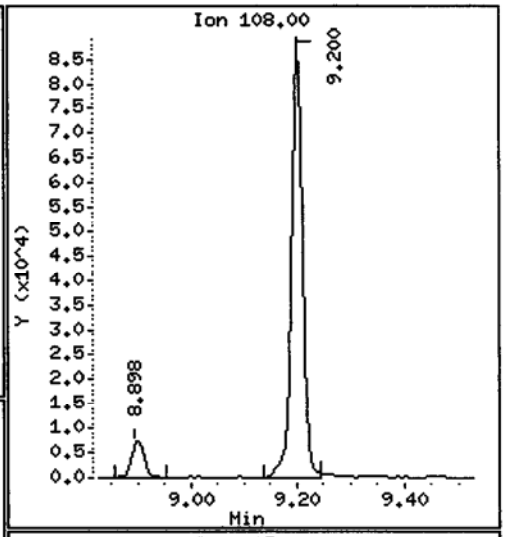
Concentration: 1227 ug/kg

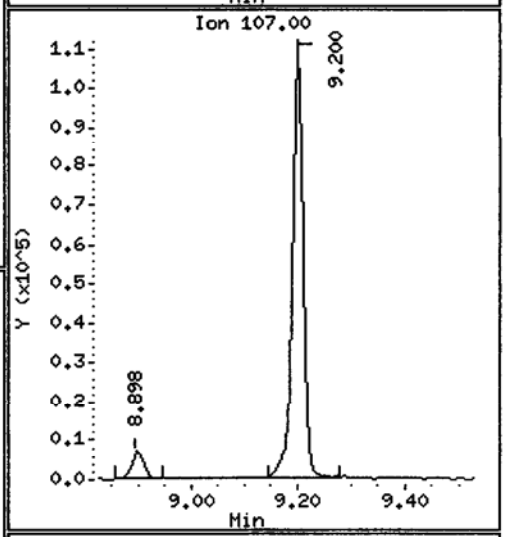


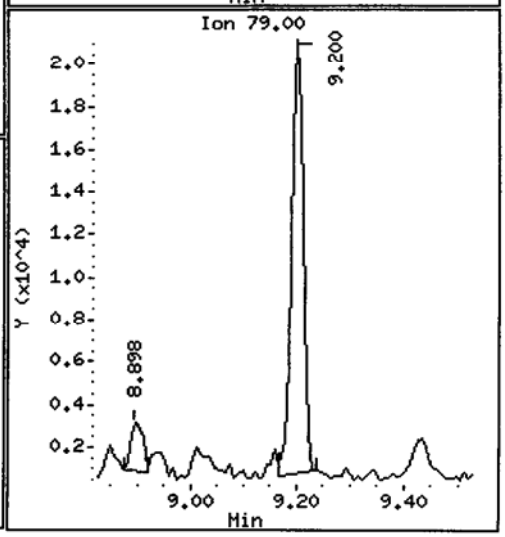












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

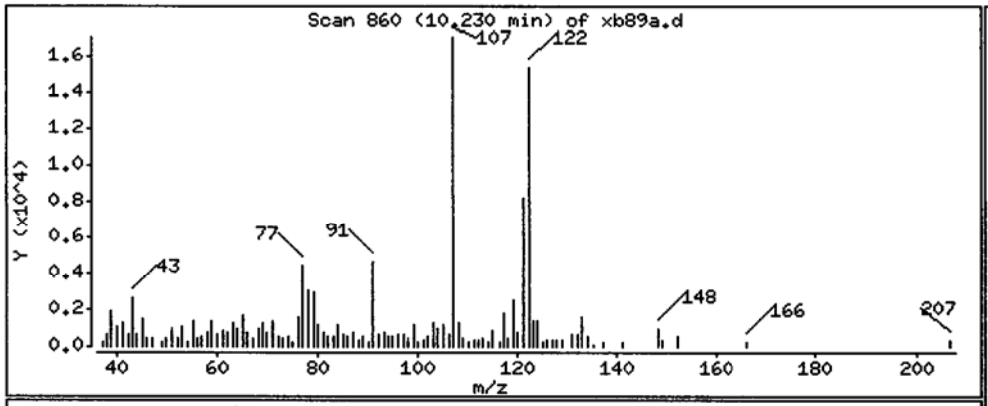
Operator: VTS/YZ

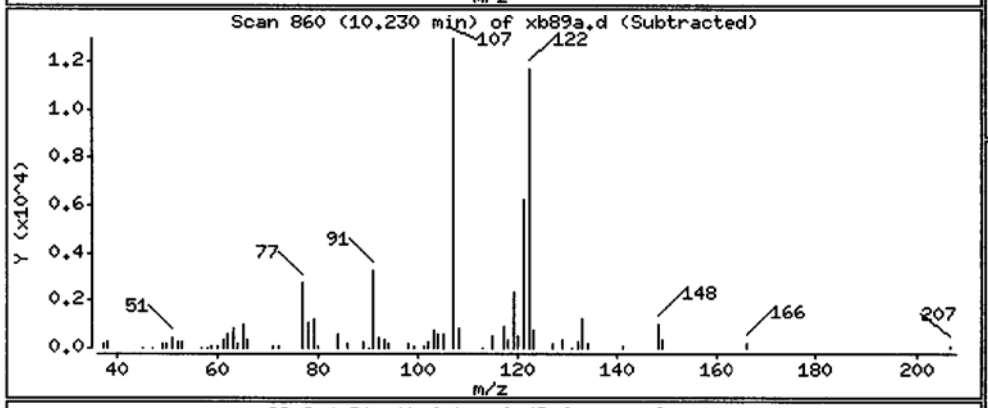
Column phase: ZB-5msi

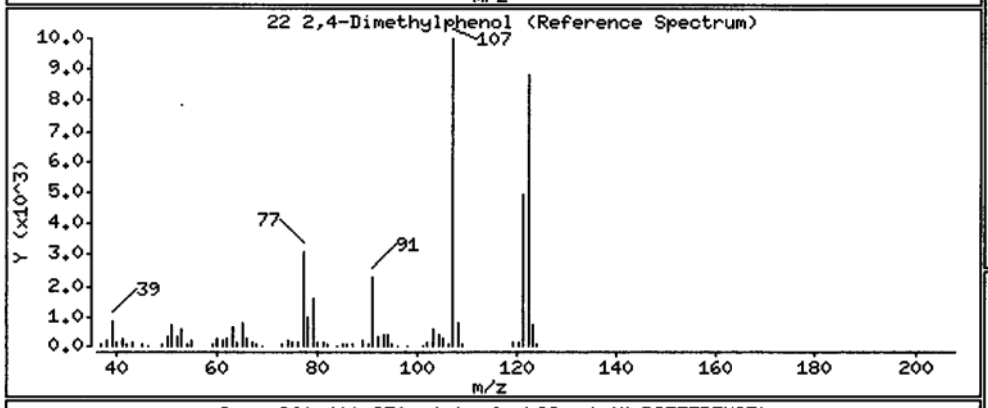
Column diameter: 0.25

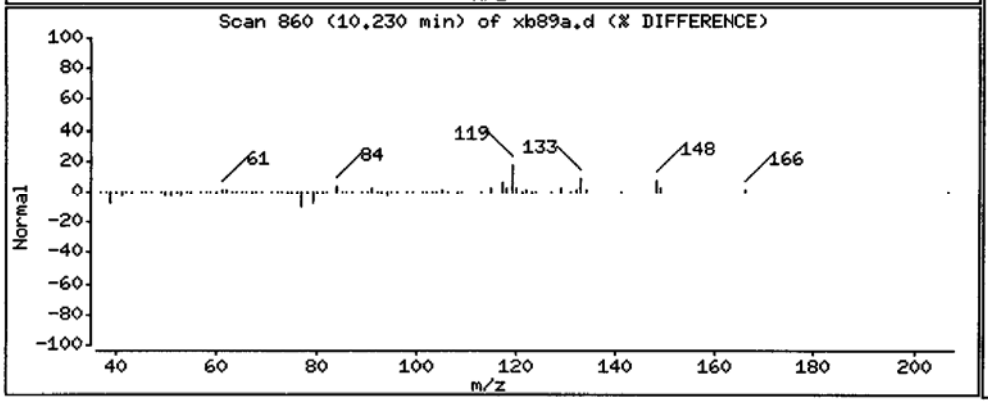
22 2,4-Dimethylphenol

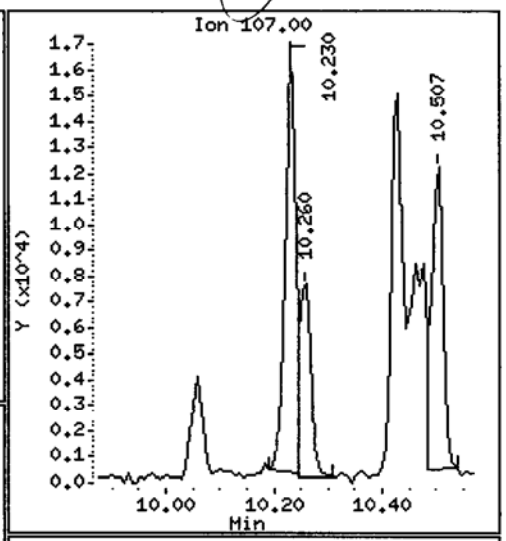
Concentration: 212.1 ug/kg

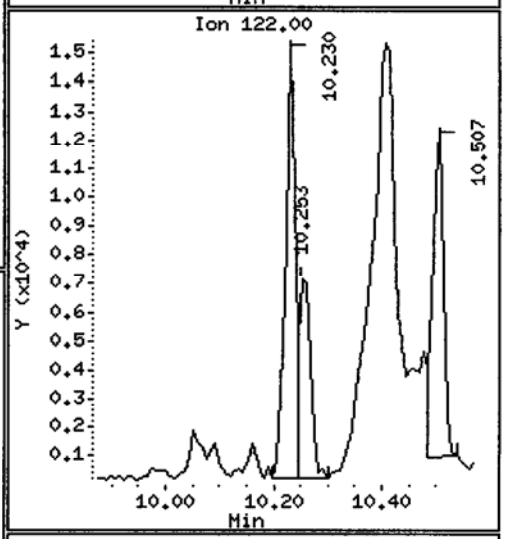


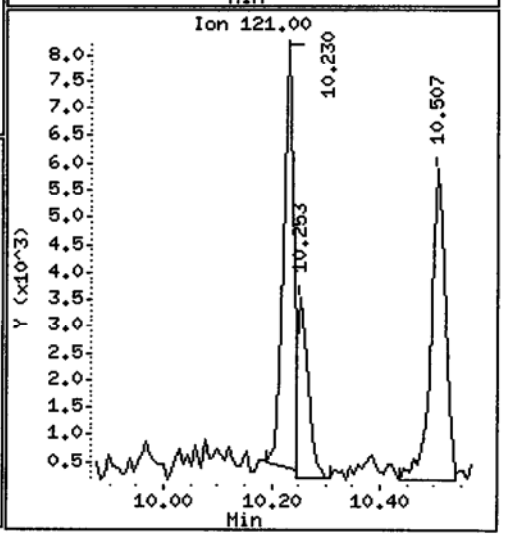












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

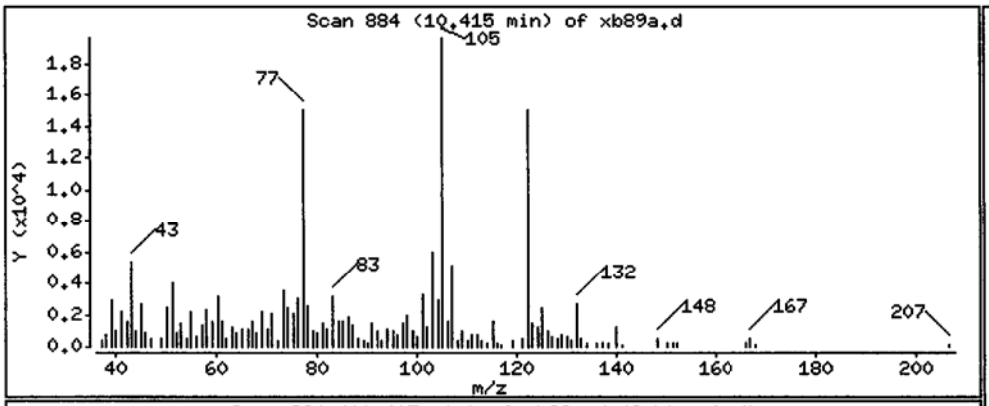
Operator: VTS/YZ

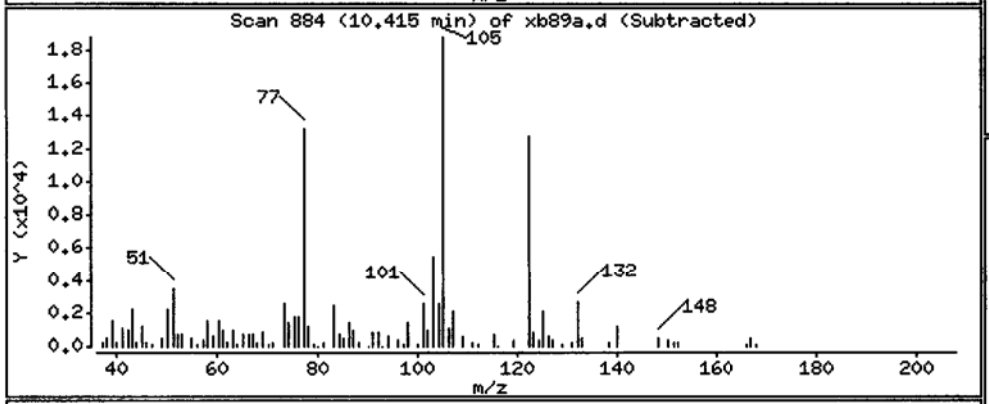
Column phase: ZB-5msi

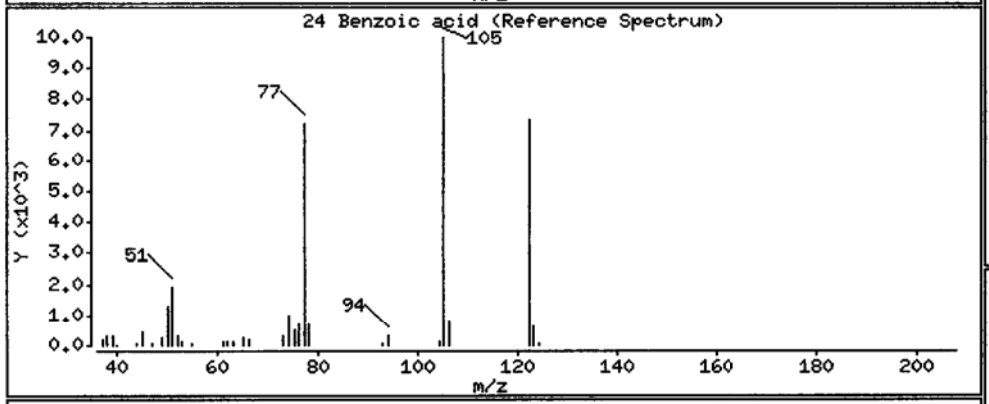
Column diameter: 0.25

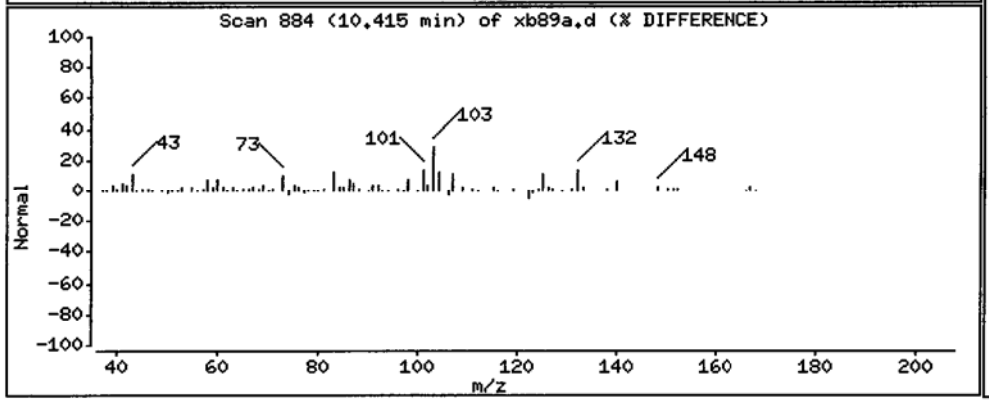
24 Benzoic acid

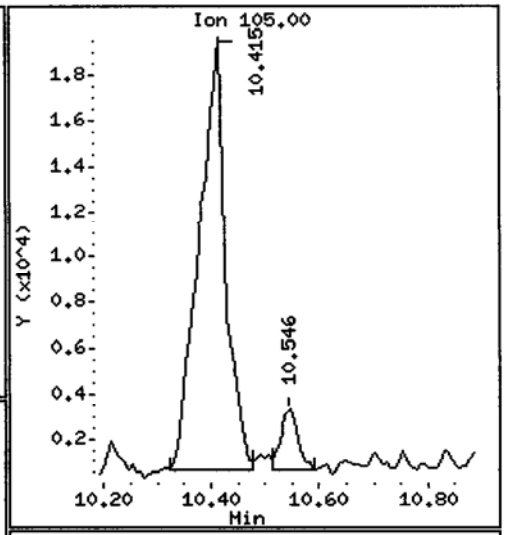
Concentration: 816.5 ug/kg

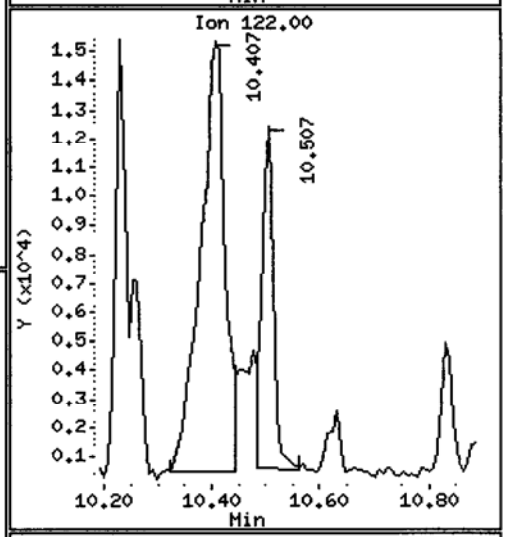


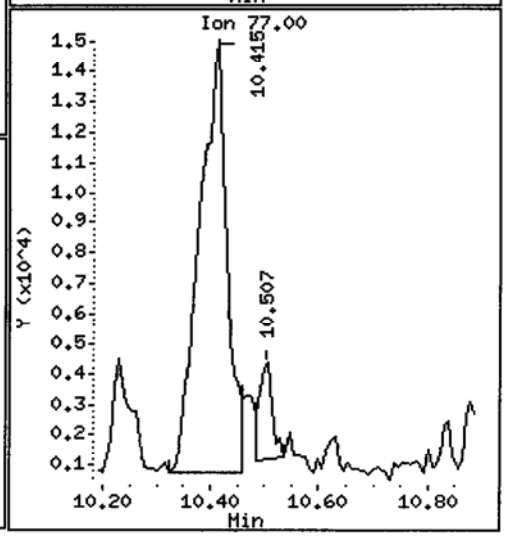












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

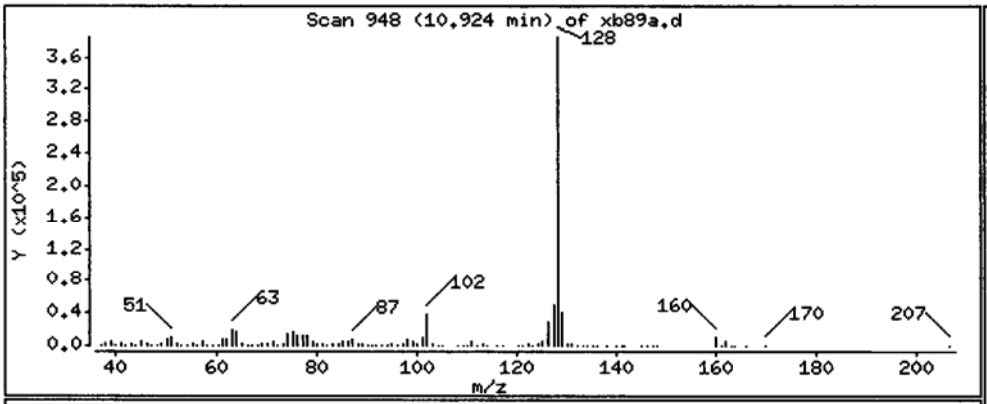
Operator: VTS/YZ

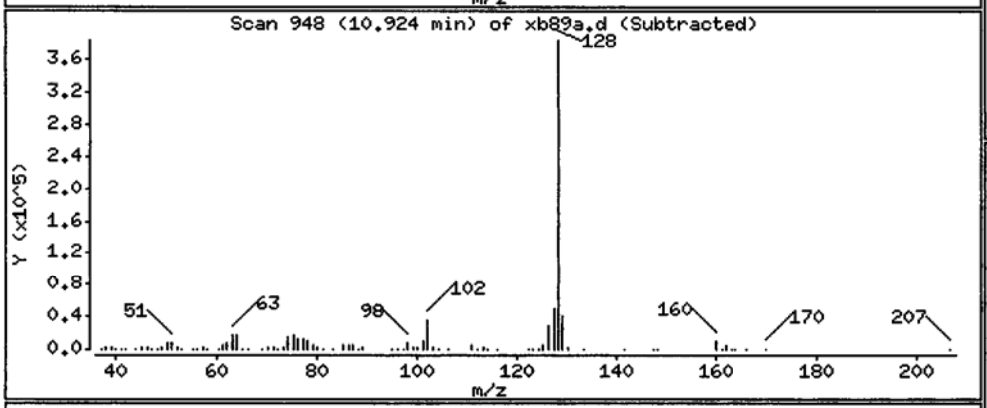
Column phase: ZB-5msi

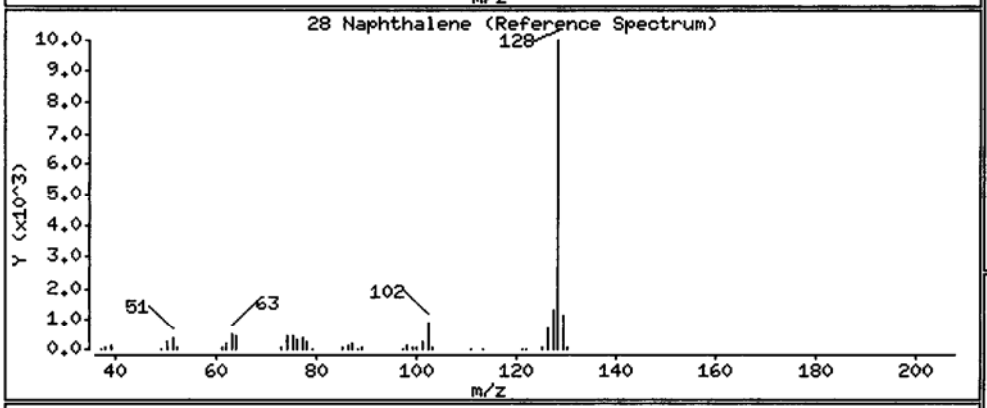
Column diameter: 0.25

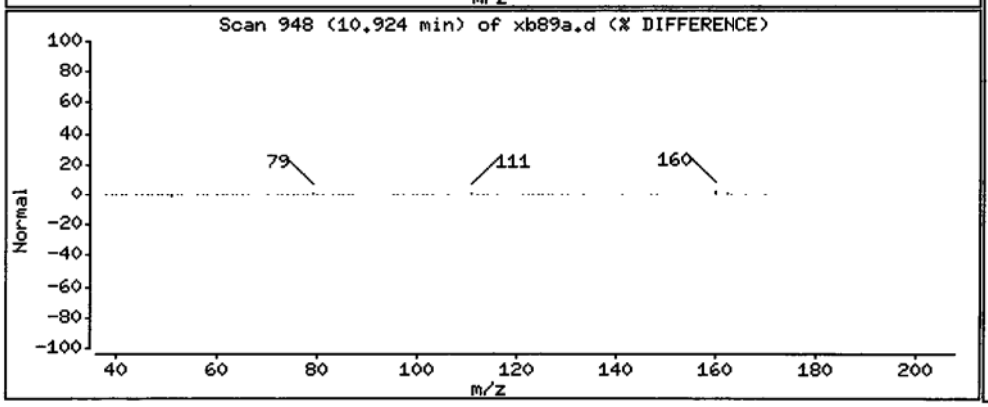
28 Naphthalene

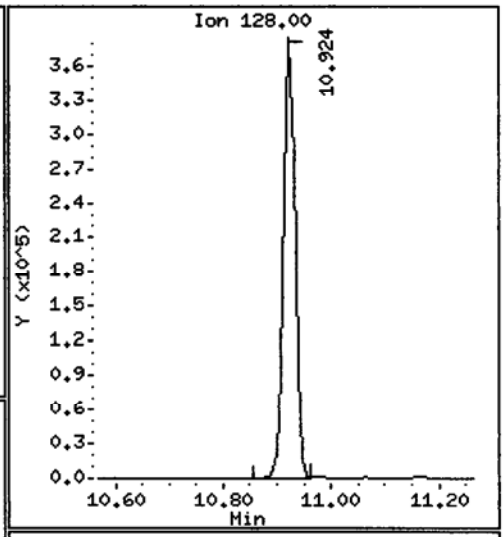
Concentration: 1796 ug/kg

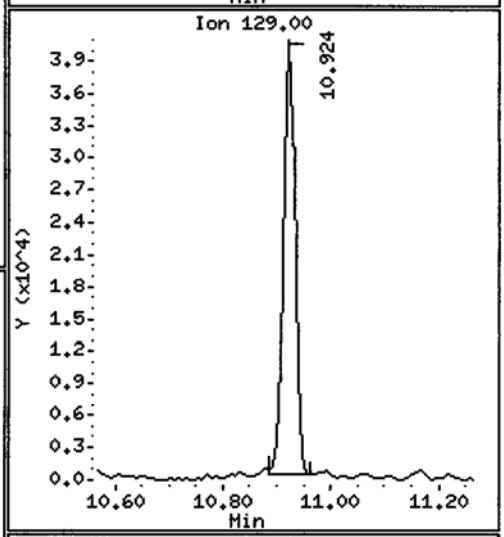


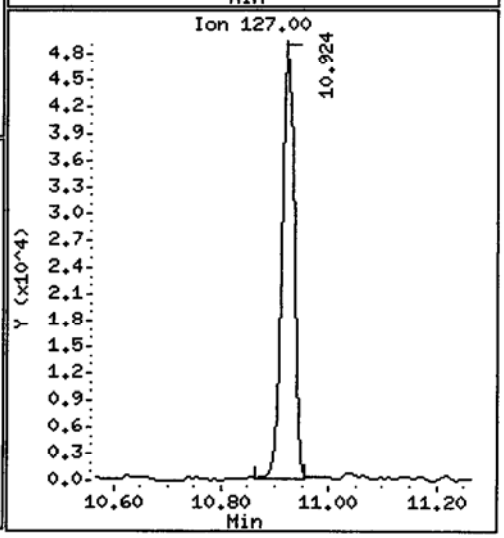












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

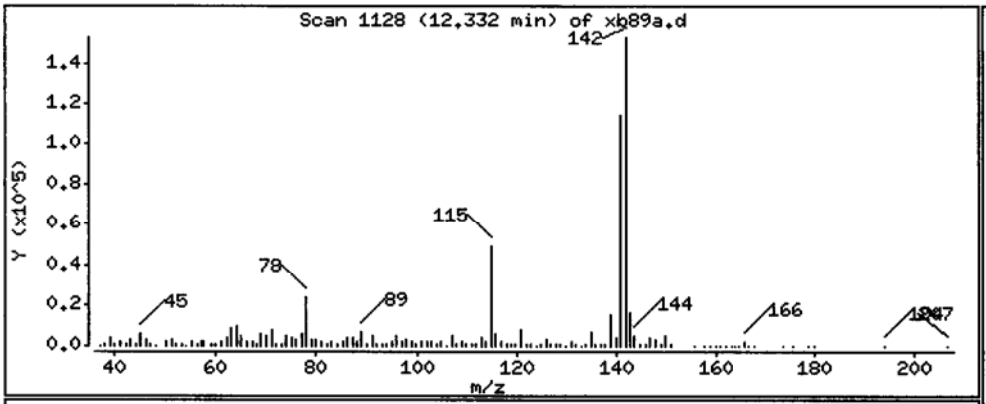
Operator: VTS/YZ

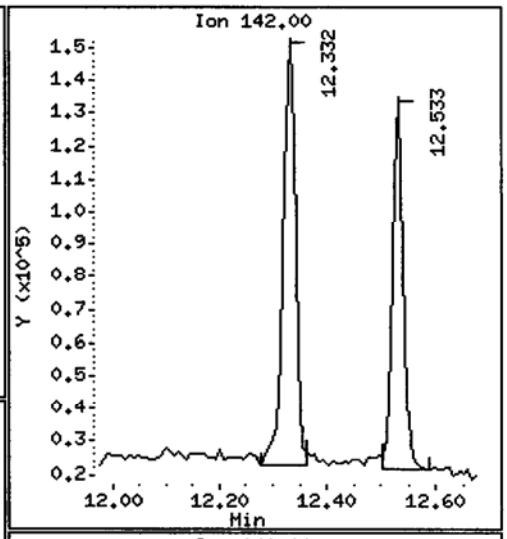
Column phase: ZB-5msi

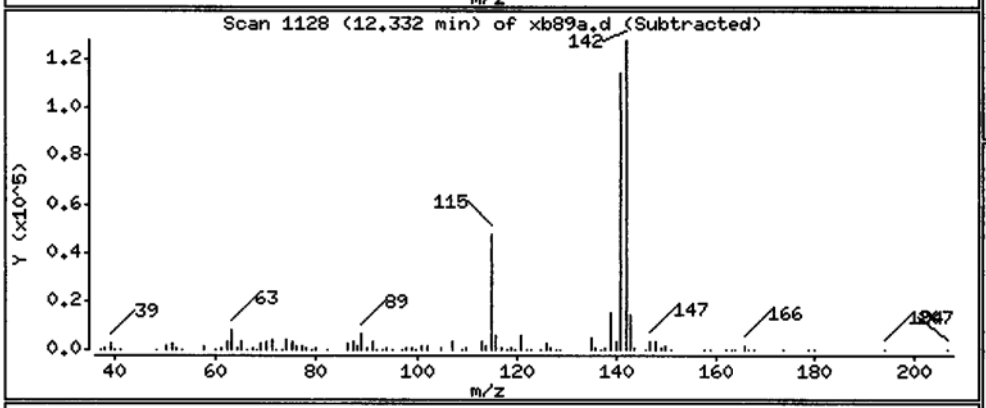
Column diameter: 0.25

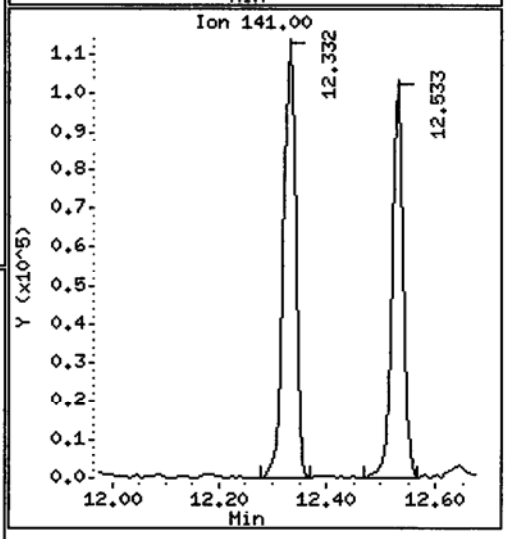
32 2-Methylnaphthalene

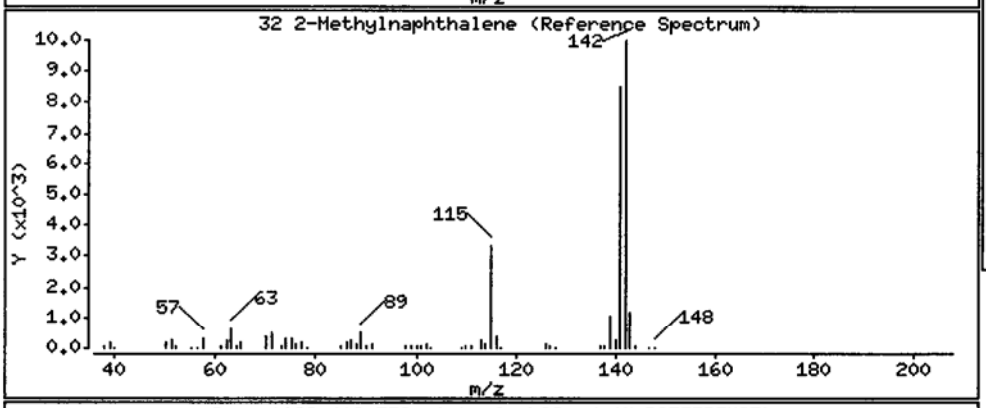
Concentration: 869.3 ug/kg

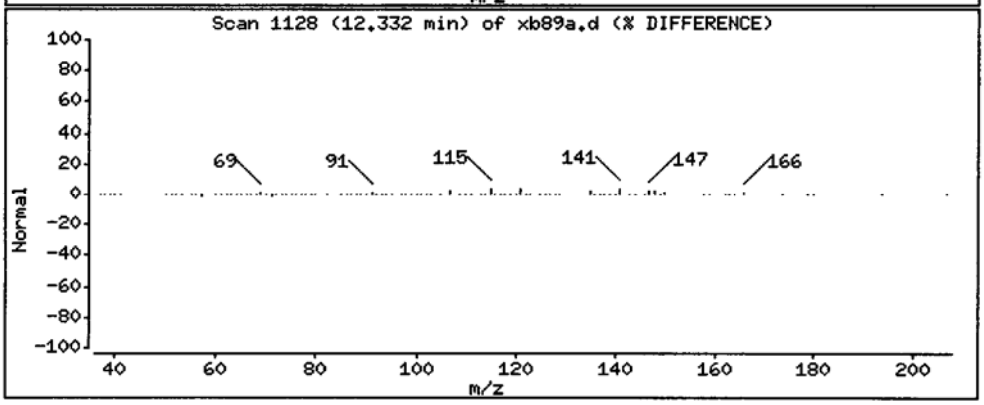












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

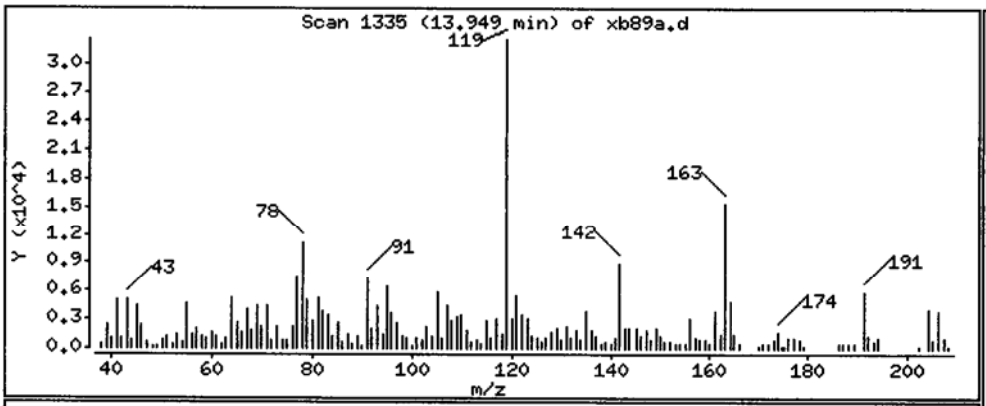
Operator: VTS/YZ

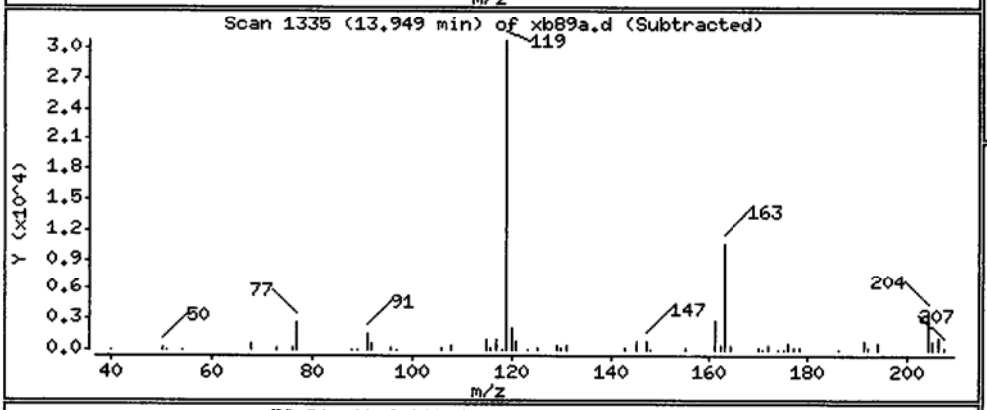
Column phase: ZB-5msi

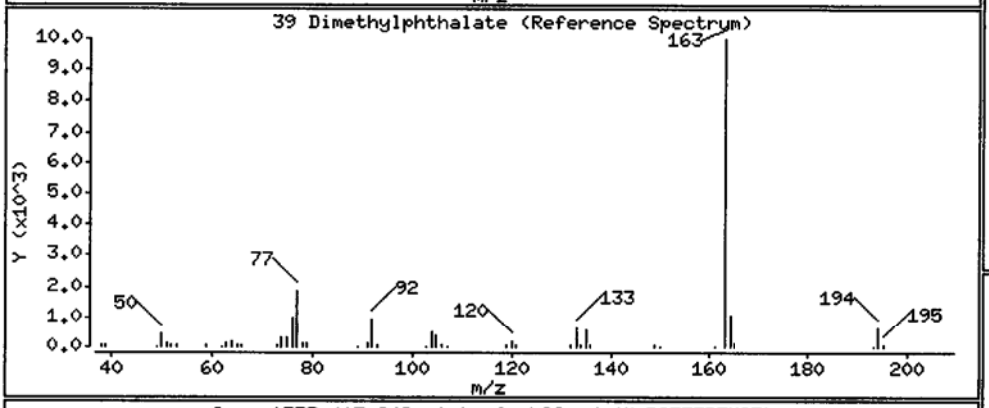
Column diameter: 0.25

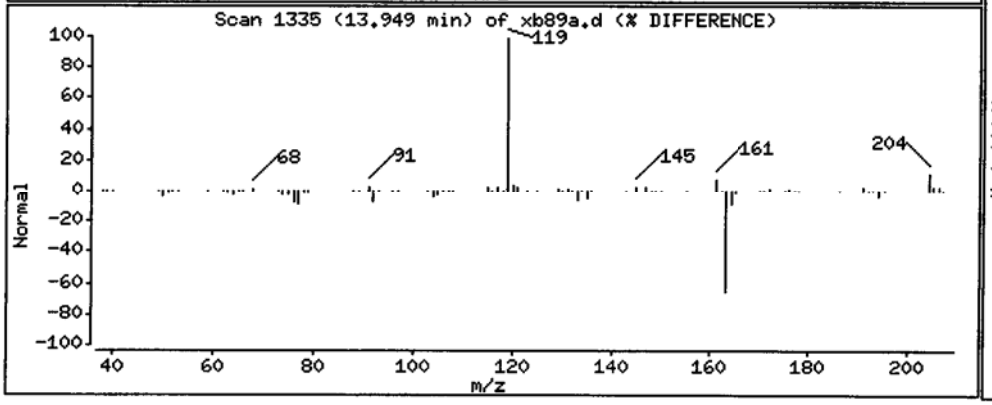
39 Dimethylphthalate

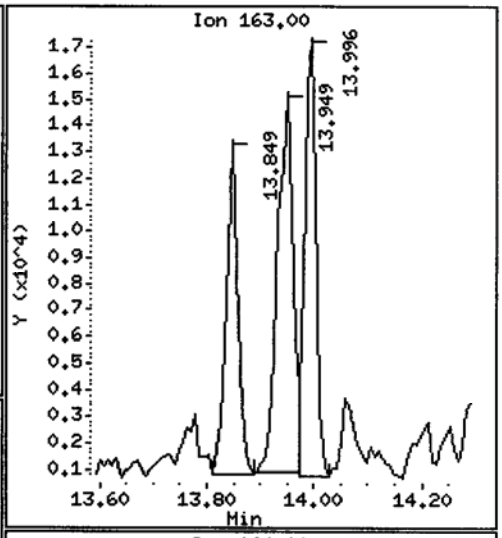
Concentration: 123.4 ug/kg

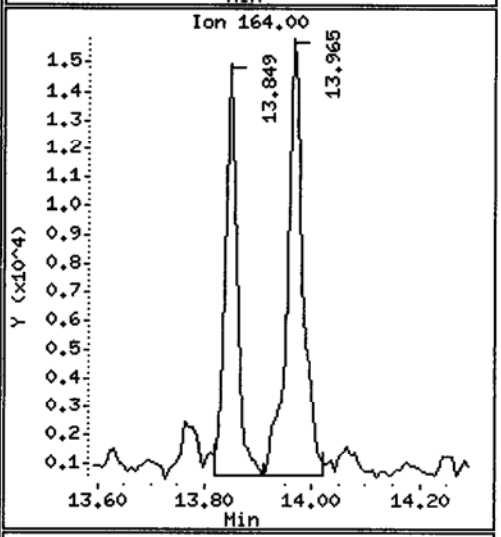


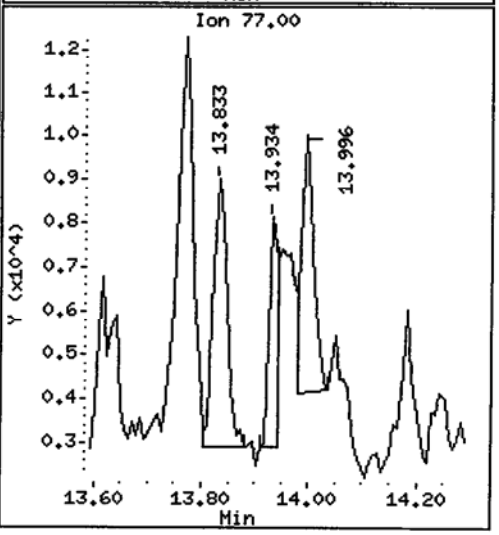












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

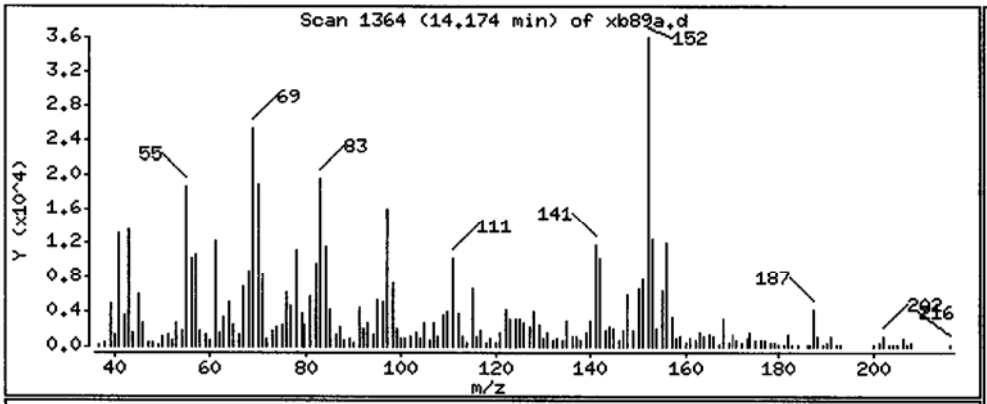
Operator: VTS/YZ

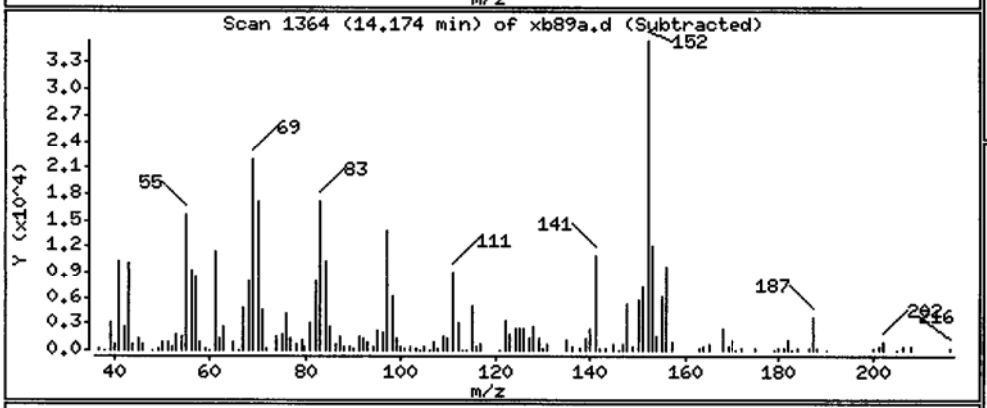
Column phase: ZB-5msi

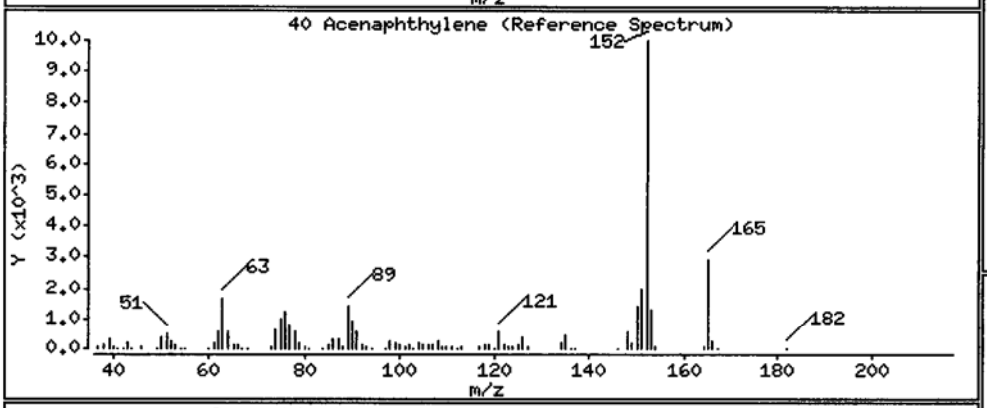
Column diameter: 0.25

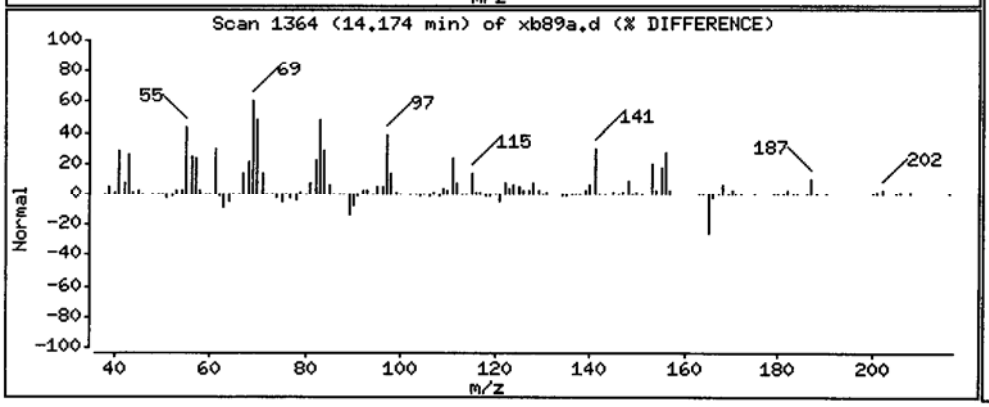
40 Acenaphthylene

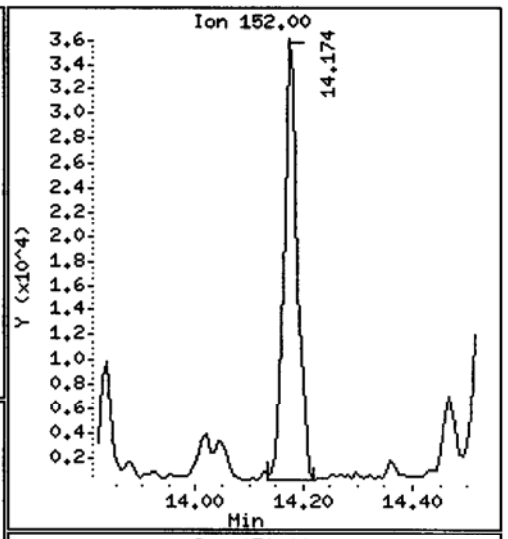
Concentration: 173.5 ug/kg

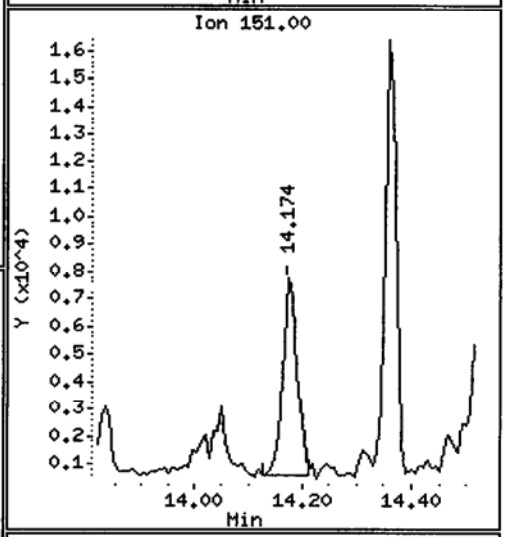


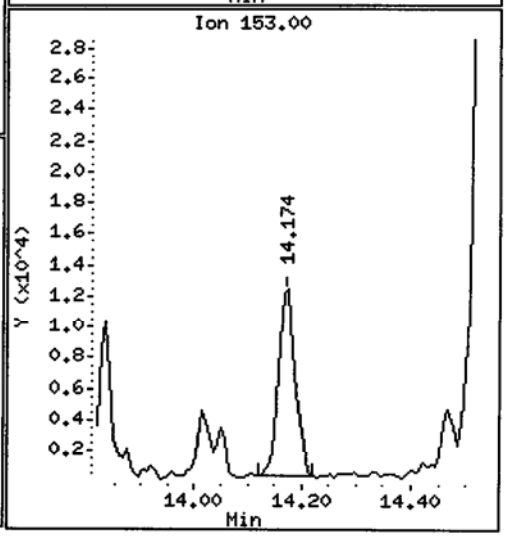












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

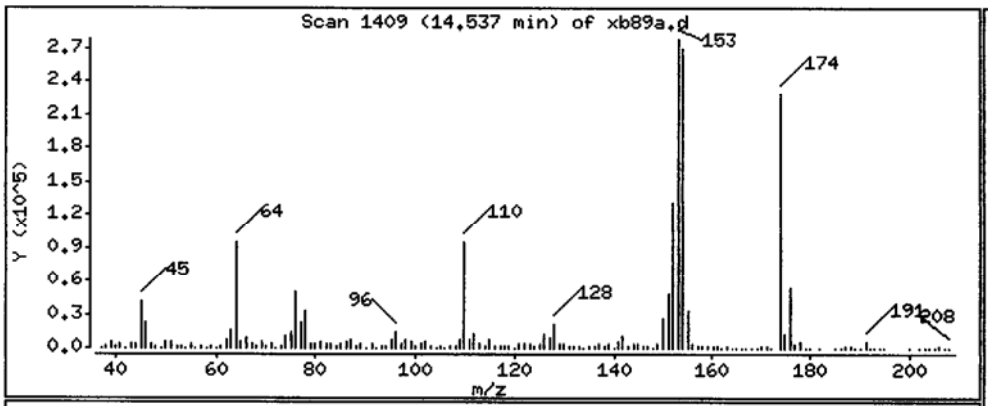
Operator: VTS/YZ

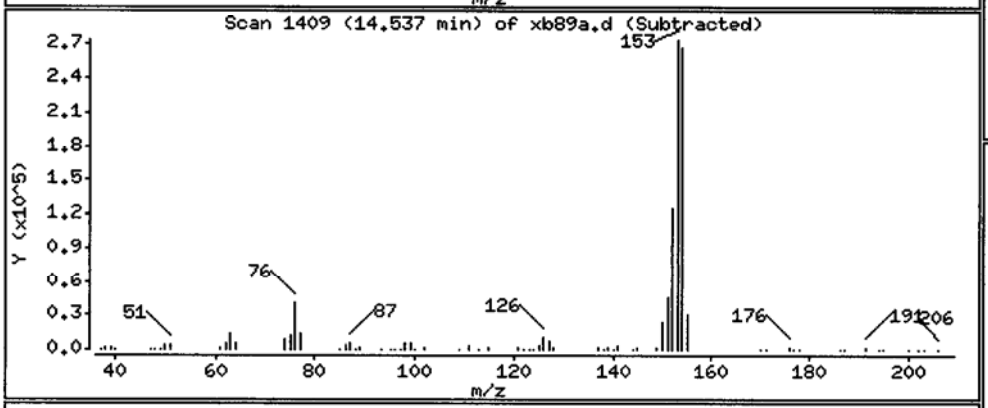
Column phase: ZB-5msi

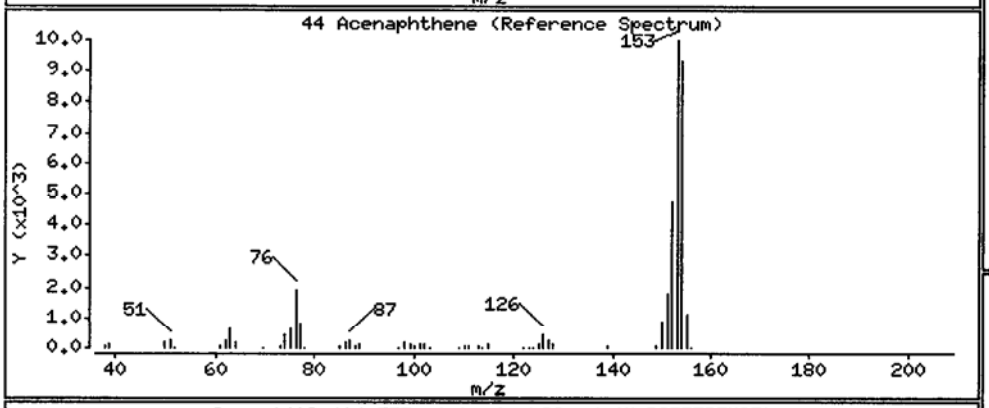
Column diameter: 0.25

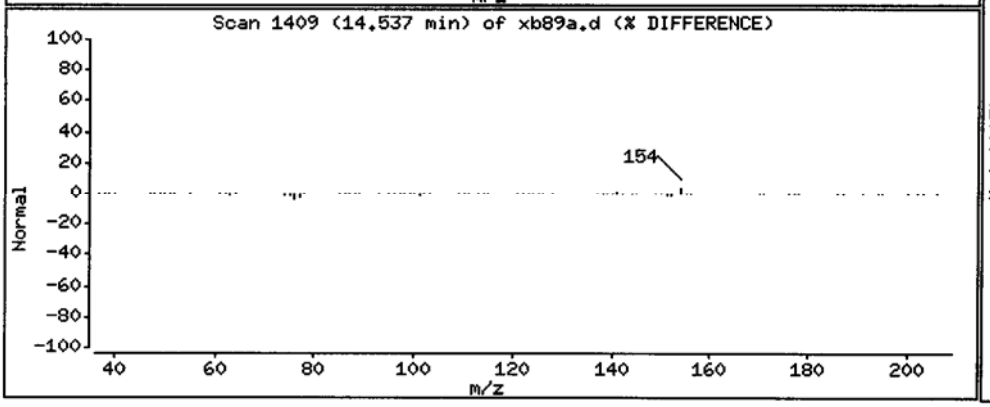
44 Acenaphthene

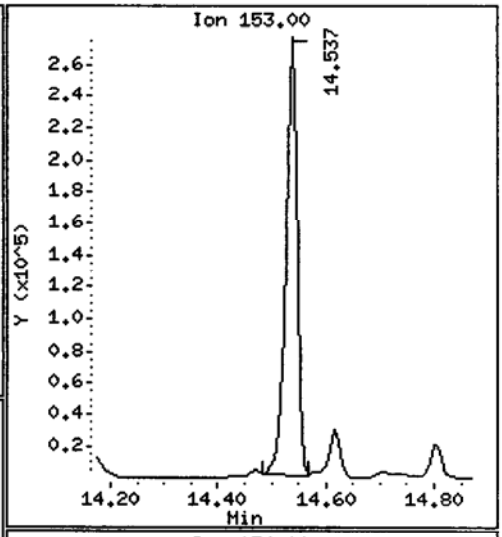
Concentration: 2060 ug/kg

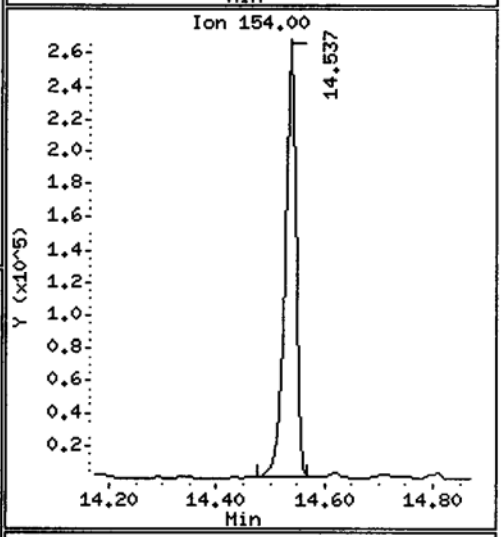


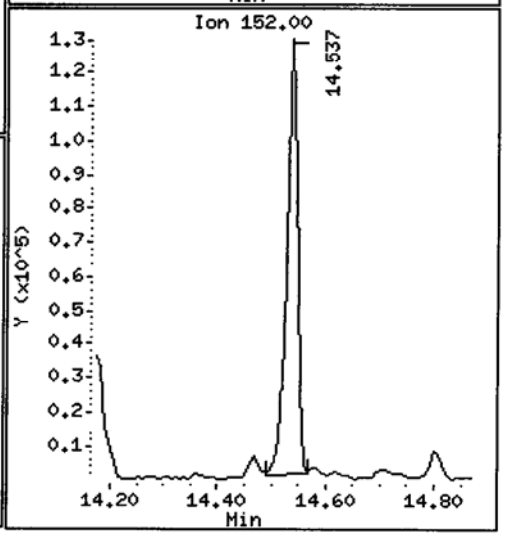












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

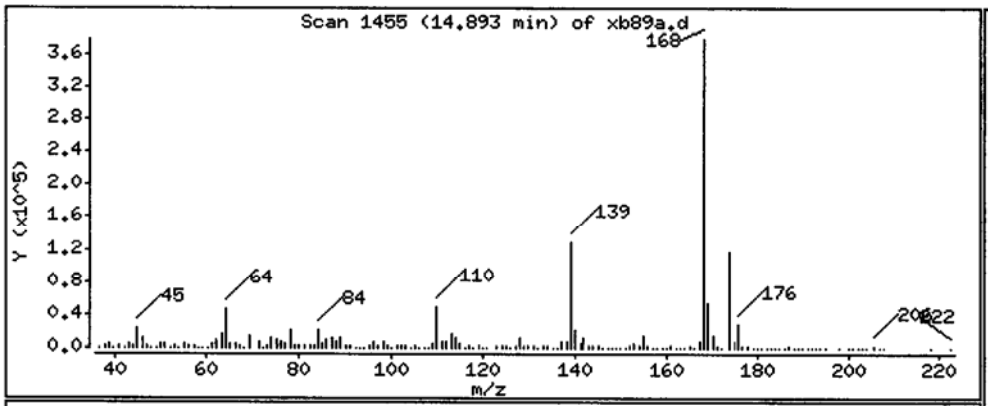
Operator: VTS/YZ

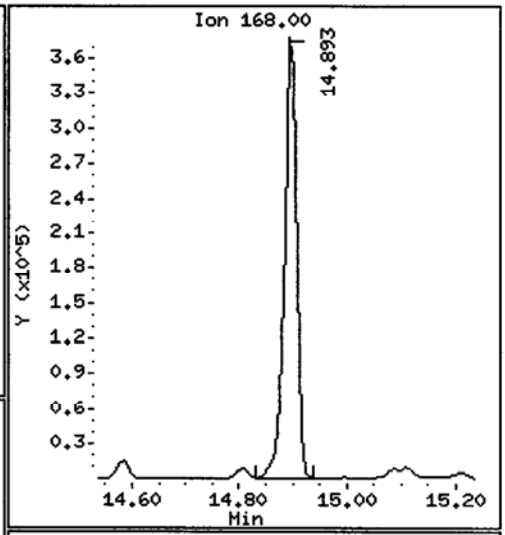
Column phase: ZB-5msi

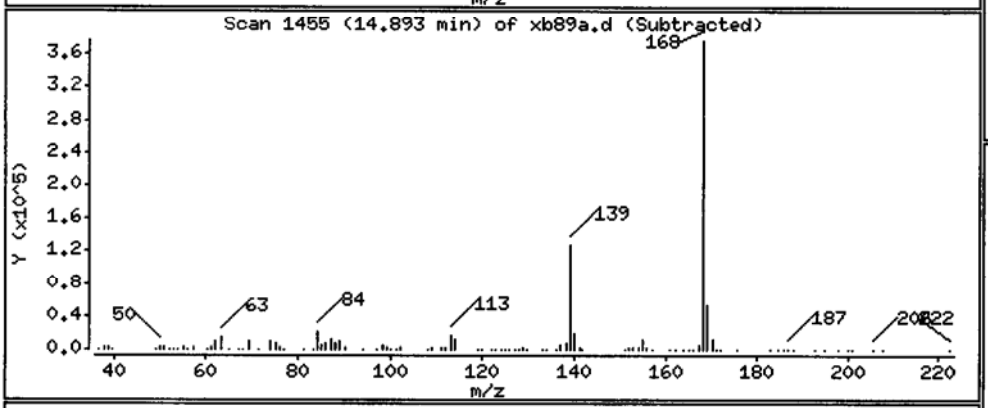
Column diameter: 0.25

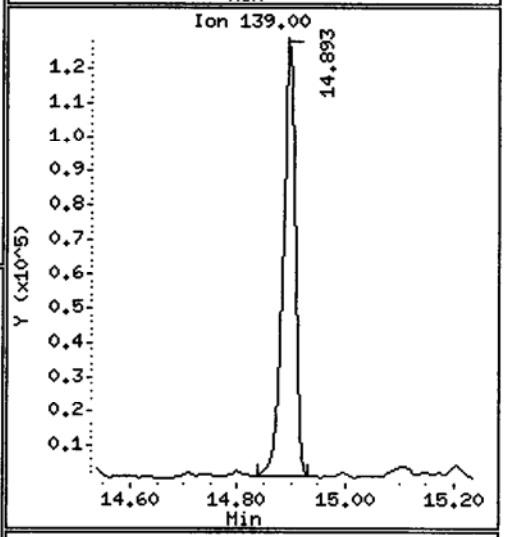
46 Dibenzofuran

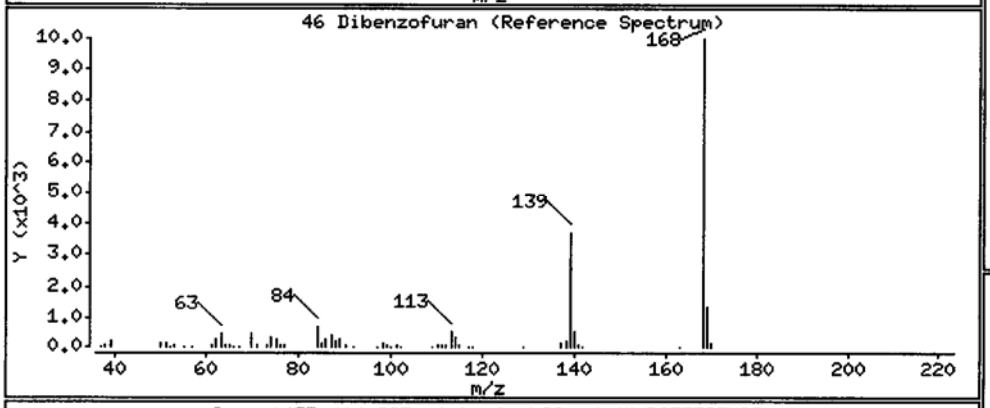
Concentration: 1953 ug/kg

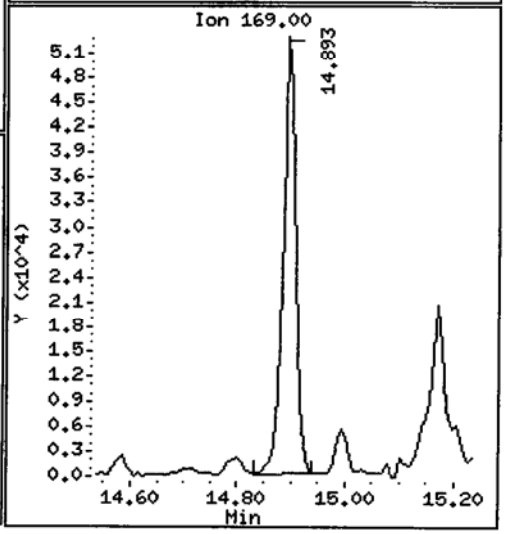


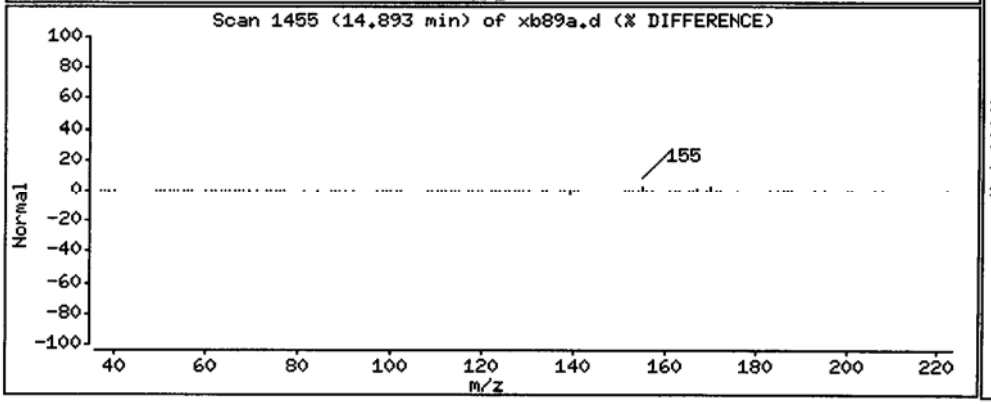












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

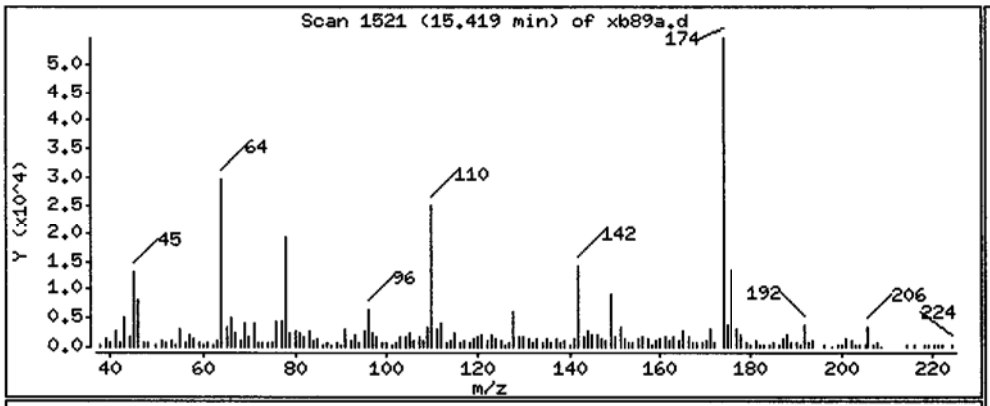
Operator: VTS/YZ

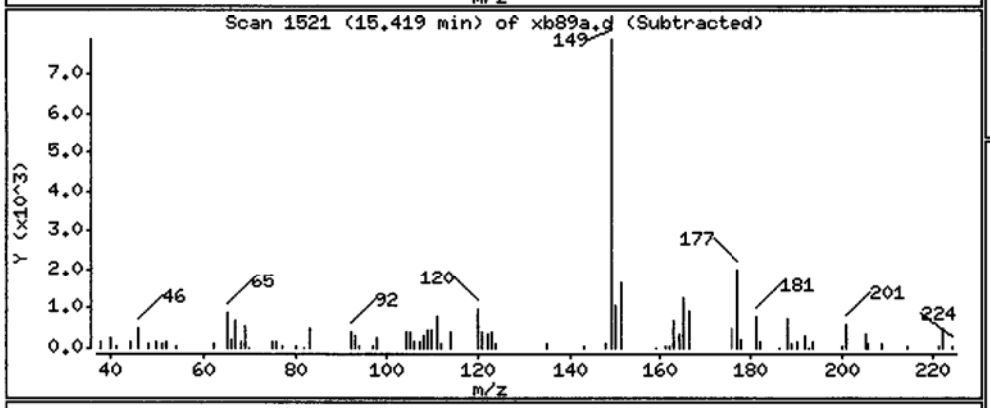
Column phase: ZB-5msi

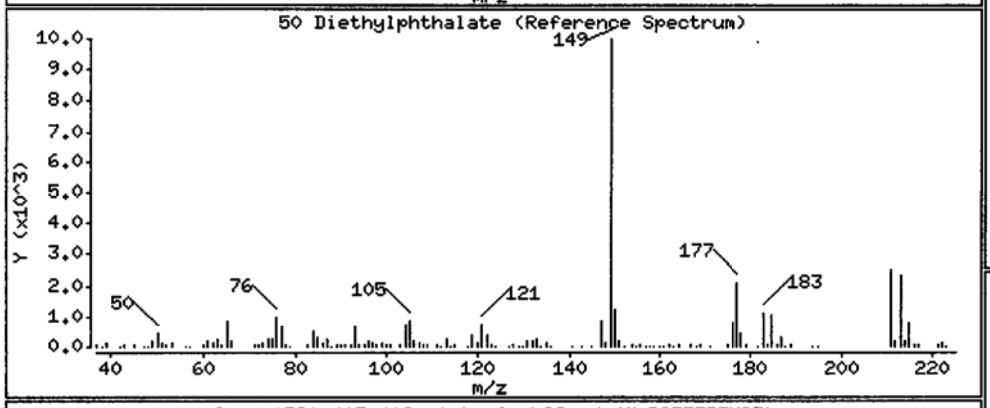
Column diameter: 0.25

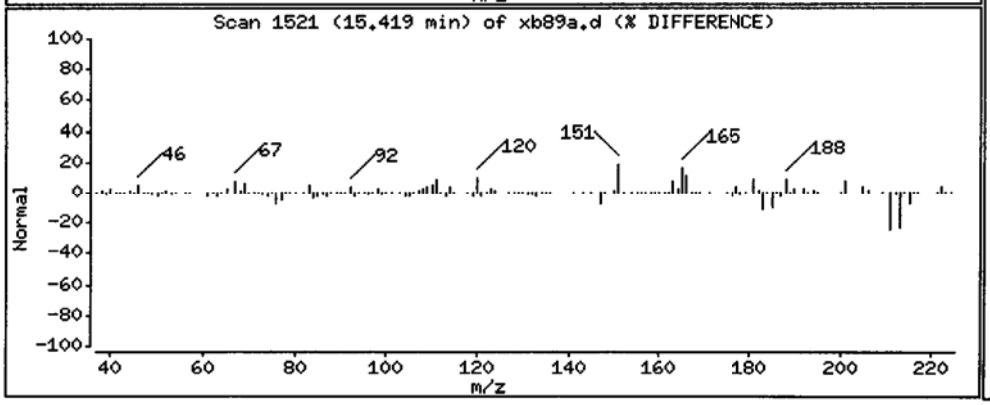
50 Diethylphthalate

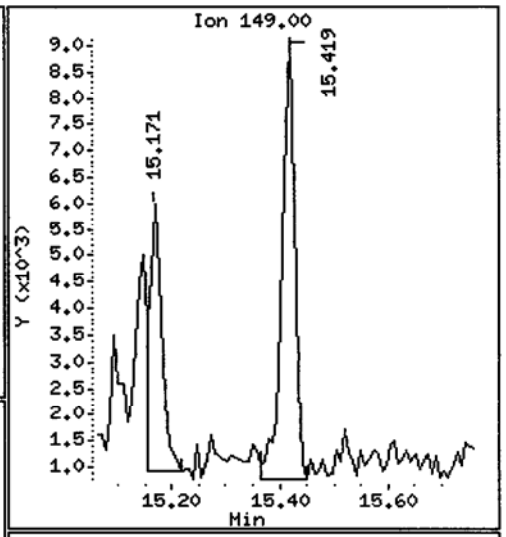
Concentration: 57.35 ug/kg

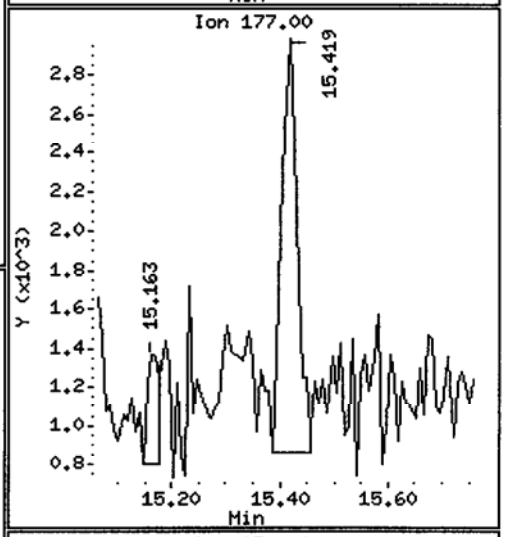


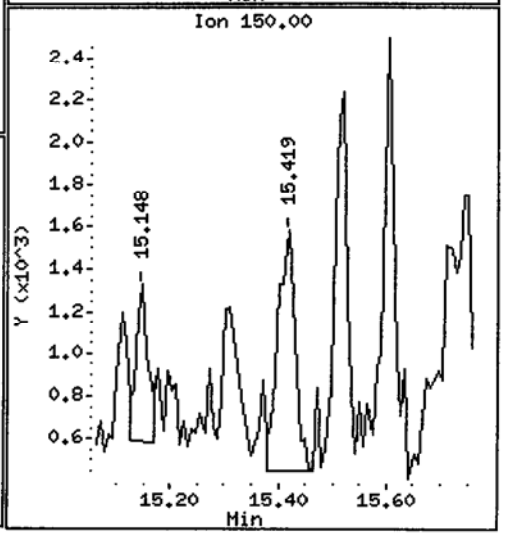












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

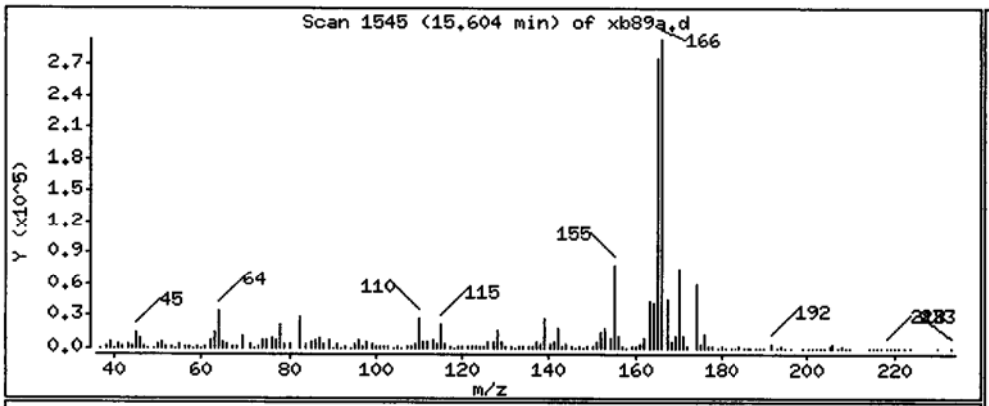
Operator: VTS/YZ

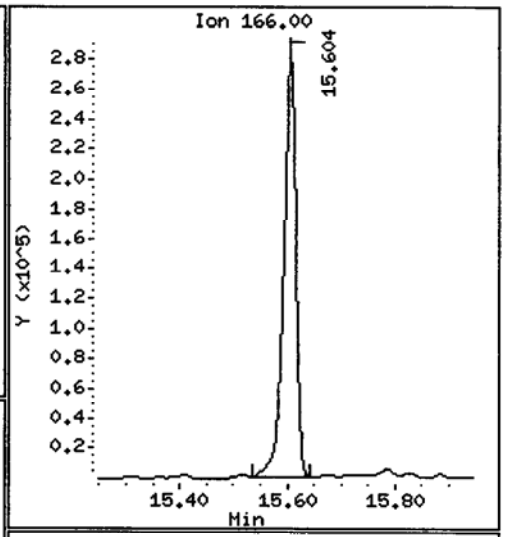
Column phase: ZB-5msi

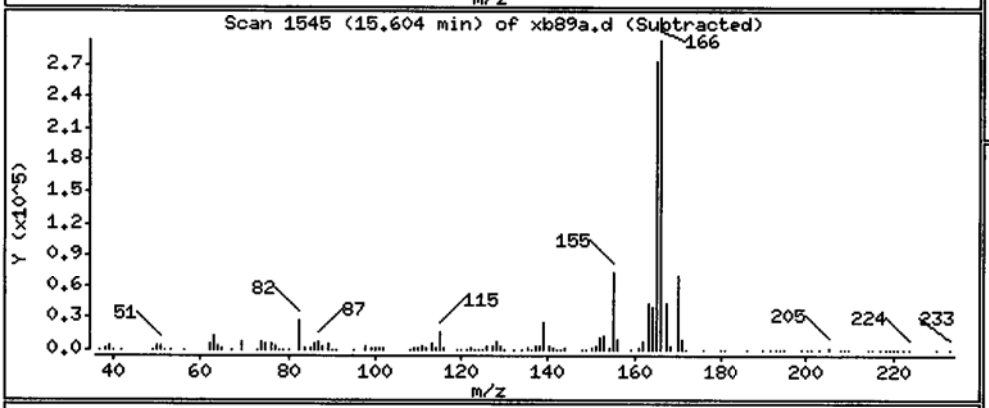
Column diameter: 0.25

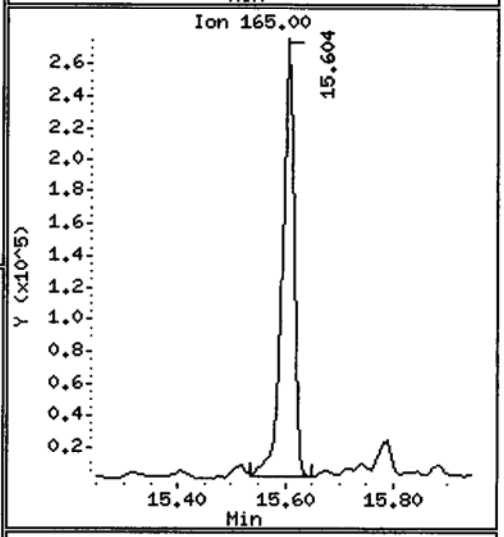
49 Fluorene

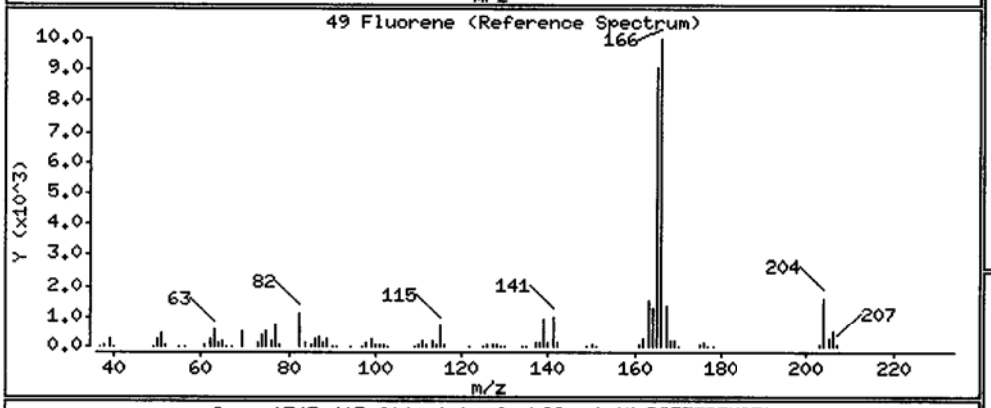
Concentration: 1771 ug/kg

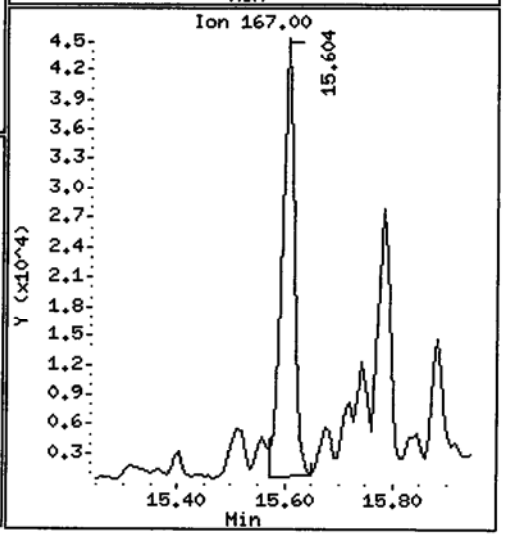


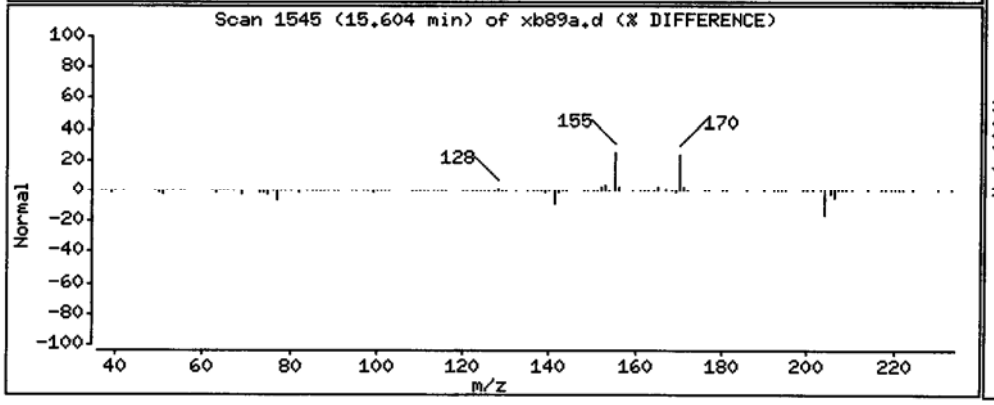












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

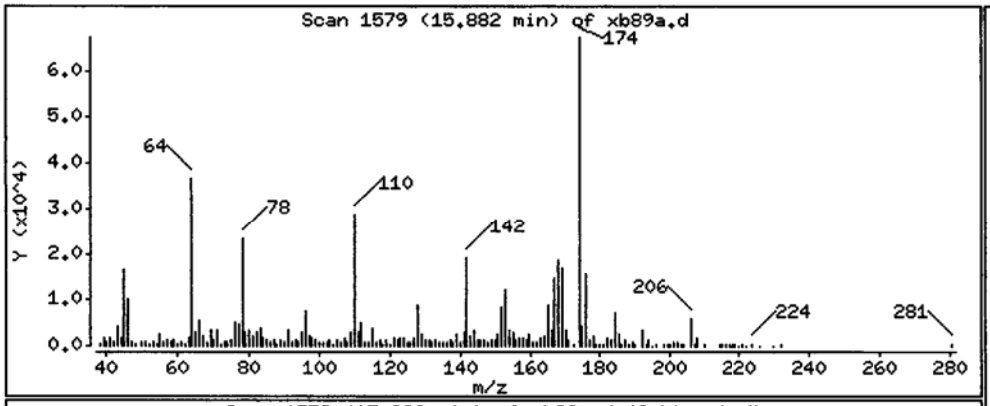
Operator: VTS/YZ

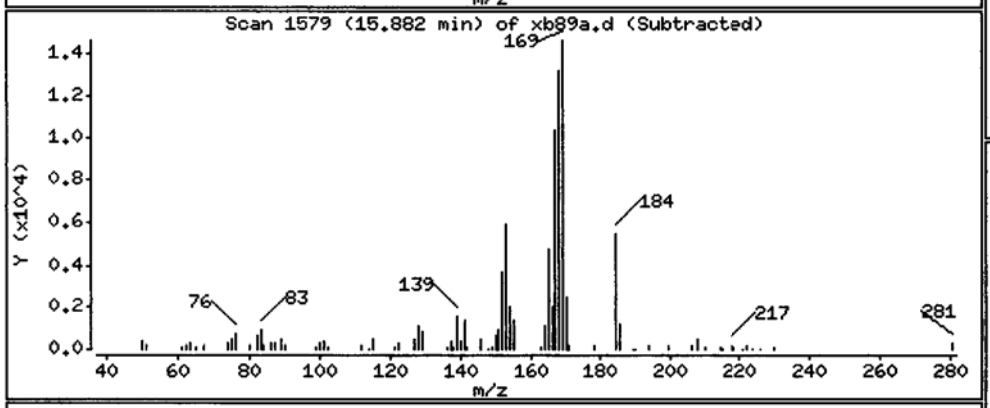
Column phase: ZB-5ms1

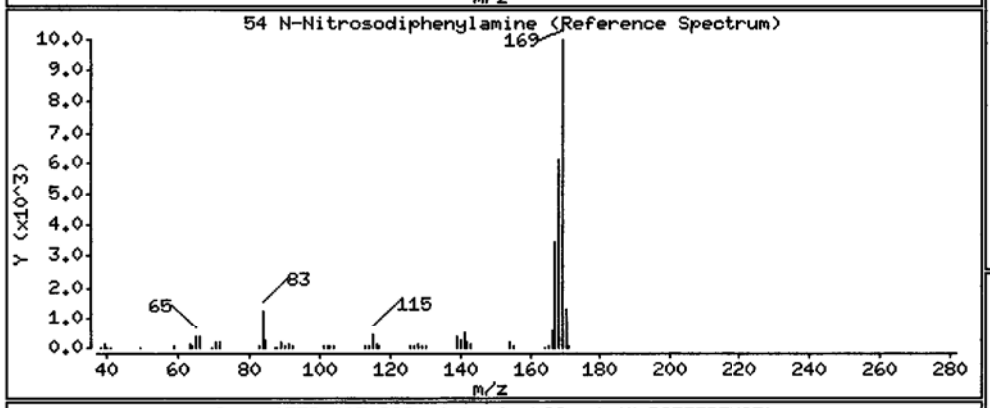
Column diameter: 0.25

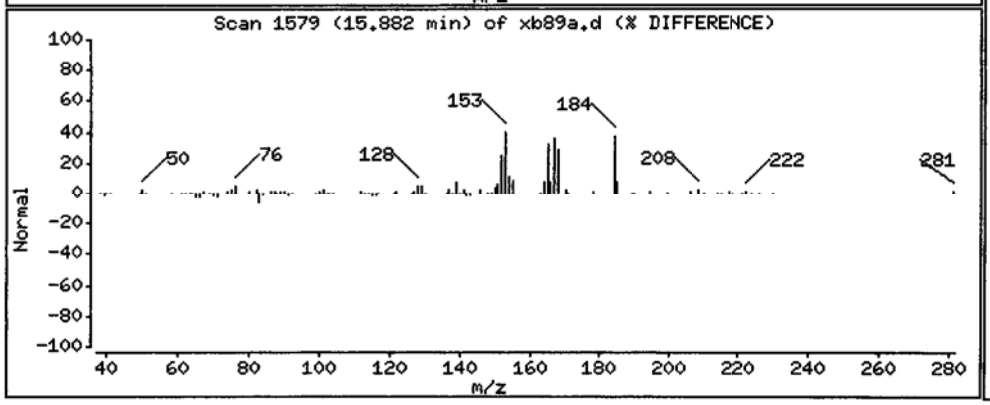
54 N-Nitrosodiphenylamine

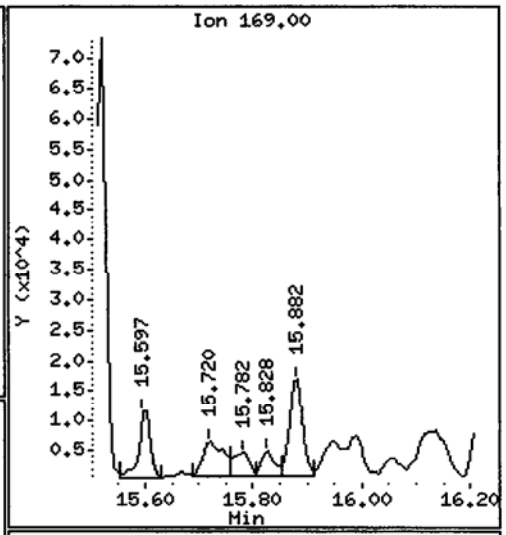
Concentration: 206.8 ug/kg

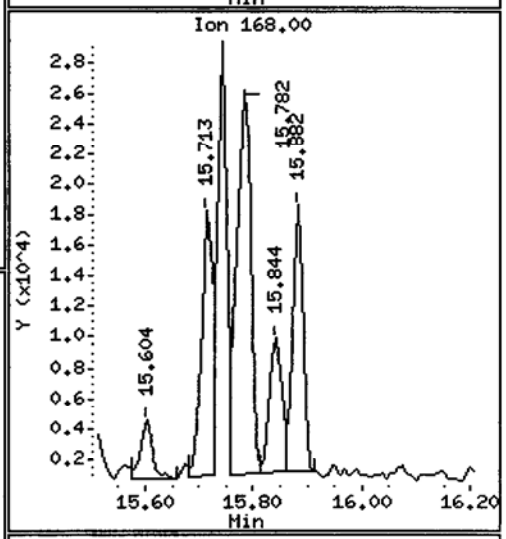


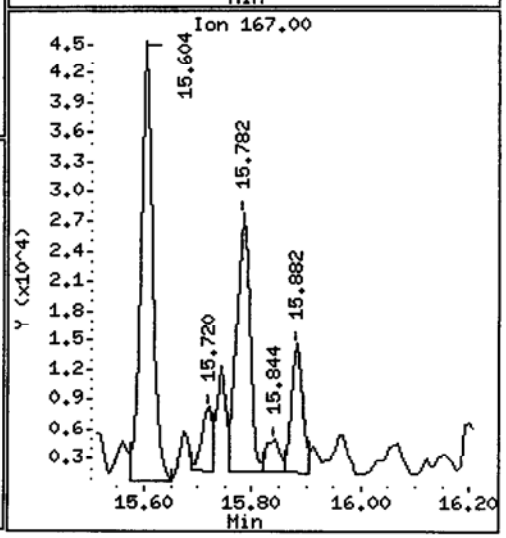












XB89 : 60416

Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

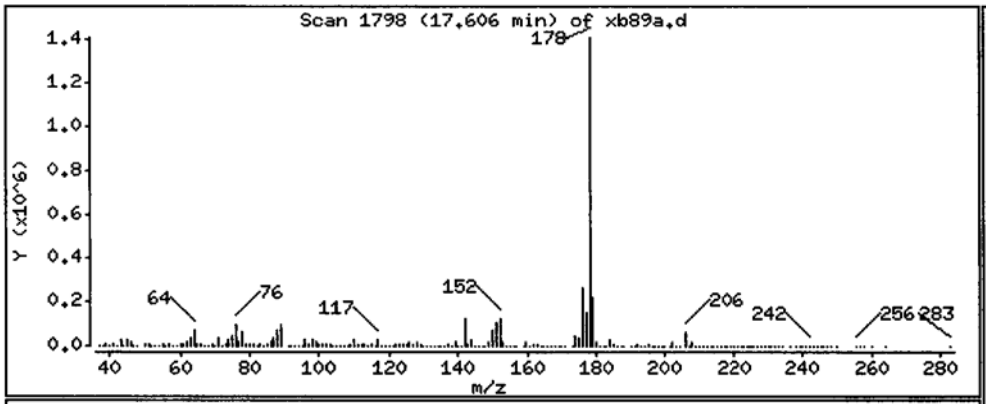
Client ID: IJ13-SS-102 Instrument: nt10.i

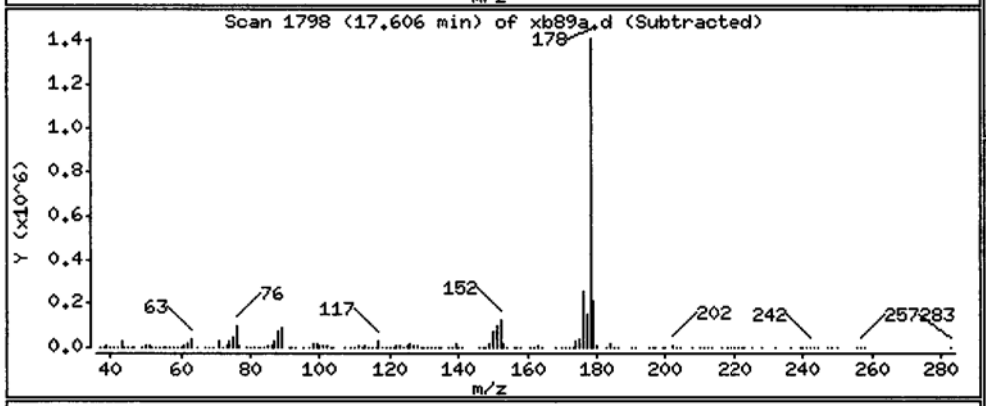
Sample Info: XB89A

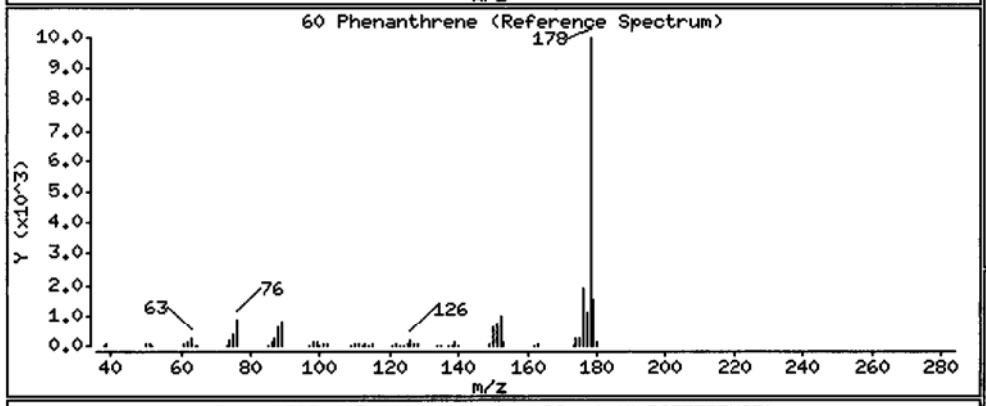
Volume Injected (uL): 1.0 Operator: VTS/YZ

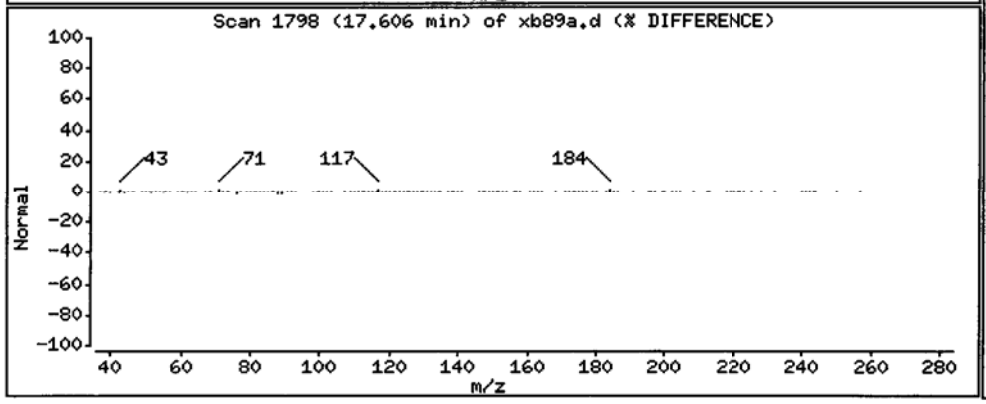
Column phase: ZB-5msi Column diameter: 0.25

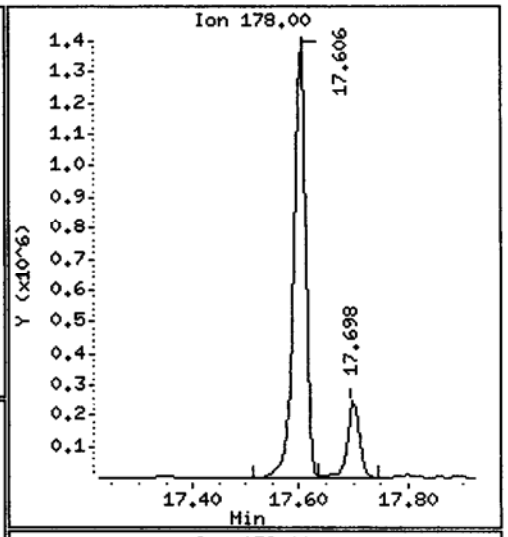
60 Phenanthrene Concentration: 7348 ug/kg

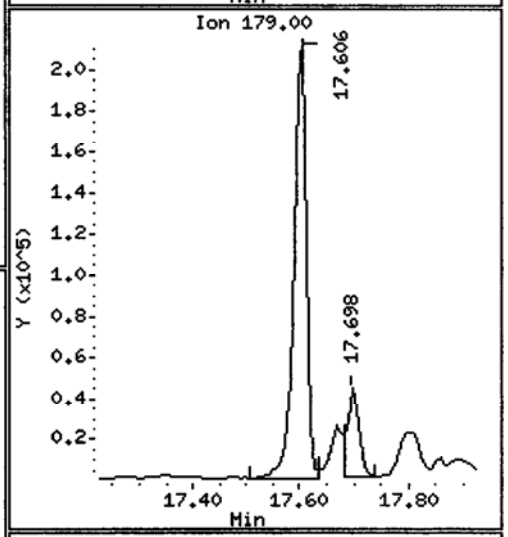


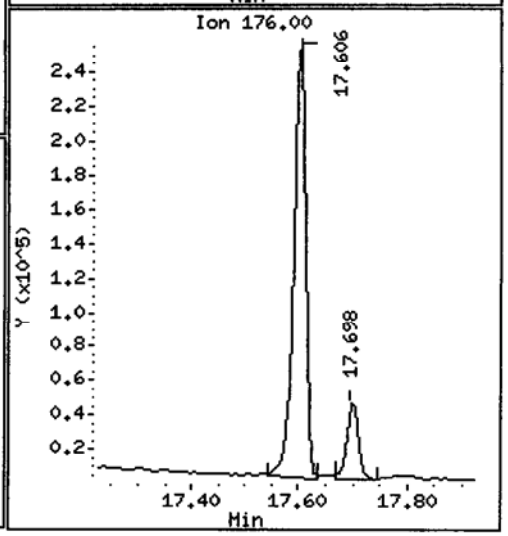












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

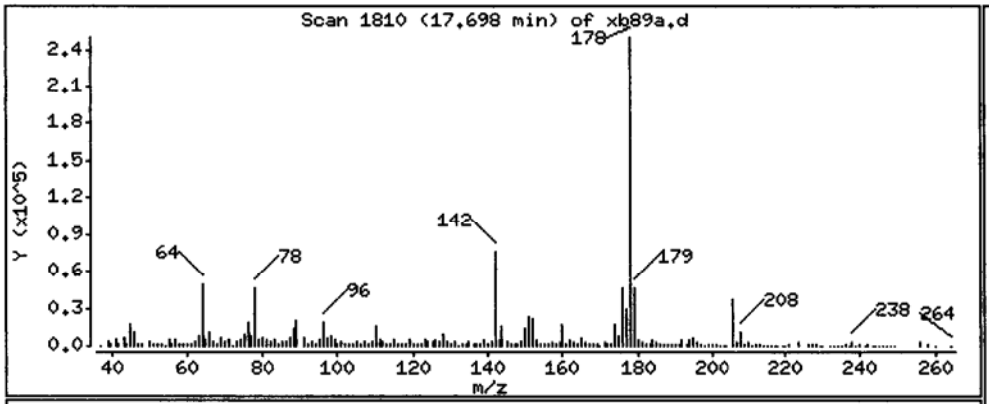
Operator: VTS/YZ

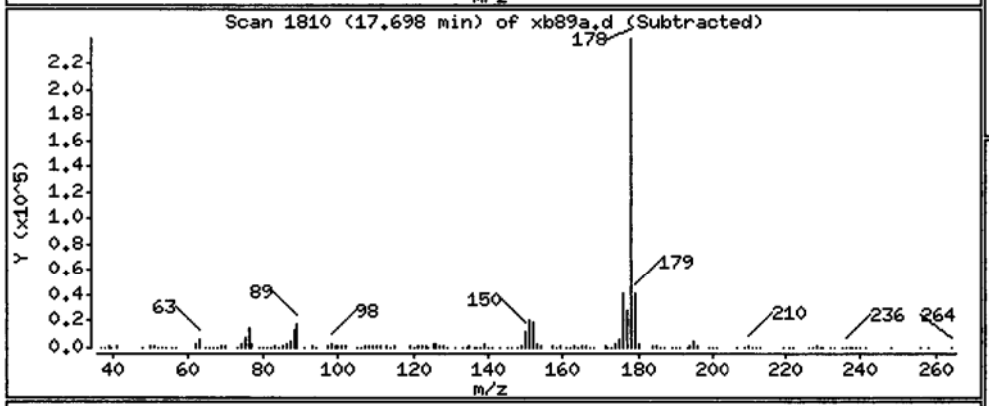
Column phase: ZB-5msi

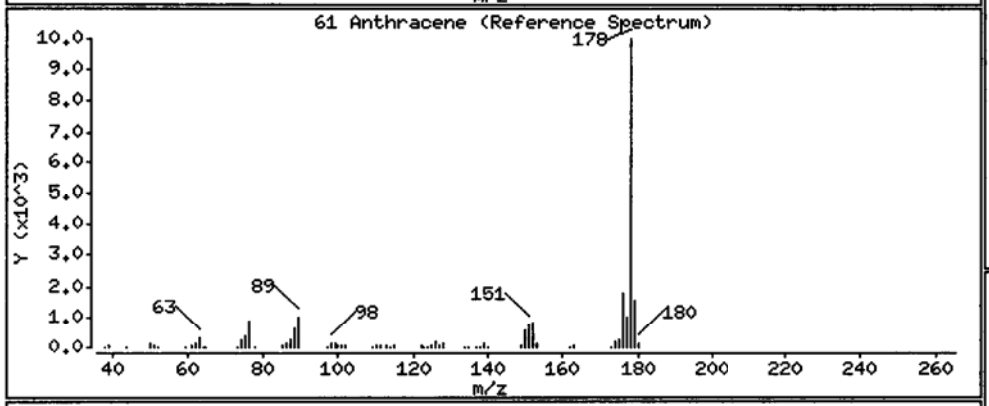
Column diameter: 0.25

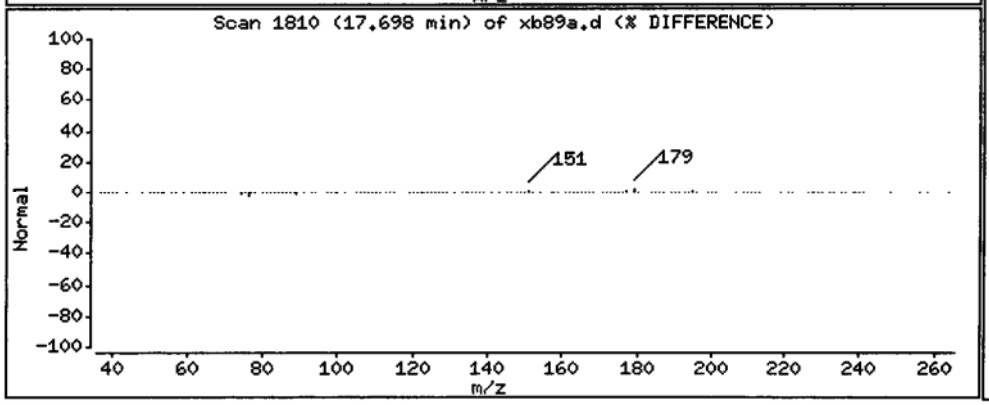
61 Anthracene

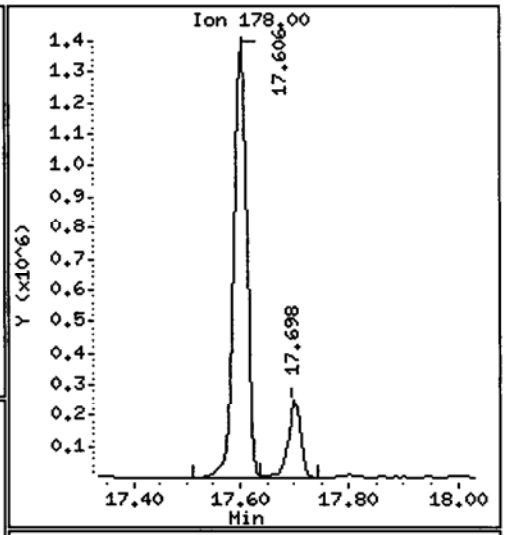
Concentration: 1234 ug/kg

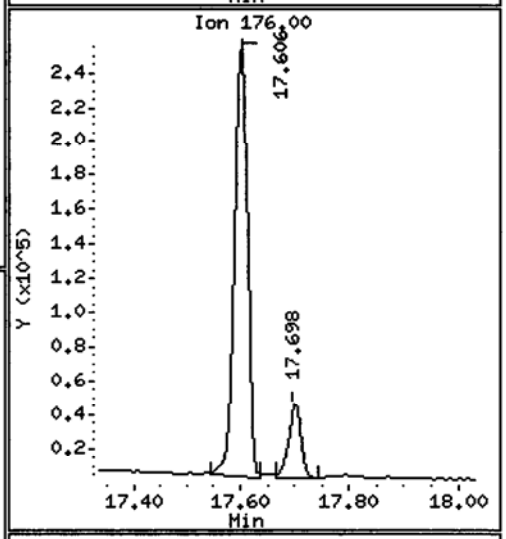


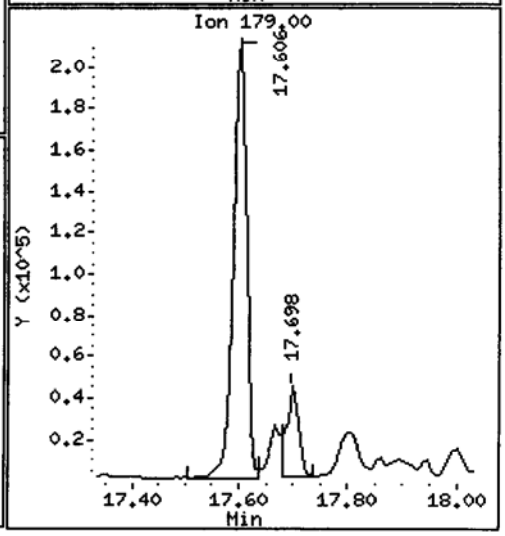












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

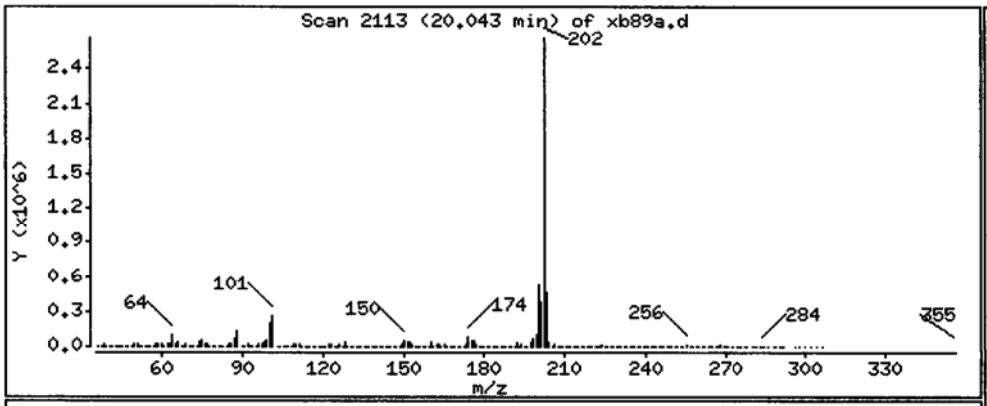
Operator: VTS/YZ

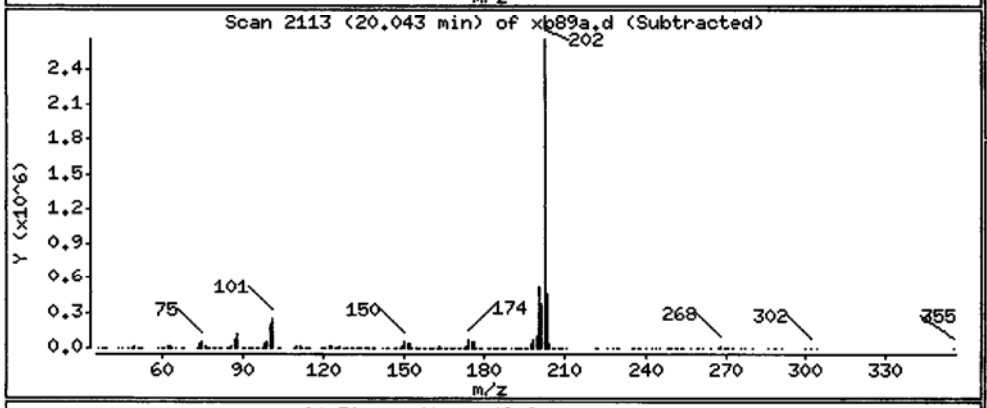
Column phase: ZB-5msi

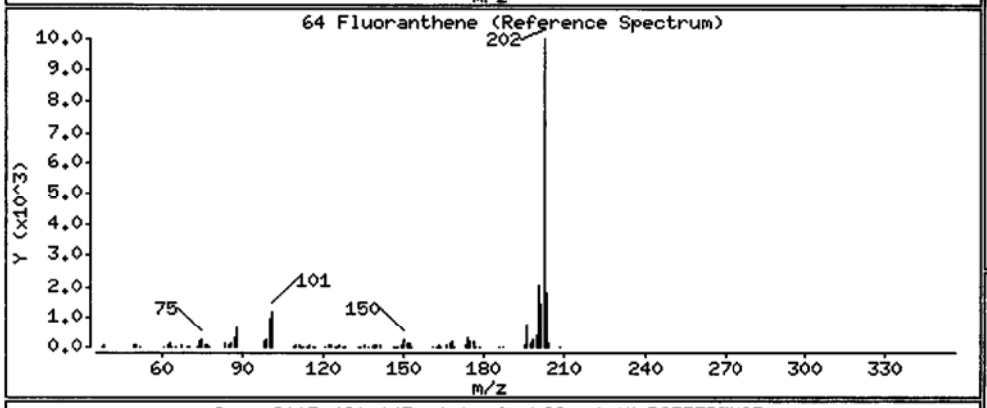
Column diameter: 0.25

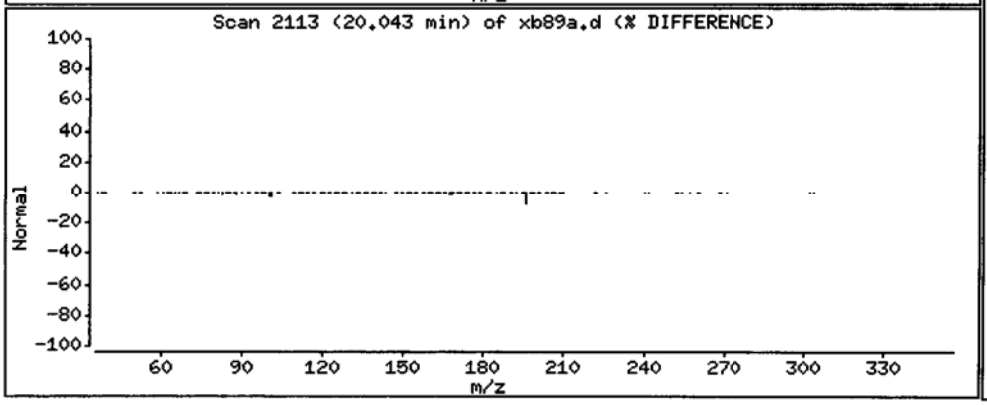
64 Fluoranthene

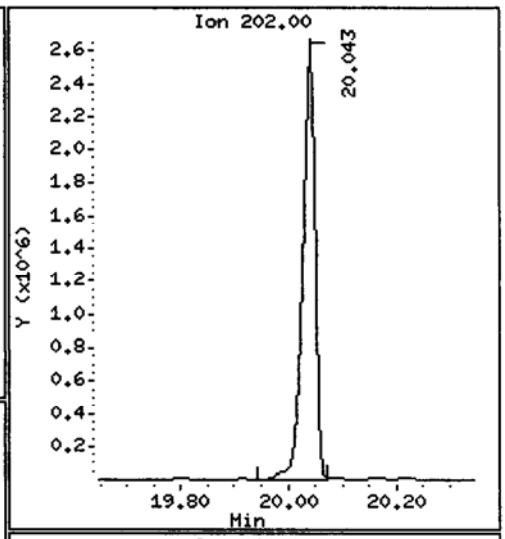
Concentration: 10690 ug/kg

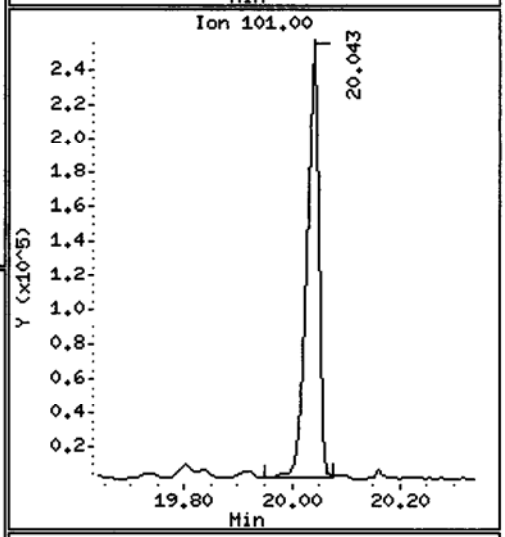


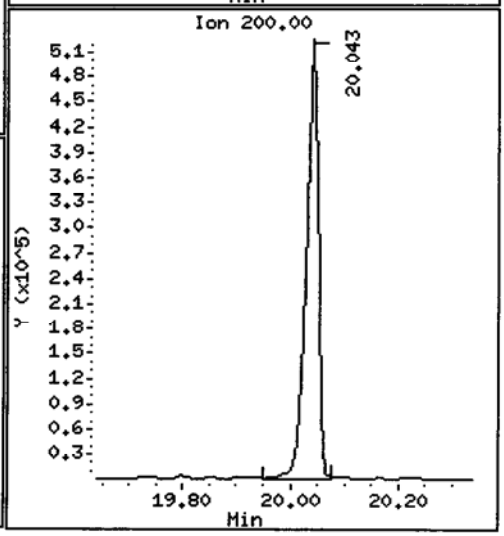












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

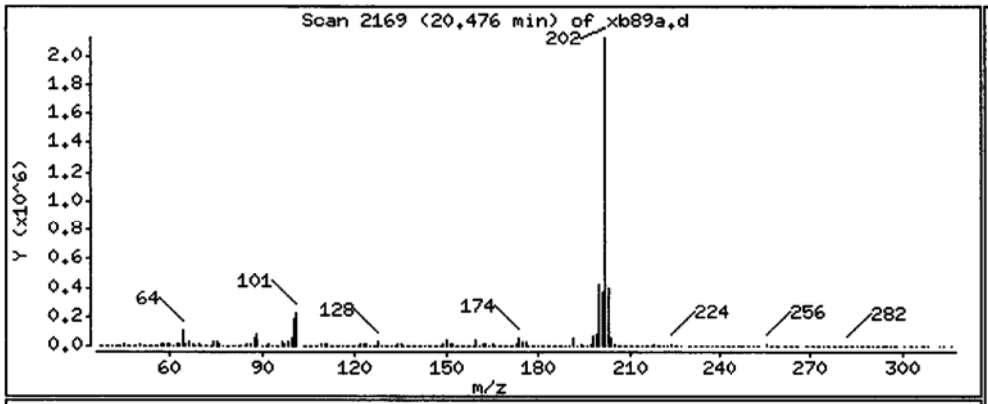
Operator: VTS/YZ

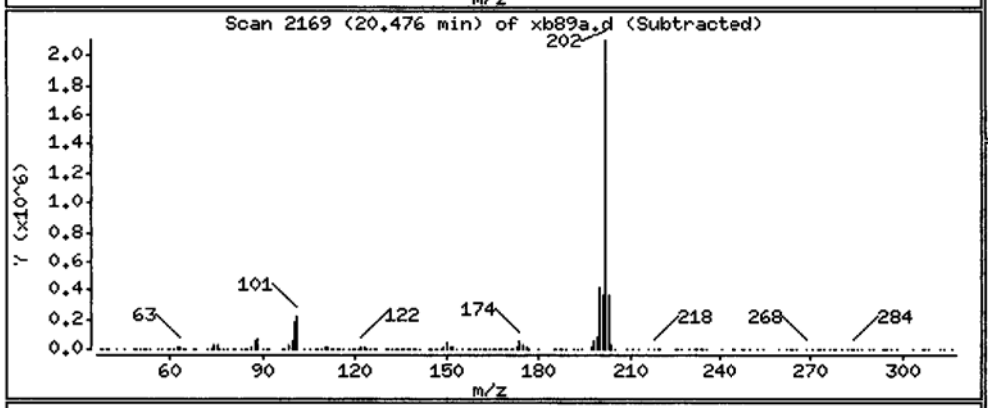
Column phase: ZB-5msi

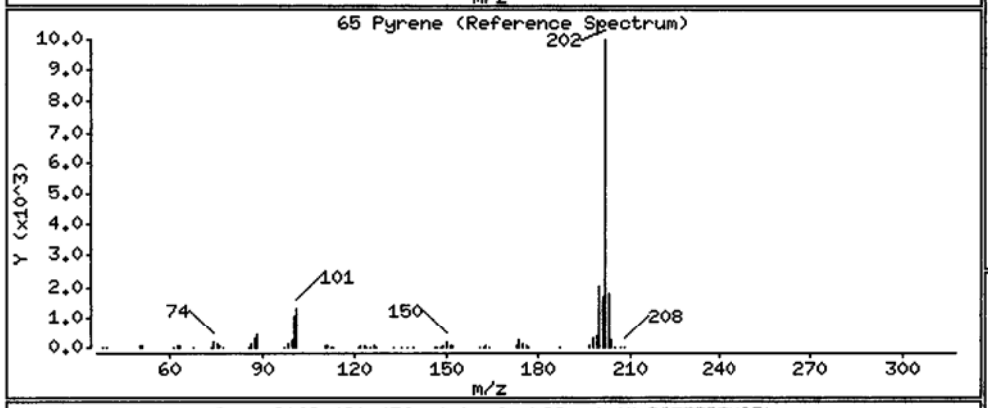
Column diameter: 0.25

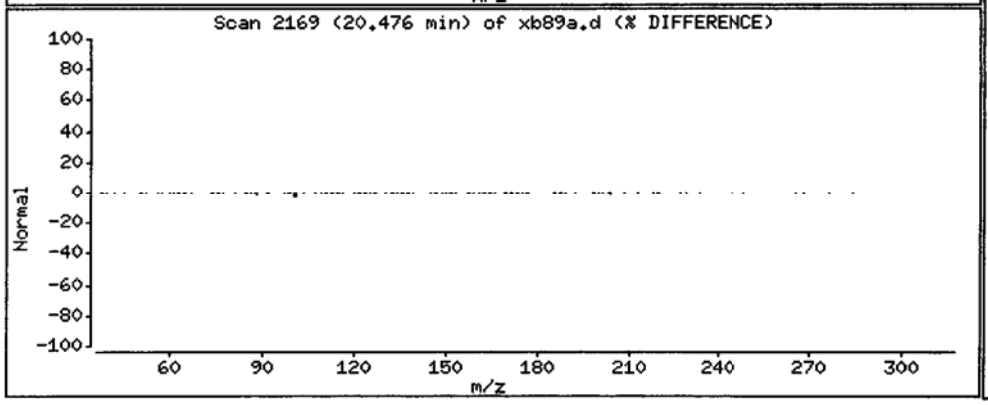
65 Pyrene

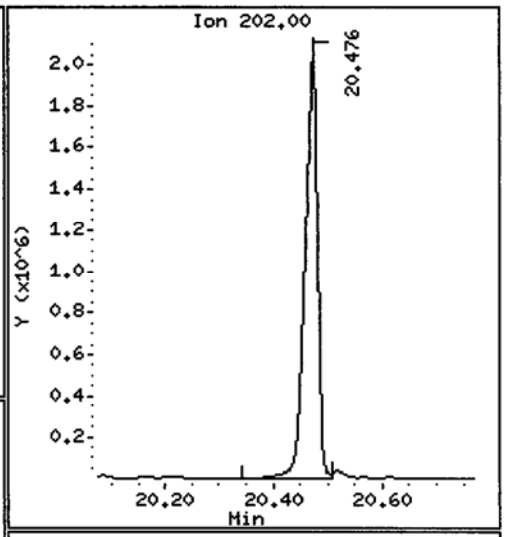
Concentration: 8158 ug/kg

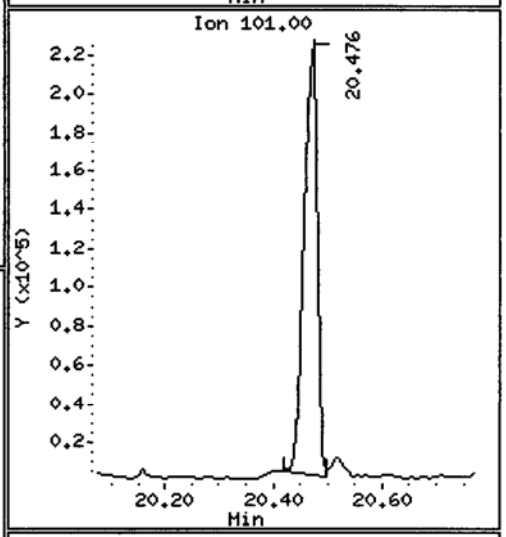


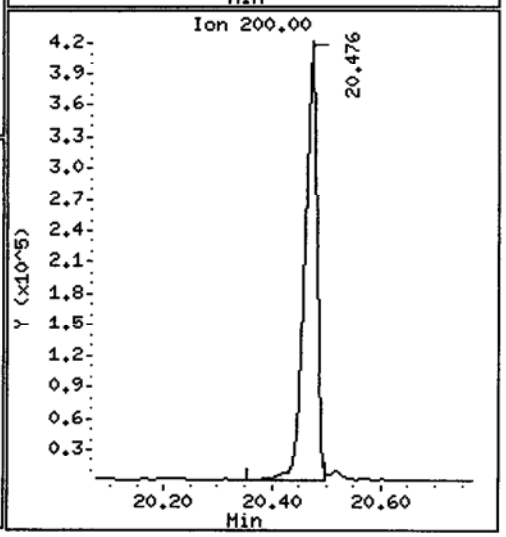












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

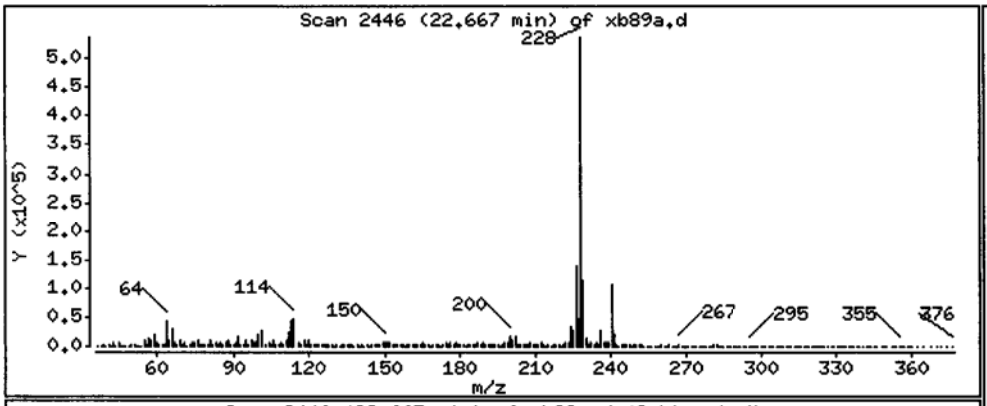
Operator: VTS/YZ

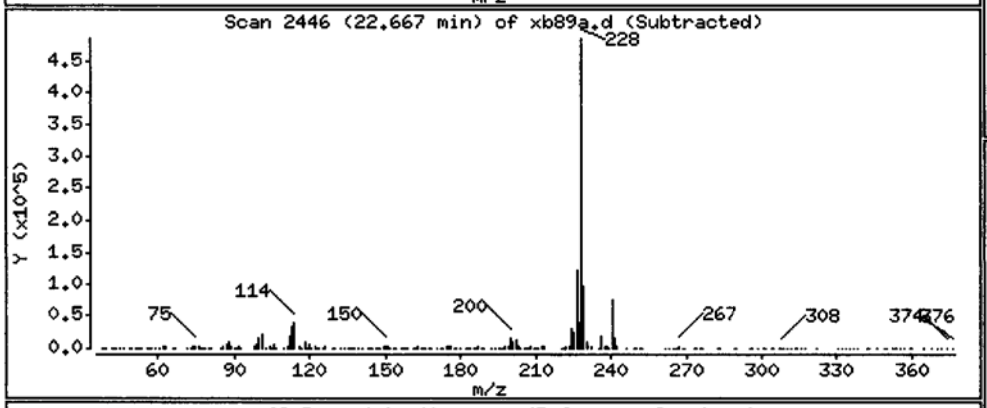
Column phase: ZB-5msi

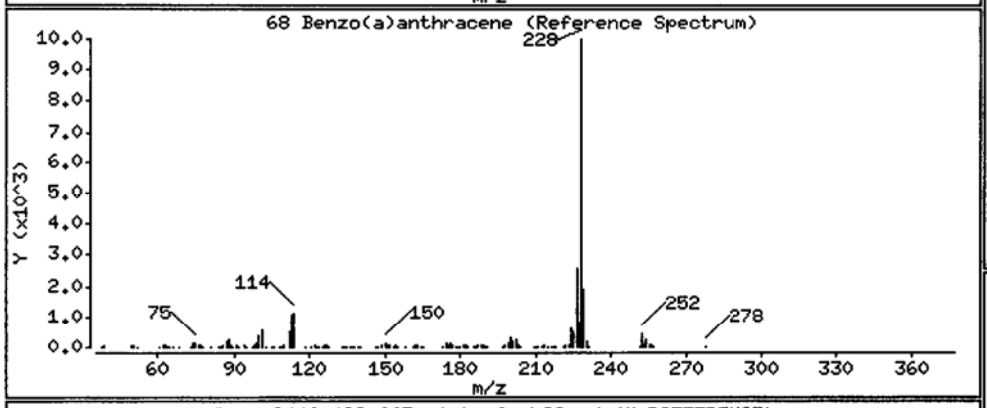
Column diameter: 0.25

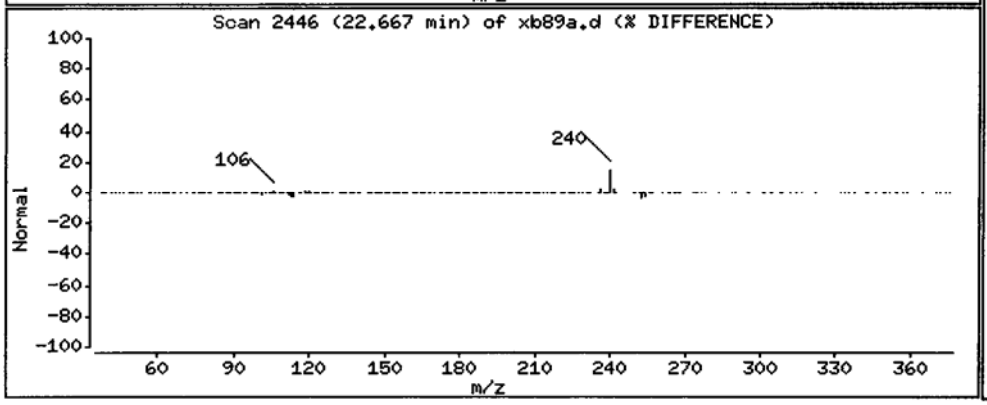
68 Benzo(a)anthracene

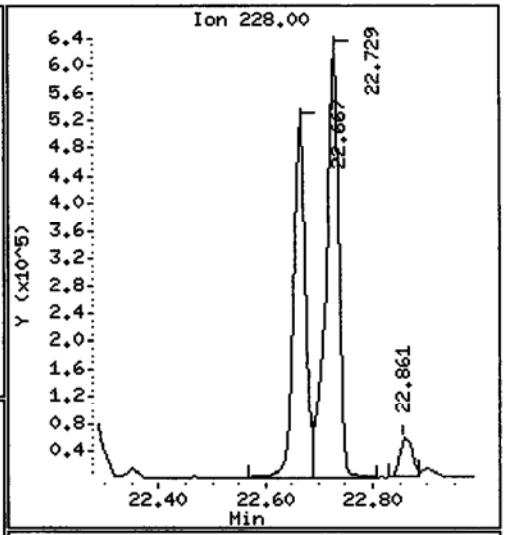
Concentration: 2327 ug/kg

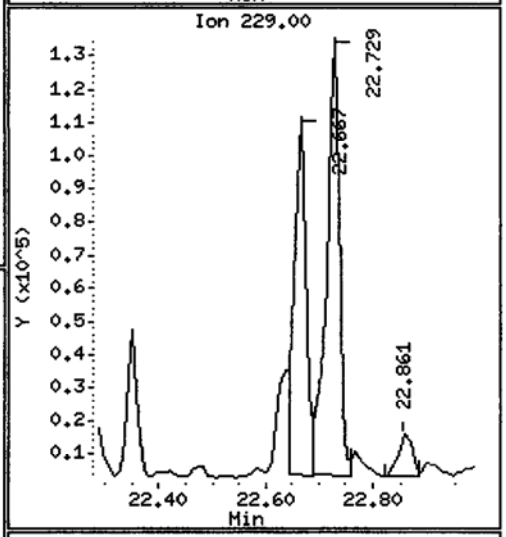


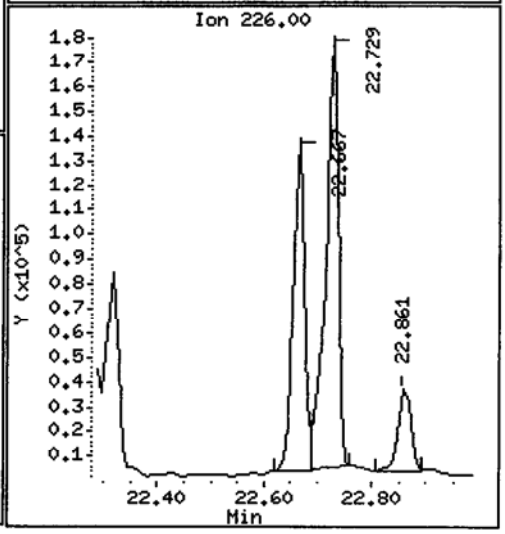












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

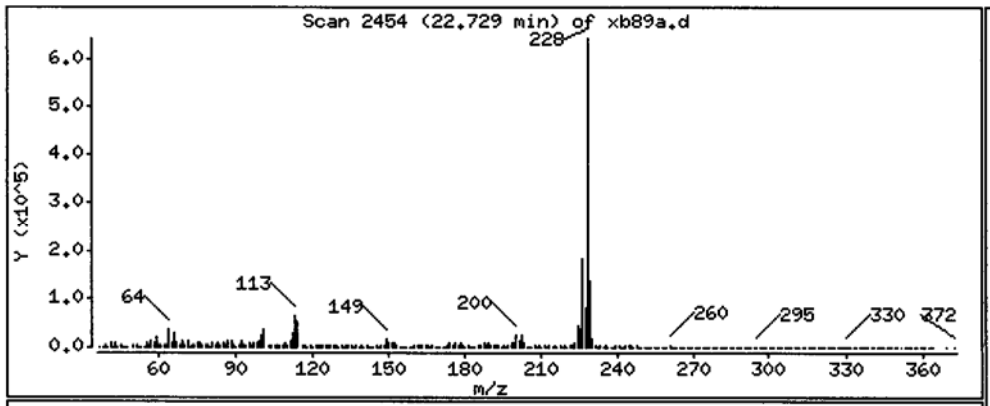
Operator: VTS/YZ

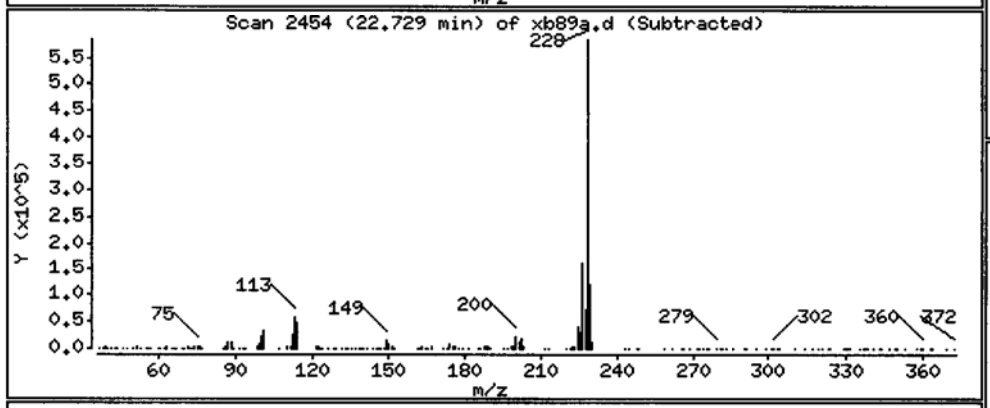
Column phase: ZB-5msi

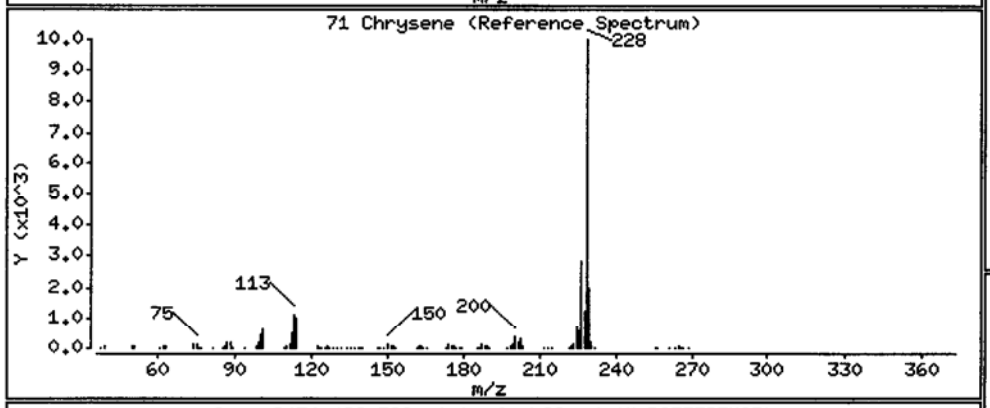
Column diameter: 0.25

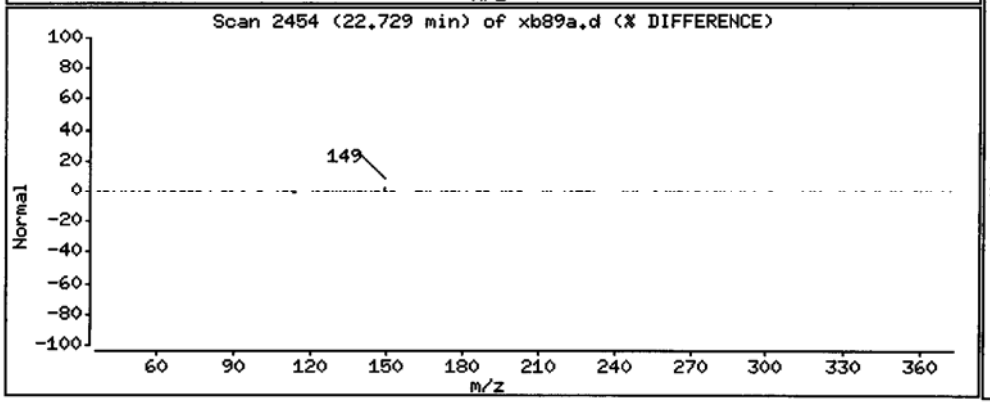
71 Chrysene

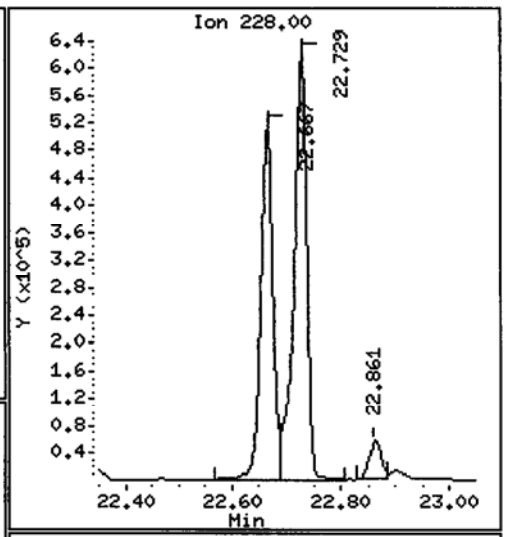
Concentration: 3395 ug/kg

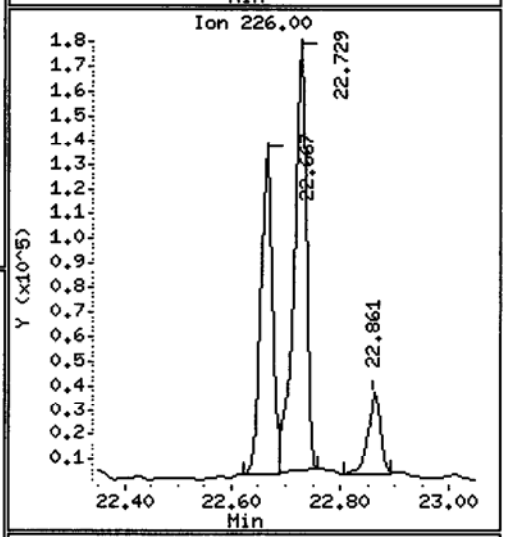


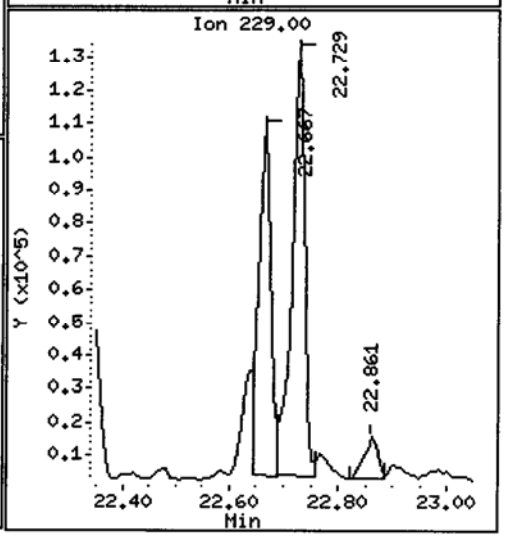












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

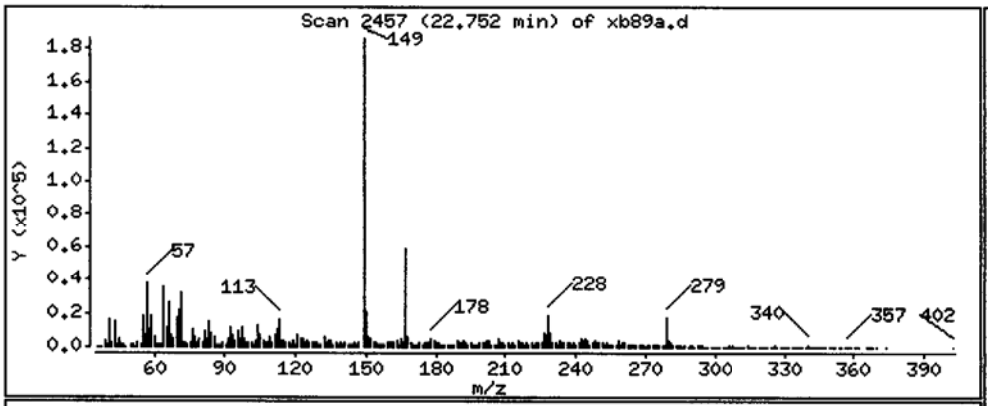
Operator: VTS/YZ

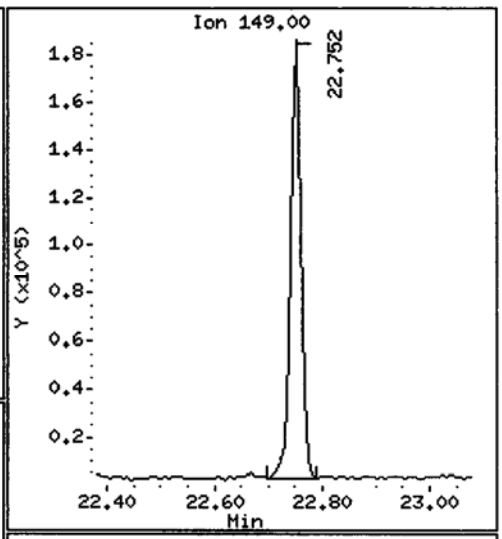
Column phase: ZB-5msi

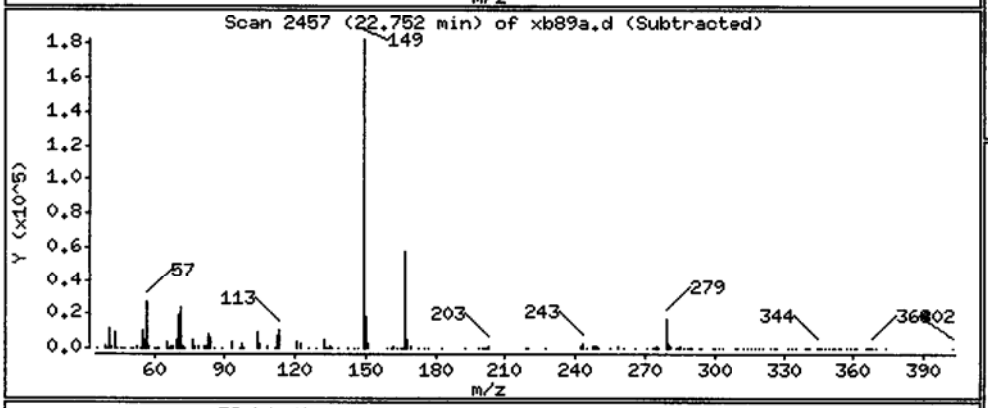
Column diameter: 0.25

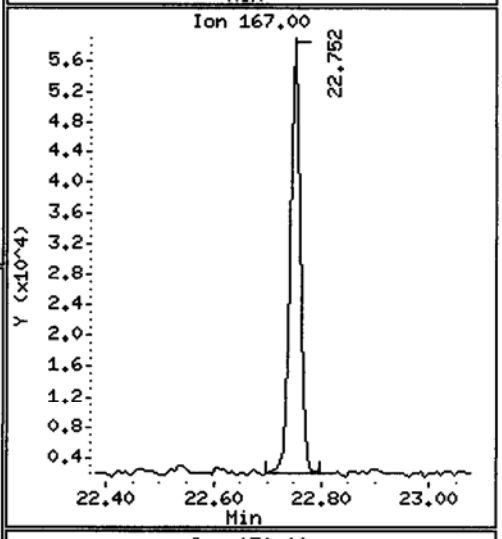
72 bis(2-Ethylhexyl)phthalate

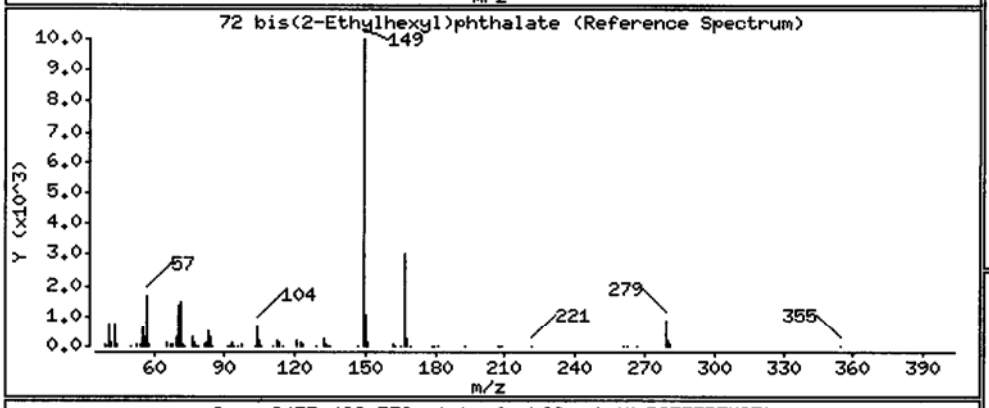
Concentration: 1400 ug/kg

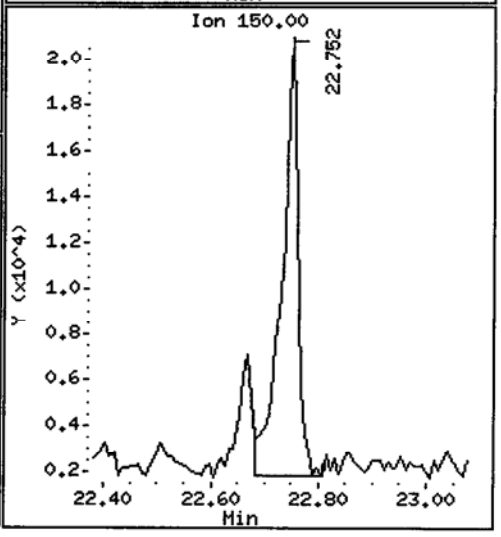


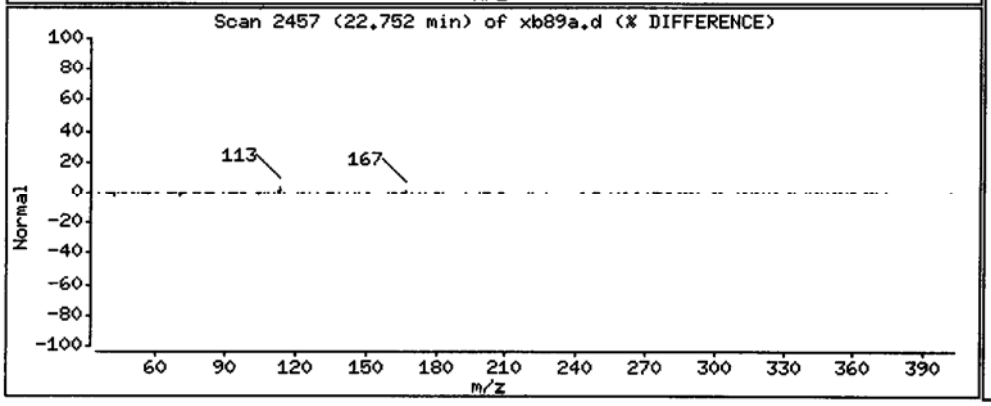












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

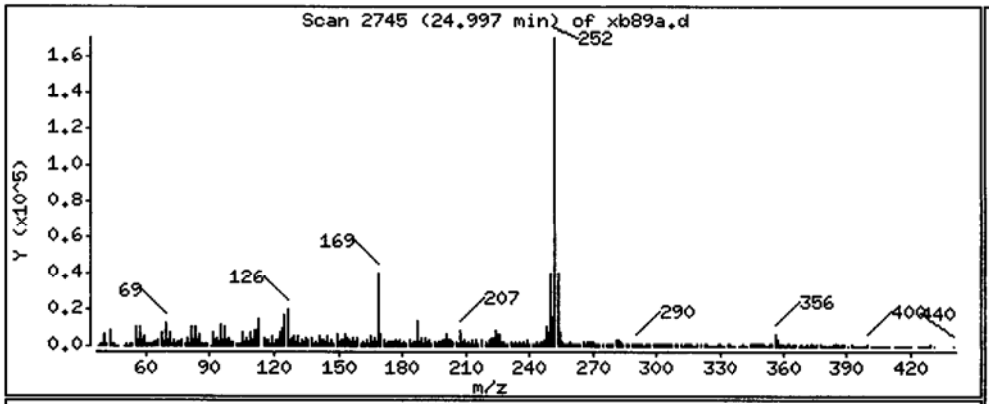
Operator: VTS/YZ

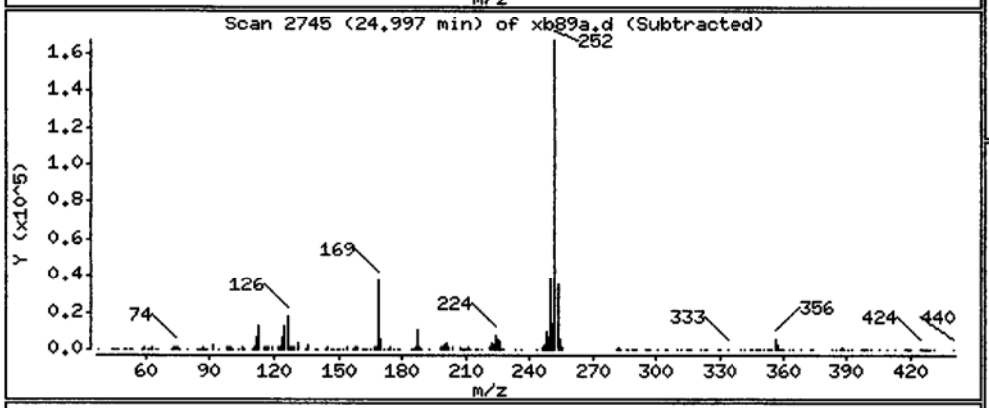
Column phase: ZB-5msi

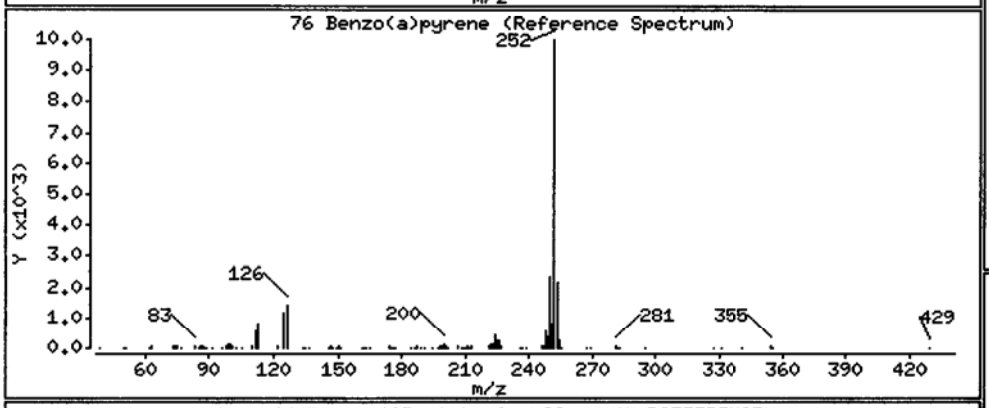
Column diameter: 0.25

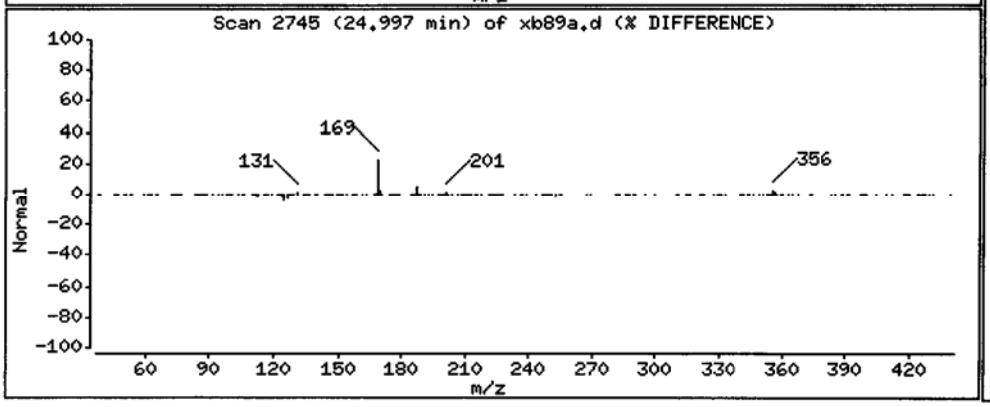
76 Benzo(a)pyrene

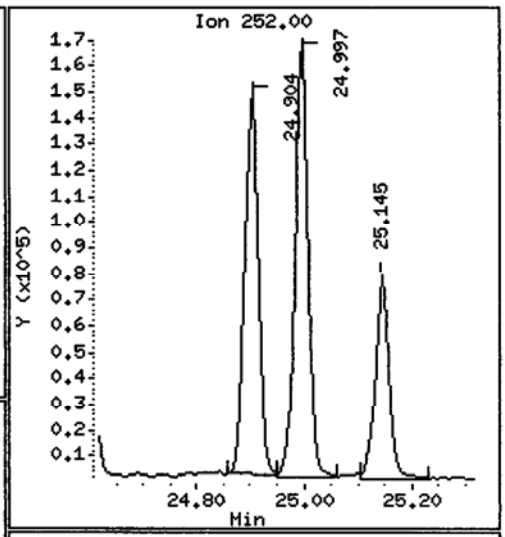
Concentration: 820.8 ug/kg

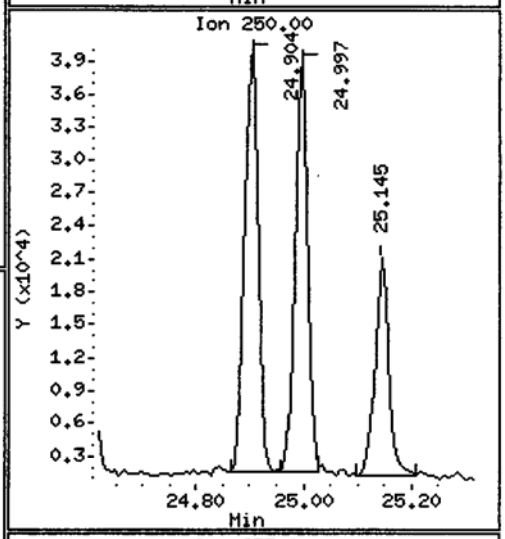


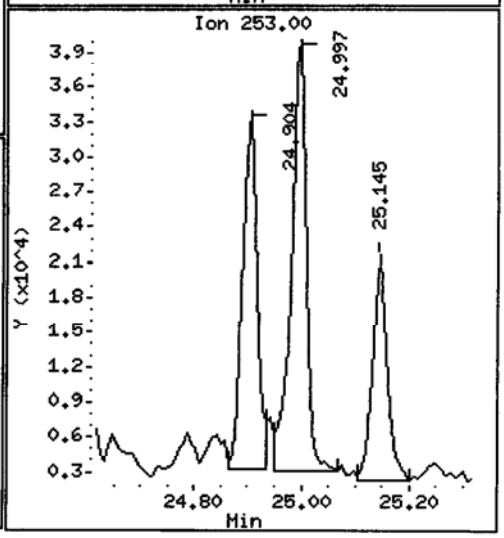












XB89 : 00418

Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

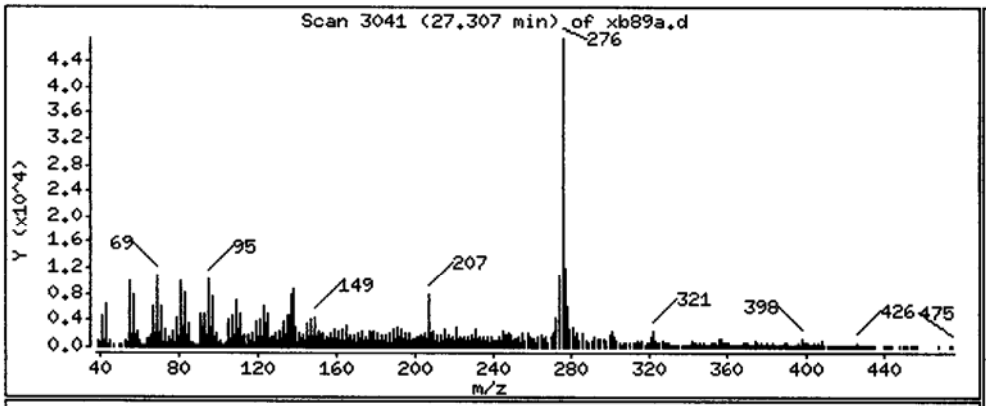
Operator: VTS/YZ

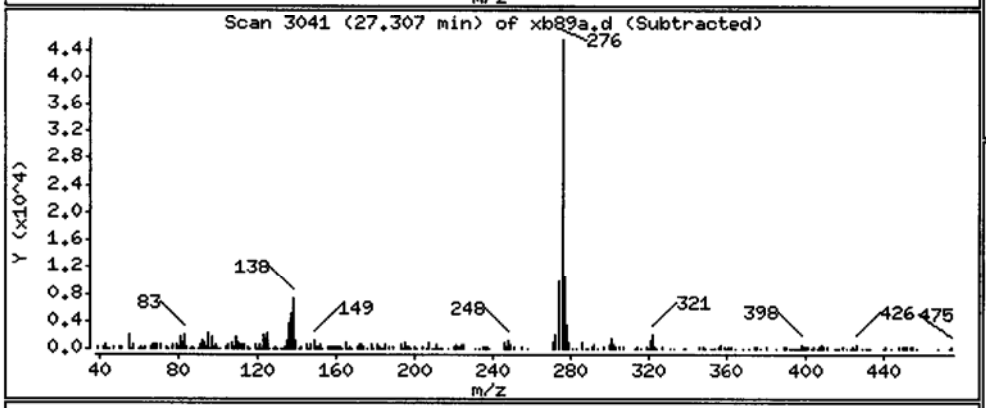
Column phase: ZB-5msi

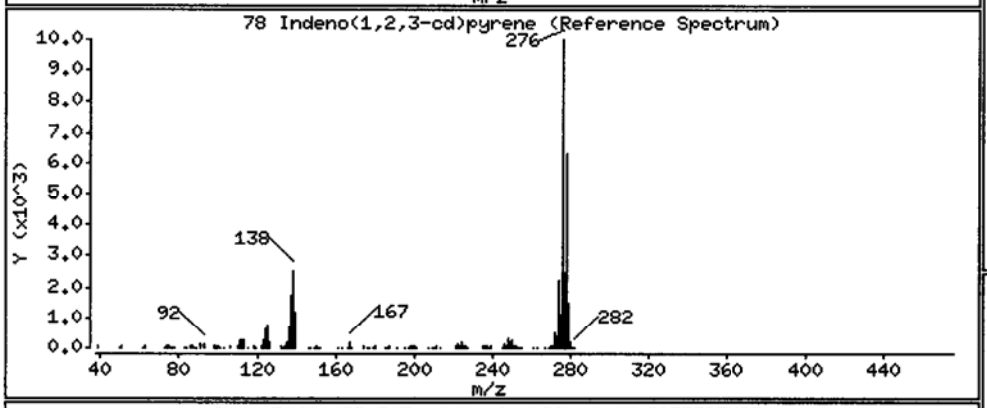
Column diameter: 0.25

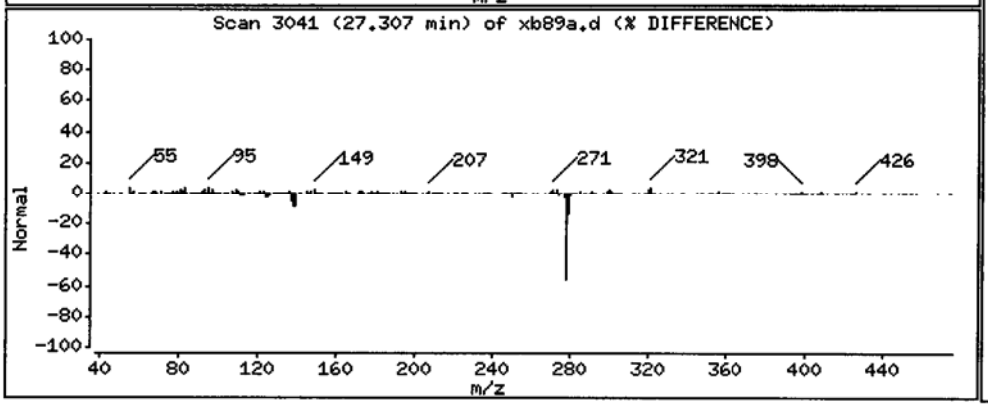
78 Indeno(1,2,3-cd)pyrene

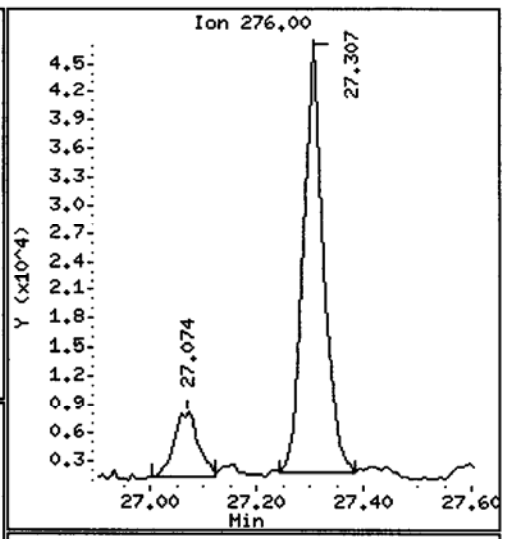
Concentration: 272.8 ug/kg

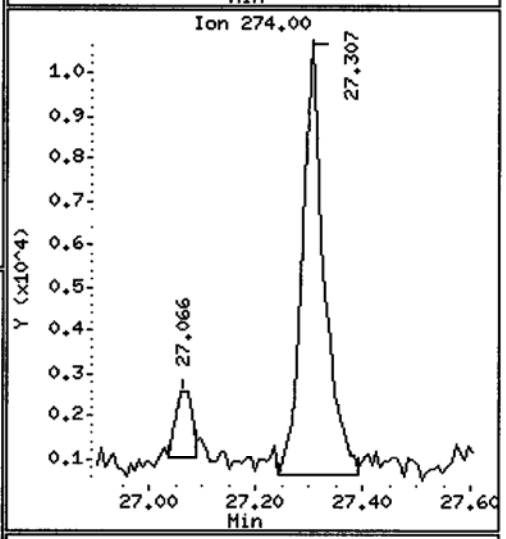


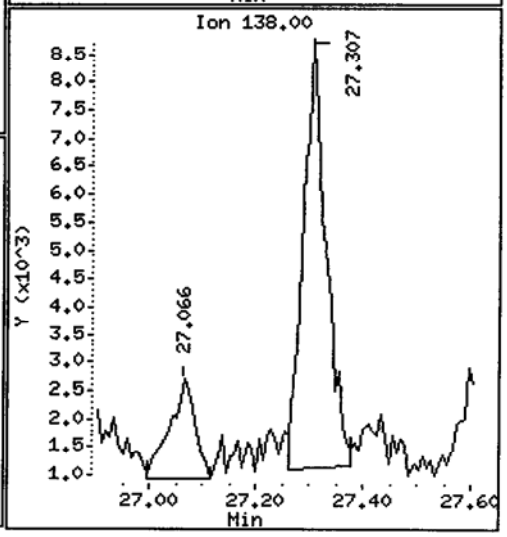












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

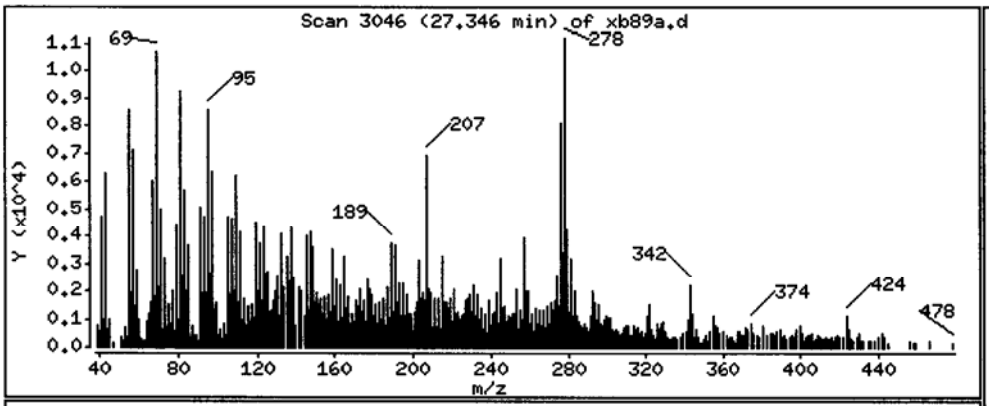
Operator: VTS/YZ

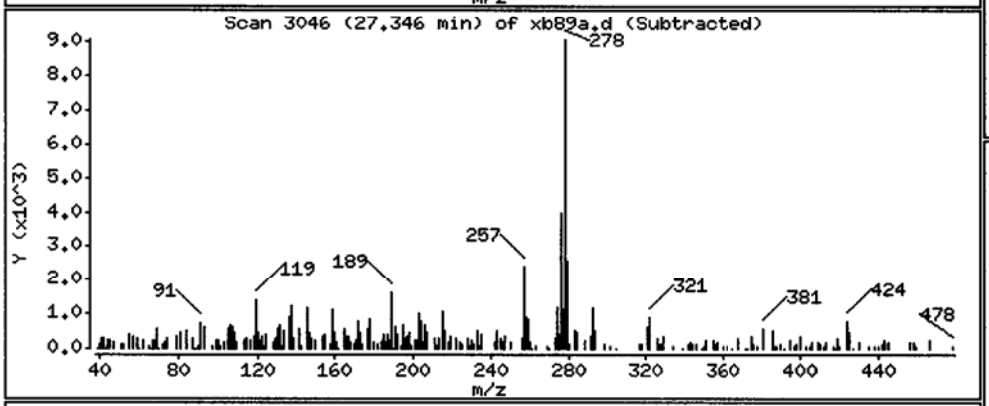
Column phase: ZB-5msi

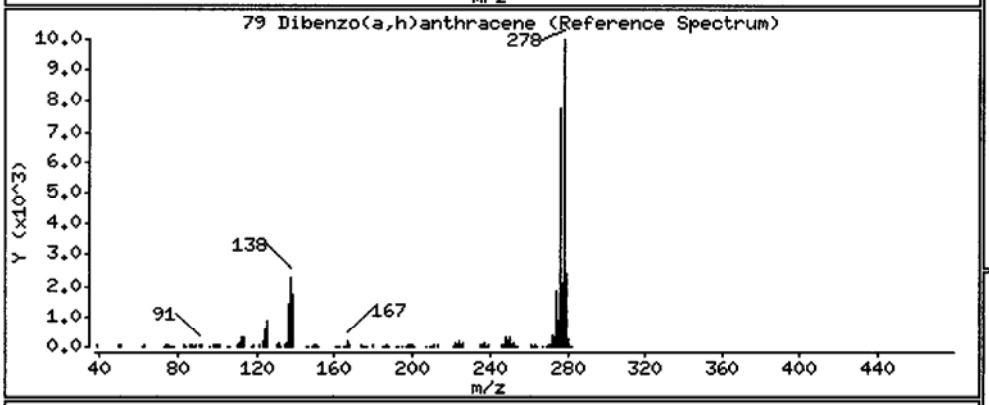
Column diameter: 0.25

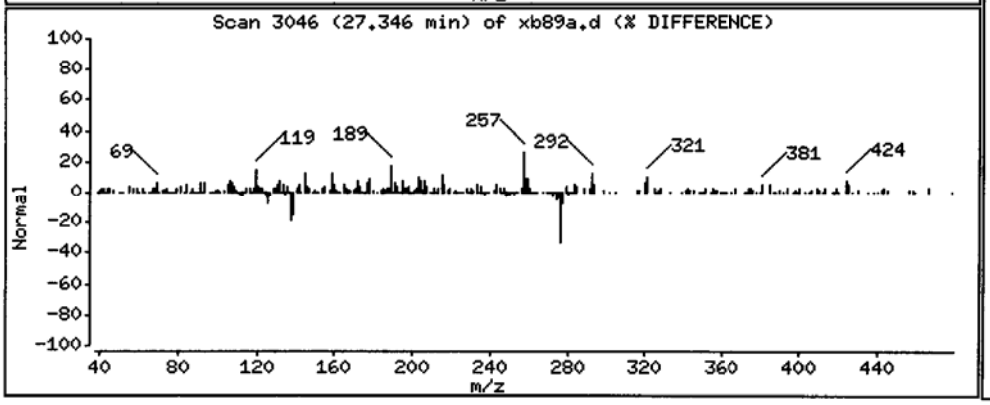
79 Dibenzo(a,h)anthracene

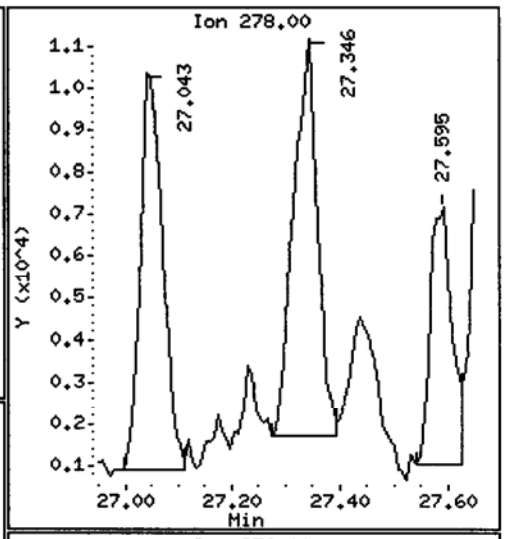
Concentration: 87.80 ug/kg

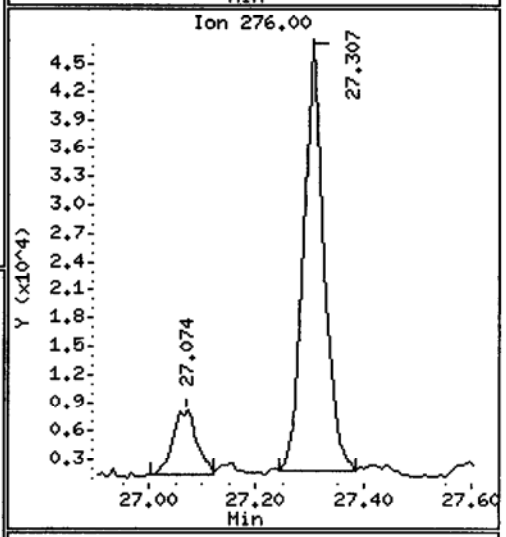


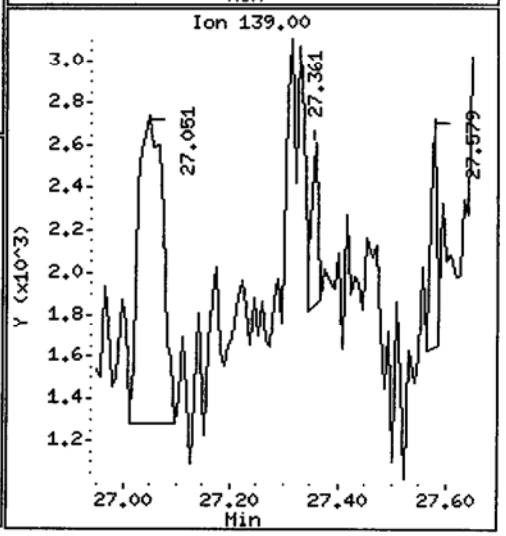












XB89:00420

Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

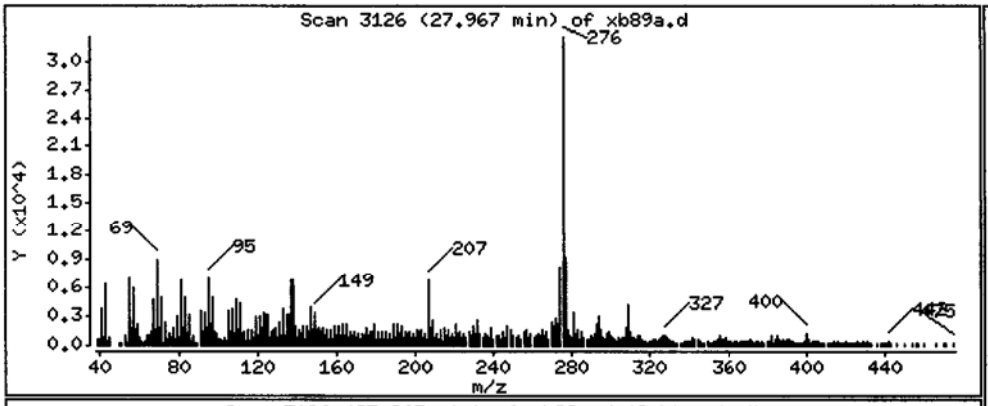
Operator: VTS/YZ

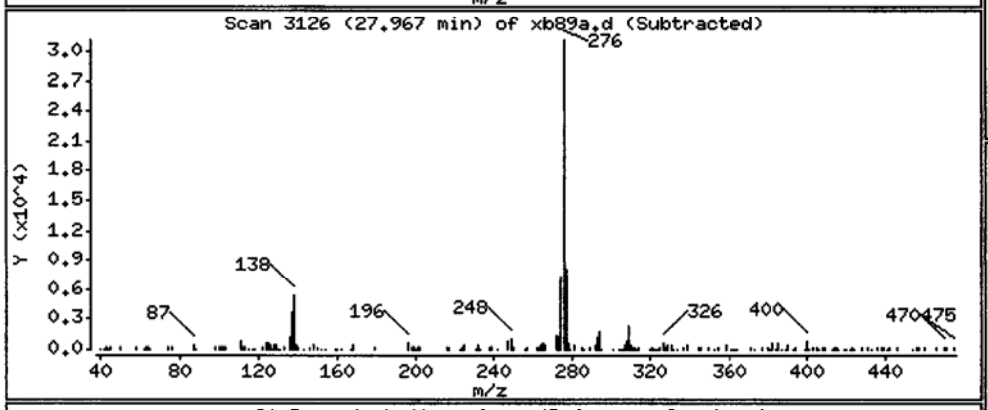
Column phase: ZB-5msi

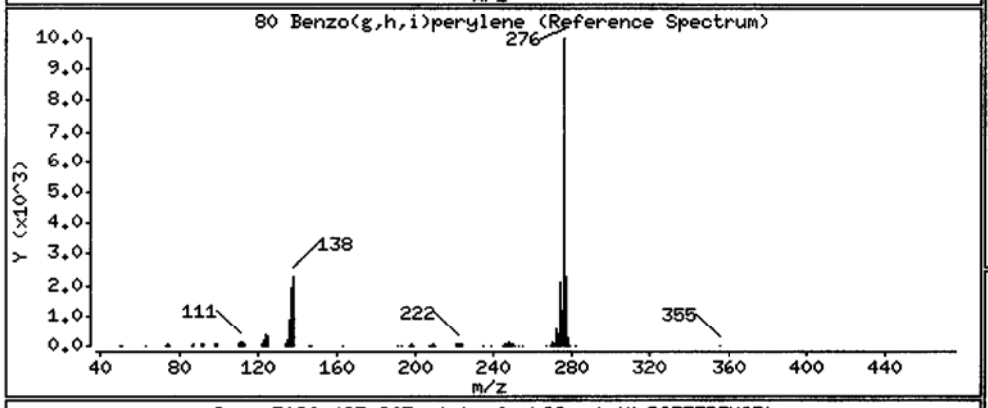
Column diameter: 0.25

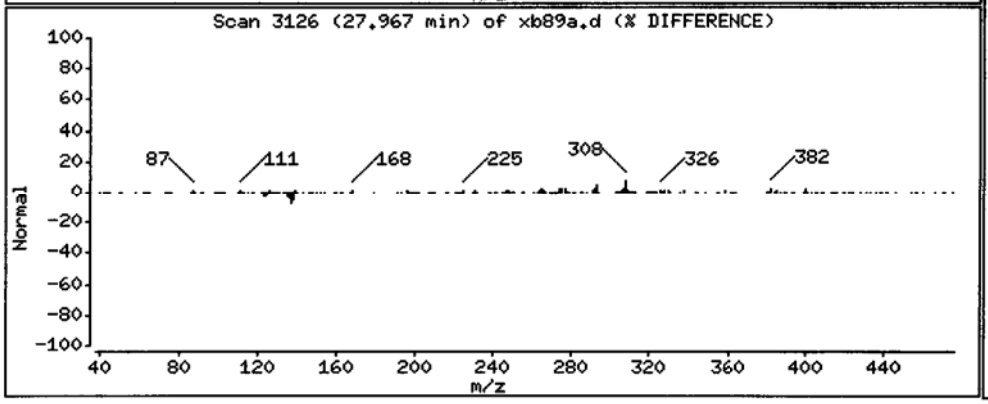
80 Benzo(g,h,i)perylene

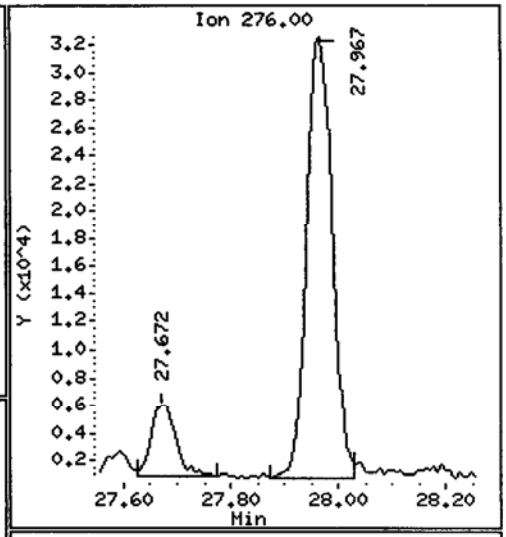
Concentration: 276.8 ug/kg

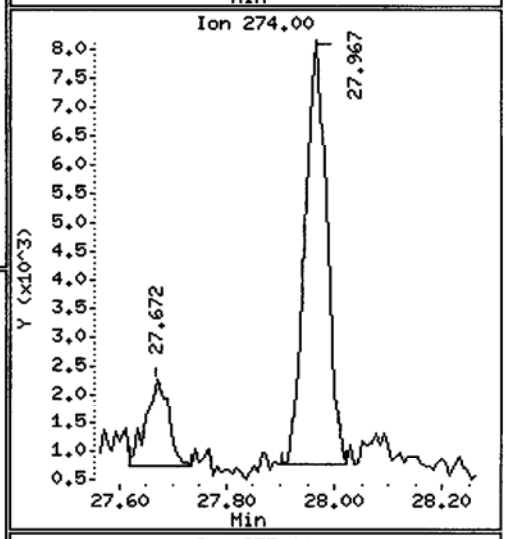


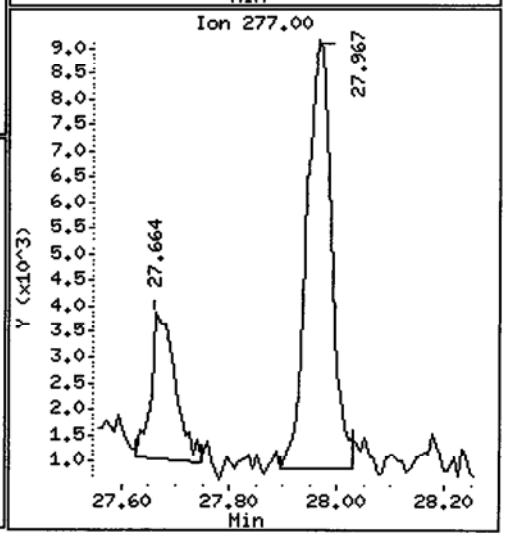












Data File: /chem1/nt10.i/20130902.b/xb89a.d

Date : 02-SEP-2013 14:44

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A

Volume Injected (uL): 1.0

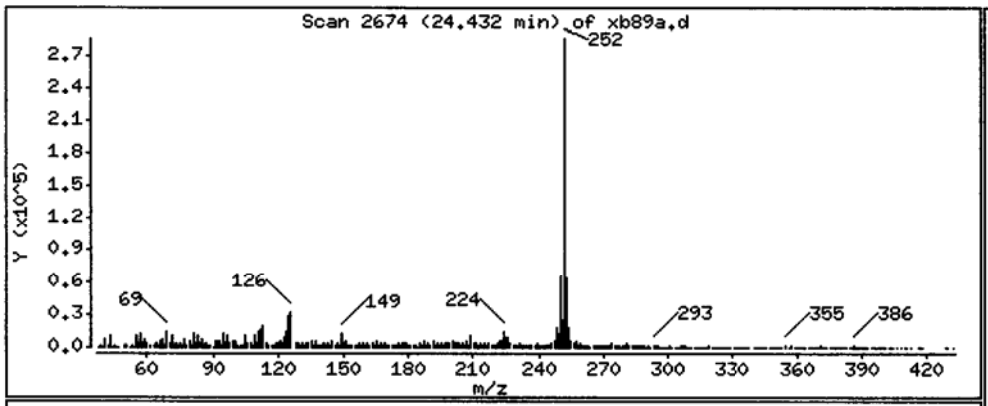
Operator: VTS/YZ

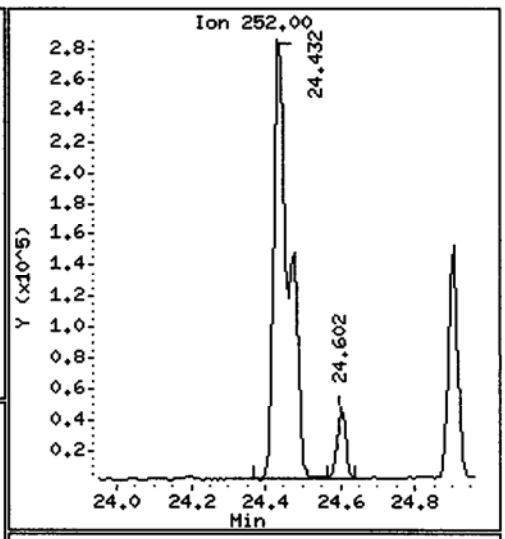
Column phase: ZB-5msi

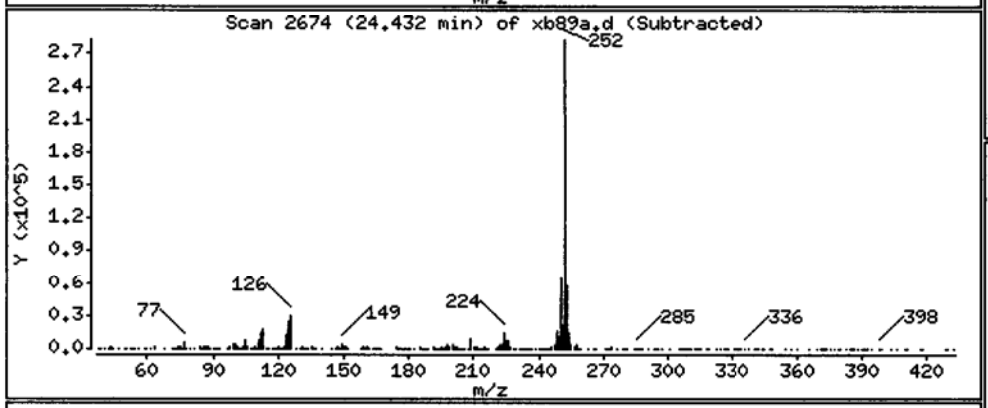
Column diameter: 0.25

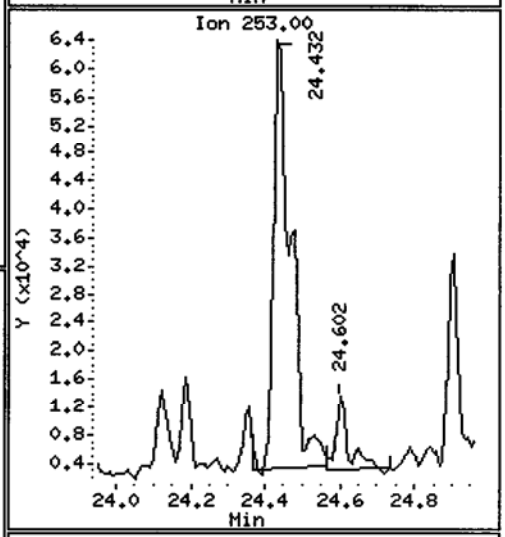
187 Total Benzofluoranthenes

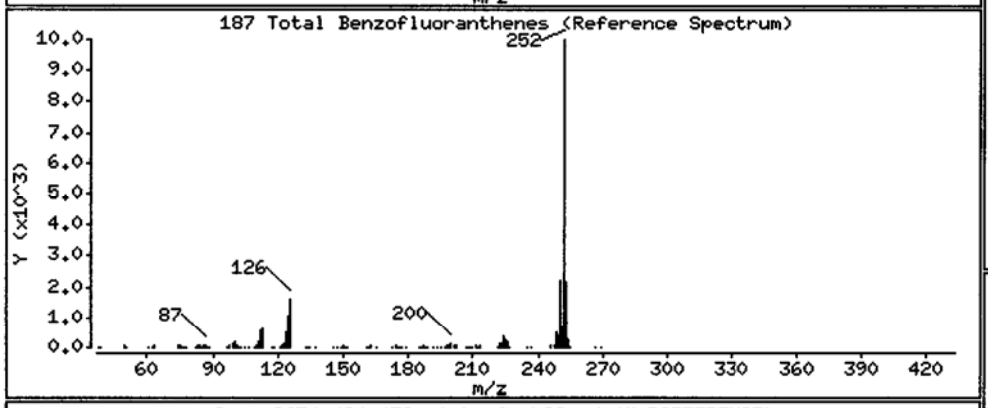
Concentration: 2160 ug/kg

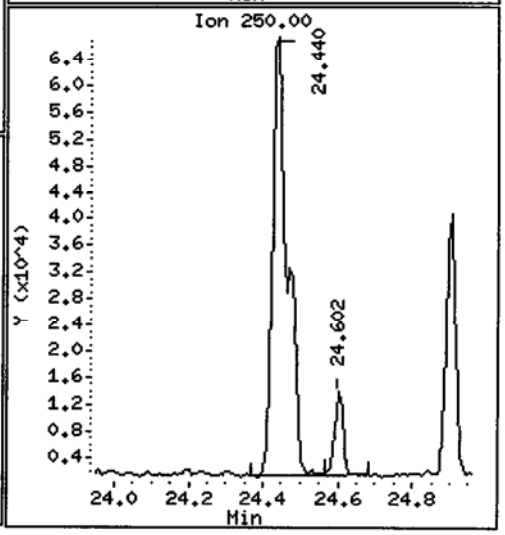


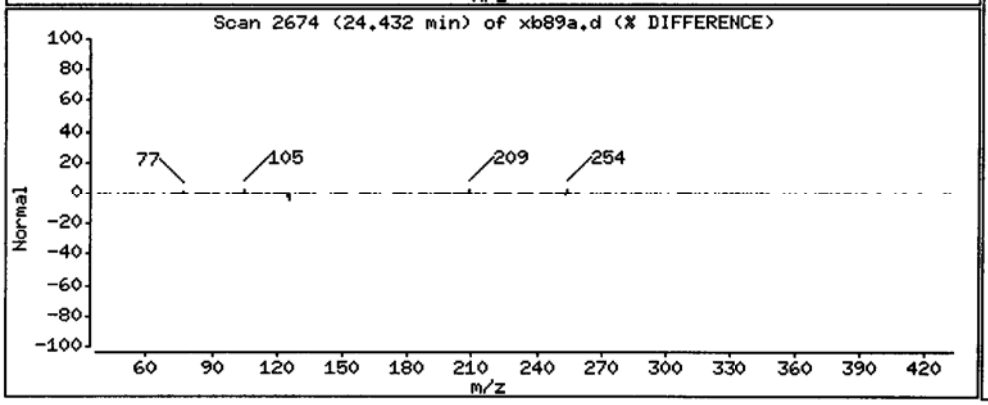












CO-ELUTION SUMMARY FOR FILE - xb89a.d

Lab ID: XB89A, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130902.b/xb89b.d
Lab Smp Id: XB89B Client Smp ID: IJ13-SS-101
Inj Date : 02-SEP-2013 15:19
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89B
Misc Info : 13-17437
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 02-Sep-2013 12:48 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 8
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	18.30000	Weight of sample extracted (g)
M	41.20000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.167	6.105	(0.733)	85599	2.63234	733.9
$ 2	Phenol-d5	99	7.766	7.736	(0.923)	113723	2.67182	744.9
3	Phenol	94	7.790	7.759	(0.926)	32340	0.79619	222.0
$ 5	2-Chlorophenol-d4	132	8.021	7.991	(0.953)	96140	2.76217	770.1
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.416	8.409	(1.000)	110711	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.703	8.696	(1.034)	32325	1.35754	378.5
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	8.703	8.673	(1.034)	3702	0.18688 J	52.10
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.223	9.177	(1.096)	53282	1.66234	463.5
$	18 Nitrobenzene-d5	82	9.480	9.464	(0.871)	46853	1.37957	384.6
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.237	10.222	(0.940)	5024	0.15944 J	44.45
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	10.399	10.538	(0.955)	28293	1.17950 J	328.8(H)
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.885	10.877	(1.000)	401871	4.00000	
	28 Naphthalene	128	10.931	10.916	(1.004)	139903	1.58978	443.2
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.339	12.324	(1.134)	48824	0.73173	204.0
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.105	13.090	(0.905)	121160	1.52043	423.9
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	13.957	13.942	(0.964)	10936	0.15919 J	44.38(H)
	40 Acenaphthylene	152	14.181	14.166	(0.980)	44495	0.39111	109.0
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.475	14.460	(1.000)	246659	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.545	14.522	(1.005)	65650	1.12259	313.0
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.900	14.885	(1.029)	98230	1.09228	304.5
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.426	15.411	(1.066)	18548	0.27643	77.07
	49 Fluorene	166	15.612	15.597	(1.079)	72709	0.98366	274.2
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	15.882	15.859	(0.905)	8479	0.20746	57.84
$	55 2,4,6-Tribromophenol	330	16.129	16.091	(1.114)	45752	2.86345	798.3
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.551	17.528	(1.000)	410419	4.00000	
	60 Phenanthrene	178	17.598	17.575	(1.003)	344256	3.90824	1090
	61 Anthracene	178	17.706	17.683	(1.009)	120503	1.27269	354.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	18.062	18.039	(1.029)	30426	0.57930	161.5
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	20.027	19.996	(1.141)	1017103	8.68969	2423
65	Pyrene	202	20.460	20.422	(0.902)	1154437	9.68240	2699
$ 66	Terphenyl-d14	244	20.777	20.755	(0.916)	105346	1.58545	442.0
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	22.659	22.636	(0.999)	465061	4.42930	1235
* 69	Chrysene-d12	240	22.674	22.651	(1.000)	403818	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.721	22.698	(1.002)	530343	5.93817	1656
72	bis(2-Ethylhexyl)phthalate	149	22.752	22.729	(0.955)	73423	1.34172	374.1
* 134	Di-n-octylphthalate-d4	153	23.812	23.797	(1.000)	517620	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	24.440	24.409	(0.974)	526501	4.53961	1266
75	Benzo(k)fluoranthene	252	24.478	24.455	(0.975)	241580	2.13207	594.4(M)
76	Benzo(a)pyrene	252	24.997	24.966	(0.996)	240027	2.35334	656.1
* 77	Perylene-d12	264	25.098	25.067	(1.000)	457265	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.307	27.253	(1.088)	117353	0.89628	249.9
79	Dibenzo(a,h)anthracene	278	27.346	27.299	(1.090)	27778	0.27786	77.47
80	Benzo(g,h,i)perylene	276	27.967	27.905	(1.114)	102917	0.92962	259.2
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	12.533	12.525	(1.151)	46164	0.76552	213.4
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	24.440	24.455	(0.974)	713811	6.36590	1775
99	Perylene	252	25.144	25.121	(1.002)	97112	1.01248	282.3
98	Retene	219	21.025	21.002	(0.927)	50864	1.07857	300.7
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89b.d
Lab Smp Id: XB89B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17437

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: IJ13-SS-101
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	110711	-27.58
27 Naphthalene-d8	536851	268426	1073702	401871	-25.14
42 Acenaphthene-d10	348566	174283	697132	246659	-29.24
59 Phenanthrene-d10	633376	316688	1266752	410419	-35.20
69 Chrysene-d12	651036	325518	1302072	403818	-37.97
134 Di-n-octylphthala	837259	418630	1674518	517620	-38.18
77 Perylene-d12	696727	348364	1393454	457265	-34.37

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.42	0.09
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.07
42 Acenaphthene-d10	14.46	13.96	14.96	14.48	0.11
59 Phenanthrene-d10	17.53	17.03	18.03	17.55	0.13
69 Chrysene-d12	22.65	22.15	23.15	22.67	0.10
134 Di-n-octylphthala	23.80	23.30	24.30	23.81	0.06
77 Perylene-d12	25.07	24.57	25.57	25.10	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

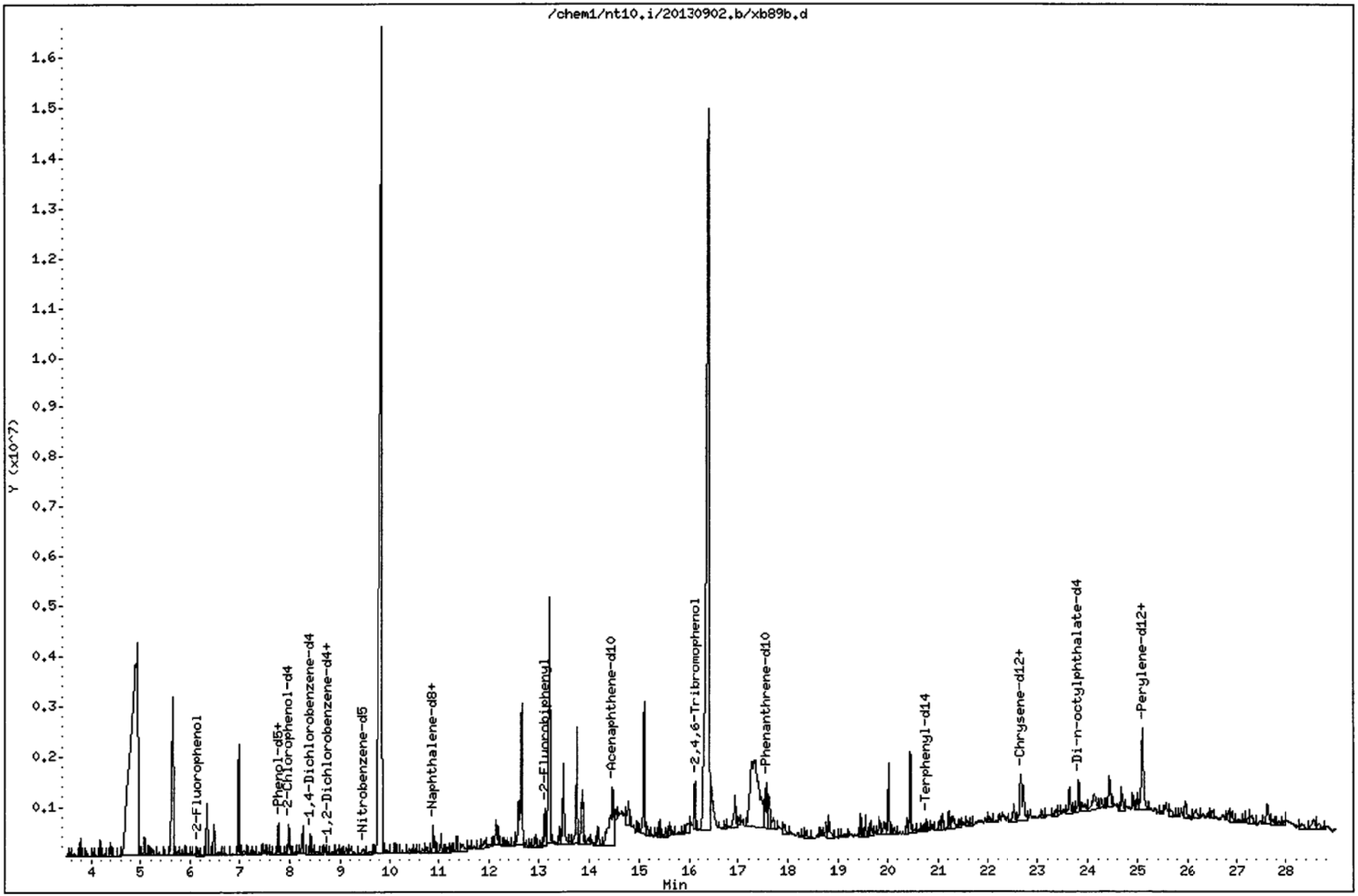
Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89B Client Smp ID: IJ13-SS-101
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17437

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	697.0	733.9	105.29	27-120
$ 2 Phenol-d5	697.0	744.9	106.87	29-120
$ 5 2-Chlorophenol-d4	697.0	770.1	110.49	31-120
$ 10 1,2-Dichlorobenzen	464.7	378.5	81.45	32-120
$ 18 Nitrobenzene-d5	464.7	384.6	82.77	30-120
$ 36 2-Fluorobiphenyl	464.7	423.9	91.23	35-120
$ 55 2,4,6-Tribromophen	697.0	798.3	114.54	24-134
$ 66 Terphenyl-d14	464.7	442.0	95.13	37-120

Data File: /chem1/nt10.i/20130902.b/xb89b.d
Date : 02-SEP-2013 15:19
Client ID: IJ13-SS-101
Sample Info: XB89B
Volume Injected (uL): 1.0
Column phase: ZB-5ms1

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

XB89:00125



Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

Operator: VTS/YZ

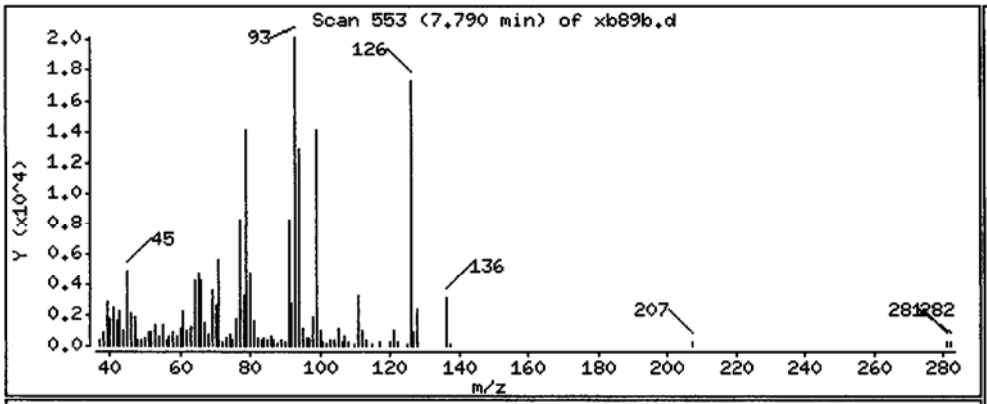
Column phase: ZB-5msi

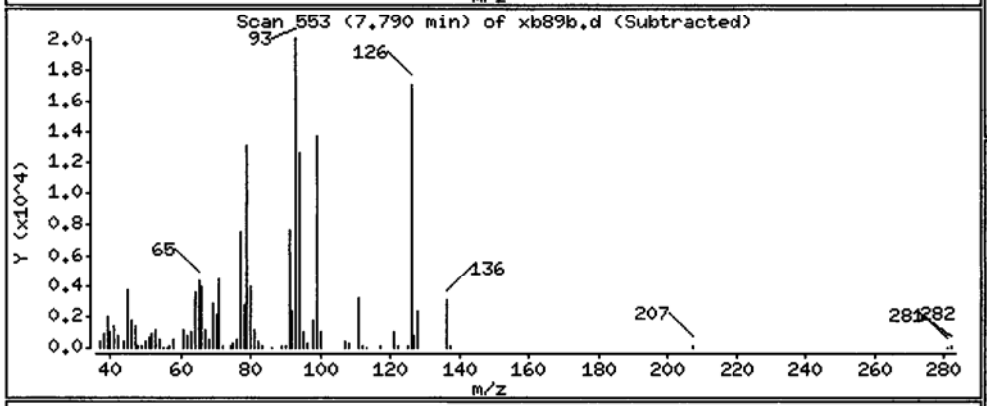
Column diameter: 0.25

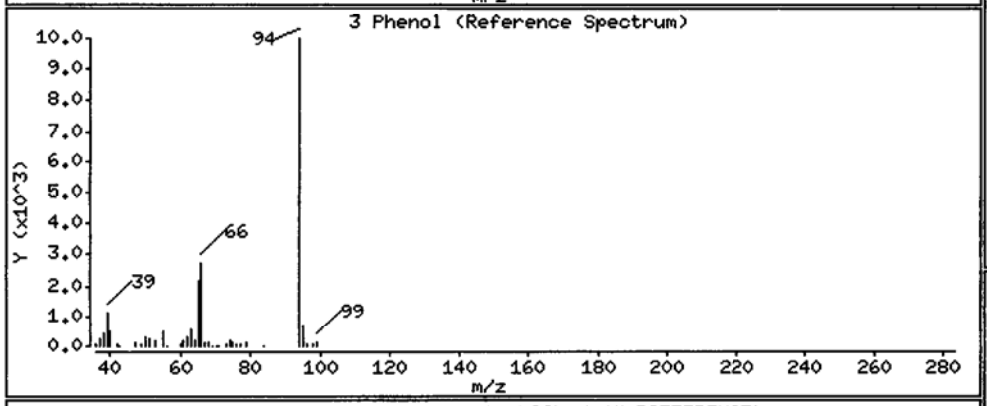
3 Phenol

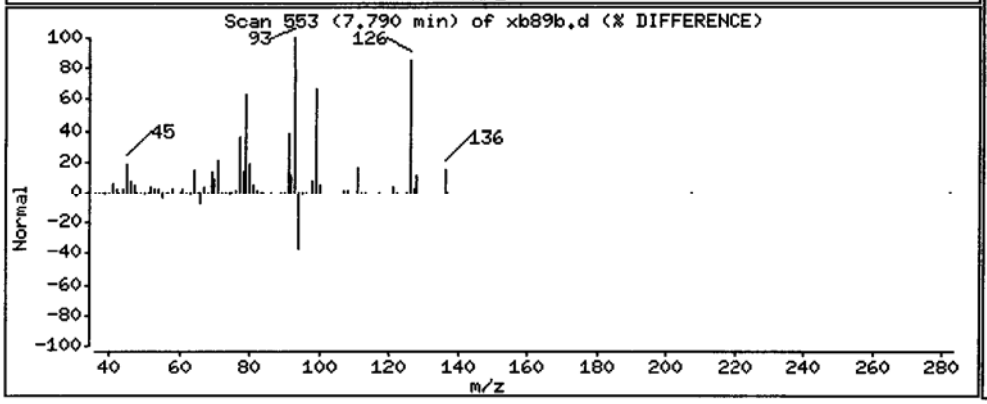
Concentration: 222.0 ug/kg

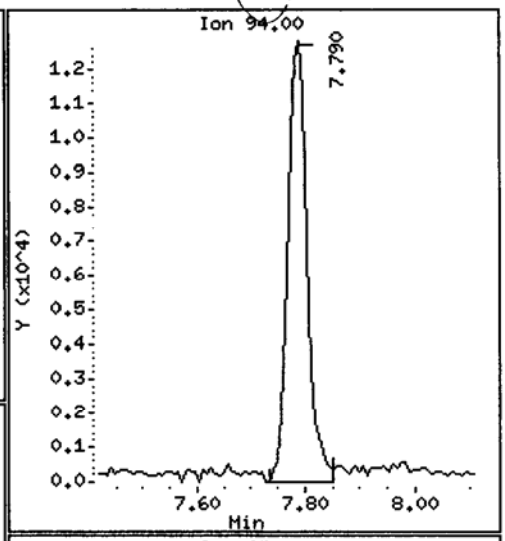
(B)

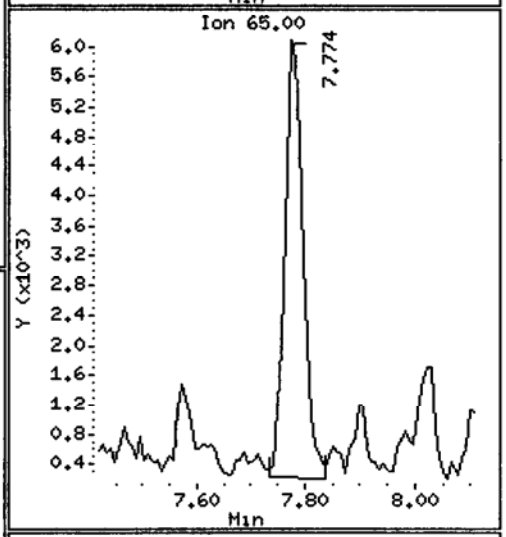


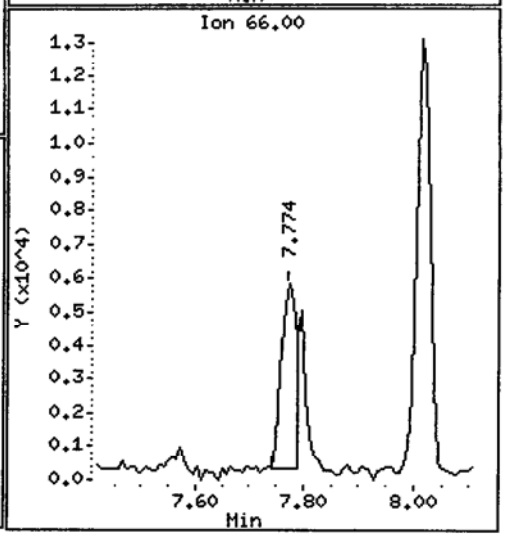












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

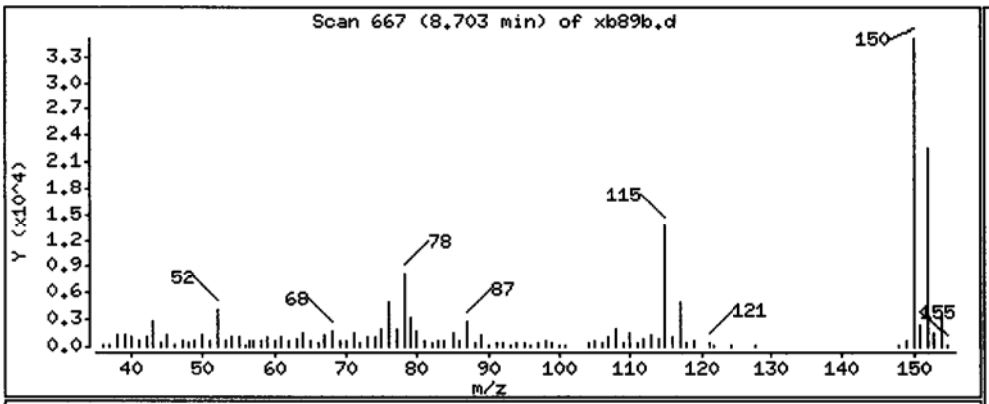
Operator: VTS/YZ

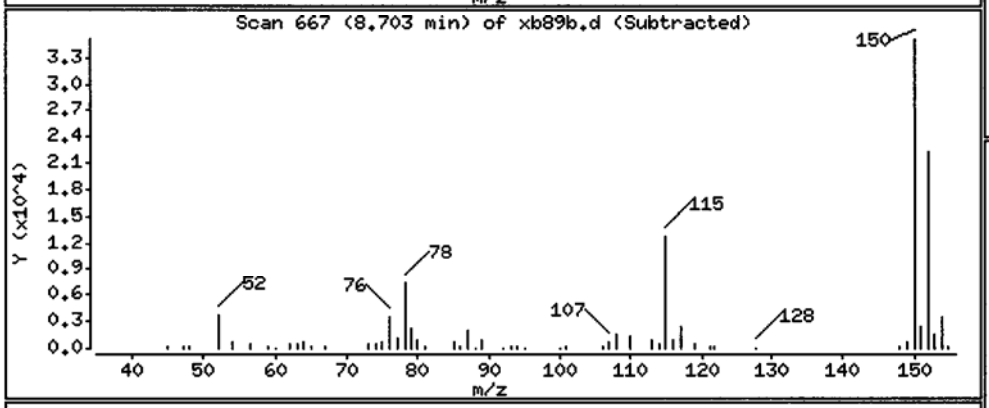
Column phase: ZB-5msi

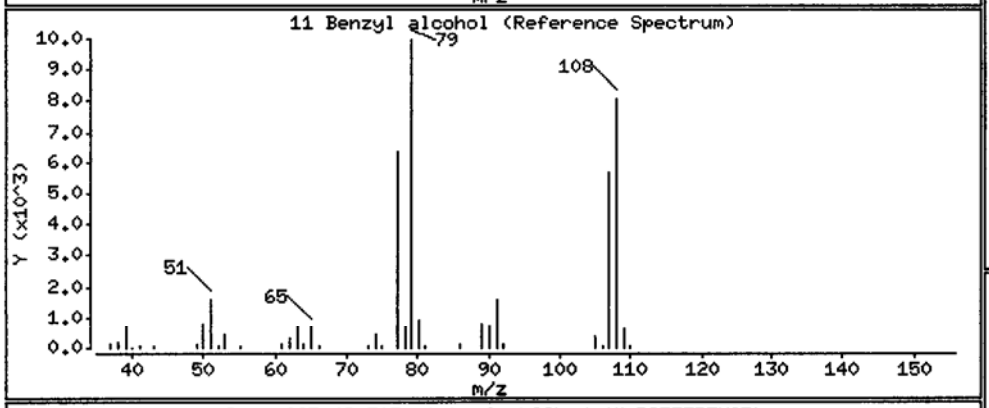
Column diameter: 0.25

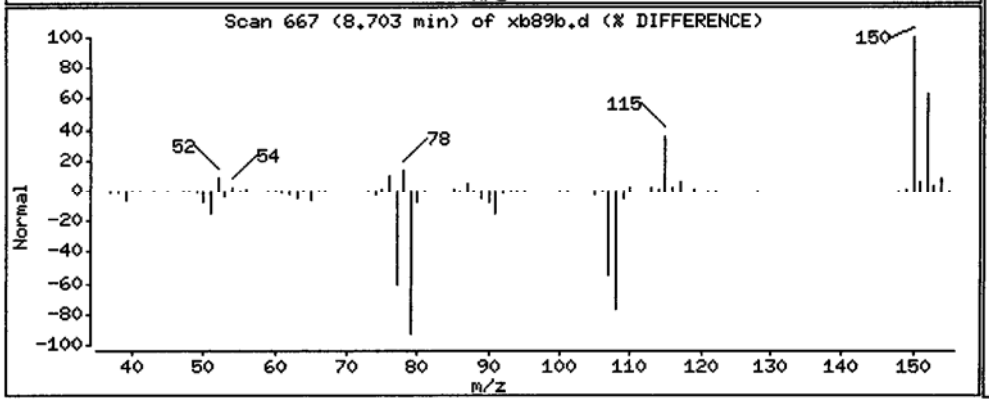
11 Benzyl alcohol

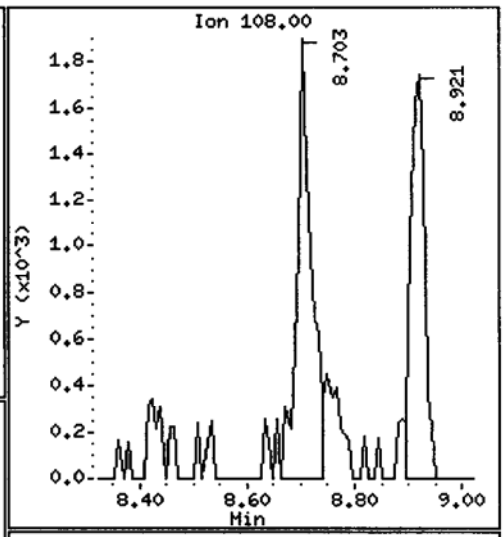
Concentration: 52.10 ug/kg

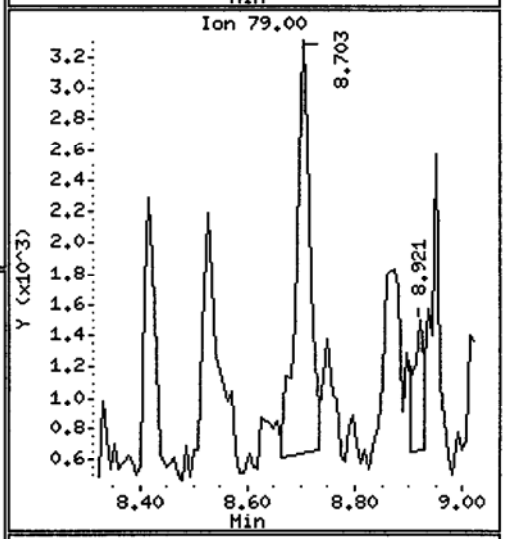


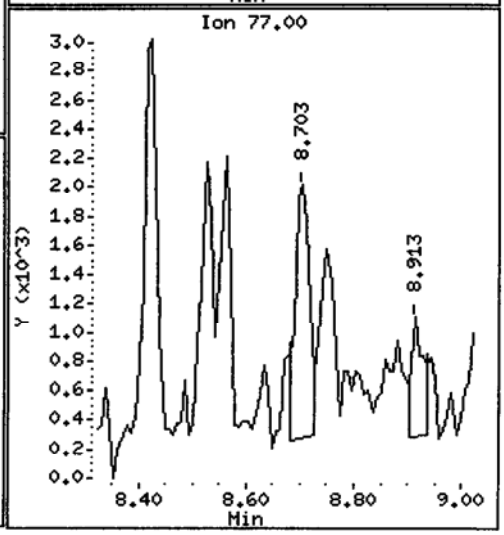












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

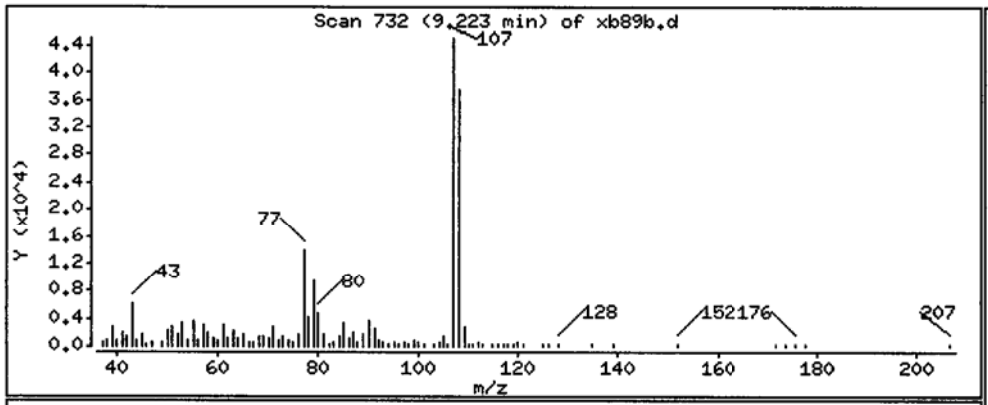
Operator: VTS/YZ

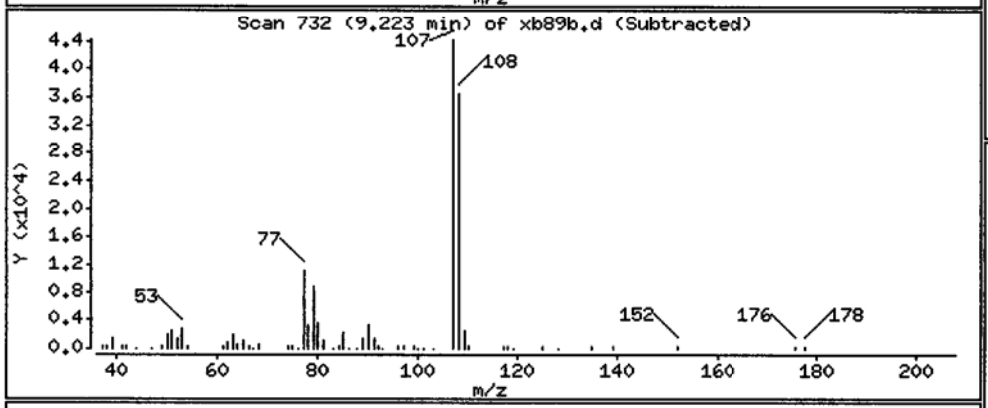
Column phase: ZB-5msi

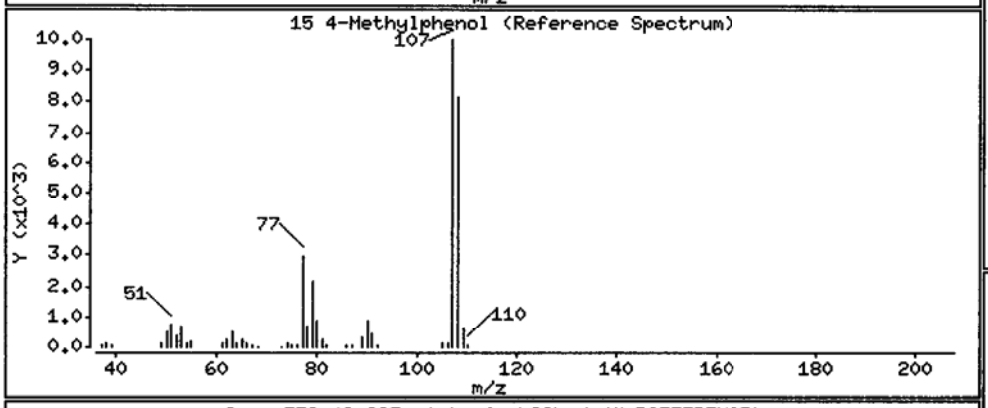
Column diameter: 0.25

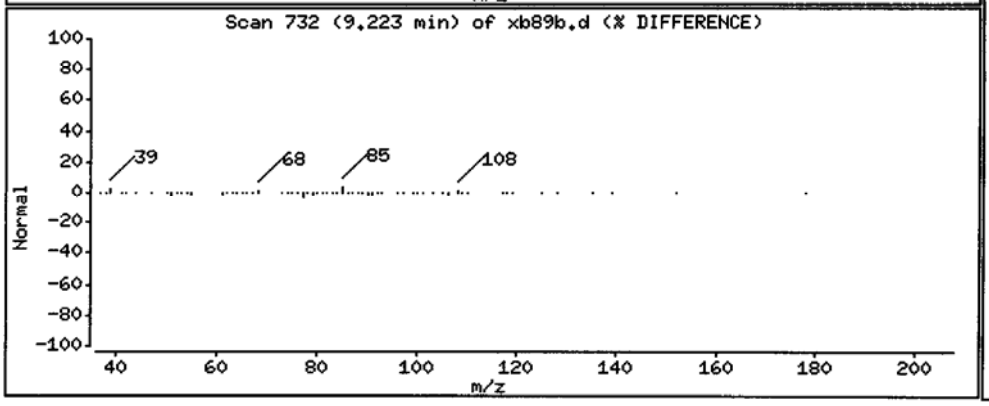
15 4-Methylphenol

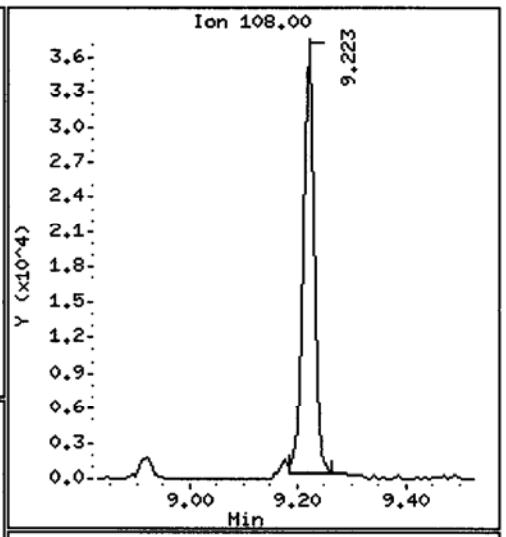
Concentration: 463.5 ug/kg

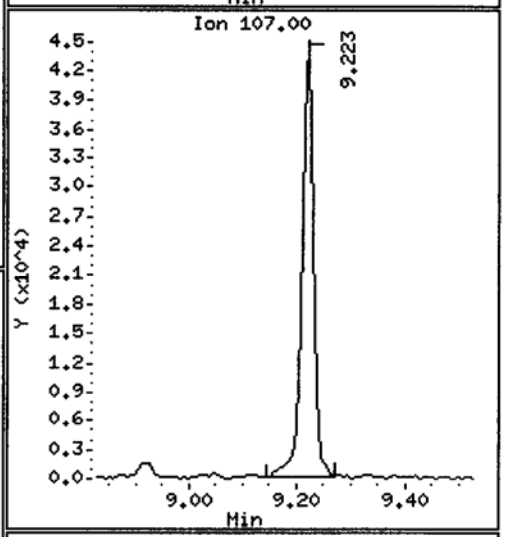


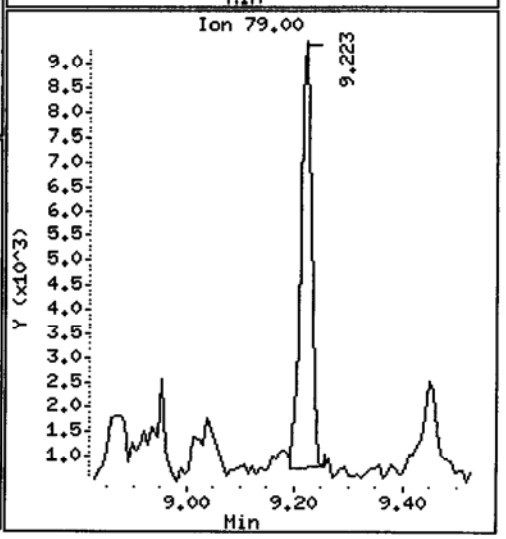












XB89 00432

Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

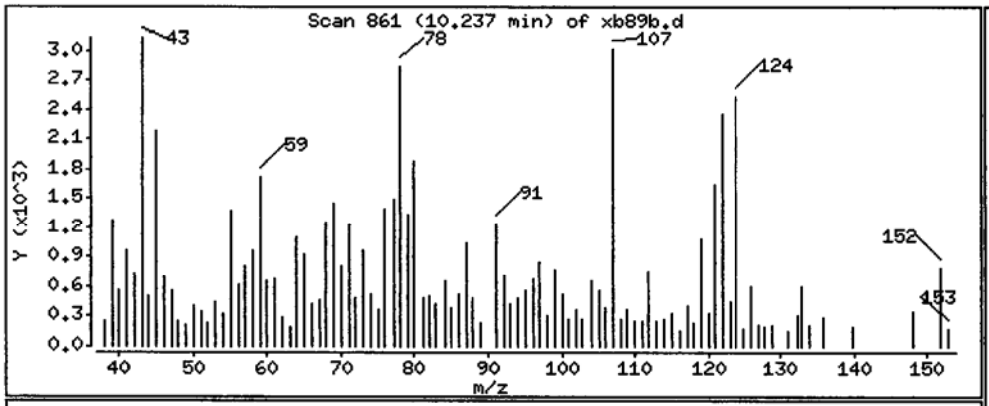
Operator: VTS/YZ

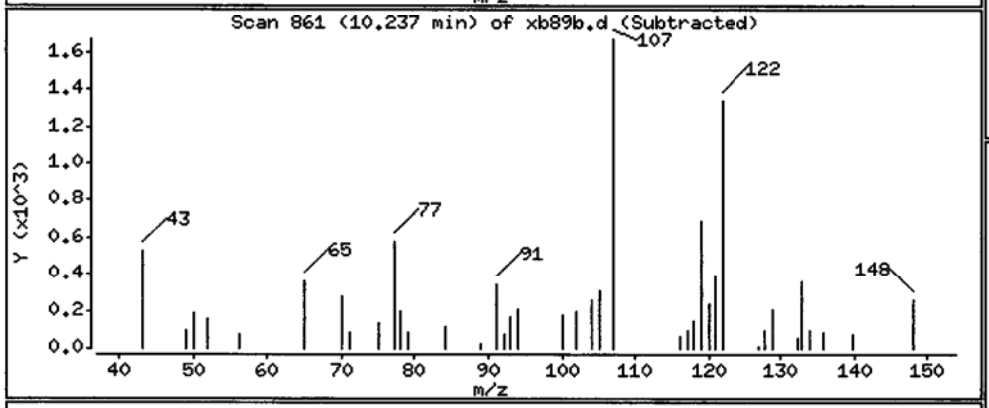
Column phase: ZB-5msi

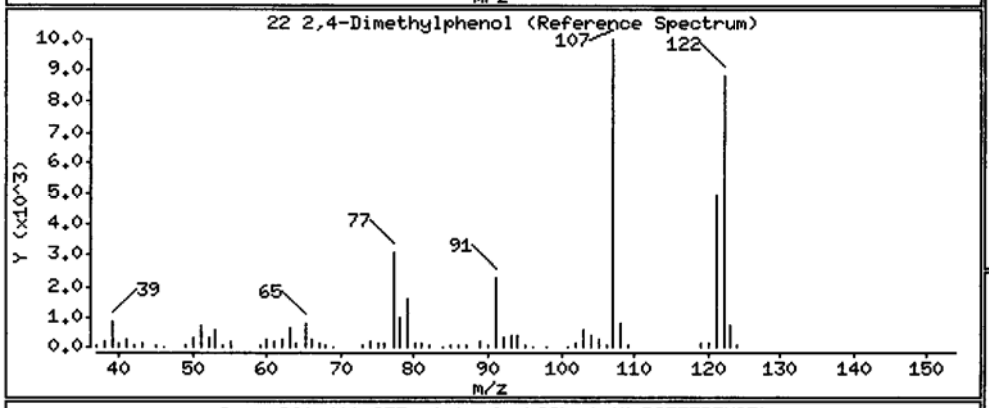
Column diameter: 0.25

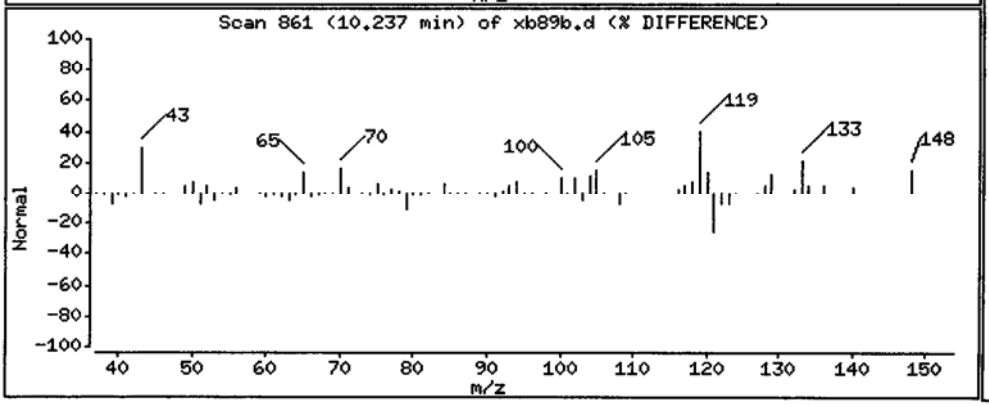
22 2,4-Dimethylphenol

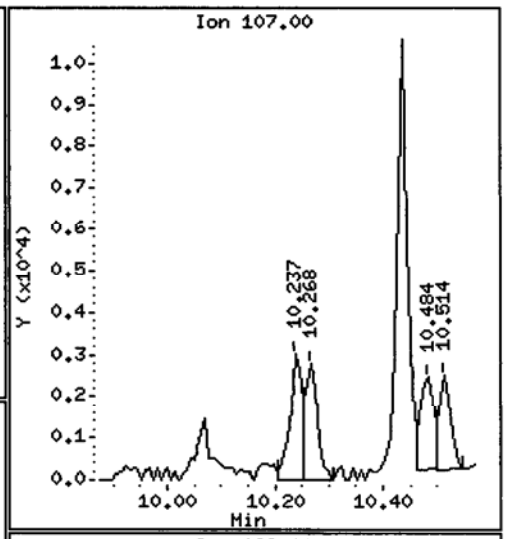
Concentration: 44.45 ug/kg

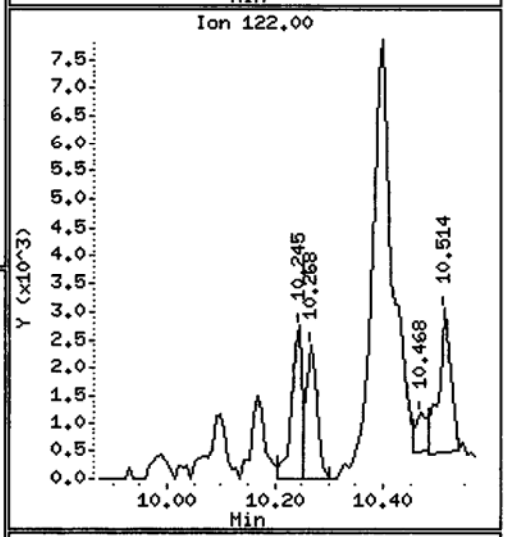


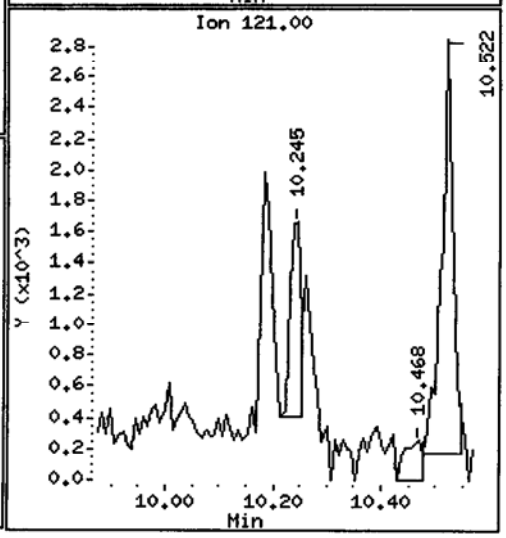












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

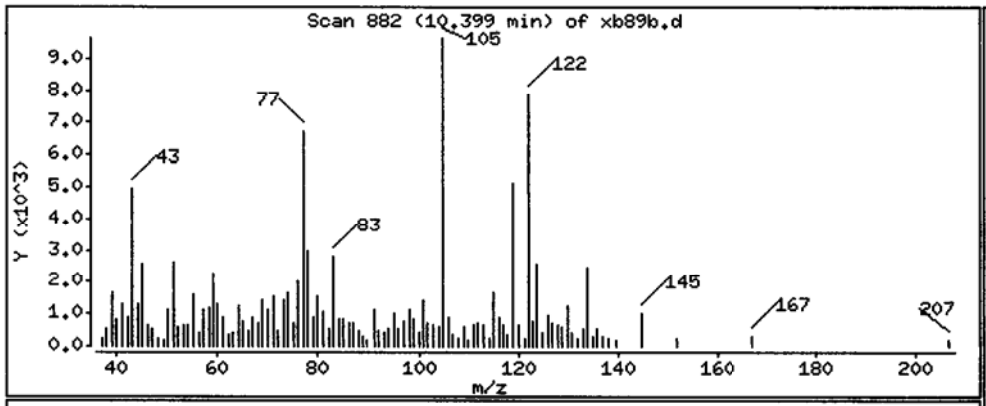
Operator: VTS/YZ

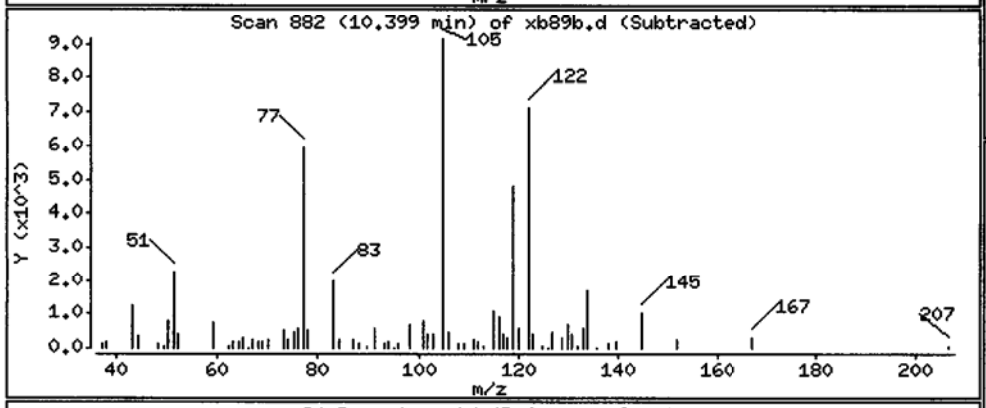
Column phase: ZB-5msi

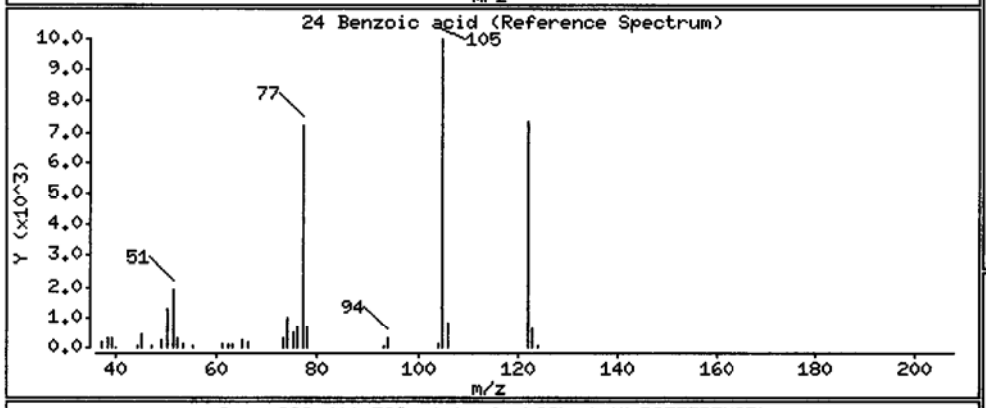
Column diameter: 0.25

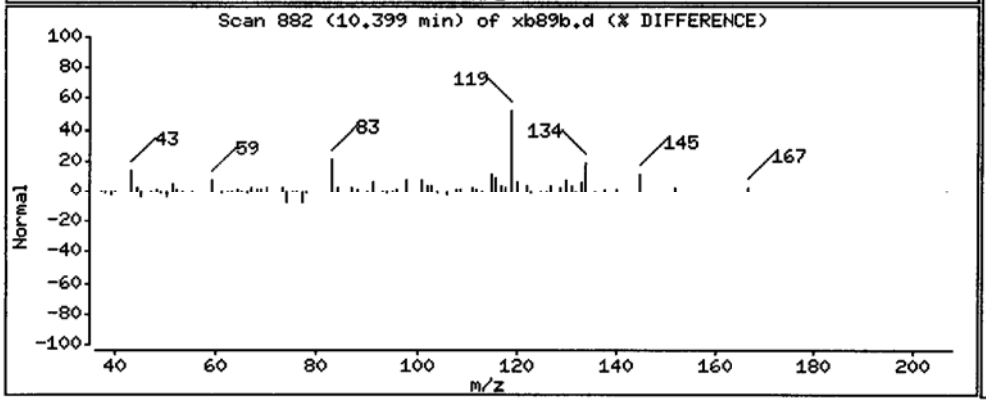
24 Benzoic acid

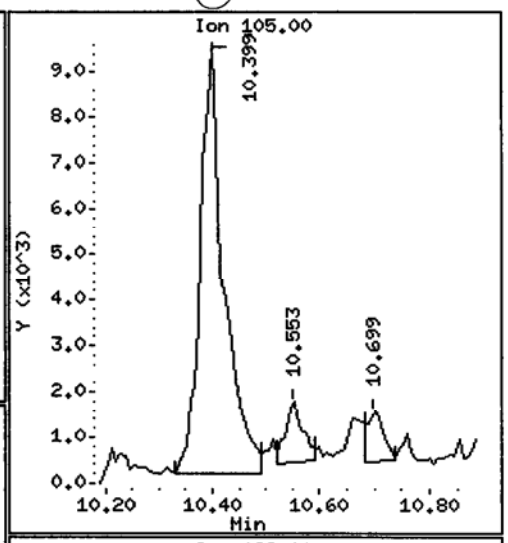
Concentration: 328.8 ug/kg

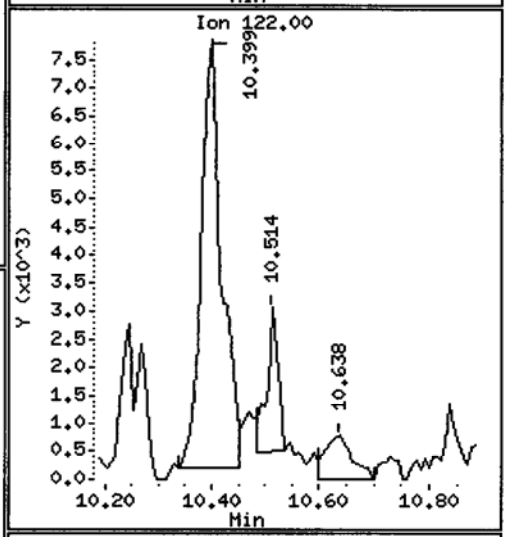


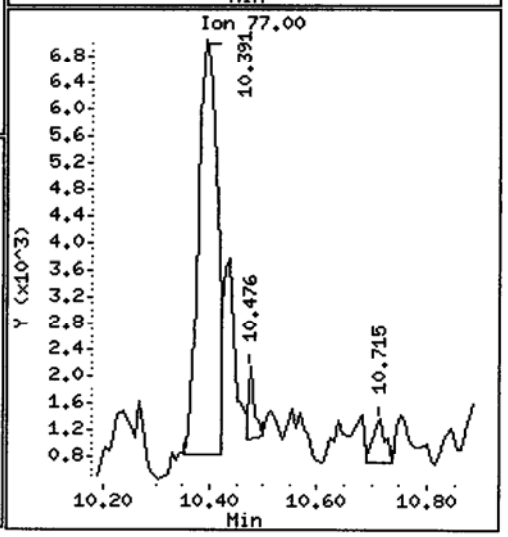












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

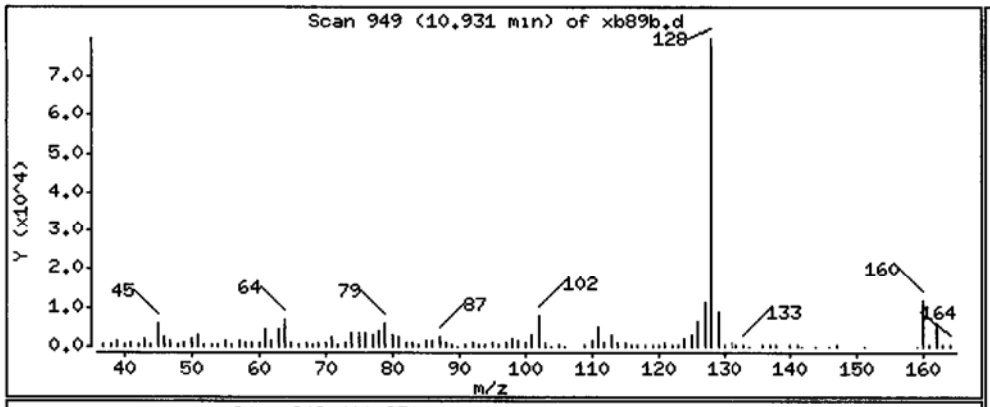
Operator: VTS/YZ

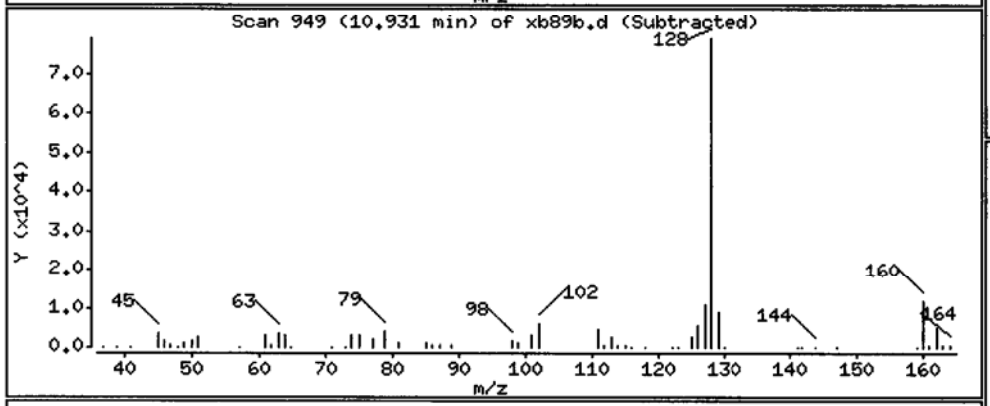
Column phase: ZB-5msi

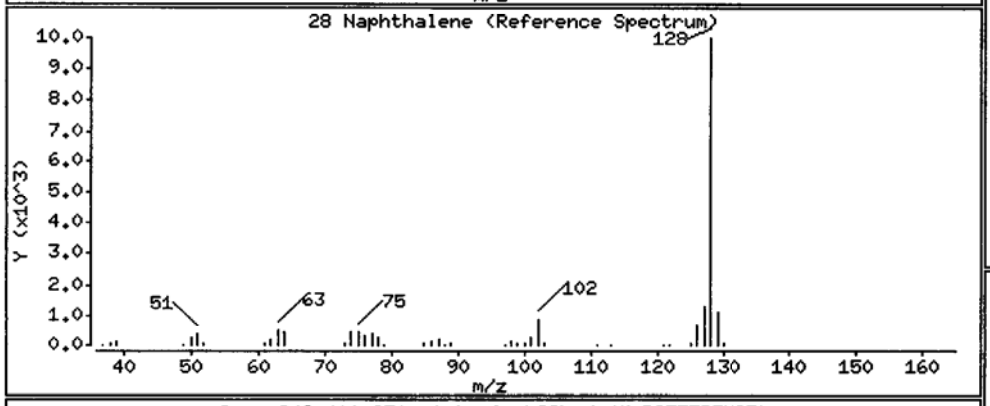
Column diameter: 0.25

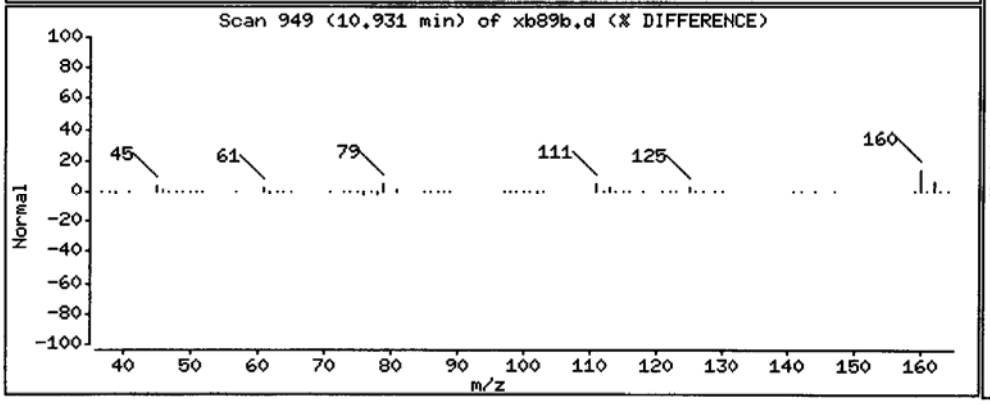
28 Naphthalene

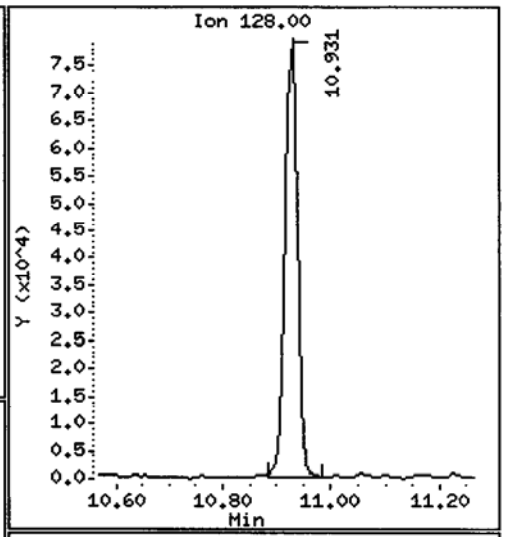
Concentration: 443.2 ug/kg

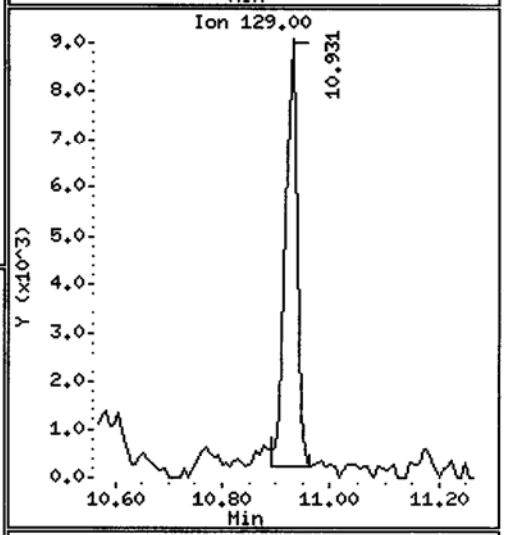


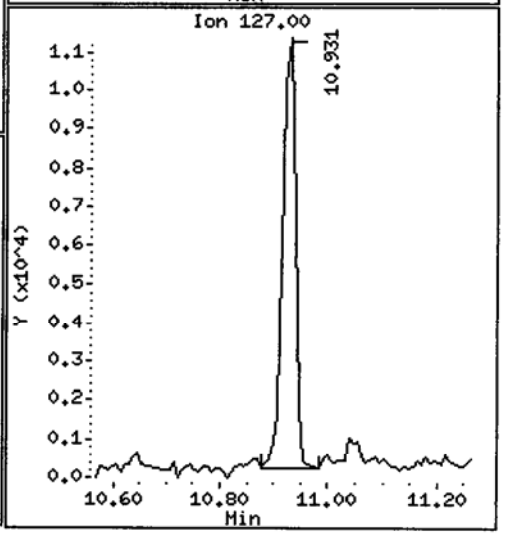












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

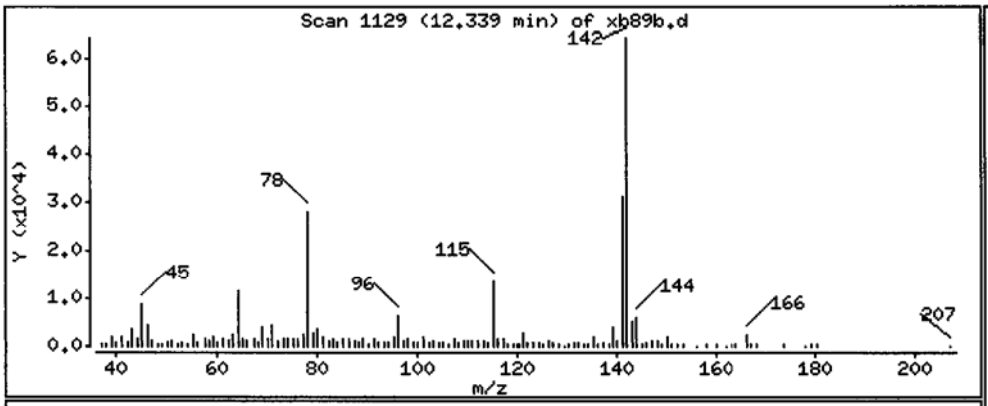
Client ID: IJ13-SS-101 Instrument: nt10.i

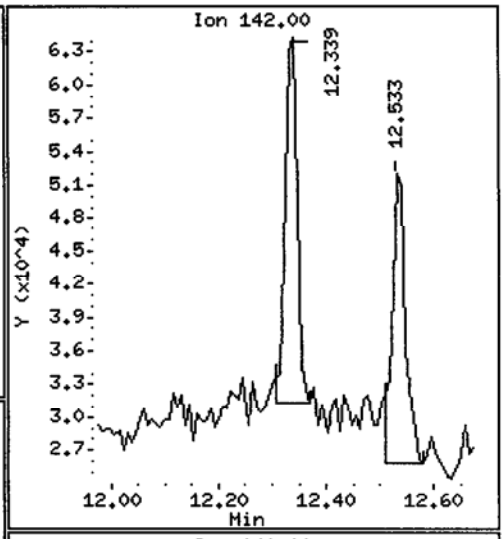
Sample Info: XB89B

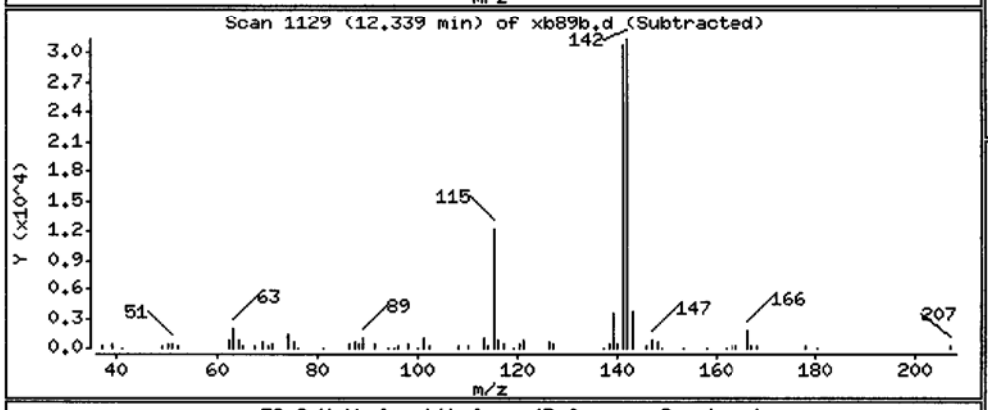
Volume Injected (uL): 1.0 Operator: VTS/YZ

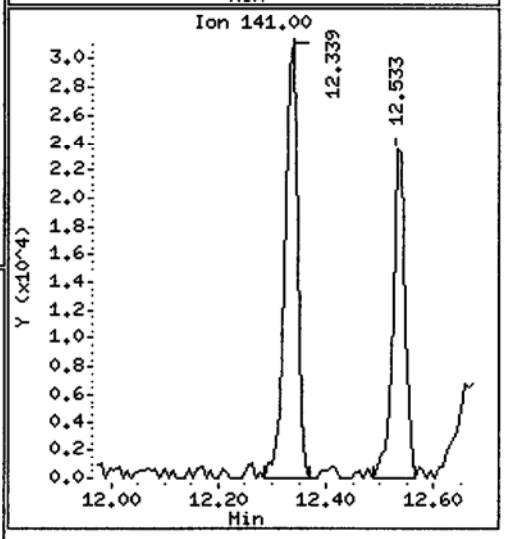
Column phase: ZB-5msi Column diameter: 0.25

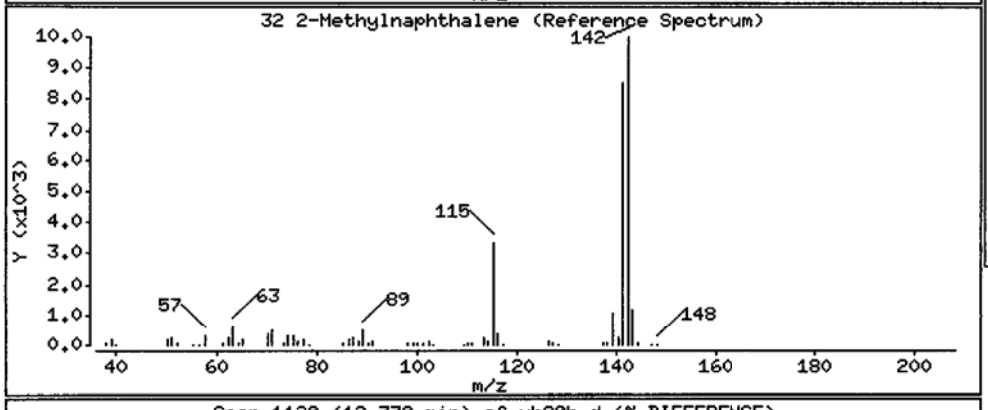
32 2-Methylnaphthalene Concentration: 204.0 ug/kg

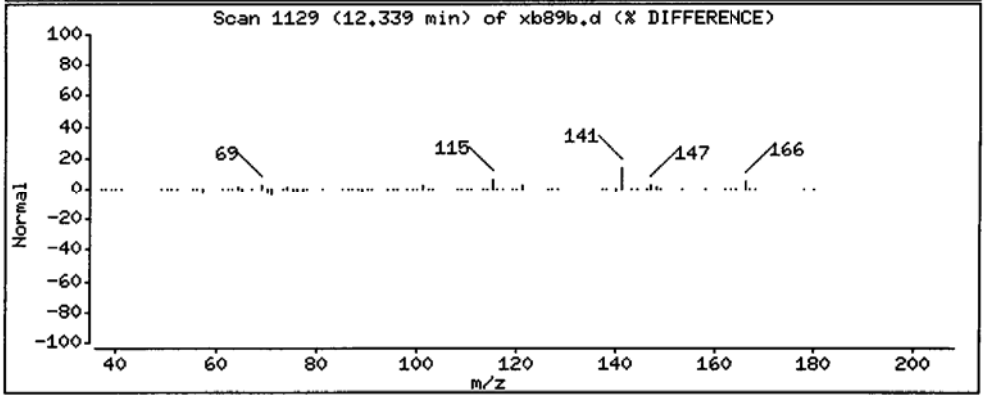












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

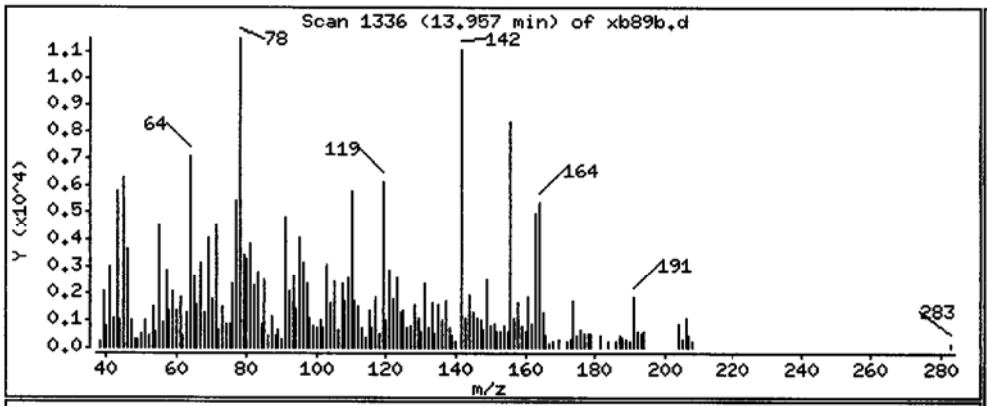
Operator: VTS/YZ

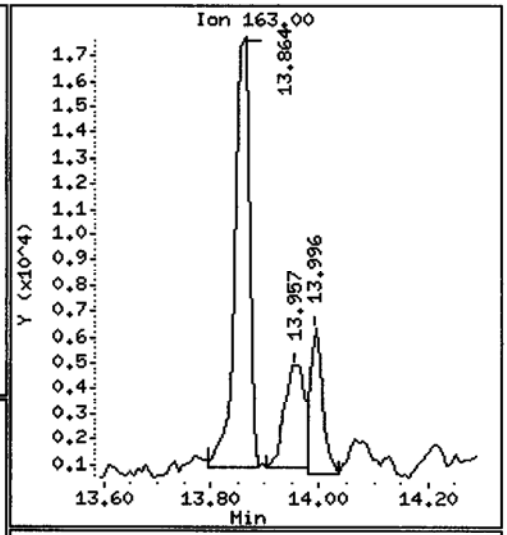
Column phase: ZB-5msi

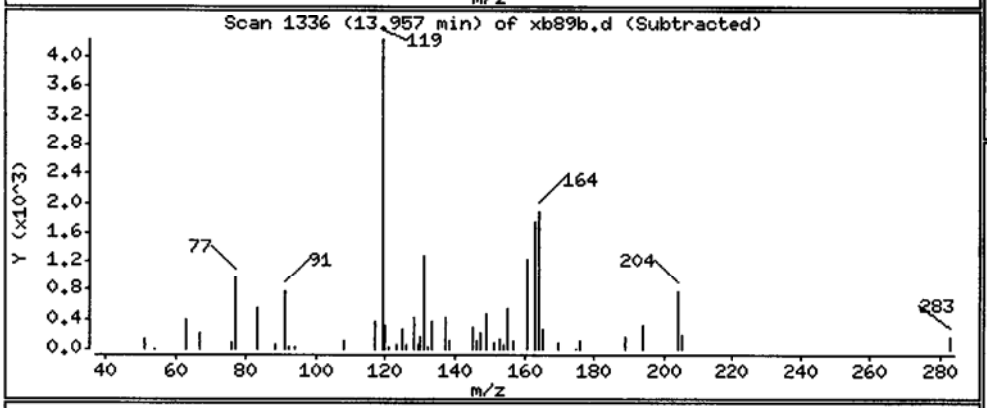
Column diameter: 0.25

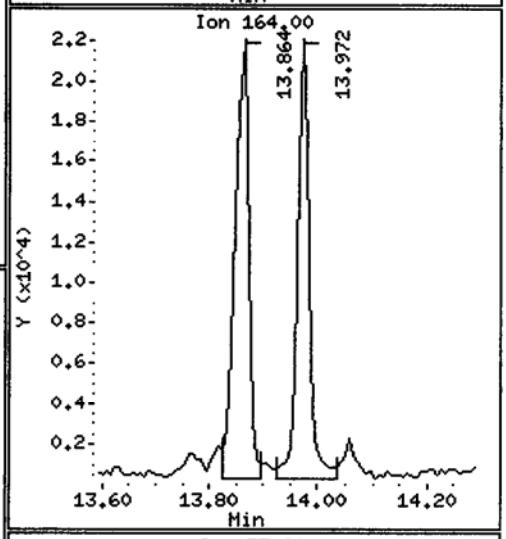
39 Dimethylphthalate

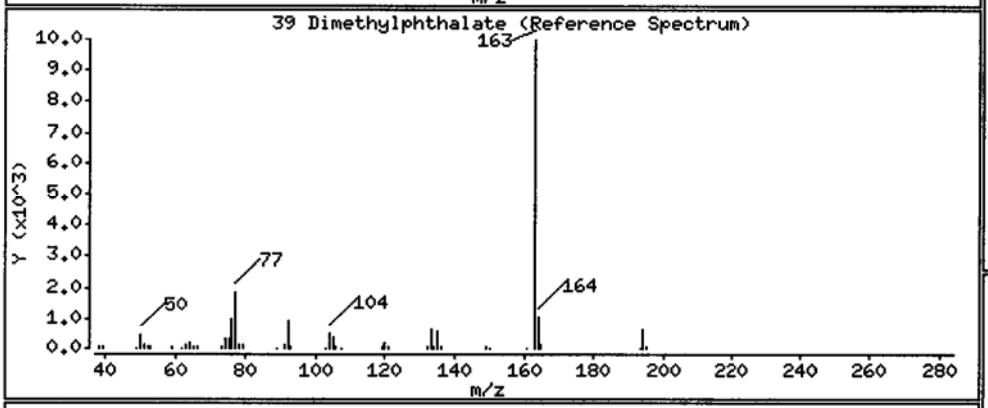
Concentration: 44.38 ug/kg

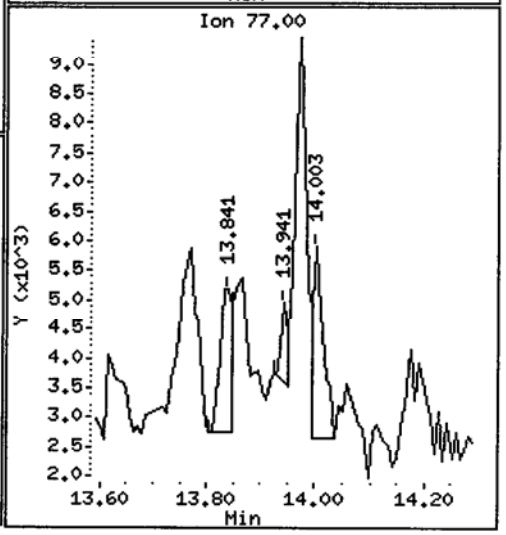


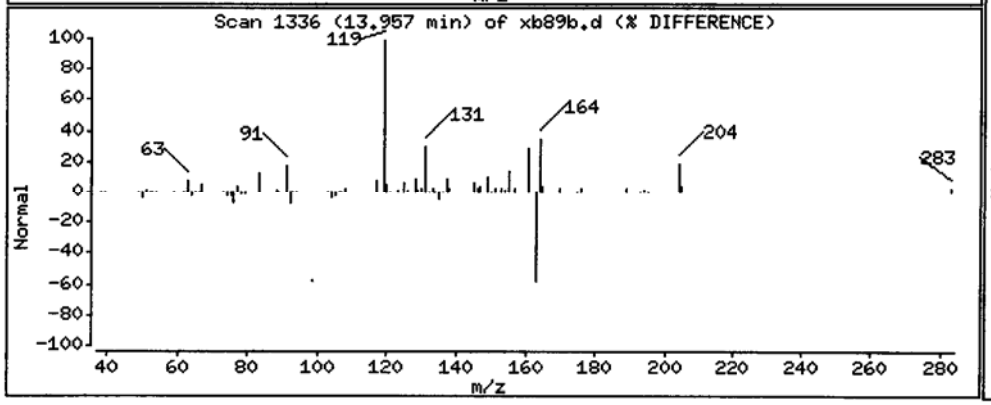












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

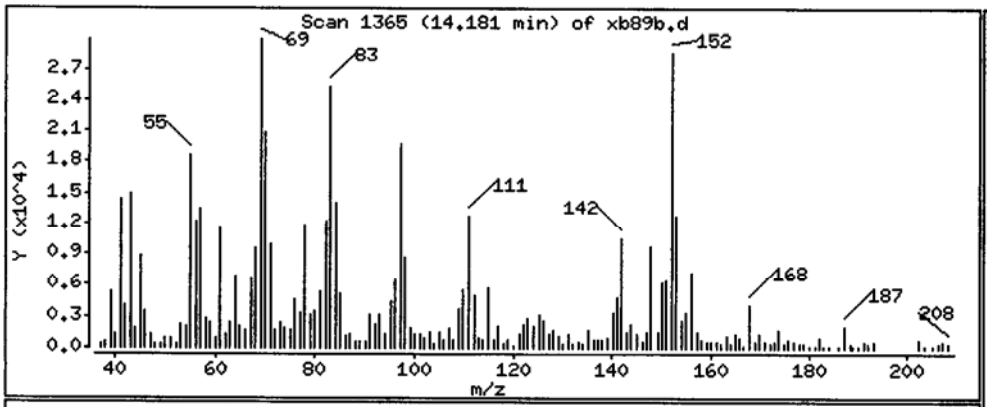
Operator: VTS/YZ

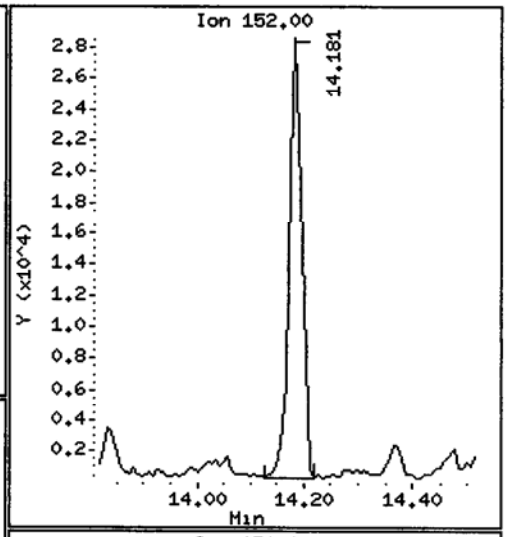
Column phase: ZB-5msi

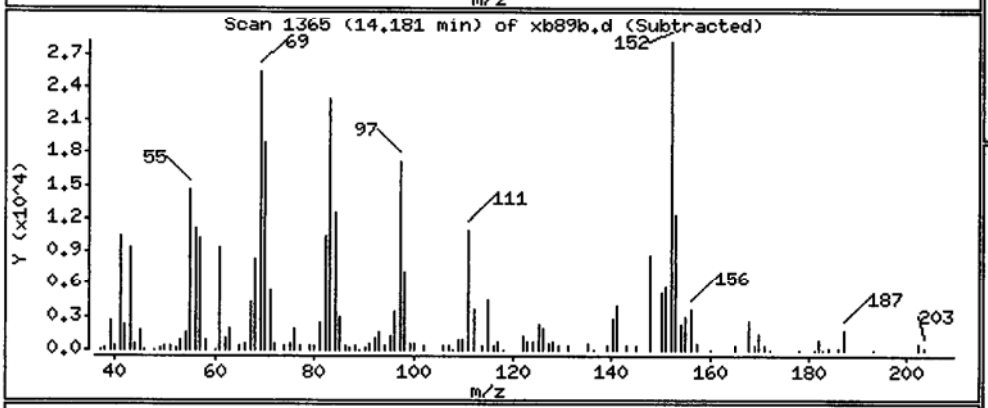
Column diameter: 0.25

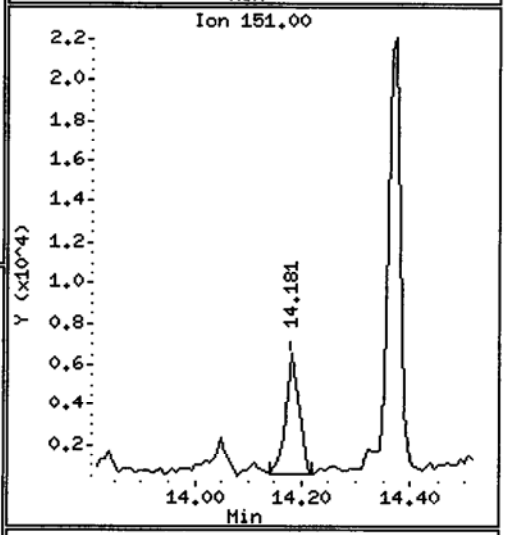
40 Acenaphthylene

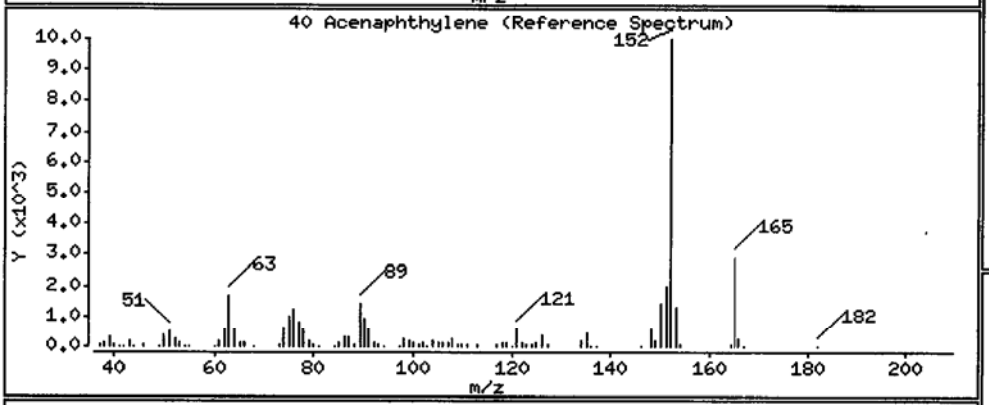
Concentration: 109.0 ug/kg

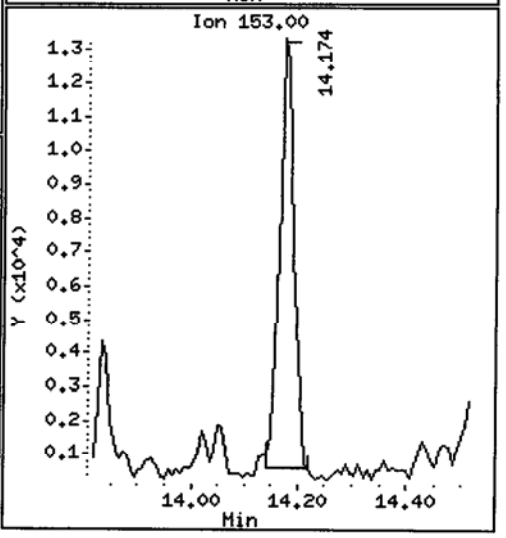


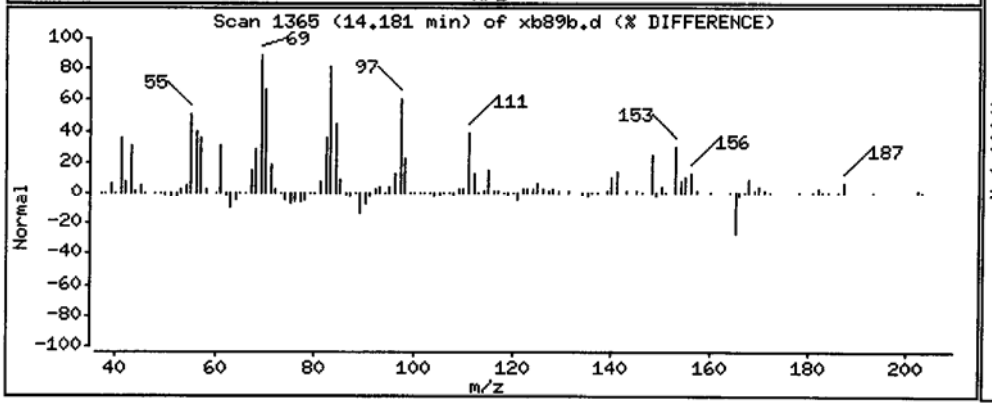












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

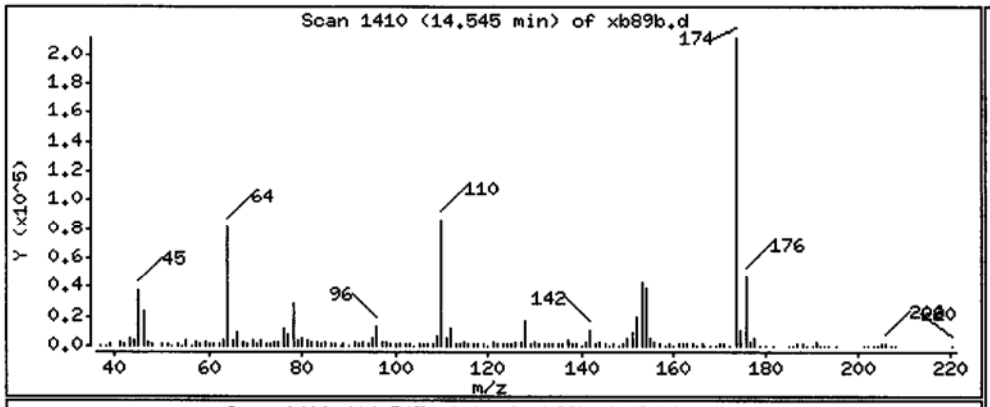
Operator: VTS/YZ

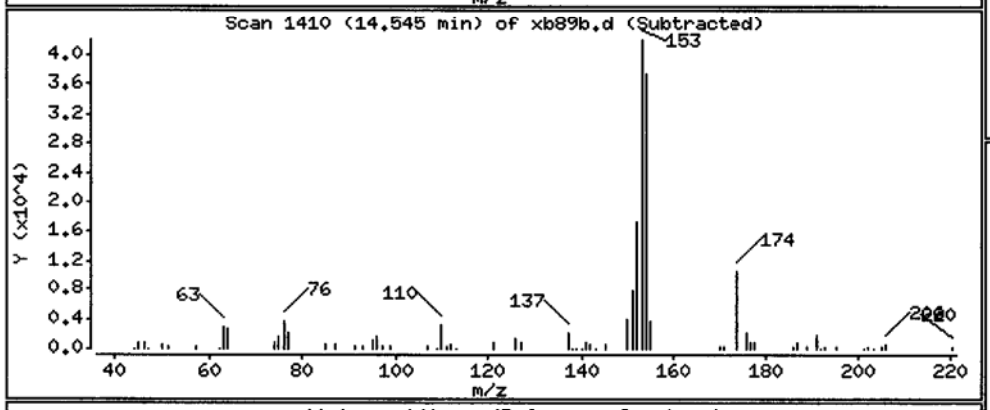
Column phase: ZB-5msi

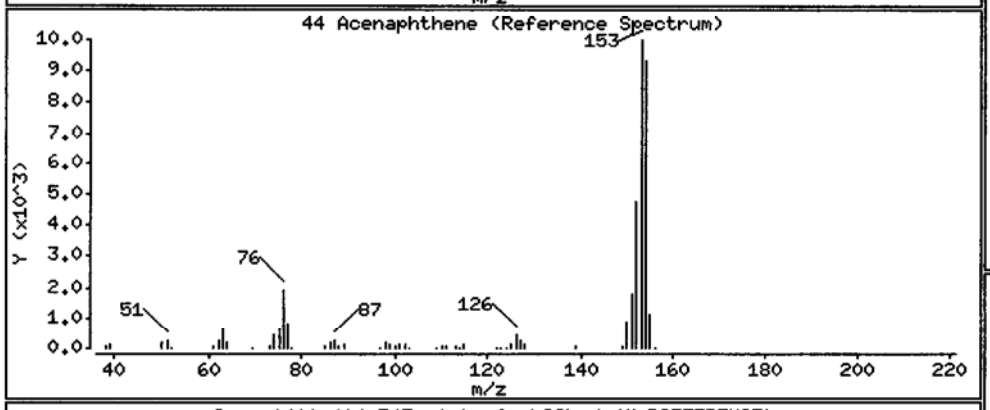
Column diameter: 0.25

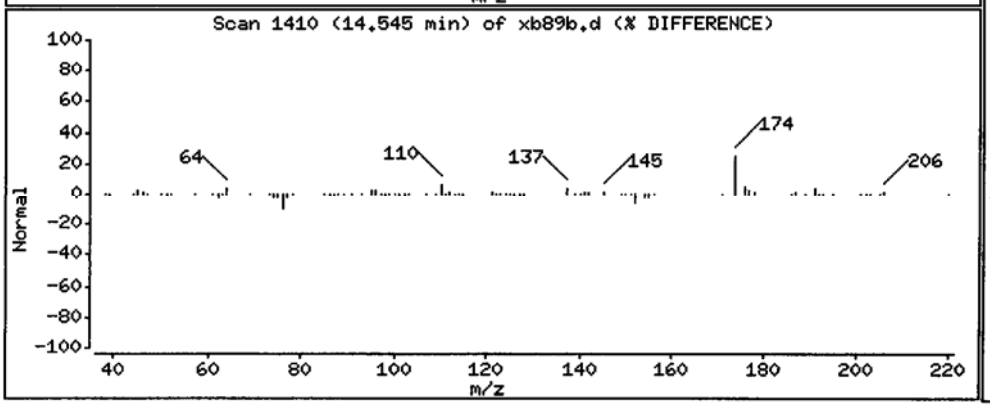
44 Acenaphthene

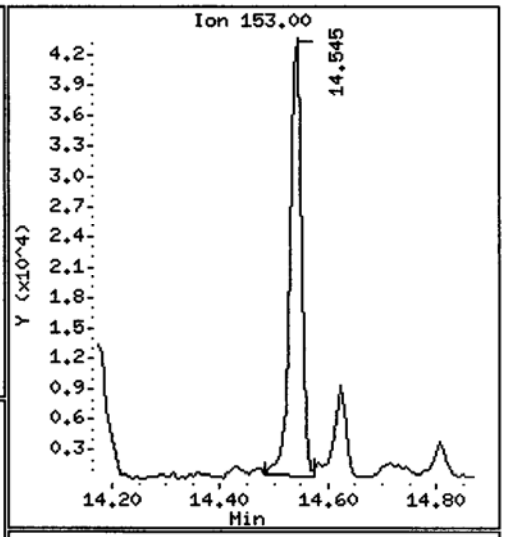
Concentration: 313.0 ug/kg

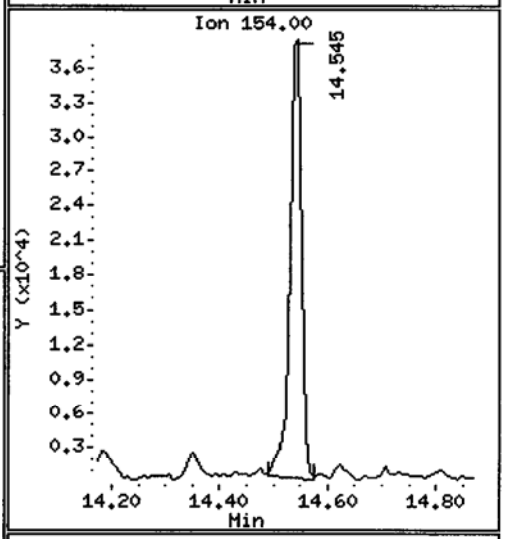


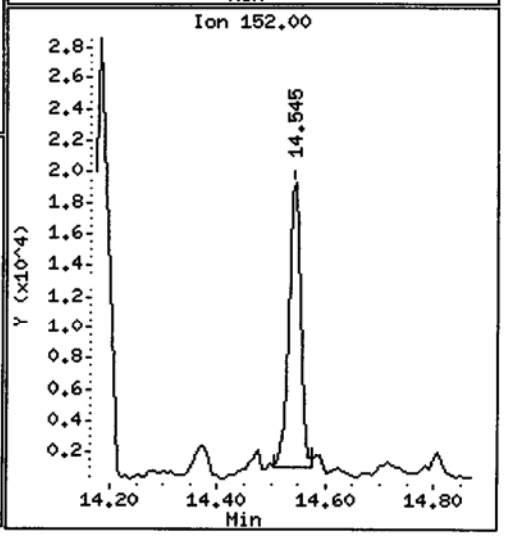












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

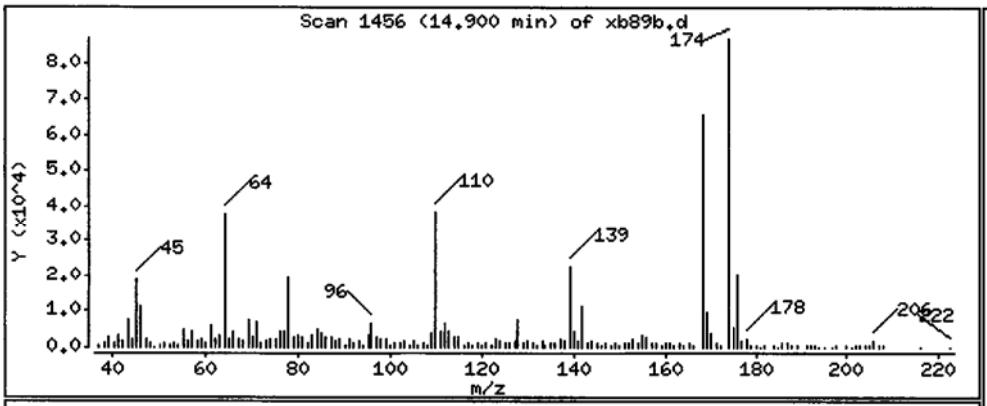
Operator: VTS/YZ

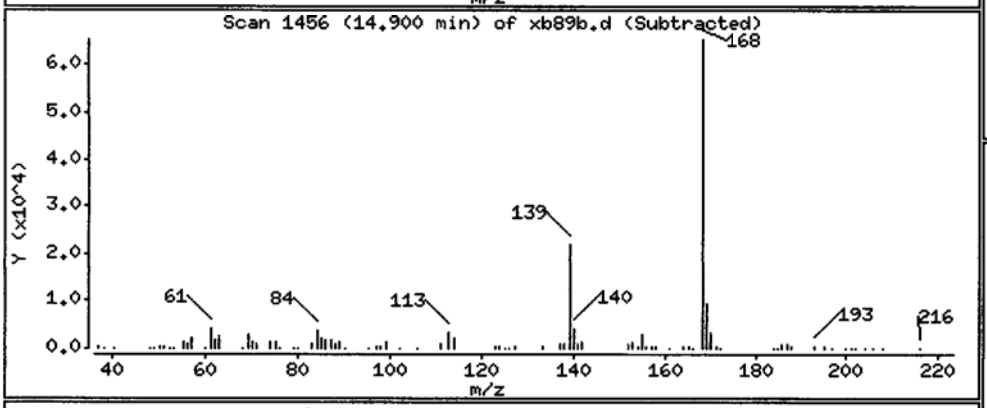
Column phase: ZB-5msi

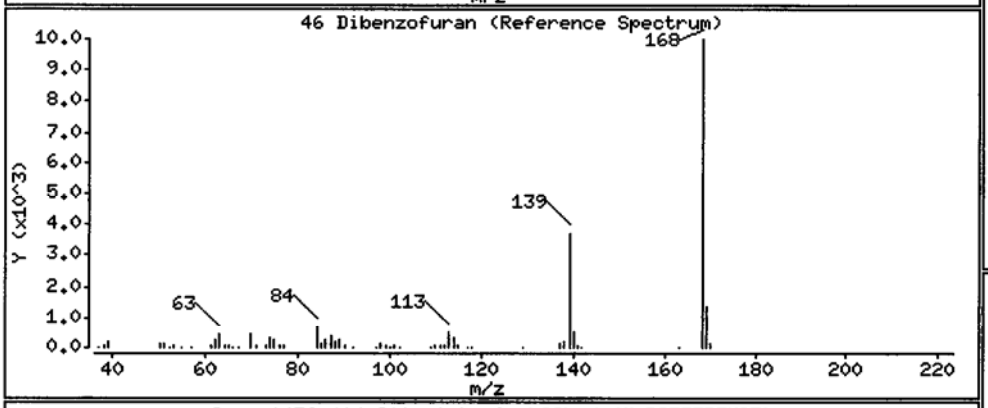
Column diameter: 0.25

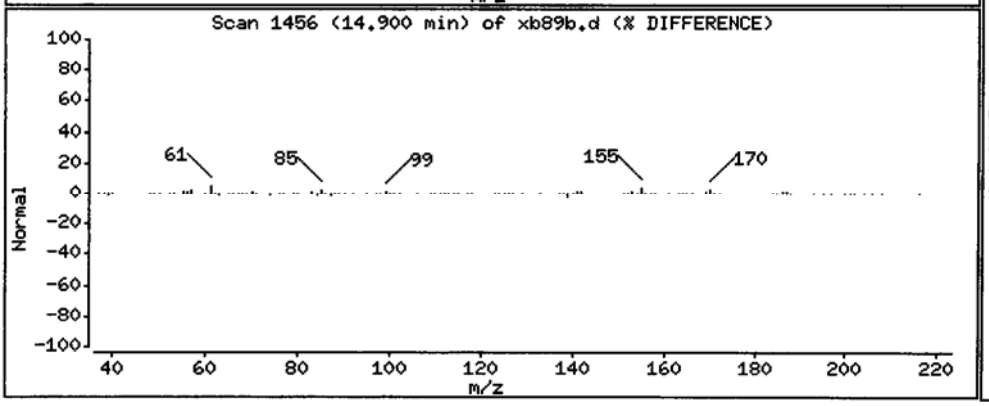
46 Dibenzofuran

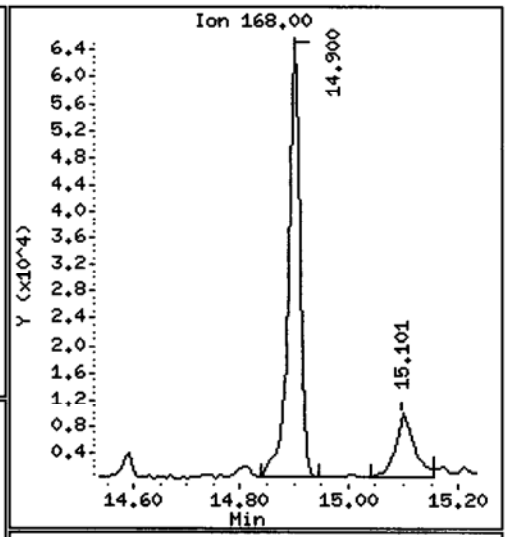
Concentration: 304.5 ug/kg

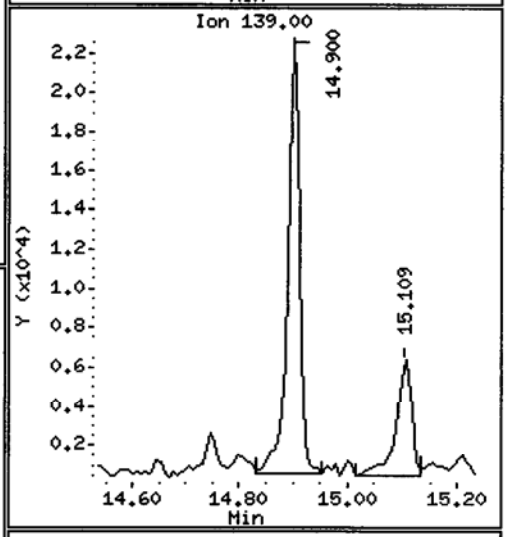


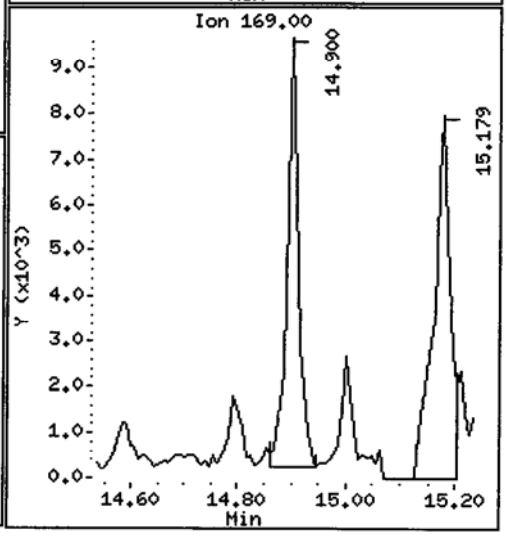












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

Operator: VTS/YZ

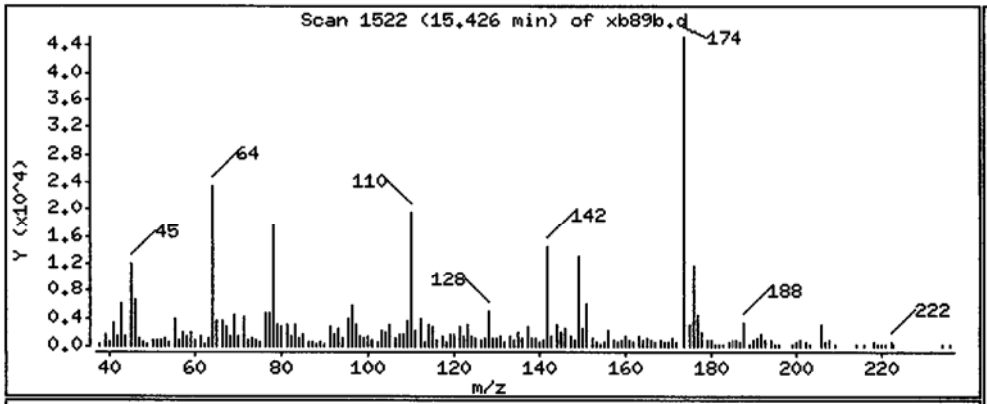
Column phase: ZB-5msi

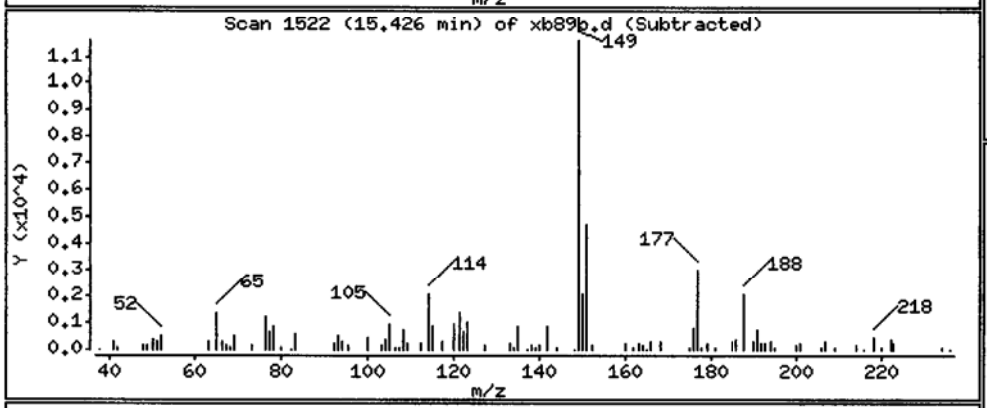
Column diameter: 0.25

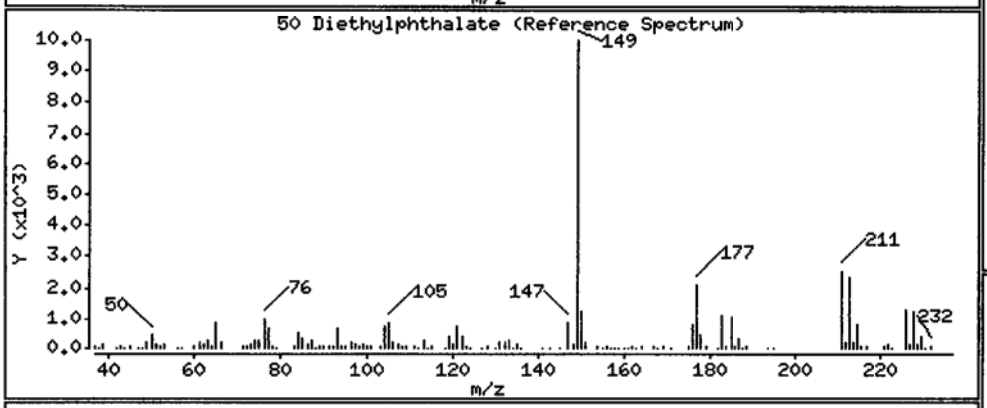
50 Diethylphthalate

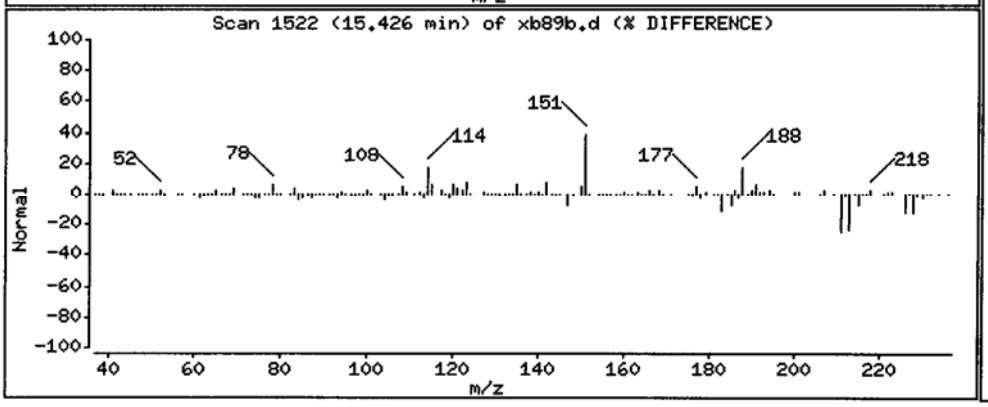
Concentration: 77.07 ug/kg

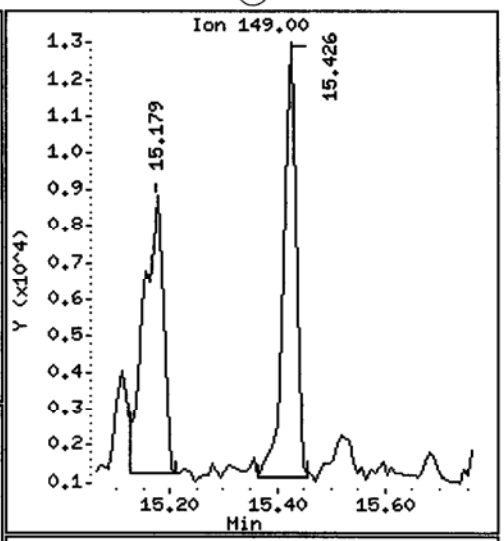
(B)

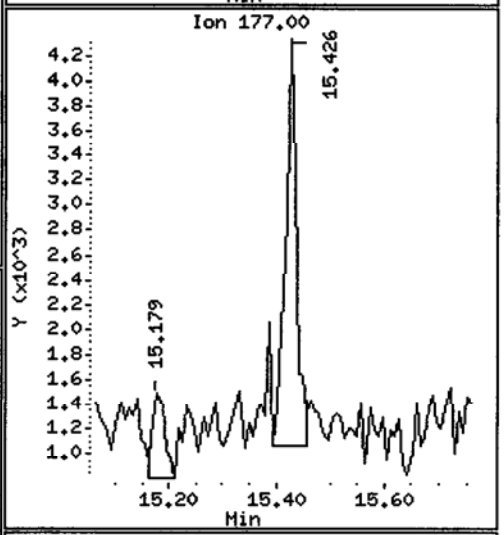


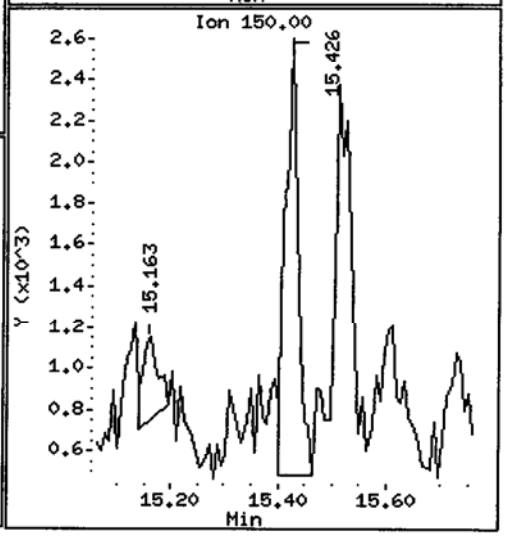












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

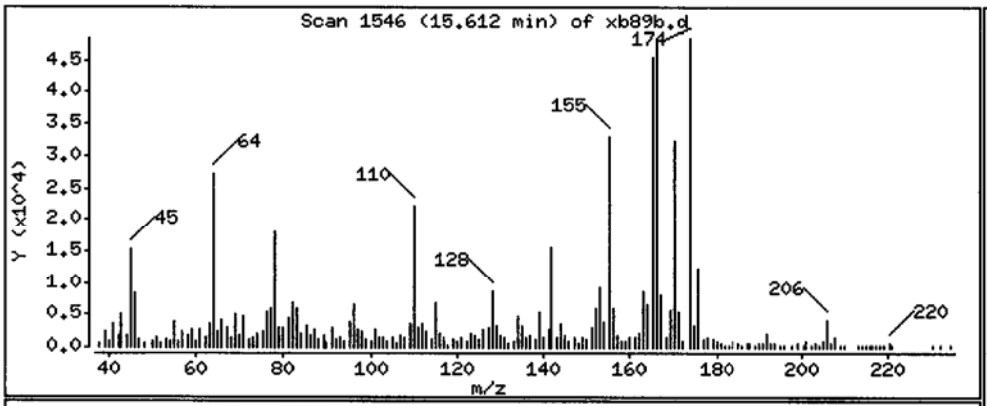
Operator: VTS/YZ

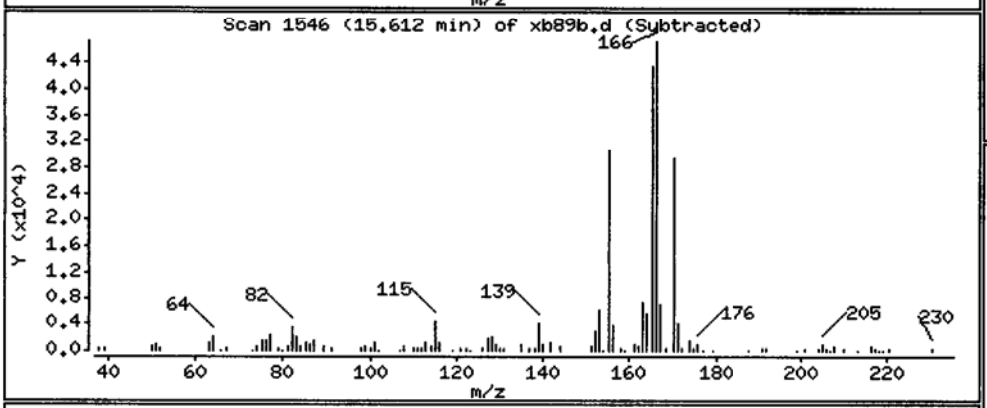
Column phase: ZB-5msi

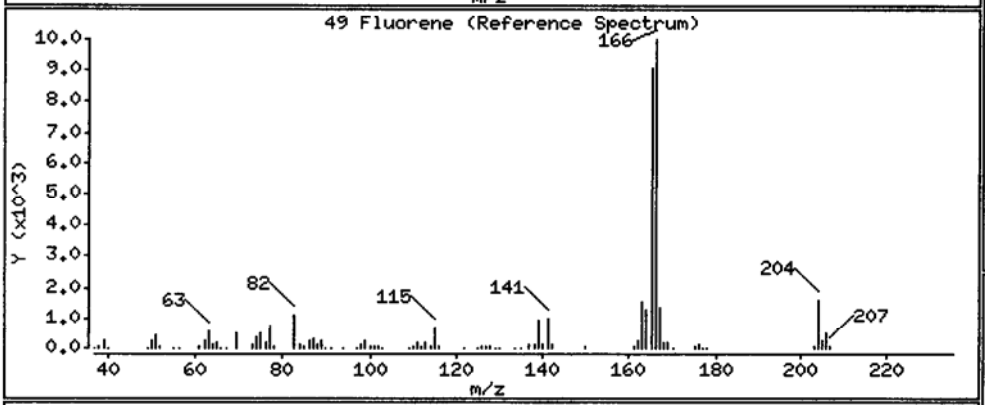
Column diameter: 0.25

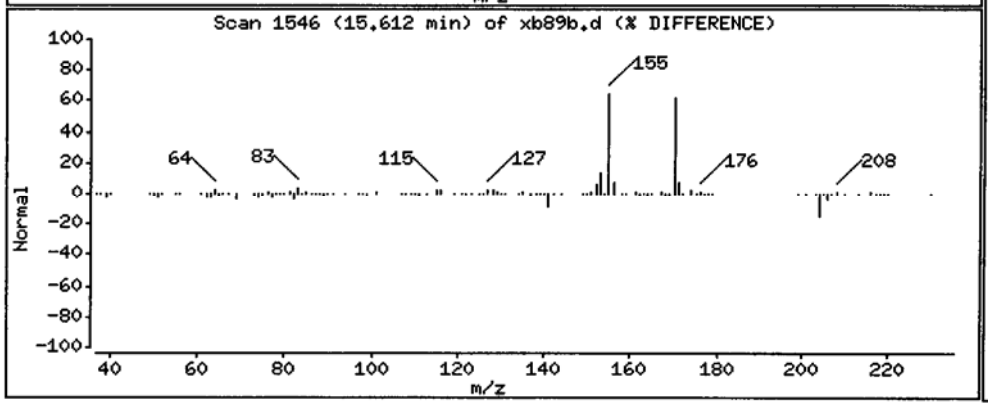
49 Fluorene

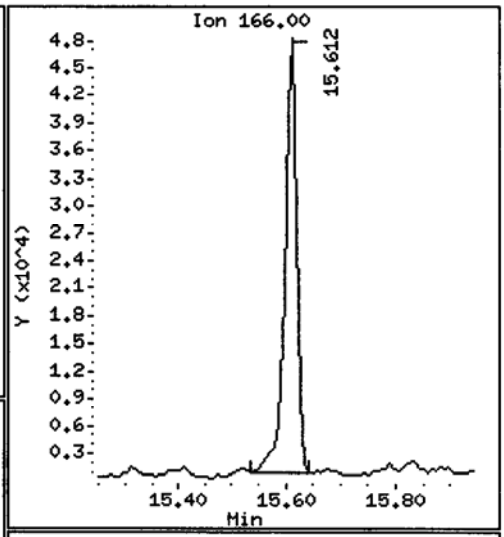
Concentration: 274.2 ug/kg

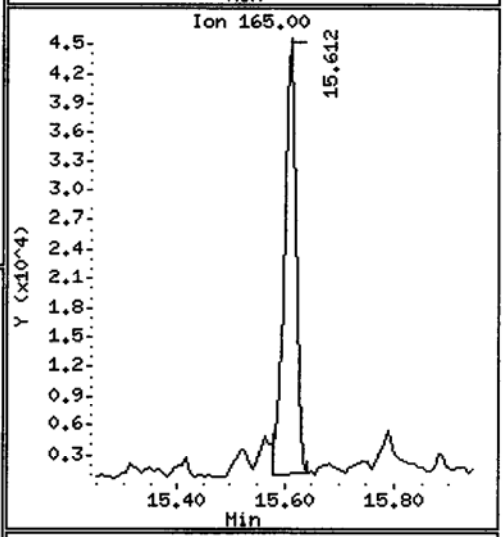


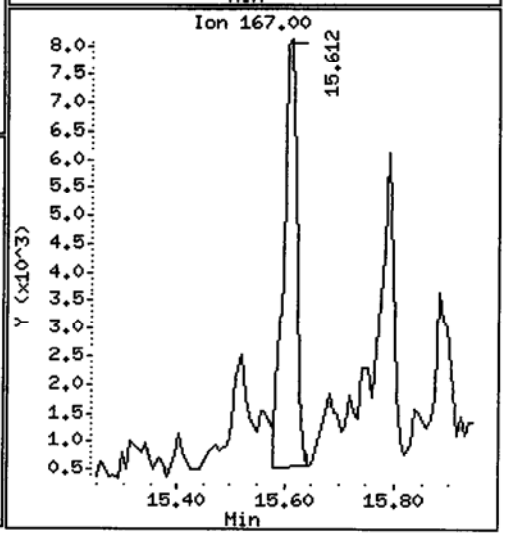












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

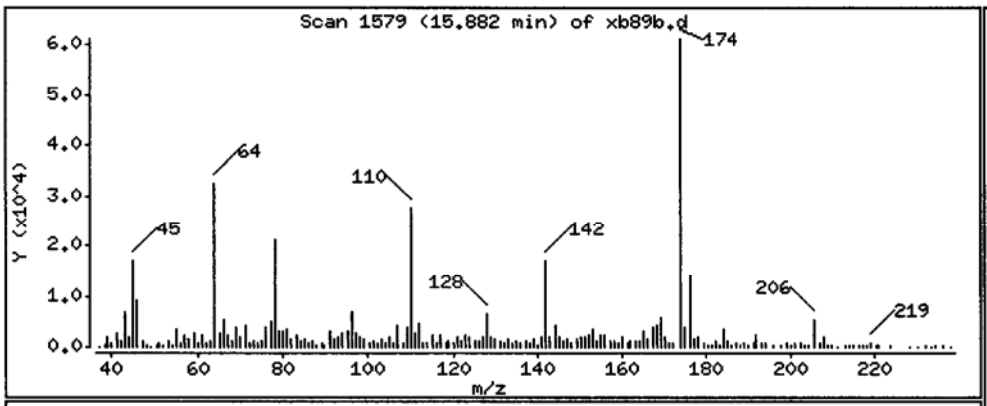
Operator: VTS/YZ

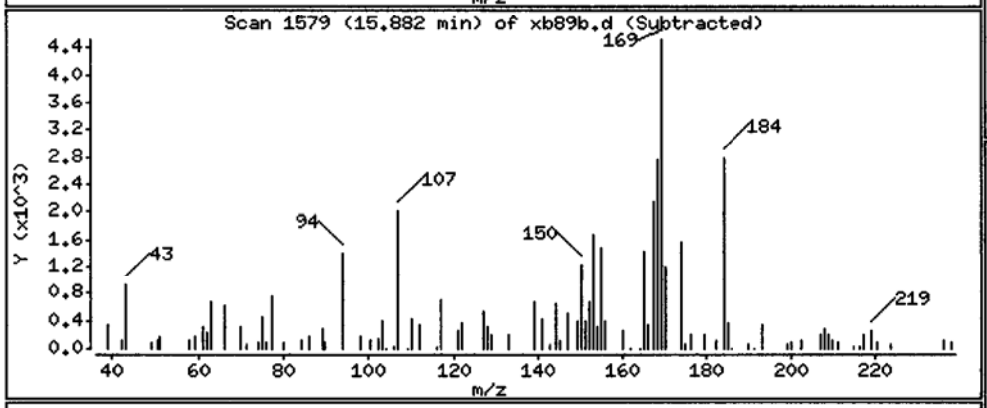
Column phase: ZB-5msi

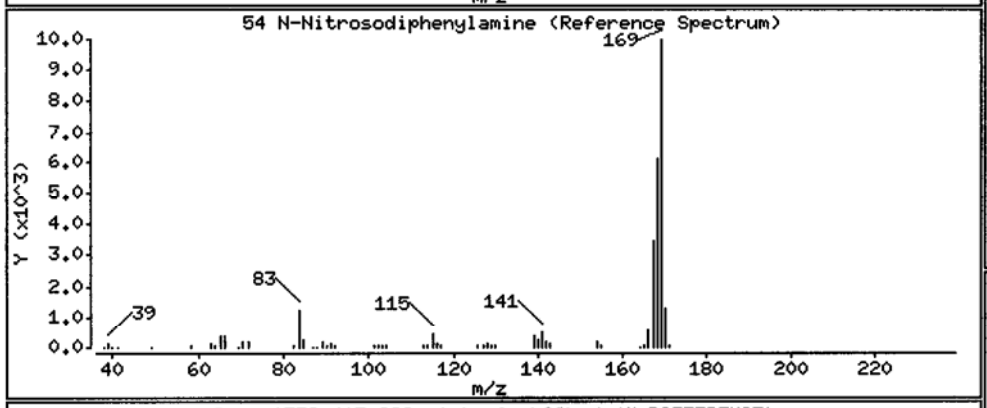
Column diameter: 0.25

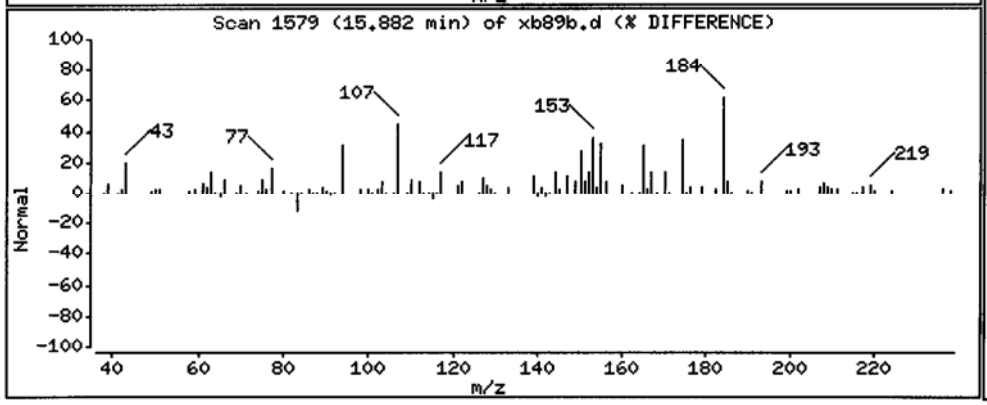
54 N-Nitrosodiphenylamine

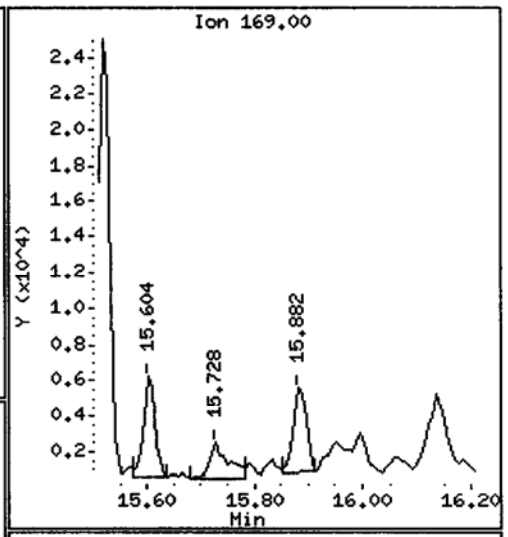
Concentration: 57.84 ug/kg

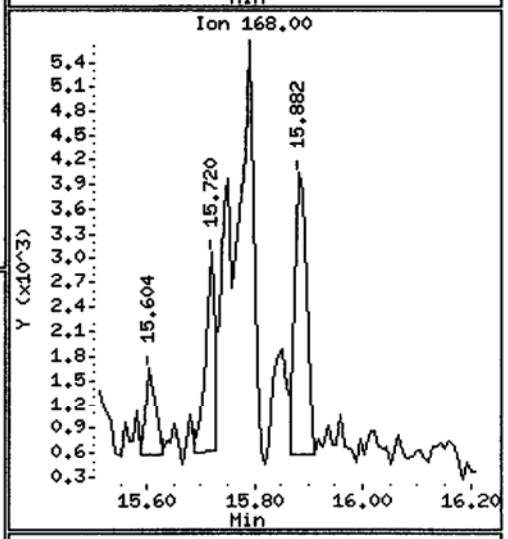


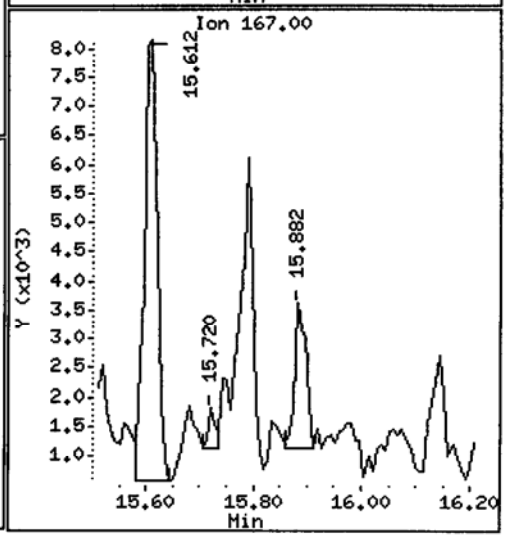












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

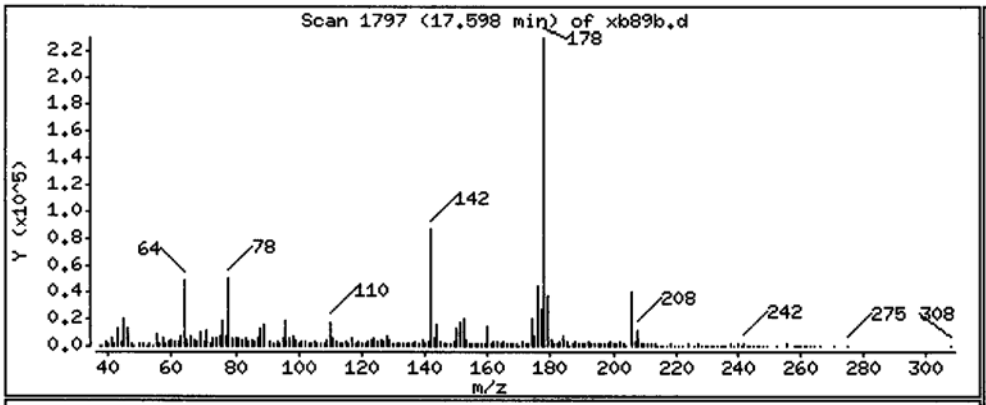
Client ID: IJ13-SS-101 Instrument: nt10.i

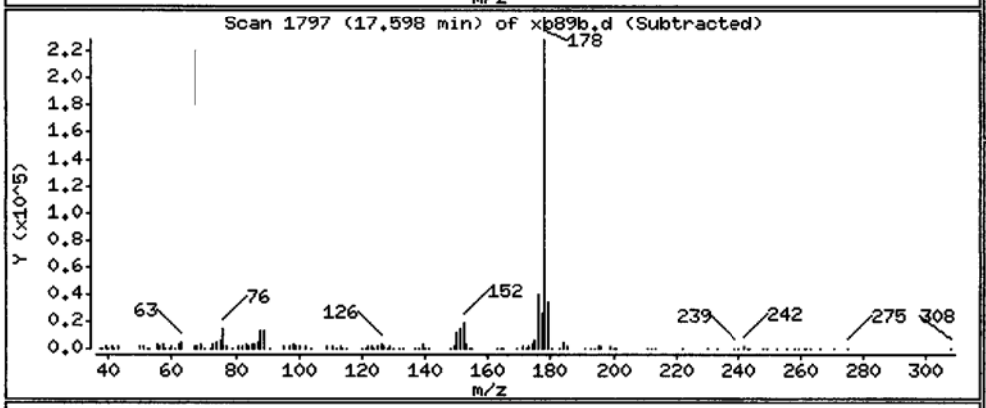
Sample Info: XB89B

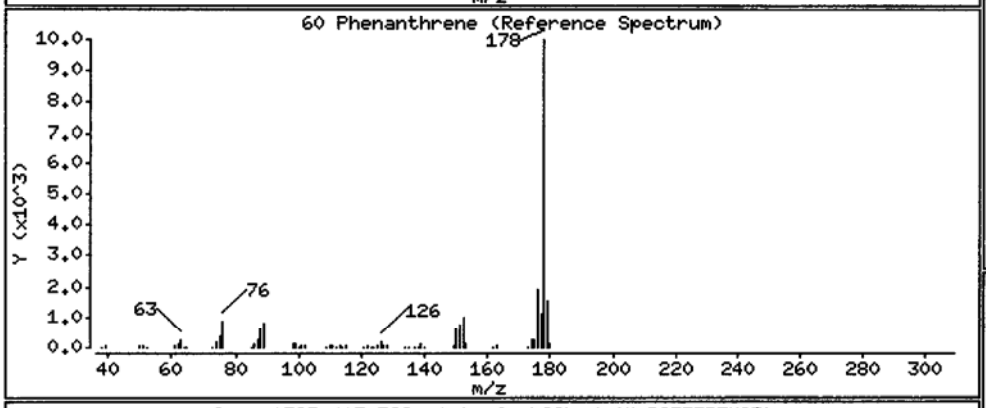
Volume Injected (uL): 1.0 Operator: VTS/YZ

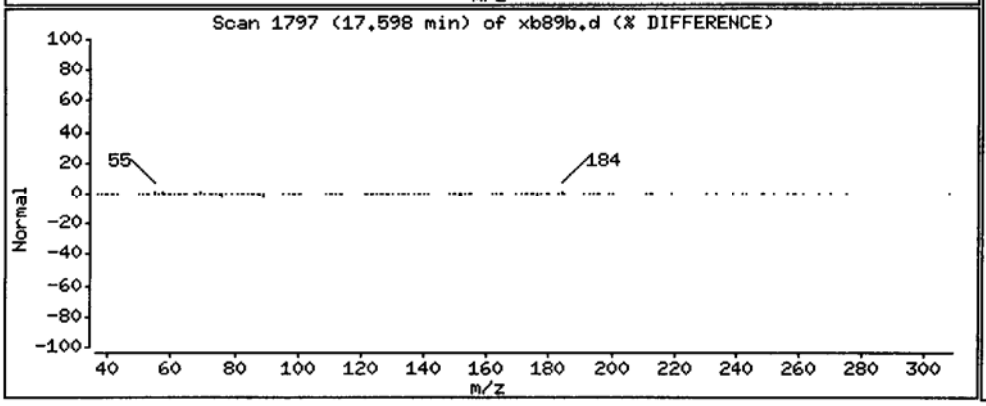
Column phase: ZB-5msi Column diameter: 0.25

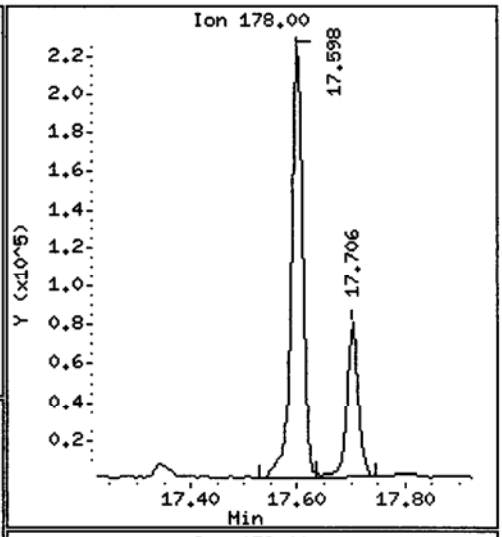
60 Phenanthrene Concentration: 1090 ug/kg

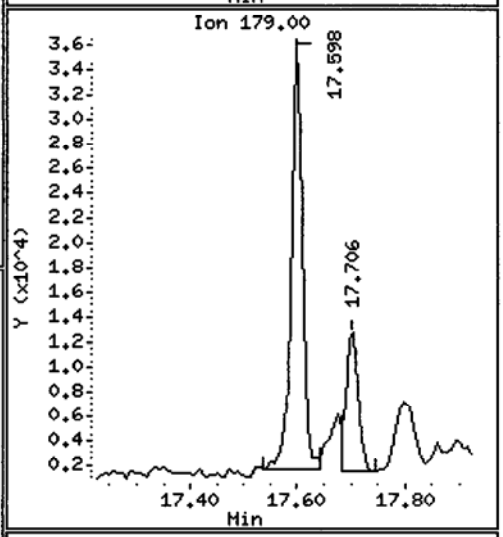


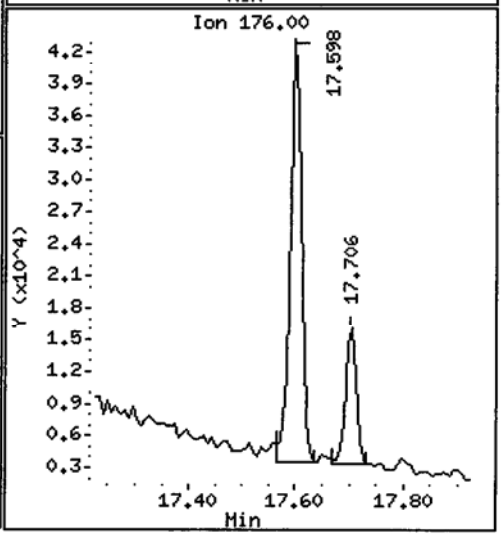












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

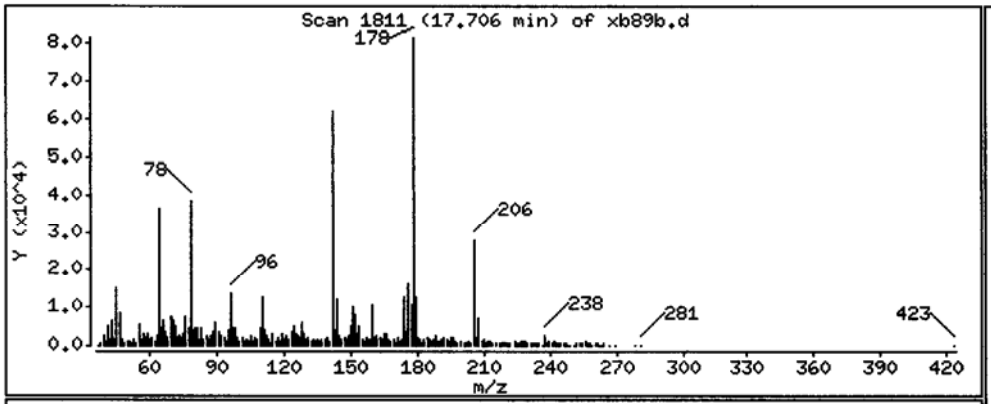
Operator: VTS/YZ

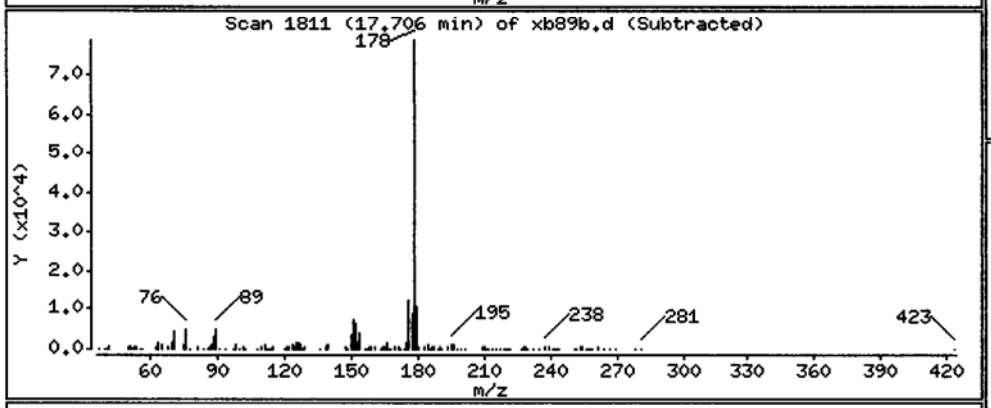
Column phase: ZB-5msi

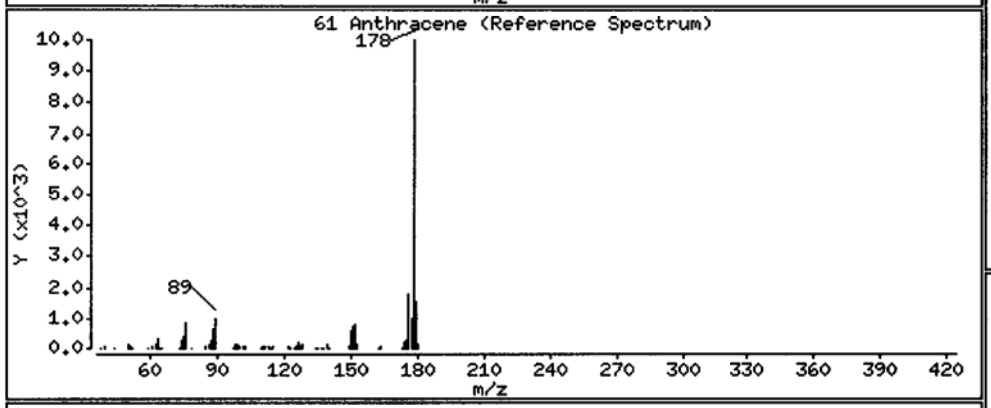
Column diameter: 0.25

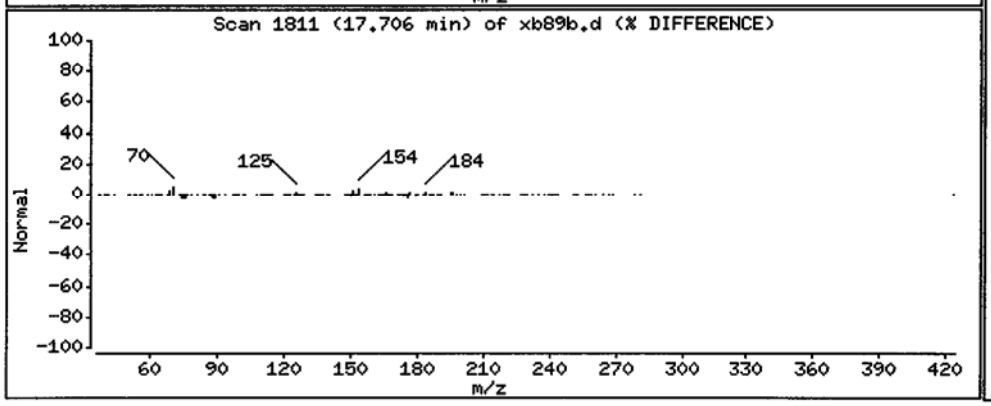
61 Anthracene

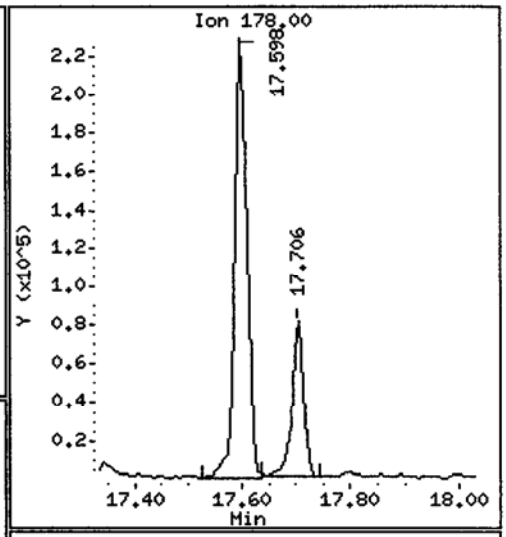
Concentration: 354.8 ug/kg

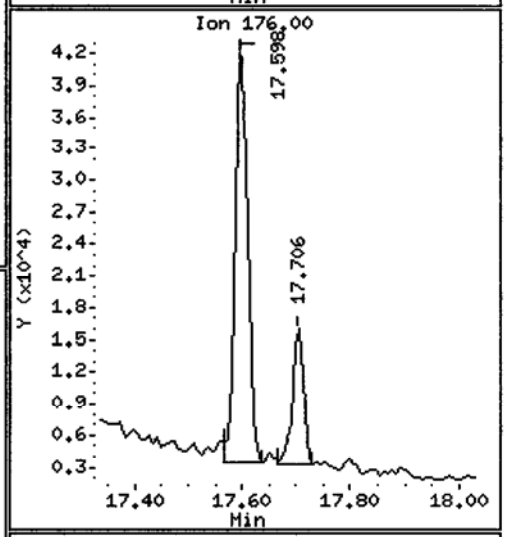


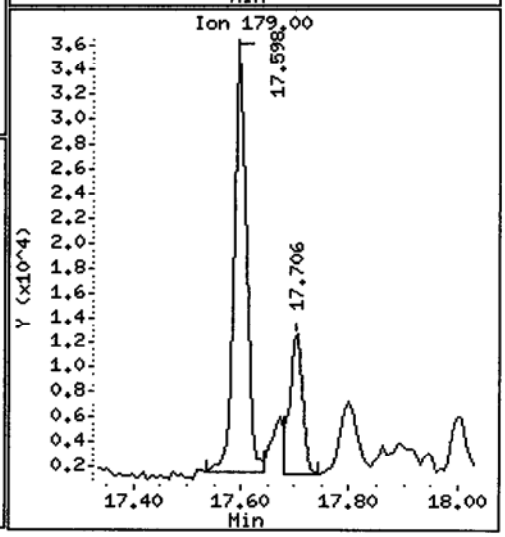












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

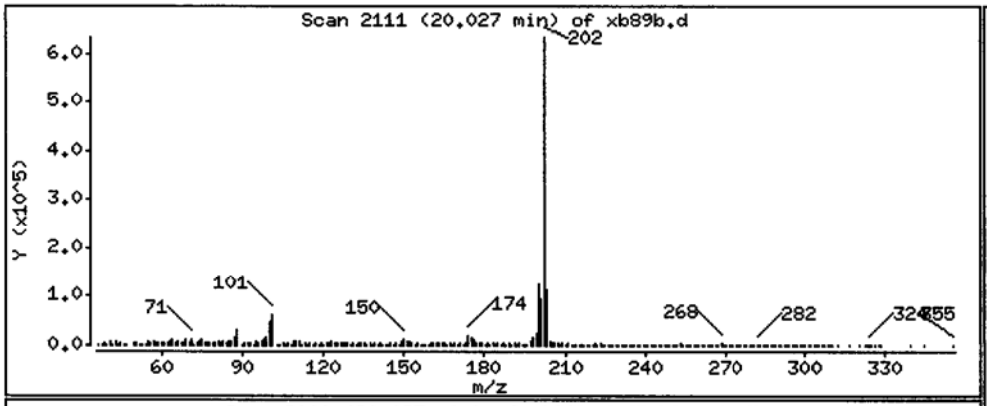
Operator: VTS/YZ

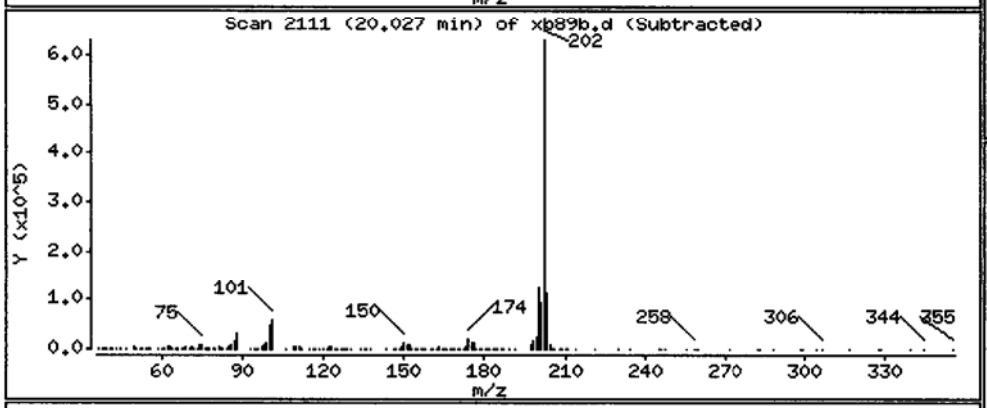
Column phase: ZB-5msi

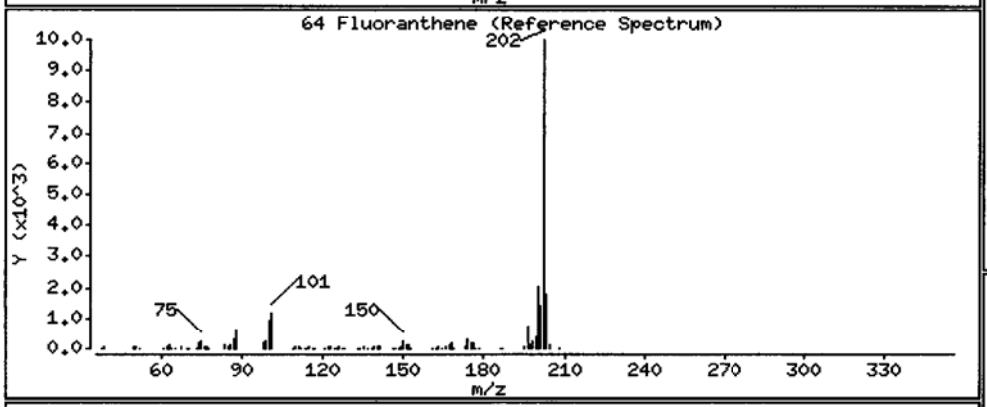
Column diameter: 0.25

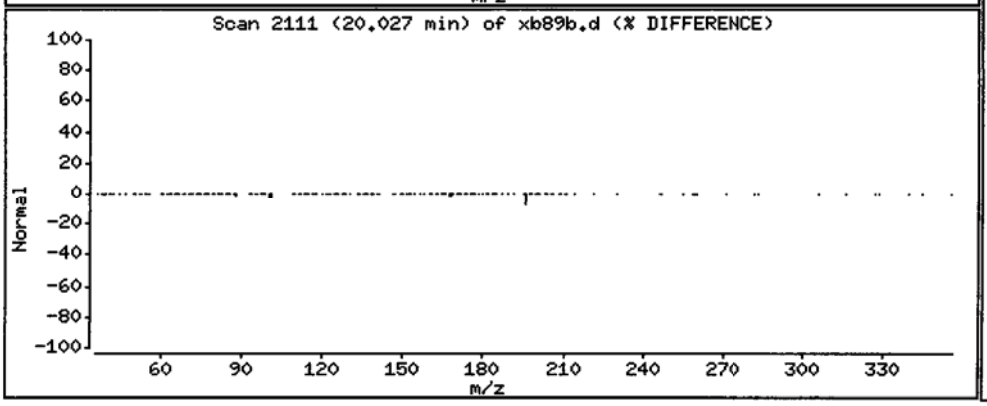
64 Fluoranthene

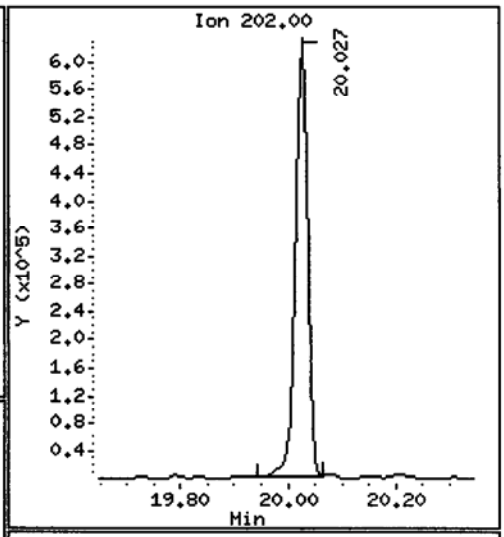
Concentration: 2423 ug/kg

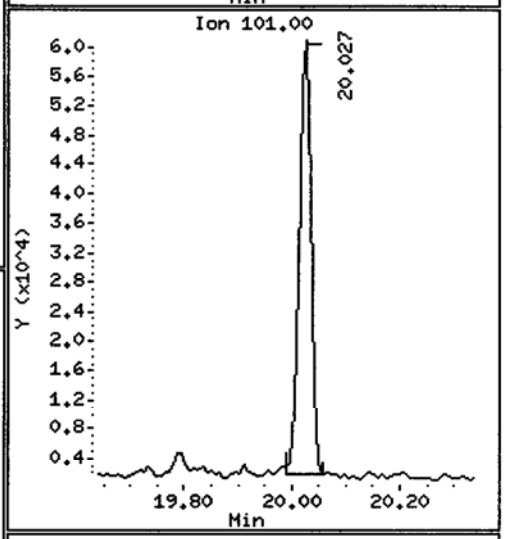


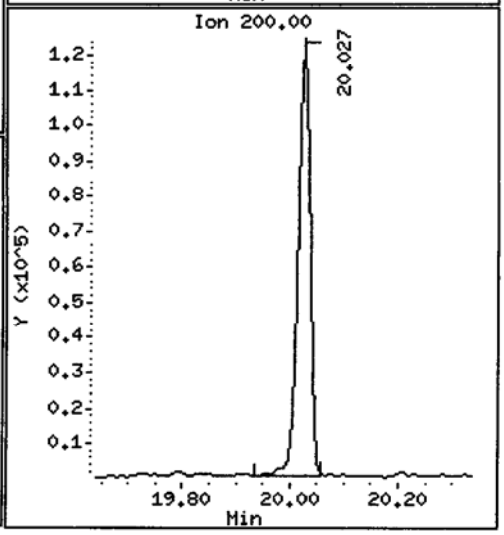












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

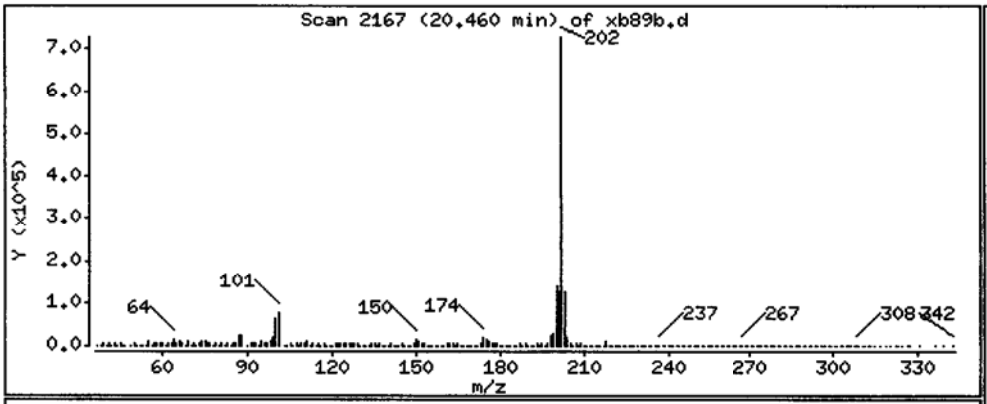
Operator: VTS/YZ

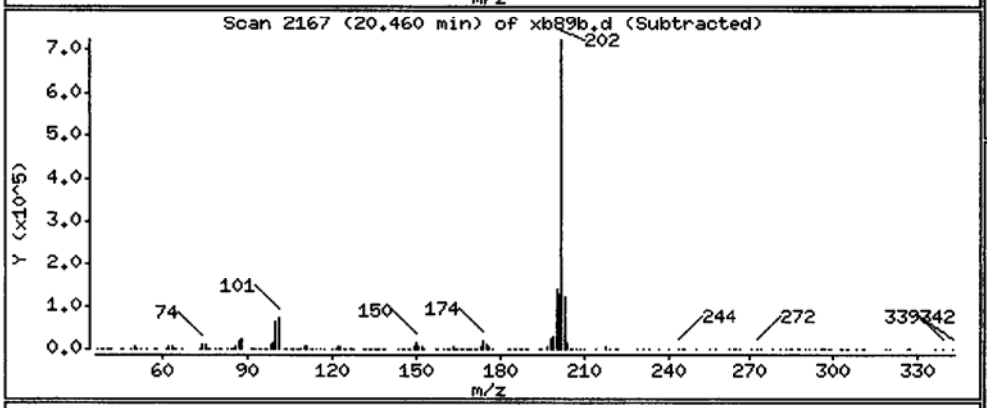
Column phase: ZB-5msi

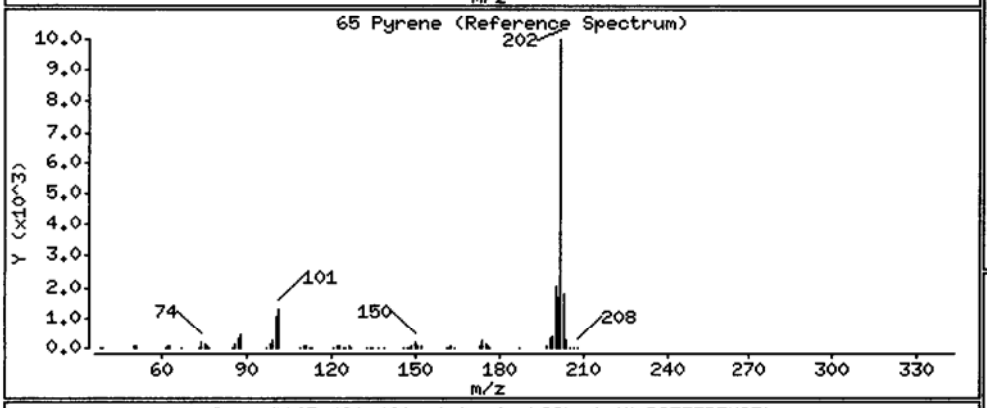
Column diameter: 0.25

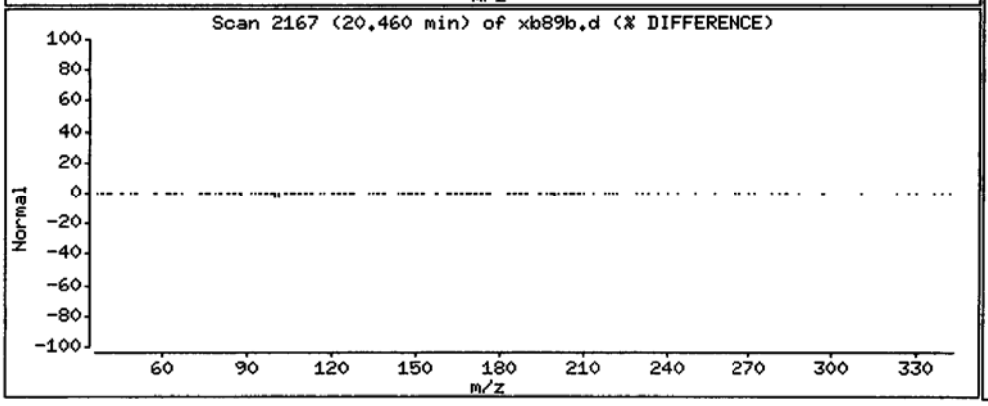
65 Pyrene

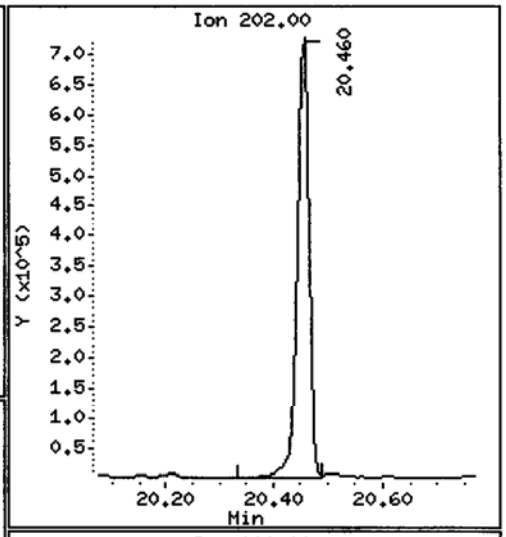
Concentration: 2699 ug/kg

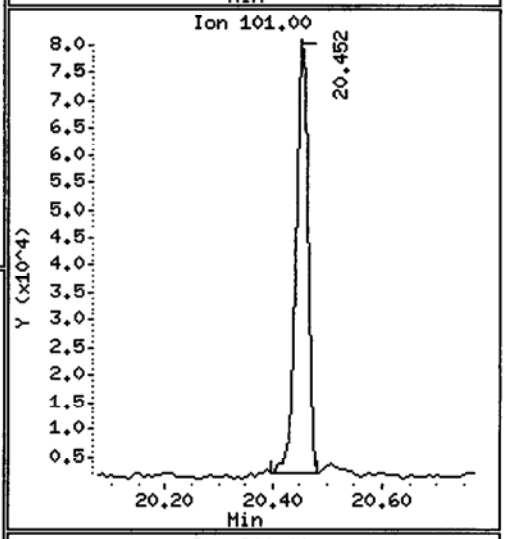


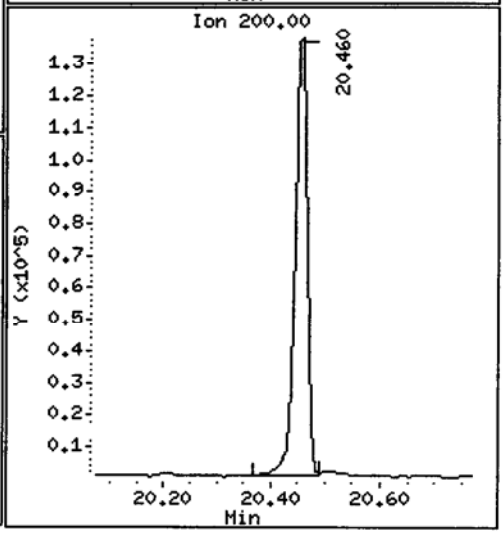












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

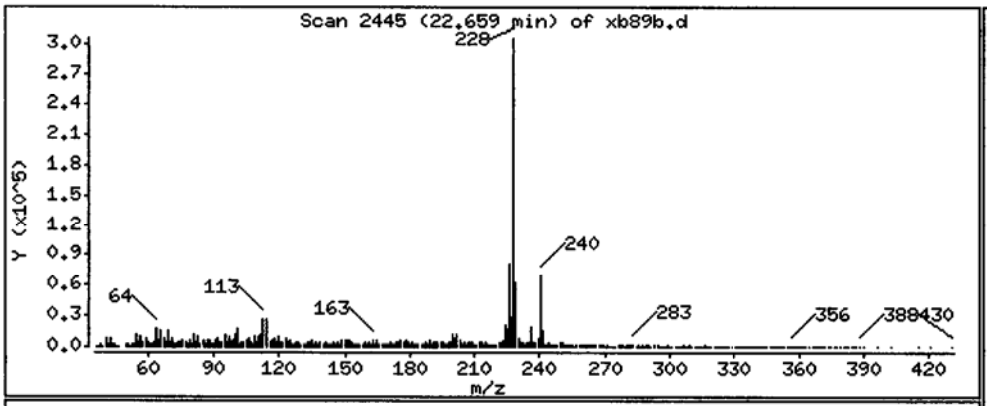
Operator: VTS/YZ

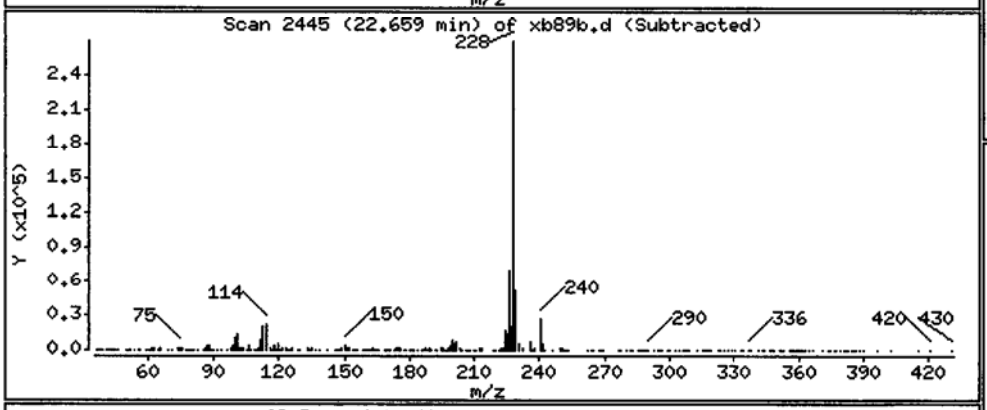
Column phase: ZB-5msi

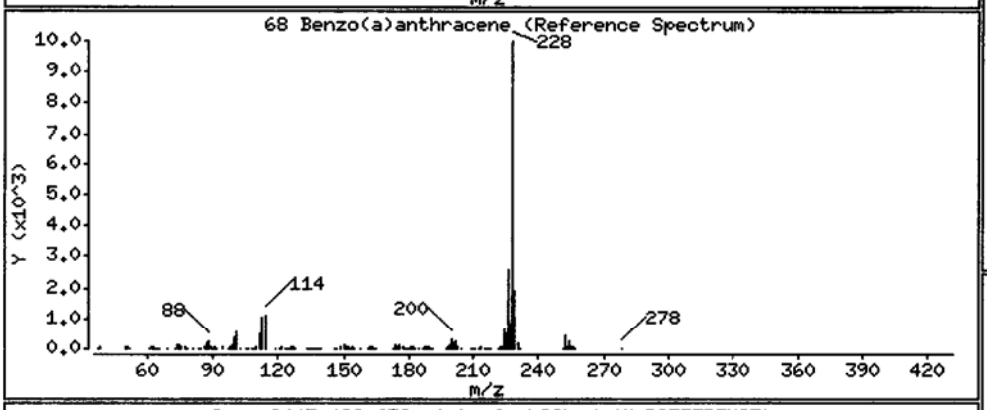
Column diameter: 0.25

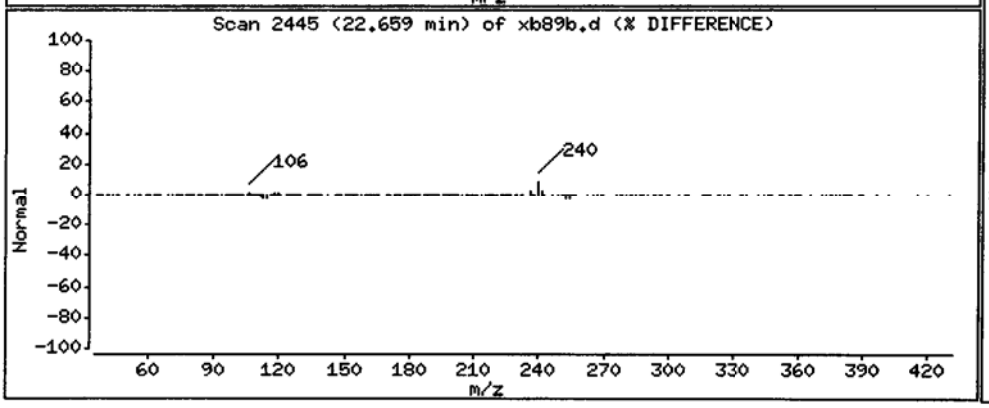
68 Benzo(a)anthracene

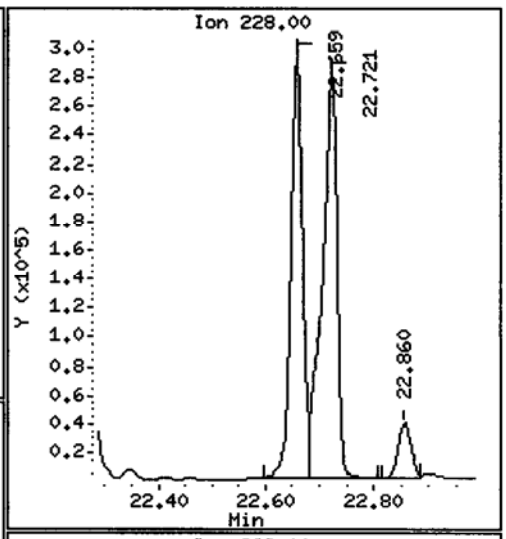
Concentration: 1235 ug/kg

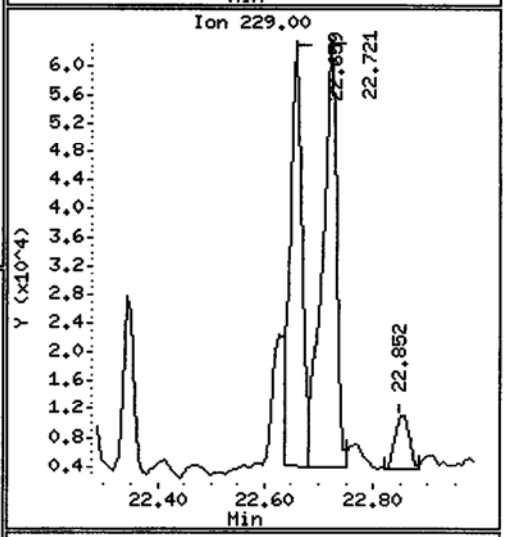


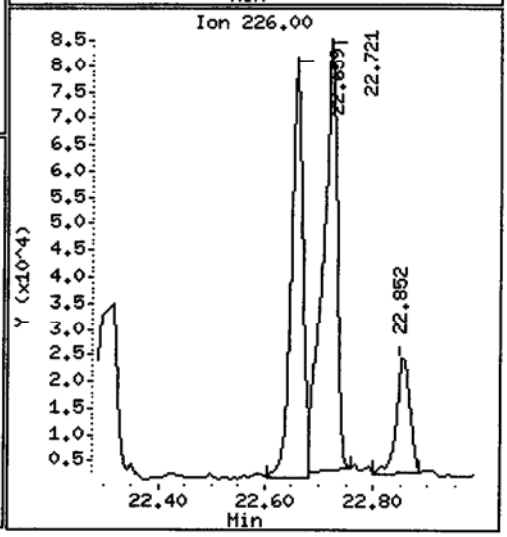












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

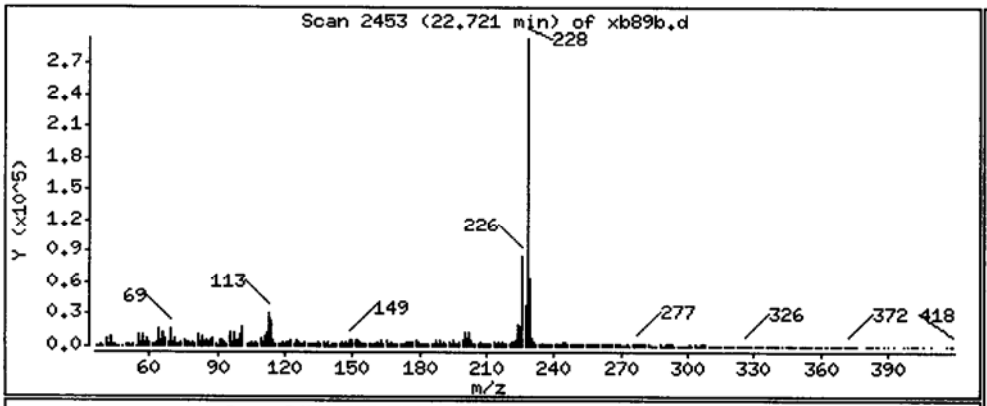
Operator: VTS/YZ

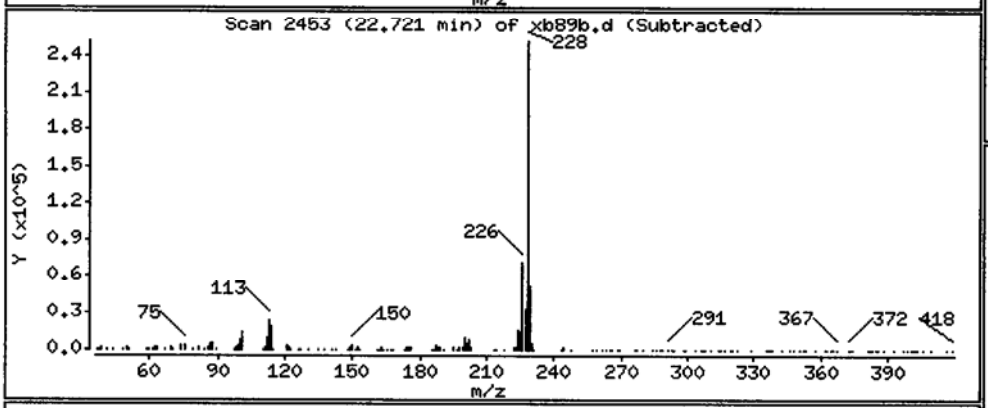
Column phase: ZB-5msi

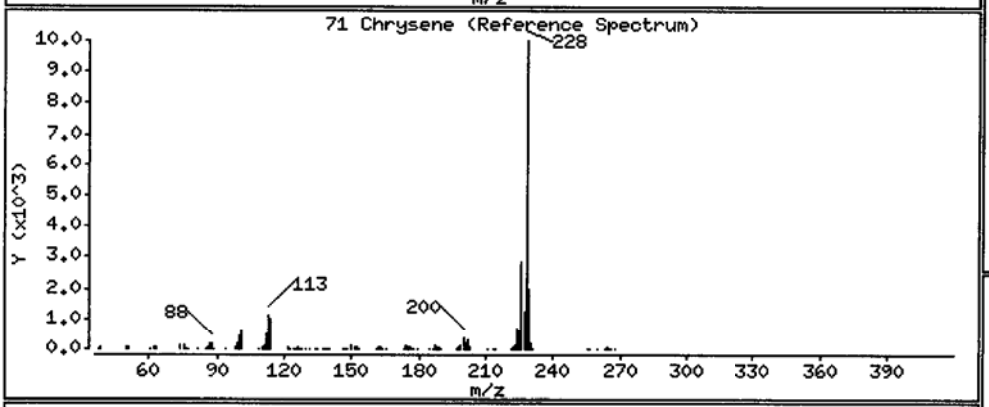
Column diameter: 0.25

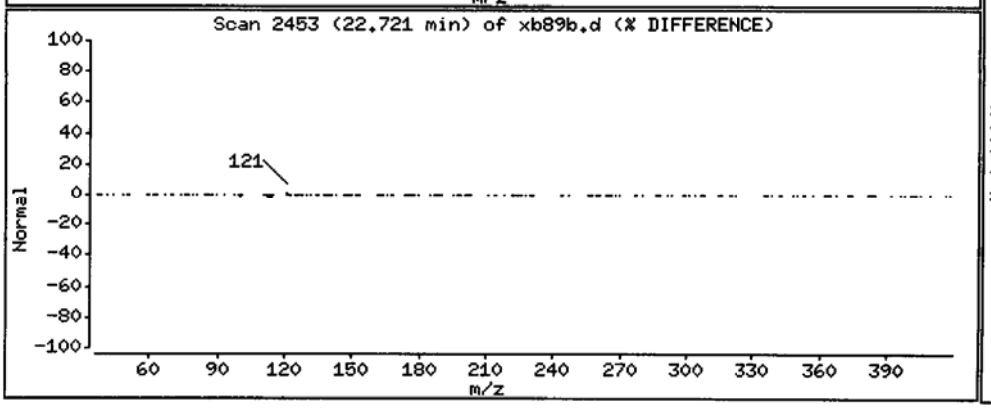
71 Chrysene

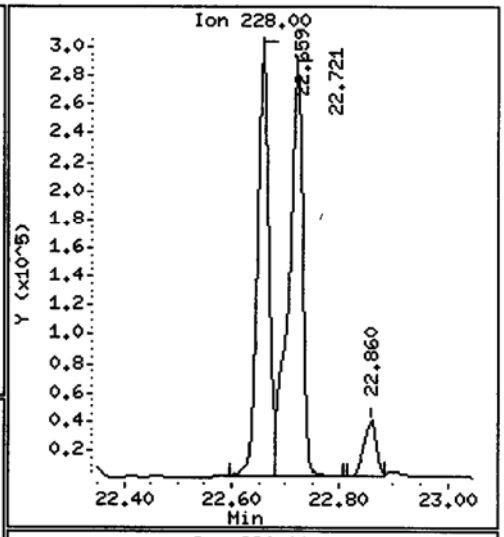
Concentration: 1656 ug/kg

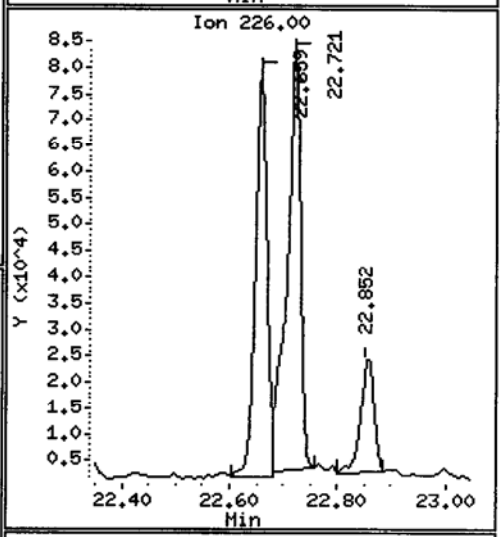


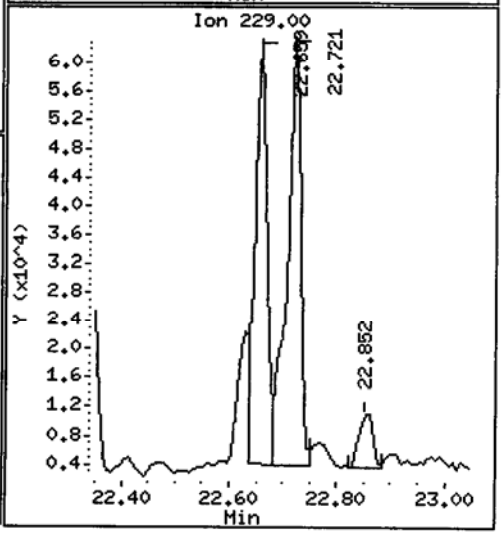












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

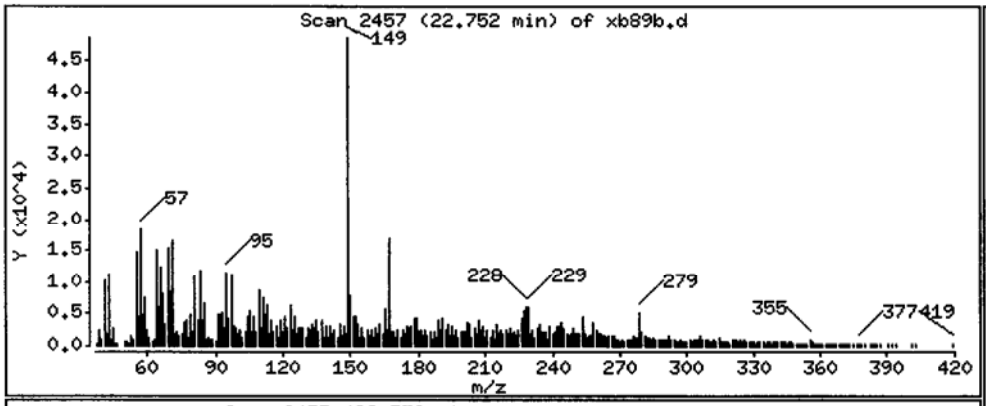
Client ID: IJ13-SS-101 Instrument: nt10.i

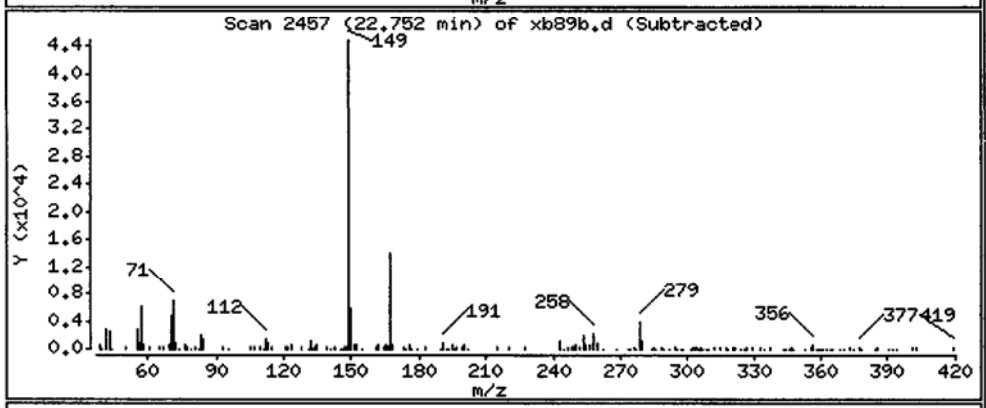
Sample Info: XB89B

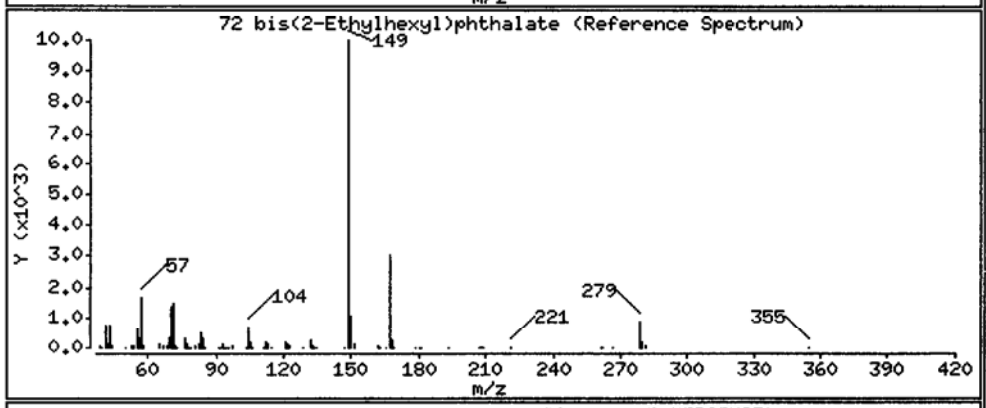
Volume Injected (uL): 1.0 Operator: VTS/YZ

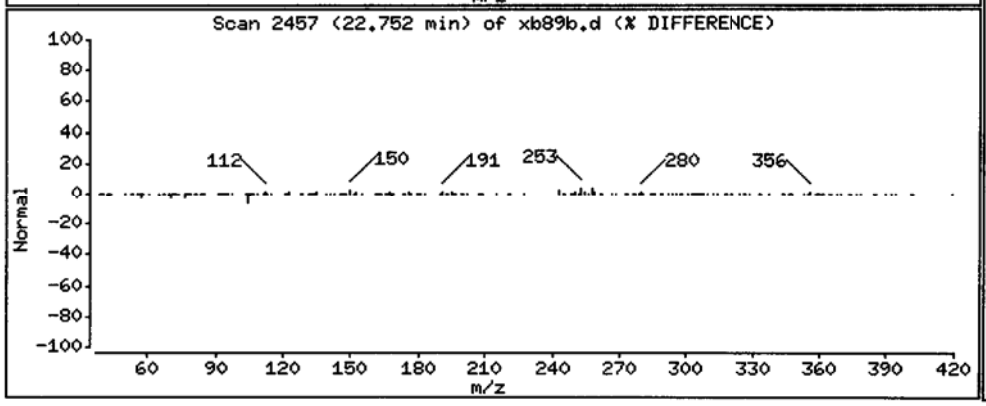
Column phase: ZB-5msi Column diameter: 0.25

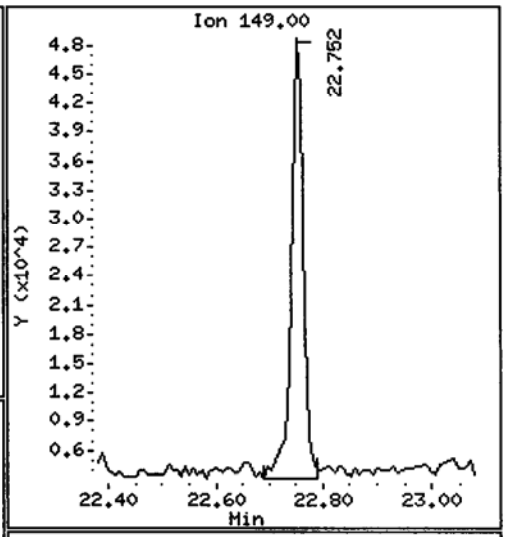
72 bis(2-Ethylhexyl)phthalate Concentration: 374.1 ug/kg

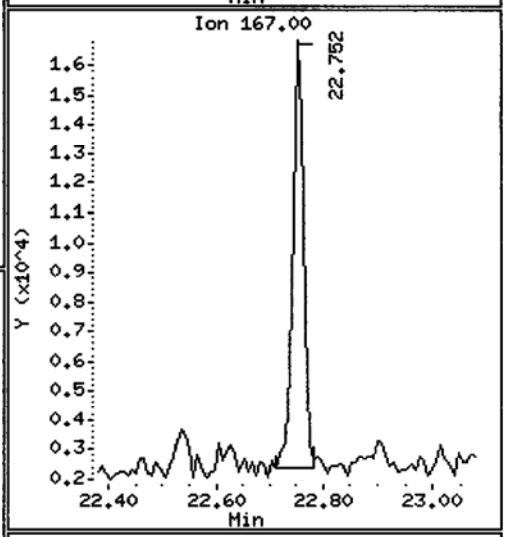


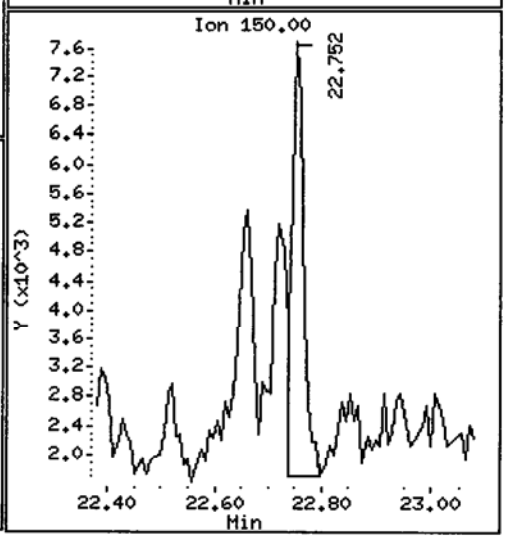












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

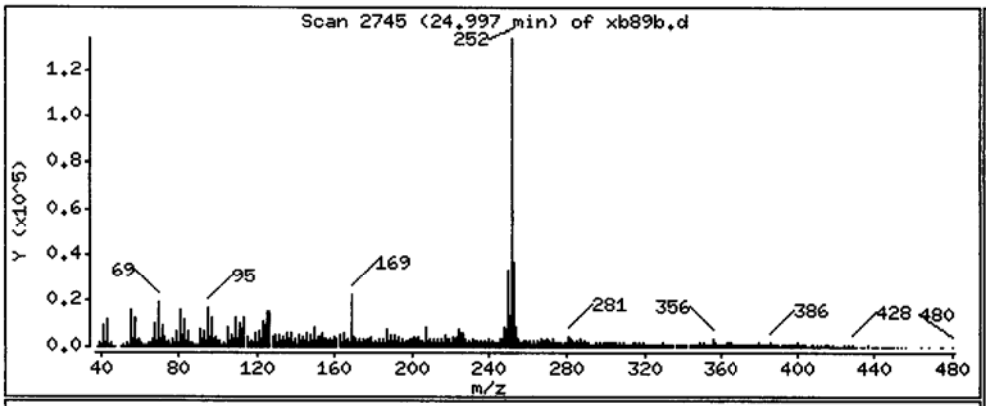
Operator: VTS/YZ

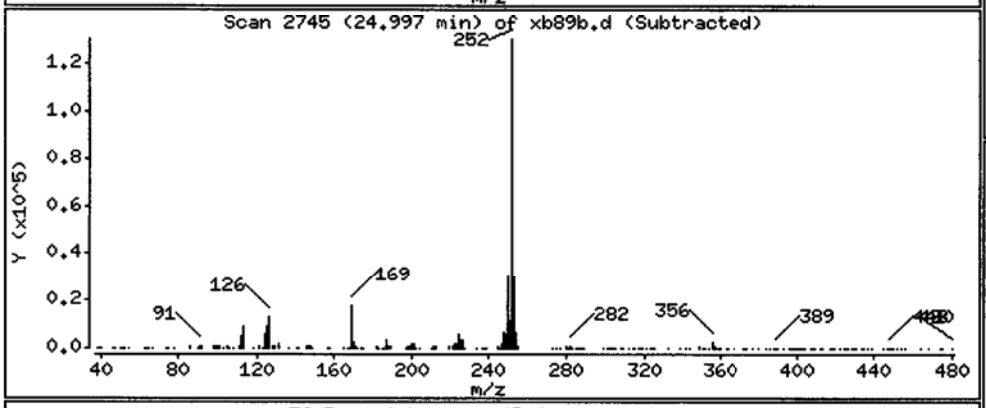
Column phase: ZB-5msi

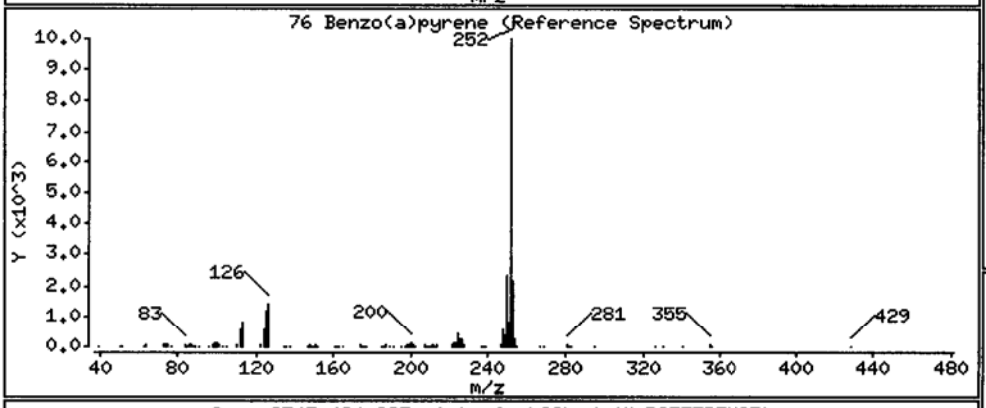
Column diameter: 0.25

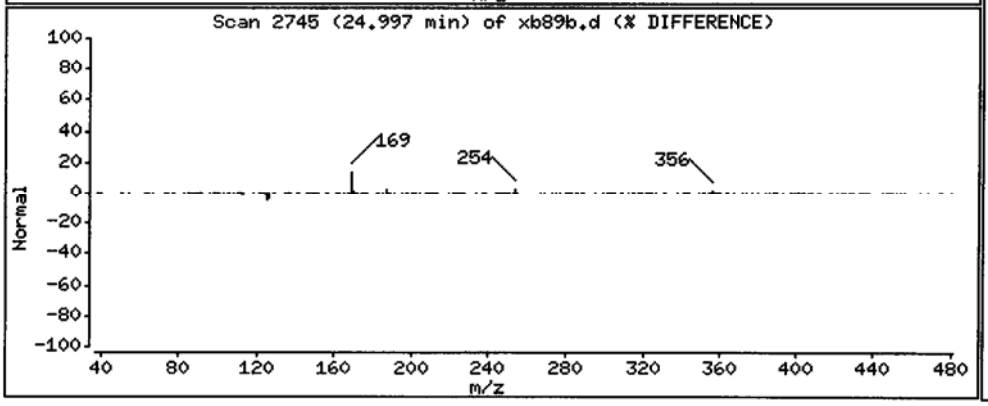
76 Benzo(a)pyrene

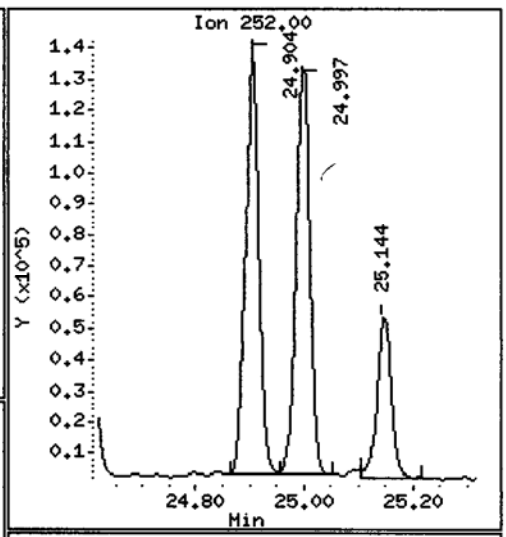
Concentration: 656.1 ug/kg

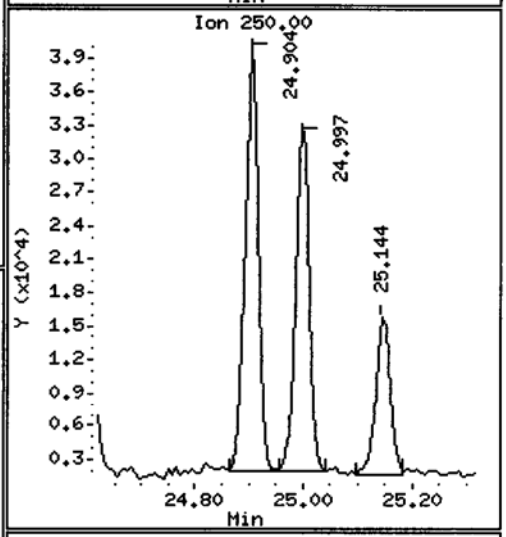


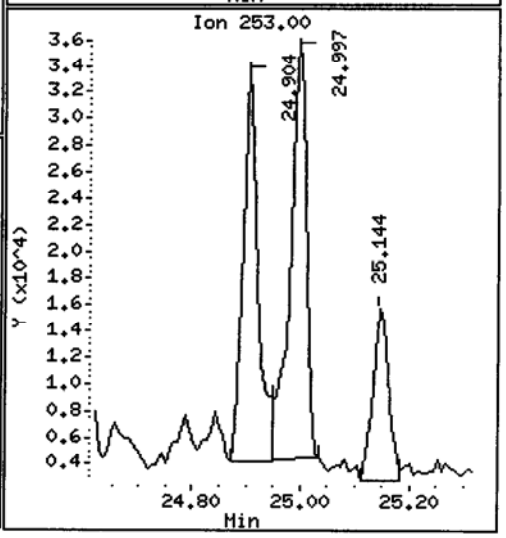












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

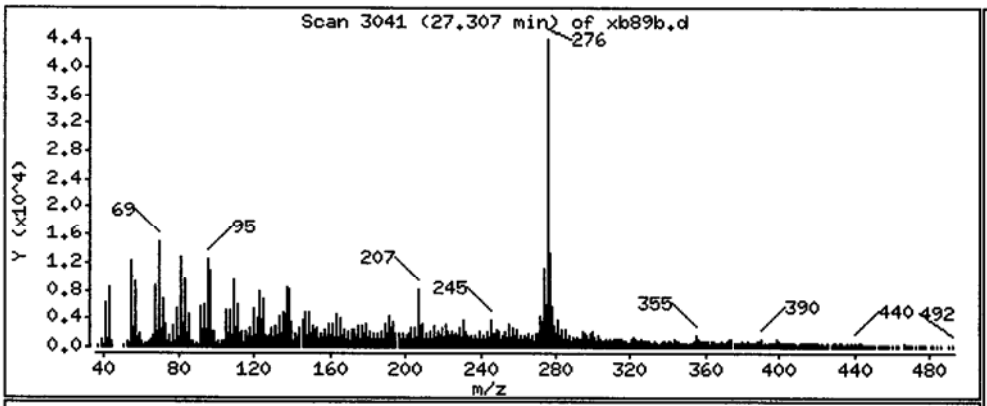
Operator: VTS/YZ

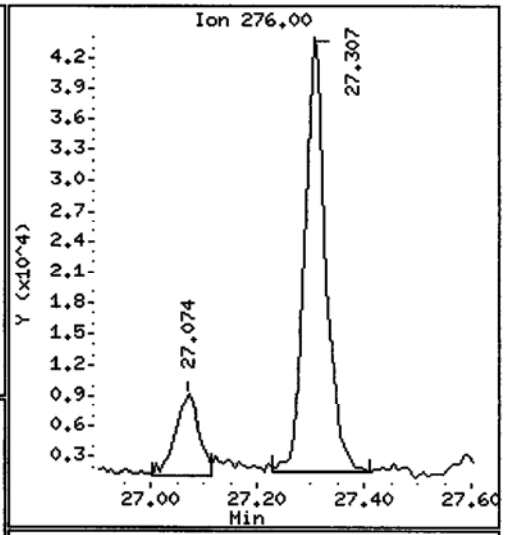
Column phase: ZB-5msi

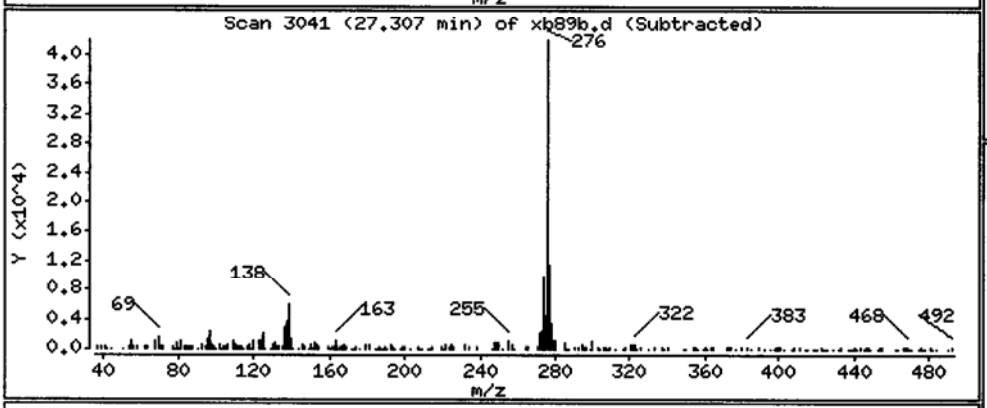
Column diameter: 0.25

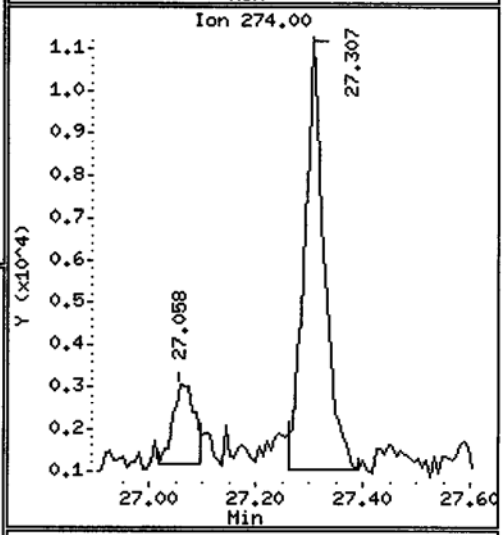
78 Indeno(1,2,3-cd)pyrene

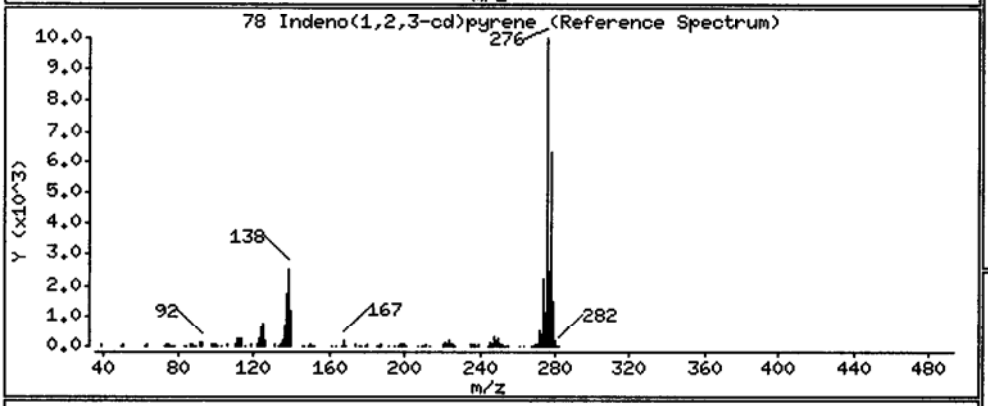
Concentration: 249.9 ug/kg

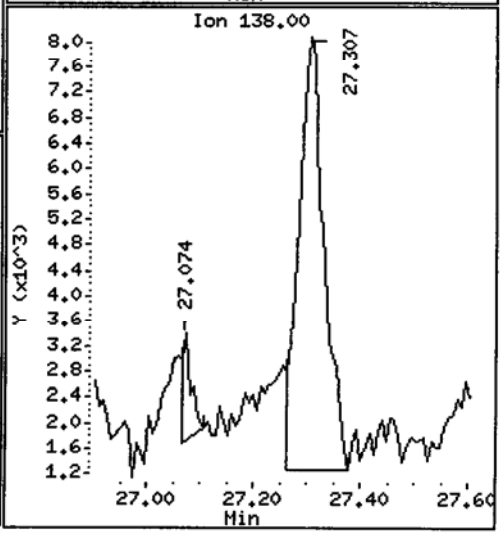


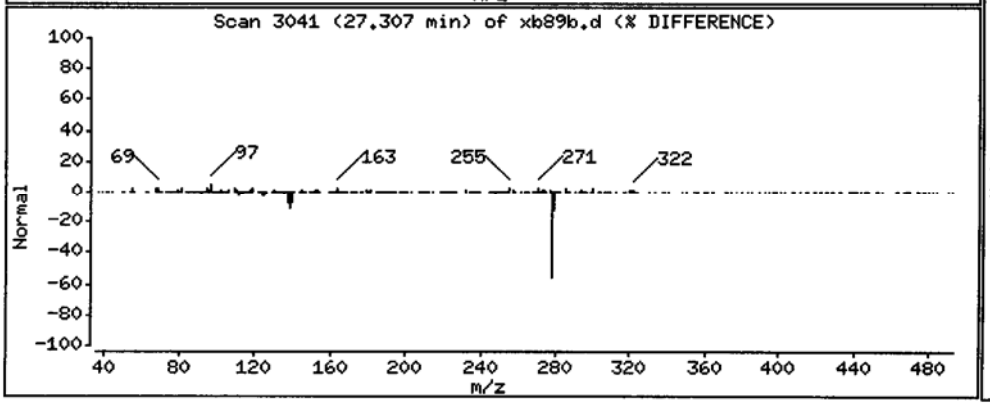












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

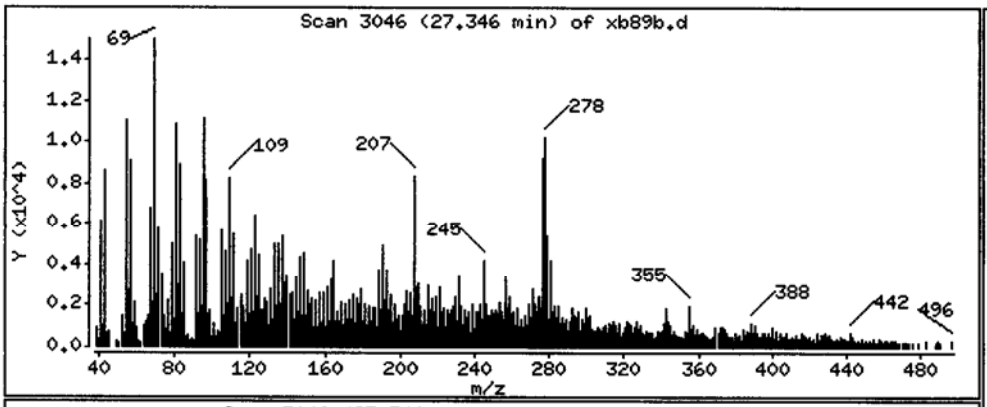
Operator: VTS/YZ

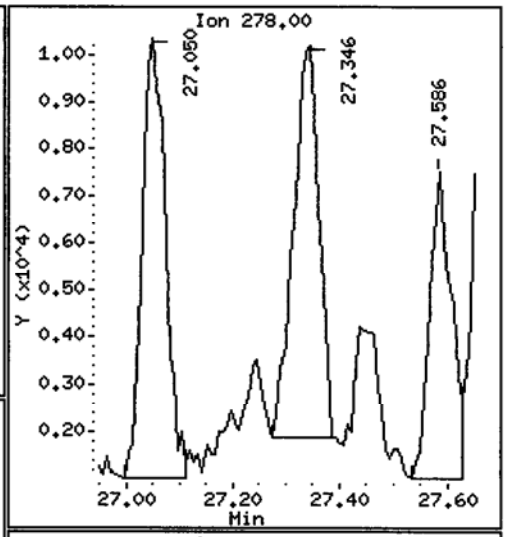
Column phase: ZB-5msi

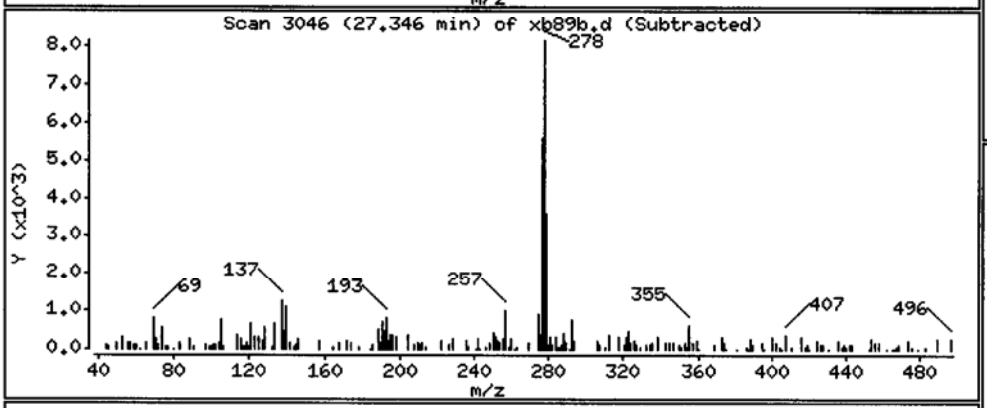
Column diameter: 0.25

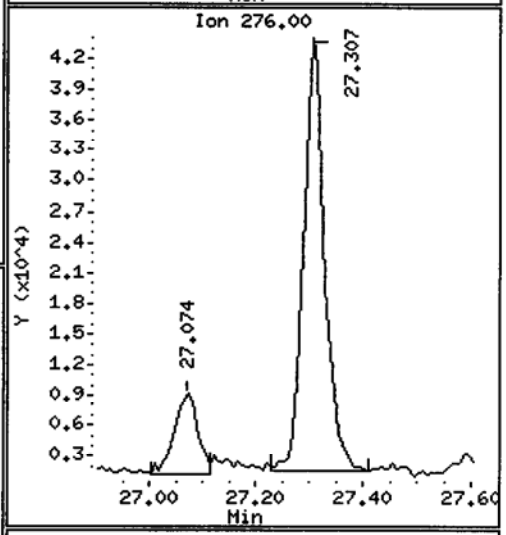
79 Dibenzo(a,h)anthracene

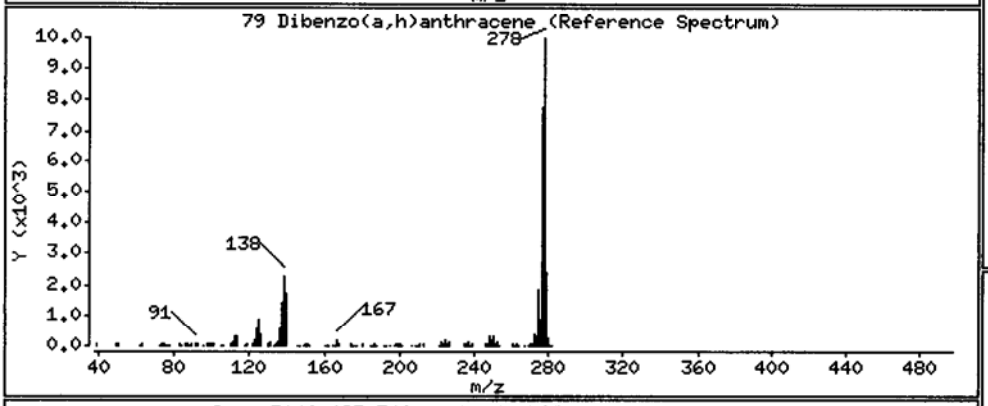
Concentration: 77.47 ug/kg

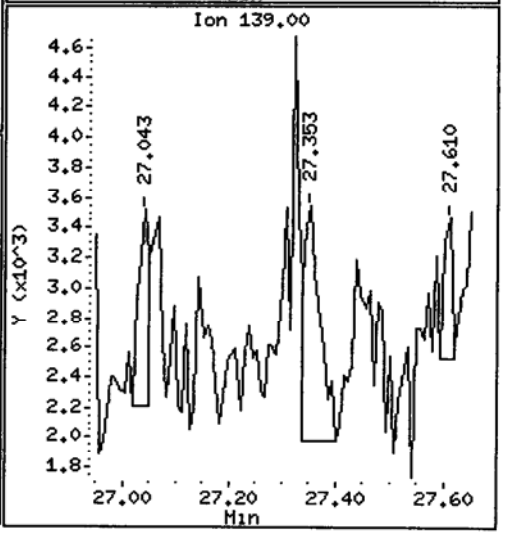


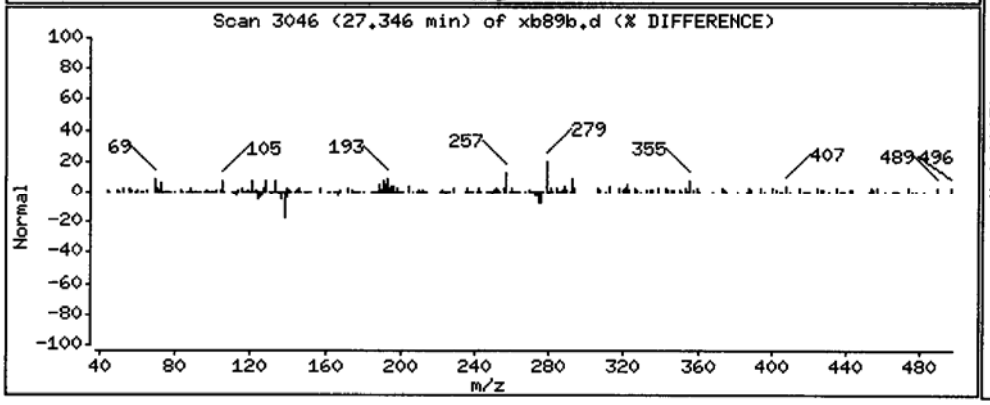












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

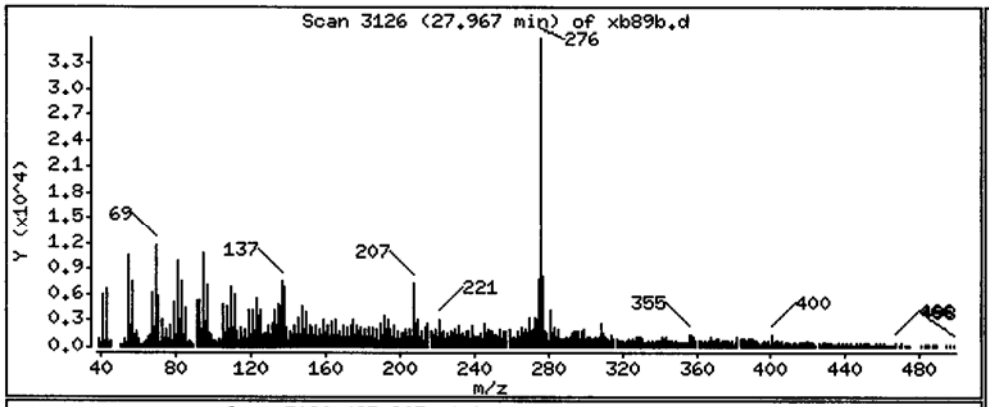
Client ID: IJ13-SS-101 Instrument: nt10.i

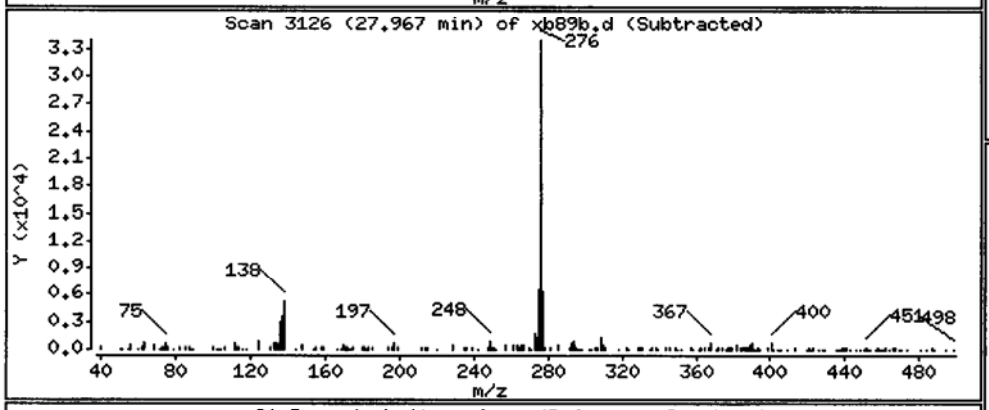
Sample Info: XB89B

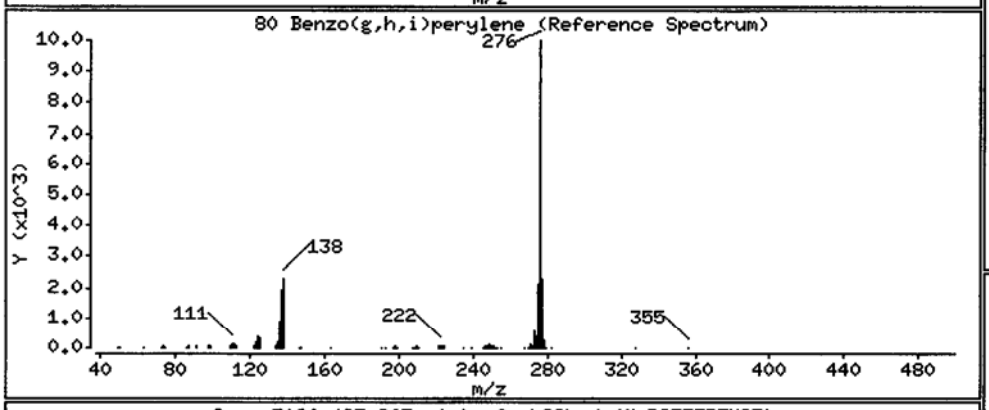
Volume Injected (uL): 1.0 Operator: VTS/YZ

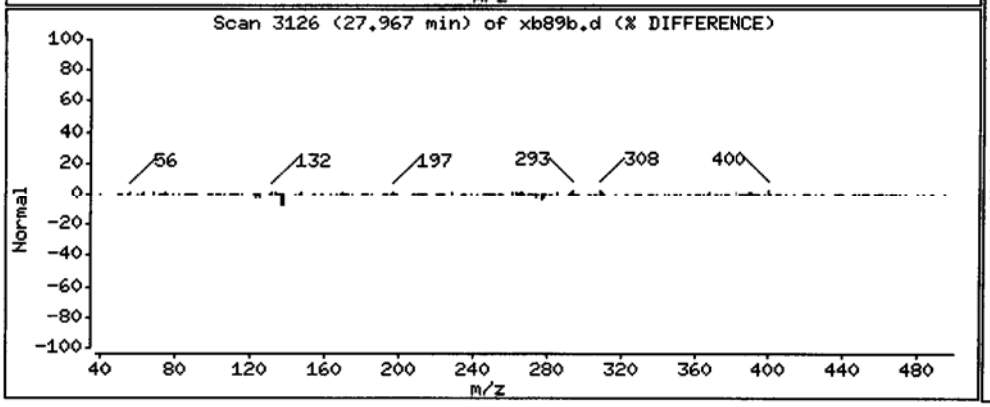
Column phase: ZB-5msi Column diameter: 0.25

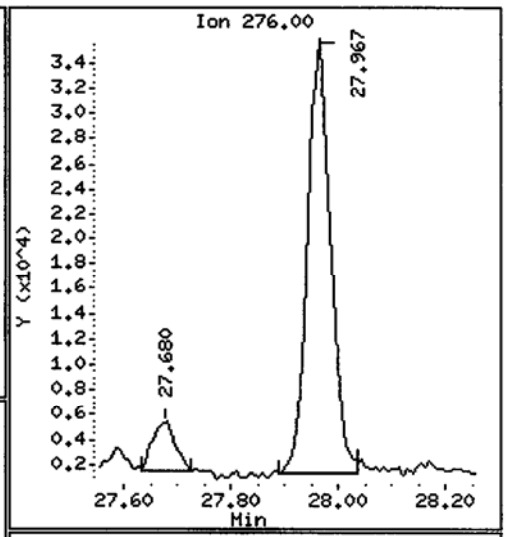
80 Benzo(g,h,i)perylene Concentration: 259.2 ug/kg

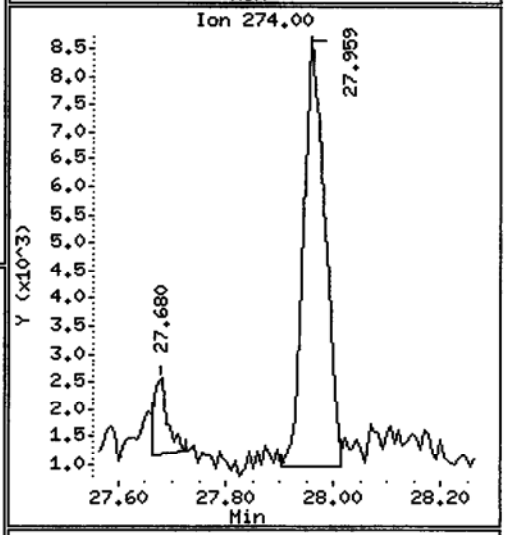


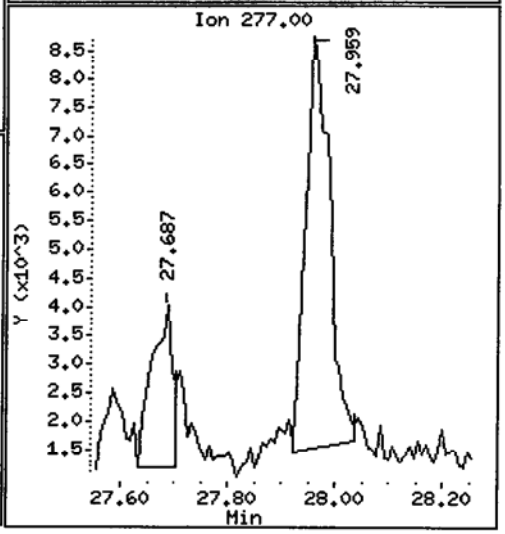












Data File: /chem1/nt10.i/20130902.b/xb89b.d

Date : 02-SEP-2013 15:19

Client ID: IJ13-SS-101

Instrument: nt10.i

Sample Info: XB89B

Volume Injected (uL): 1.0

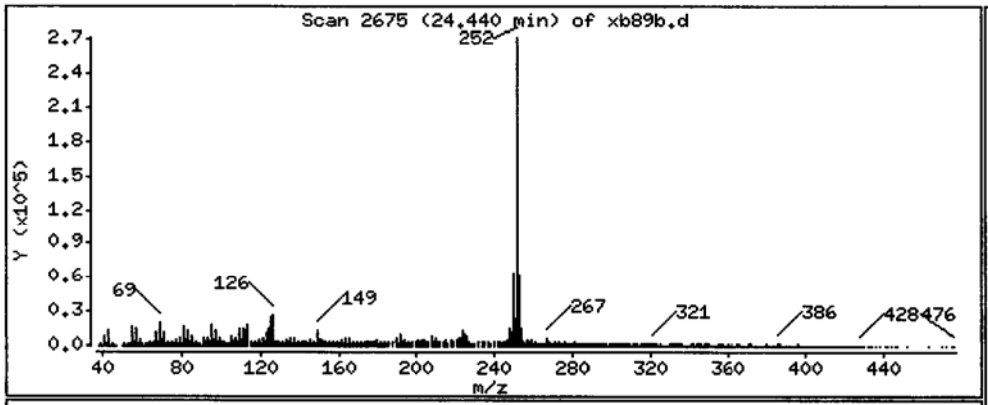
Operator: VTS/YZ

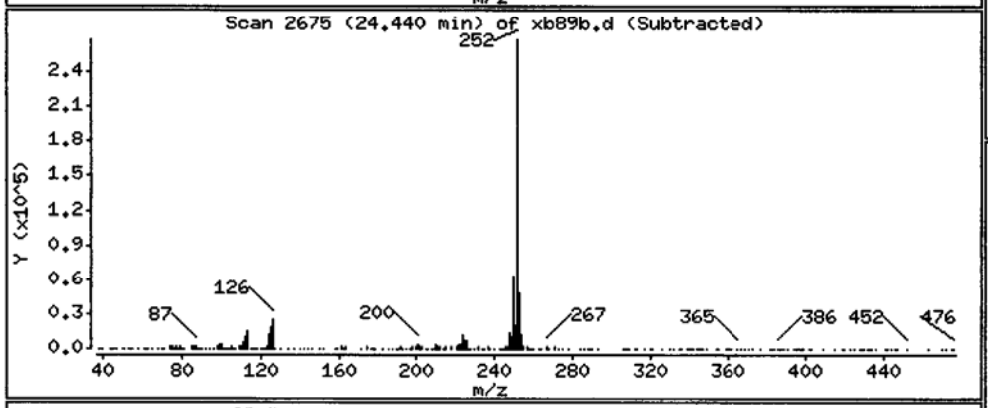
Column phase: ZB-5msi

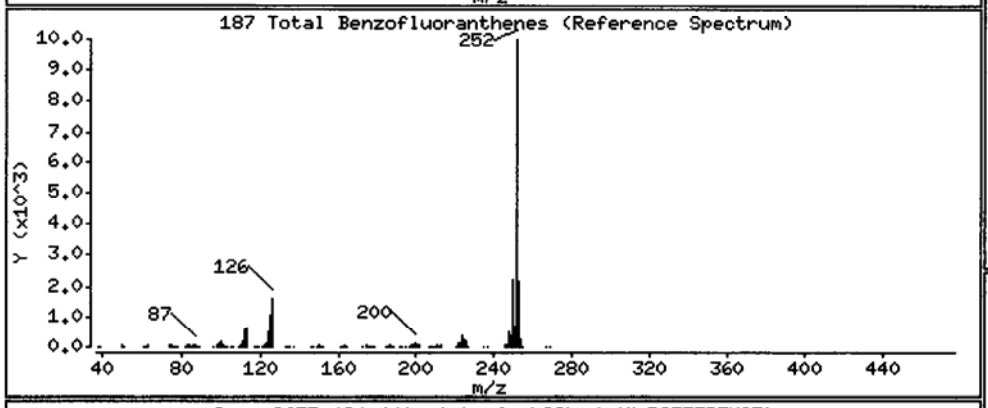
Column diameter: 0.25

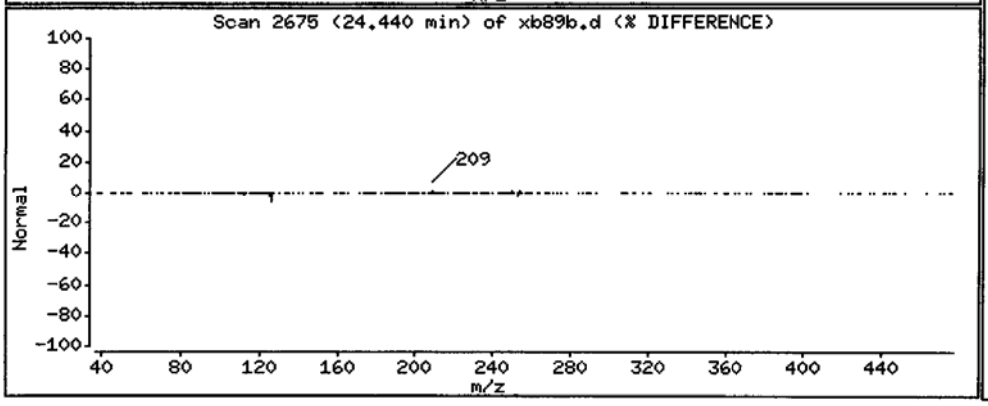
187 Total Benzofluoranthenes

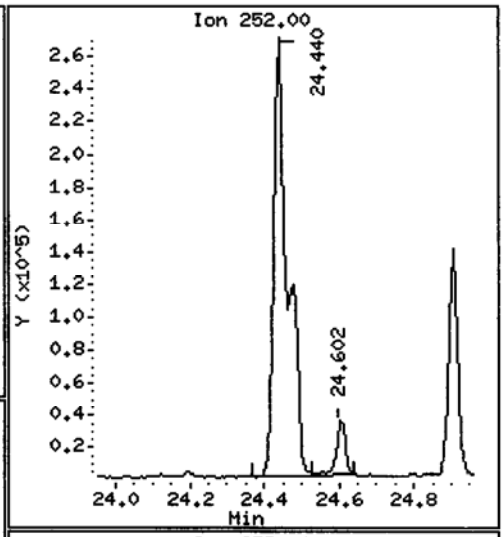
Concentration: 1775 ug/kg

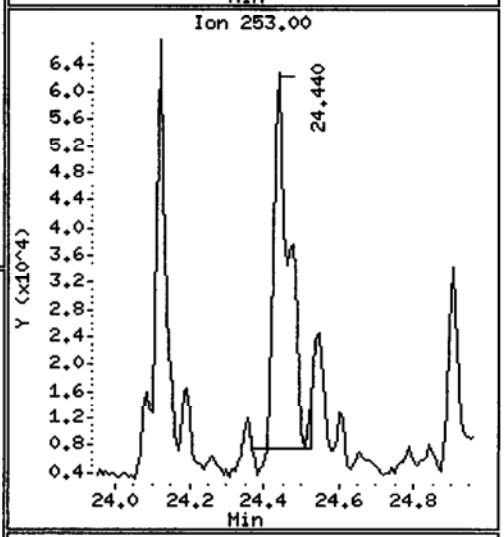


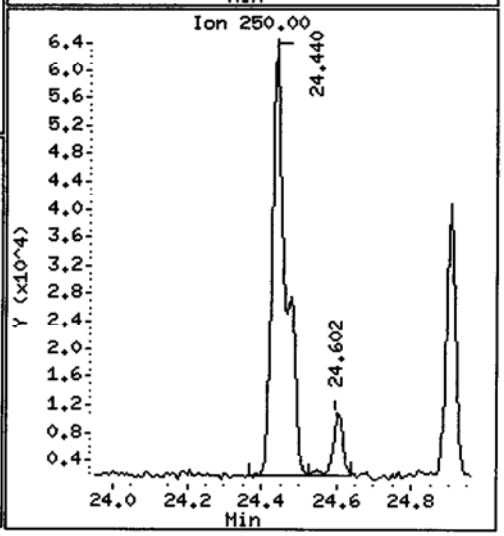












CO-ELUTION SUMMARY FOR FILE - xb89b.d

Lab ID: XB89B, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS
8.703	1,2-Dichlorobenzene-d4 and Benzyl alcohol

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 9/5/13

Data file : /chem1/nt10.i/20130902.b/xb89c.d
Lab Smp Id: XB89C Client Smp ID: IJ13-SS-151
Inj Date : 02-SEP-2013 16:29
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89C
Misc Info : 13-17438
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 02-Sep-2013 12:48 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 9
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	18.30000	Weight of sample extracted (g)
M	41.50000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$	1	2-Fluorophenol	112	6.175	6.105	(0.734)	83472	2.53129	709.3
$	2	Phenol-d5	99	7.774	7.736	(0.924)	115728	2.68117	751.3
	3	Phenol	94	7.805	7.759	(0.927)	24527	0.59546	166.9(M)
$	5	2-Chlorophenol-d4	132	8.021	7.991	(0.953)	97928	2.77447	777.5
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.416	8.409	(1.000)	112270	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.704	8.696	(1.034)	30752	1.27355	356.9
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	8.727	8.673	(1.037)	3509	0.17468	48.95
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	8.921	8.882	(1.060)	3956	0.12480	34.97
	17	Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.224	9.177	(1.096)	60605	1.86455	522.5
$	18 Nitrobenzene-d5	82	9.480	9.464	(0.871)	43965	1.27553	357.4
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.237	10.222	(0.940)	5732	0.17923	50.23
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	10.407	10.538	(0.956)	29479	1.21090	339.3 (H)
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.885	10.877	(1.000)	407859	4.00000	
	28 Naphthalene	128	10.923	10.916	(1.004)	152914	1.71212	479.8
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.332	12.324	(1.133)	45545	0.67257	188.5
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.106	13.090	(0.906)	121966	1.44429	404.7
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	13.949	13.942	(0.964)	14253	0.19578	54.86
	40 Acenaphthylene	152	14.174	14.166	(0.980)	52853	0.43840	122.9
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.468	14.460	(1.000)	261389	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.529	14.522	(1.004)	68095	1.09879	307.9
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.893	14.885	(1.029)	96454	1.01209	283.6
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	15.596	15.597	(1.078)	85774	1.09501	306.9
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	15.875	15.859	(0.905)	6916	0.16272	45.60
$	55 2,4,6-Tribromophenol	330	16.121	16.091	(1.114)	47306	2.79386	782.9
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.536	17.528	(1.000)	426794	4.00000	
	60 Phenanthrene	178	17.590	17.575	(1.003)	487544	5.32258	1492
	61 Anthracene	178	17.691	17.683	(1.009)	141430	1.43640	402.5
	62 Carbazole	167	18.046	18.039	(1.029)	45384	0.83095	232.9
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	64 Fluoranthene	202	20.012	19.996	(1.141)	1976775	16.2407	4551
	65 Pyrene	202	20.437	20.422	(0.902)	1740858	13.7556	3855
$	66 Terphenyl-d14	244	20.762	20.755	(0.917)	114021	1.61668	453.0
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	22.636	22.636	(0.999)	376689	3.37997	947.2
*	69 Chrysene-d12	240	22.651	22.651	(1.000)	428628	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.698	22.698	(1.002)	615185	6.48943	1819
	72 bis(2-Ethylhexyl)phthalate	149	22.744	22.729	(0.956)	6115554	110.240	30890
*	134 Di-n-octylphthalate-d4	153	23.789	23.797	(1.000)	524732	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	24.409	24.409	(0.974)	489468	4.24479	1190
	75 Benzo(k)fluoranthene	252	24.447	24.455	(0.975)	185353	1.64533	461.1(M)
	76 Benzo(a)pyrene	252	24.966	24.966	(0.996)	188971	1.86352	522.2
*	77 Perylene-d12	264	25.067	25.067	(1.000)	454627	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.260	27.253	(1.087)	96154	0.73864	207.0
	79 Dibenzo(a,h)anthracene	278	27.299	27.299	(1.089)	24106	0.24253	67.96
	80 Benzo(g,h,i)perylene	276	27.913	27.905	(1.114)	74125	0.67343	188.7
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	12.533	12.525	(1.151)	45064	0.73631	206.3
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	24.409	24.455	(0.974)	625858	5.61391	1573
	99 Perylene	252	25.113	25.121	(1.002)	67462	0.70743	198.2
	98 Retene	219	21.002	21.002	(0.927)	41630	0.83167	233.1
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89c.d
Lab Smp Id: XB89C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17438

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: IJ13-SS-151
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	112270	-26.56
27 Naphthalene-d8	536851	268426	1073702	407859	-24.03
42 Acenaphthene-d10	348566	174283	697132	261389	-25.01
59 Phenanthrene-d10	633376	316688	1266752	426794	-32.62
69 Chrysene-d12	651036	325518	1302072	428628	-34.16
134 Di-n-octylphthala	837259	418630	1674518	524732	-37.33
77 Perylene-d12	696727	348364	1393454	454627	-34.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.42	0.09
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.07
42 Acenaphthene-d10	14.46	13.96	14.96	14.47	0.05
59 Phenanthrene-d10	17.53	17.03	18.03	17.54	0.04
69 Chrysene-d12	22.65	22.15	23.15	22.65	0.00
134 Di-n-octylphthala	23.80	23.30	24.30	23.79	-0.03
77 Perylene-d12	25.07	24.57	25.57	25.07	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89C Client Smp ID: IJ13-SS-151
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17438

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	700.6	709.3	101.25	27-120
$ 2 Phenol-d5	700.6	751.3	107.25	29-120
$ 5 2-Chlorophenol-d4	700.6	777.5	110.98	31-120
$ 10 1,2-Dichlorobenzen	467.0	356.9	76.41	32-120
$ 18 Nitrobenzene-d5	467.0	357.4	76.53	30-120
$ 36 2-Fluorobiphenyl	467.0	404.7	86.66	35-120
$ 55 2,4,6-Tribromophen	700.6	782.9	111.75	24-134
$ 66 Terphenyl-d14	467.0	453.0	97.00	37-120

Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Sample Info: XB89C

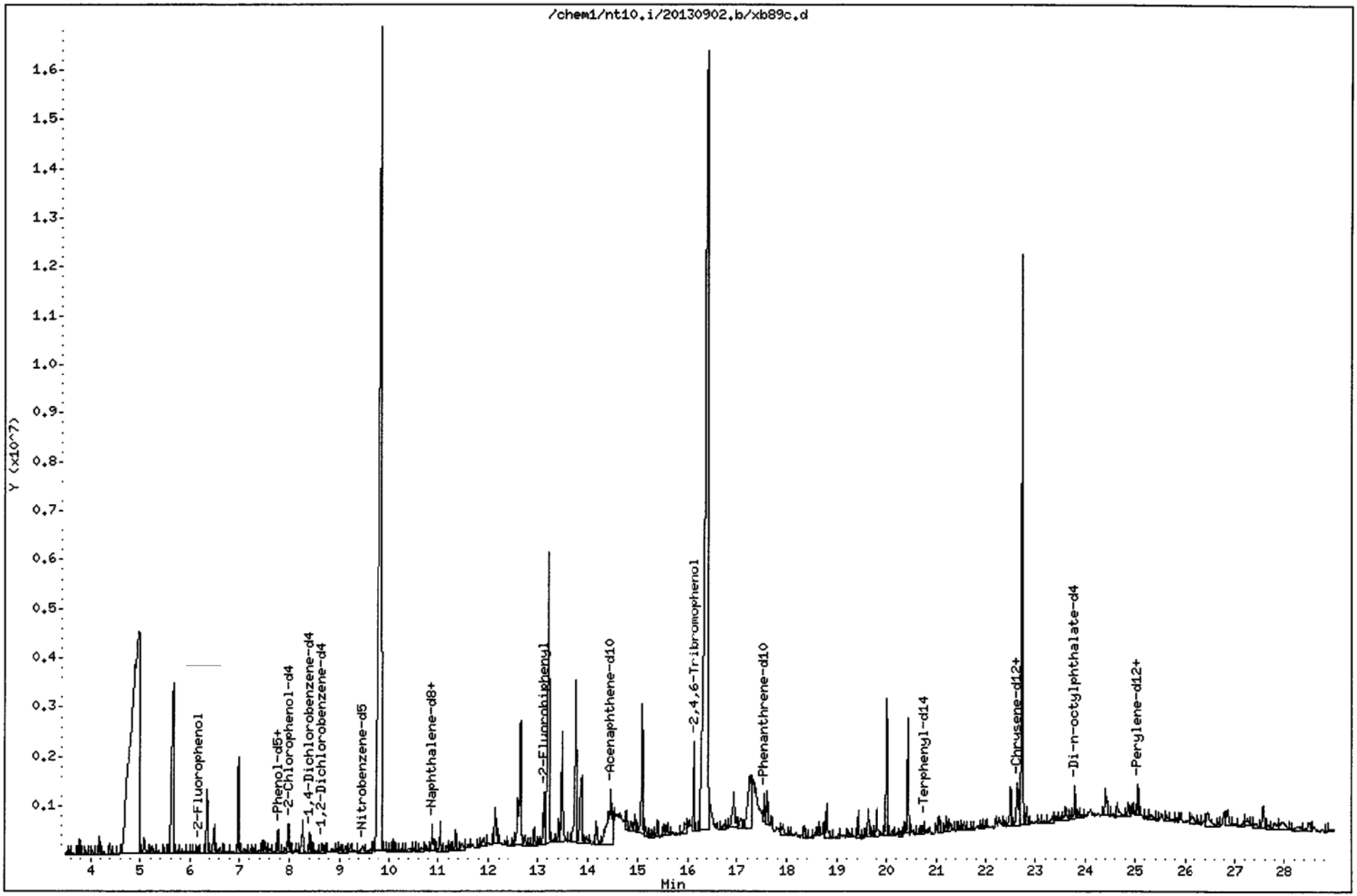
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25



XB89 00462

Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

Operator: VTS/YZ

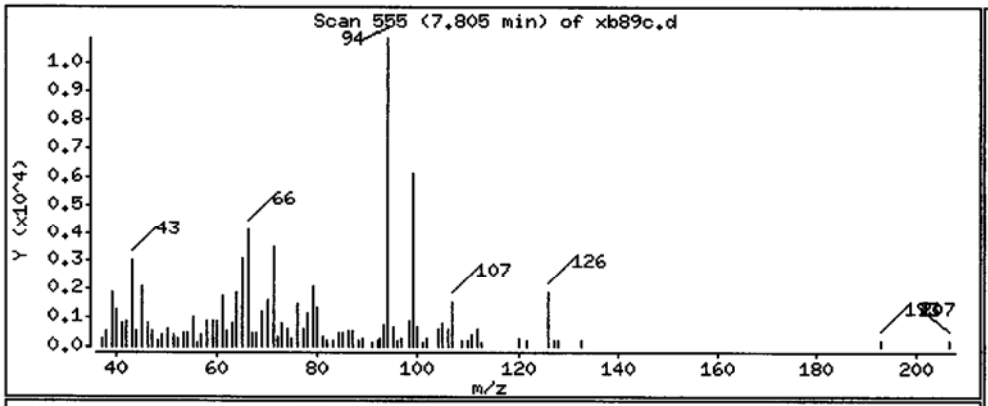
Column phase: ZB-5msi

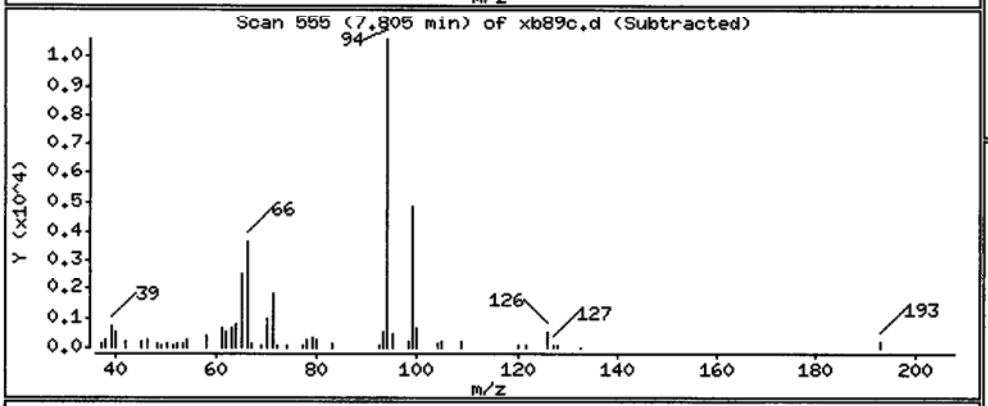
Column diameter: 0.25

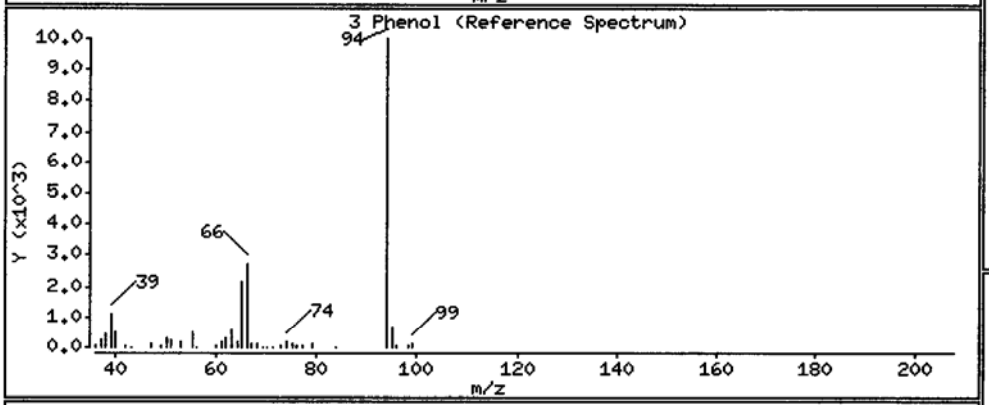
3 Phenol

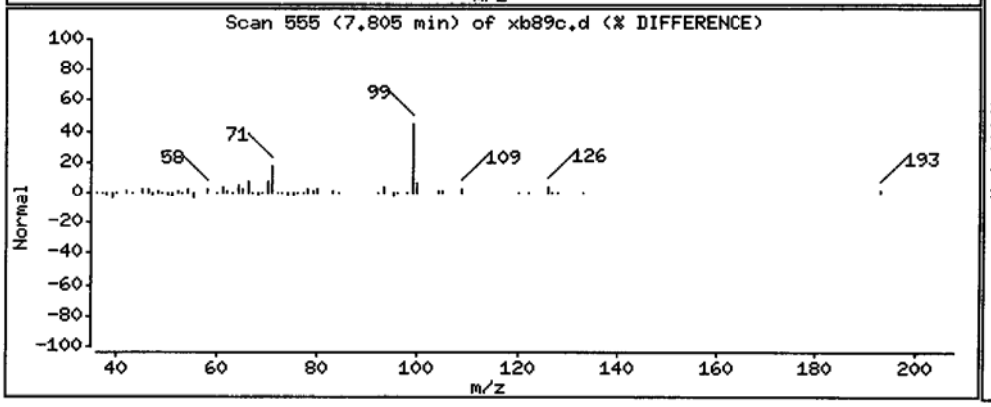
Concentration: 166.9 ug/kg

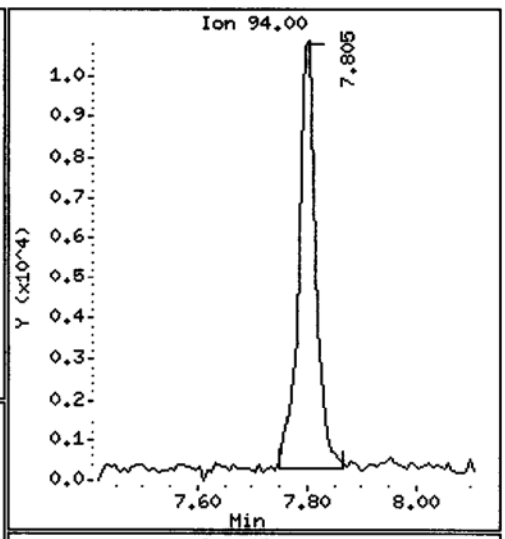
(B)

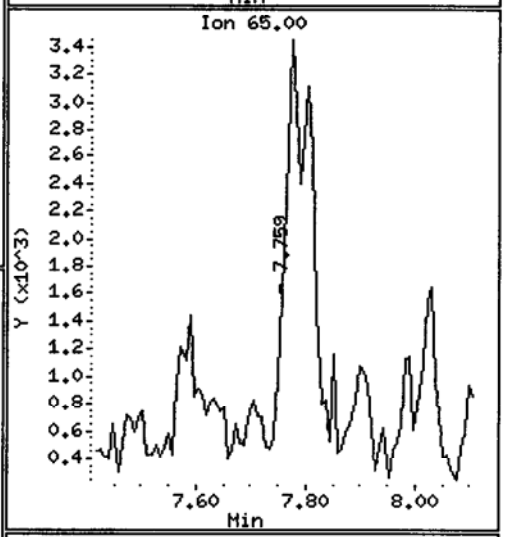


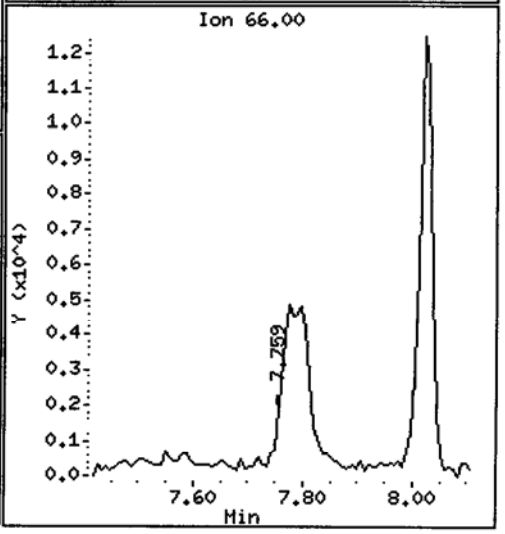












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

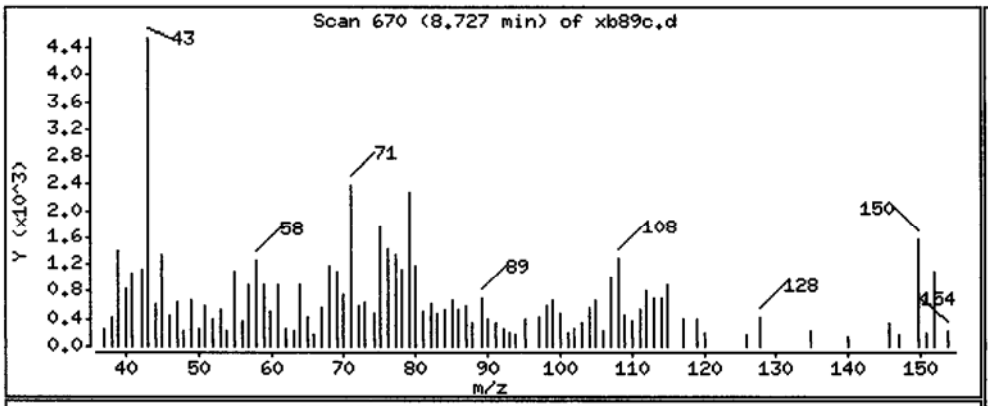
Operator: VTS/YZ

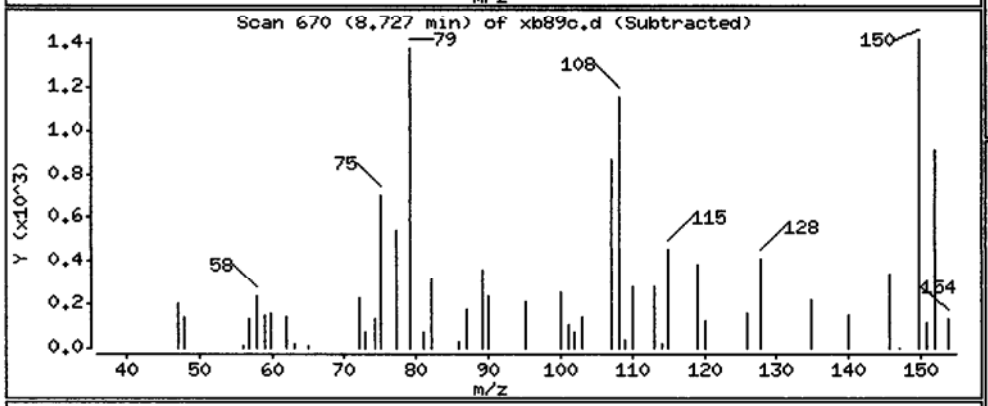
Column phase: ZB-5msi

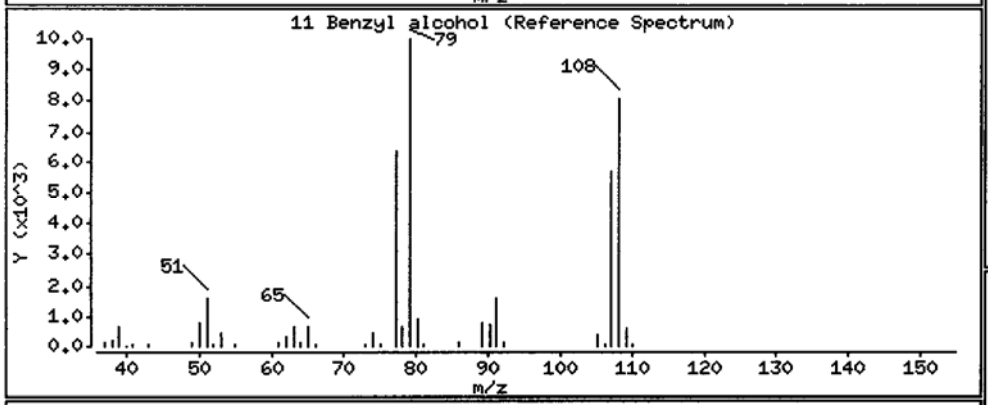
Column diameter: 0.25

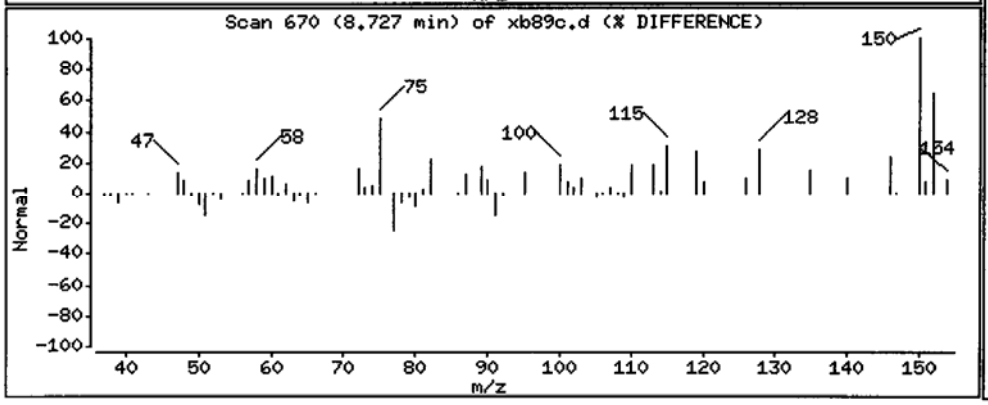
11 Benzyl alcohol

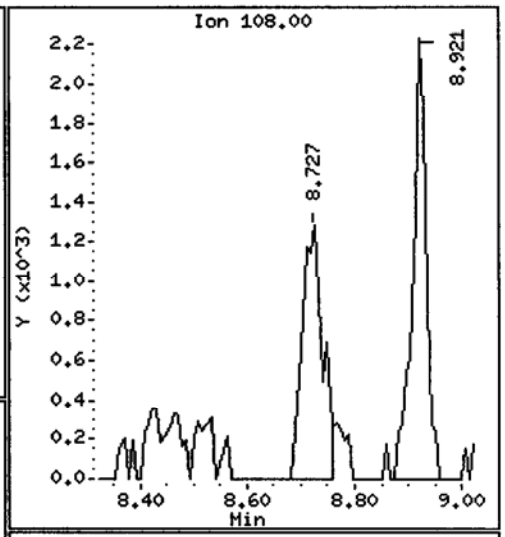
Concentration: 48.95 ug/kg

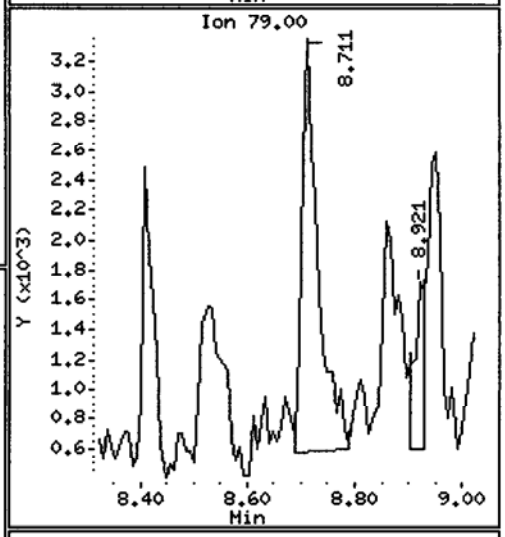


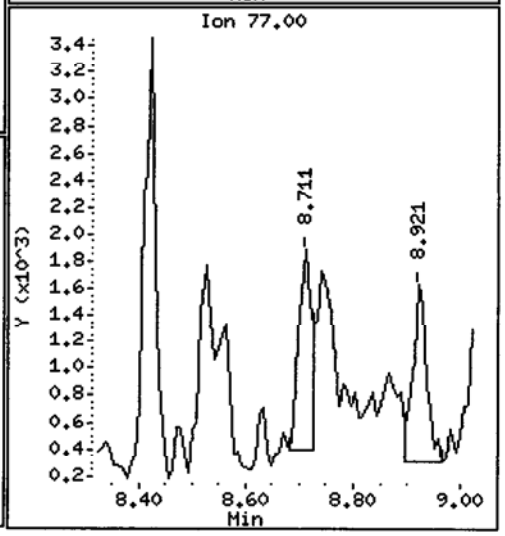












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

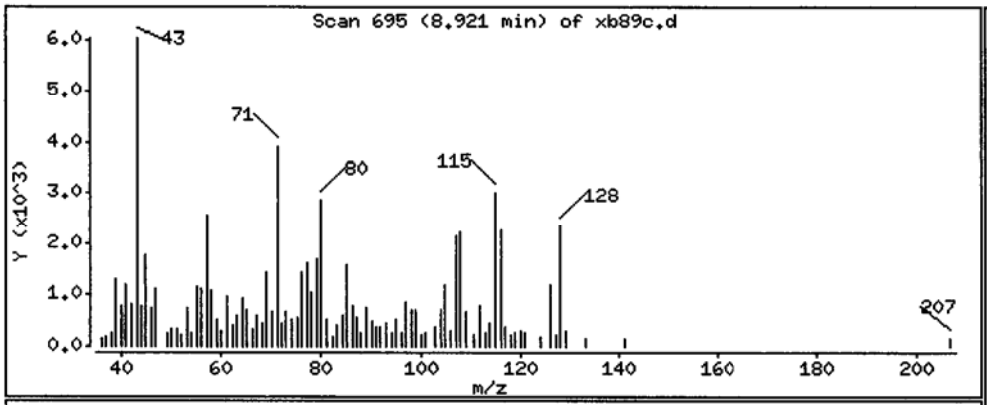
Operator: VTS/YZ

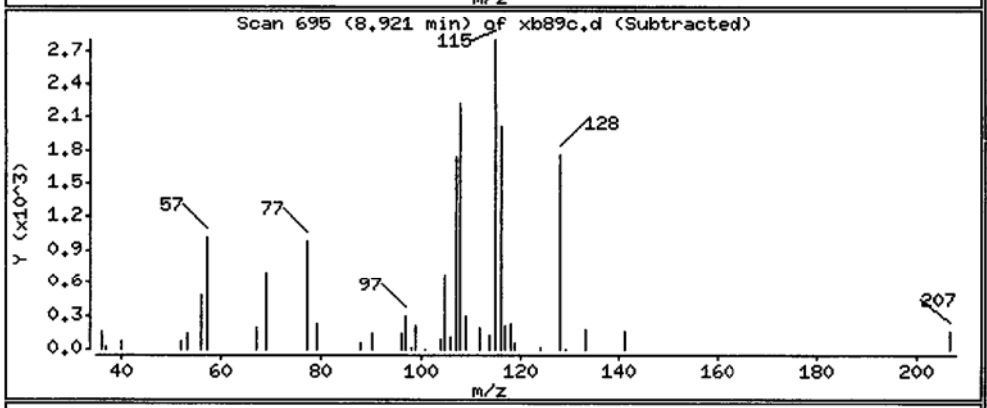
Column phase: ZB-5msi

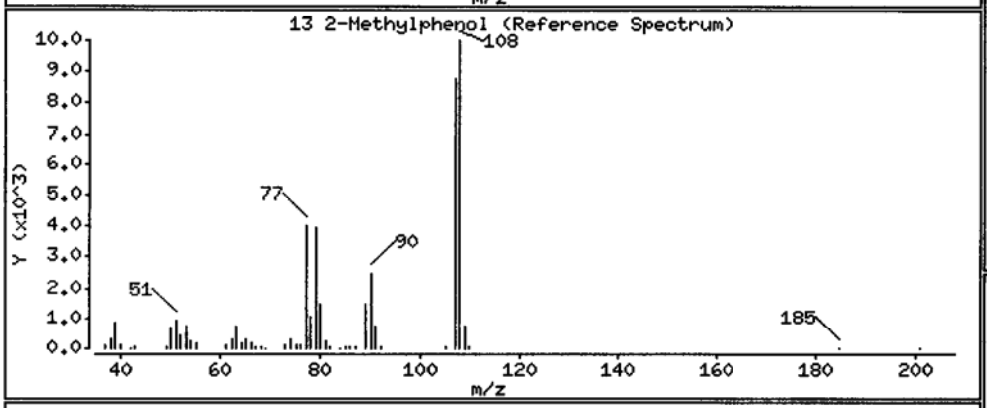
Column diameter: 0.25

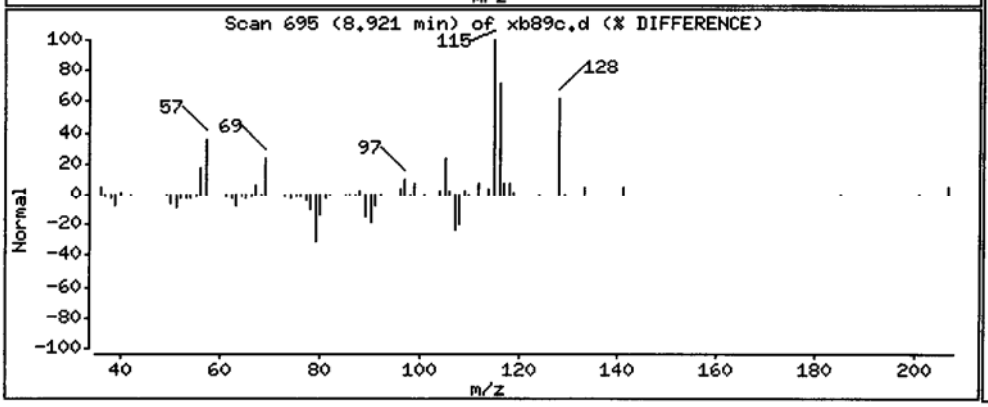
13 2-Methylphenol

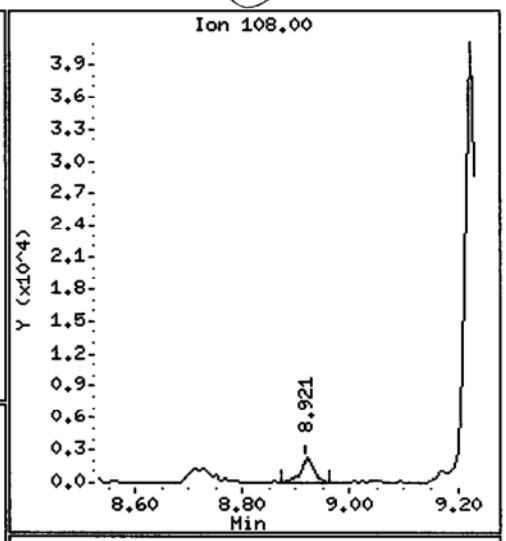
Concentration: 34.97 ug/kg

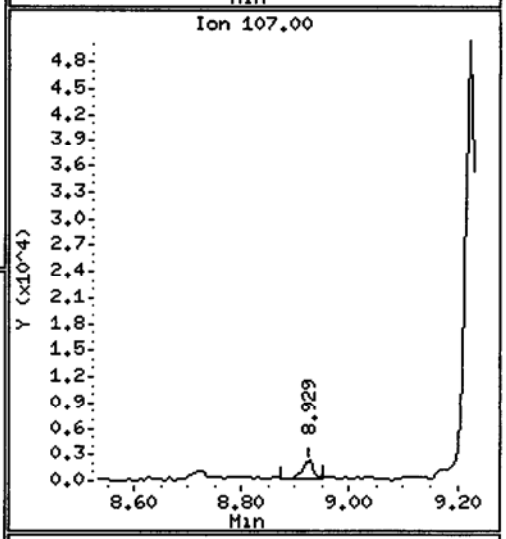


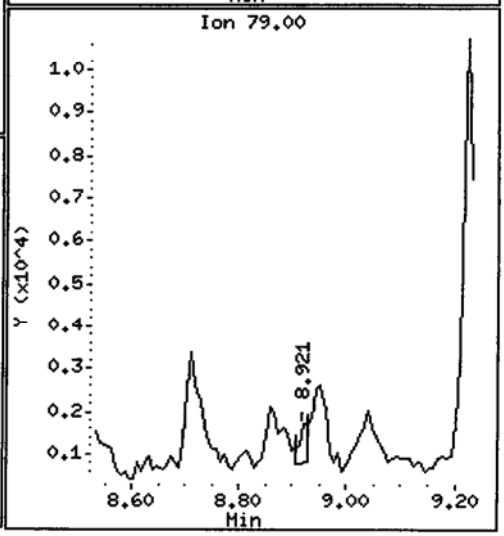












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

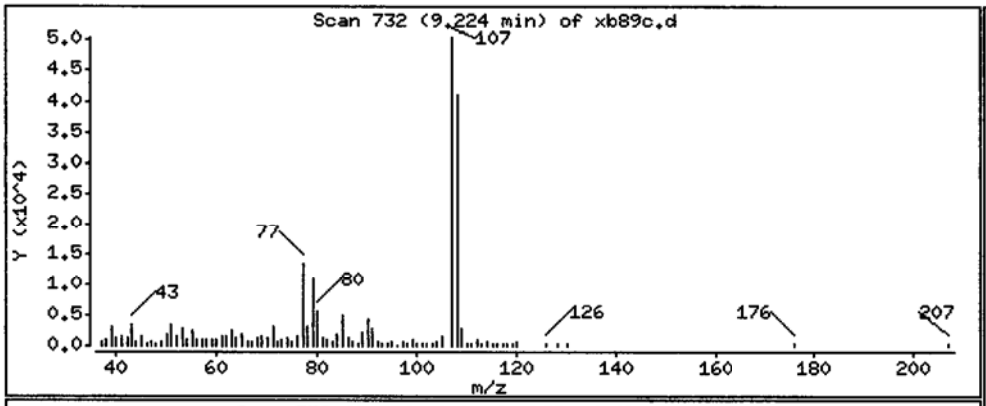
Operator: VTS/YZ

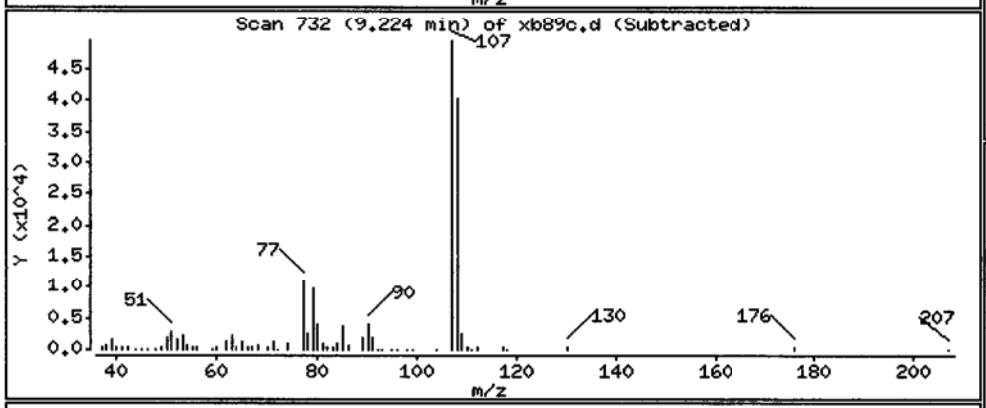
Column phase: ZB-5msi

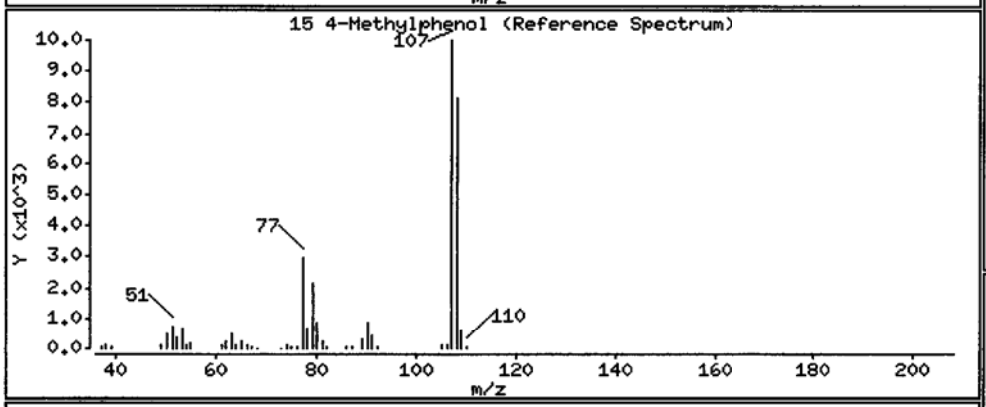
Column diameter: 0.25

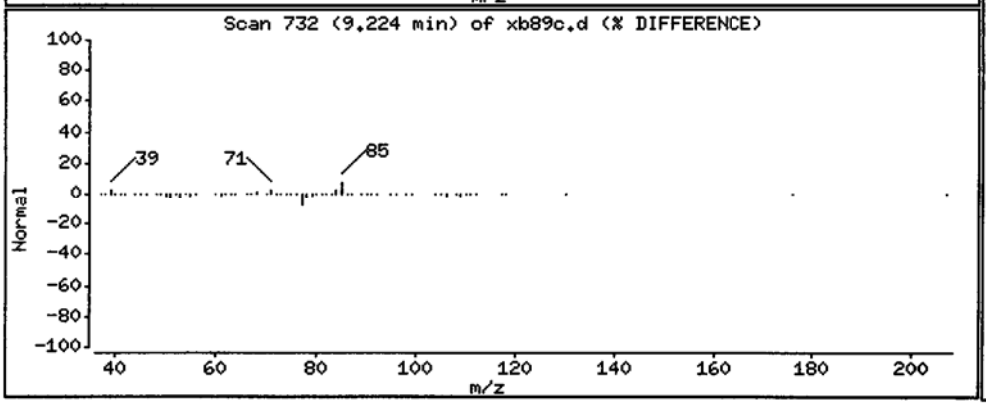
15 4-Methylphenol

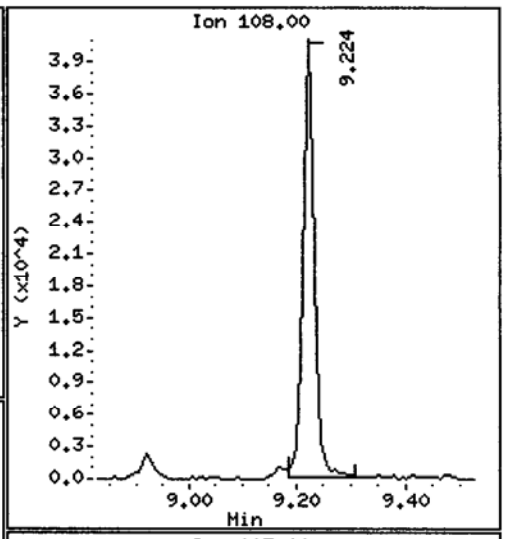
Concentration: 522.5 ug/kg

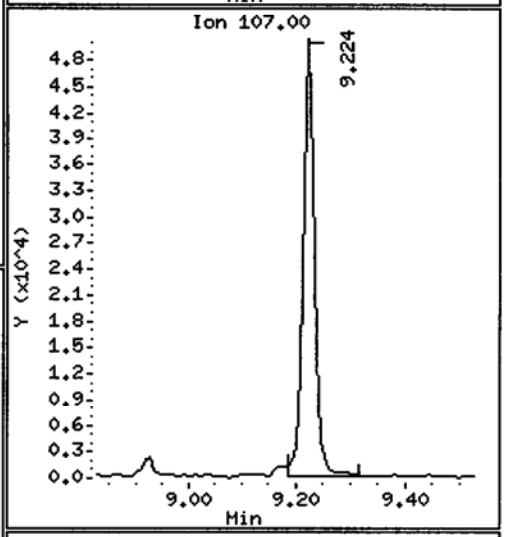


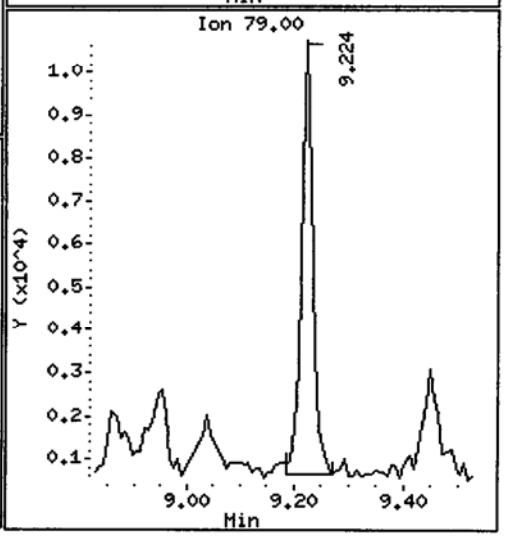












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

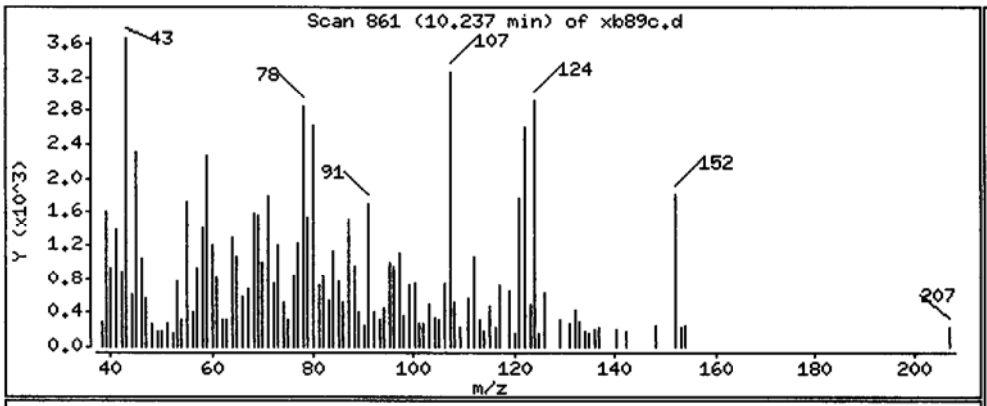
Operator: VTS/YZ

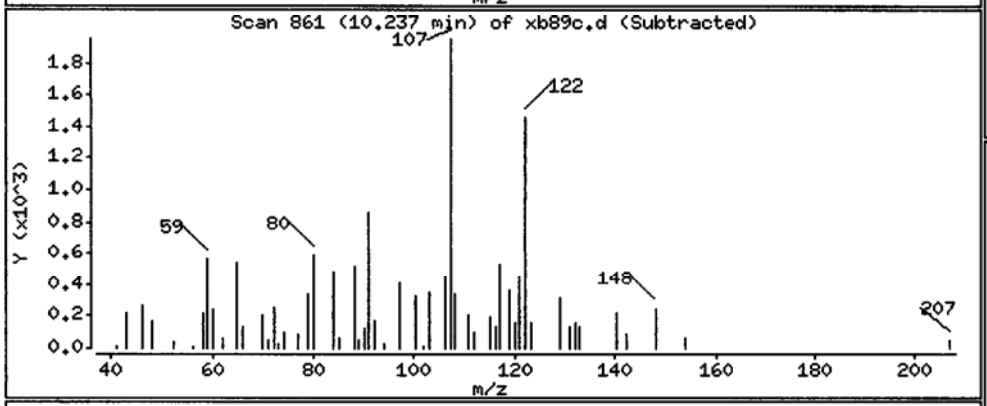
Column phase: ZB-5msi

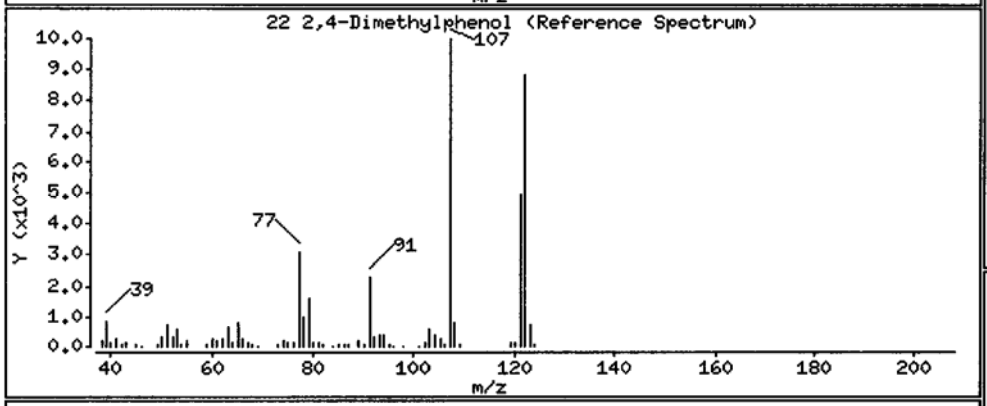
Column diameter: 0.25

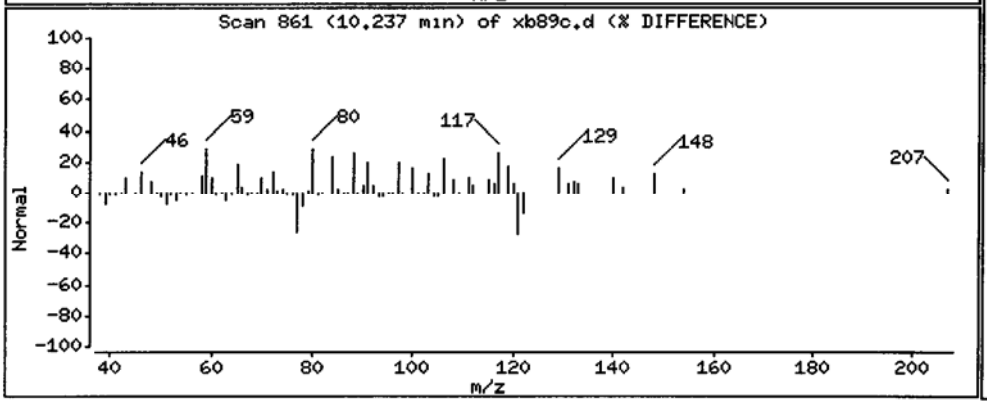
22 2,4-Dimethylphenol

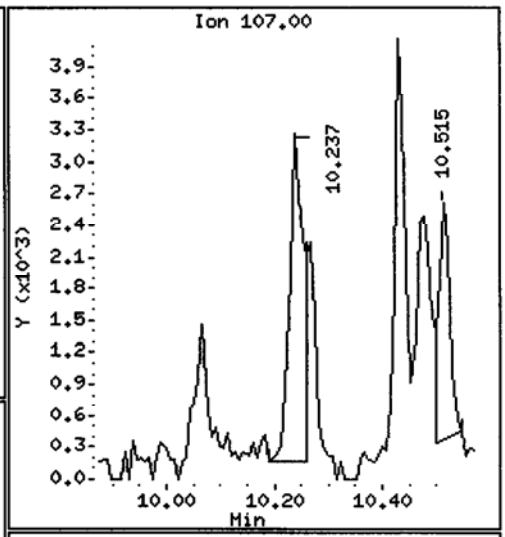
Concentration: 50.23 ug/kg

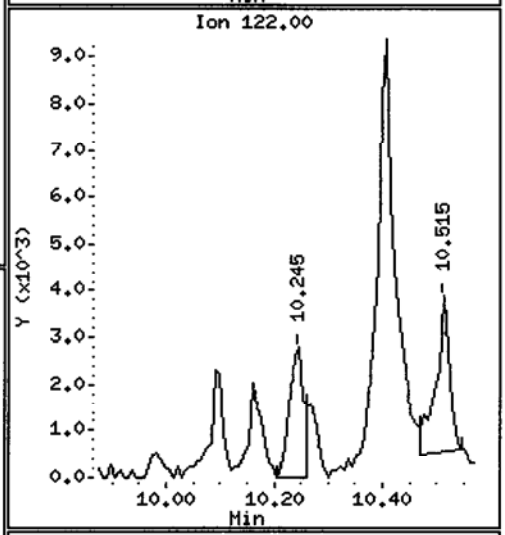


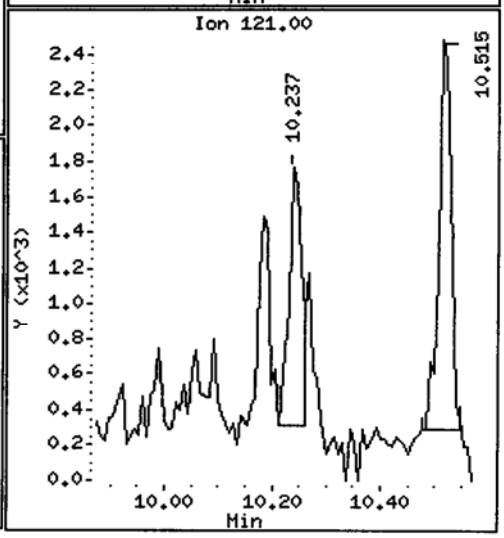












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

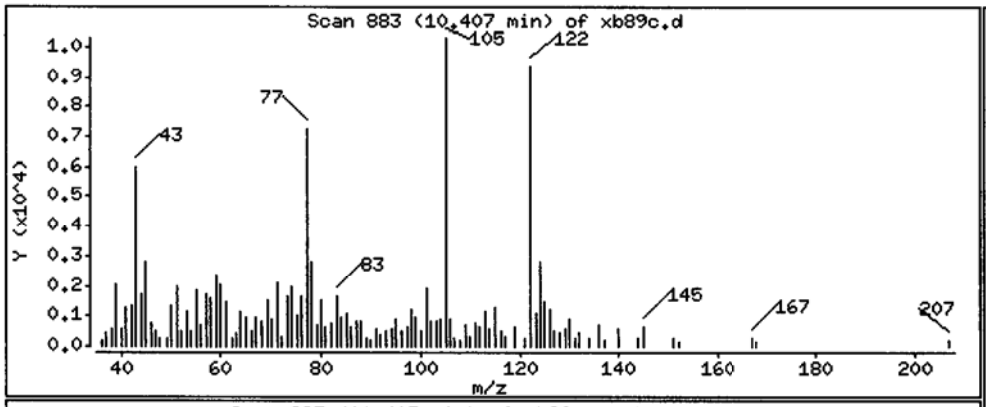
Operator: VTS/YZ

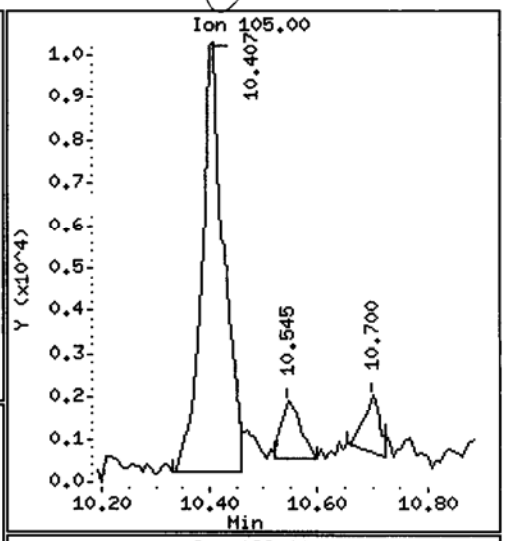
Column phase: ZB-5msi

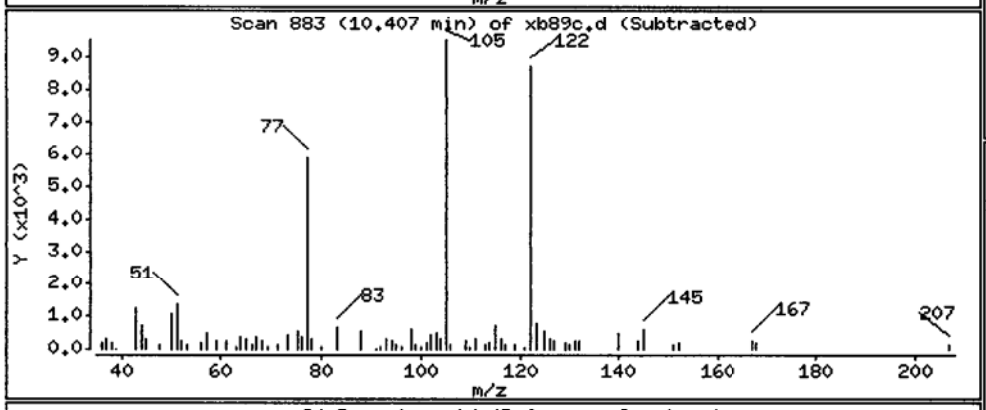
Column diameter: 0.25

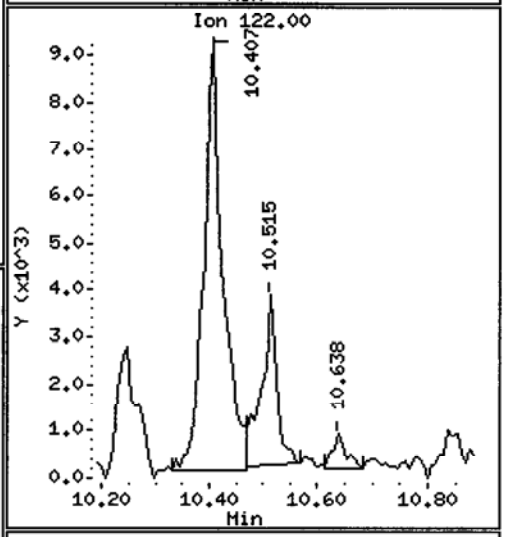
24 Benzoic acid

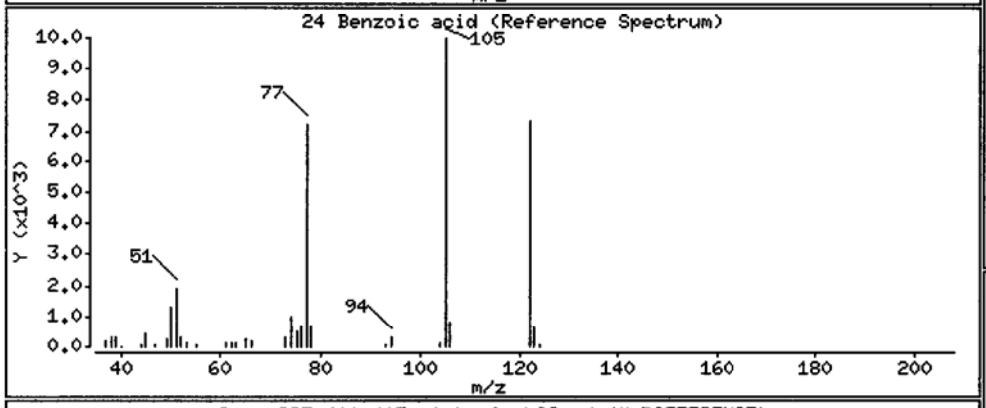
Concentration: 339.3 ug/kg

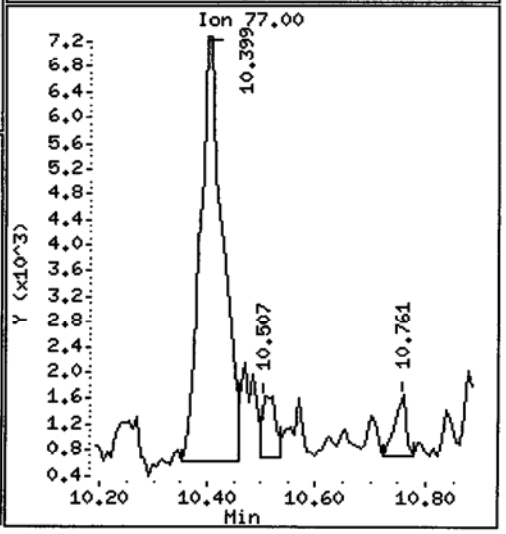


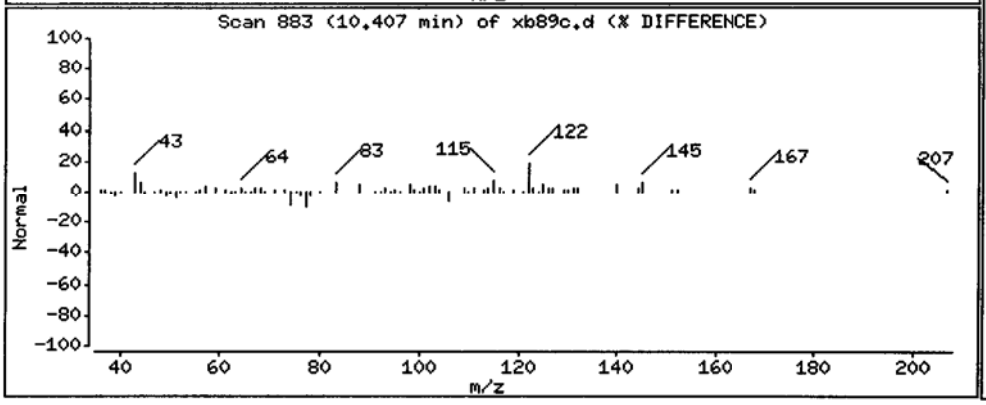












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

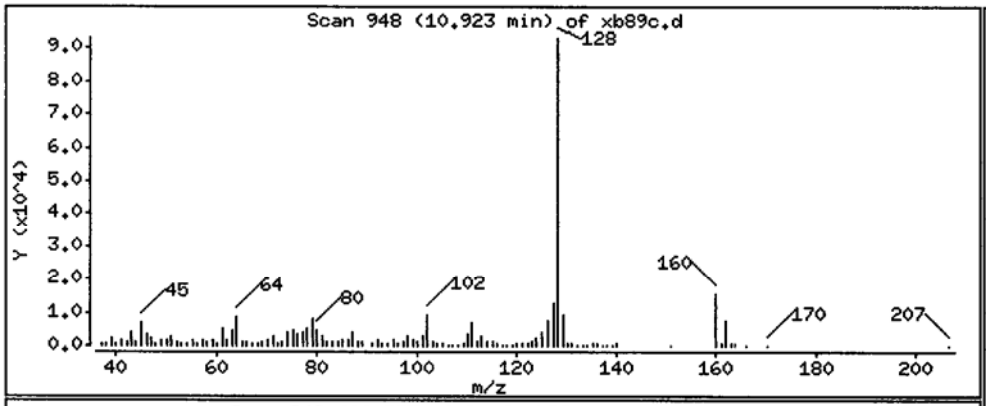
Operator: VTS/YZ

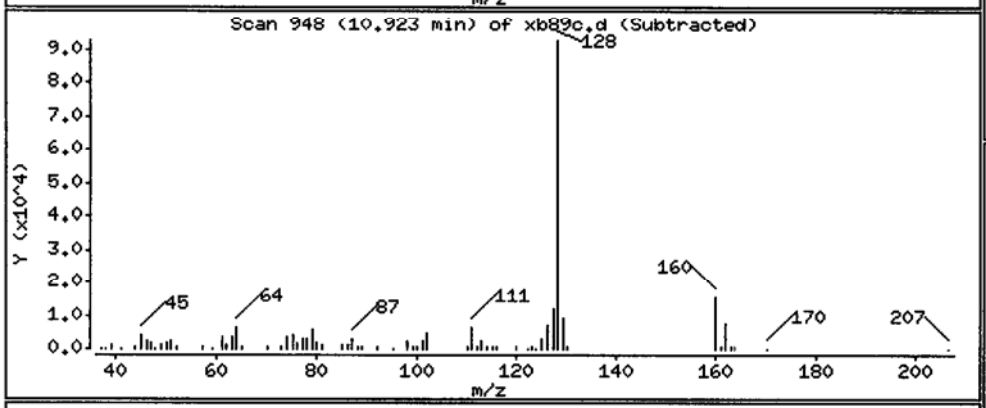
Column phase: ZB-5msi

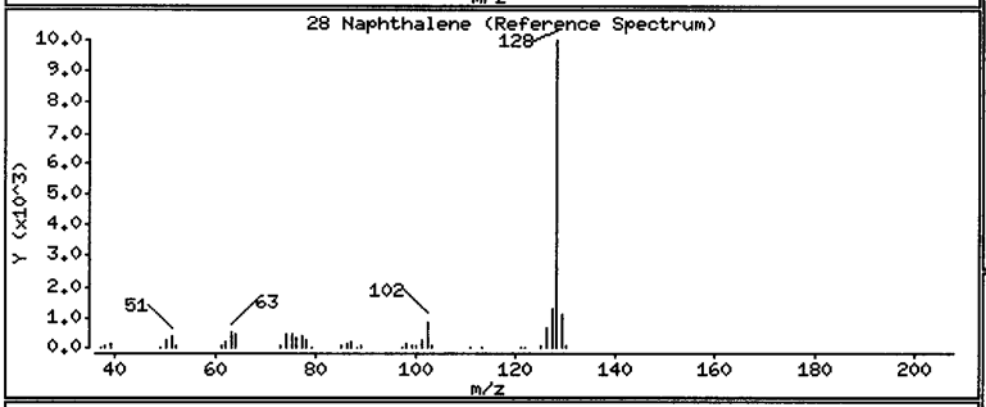
Column diameter: 0.25

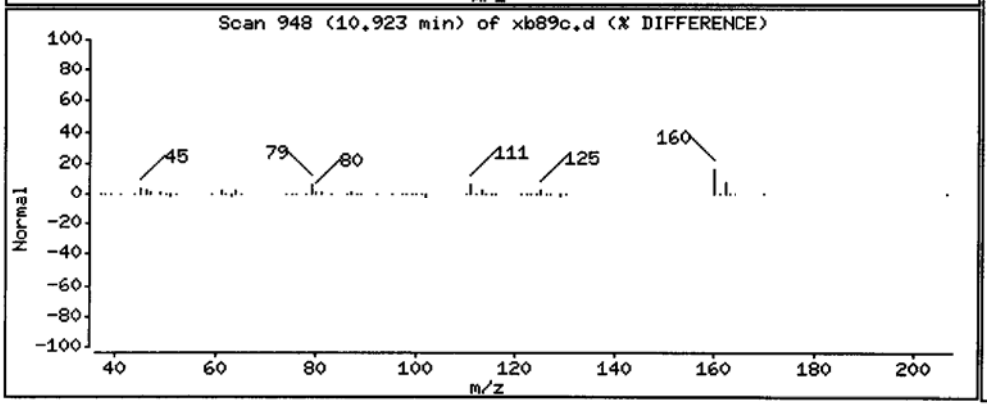
28 Naphthalene

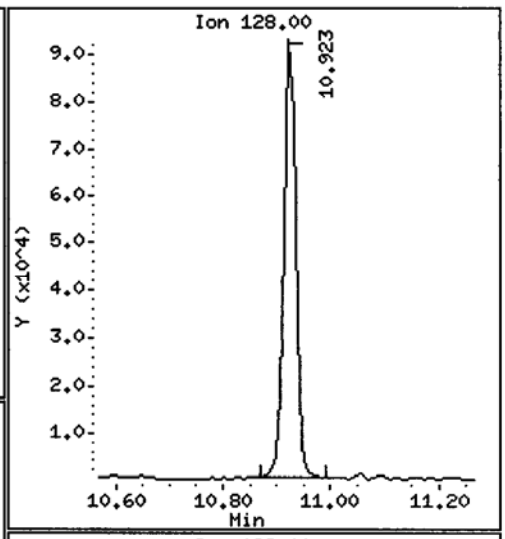
Concentration: 479.8 ug/kg

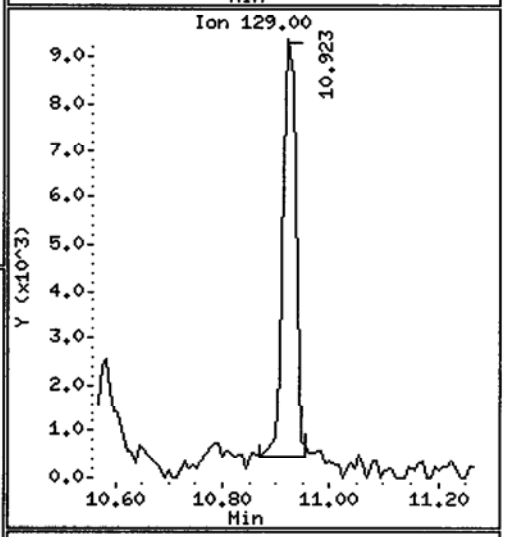


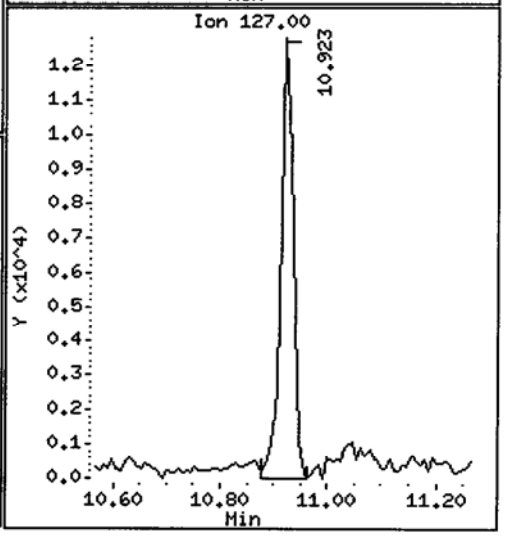












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

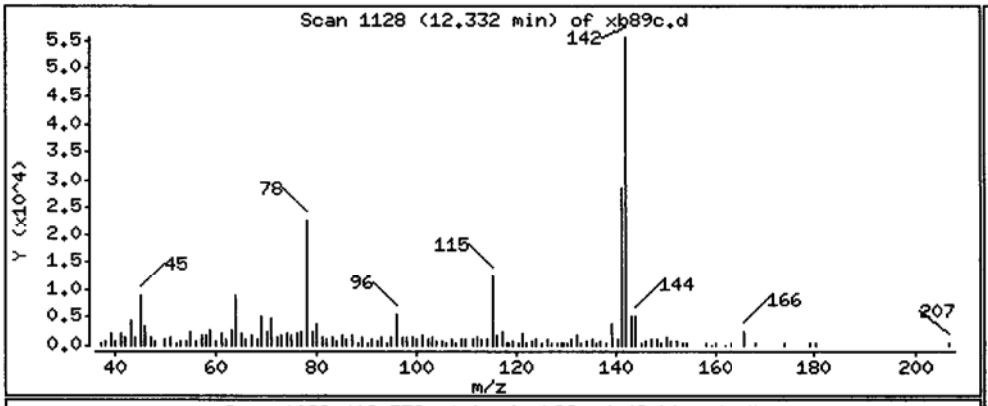
Operator: VTS/YZ

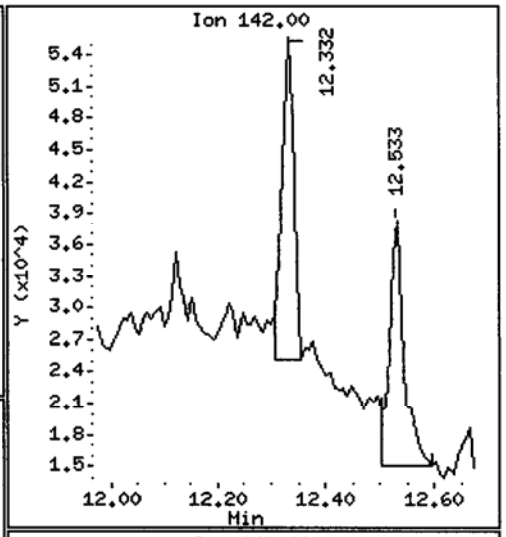
Column phase: ZB-5msi

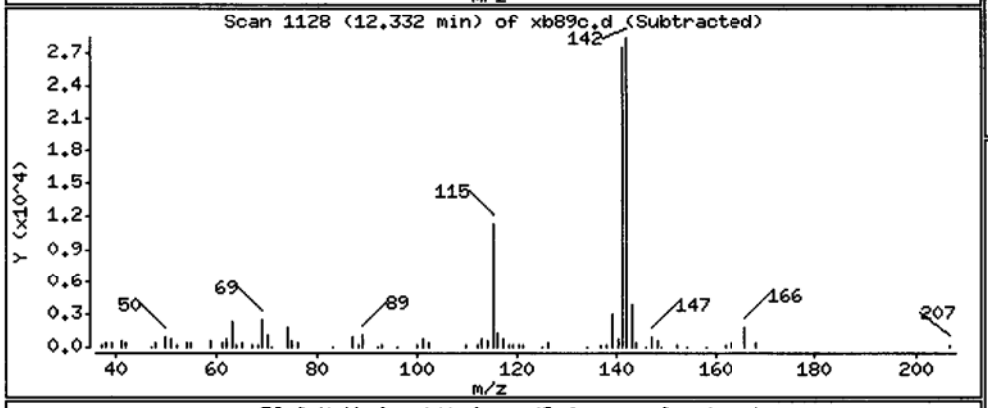
Column diameter: 0.25

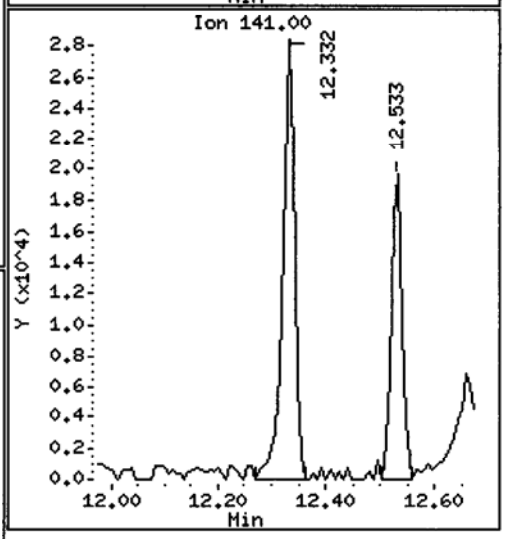
32 2-Methylnaphthalene

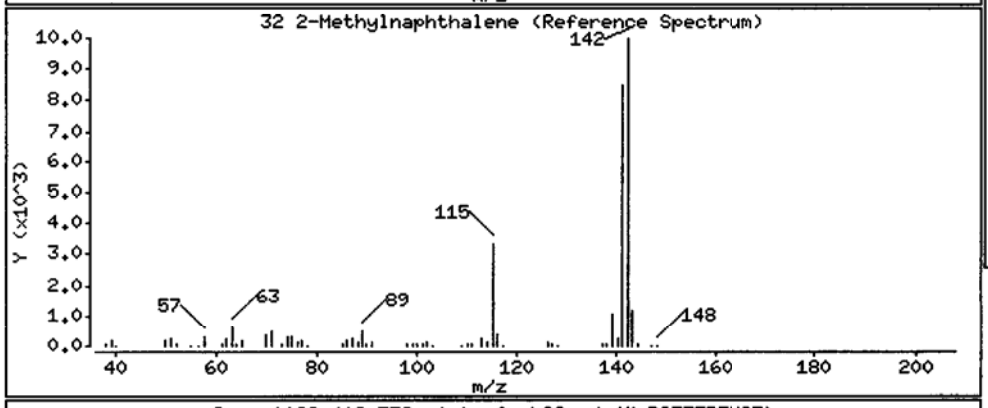
Concentration: 188.5 ug/kg

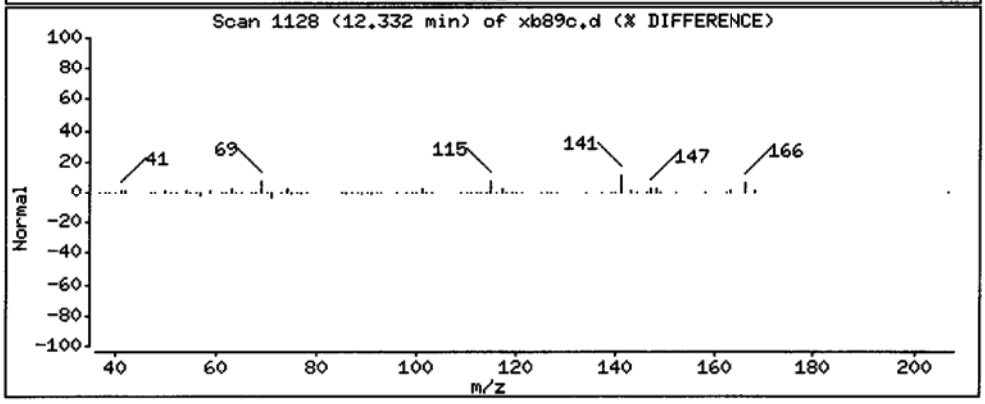












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

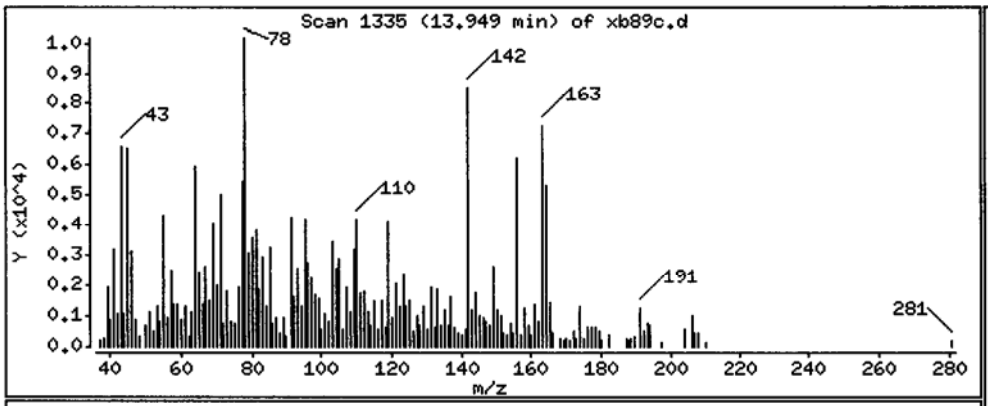
Operator: VTS/YZ

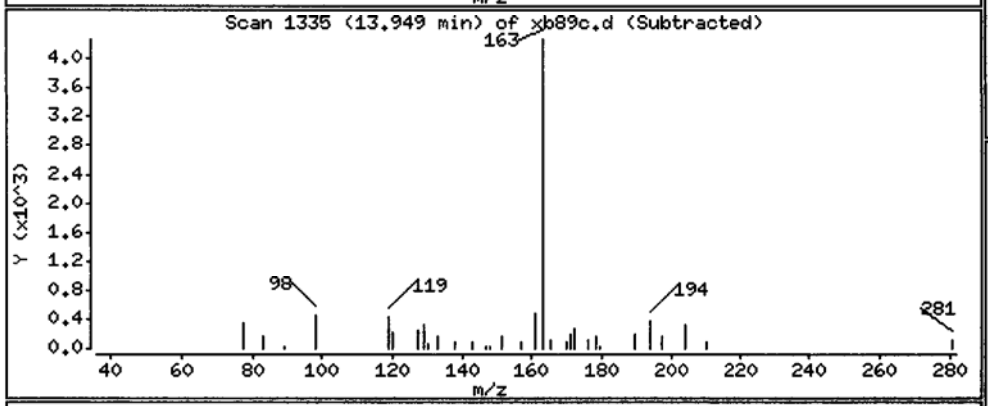
Column phase: ZB-5msi

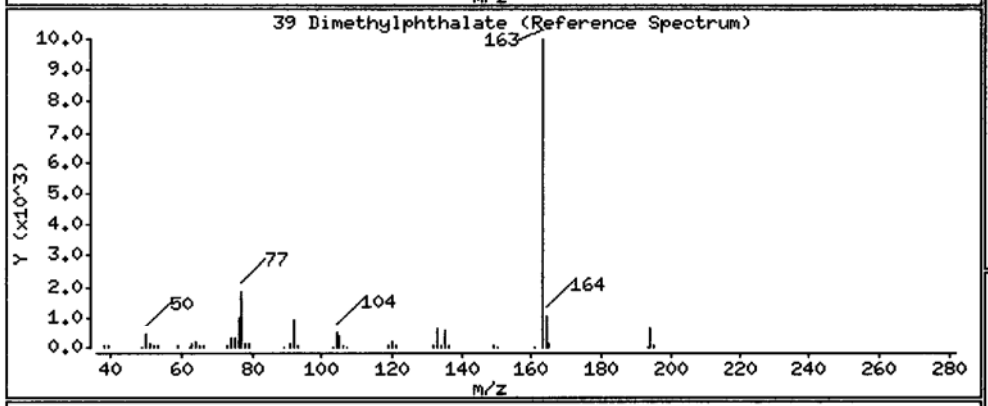
Column diameter: 0.25

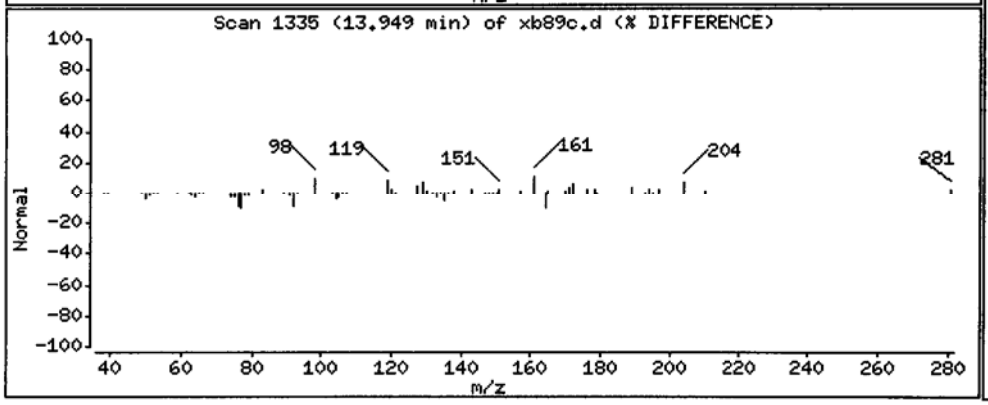
39 Dimethylphthalate

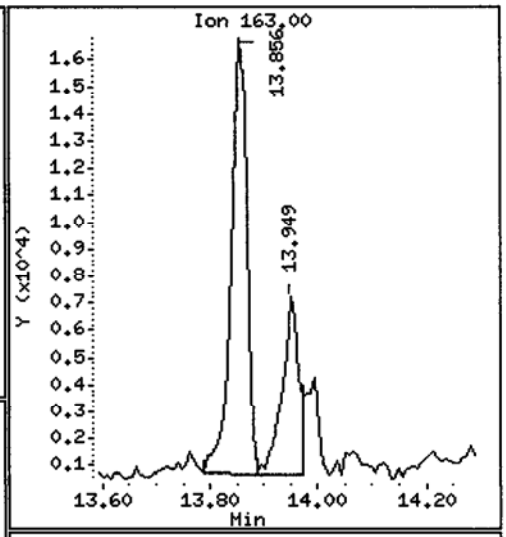
Concentration: 54.86 ug/kg

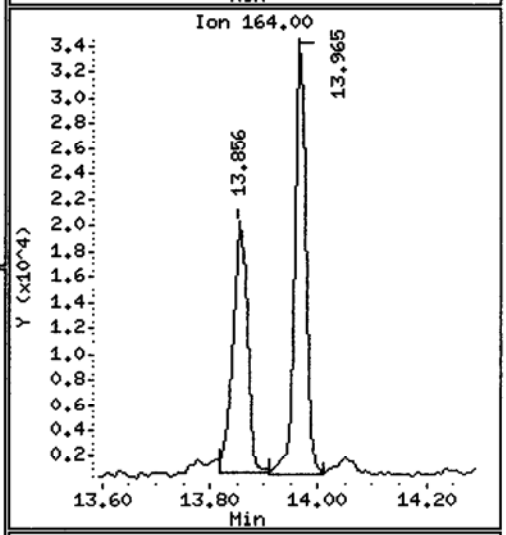


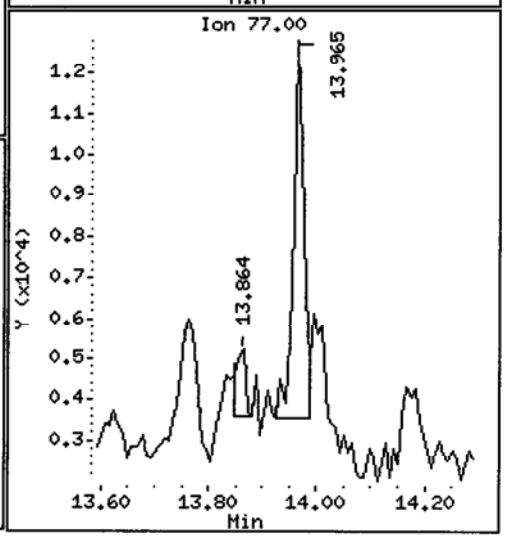












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

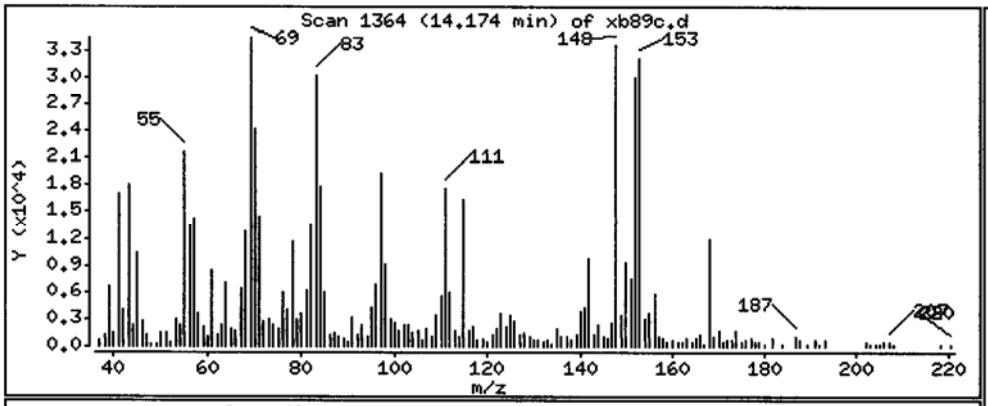
Operator: VTS/YZ

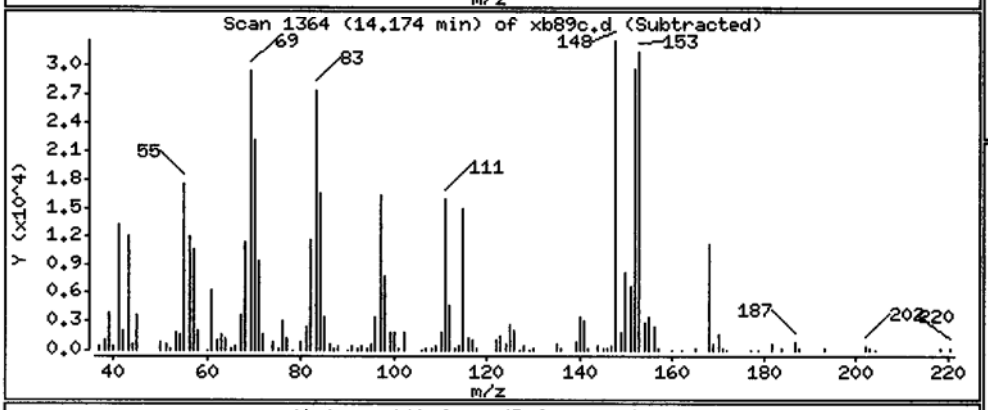
Column phase: ZB-5msi

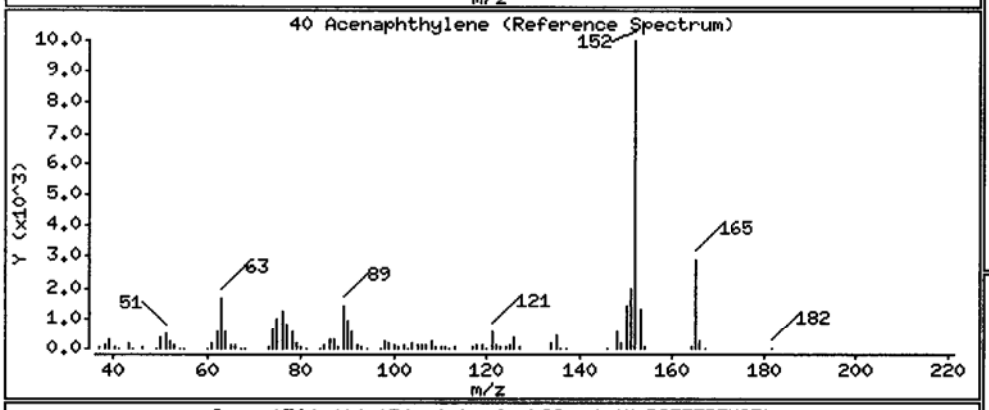
Column diameter: 0.25

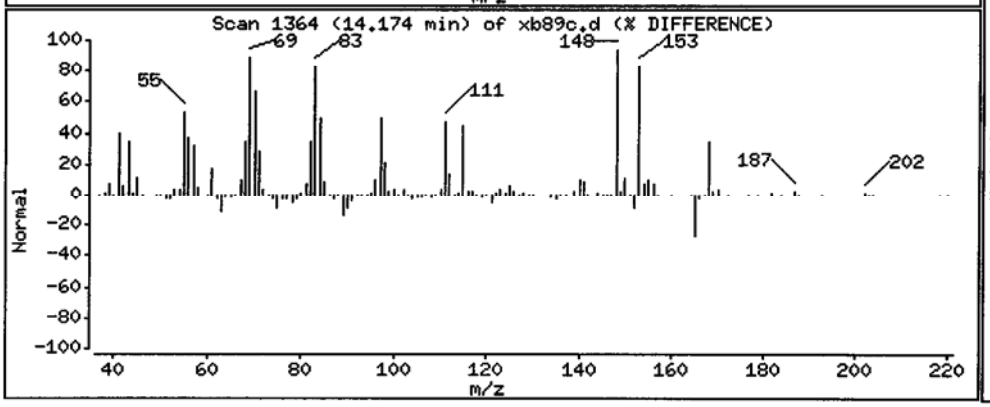
40 Acenaphthylene

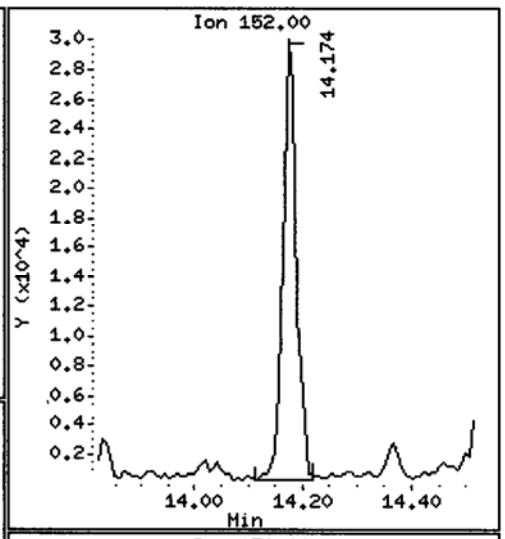
Concentration: 122.9 ug/kg

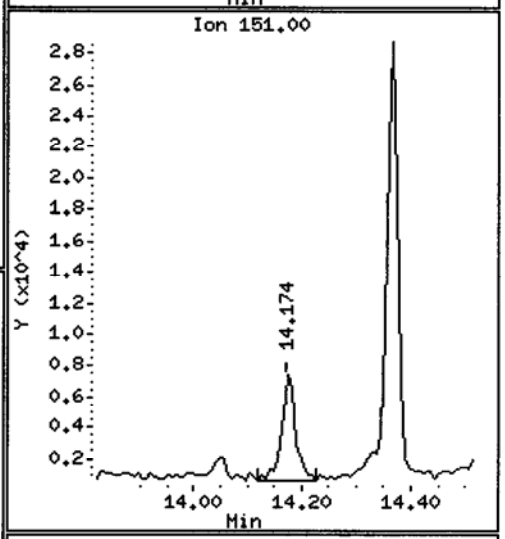


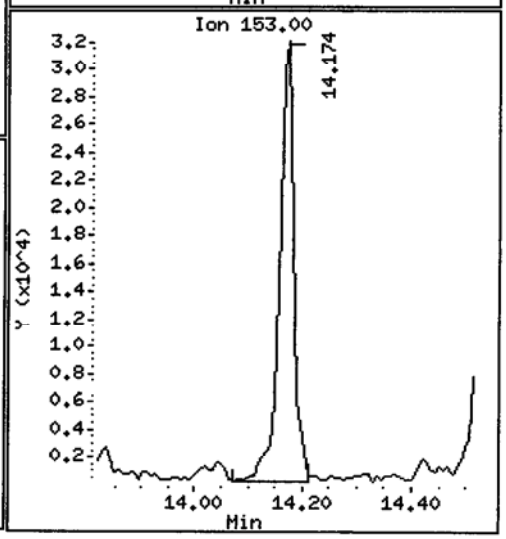












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

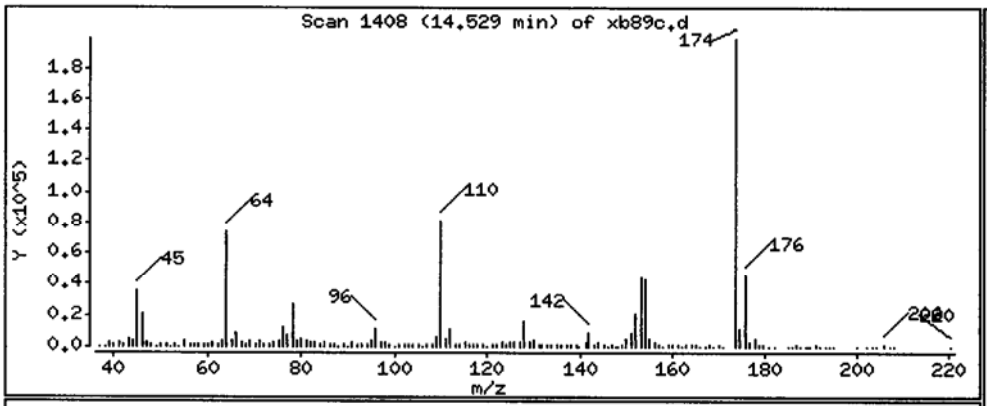
Operator: VTS/YZ

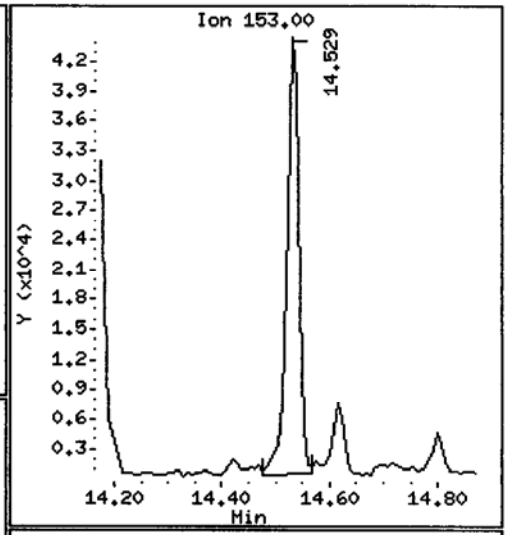
Column phase: ZB-5msi

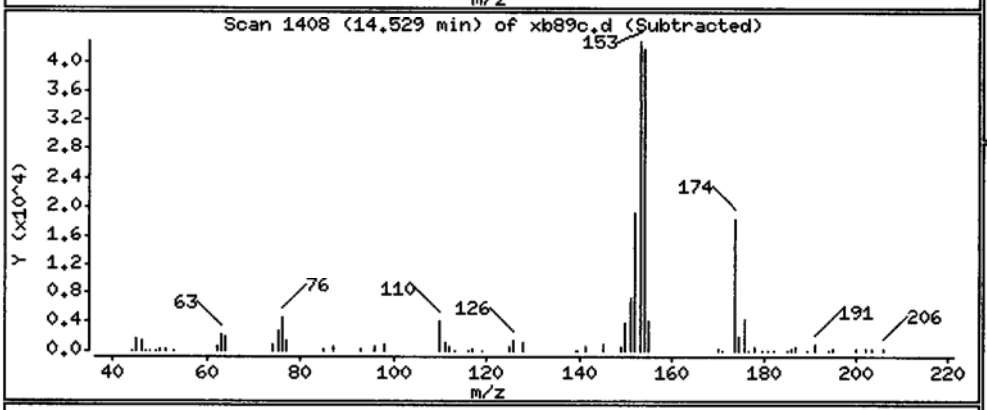
Column diameter: 0.25

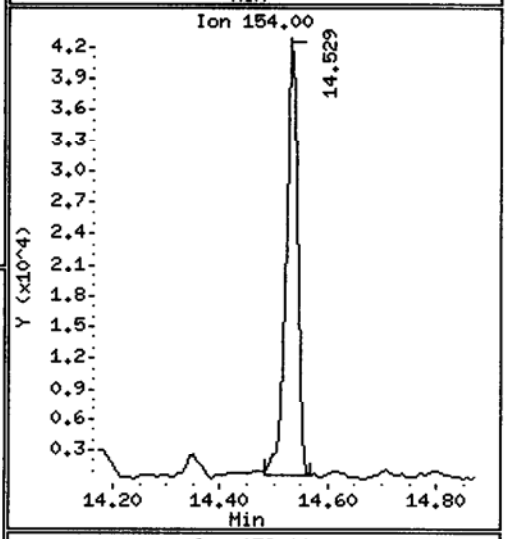
44 Acenaphthene

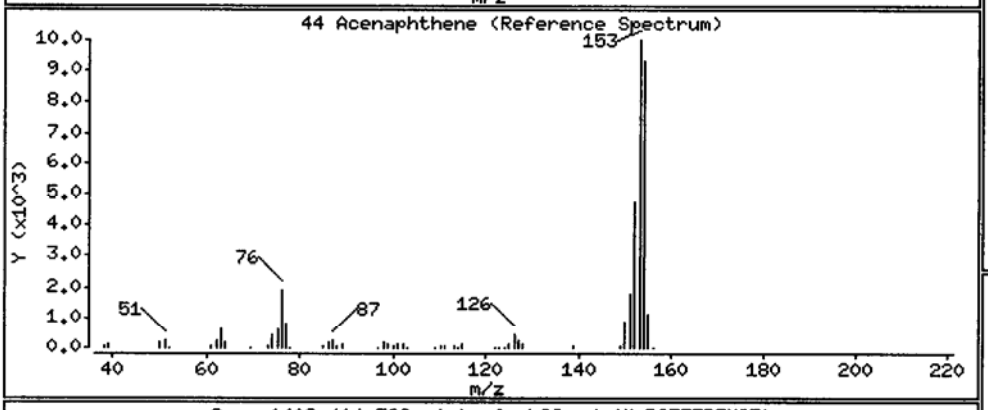
Concentration: 307.9 ug/kg

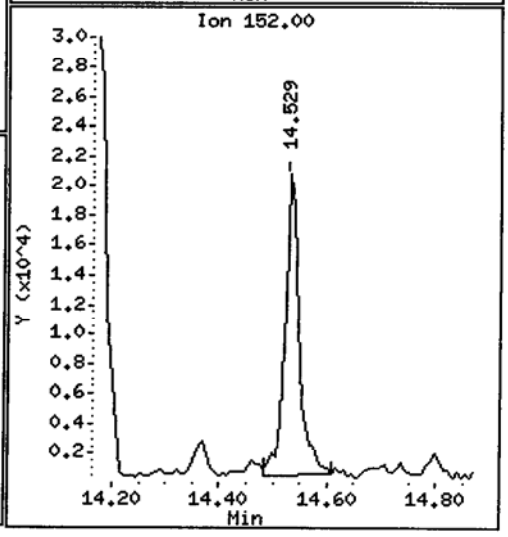


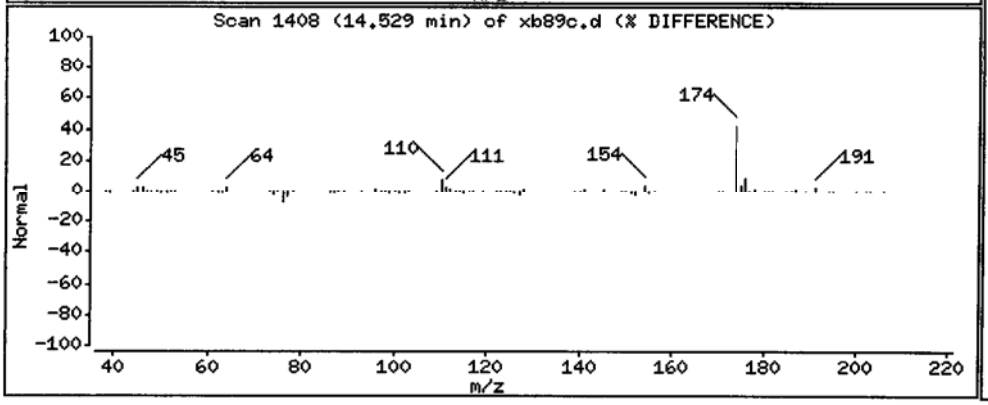












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

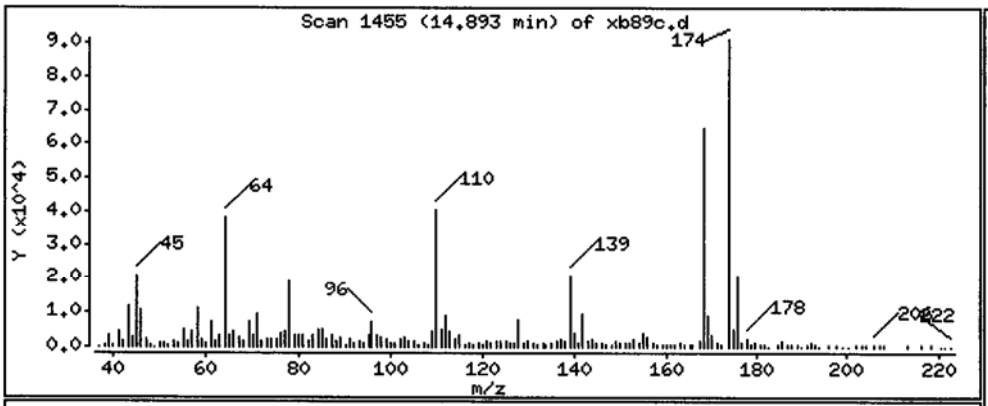
Operator: VTS/YZ

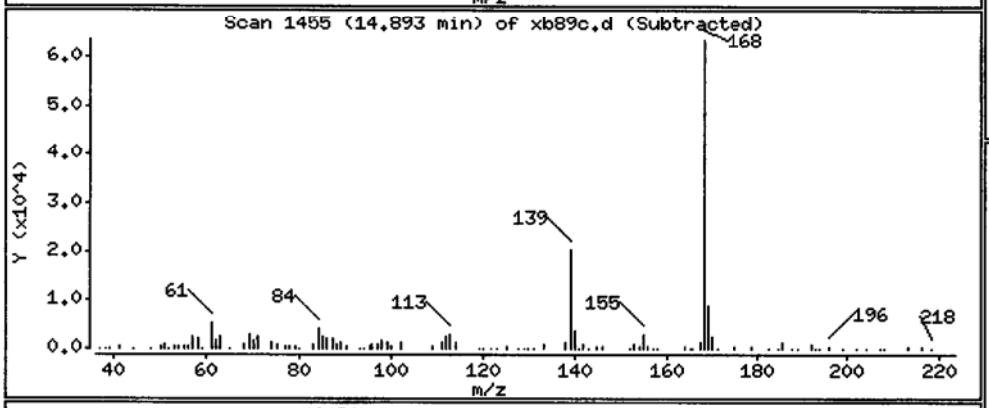
Column phase: ZB-5msi

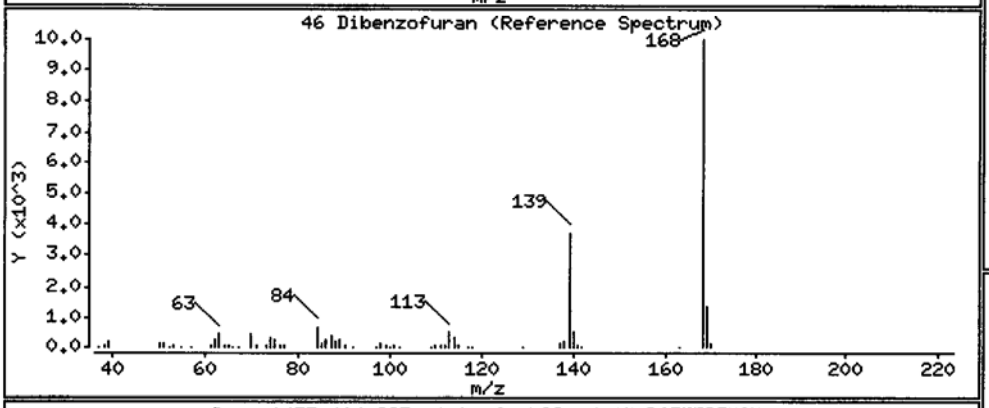
Column diameter: 0.25

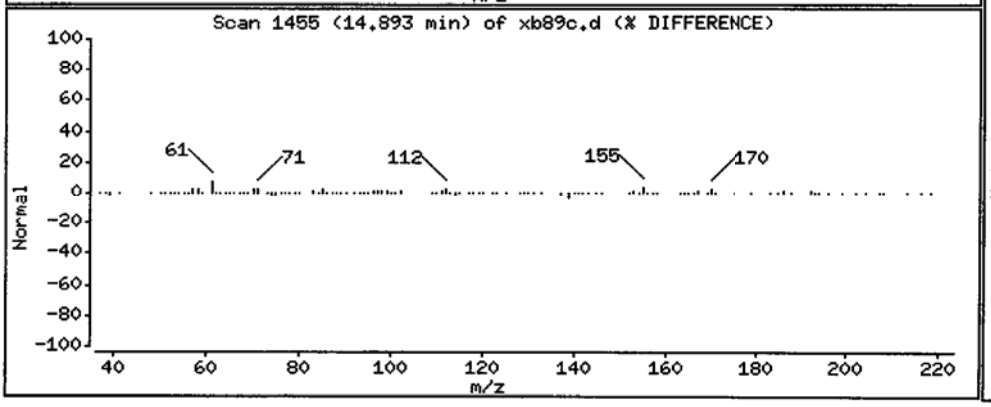
46 Dibenzofuran

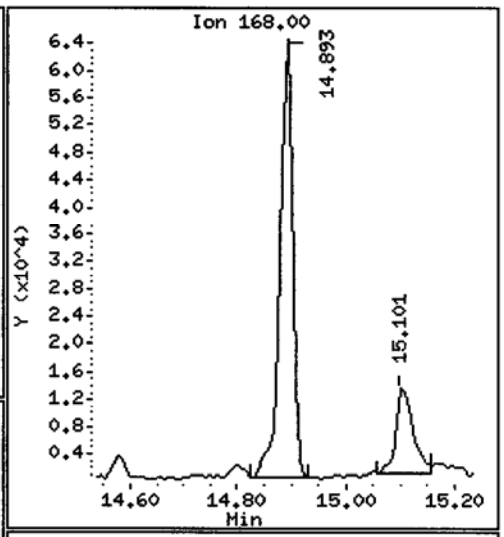
Concentration: 283.6 ug/kg

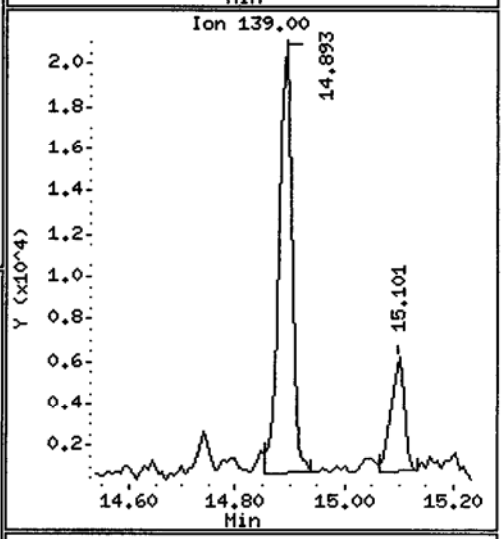


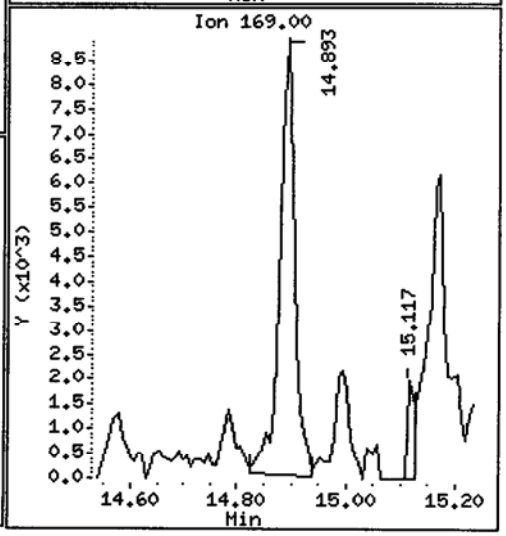












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

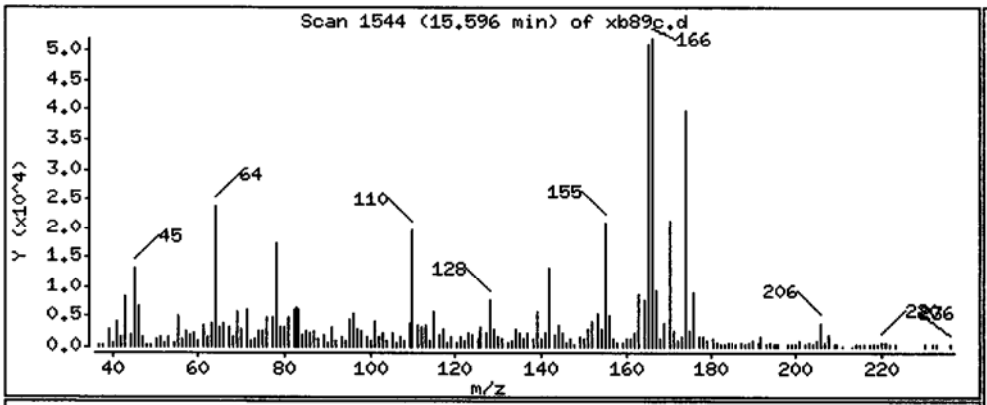
Operator: VTS/YZ

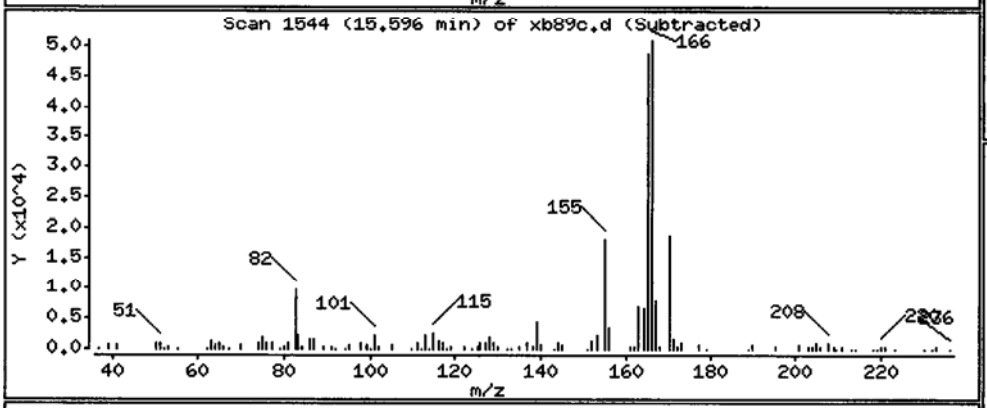
Column phase: ZB-5msi

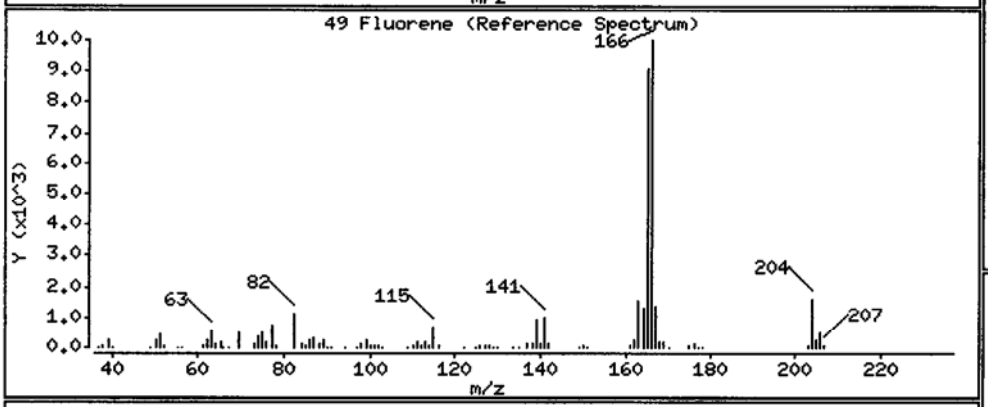
Column diameter: 0.25

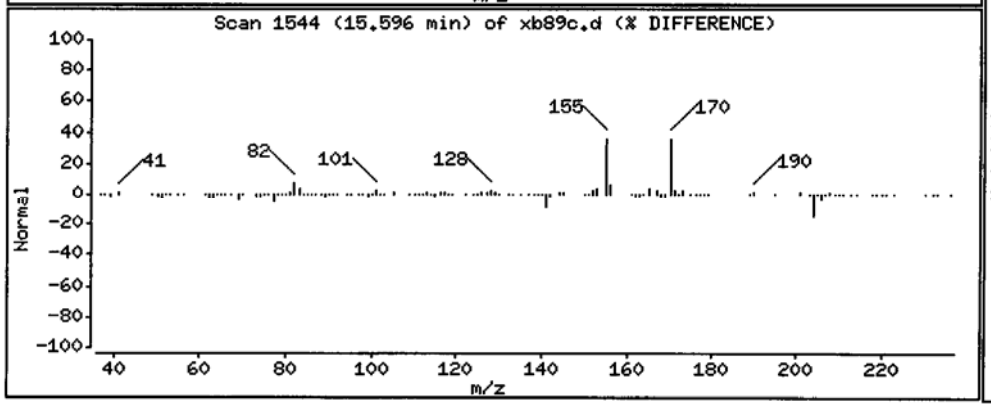
49 Fluorene

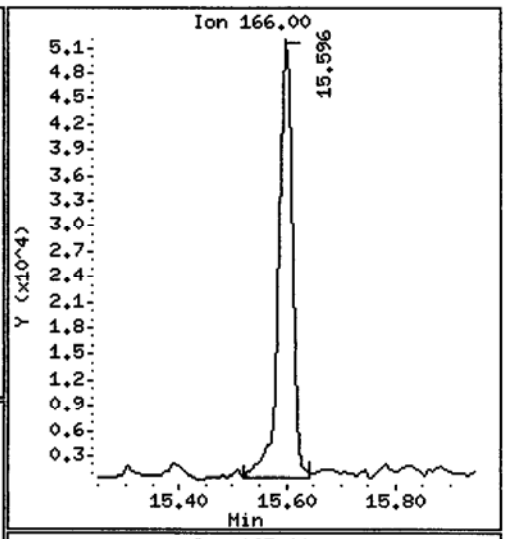
Concentration: 306.9 ug/kg

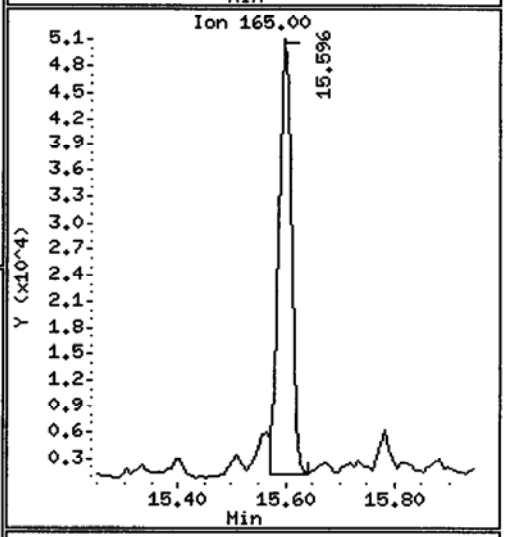


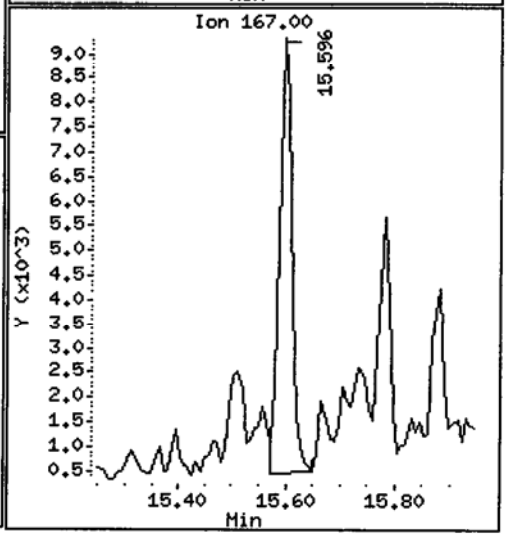












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

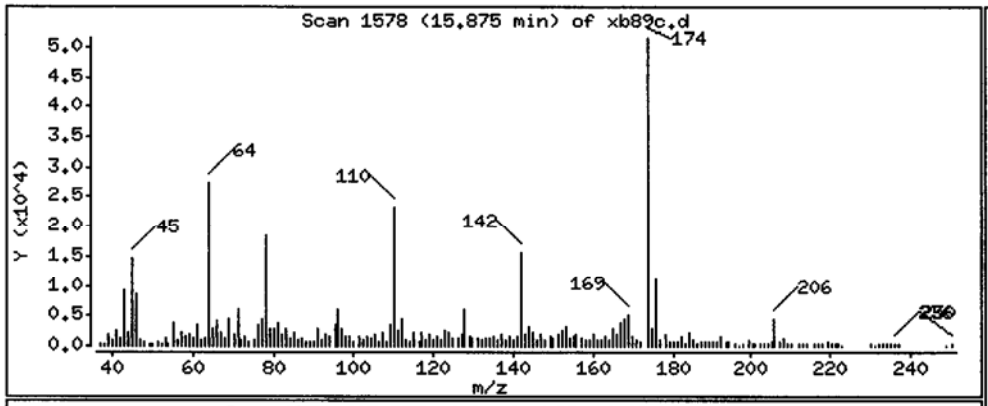
Operator: VTS/YZ

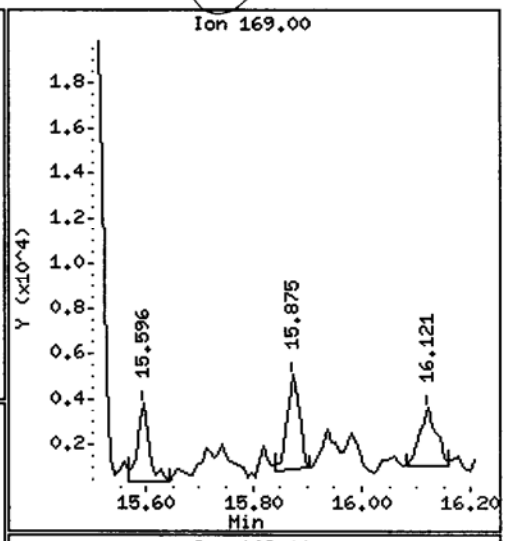
Column phase: ZB-5msi

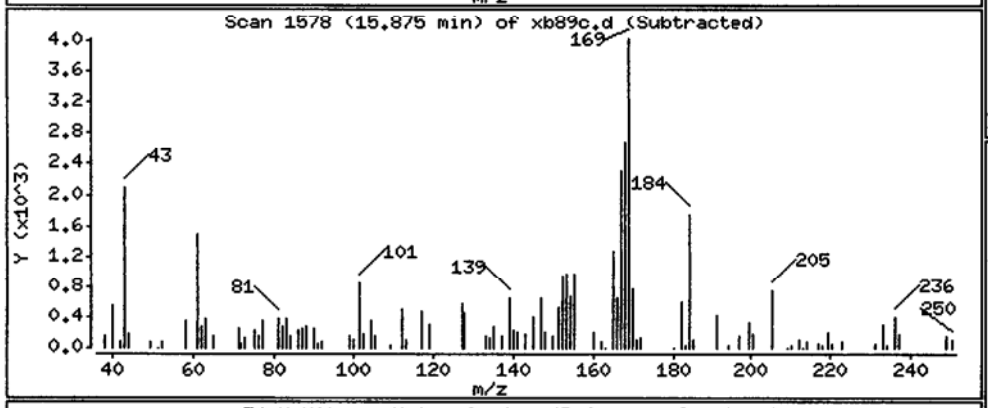
Column diameter: 0.25

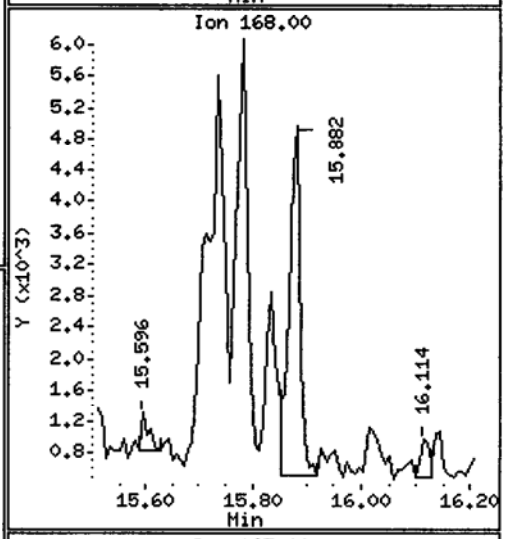
54 N-Nitrosodiphenylamine

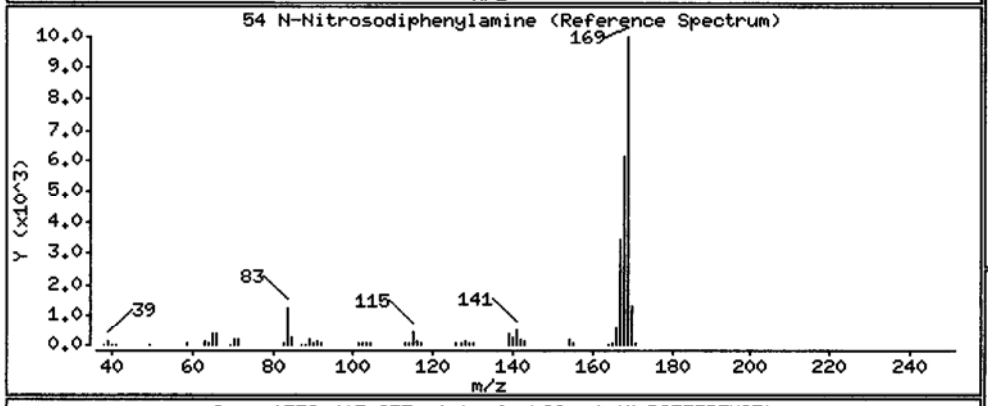
Concentration: 45.60 ug/kg

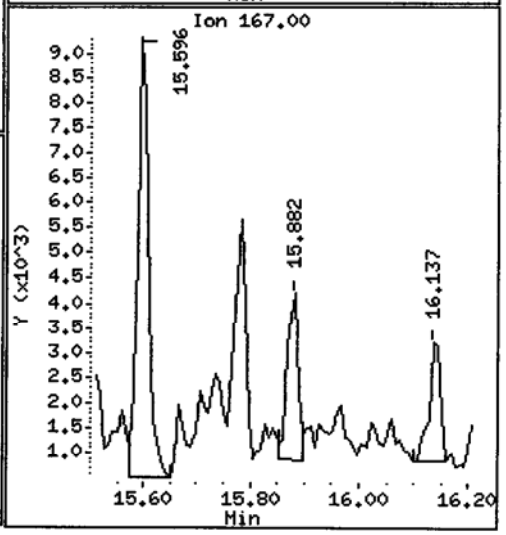


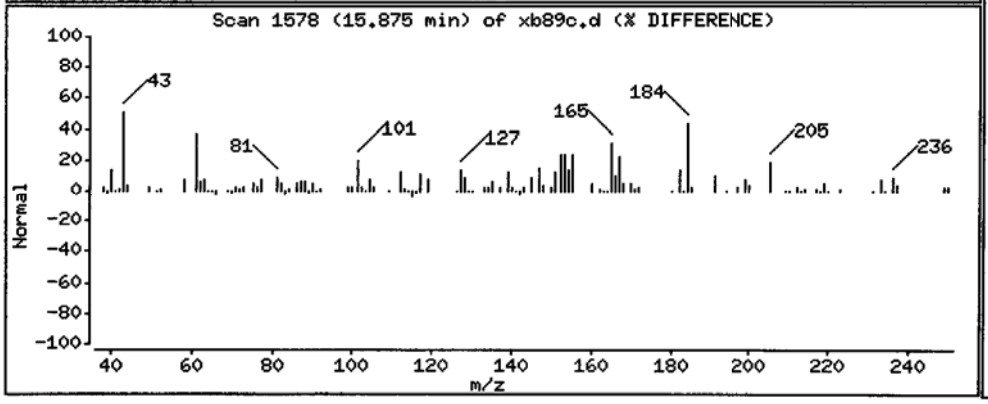












XB89 : 00476

Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

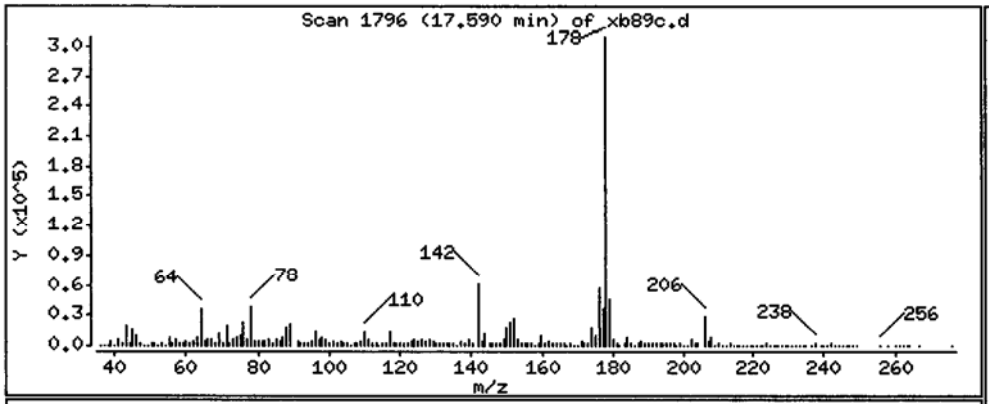
Operator: VTS/YZ

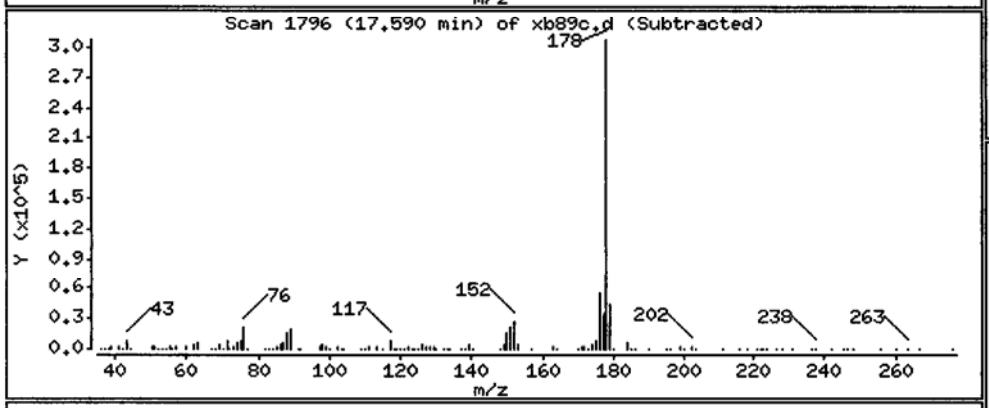
Column phase: ZB-5msi

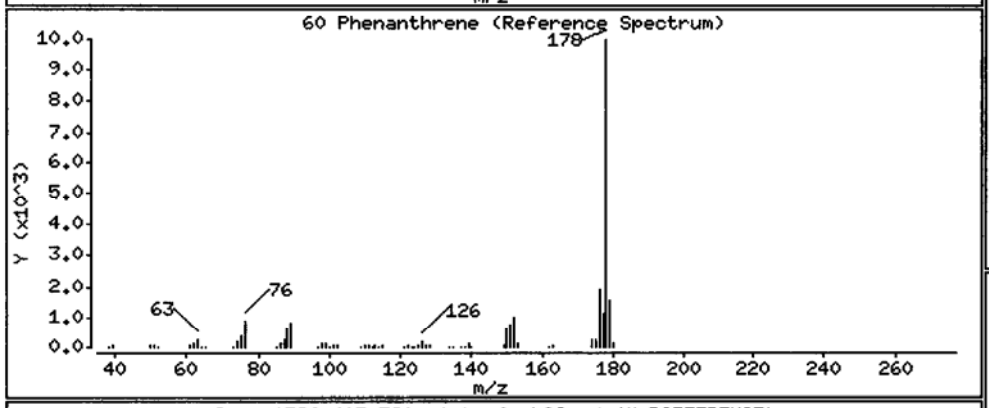
Column diameter: 0.25

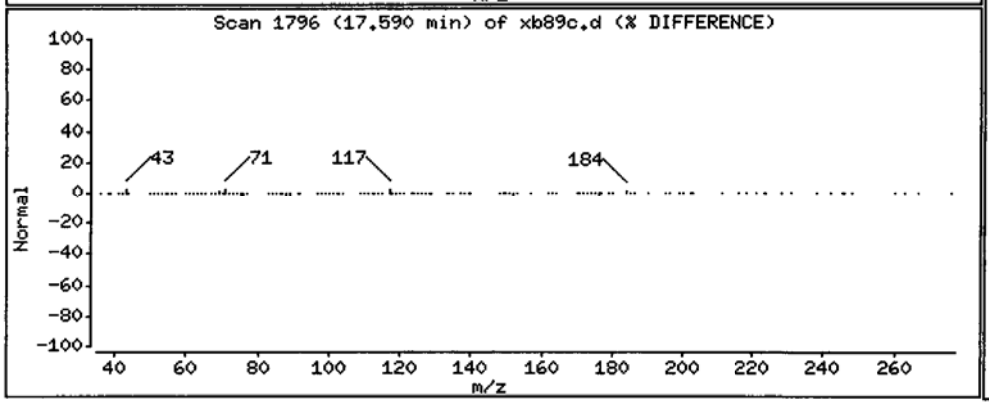
60 Phenanthrene

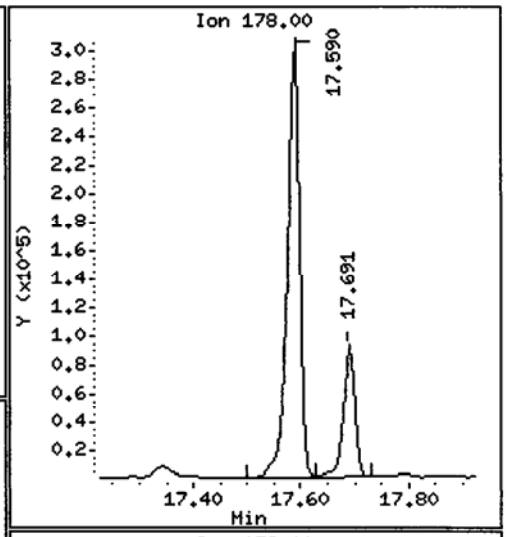
Concentration: 1492 ug/kg

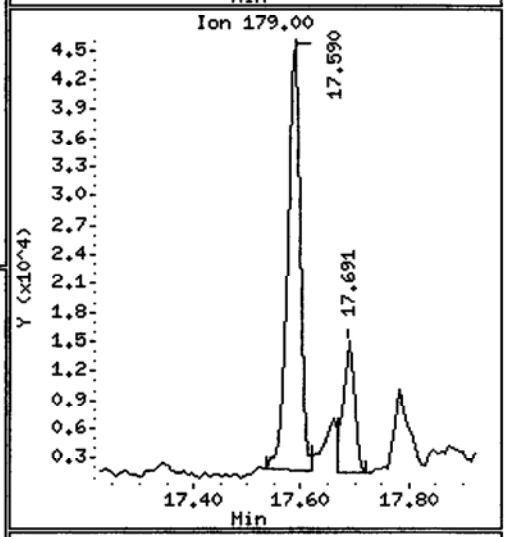


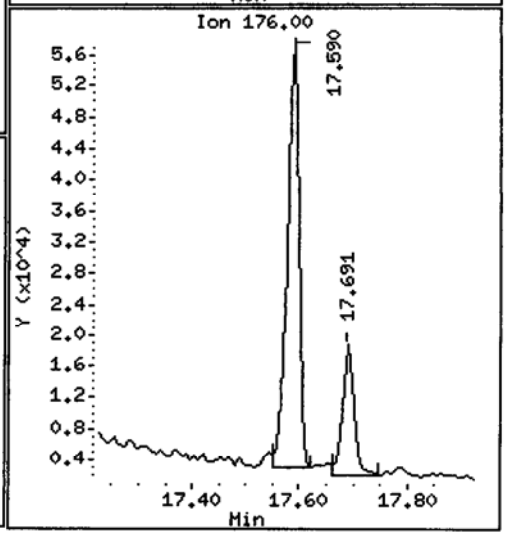












XB89.00477

Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

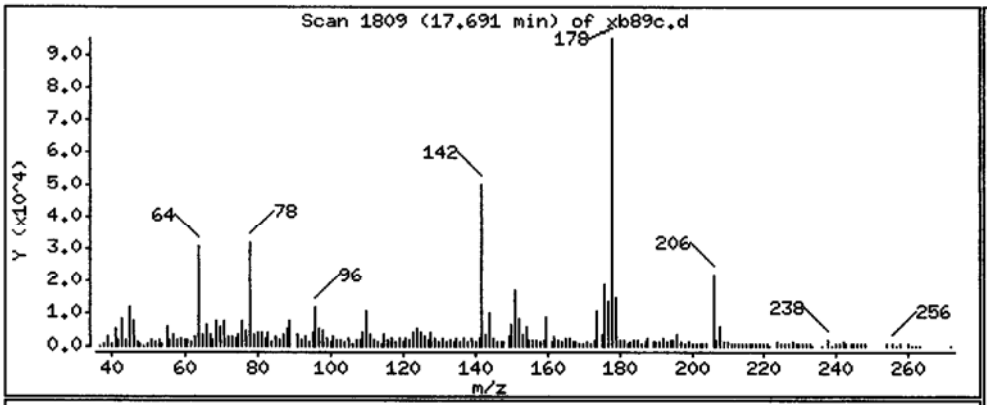
Operator: VTS/YZ

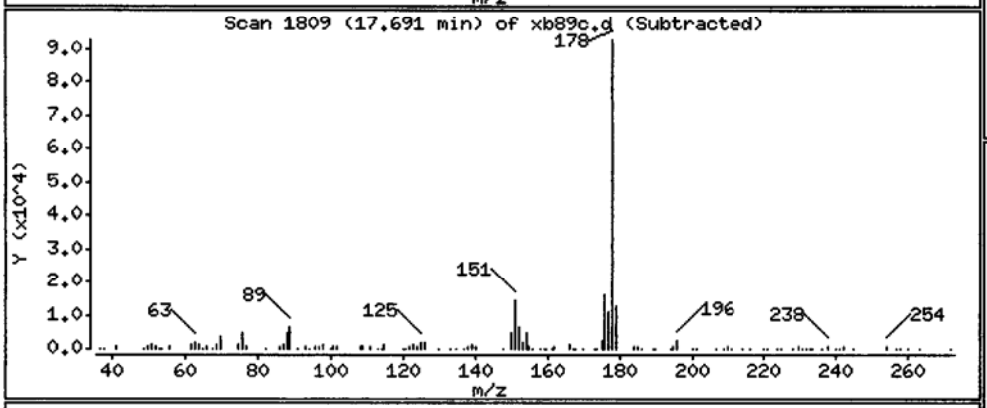
Column phase: ZB-5msi

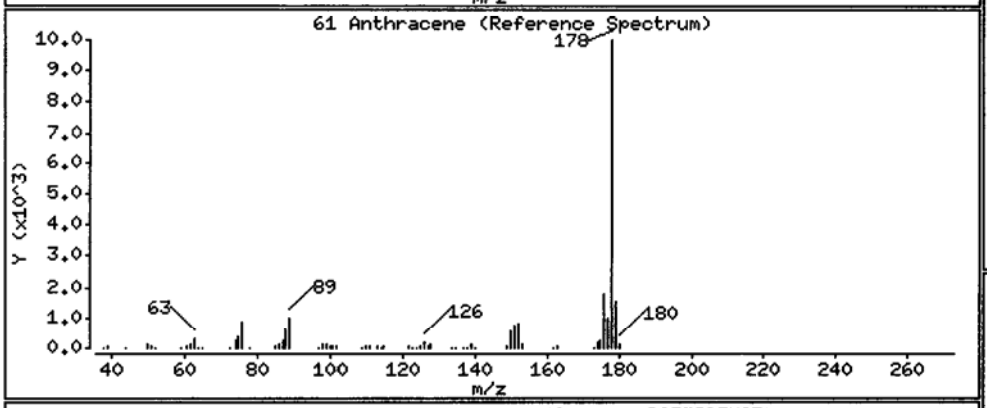
Column diameter: 0.25

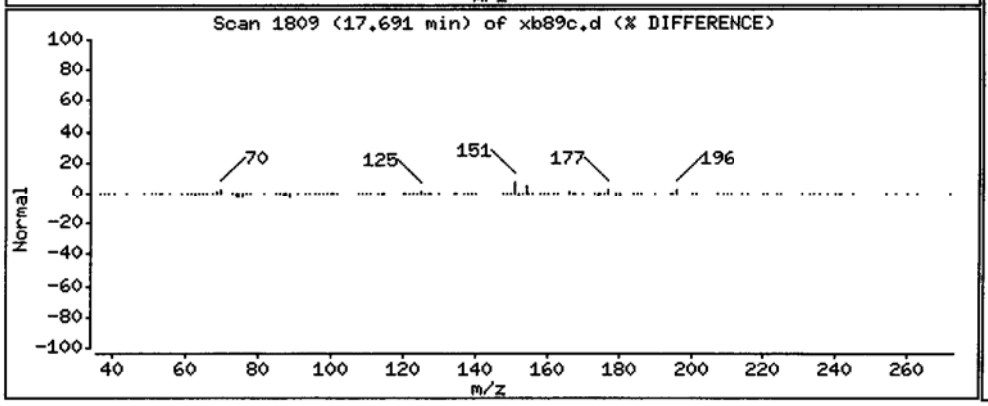
61 Anthracene

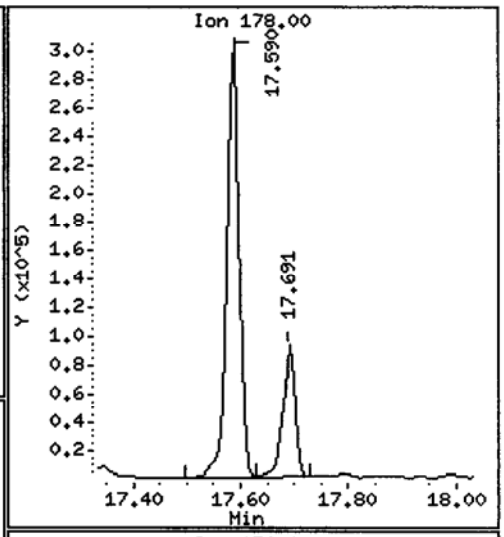
Concentration: 402.5 ug/kg

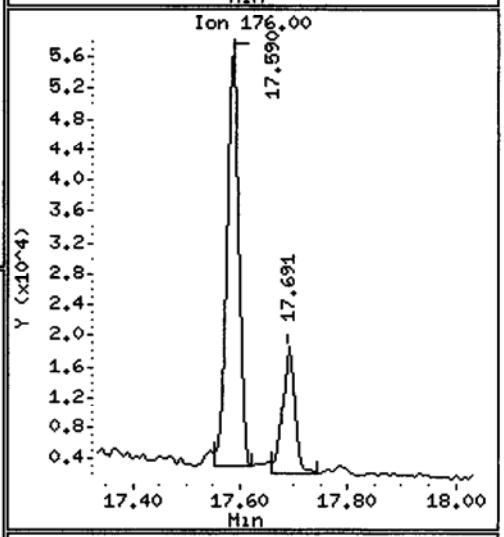


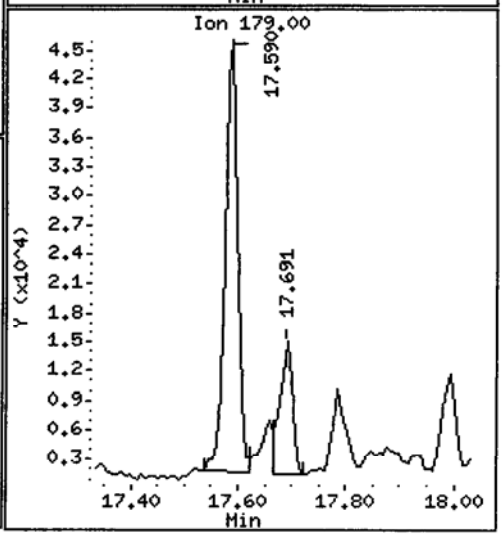












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

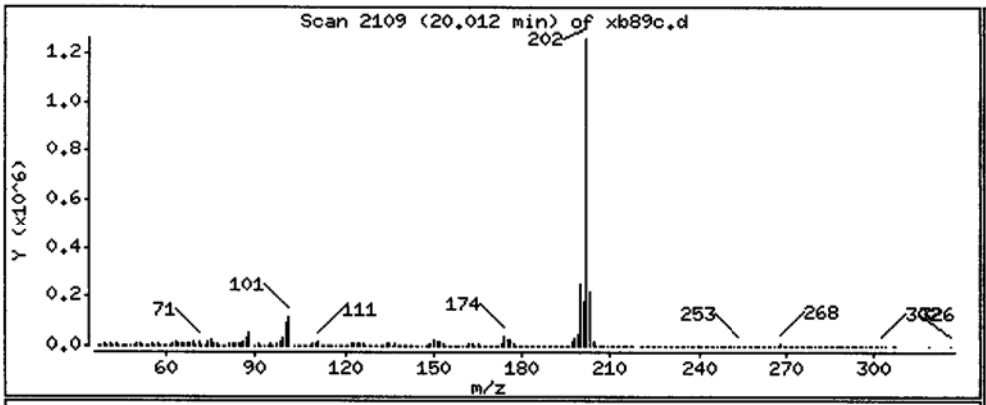
Operator: VTS/YZ

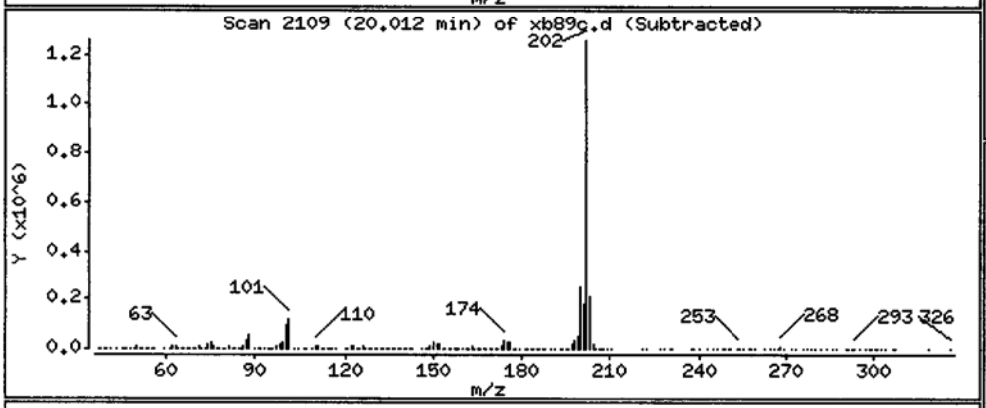
Column phase: ZB-5msi

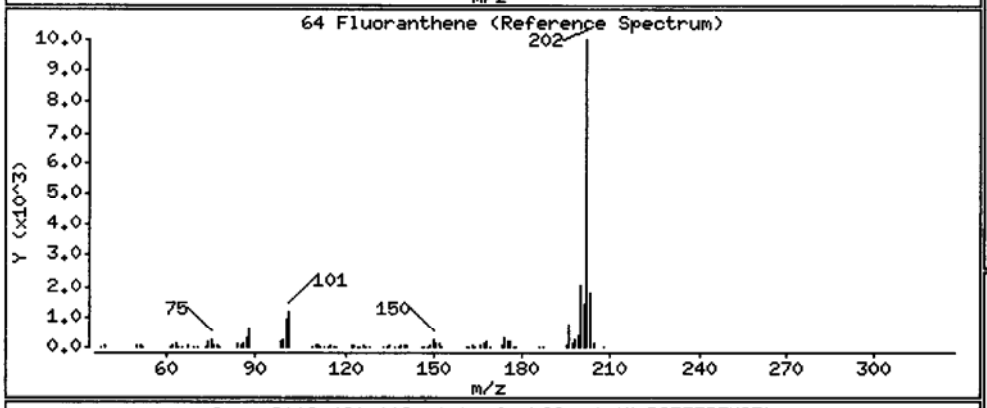
Column diameter: 0.25

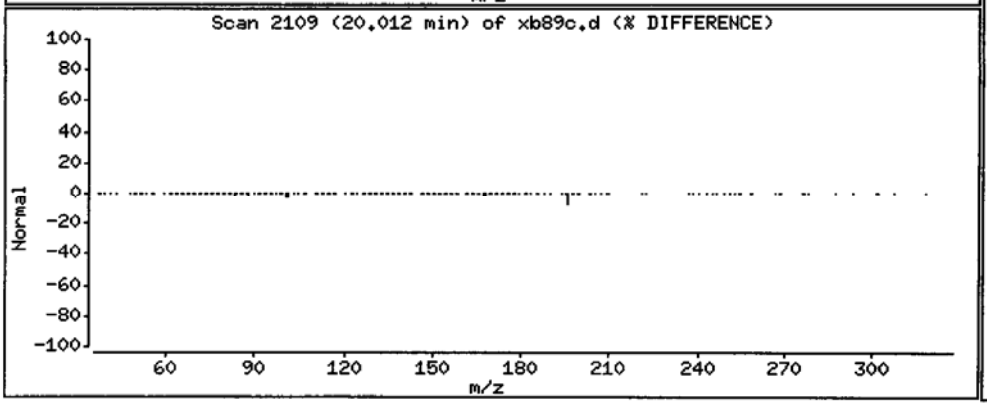
64 Fluoranthene

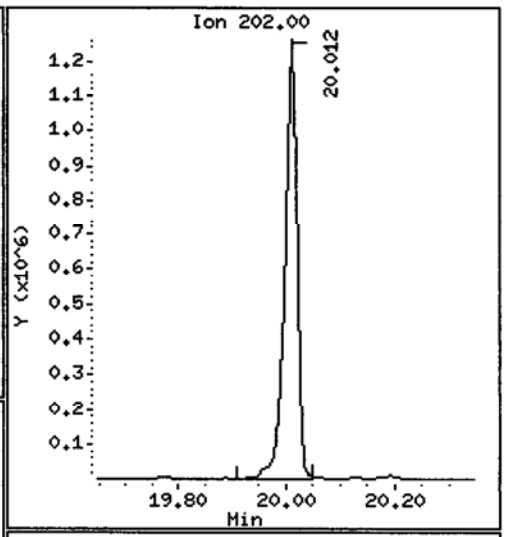
Concentration: 4551 ug/kg

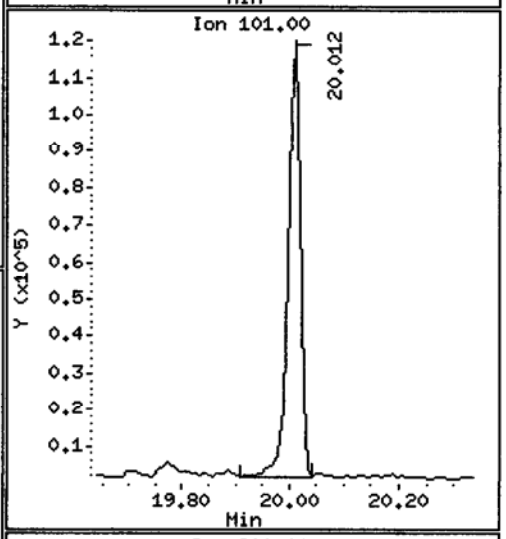


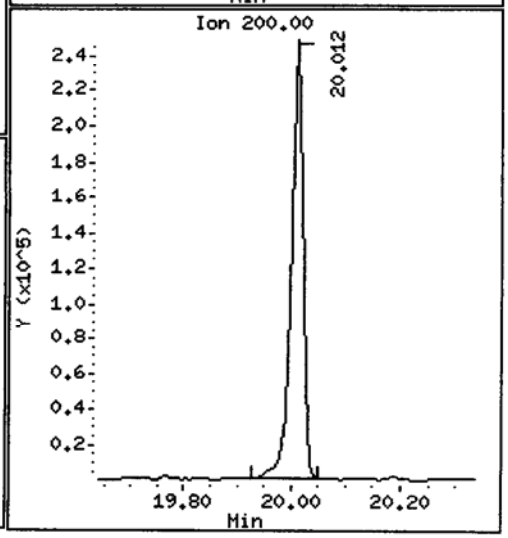












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

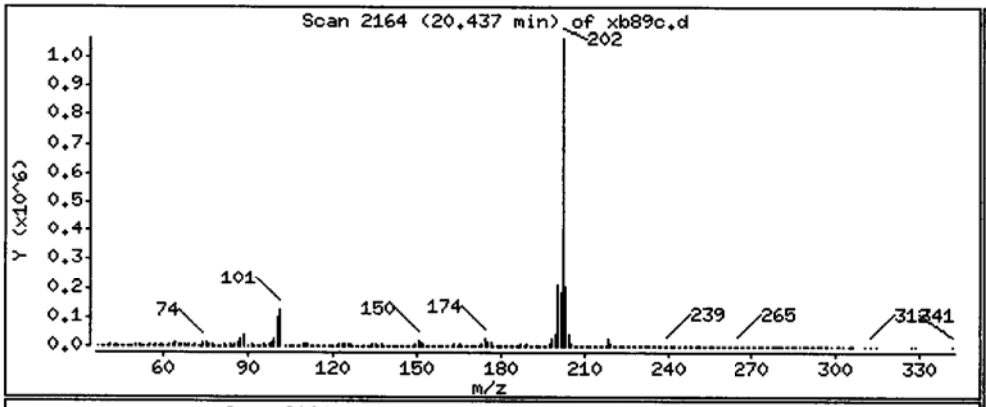
Operator: VTS/YZ

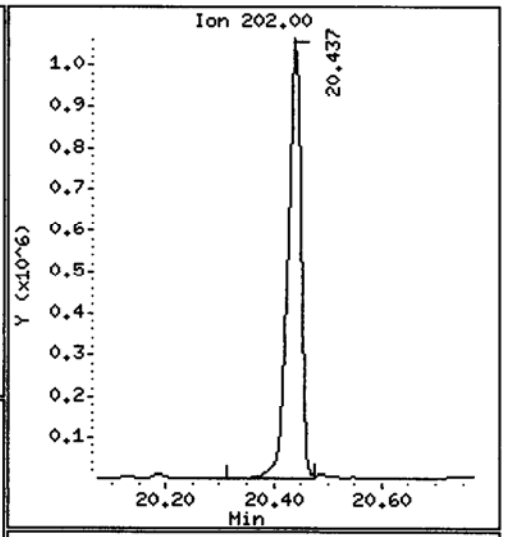
Column phase: ZB-5msi

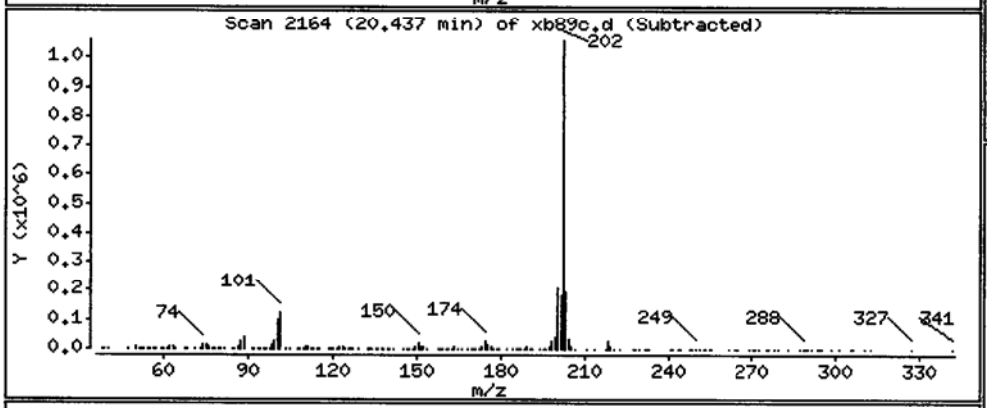
Column diameter: 0.25

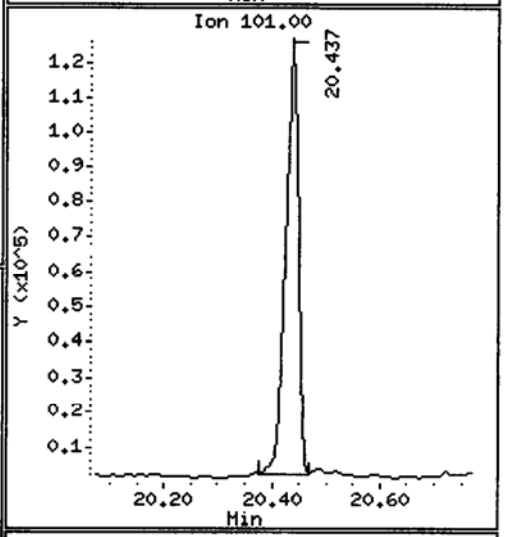
65 Pyrene

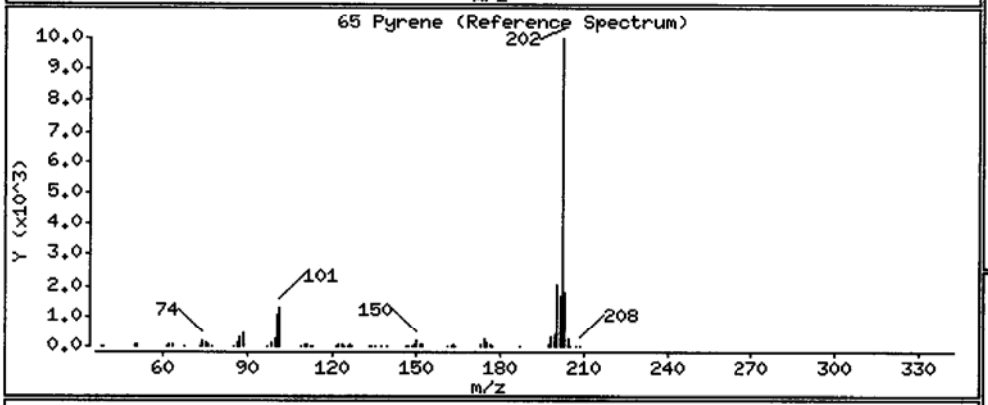
Concentration: 3855 ug/kg

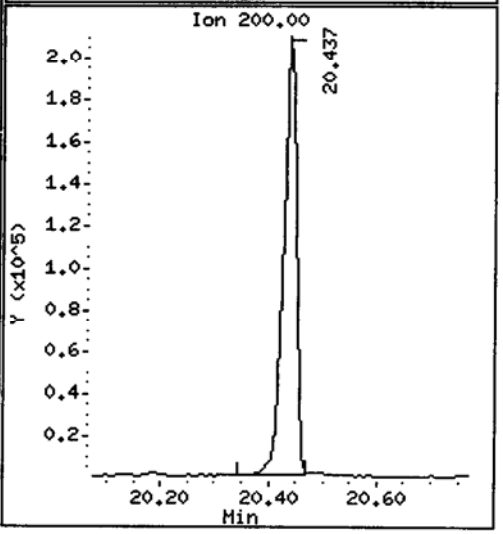


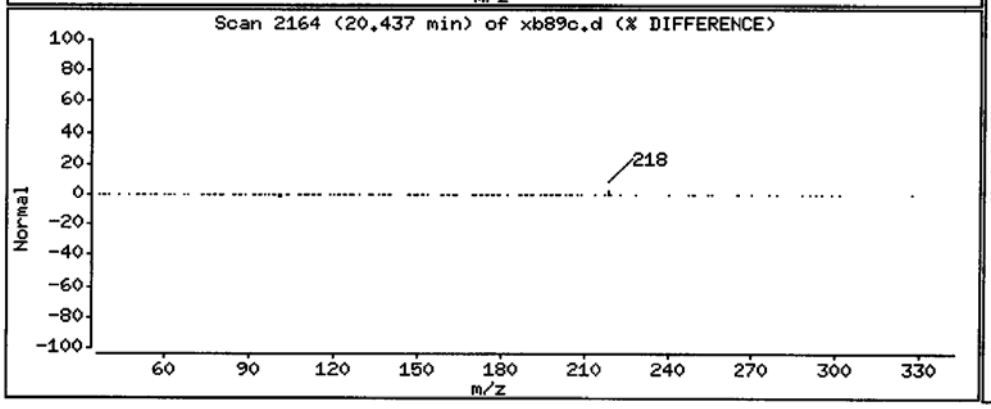












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

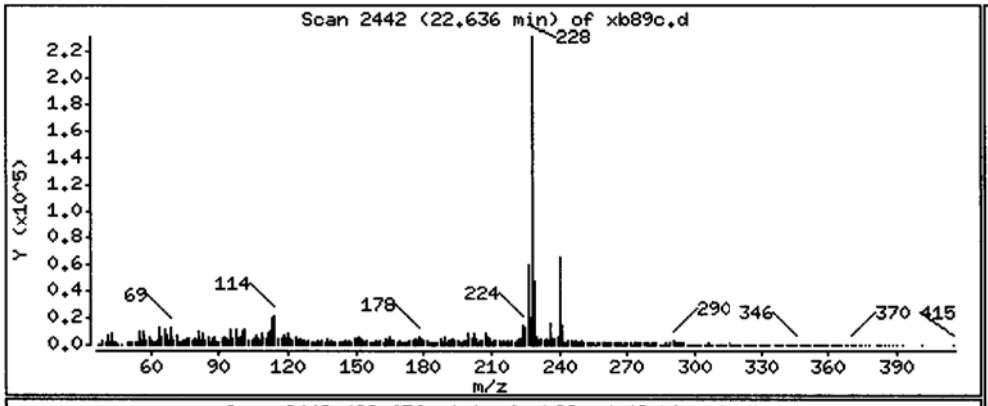
Operator: VTS/YZ

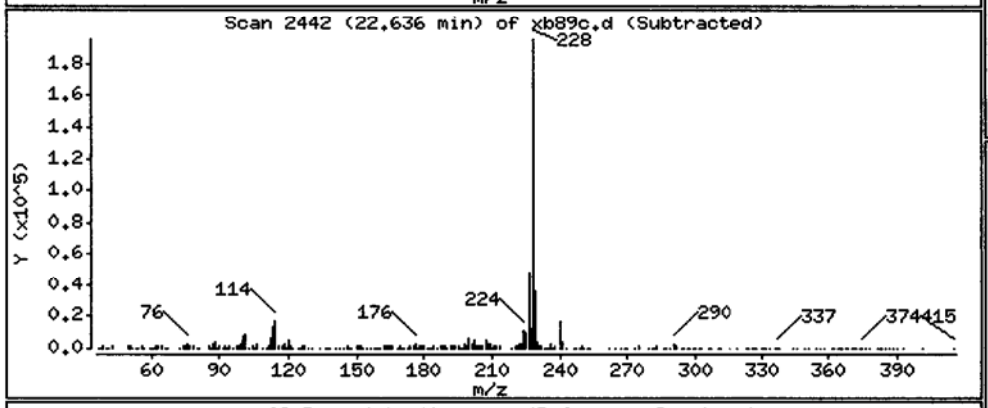
Column phase: ZB-5msi

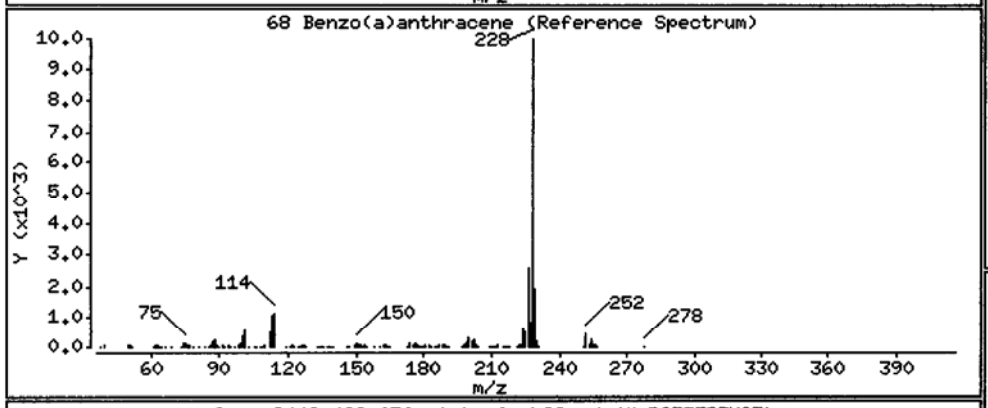
Column diameter: 0.25

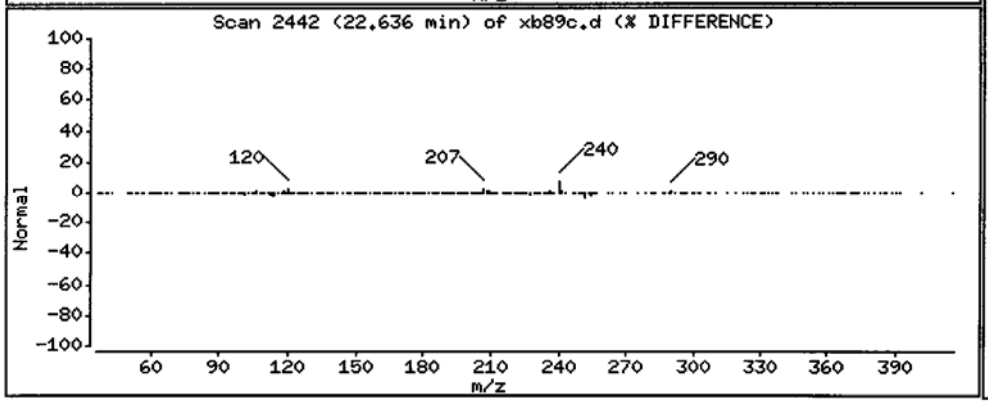
68 Benzo(a)anthracene

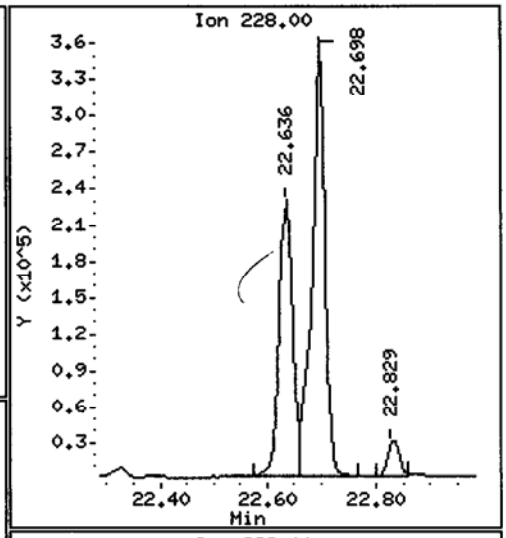
Concentration: 947.2 ug/kg

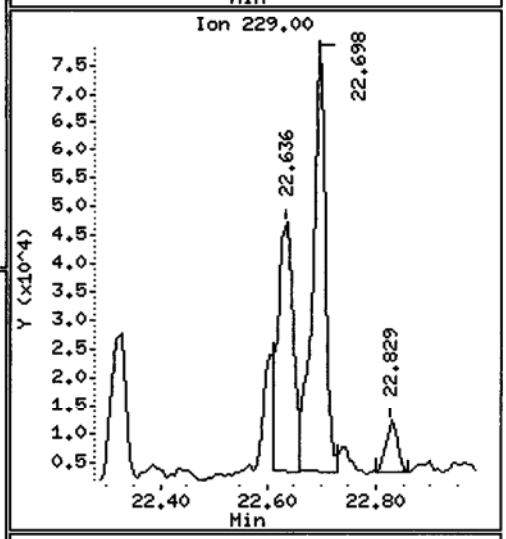


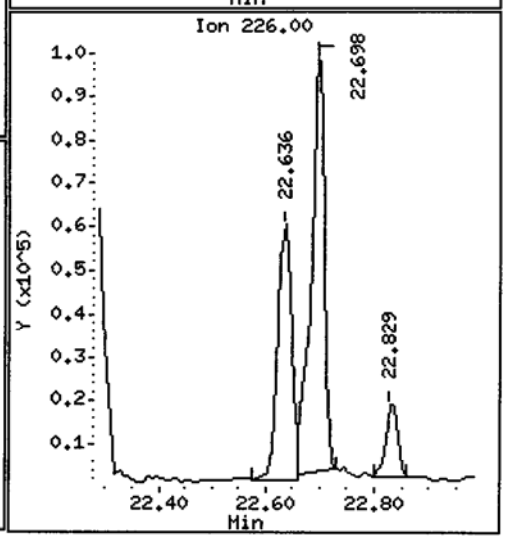












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

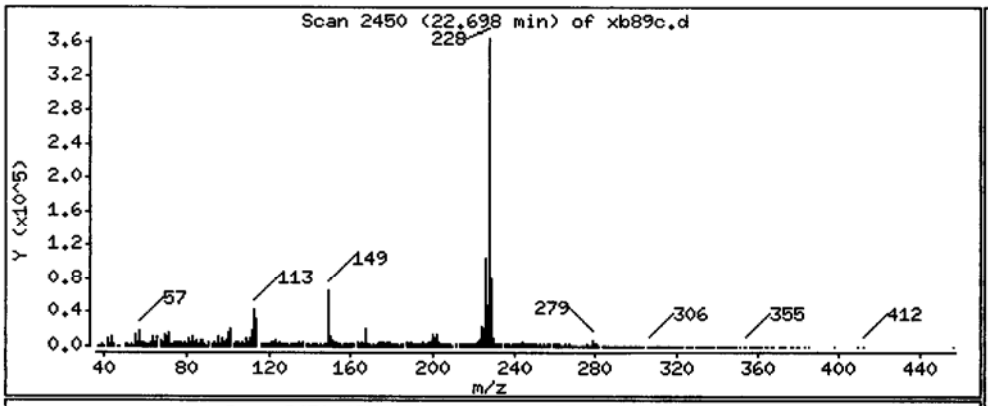
Operator: VTS/YZ

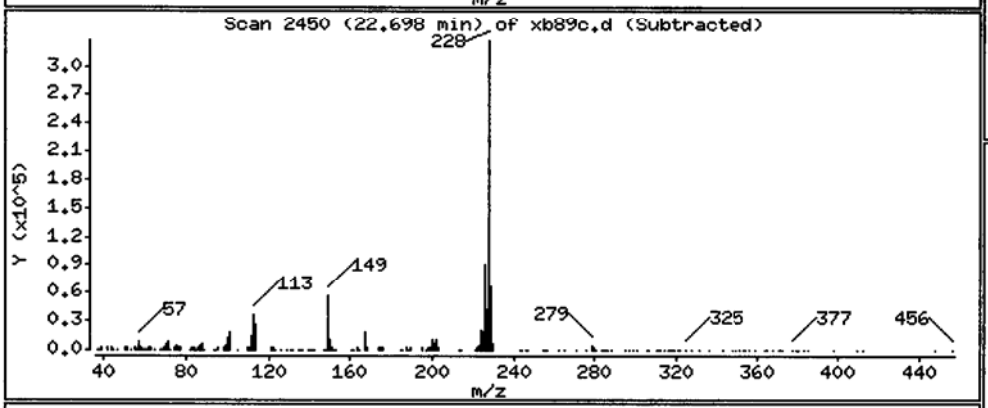
Column phase: ZB-5msi

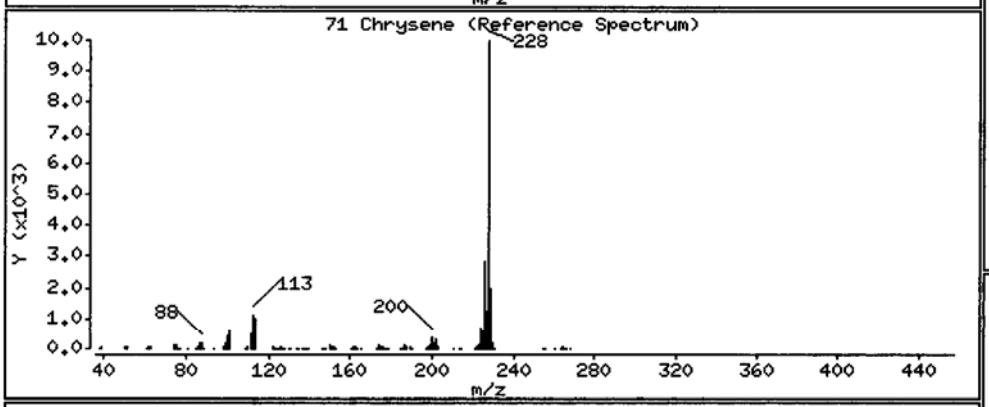
Column diameter: 0.25

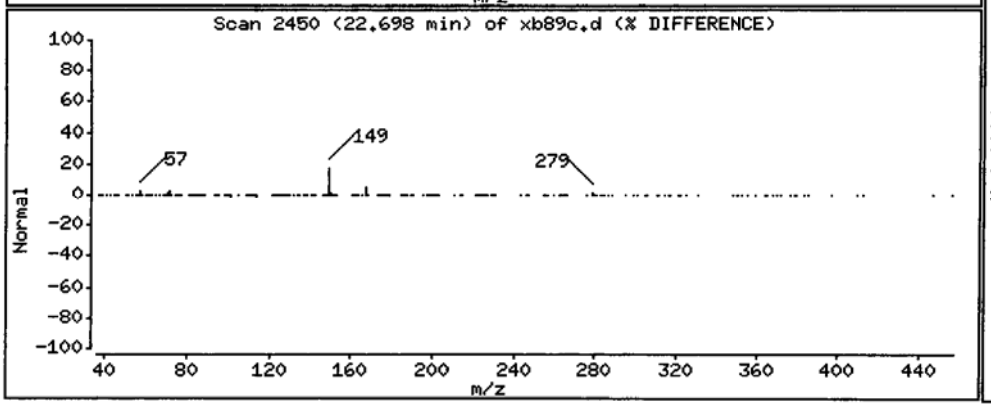
71 Chrysene

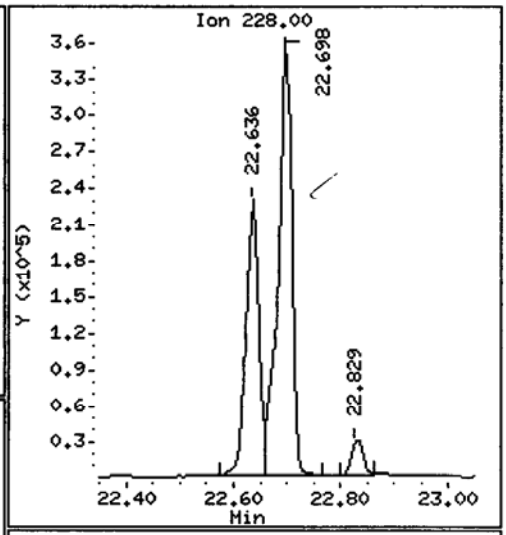
Concentration: 1819 ug/kg

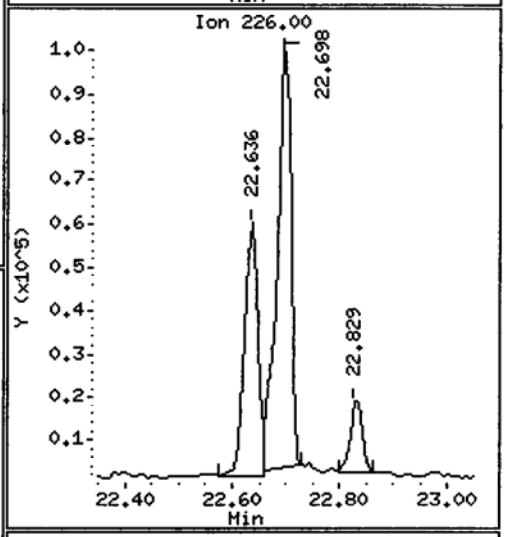


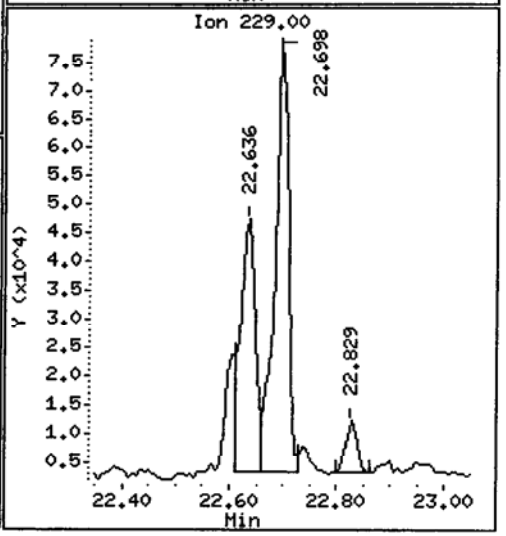












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

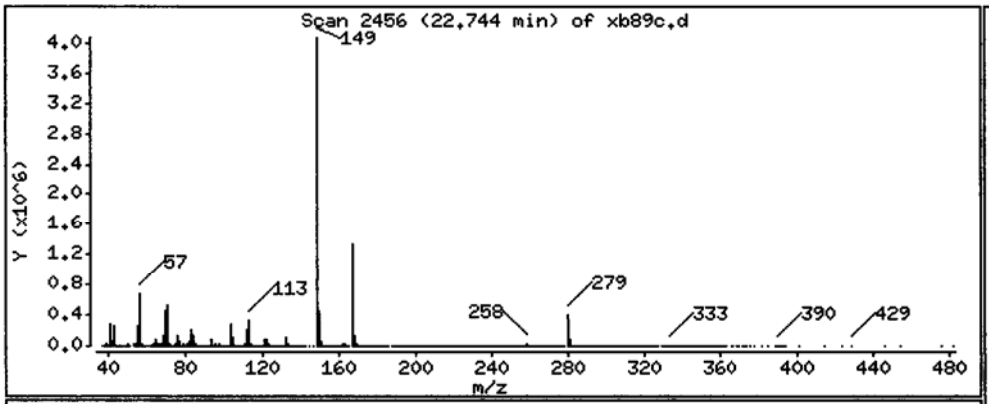
Operator: VTS/YZ

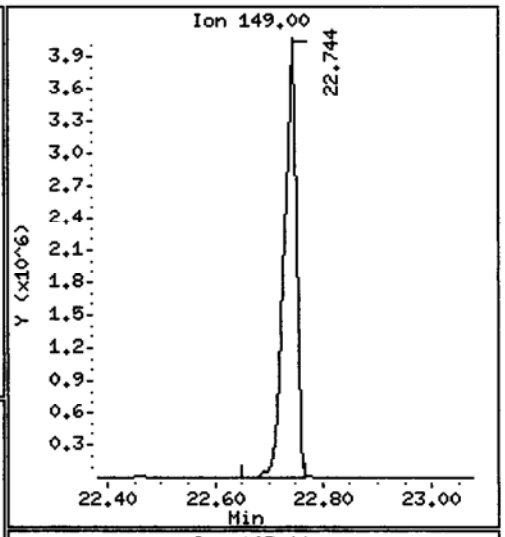
Column phase: ZB-5msi

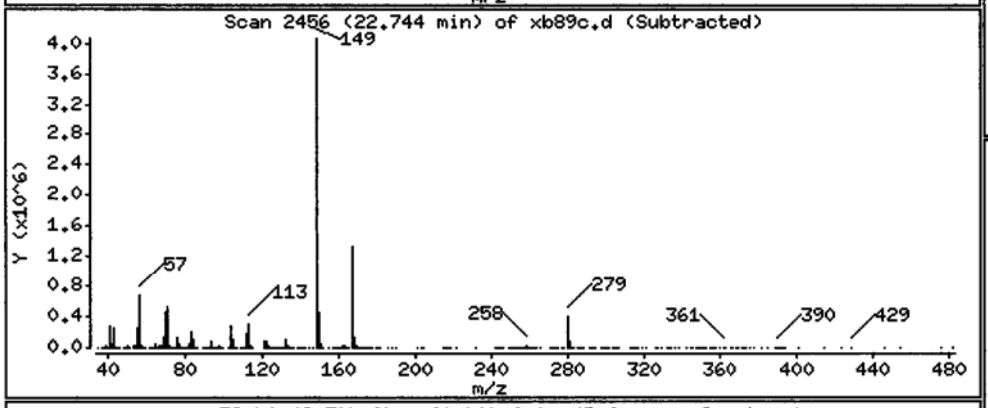
Column diameter: 0.25

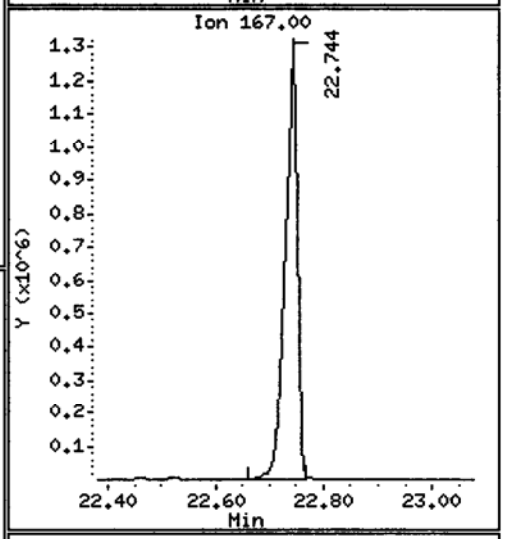
72 bis(2-Ethylhexyl)phthalate

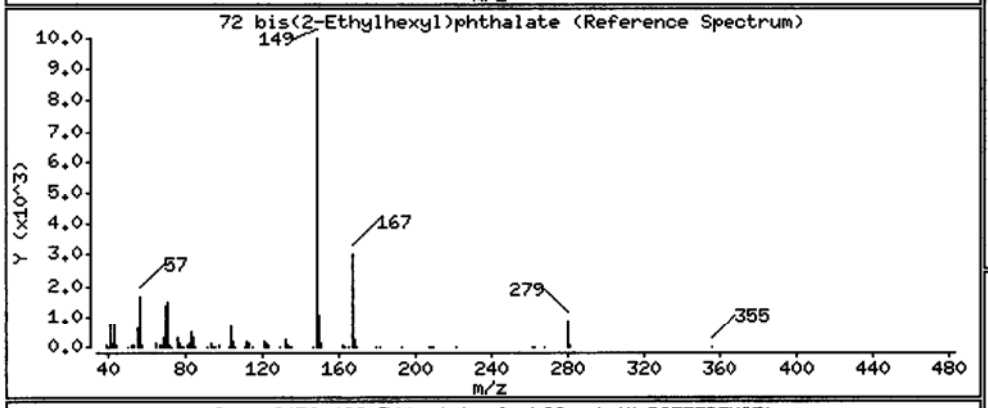
Concentration: 30890 ug/kg

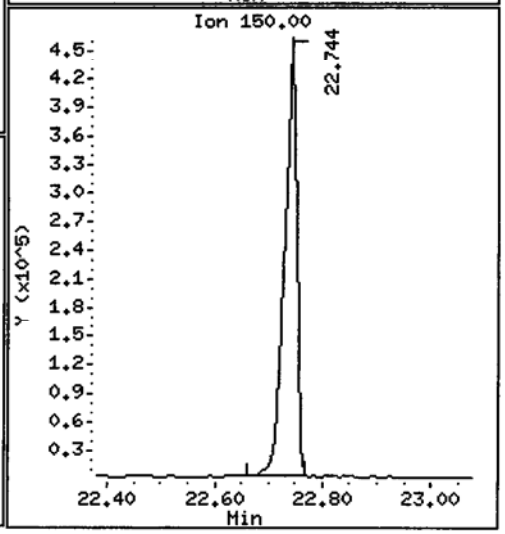


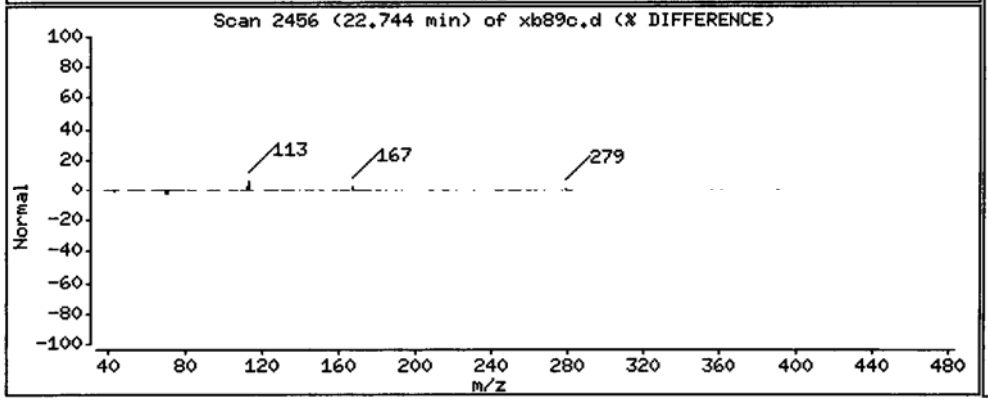












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

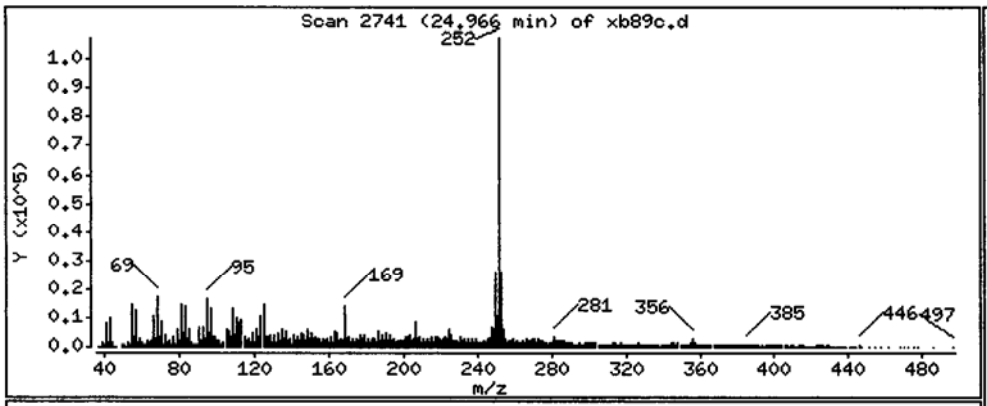
Operator: VTS/YZ

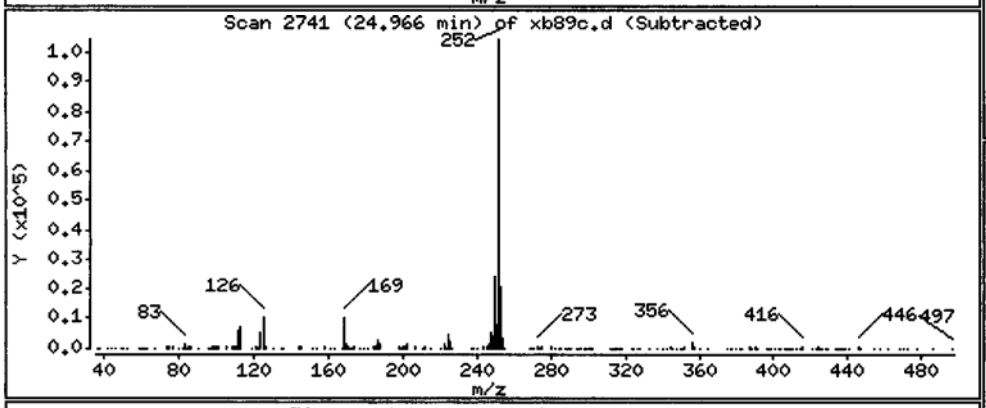
Column phase: ZB-5msi

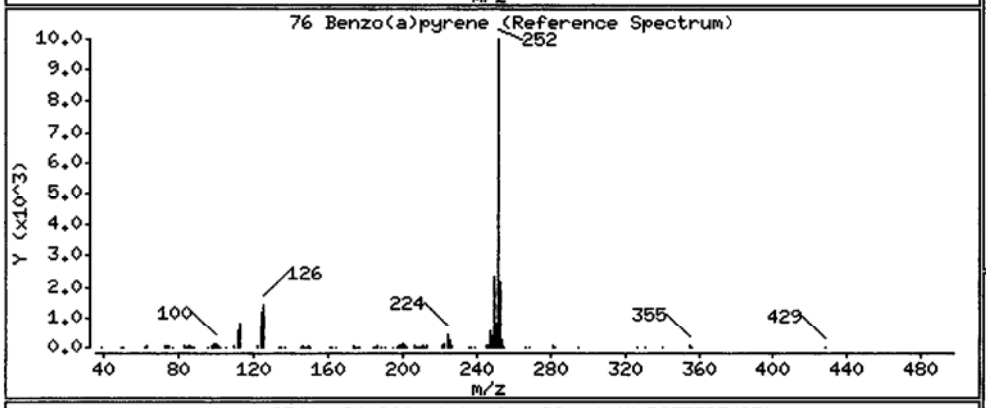
Column diameter: 0.25

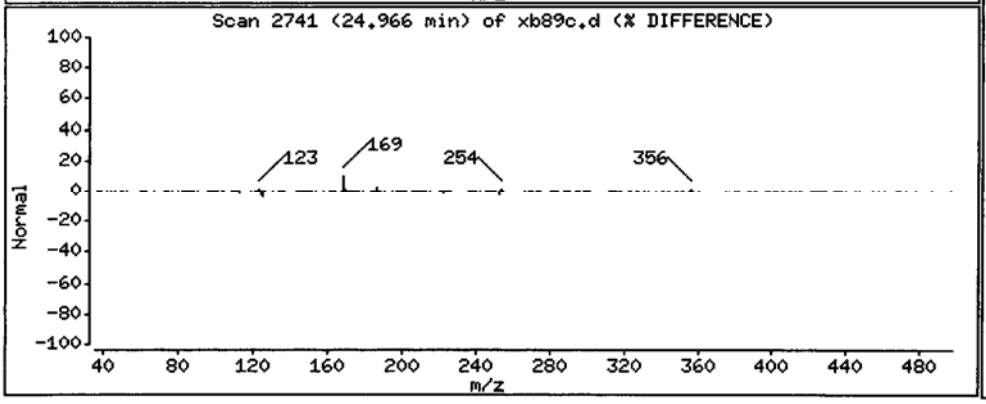
76 Benzo(a)pyrene

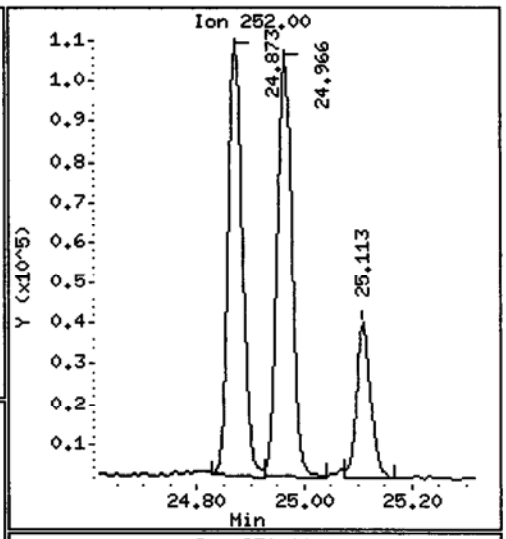
Concentration: 522.2 ug/kg

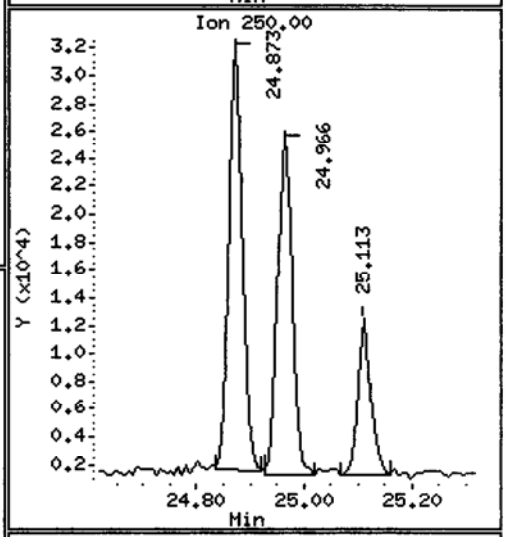


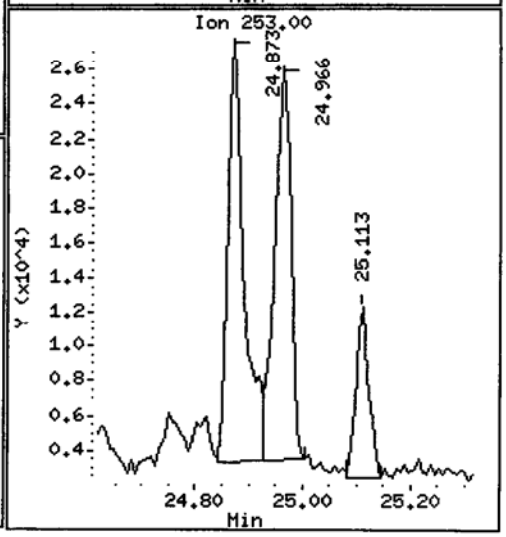












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

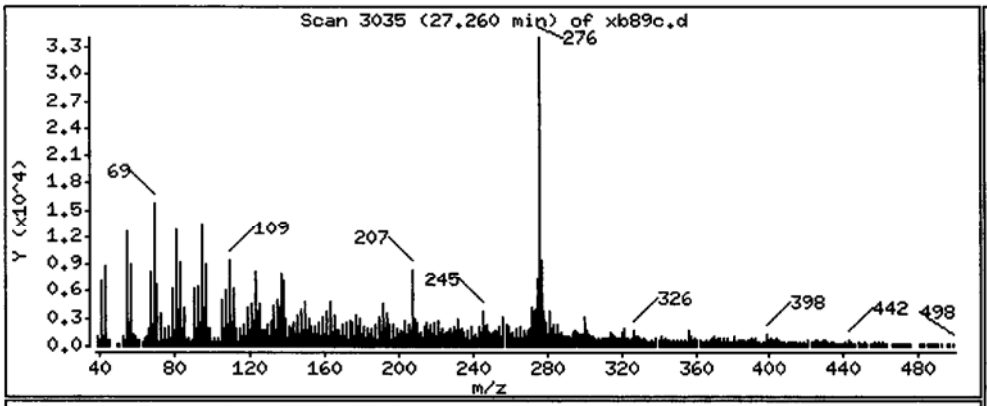
Client ID: IJ13-SS-151 Instrument: nt10.i

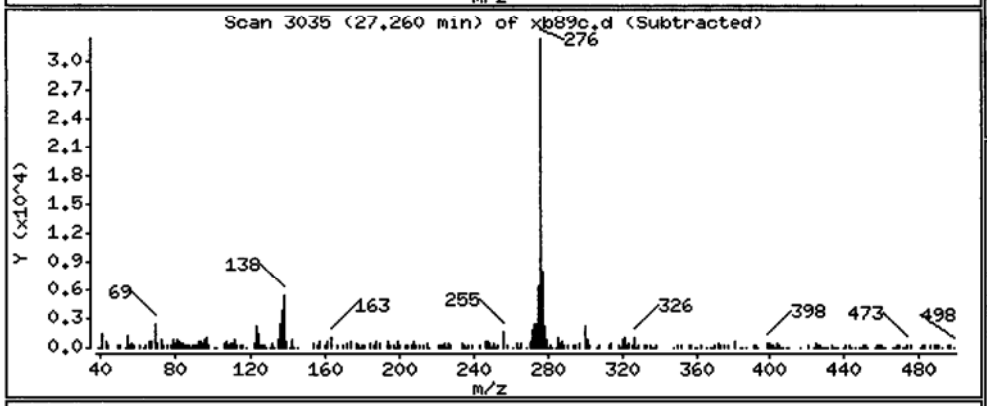
Sample Info: XB89C

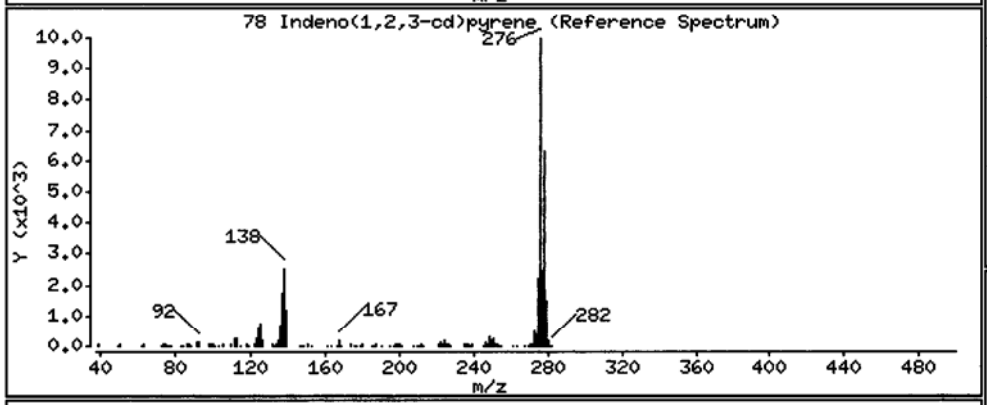
Volume Injected (uL): 1.0 Operator: VTS/YZ

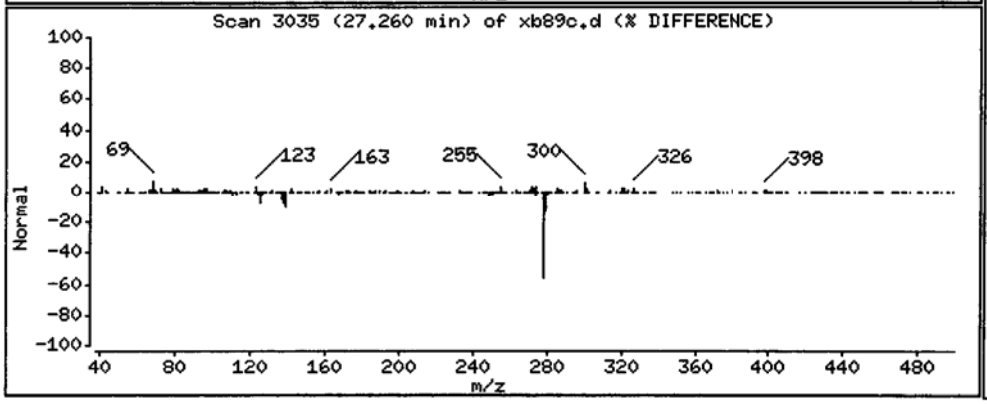
Column phase: ZB-5msi Column diameter: 0.25

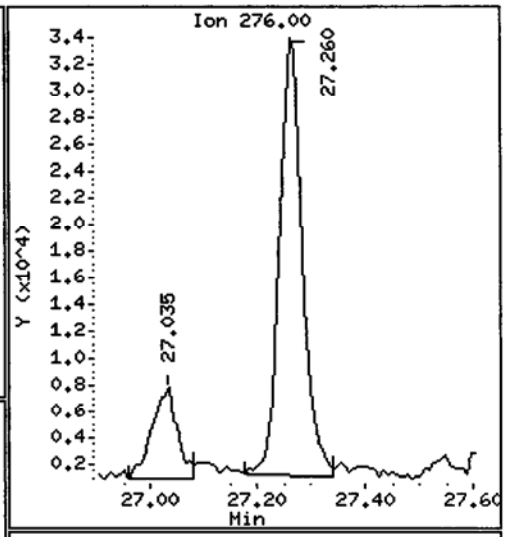
78 Indeno(1,2,3-cd)pyrene Concentration: 207.0 ug/kg

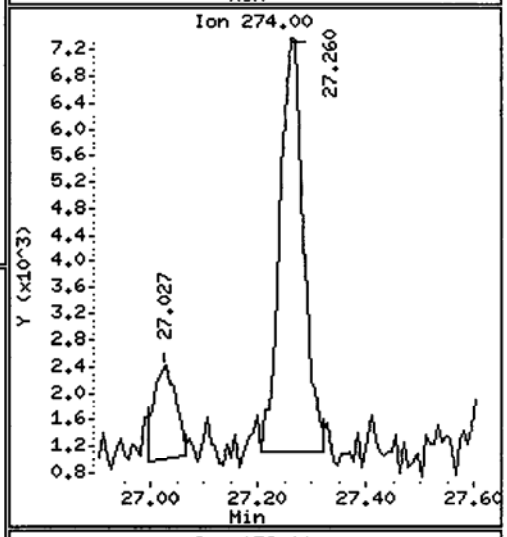


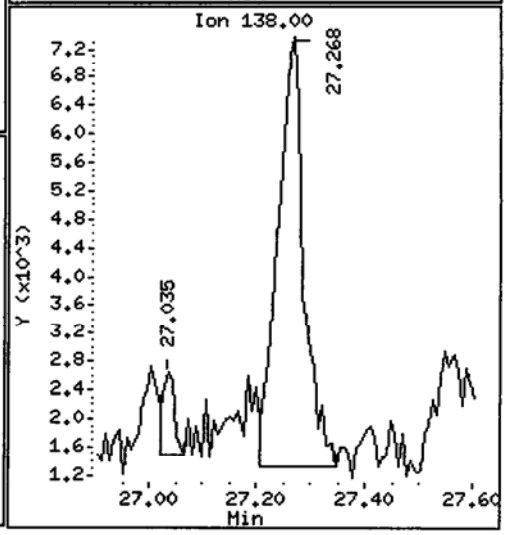












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

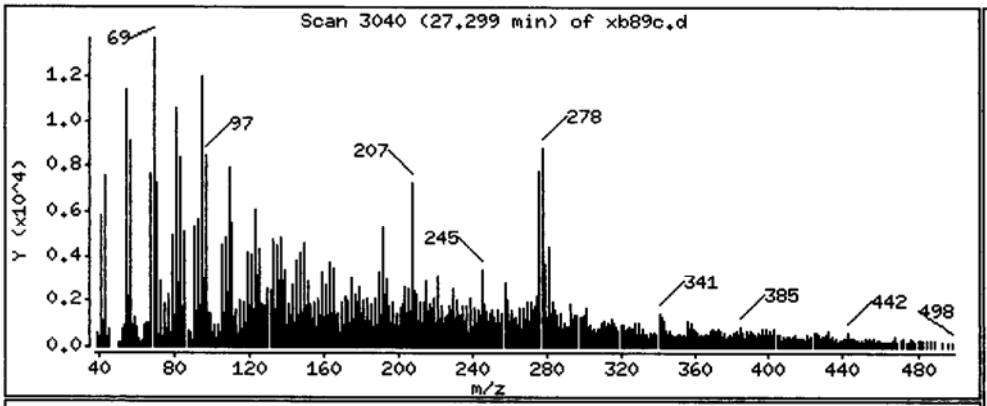
Operator: VTS/YZ

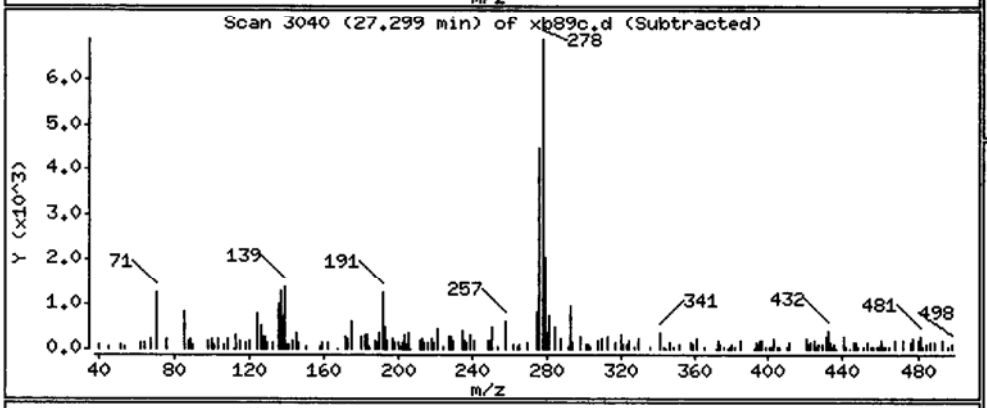
Column phase: ZB-5msi

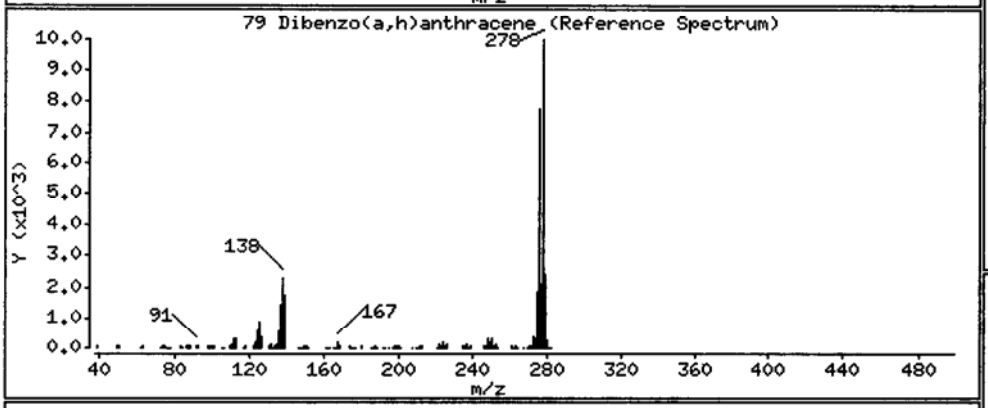
Column diameter: 0.25

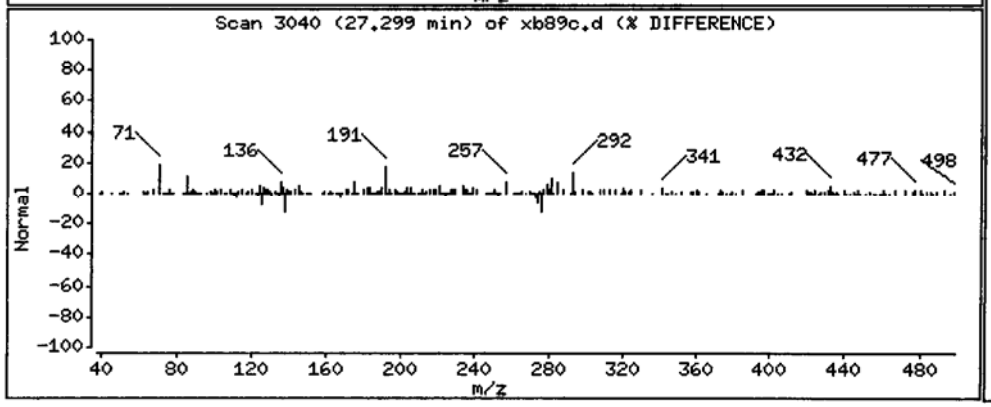
79 Dibenzo(a,h)anthracene

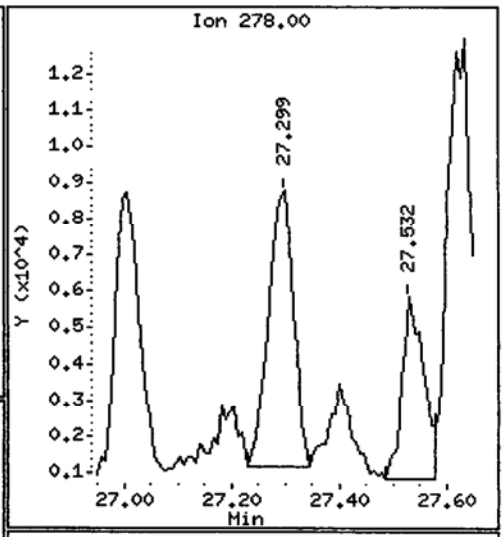
Concentration: 67.96 ug/kg

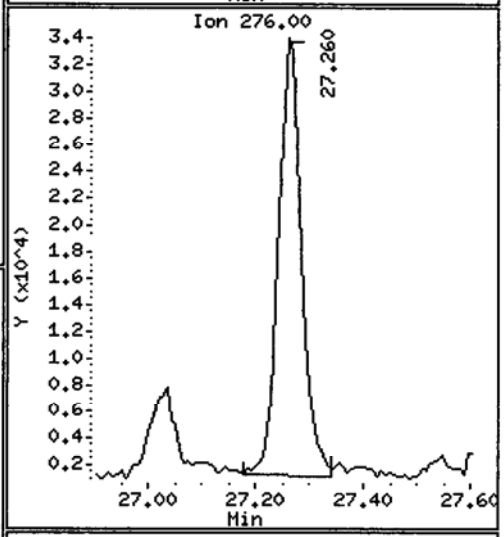


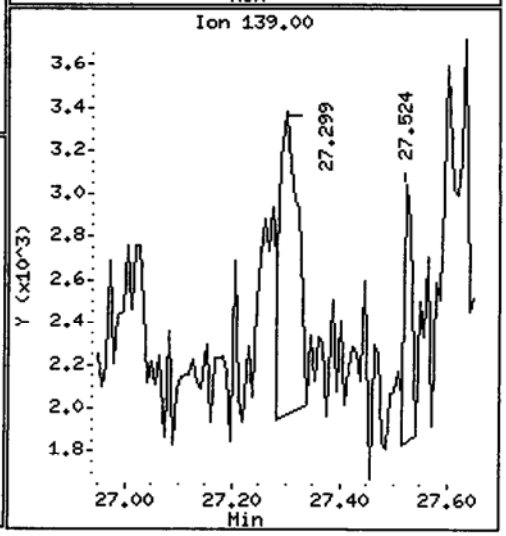












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

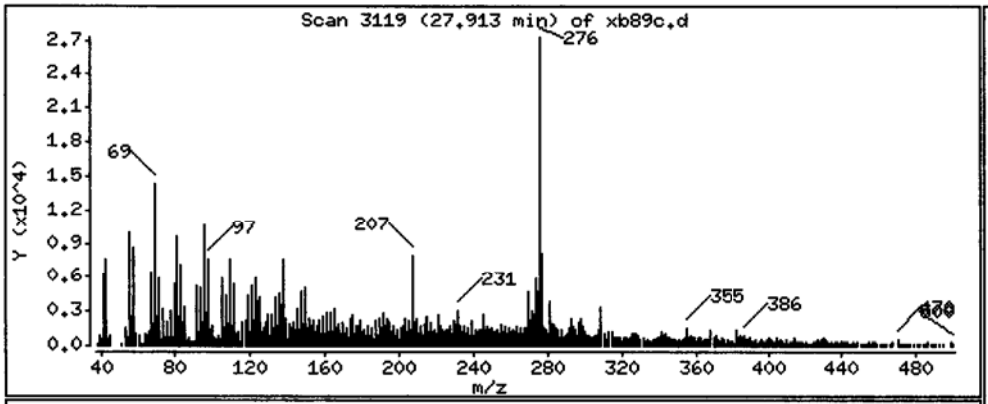
Operator: VTS/YZ

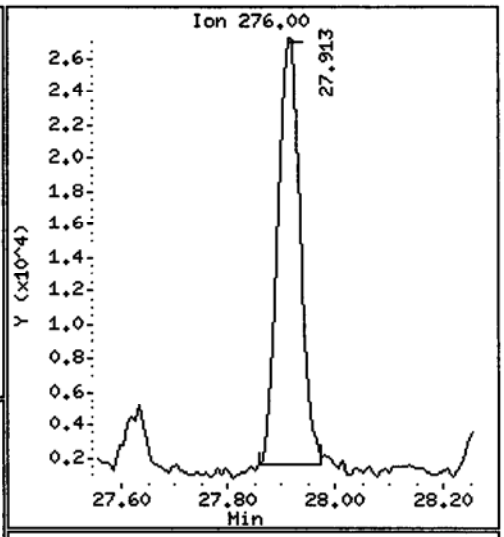
Column phase: ZB-5msi

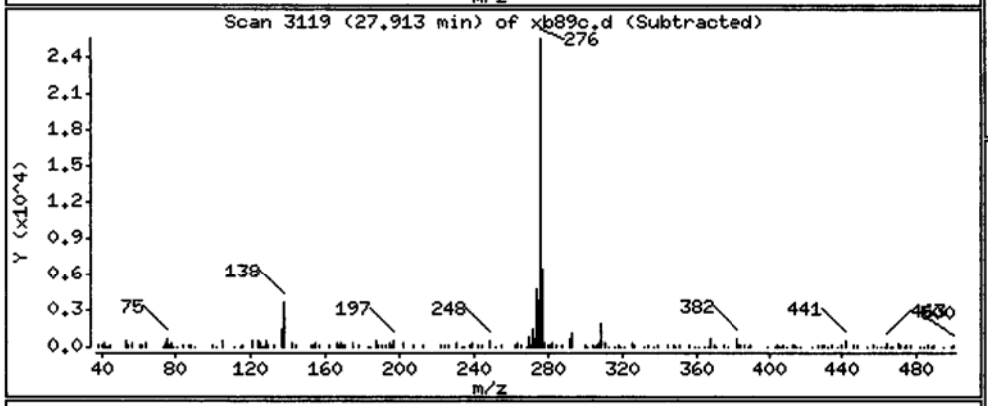
Column diameter: 0.25

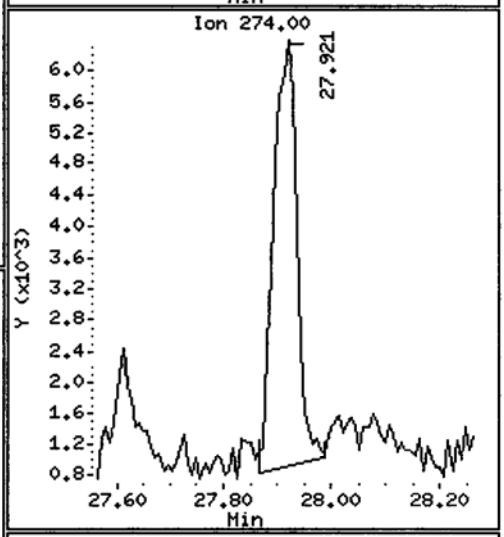
80 Benzo(g,h,i)perylene

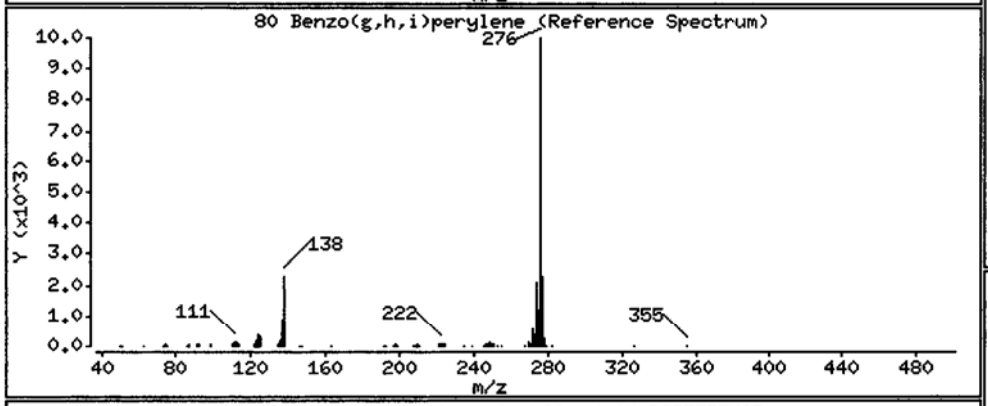
Concentration: 188.7 ug/kg

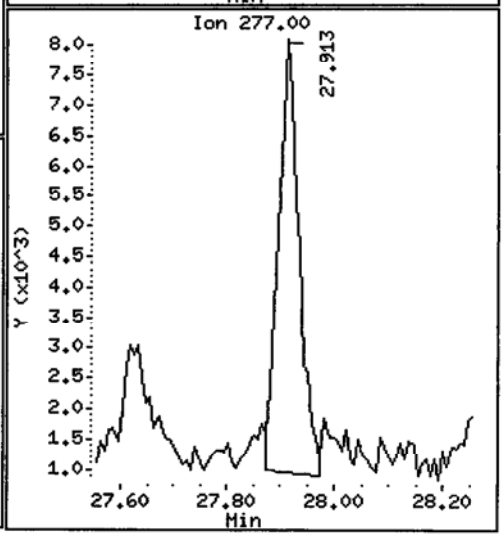


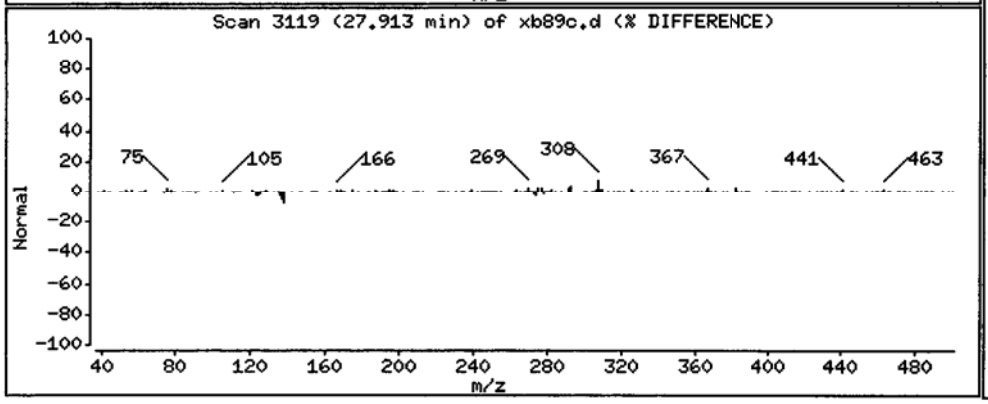












Data File: /chem1/nt10.i/20130902.b/xb89c.d

Date : 02-SEP-2013 16:29

Client ID: IJ13-SS-151

Instrument: nt10.i

Sample Info: XB89C

Volume Injected (uL): 1.0

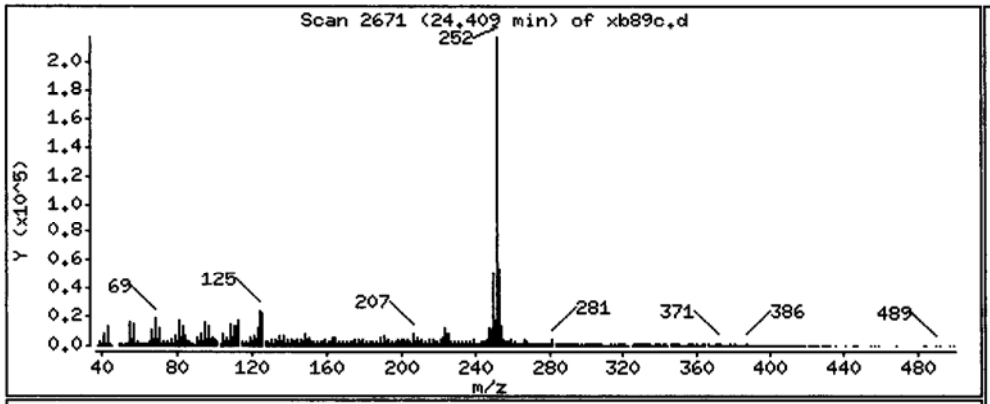
Operator: VTS/YZ

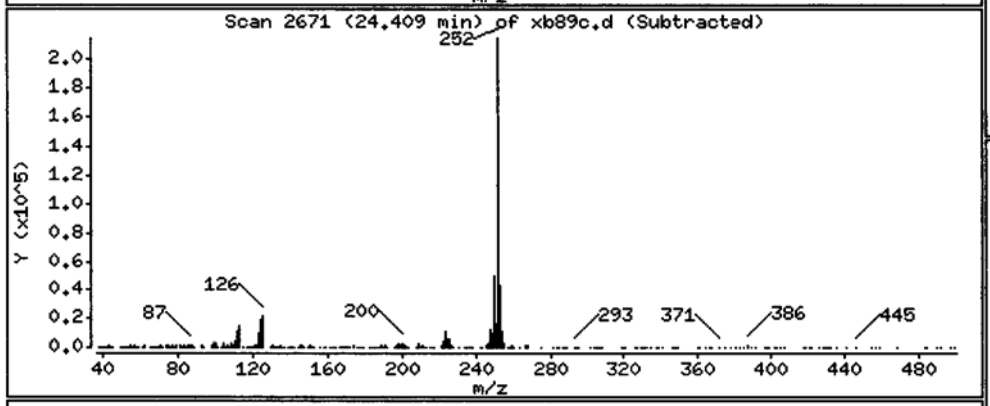
Column phase: ZB-5msi

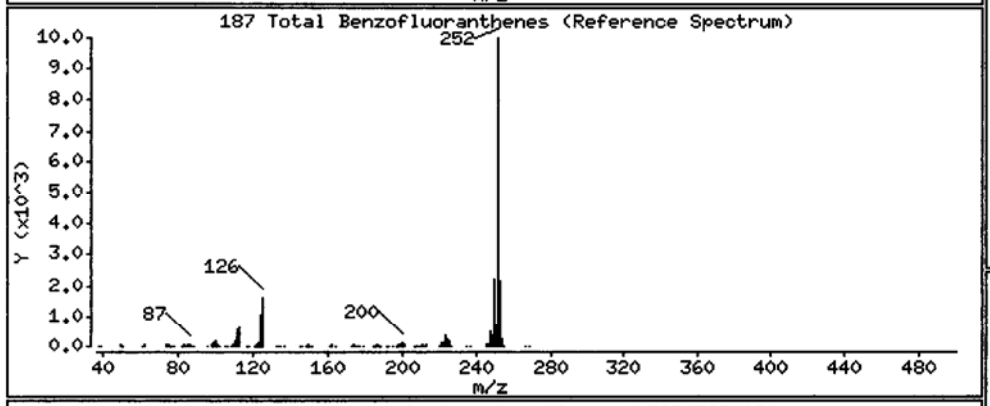
Column diameter: 0.25

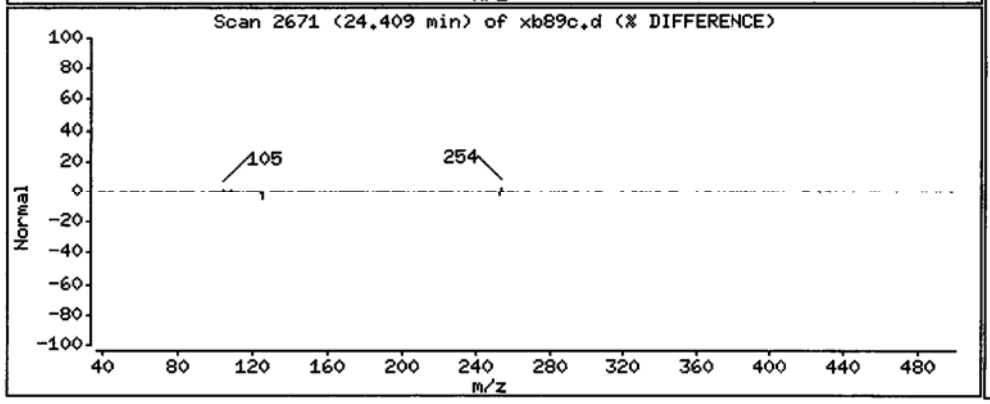
187 Total Benzofluoranthenes

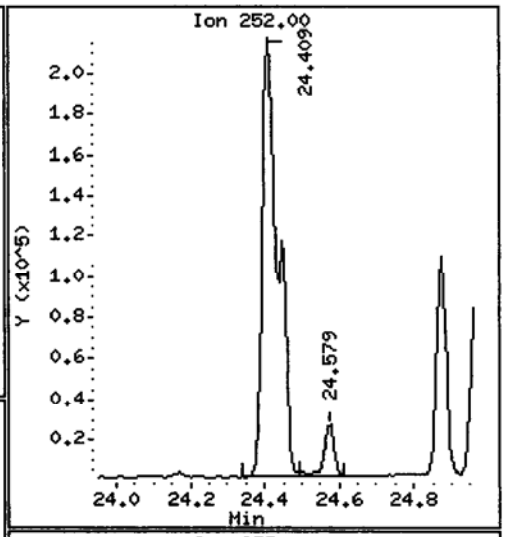
Concentration: 1573 ug/kg

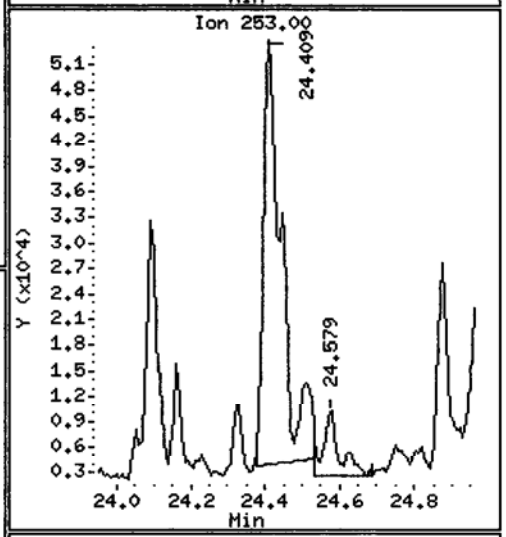


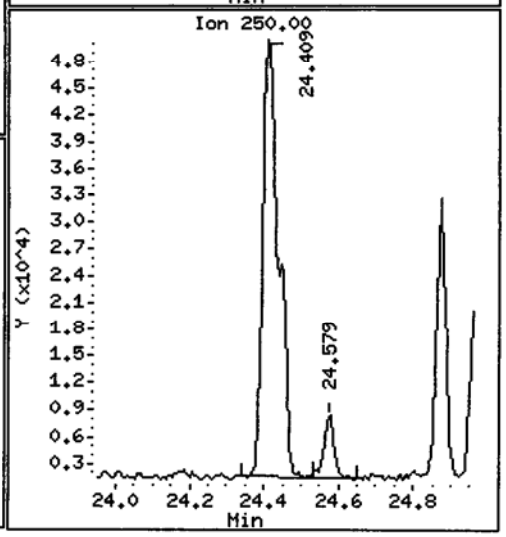






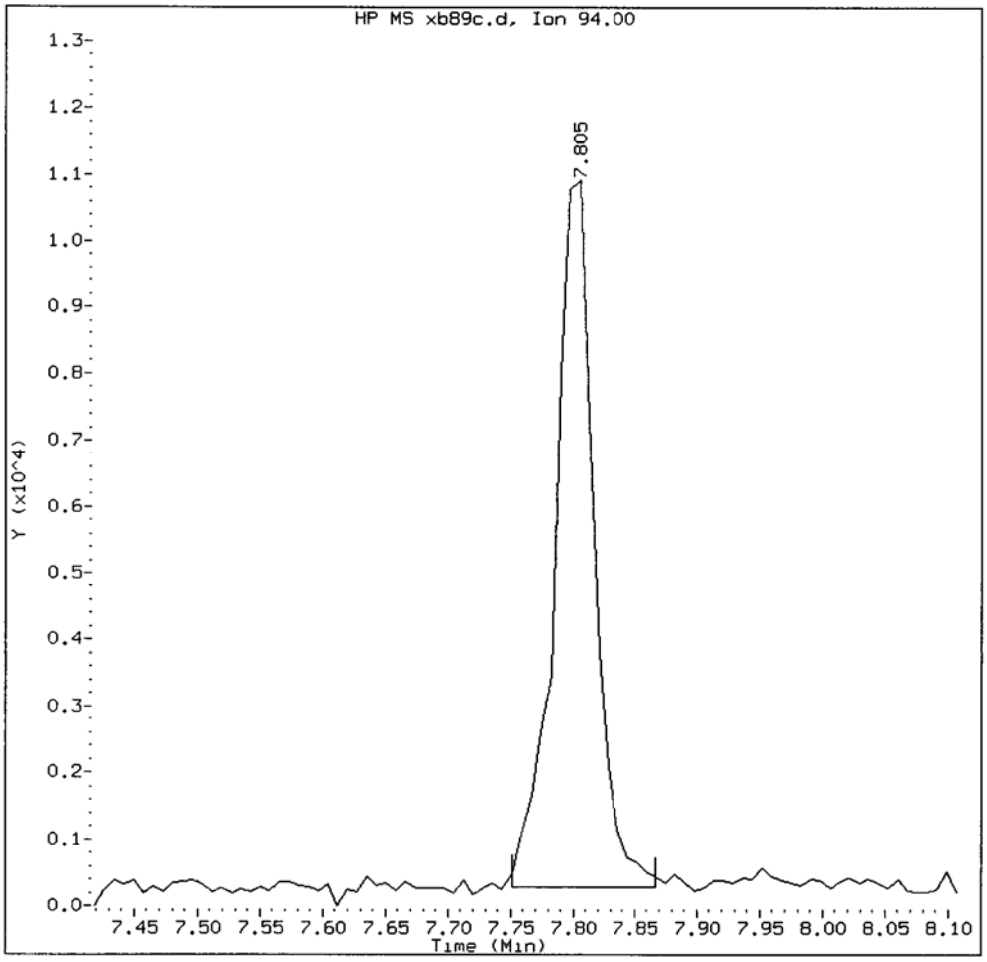






XB89C, /chem1/nt10.i/20130902.b/xb89c.d

Phenol Amount: 0.60 Area: 24527



MANUAL INTEGRATION for Phenol

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YE Date: 9/5/13

CO-ELUTION SUMMARY FOR FILE - xb89c.d

Lab ID: XB89C, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130902.b/xb89d.d
Lab Smp Id: XB89D Client Smp ID: IJ13-VC-101-2-3.9
Inj Date : 02-SEP-2013 17:05
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89D
Misc Info : 13-17439
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 09-Sep-2013 14:14 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	16.10000	Weight of sample extracted (g)
M	37.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.229	6.105	(0.739)	212161	7.04092	694.2
$	2 Phenol-d5	99	7.805	7.736	(0.927)	279214	7.07923	697.9
	3 Phenol	94	7.828	7.759	(0.929)	89702	2.38326	235.0
$	5 2-Chlorophenol-d4	132	8.045	7.991	(0.955)	235608	7.30510	720.2
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.424	8.409	(1.000)	102589	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.704	8.696	(1.033)	77721	3.52244	347.3
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	8.944	8.882	(1.062)	38604	1.33277	131.4
	17 Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.239	9.177	(1.097)	168813	5.68375	560.4
$	18 Nitrobenzene-d5	82	9.503	9.464	(0.873)	114945	3.68165	363.0
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.245	10.222	(0.941)	62119	2.14442	211.4
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	10.453	10.538	(0.960)	37592	1.70475	168.1(H)
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.885	10.877	(1.000)	369437	4.00000	
	28 Naphthalene	128	10.931	10.916	(1.004)	664120	8.20923	809.3
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.332	12.324	(1.133)	177581	2.89509	285.4
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.098	13.090	(0.905)	288986	3.98769	393.1
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	13.988	13.942	(0.967)	72082	1.15378	113.8(H)
	40 Acenaphthylene	152	14.174	14.166	(0.980)	104564	1.01067	99.64
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.468	14.460	(1.000)	224315	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.530	14.522	(1.004)	54325	1.02147	100.7
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.893	14.885	(1.029)	152235	1.86141	183.5
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.411	15.411	(1.065)	19343	0.31699	31.25
	49 Fluorene	166	15.596	15.597	(1.078)	78766	1.17174	115.5
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	16.121	16.091	(1.114)	95239	6.55439	646.2
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.536	17.528	(1.000)	370303	4.00000	
	60 Phenanthrene	178	17.582	17.575	(1.003)	395618	4.97790	490.8
	61 Anthracene	178	17.683	17.683	(1.008)	86007	1.00676	99.26
	62 Carbazole	167	18.046	18.039	(1.029)	25359	0.53514	52.76
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	64 Fluoranthene	202	20.004	19.996	(1.141)	309039	2.92633	288.5
	65 Pyrene	202	20.437	20.422	(0.902)	350538	3.17399	312.9
$	66 Terphenyl-d14	244	20.762	20.755	(0.917)	255537	4.15189	409.3
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	22.636	22.636	(0.999)	84042	0.86413	85.19
*	69 Chrysene-d12	240	22.651	22.651	(1.000)	374048	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.698	22.698	(1.002)	96344	1.16461	114.8
	72 bis(2-Ethylhexyl)phthalate	149	22.729	22.729	(0.955)	22268	0.44459	43.83
*	134 Di-n-octylphthalate-d4	153	23.789	23.797	(1.000)	473765	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	24.417	24.409	(0.974)	111342	1.04058	102.6
	75 Benzo(k)fluoranthene	252	24.455	24.455	(0.975)	39933	0.38200	37.66(M)
	76 Benzo(a)pyrene	252	24.974	24.966	(0.996)	83867	0.89127	87.87
*	77 Perylene-d12	264	25.075	25.067	(1.000)	421864	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.276	27.253	(1.088)	63332	0.52429	51.69
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	27.936	27.905	(1.114)	81675	0.79966	78.84
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	12.533	12.525	(1.151)	153079	2.76130	272.2
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	24.417	24.455	(0.974)	143620	1.38831	136.9
	99 Perylene	252	25.121	25.121	(1.002)	224398	2.53588	250.0
	98 Retene	219	21.010	21.002	(0.928)	428120	9.80083	966.3
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89d.d
Lab Smp Id: XB89D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: IJ13-VC-101-2-3.
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	102589	-32.89
27 Naphthalene-d8	536851	268426	1073702	369437	-31.18
42 Acenaphthene-d10	348566	174283	697132	224315	-35.65
59 Phenanthrene-d10	633376	316688	1266752	370303	-41.54
69 Chrysene-d12	651036	325518	1302072	374048	-42.55
134 Di-n-octylphthala	837259	418630	1674518	473765	-43.41
77 Perylene-d12	696727	348364	1393454	421864	-39.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.42	0.18
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.07
42 Acenaphthene-d10	14.46	13.96	14.96	14.47	0.05
59 Phenanthrene-d10	17.53	17.03	18.03	17.54	0.04
69 Chrysene-d12	22.65	22.15	23.15	22.65	0.00
134 Di-n-octylphthala	23.80	23.30	24.30	23.79	-0.03
77 Perylene-d12	25.07	24.57	25.57	25.07	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

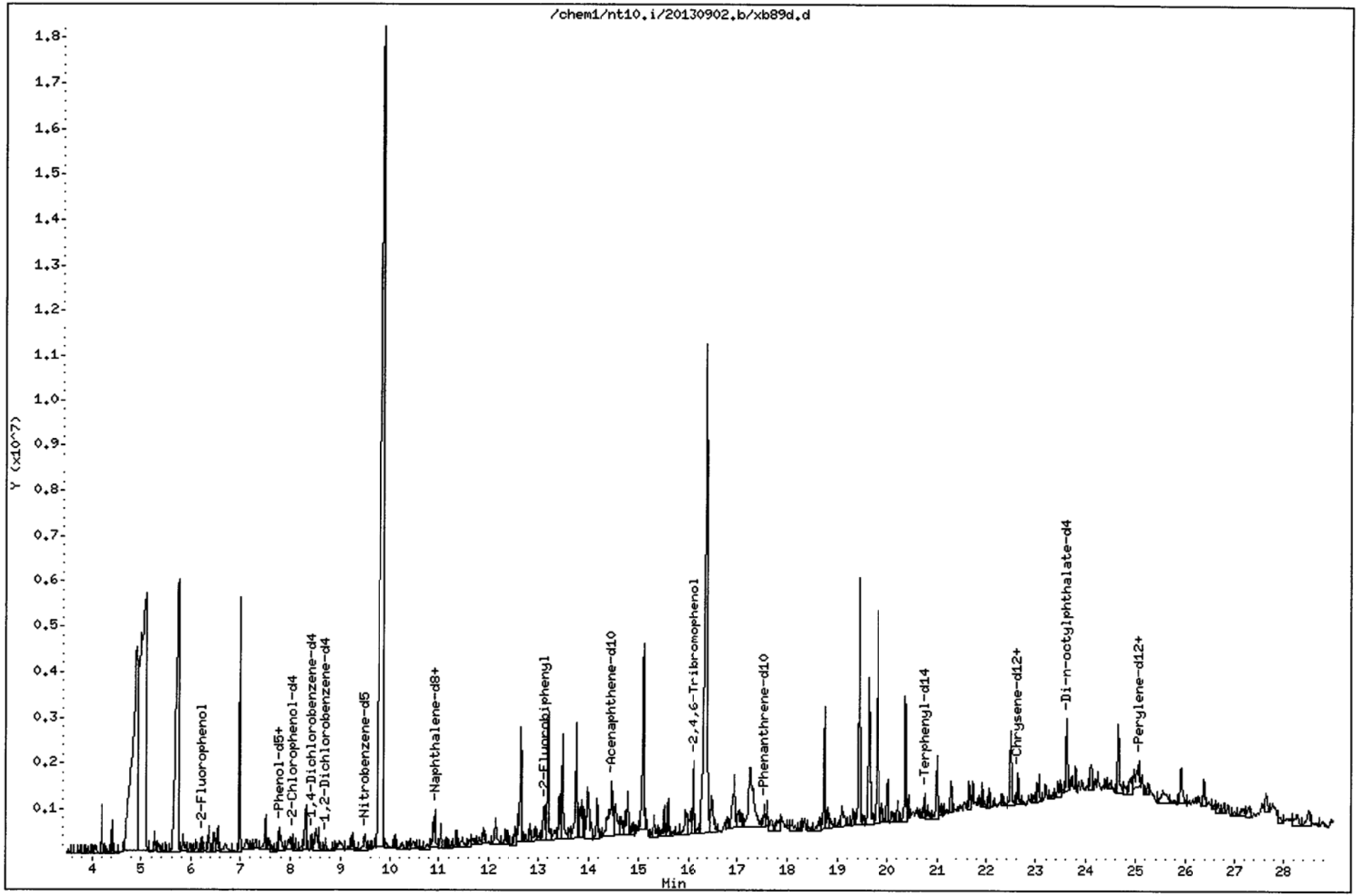
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89D Client Smp ID: IJ13-VC-101-2-3.9
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	739.4	694.2	93.88	27-120
$ 2 Phenol-d5	739.4	697.9	94.39	29-120
$ 5 2-Chlorophenol-d4	739.4	720.2	97.40	31-120
$ 10 1,2-Dichlorobenzen	493.0	347.3	70.45	32-120
$ 18 Nitrobenzene-d5	493.0	363.0	73.63	30-120
$ 36 2-Fluorobiphenyl	493.0	393.1	79.75	35-120
$ 55 2,4,6-Tribromophen	739.4	646.2	87.39	24-134
$ 66 Terphenyl-d14	493.0	409.3	83.04	37-120

Data File: /chem1/nt10.i/20130902.b/xb89d.d
Date : 02-SEP-2013 17:05
Client ID: IJ13-VC-101-2-3.9
Sample Info: XB89D
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



XB89 : 00456

Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

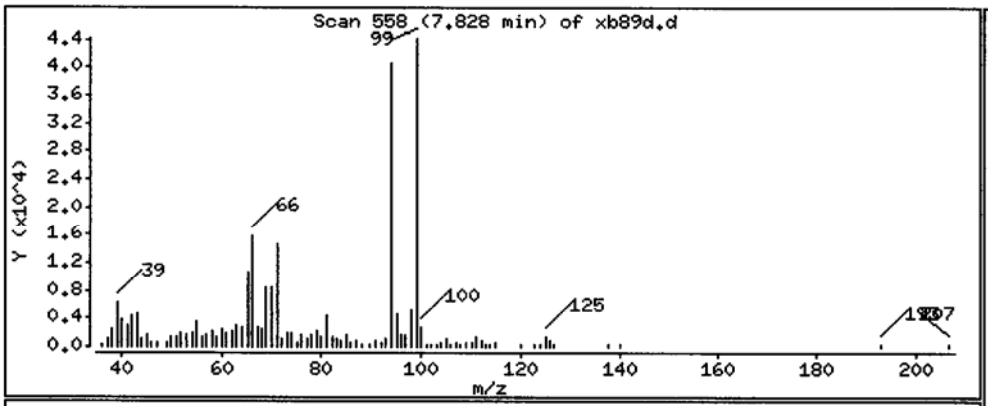
Operator: VTS/YZ

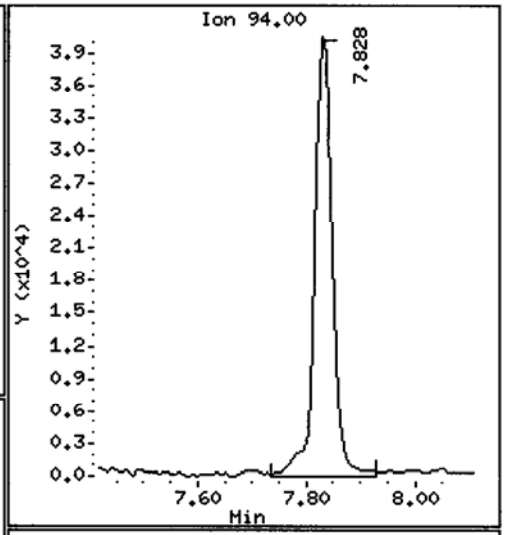
Column phase: ZB-5msi

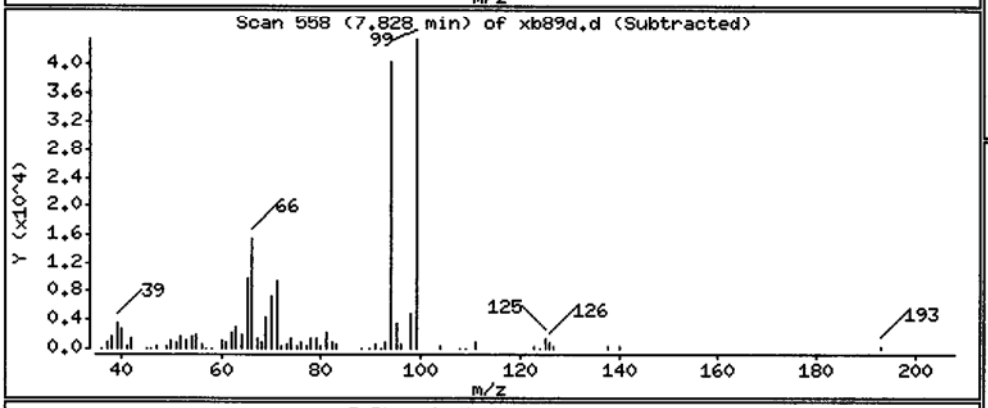
Column diameter: 0.25

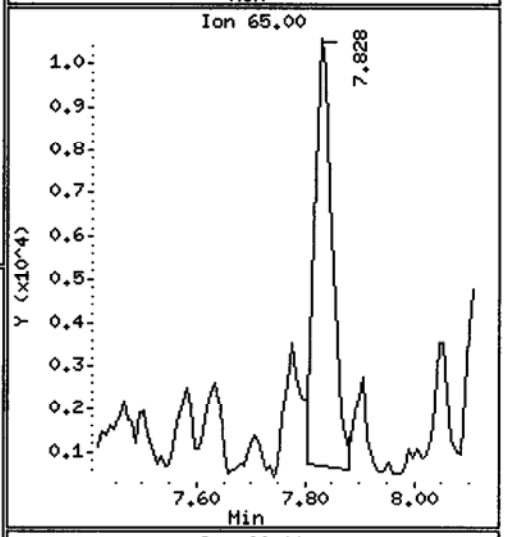
3 Phenol

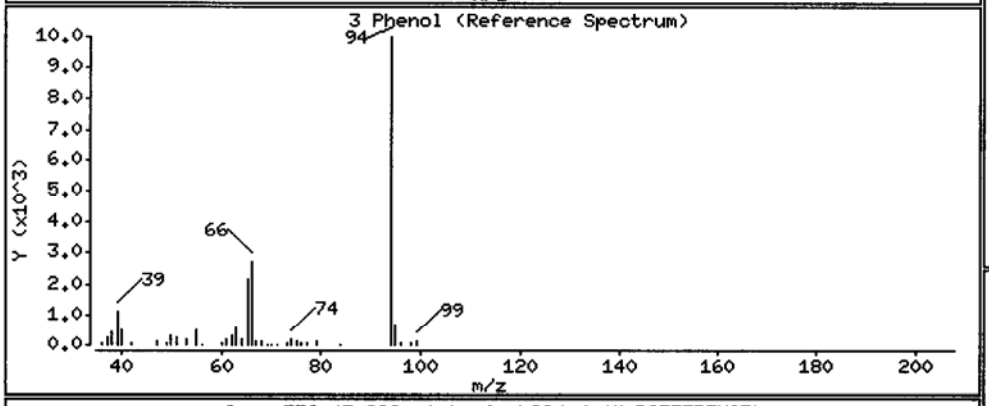
Concentration: 235.0 ug/kg

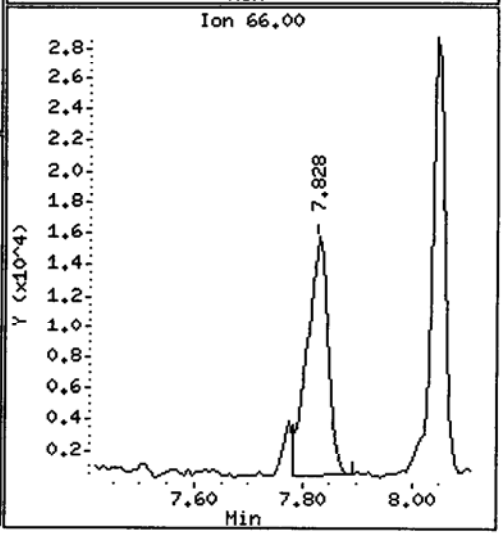


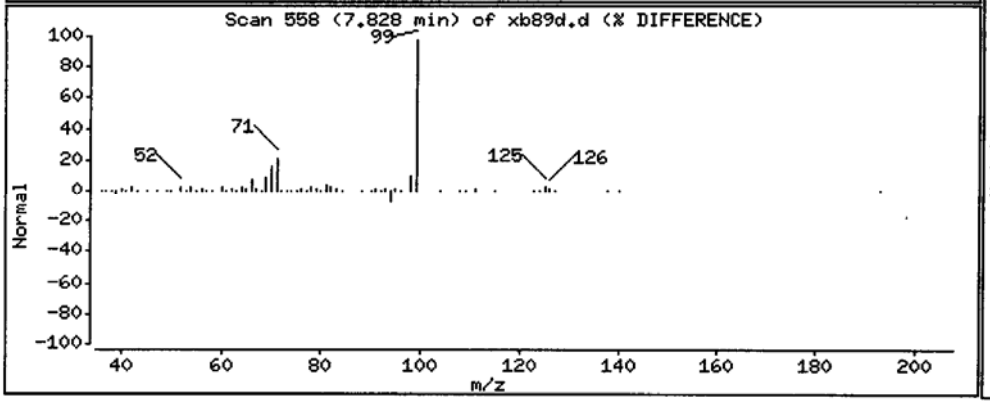












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

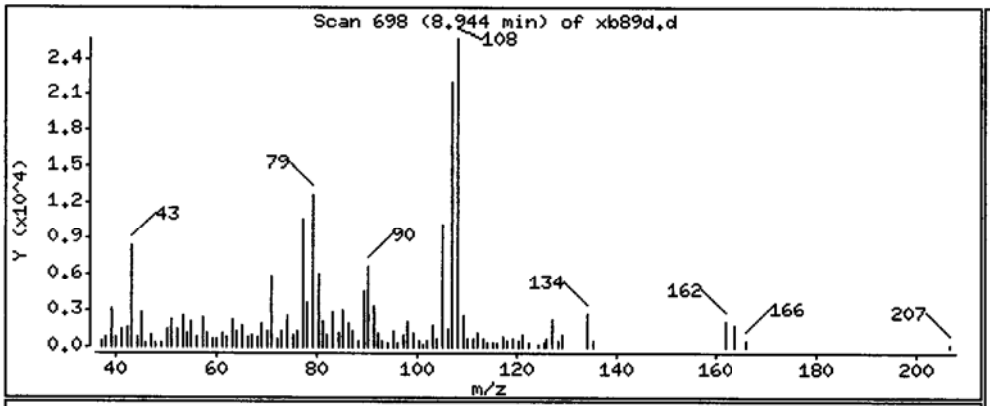
Operator: VTS/YZ

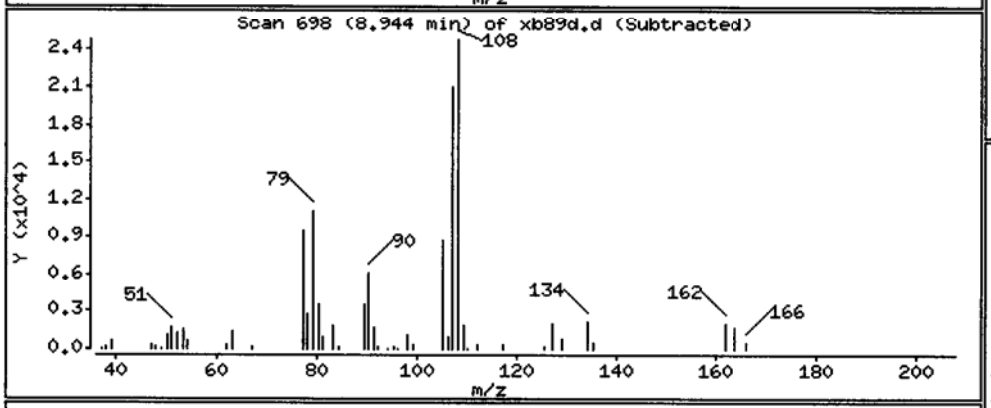
Column phase: ZB-5msi

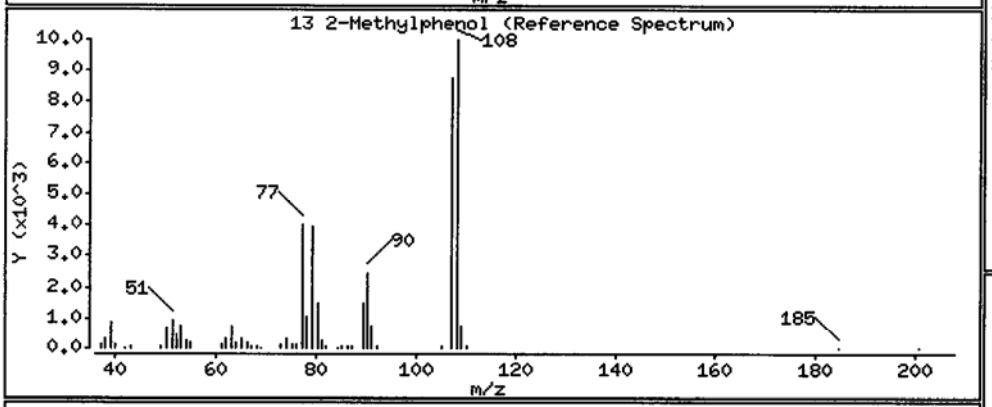
Column diameter: 0.25

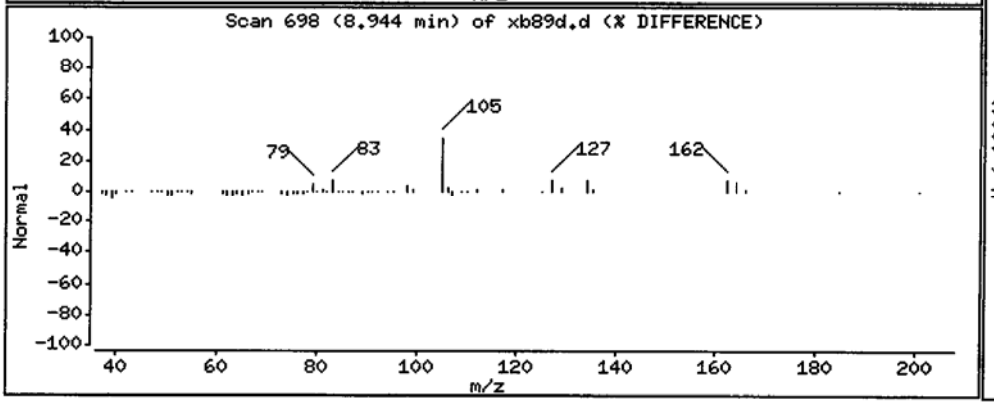
13 2-Methylphenol

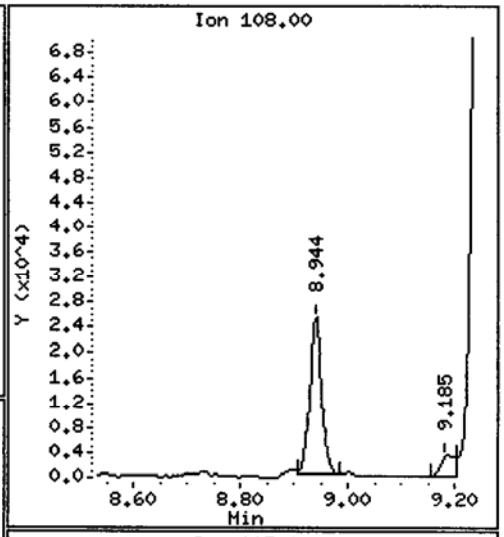
Concentration: 131.4 ug/kg

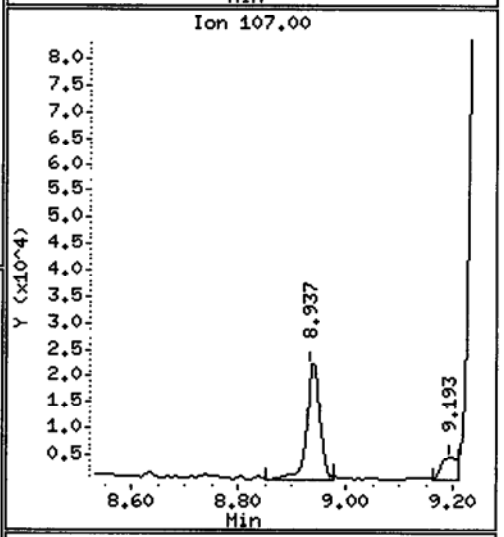


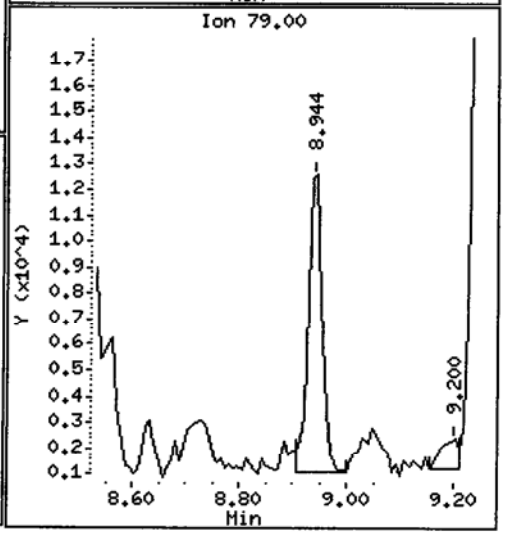












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

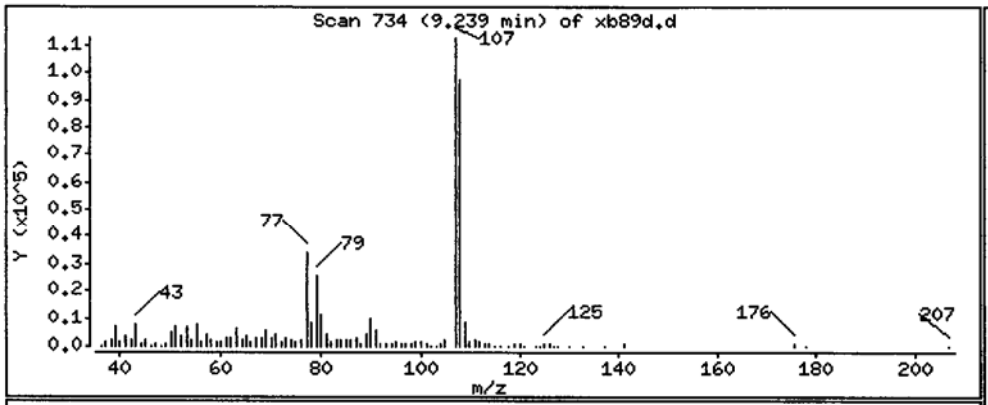
Operator: VTS/YZ

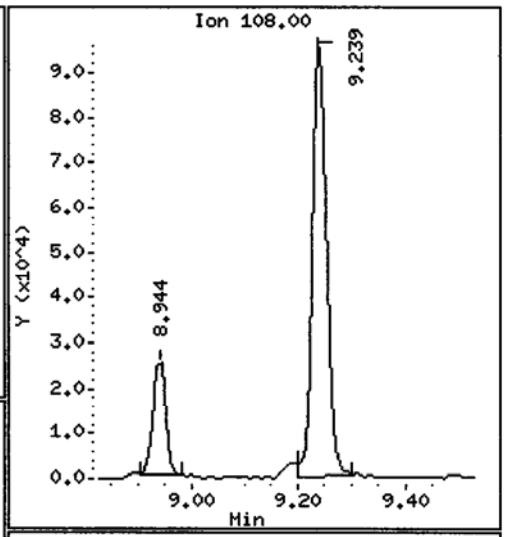
Column phase: ZB-5msi

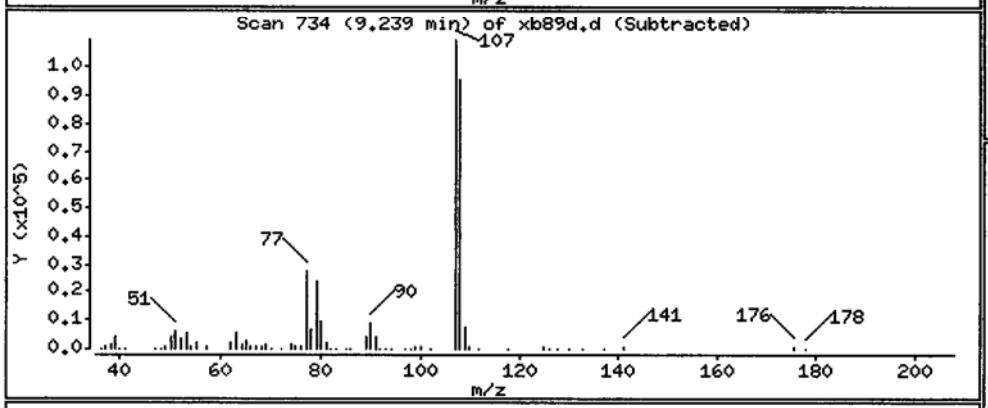
Column diameter: 0.25

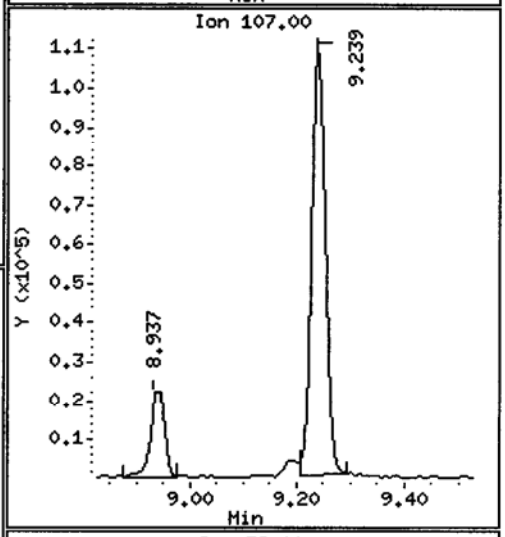
15 4-Methylphenol

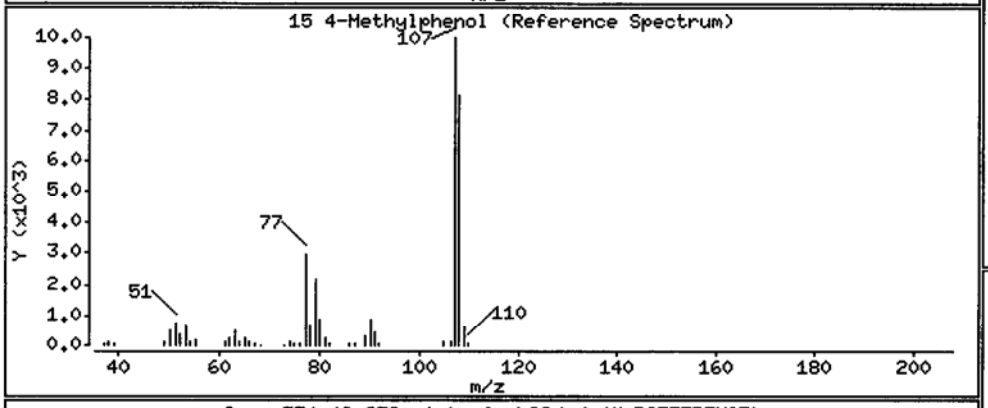
Concentration: 560.4 ug/kg

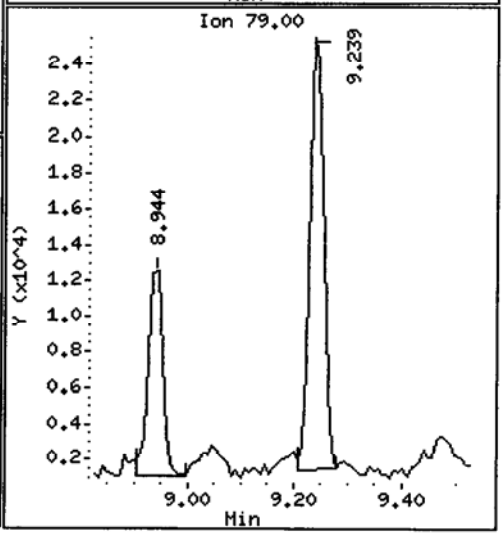


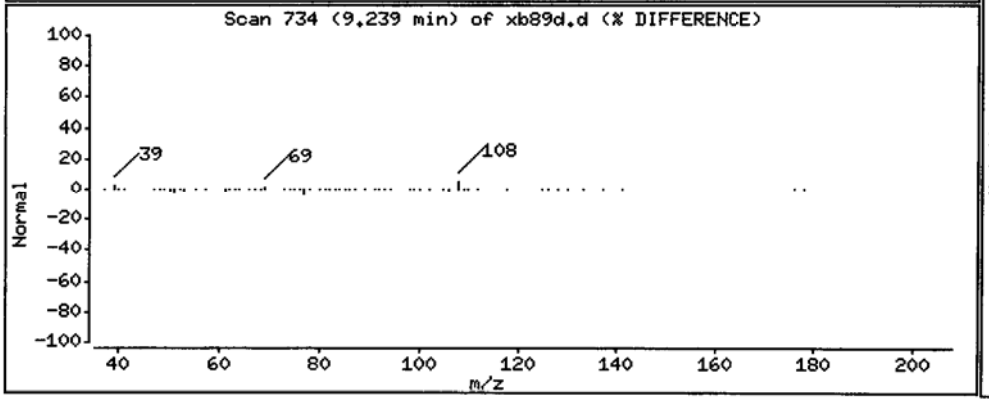












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

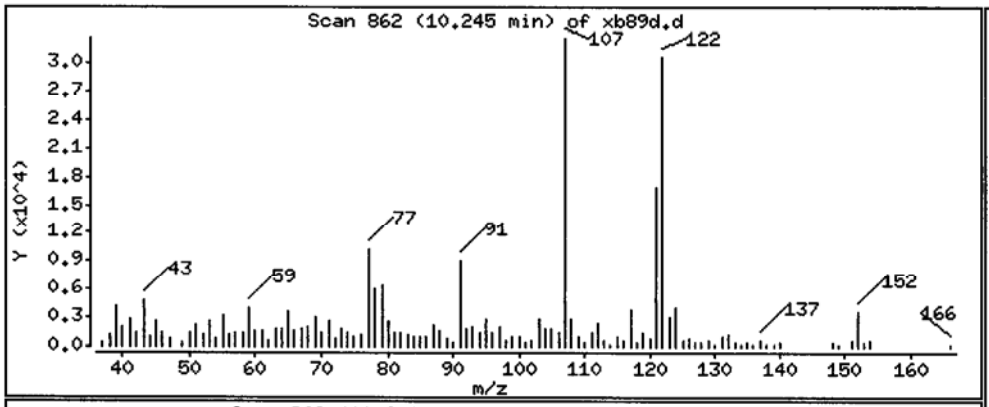
Operator: VTS/YZ

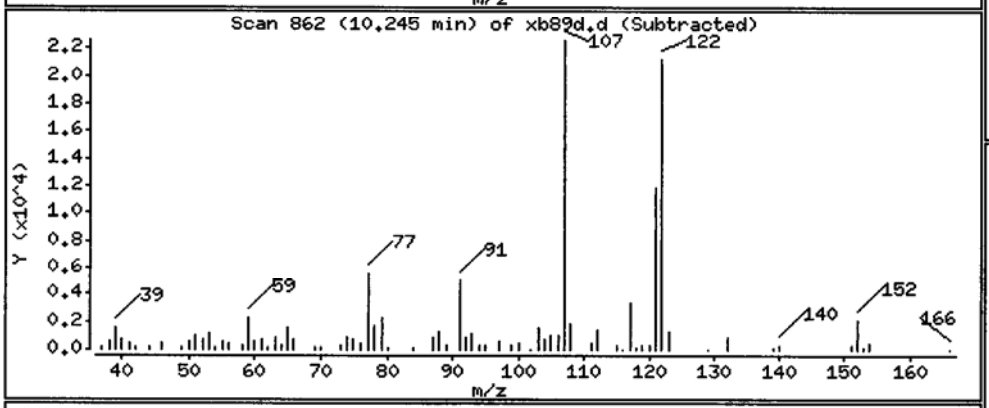
Column phase: ZB-5msi

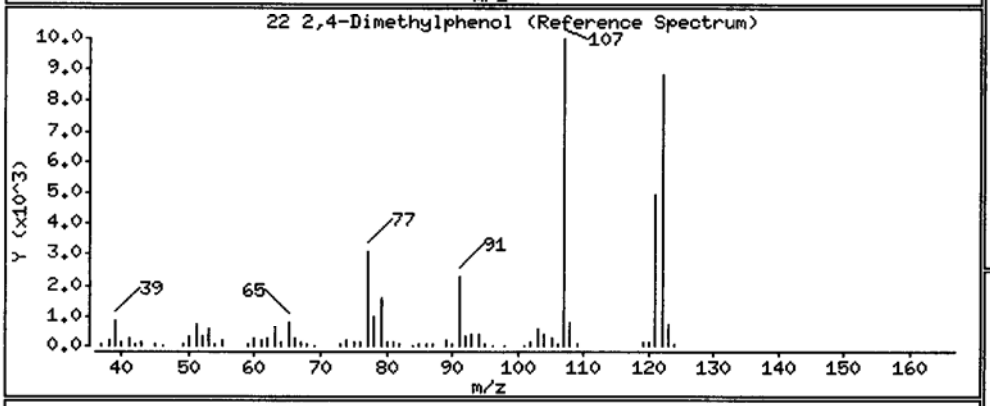
Column diameter: 0.25

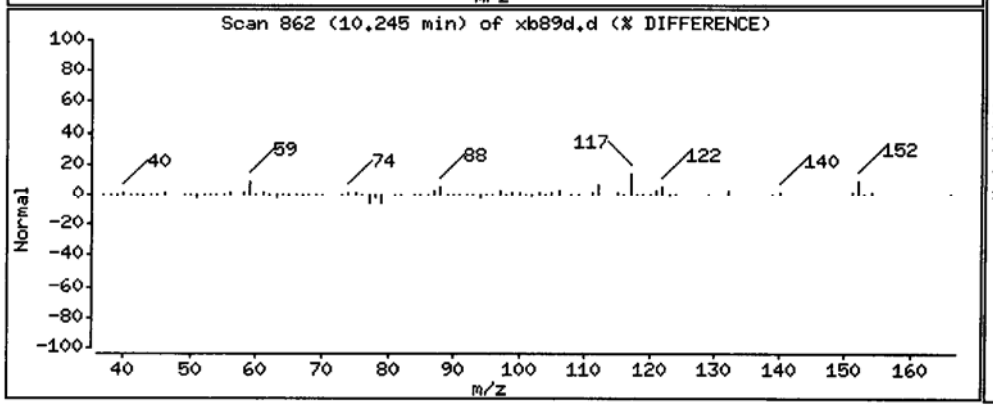
22 2,4-Dimethylphenol

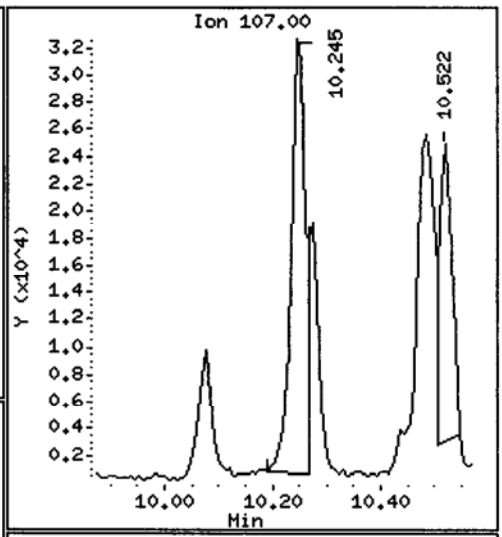
Concentration: 211.4 ug/kg

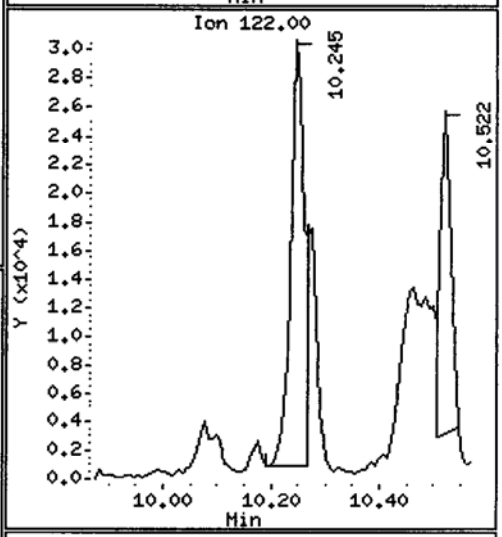


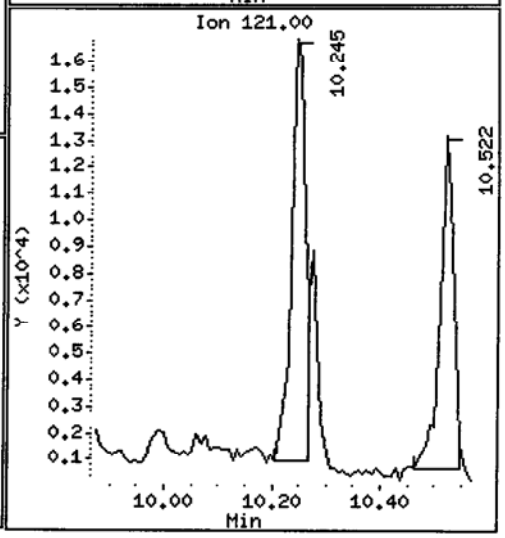












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

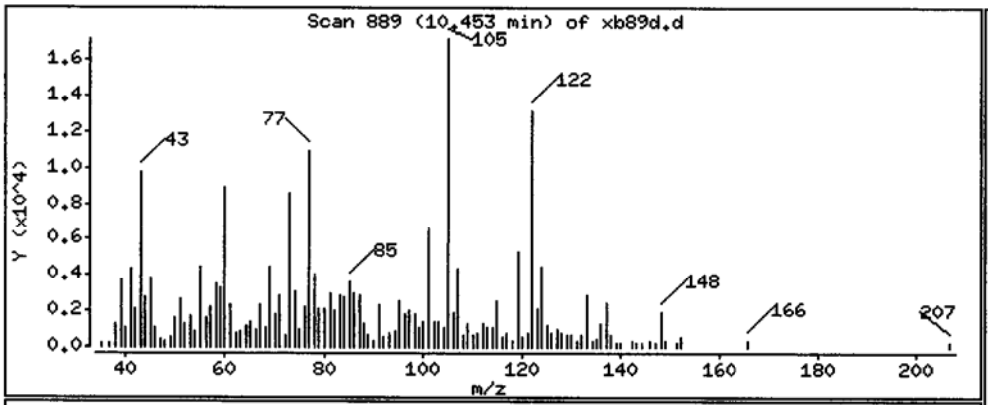
Operator: VTS/YZ

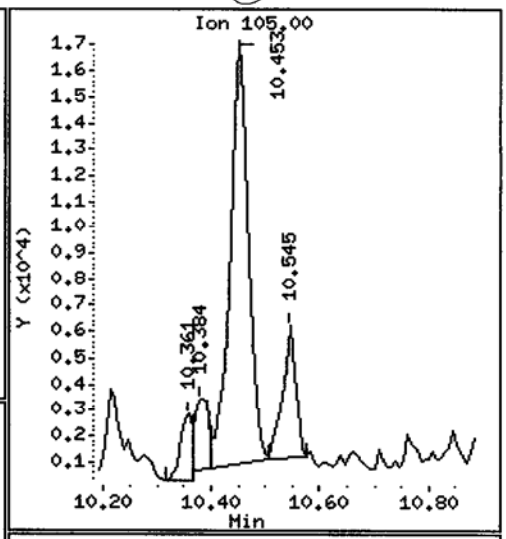
Column phase: ZB-5ms1

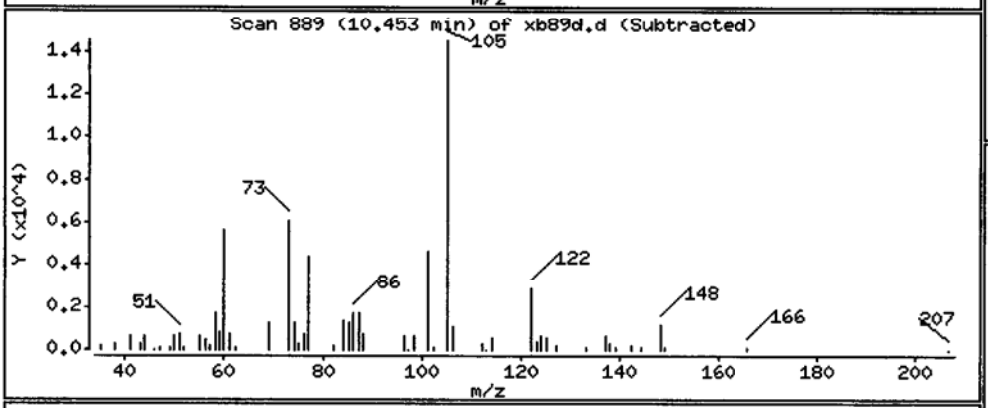
Column diameter: 0.25

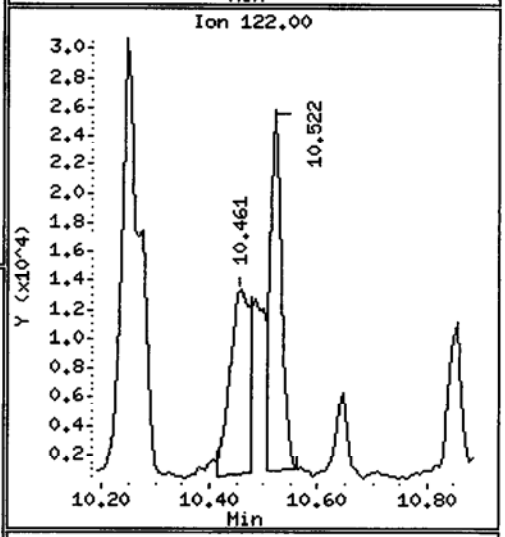
24 Benzoic acid

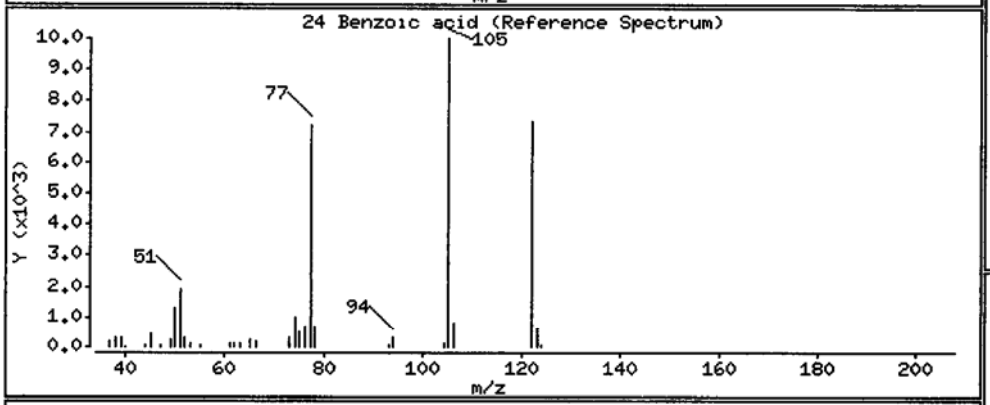
Concentration: 168.1 ug/kg

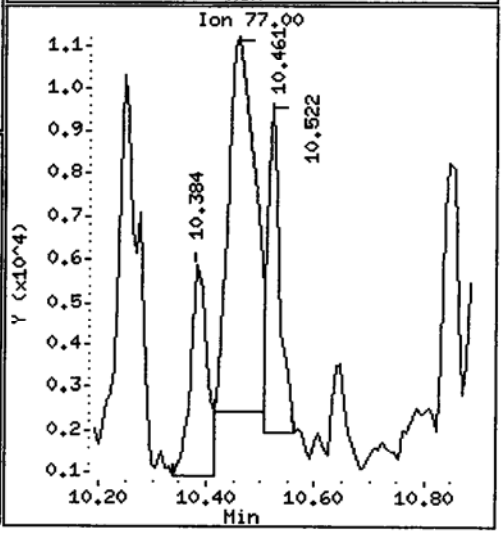


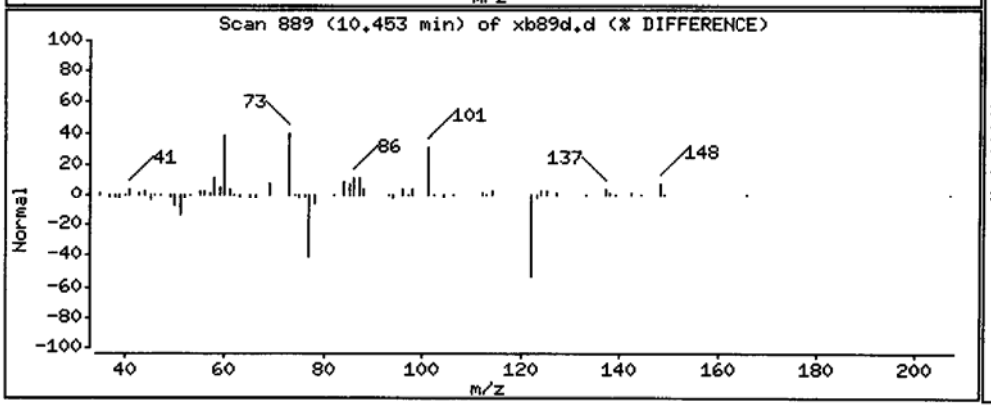












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

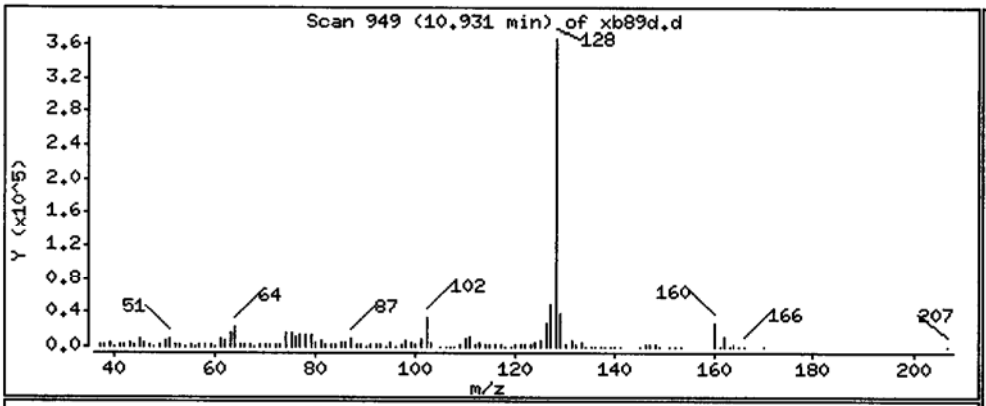
Operator: VTS/YZ

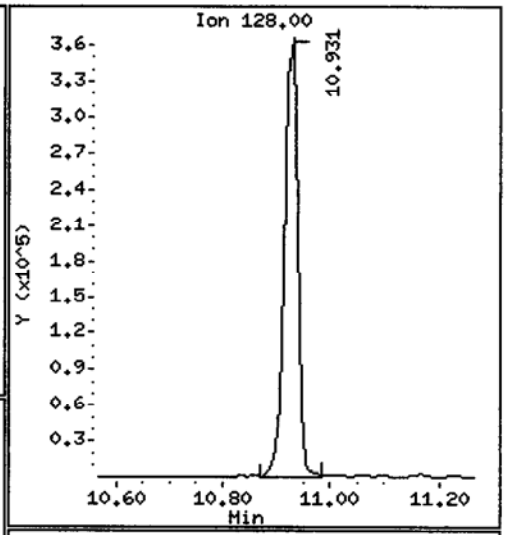
Column phase: ZB-5msi

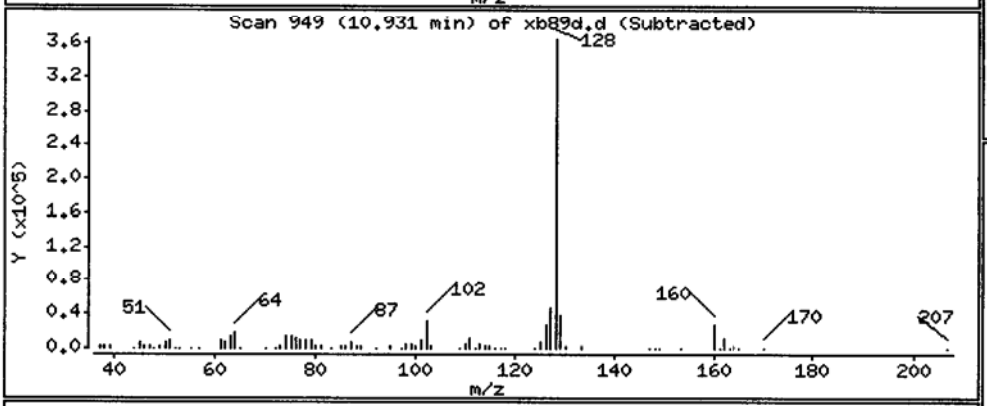
Column diameter: 0.25

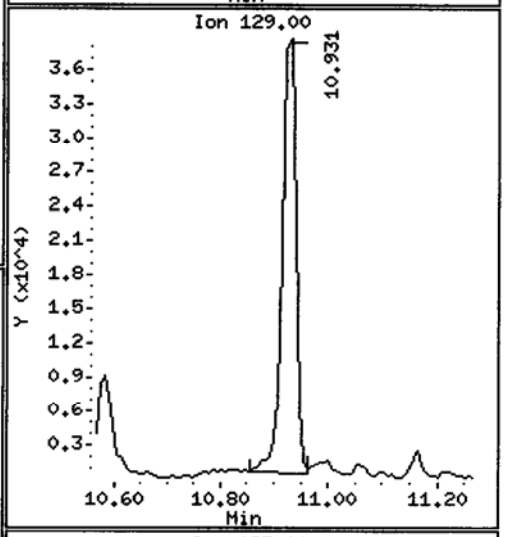
28 Naphthalene

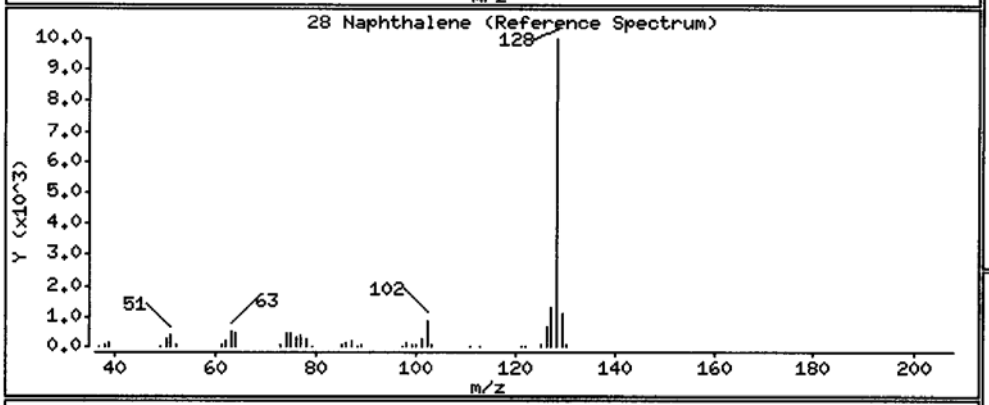
Concentration: 809.3 ug/kg

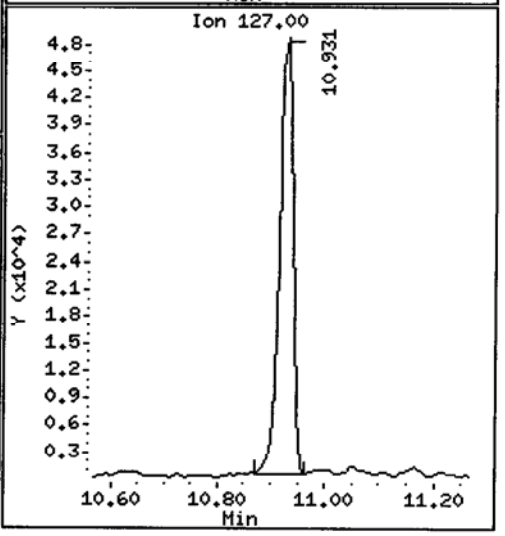


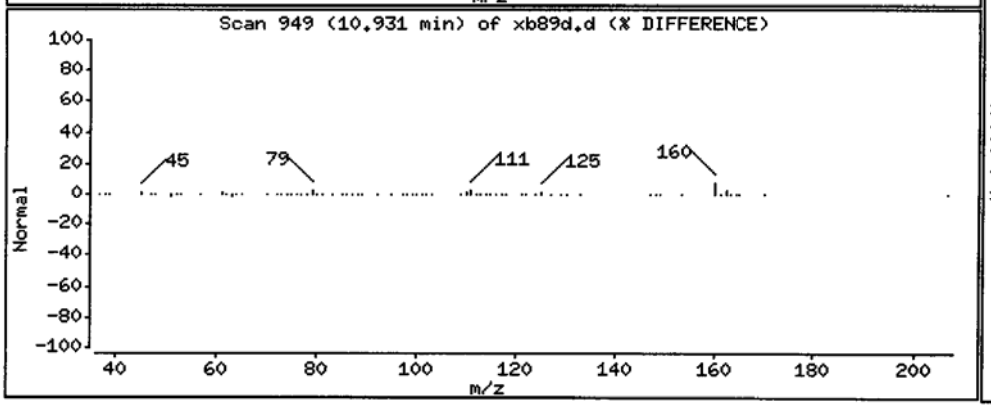












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

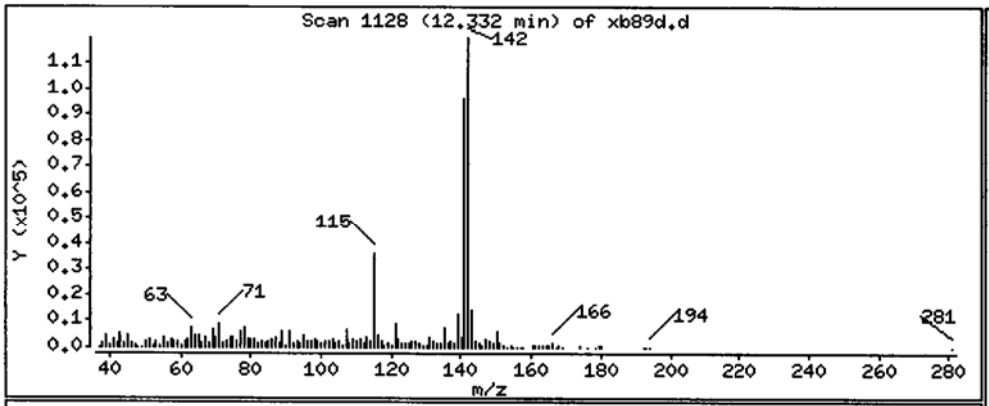
Operator: VTS/YZ

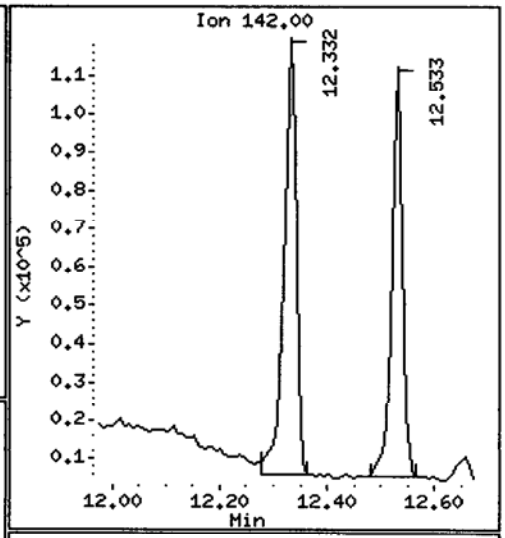
Column phase: ZB-5msi

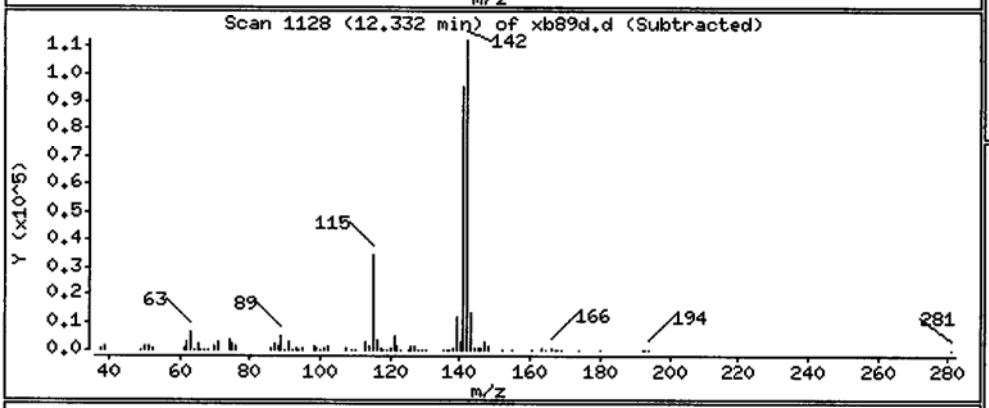
Column diameter: 0.25

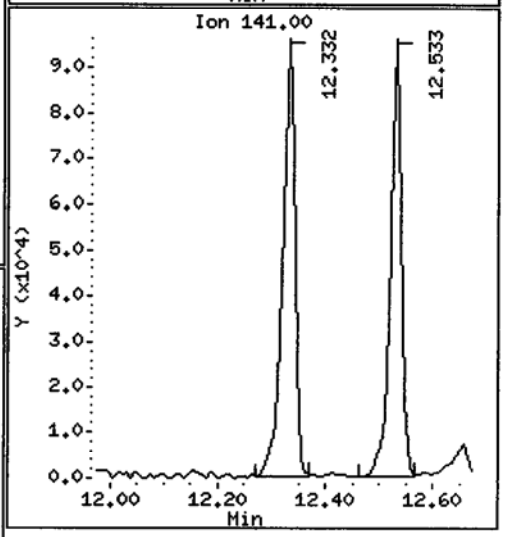
32 2-Methylnaphthalene

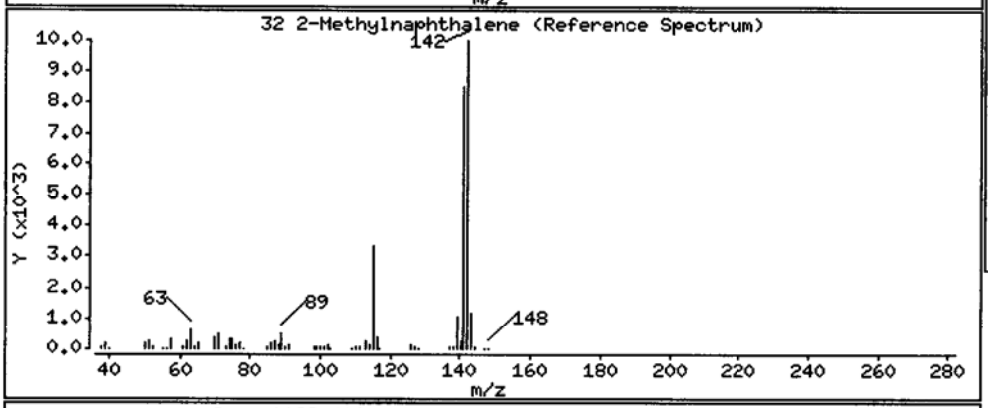
Concentration: 285.4 ug/kg

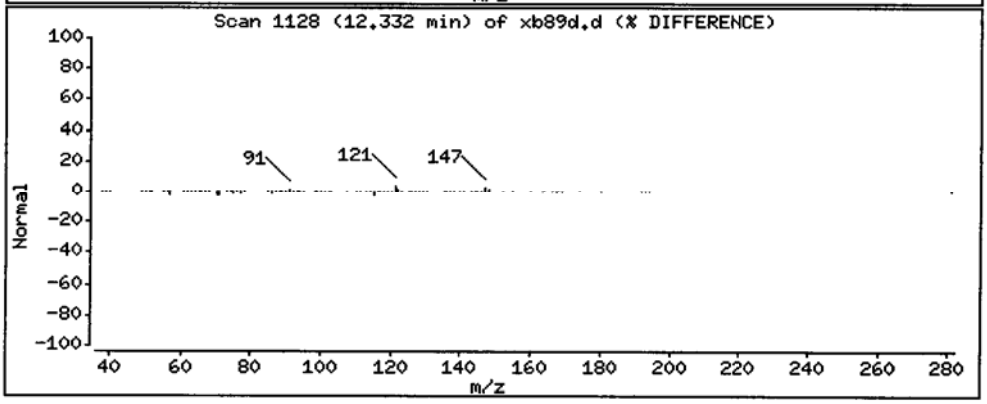












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

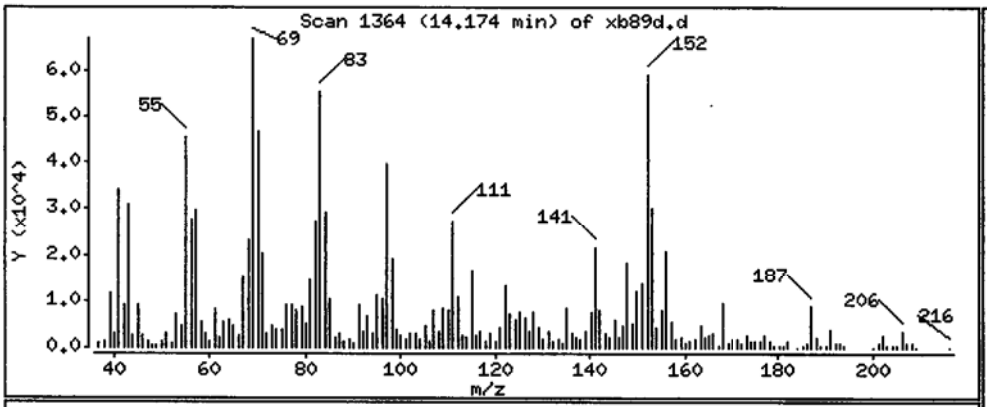
Operator: VTS/YZ

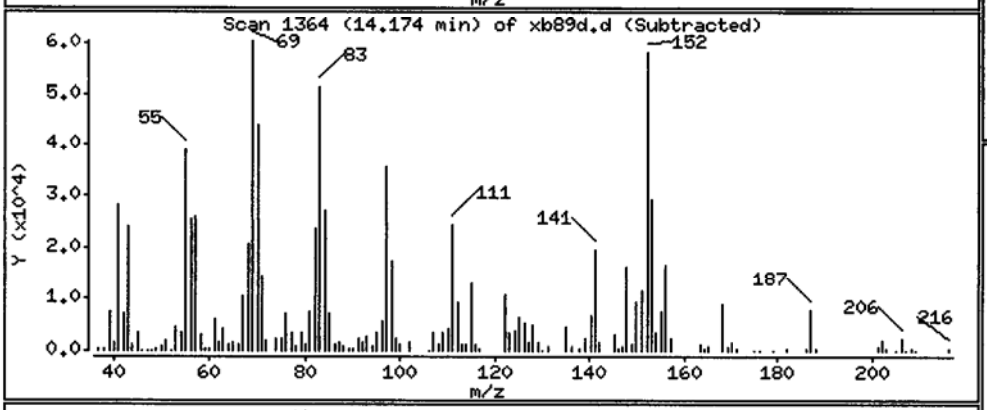
Column phase: ZB-5msi

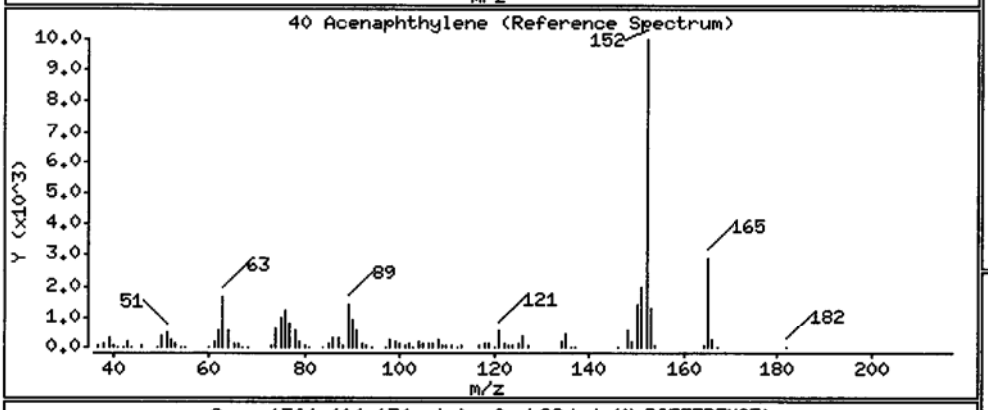
Column diameter: 0.25

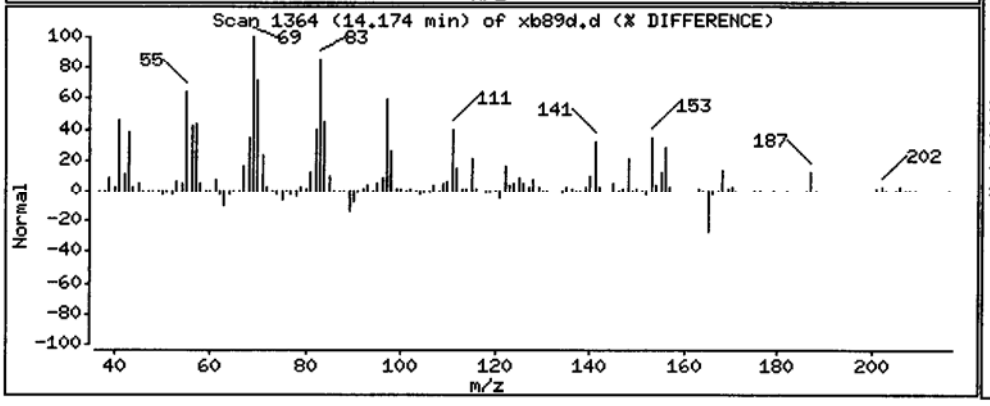
40 Acenaphthylene

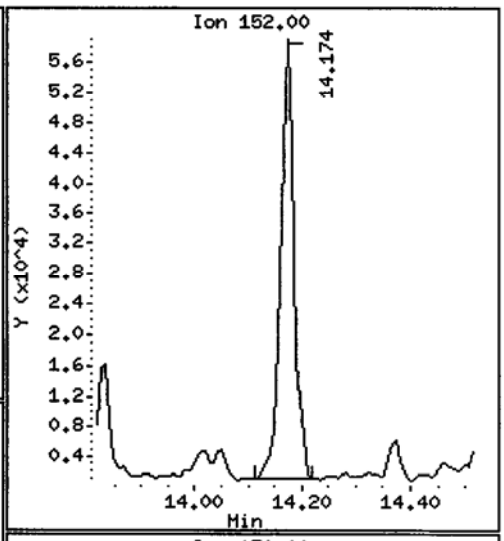
Concentration: 99.64 ug/kg

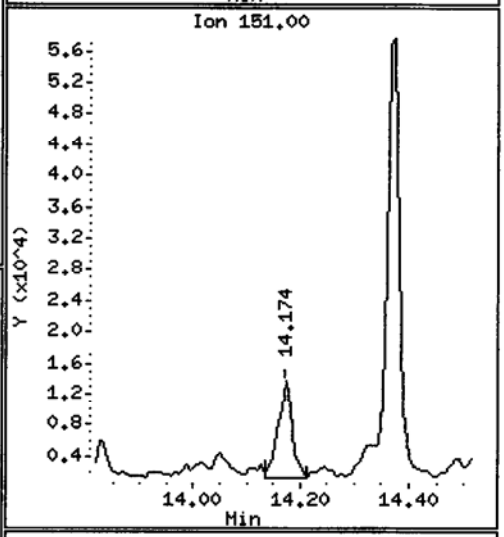


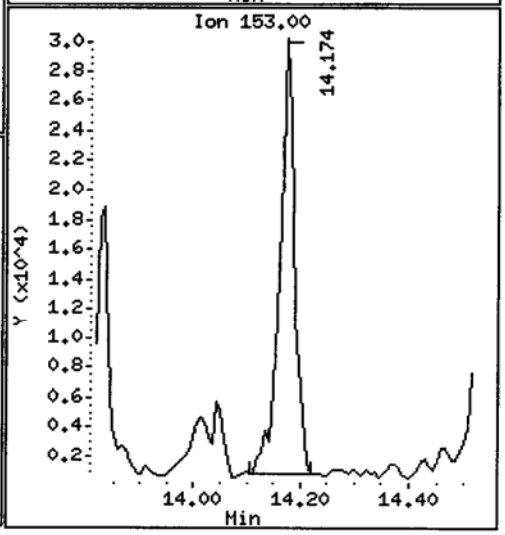












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

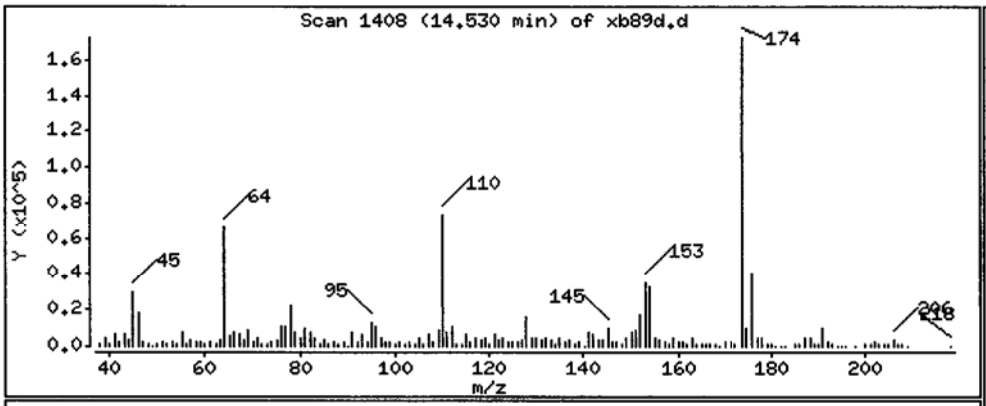
Operator: VTS/YZ

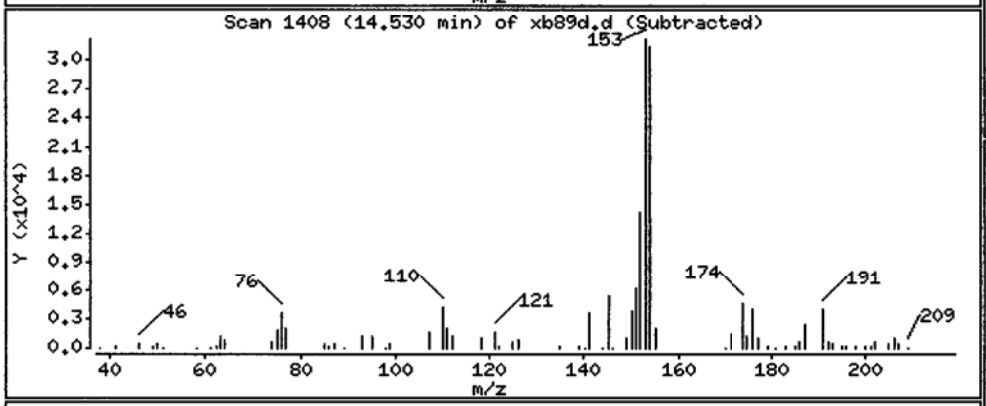
Column phase: ZB-5msi

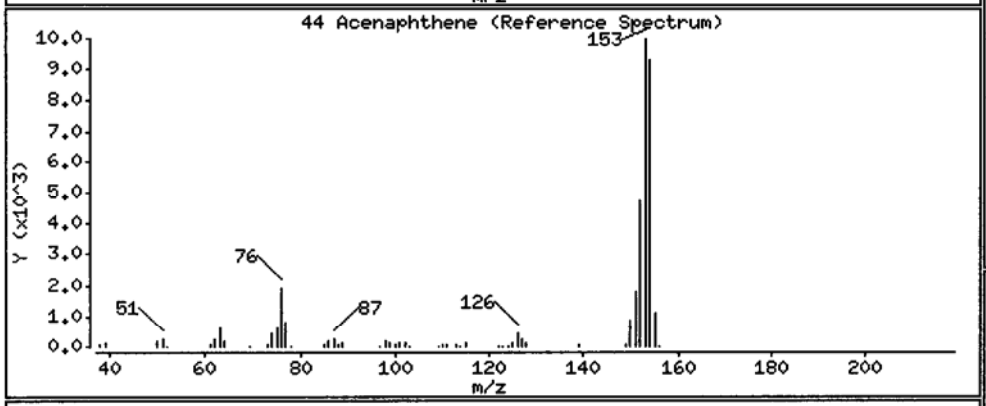
Column diameter: 0.25

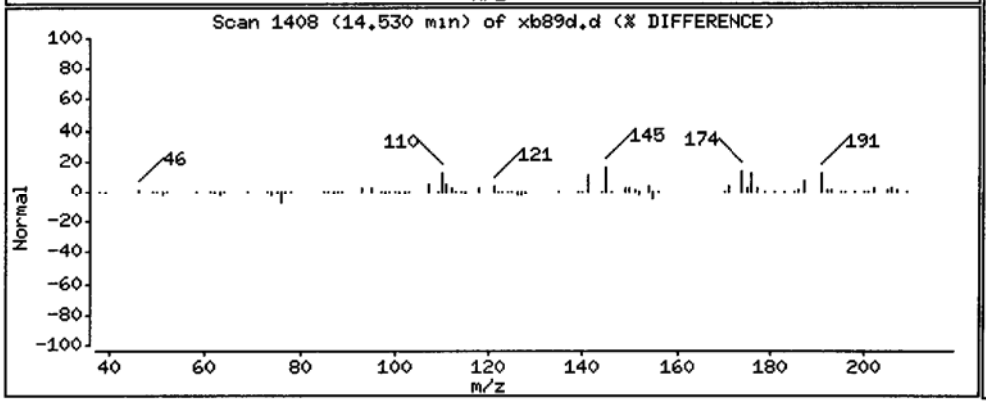
44 Acenaphthene

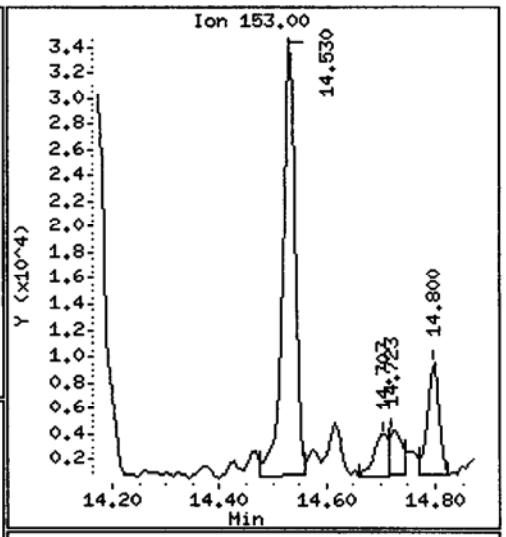
Concentration: 100.7 ug/kg

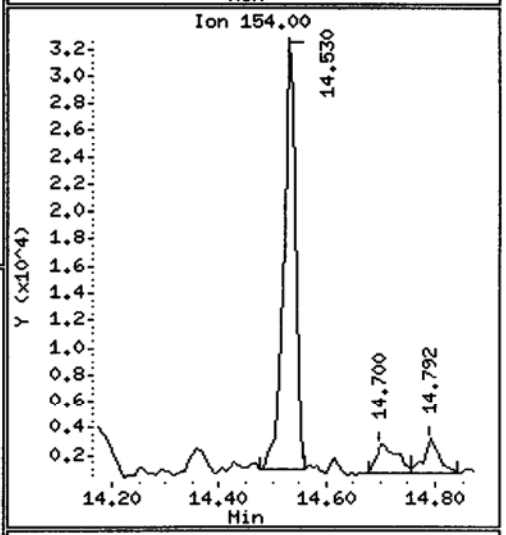


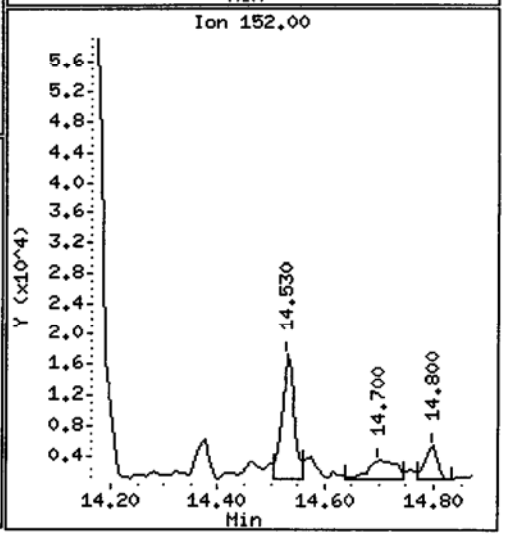












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

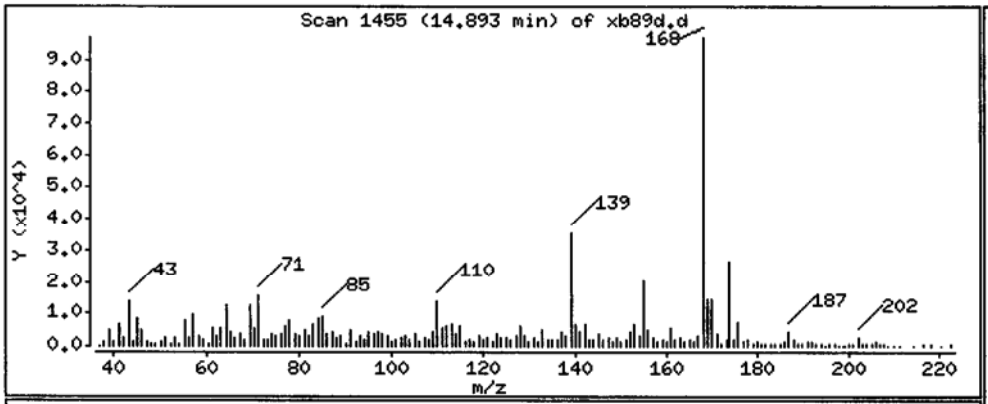
Operator: VTS/YZ

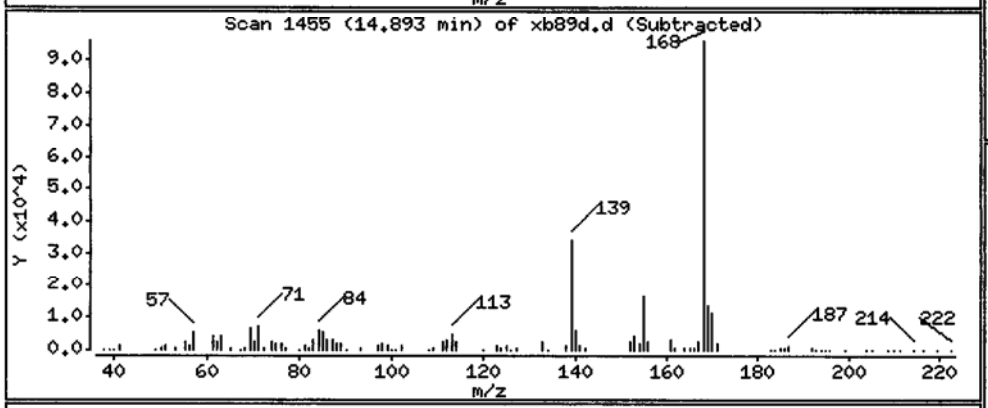
Column phase: ZB-5msi

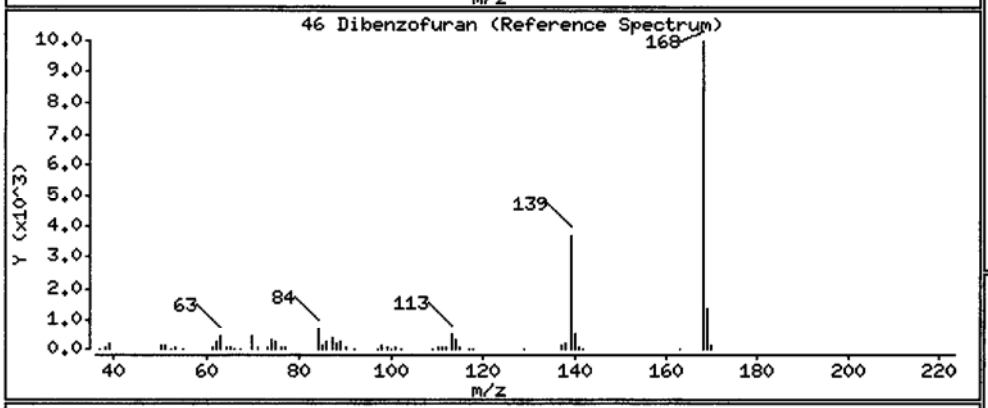
Column diameter: 0.25

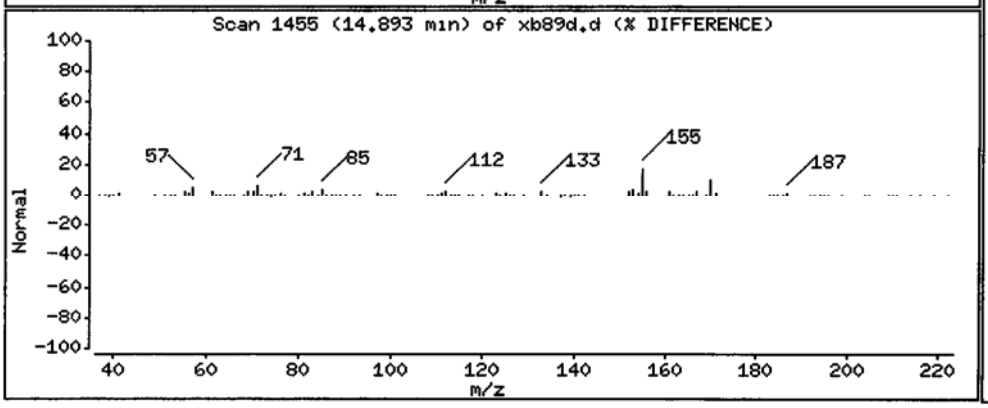
46 Dibenzofuran

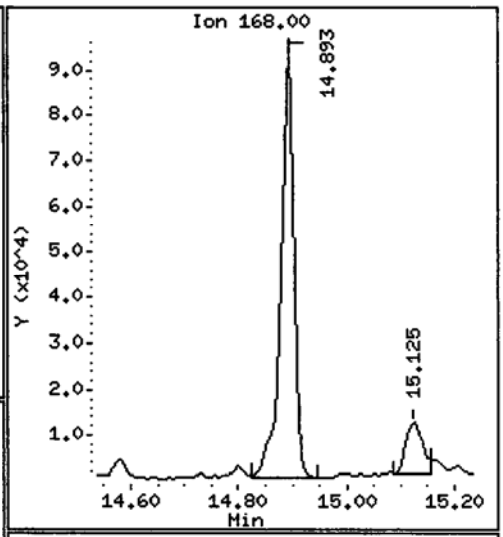
Concentration: 183.5 ug/kg

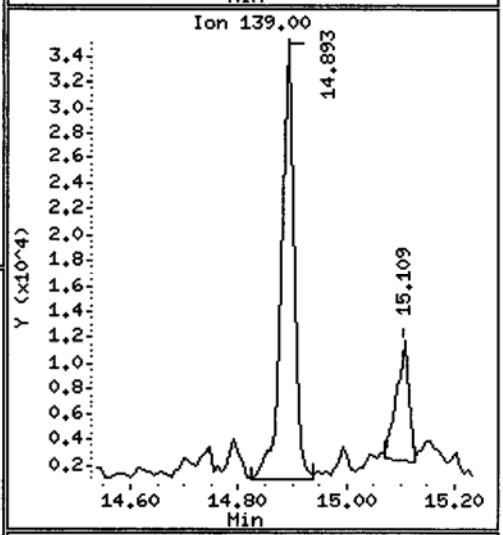


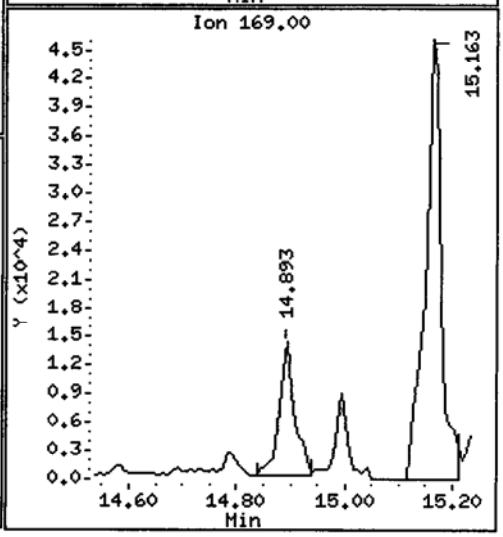












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

Operator: VTS/YZ

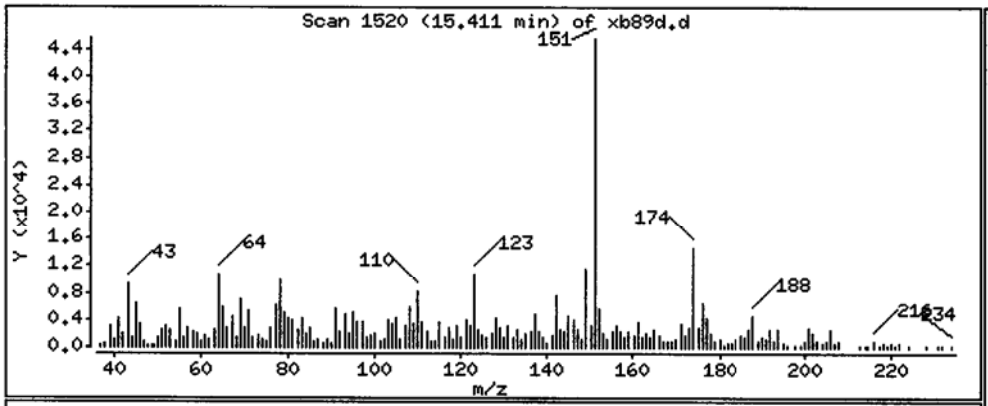
Column phase: ZB-5msi

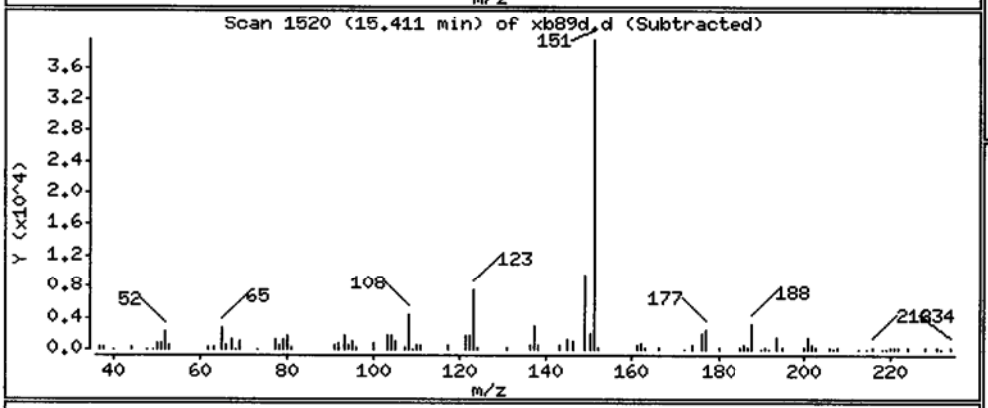
Column diameter: 0.25

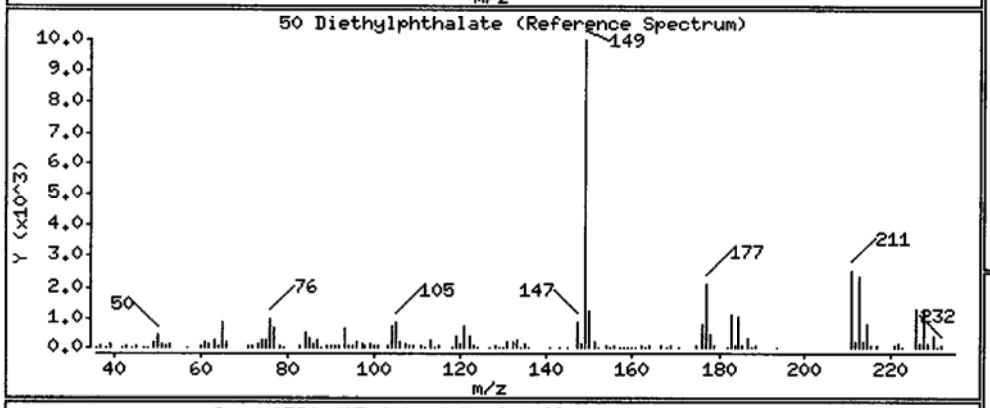
50 Diethylphthalate

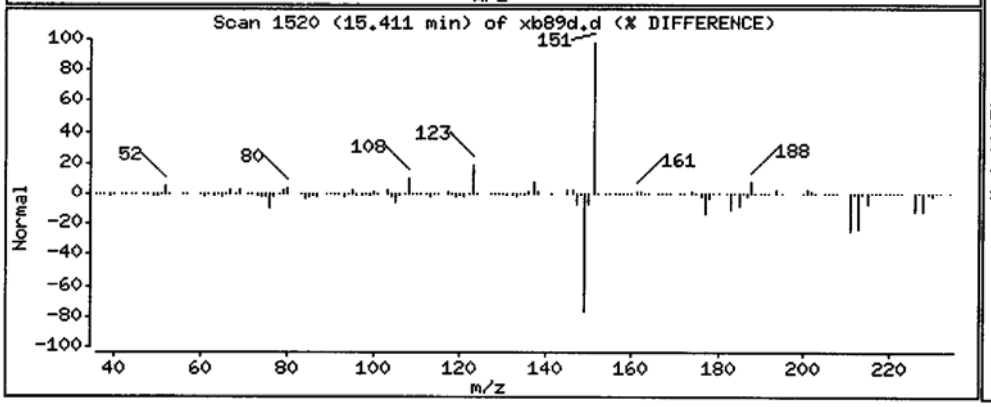
Concentration: 31.25 ug/kg

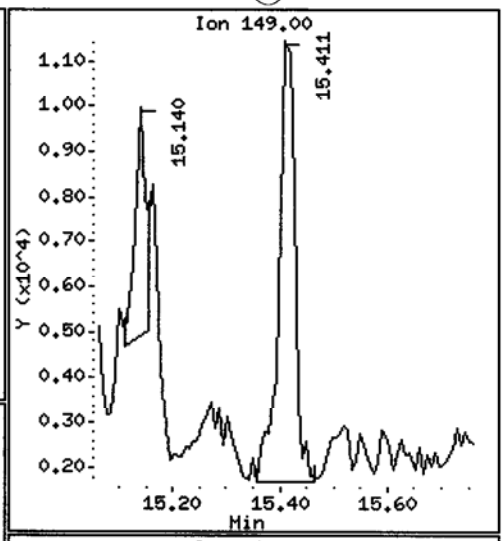
(B)

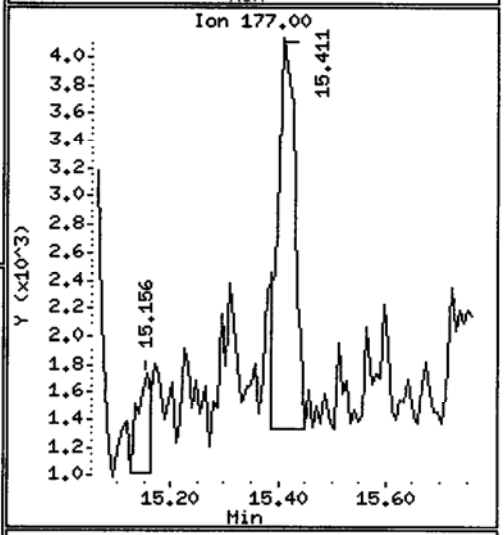


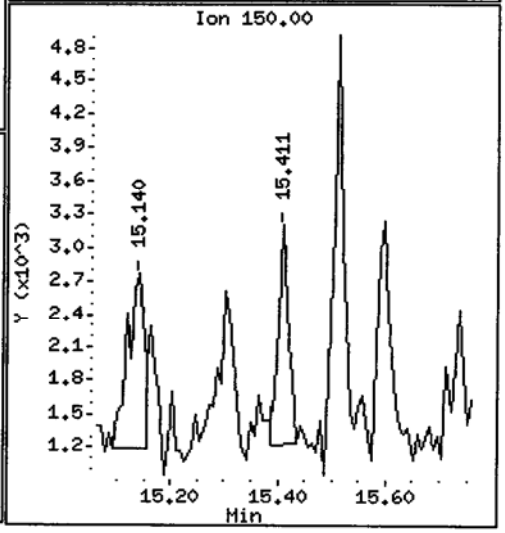












XB89:00507

Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

Operator: VTS/YZ

Column phase: ZB-5msi

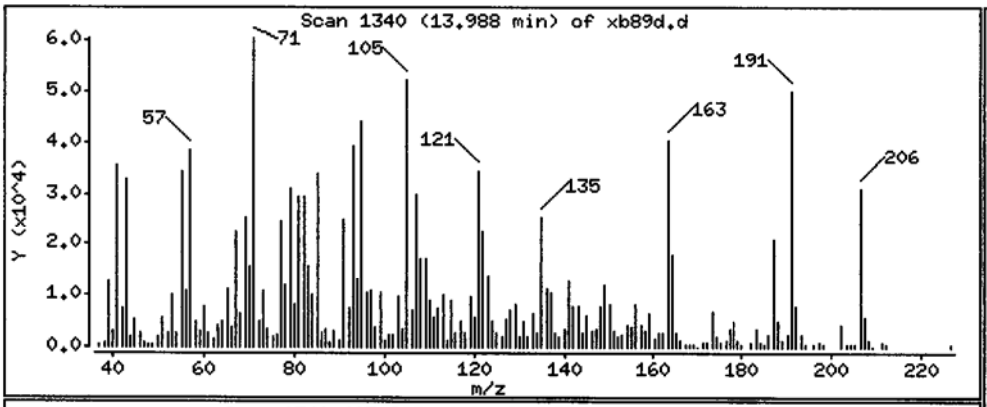
Column diameter: 0.25

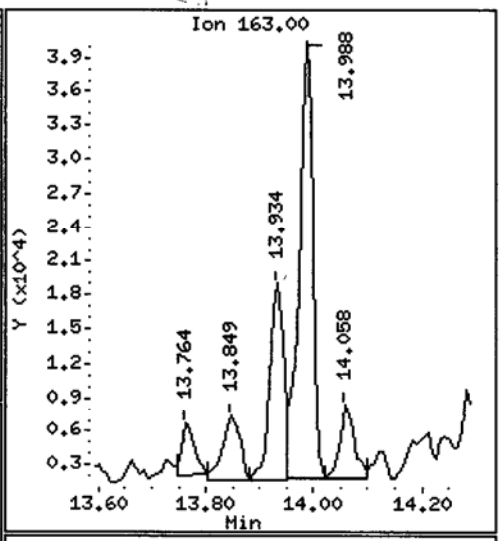
39 Dimethylphthalate

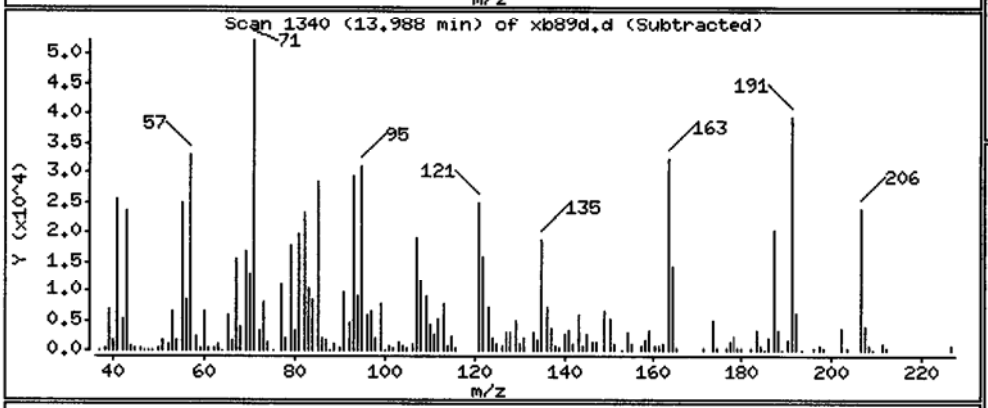
Concentration: 113.8 ug/kg

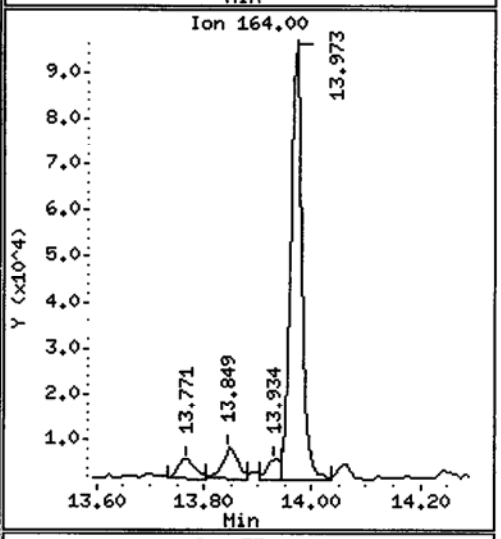
9/11/13

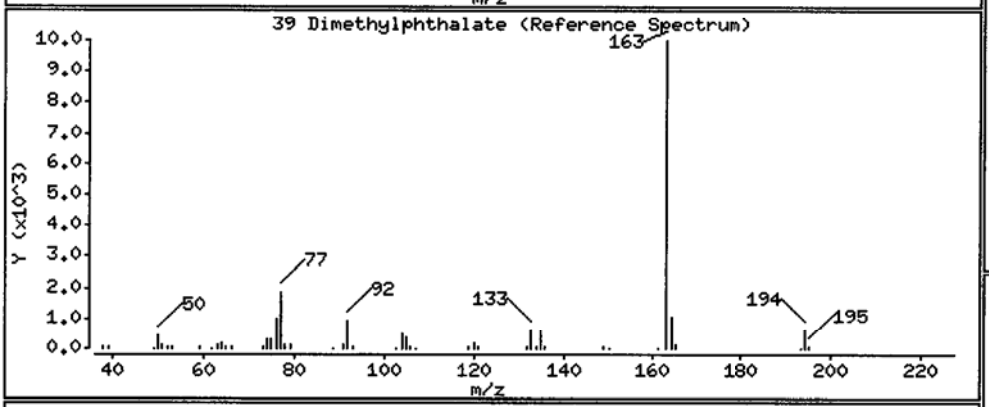
CY-Flag

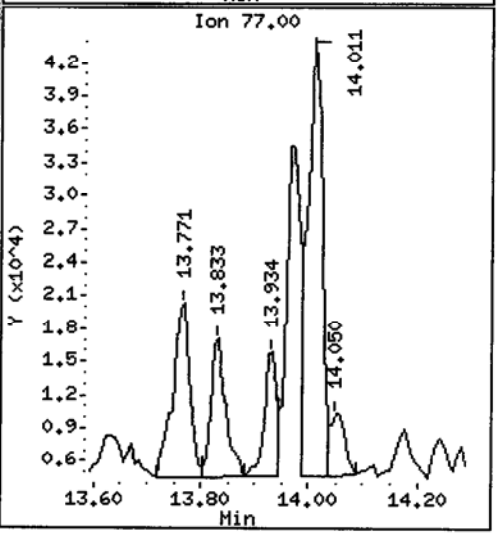


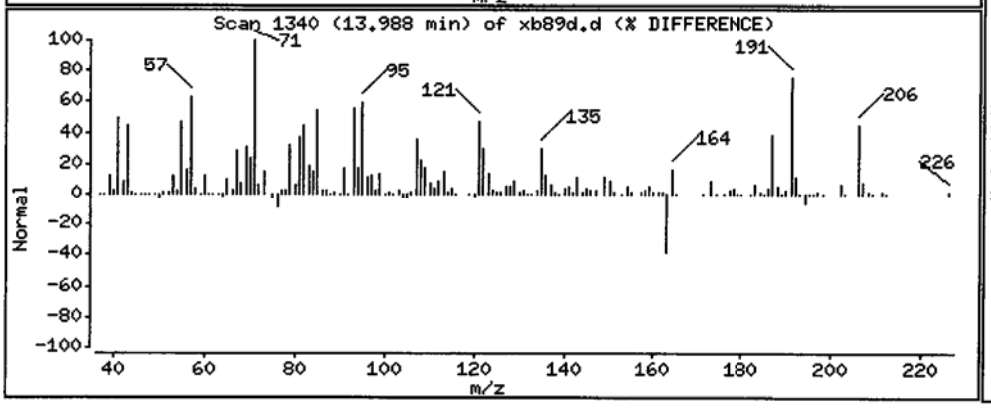












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

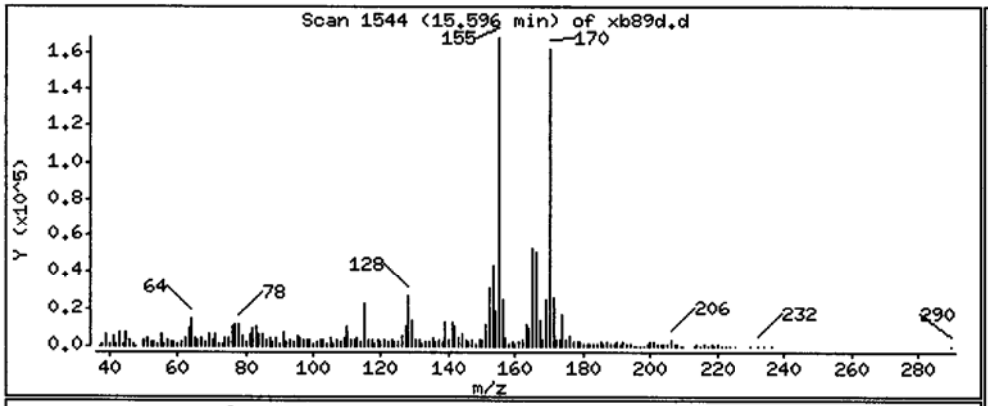
Operator: VTS/YZ

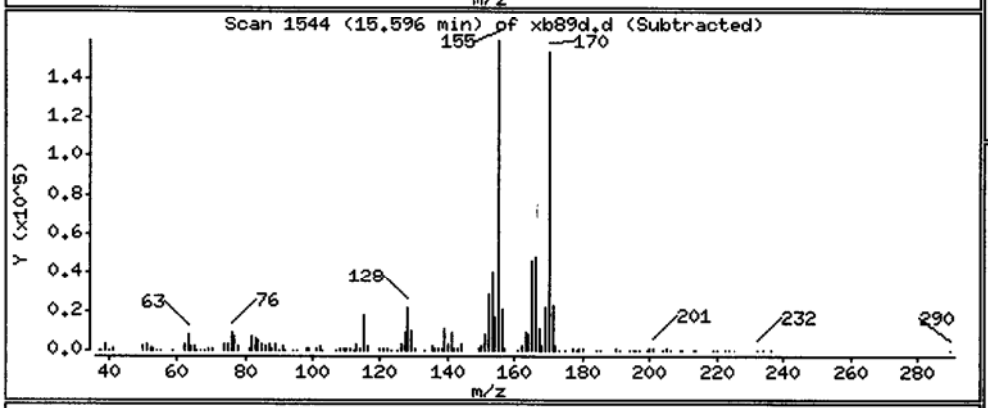
Column phase: ZB-5msi

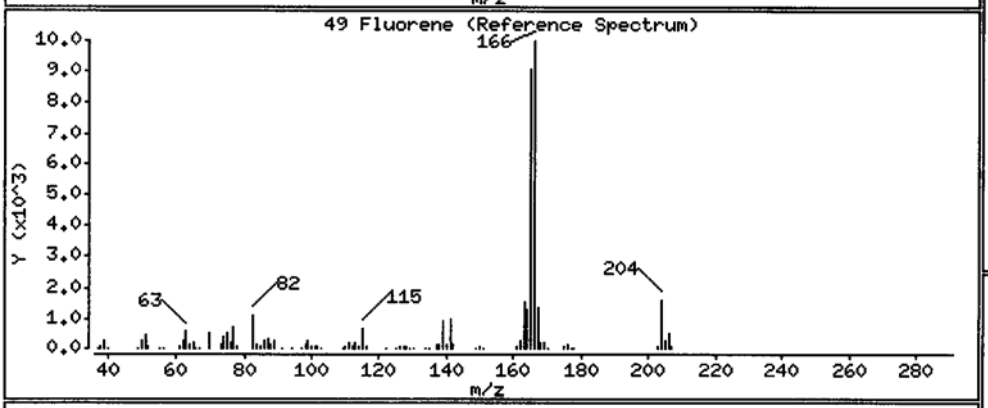
Column diameter: 0.25

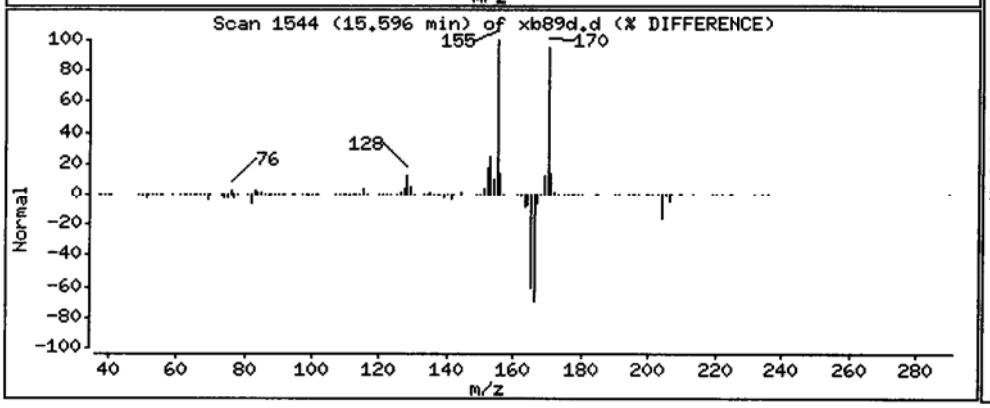
49 Fluorene

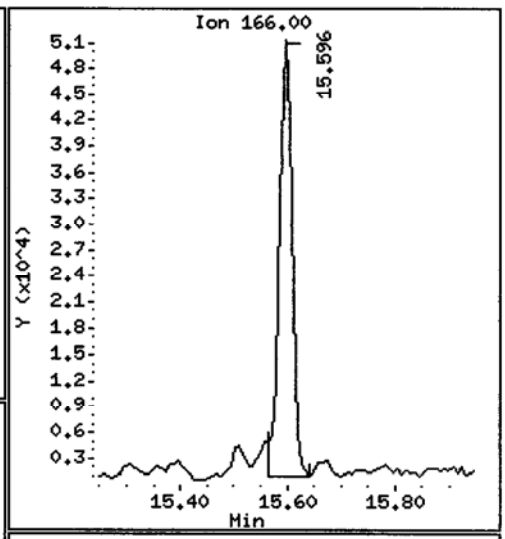
Concentration: 115.5 ug/kg

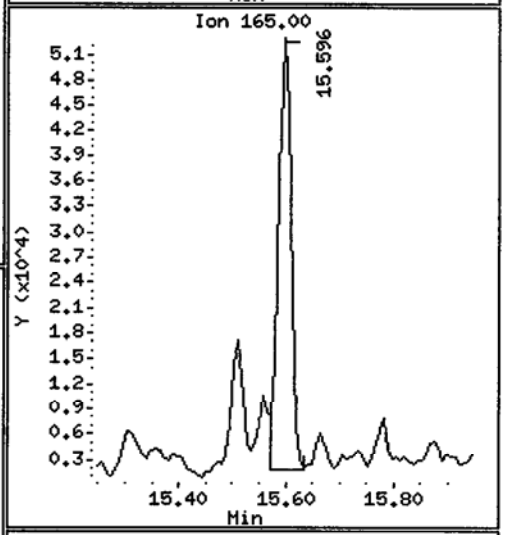


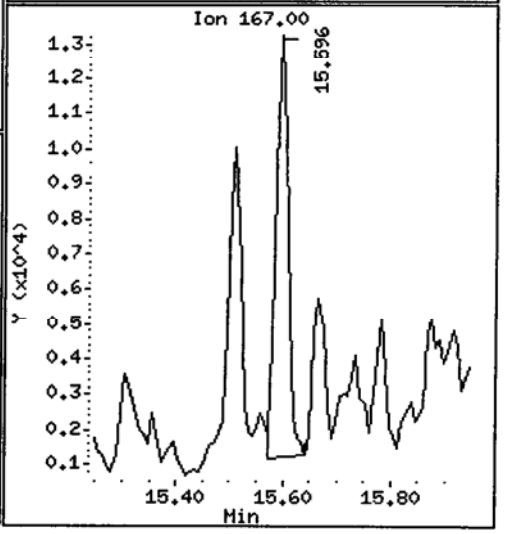












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

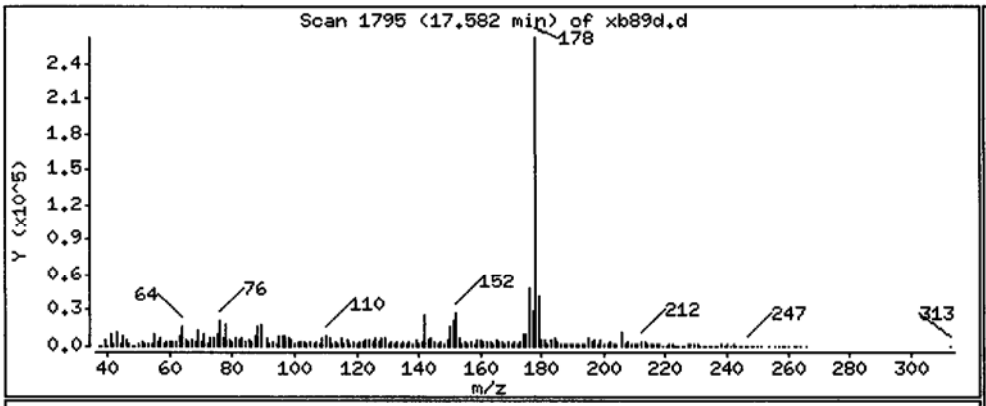
Operator: VTS/YZ

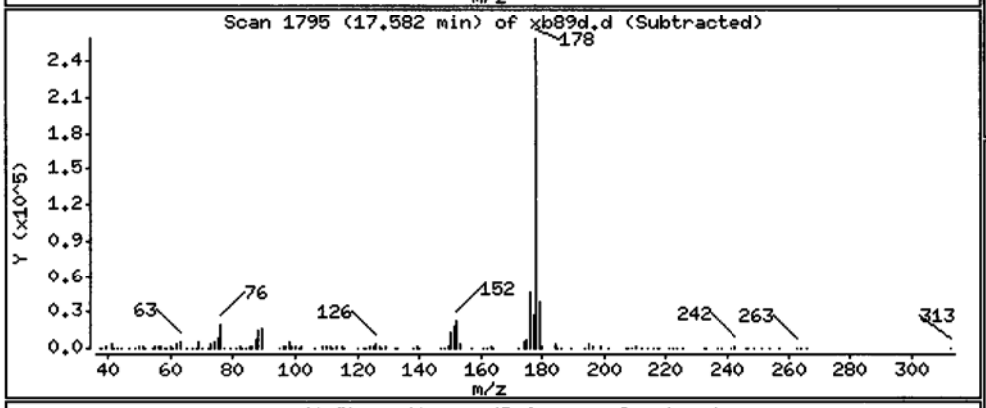
Column phase: ZB-5msi

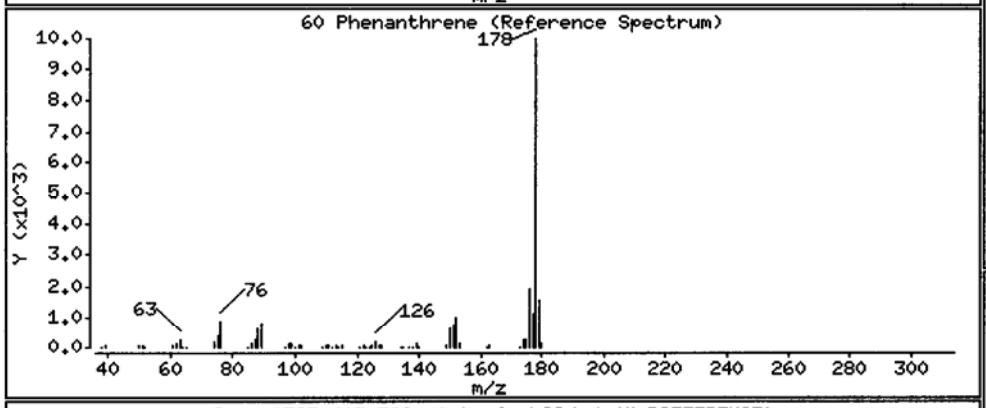
Column diameter: 0.25

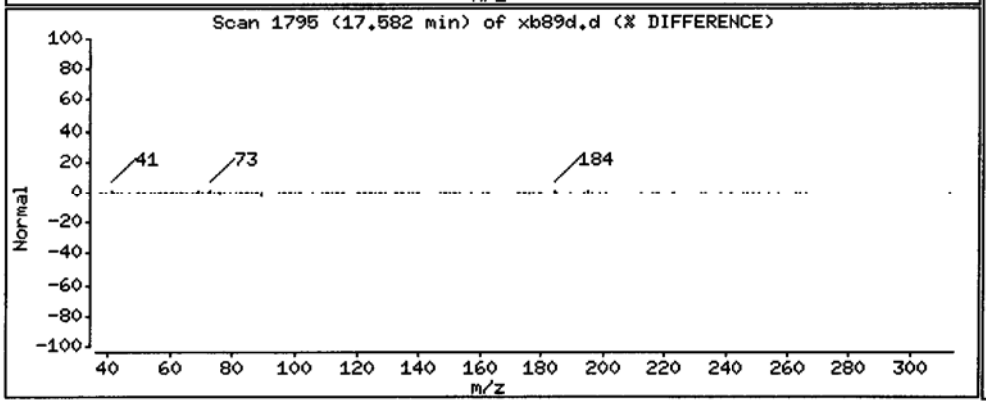
60 Phenanthrene

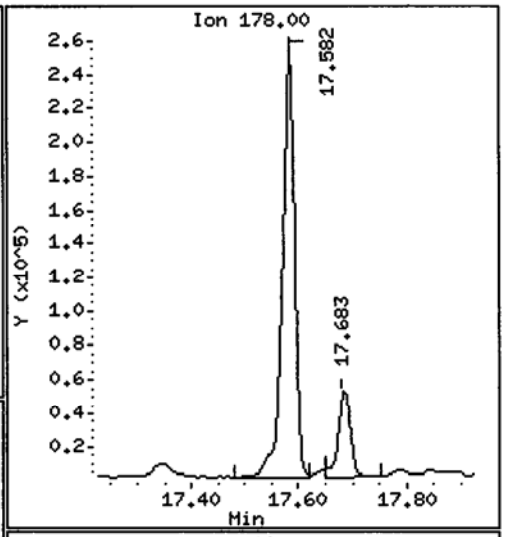
Concentration: 490.8 ug/kg

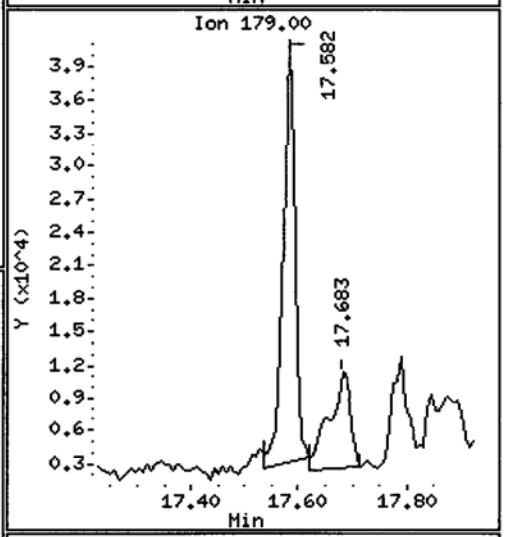


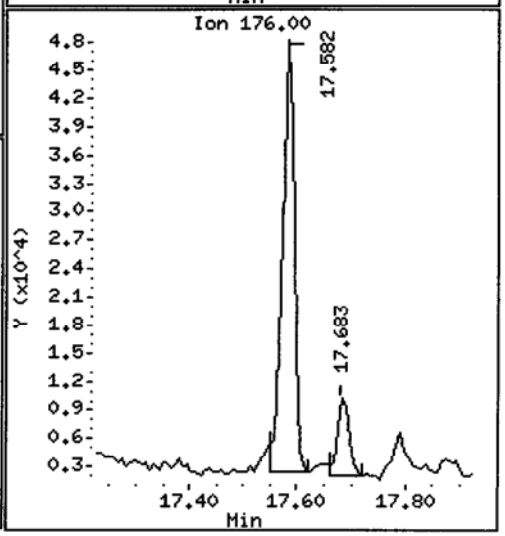












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

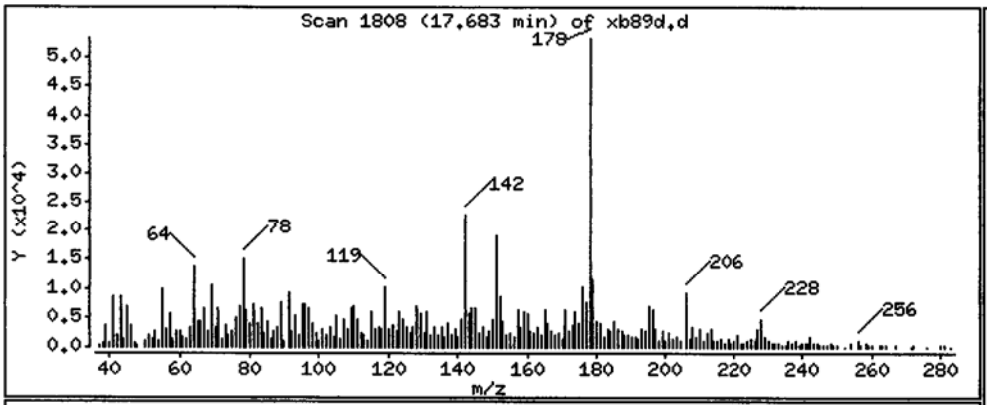
Operator: VTS/YZ

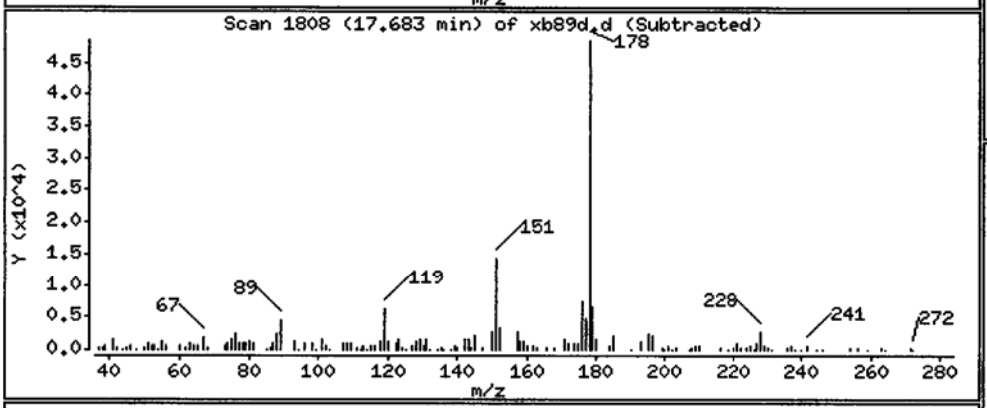
Column phase: ZB-5msi

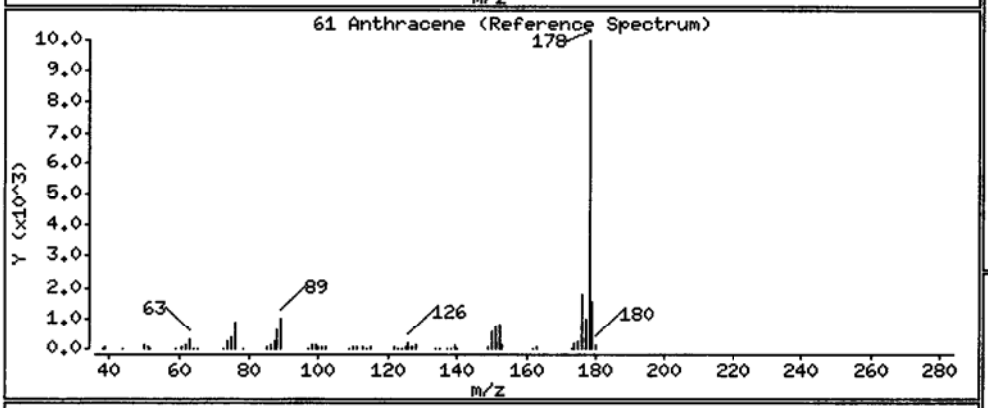
Column diameter: 0.25

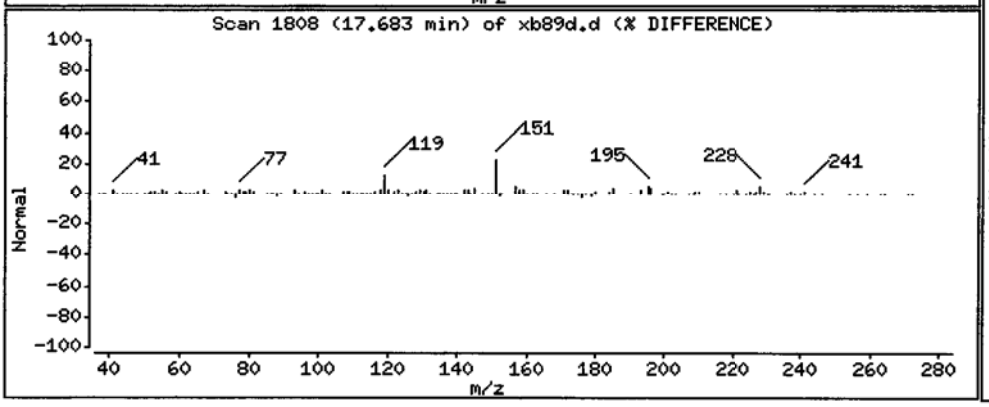
61 Anthracene

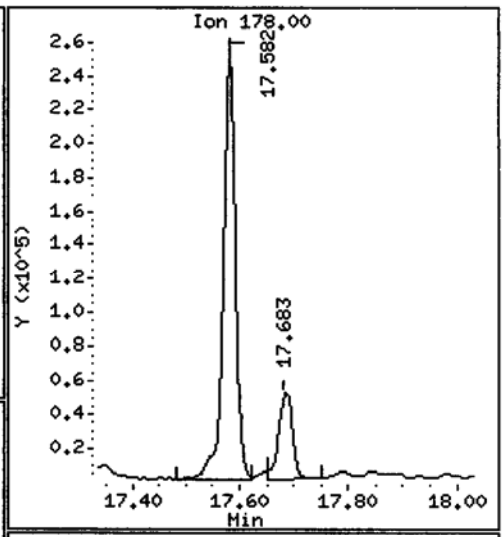
Concentration: 99.26 ug/kg

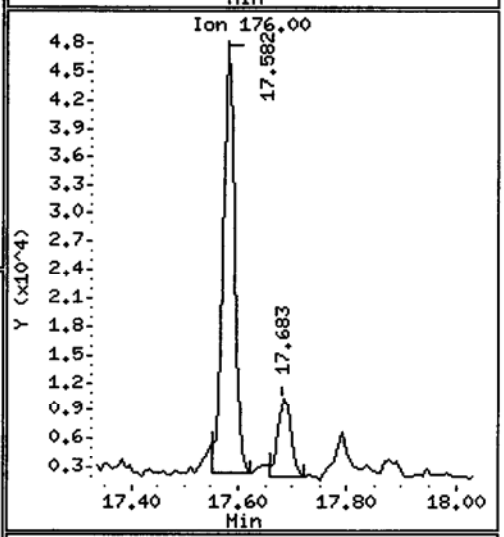


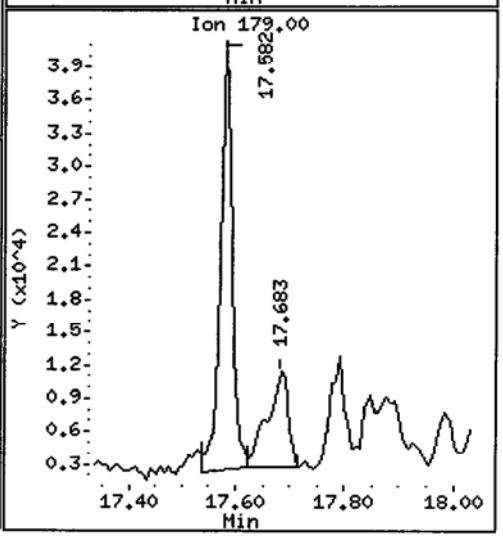












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

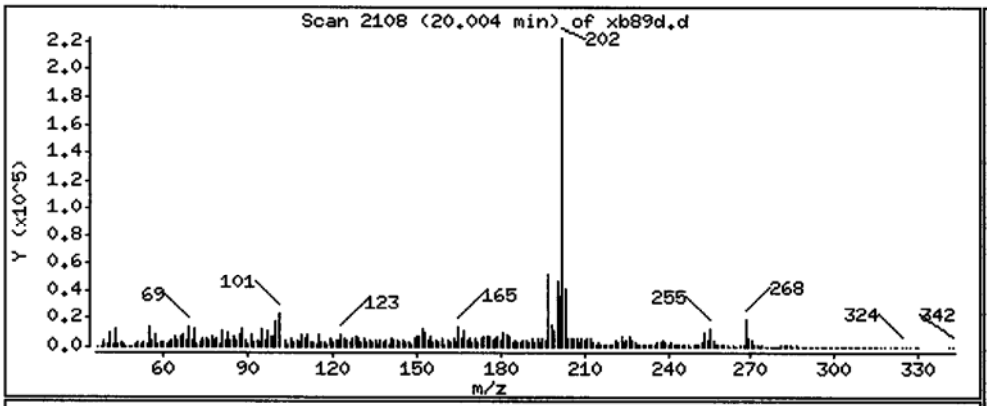
Operator: VTS/YZ

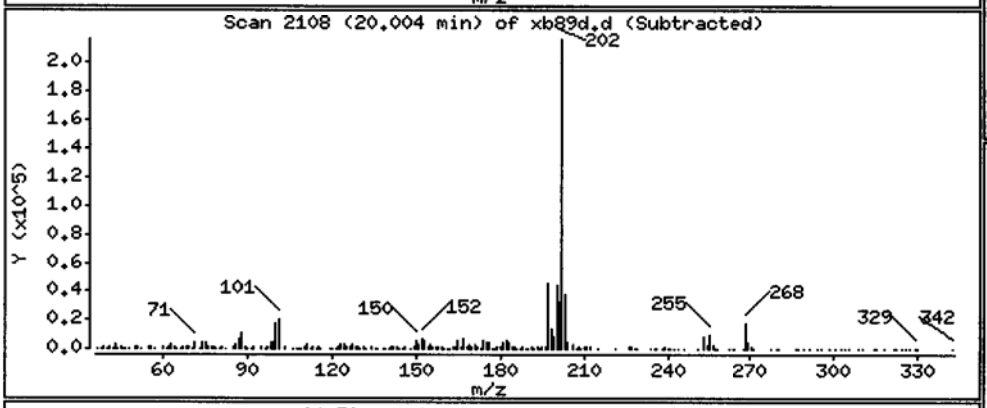
Column phase: ZB-5msi

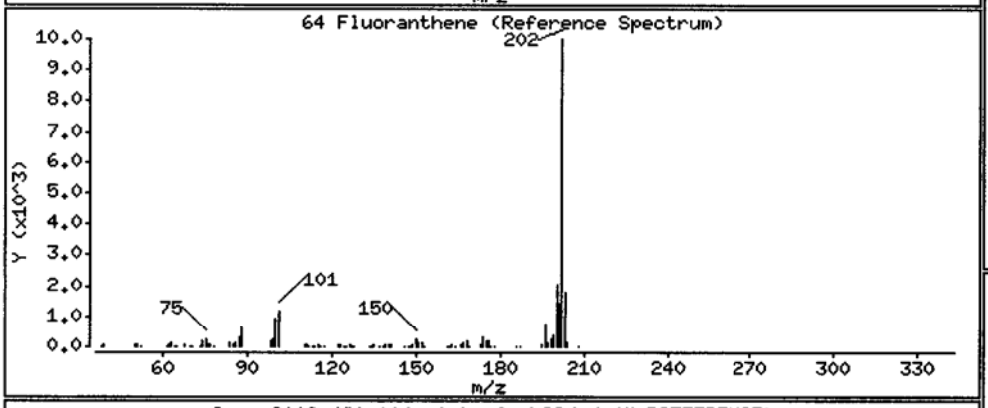
Column diameter: 0.25

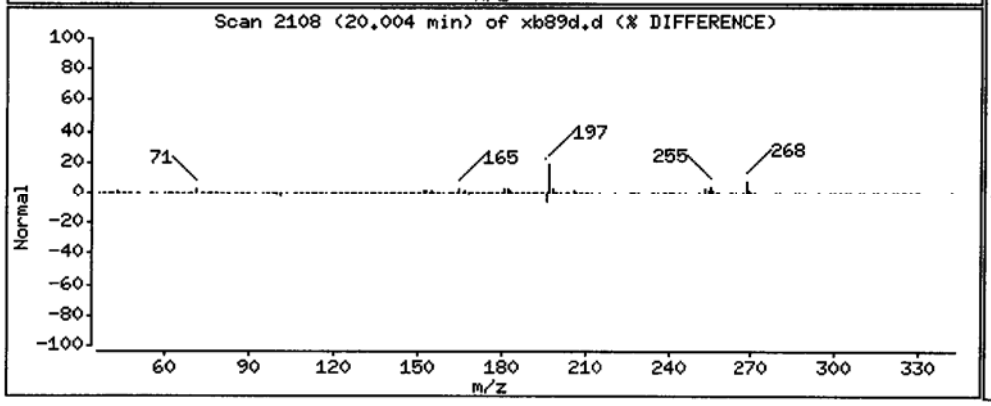
64 Fluoranthene

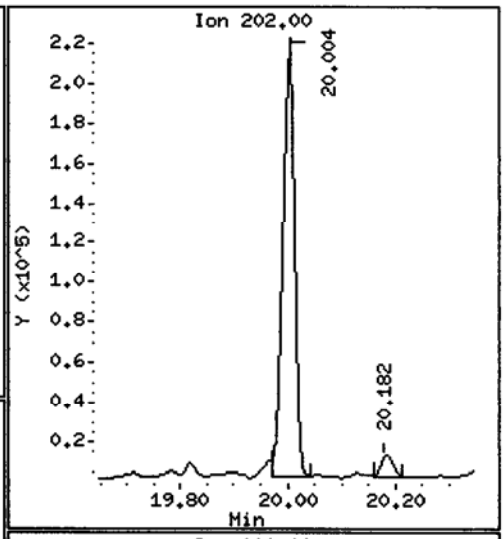
Concentration: 288.5 ug/kg

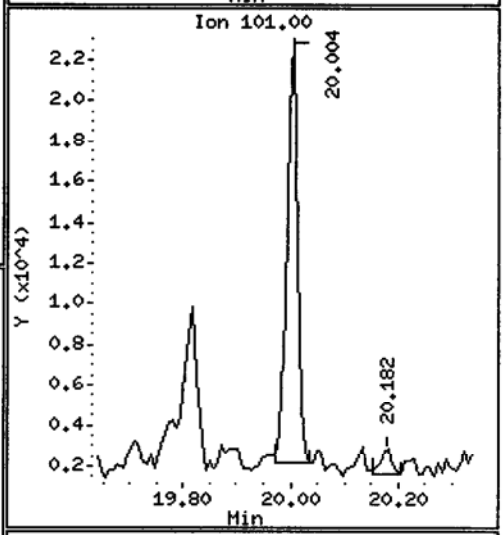


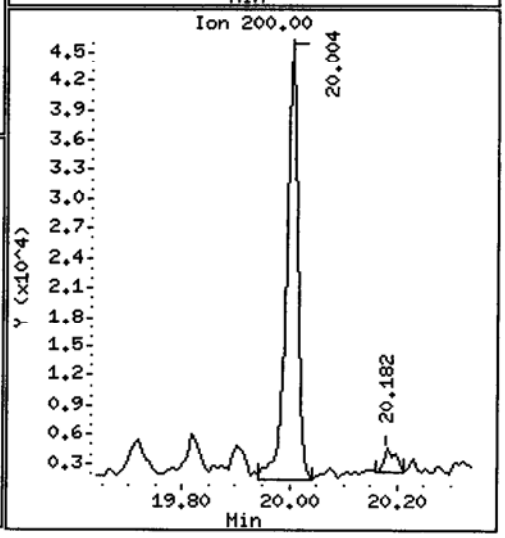












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

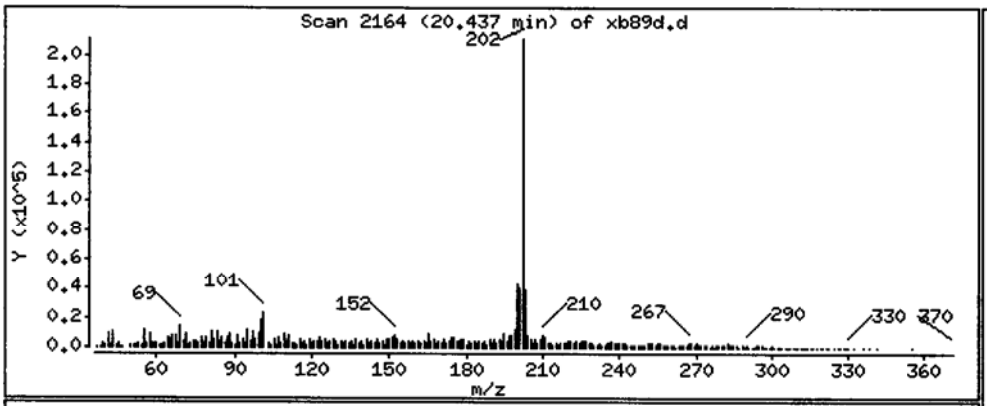
Operator: VTS/YZ

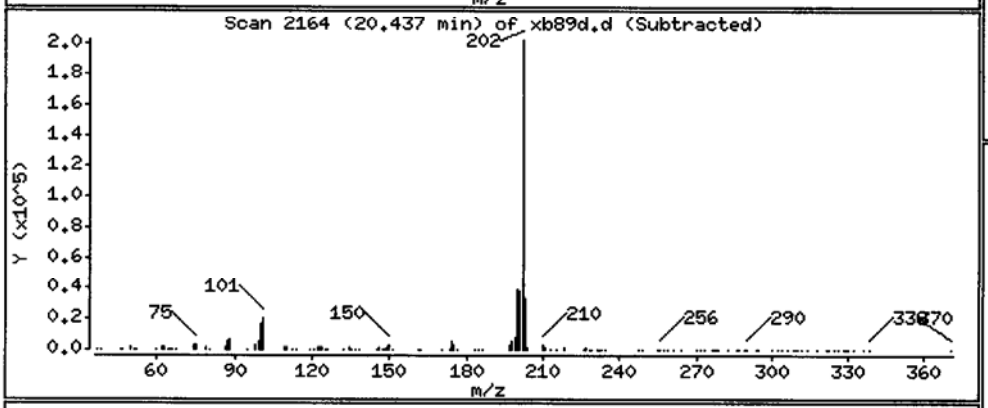
Column phase: ZB-5msi

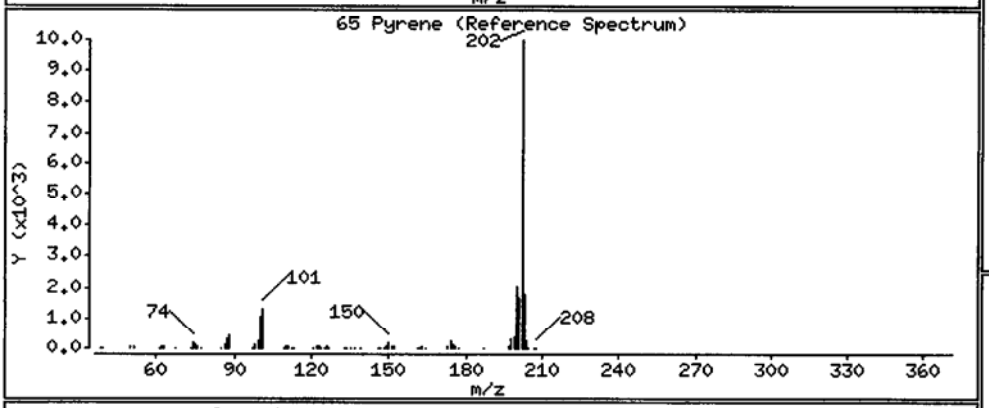
Column diameter: 0.25

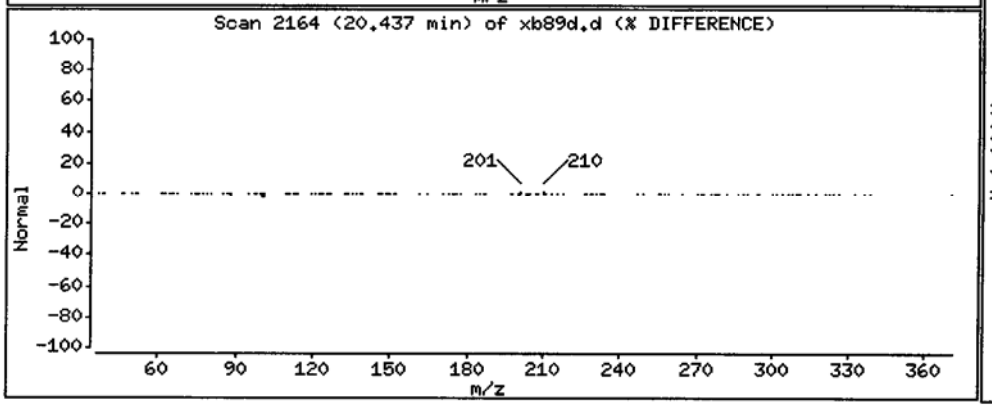
65 Pyrene

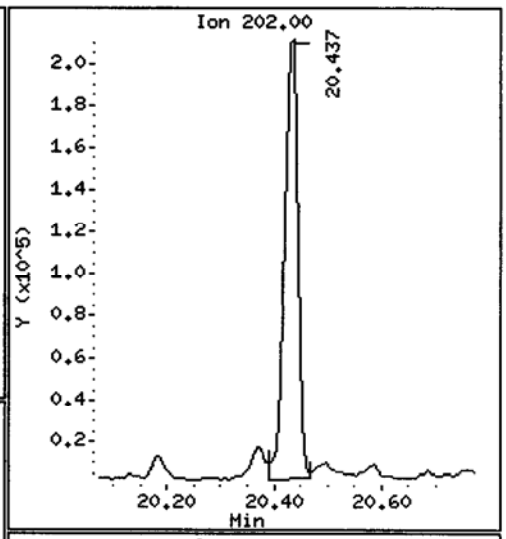
Concentration: 312.9 ug/kg

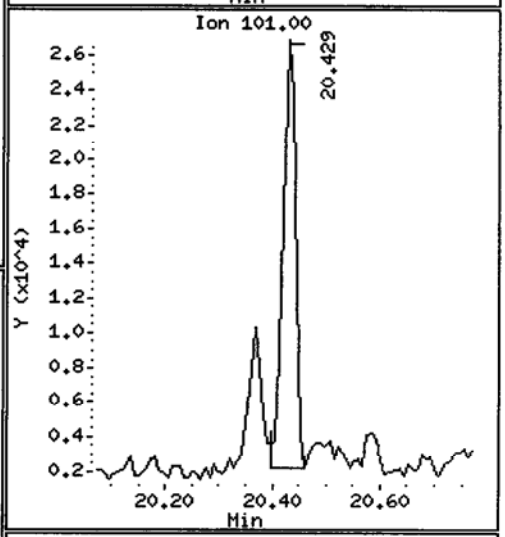


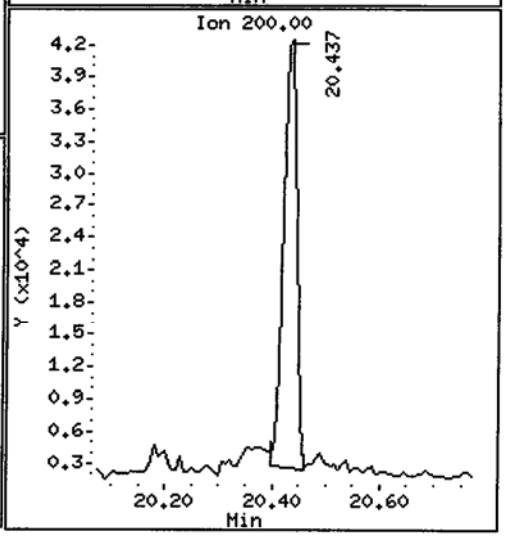












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

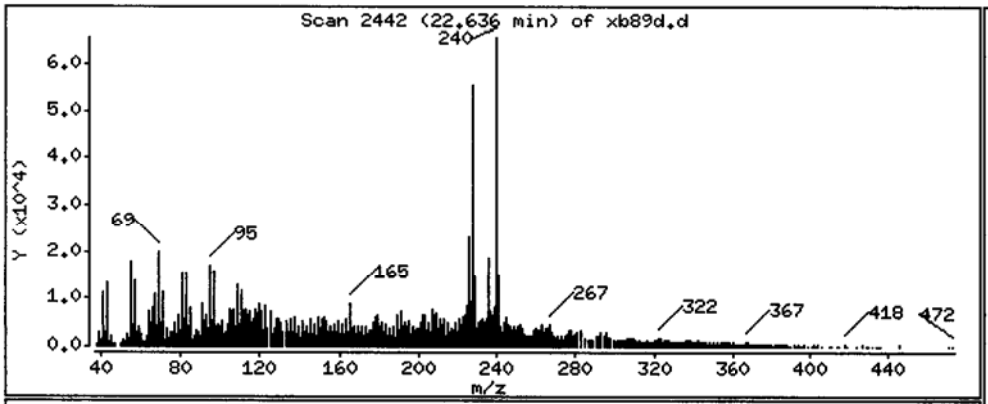
Operator: VTS/YZ

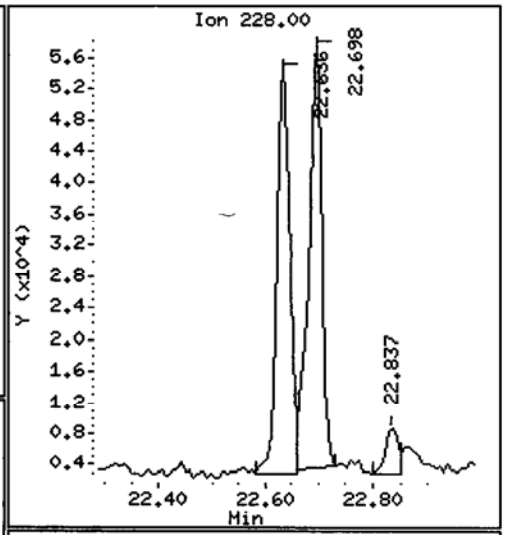
Column phase: ZB-5msi

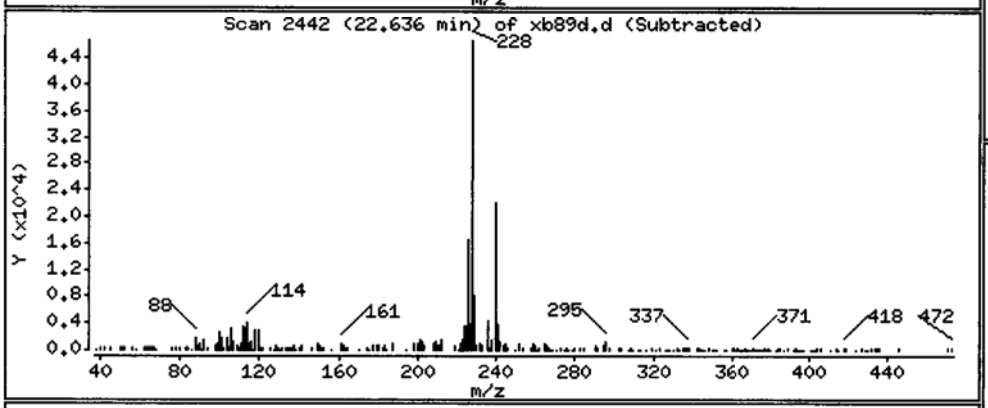
Column diameter: 0.25

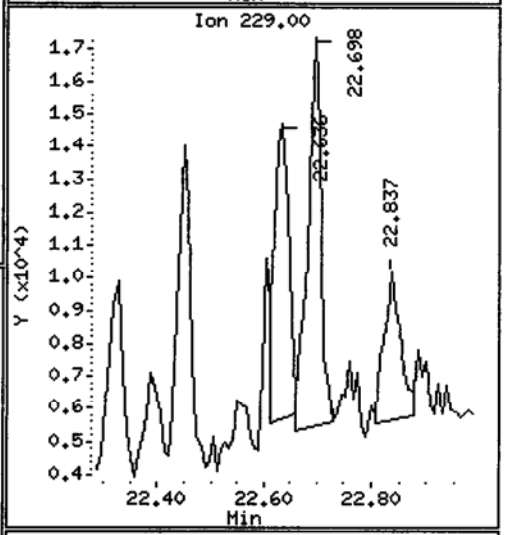
68 Benzo(a)anthracene

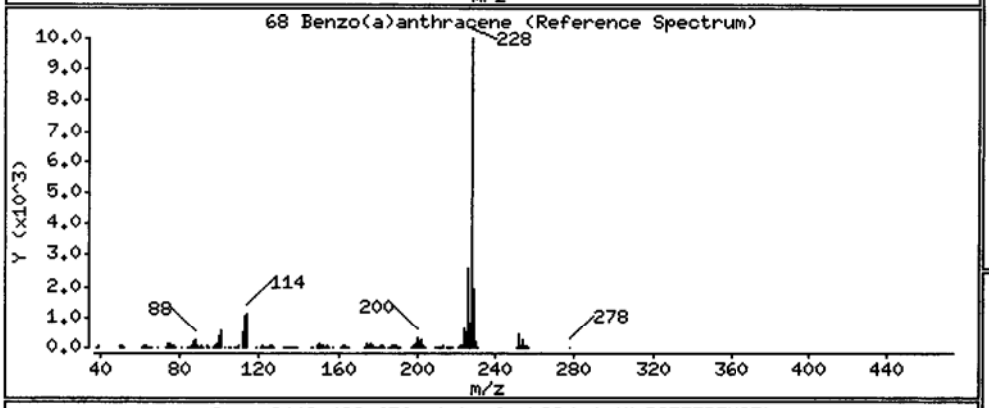
Concentration: 85.19 ug/kg

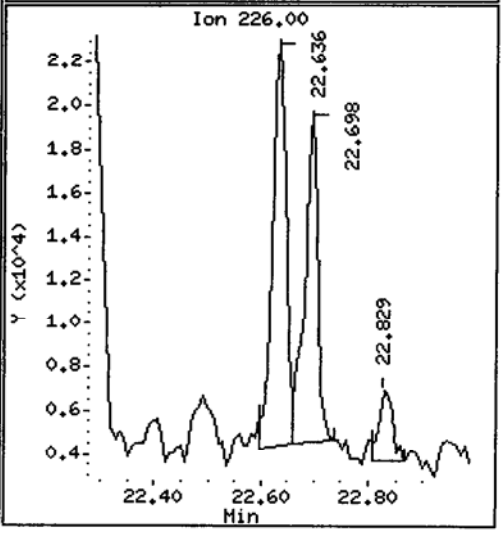


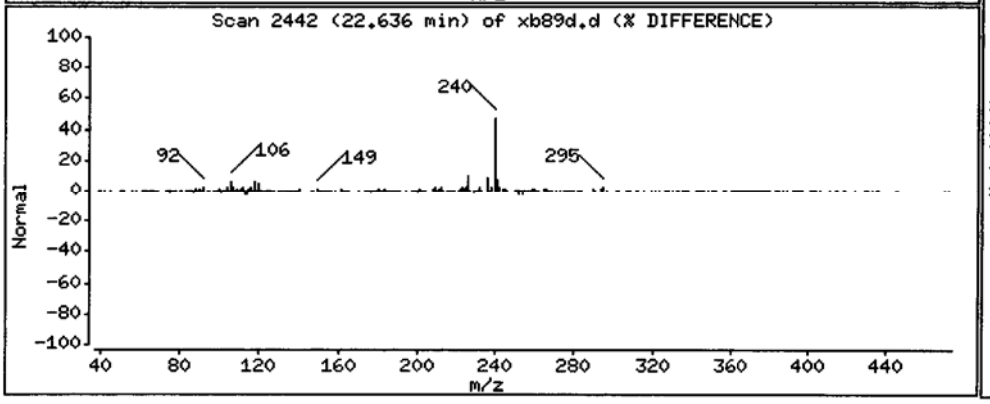












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

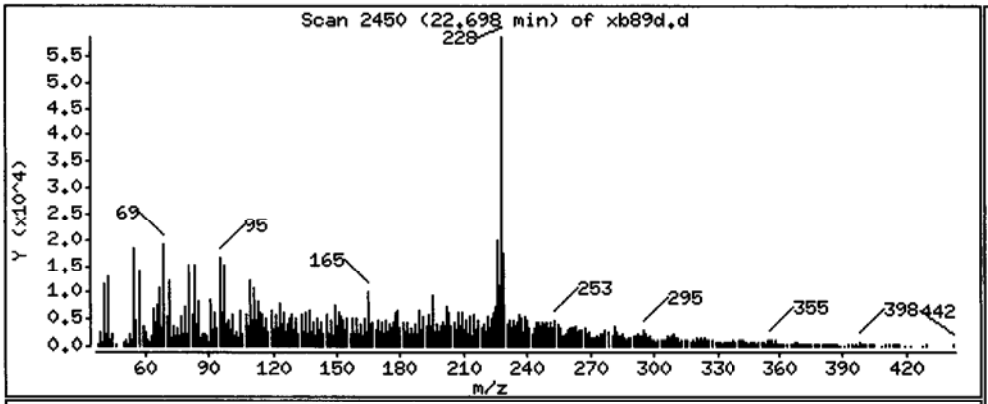
Operator: VTS/YZ

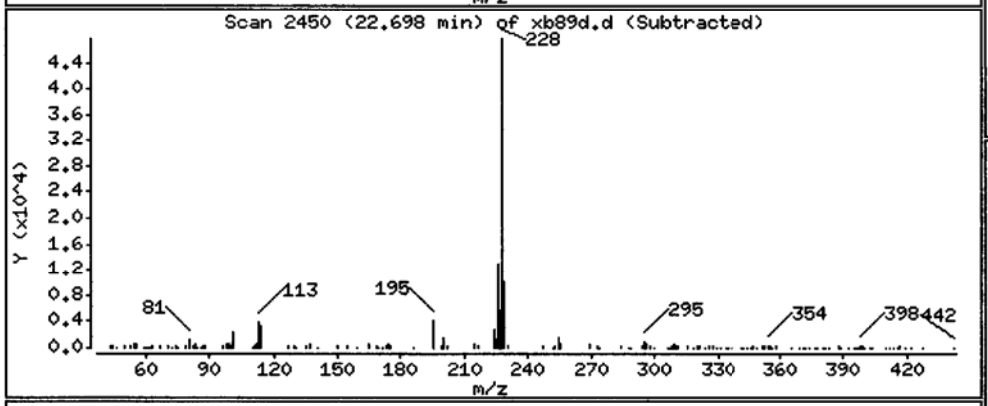
Column phase: ZB-5msi

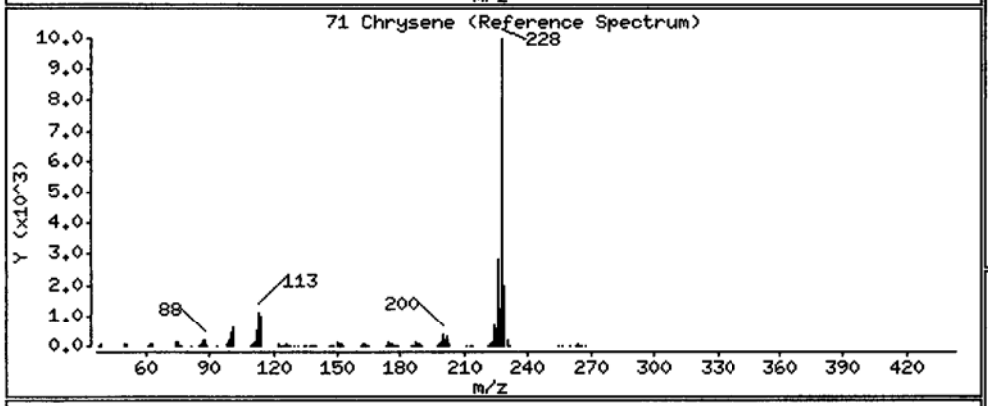
Column diameter: 0.25

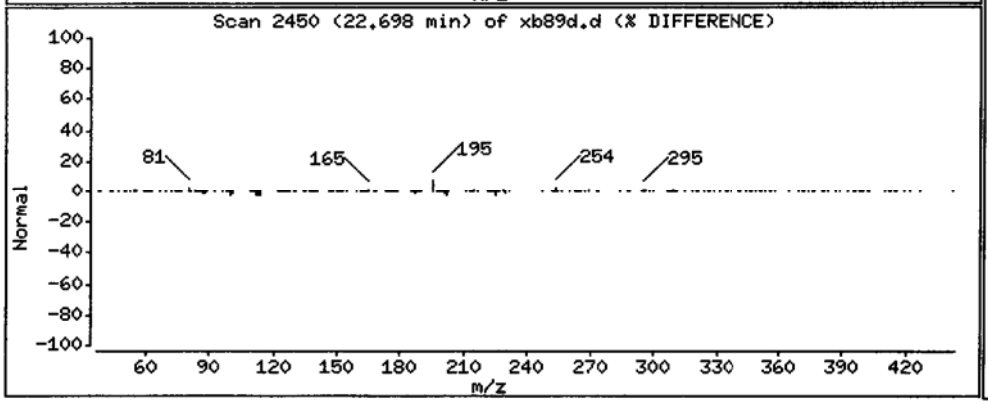
71 Chrysene

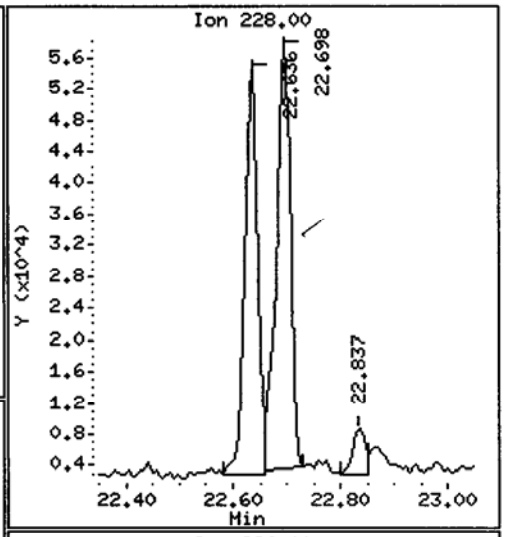
Concentration: 114.8 ug/kg

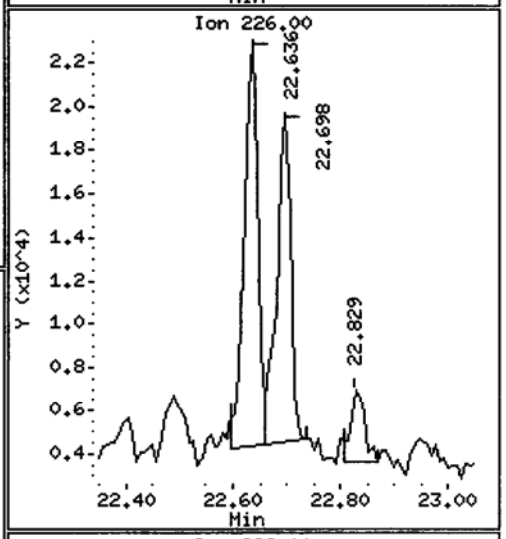


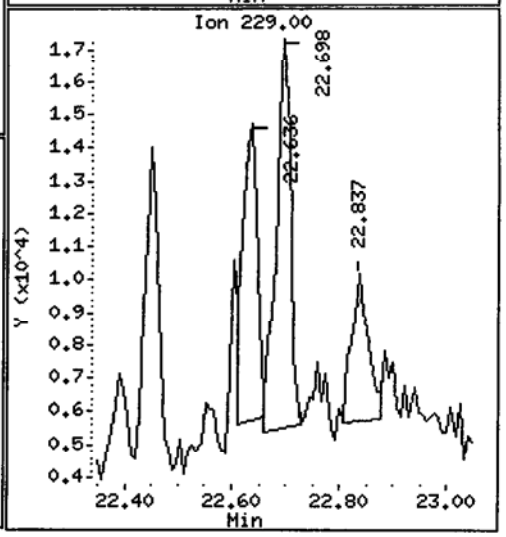












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

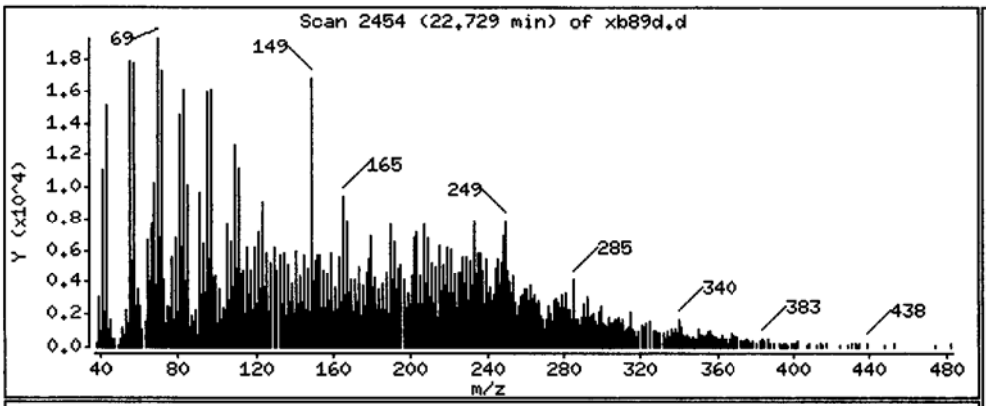
Operator: VTS/YZ

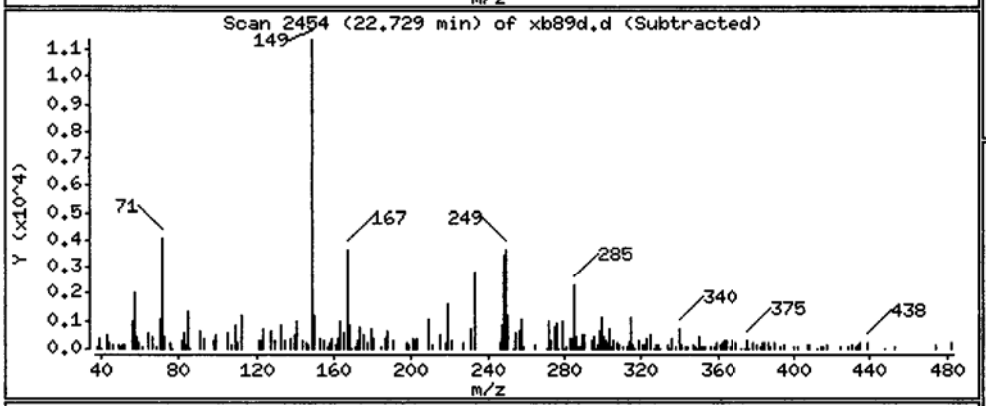
Column phase: ZB-5msi

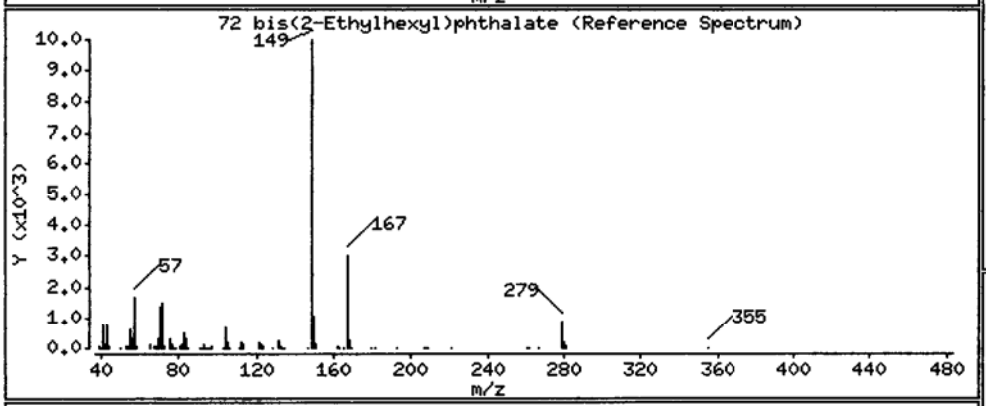
Column diameter: 0.25

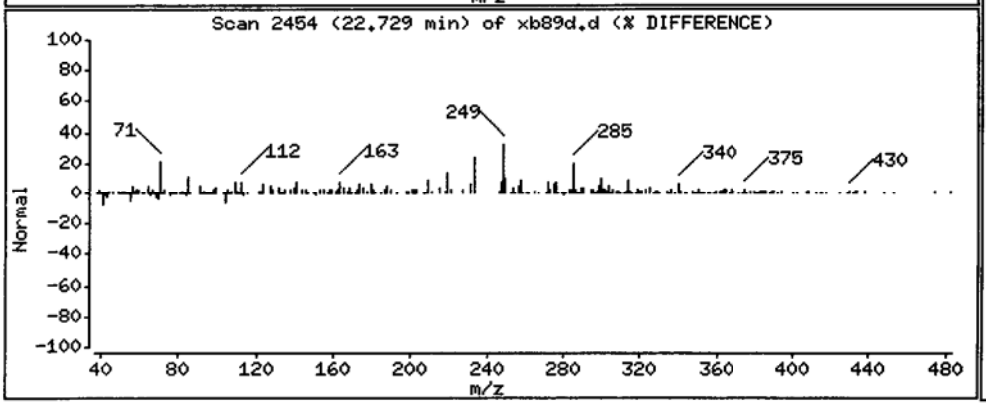
72 bis(2-Ethylhexyl)phthalate

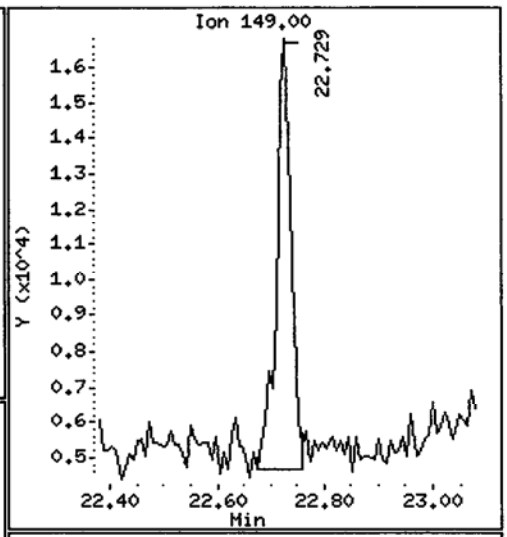
Concentration: 43.83 ug/kg

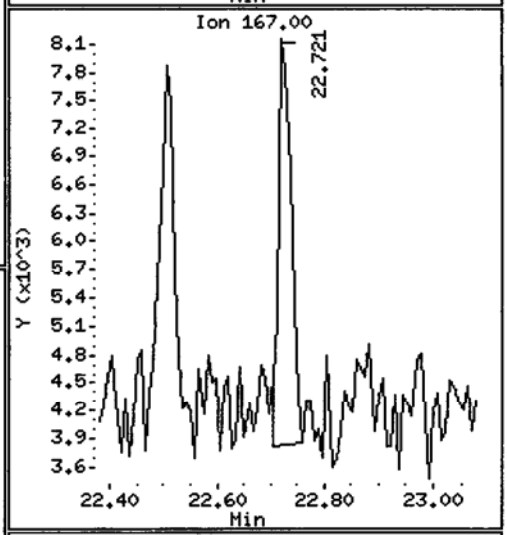


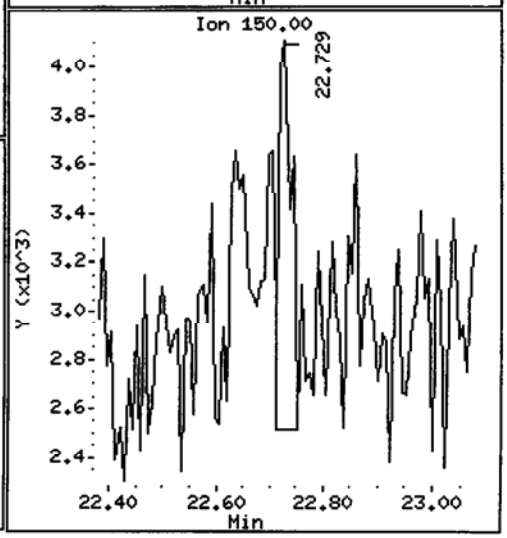












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

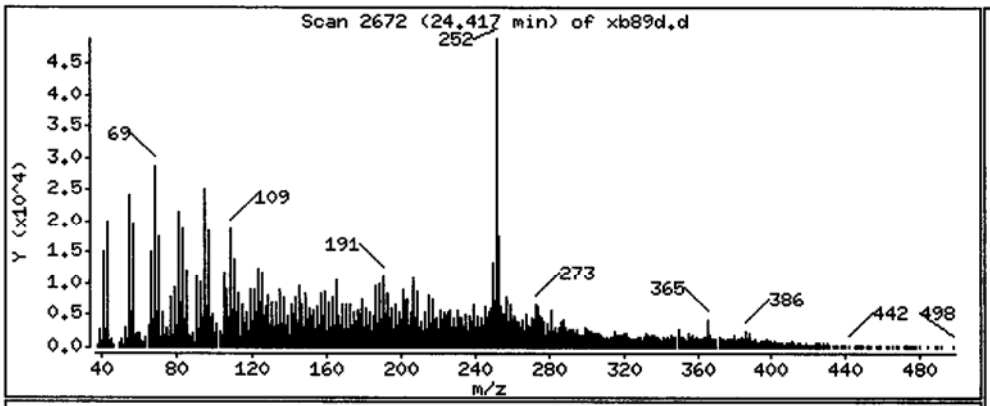
Operator: VTS/YZ

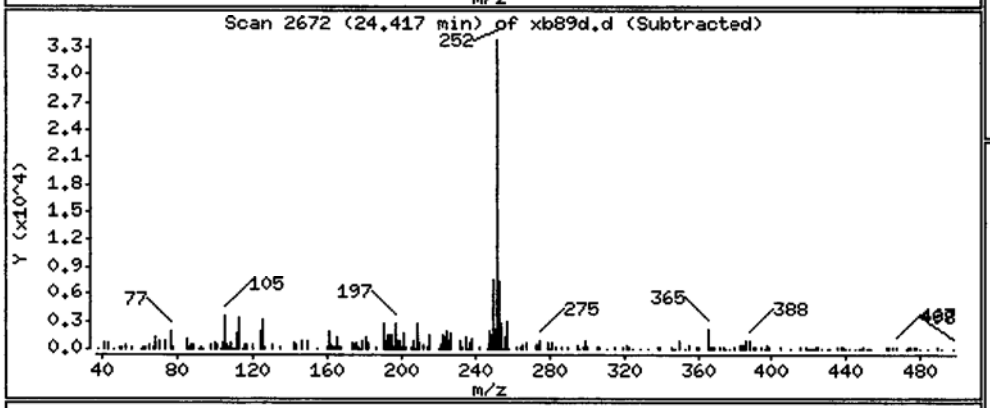
Column phase: ZB-5msi

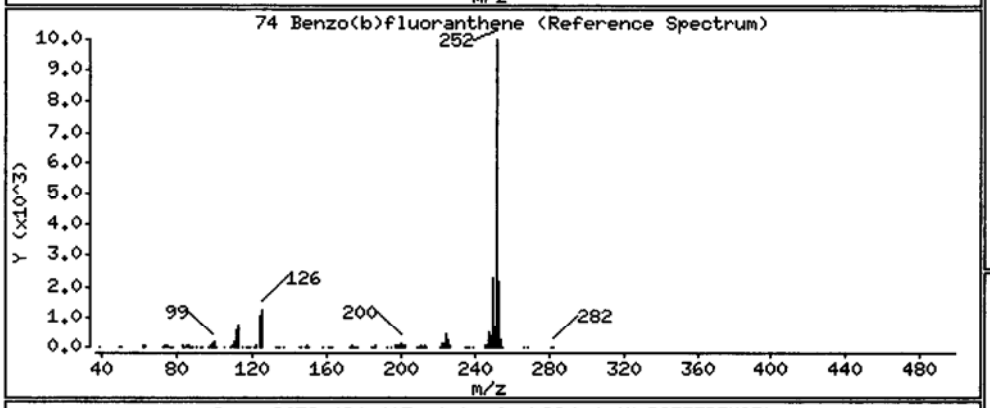
Column diameter: 0.25

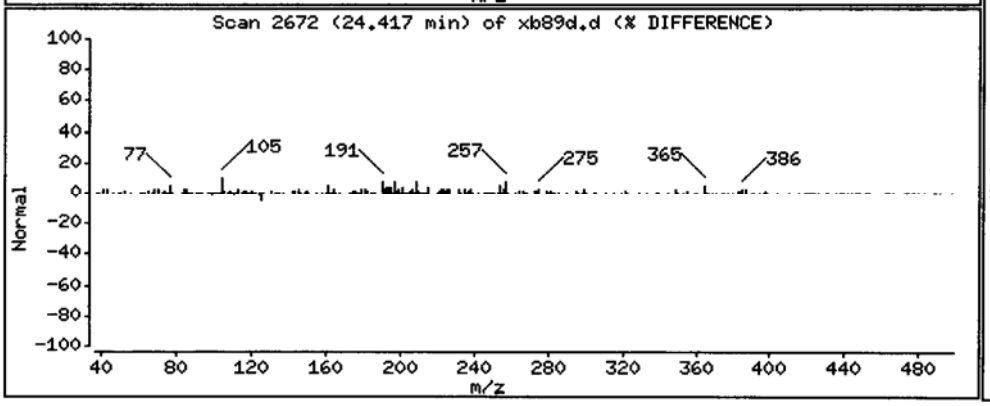
74 Benzo(b)fluoranthene

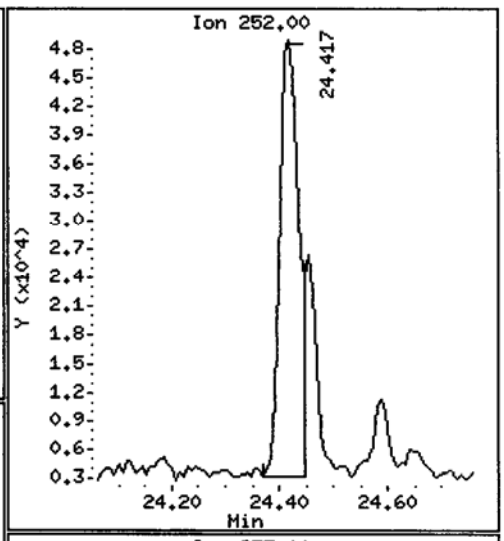
Concentration: 102.6 ug/kg

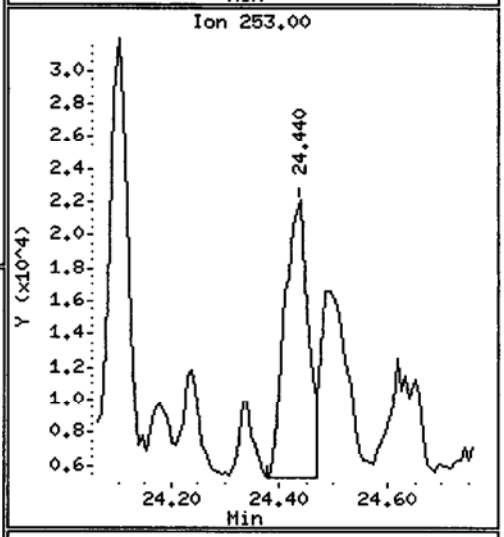


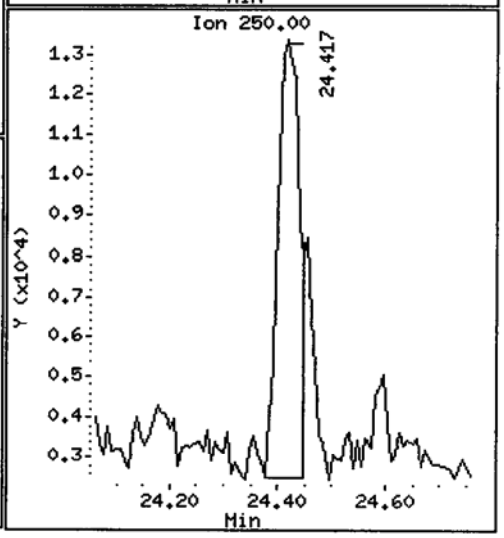












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

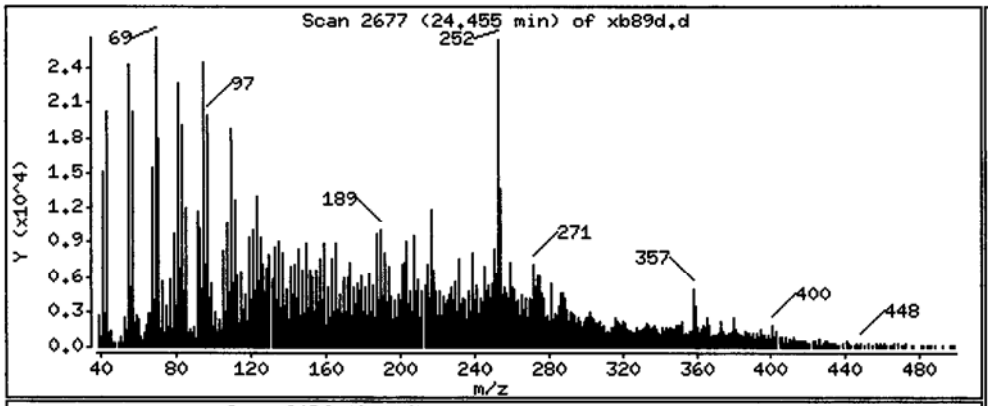
Operator: VTS/YZ

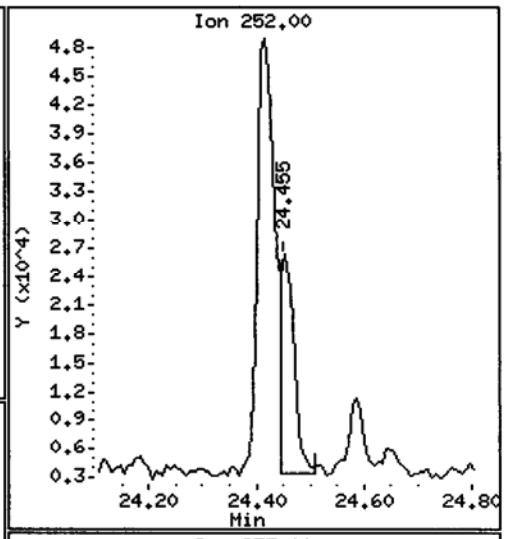
Column phase: ZB-5msi

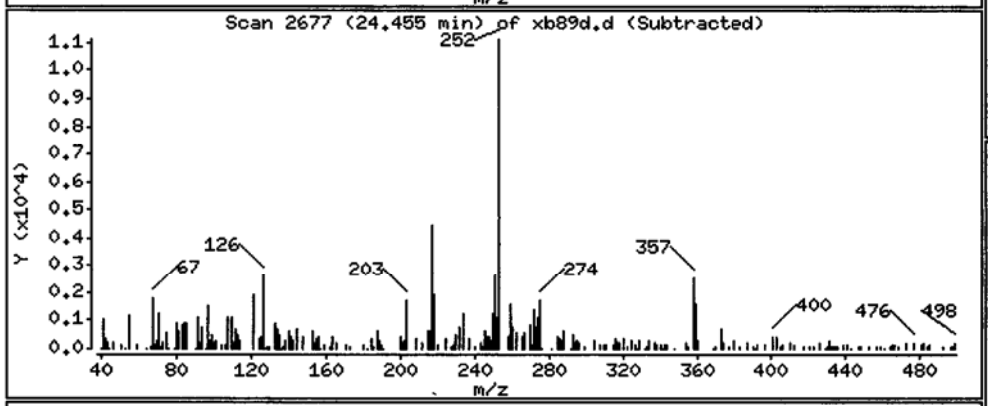
Column diameter: 0.25

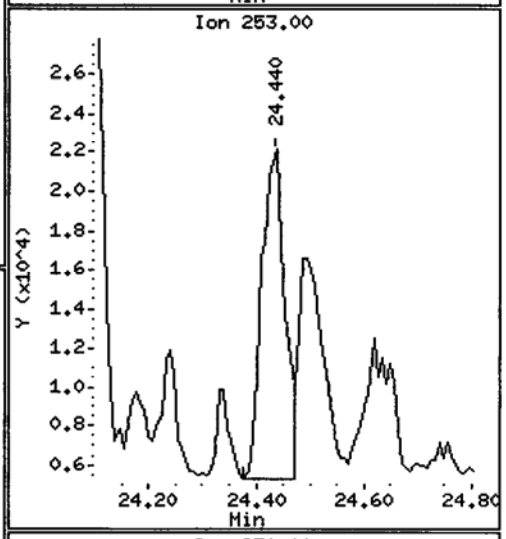
75 Benzo(k)fluoranthene

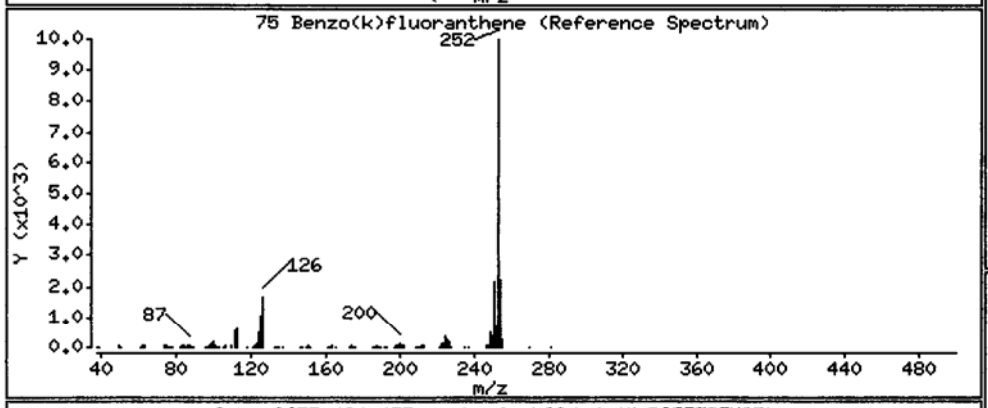
Concentration: 37.66 ug/kg

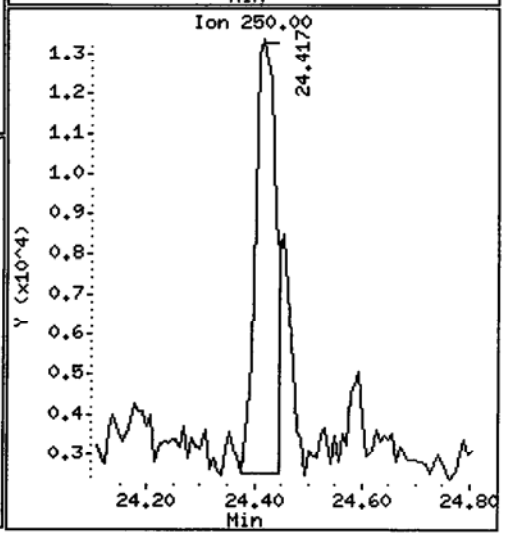


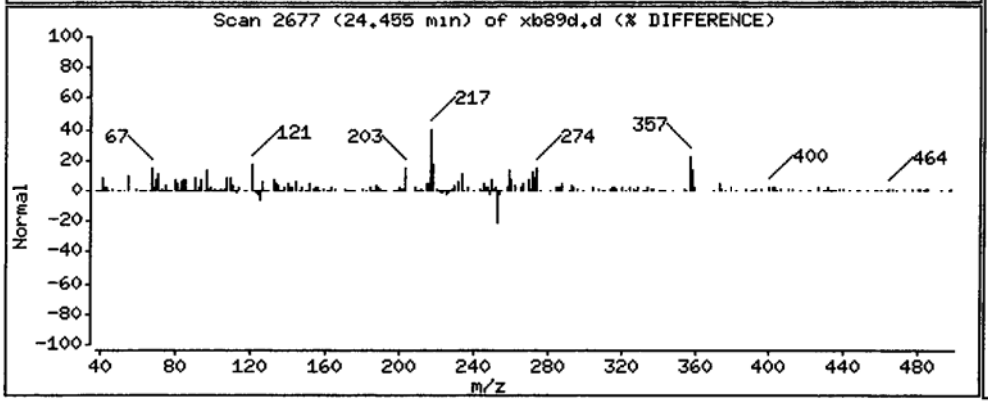












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

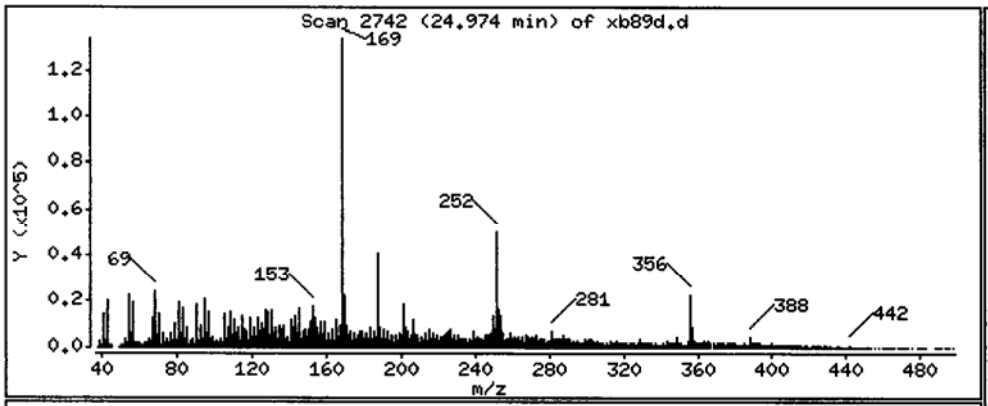
Operator: VTS/YZ

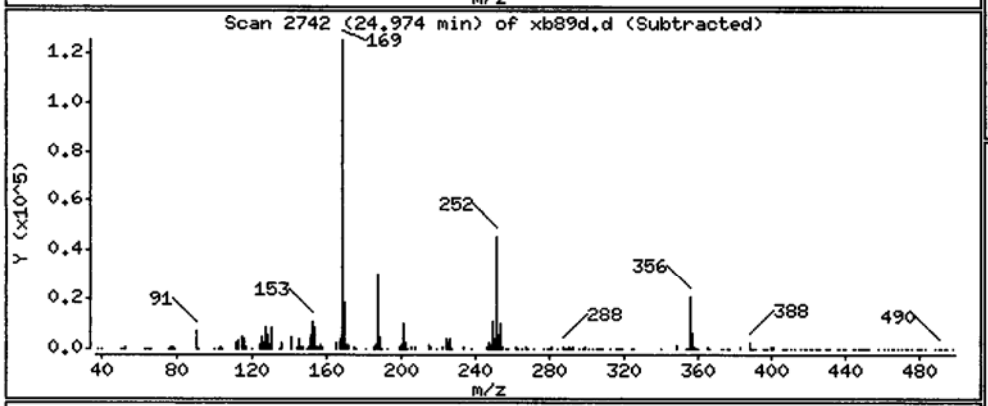
Column phase: ZB-5msi

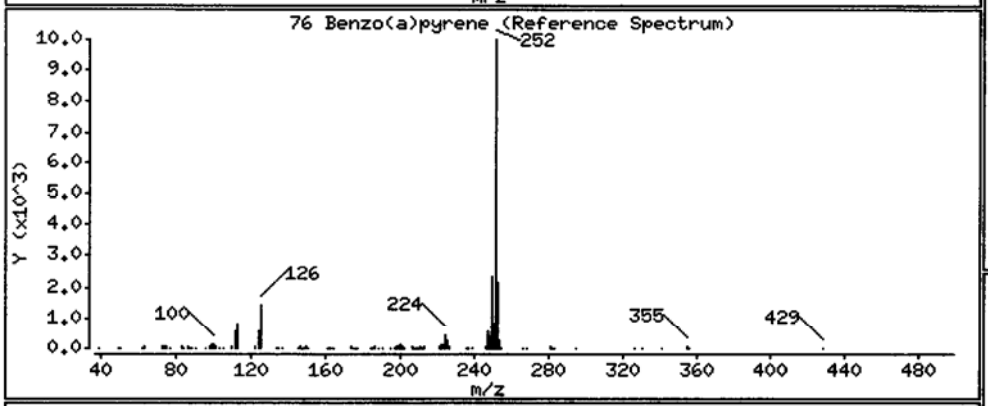
Column diameter: 0.25

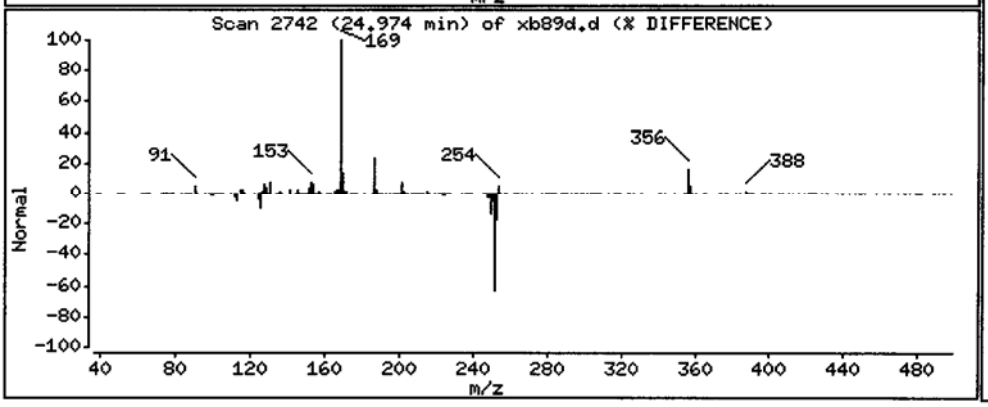
76 Benzo(a)pyrene

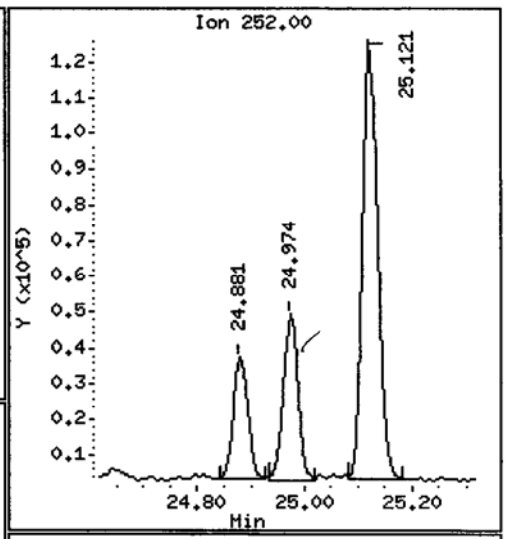
Concentration: 87.87 ug/kg

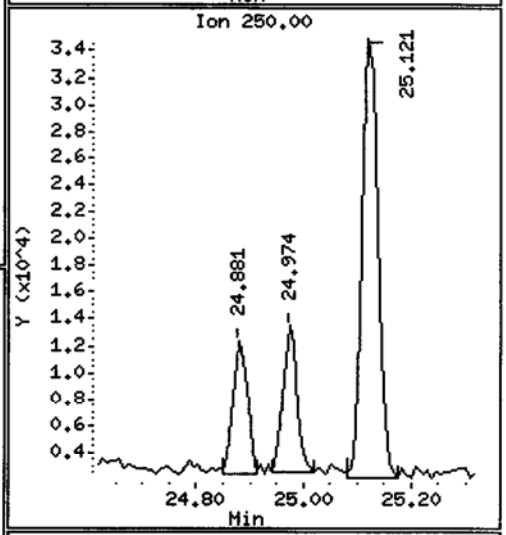


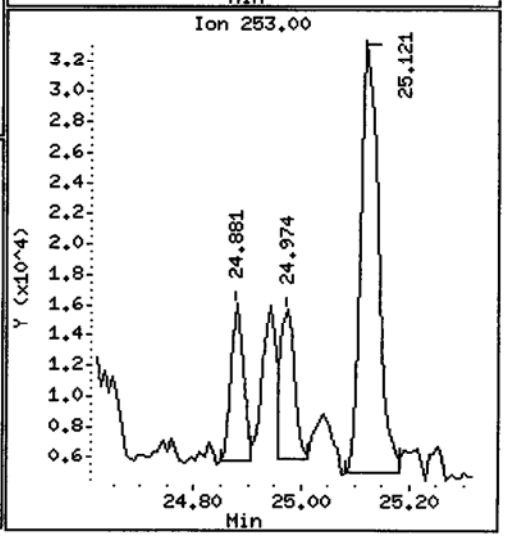












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

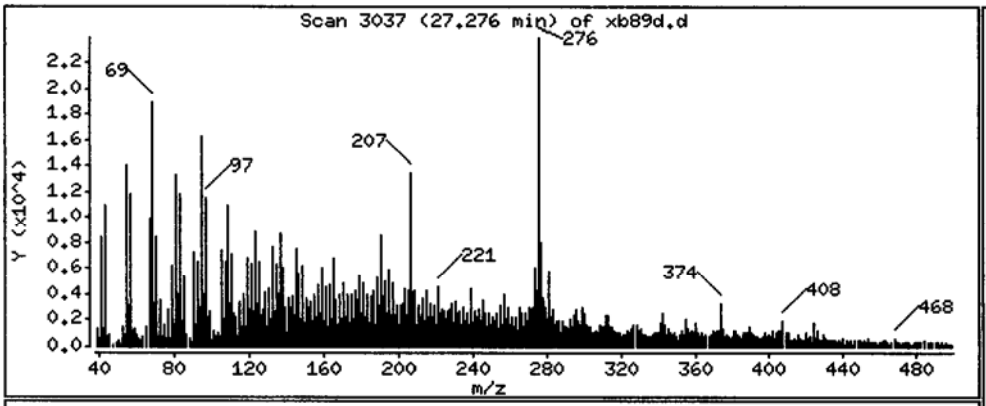
Operator: VTS/YZ

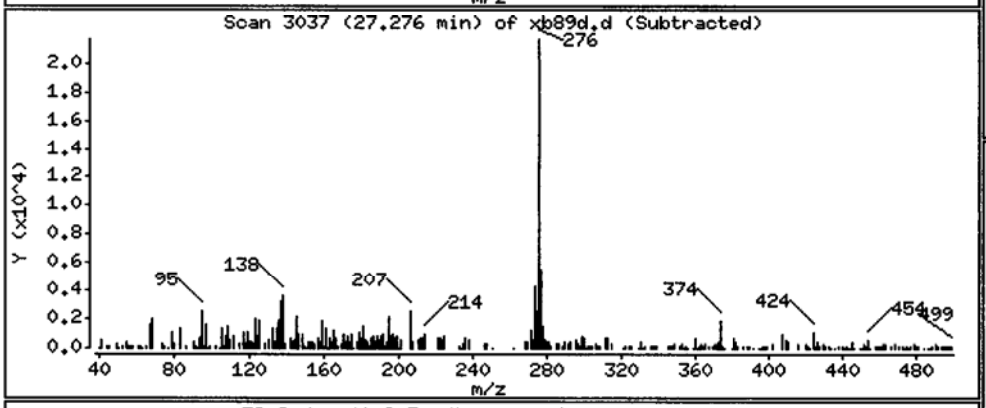
Column phase: ZB-5msi

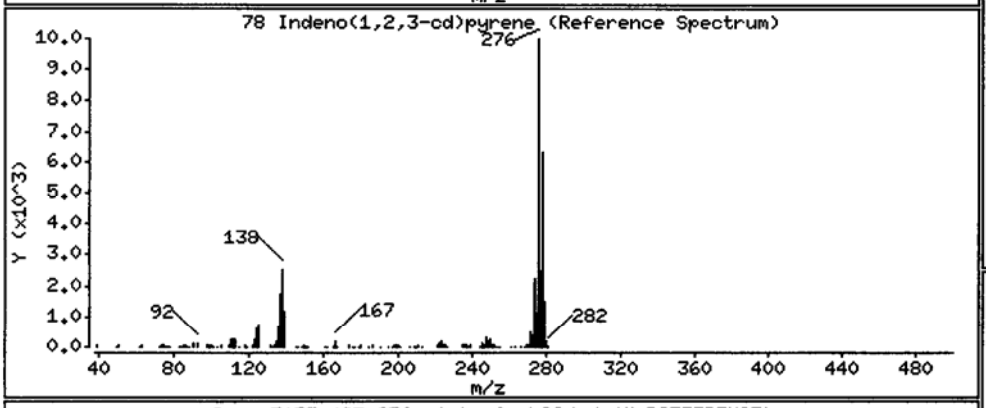
Column diameter: 0.25

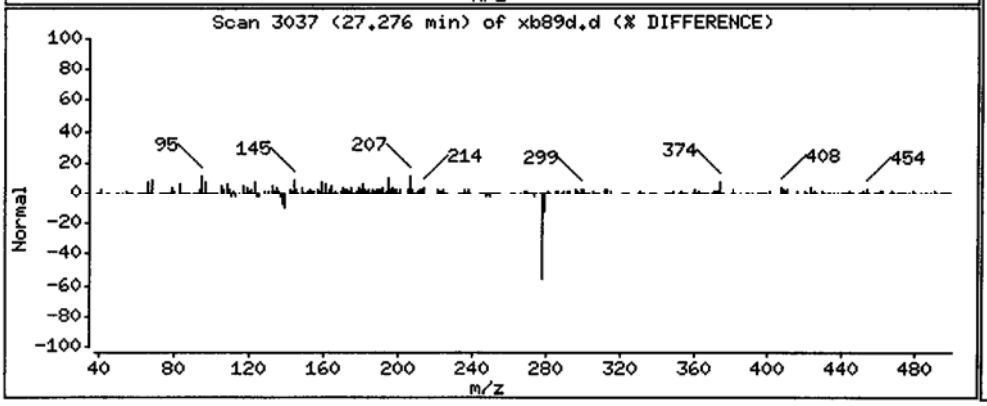
78 Indeno(1,2,3-cd)pyrene

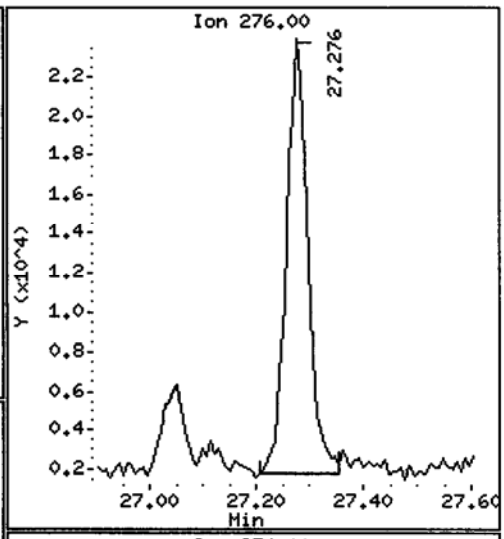
Concentration: 51.69 ug/kg

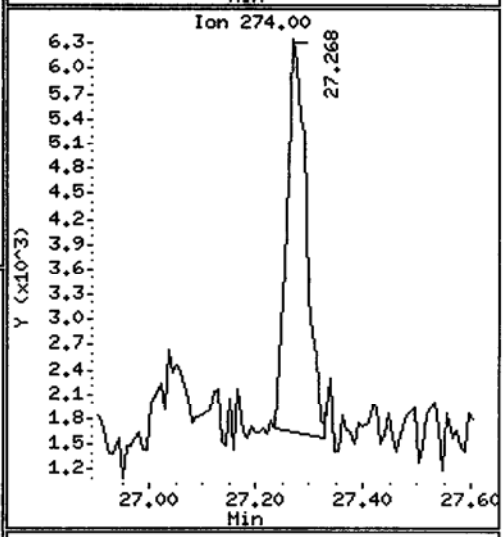


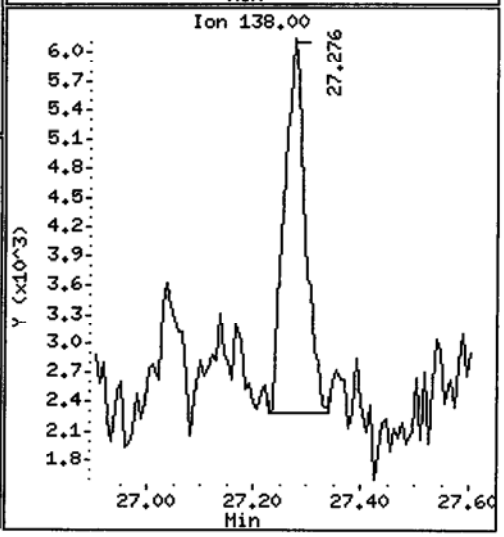












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

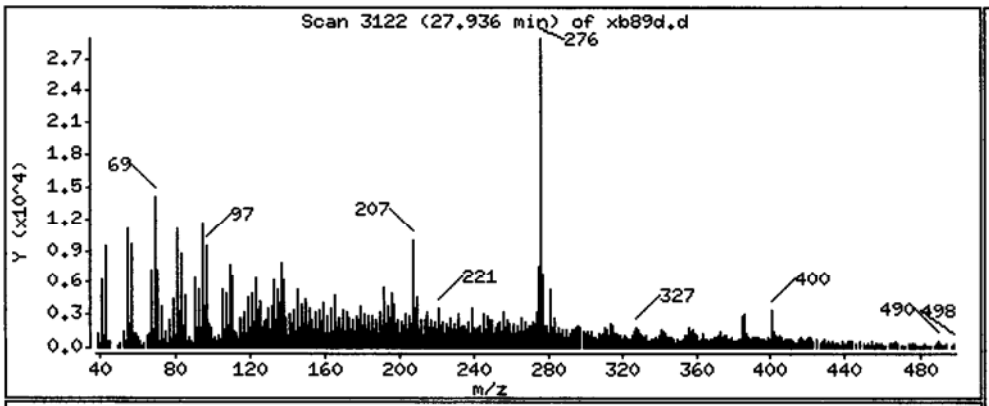
Operator: VTS/YZ

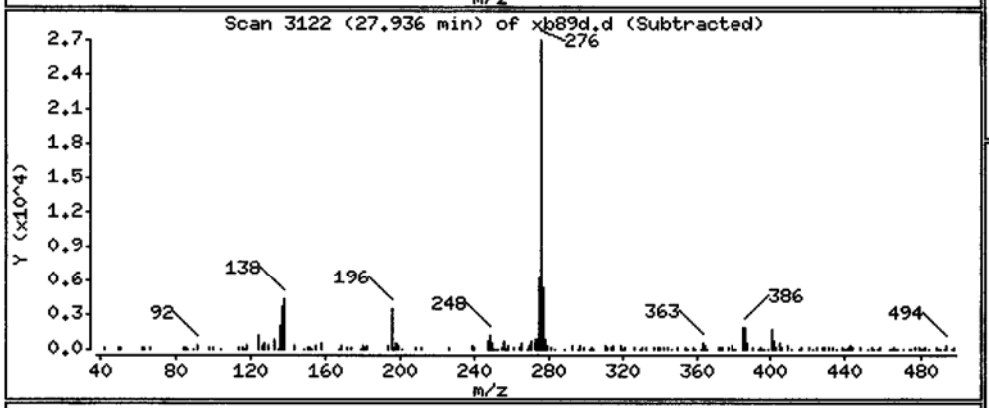
Column phase: ZB-5msi

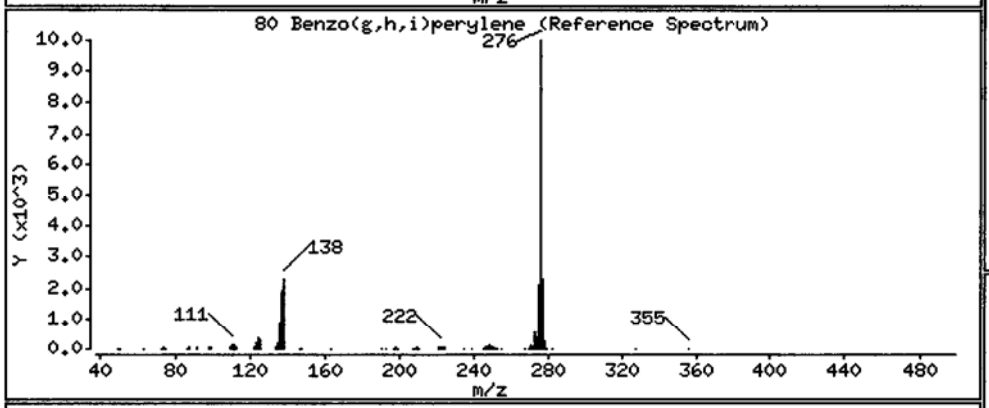
Column diameter: 0.25

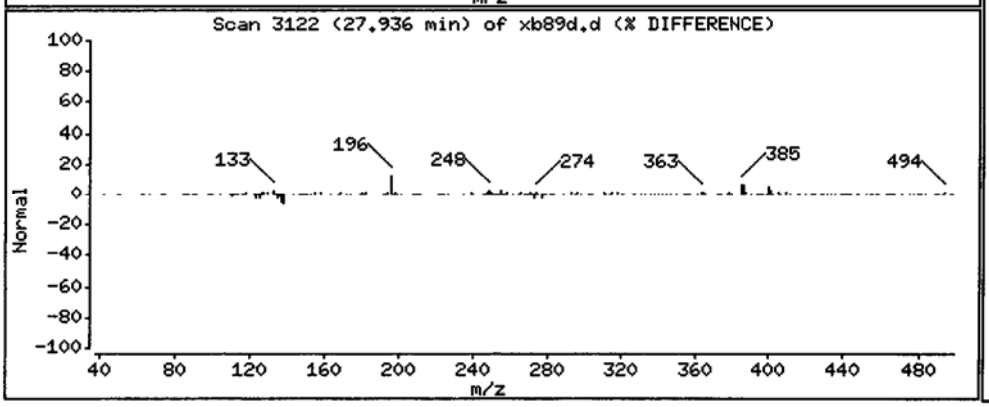
80 Benzo(g,h,i)perylene

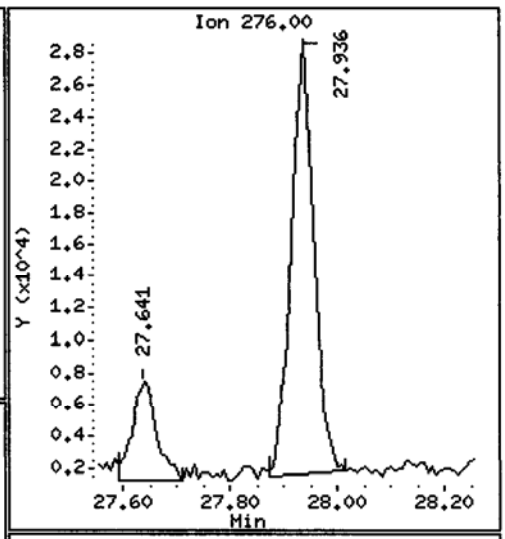
Concentration: 78.84 ug/kg

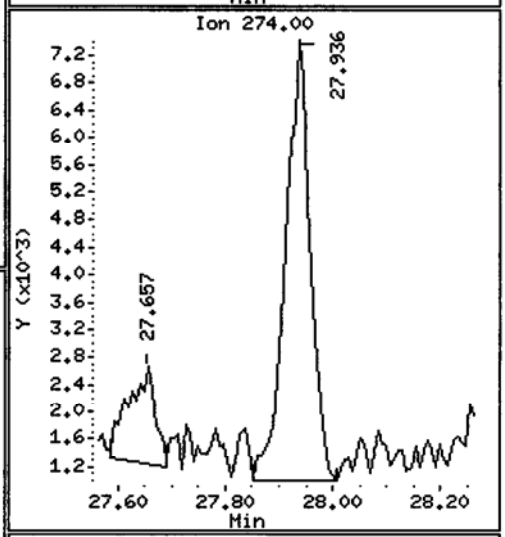


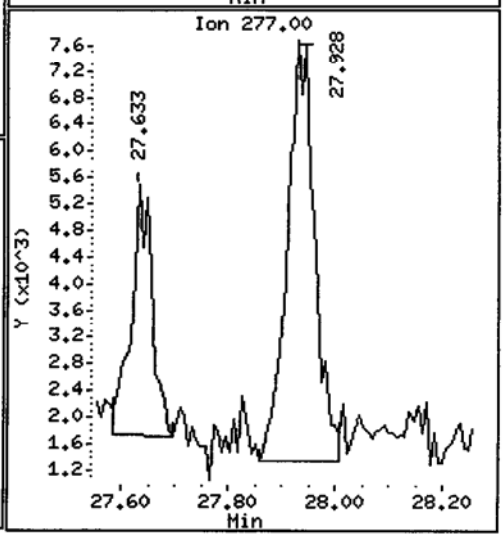












Data File: /chem1/nt10.i/20130902.b/xb89d.d

Date : 02-SEP-2013 17:05

Client ID: IJ13-VC-101-2-3.9

Instrument: nt10.i

Sample Info: XB89D

Volume Injected (uL): 1.0

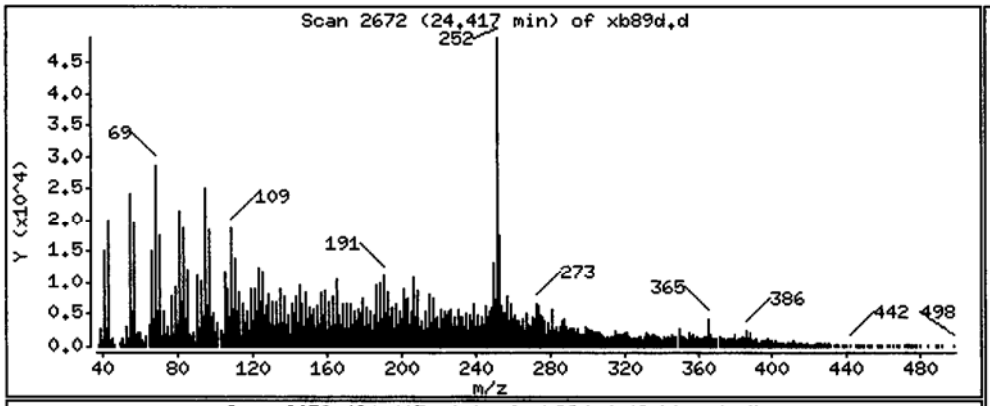
Operator: VTS/YZ

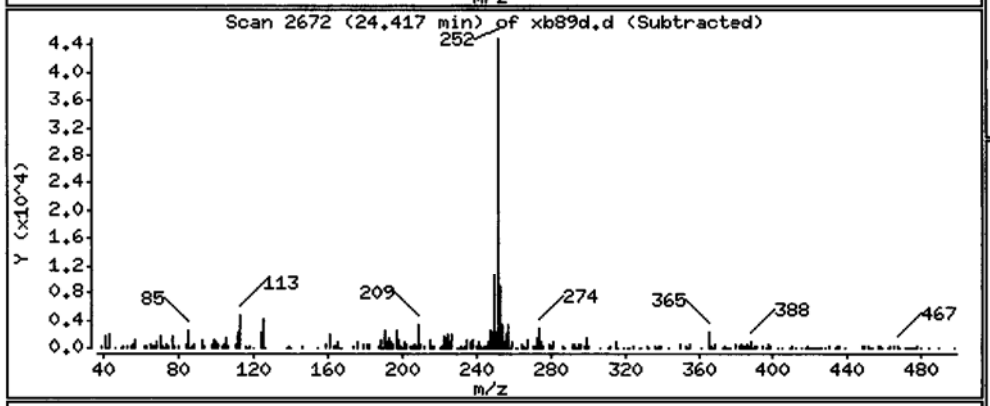
Column phase: ZB-5msi

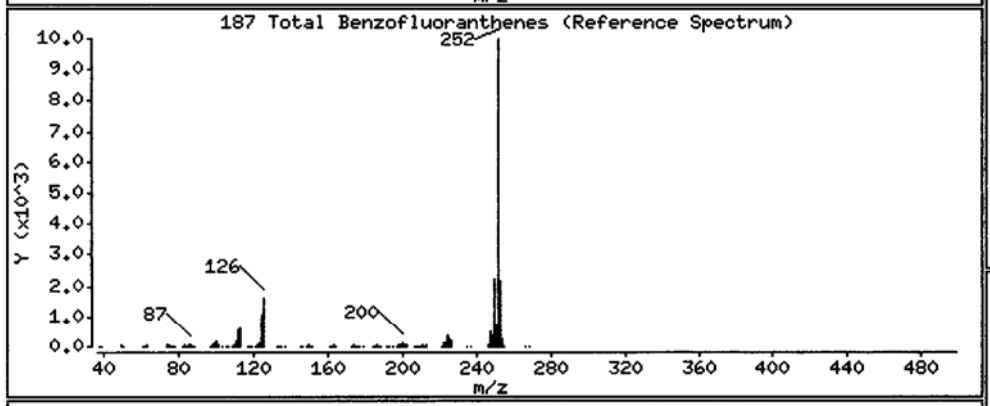
Column diameter: 0.25

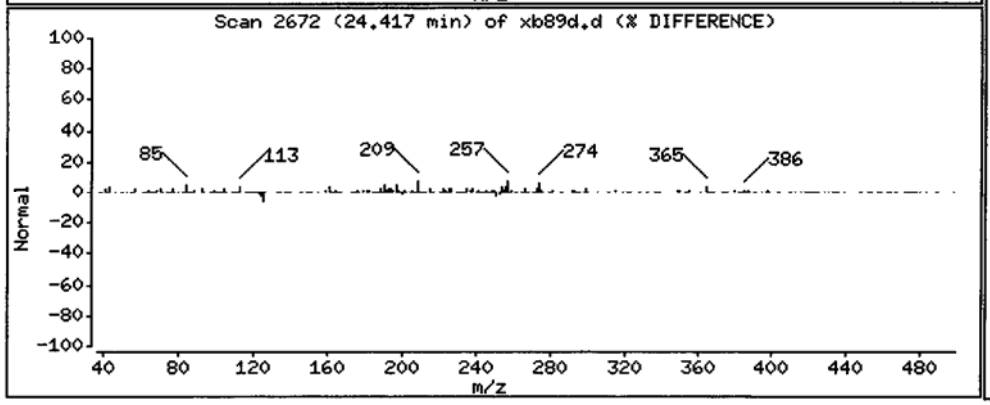
187 Total Benzofluoranthenes

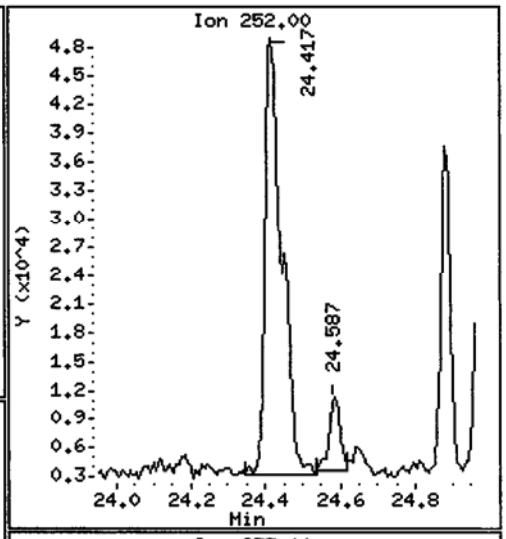
Concentration: 136.9 ug/kg

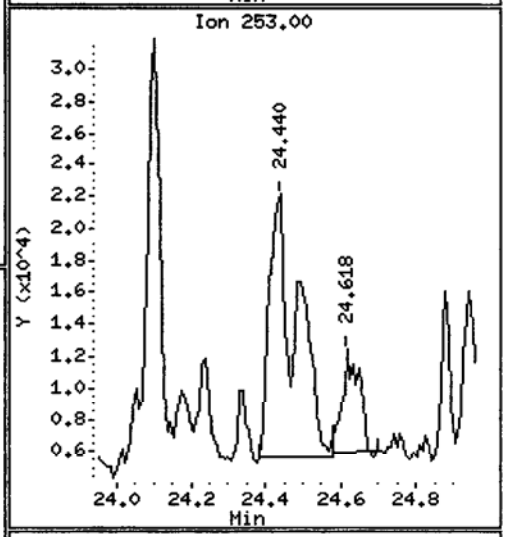


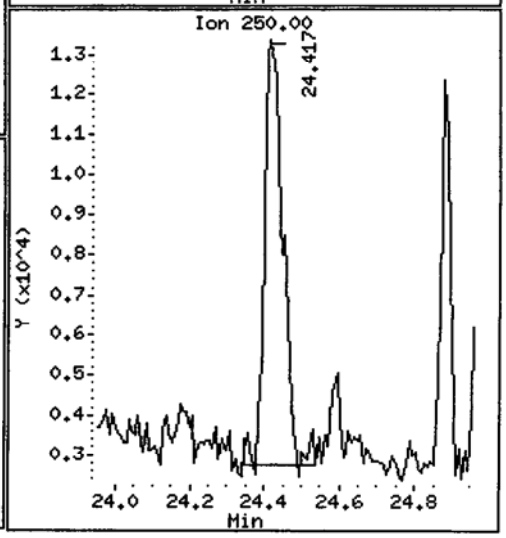












CO-ELUTION SUMMARY FOR FILE - xb89d.d

Lab ID: XB89D, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 9/5/13

Data file : /chem1/nt10.i/20130902.b/xb89dms.d
Lab Smp Id: XB89DMS Client Smp ID: IJ13-VC-101-2-3 MS
Inj Date : 02-SEP-2013 17:40
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89DMS
Misc Info : 13-17439
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 05-Sep-2013 15:20 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 11 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	16.10000	Weight of sample extracted (g)
M	37.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.306	6.105	(0.749)	167766	5.73514	565.4(H)
$	2 Phenol-d5	99	7.844	7.736	(0.931)	287244	7.50198	739.6
	3 Phenol	94	7.867	7.759	(0.934)	220365	6.03098	594.6(R)
$	5 2-Chlorophenol-d4	132	8.083	7.991	(0.960)	264117	8.43546	831.7(H)
	4 Bis(2-Chloroethyl)ether	93	7.952	7.929	(0.944)	107208	4.06880	401.1
	6 2-Chlorophenol	128	8.106	8.021	(0.962)	134179	4.38073	431.9
	7 1,3-Dichlorobenzene	146	8.315	8.300	(0.987)	122626	3.83142	377.7
*	8 1,4-Dichlorobenzene-d4	152	8.424	8.409	(1.000)	99592	4.00000	
	9 1,4-Dichlorobenzene	146	8.455	8.440	(1.004)	124042	4.07093	401.4
$	10 1,2-Dichlorobenzene-d4	152	8.711	8.696	(1.034)	81622	3.81056	375.7
	12 1,2-Dichlorobenzene	146	8.734	8.719	(1.037)	121332	4.16630	410.8
	11 Benzyl alcohol	108	8.758	8.673	(1.040)	71267	3.99937	394.3
	14 2,2'-oxybis(1-Chloropropane)	121	8.944	8.929	(1.062)	66113	7.44010	733.5(R)
	13 2-Methylphenol	108	8.960	8.882	(1.064)	139311	4.95431	488.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	9.371	9.363	(1.112)	7866	0.63710	62.81(R)
	16 N-Nitroso-di-n-propylamine	70	9.247	9.185	(1.098)	89876	5.40886	533.3
	15 4-Methylphenol	108	9.262	9.177	(1.099)	392950	13.6283	1344(R)
$	18 Nitrobenzene-d5	82	9.518	9.464	(0.874)	116596	3.77765	372.4
	19 Nitrobenzene	77	9.557	9.495	(0.878)	110042	4.20380	414.5
	20 Isophorone	82	9.998	9.975	(0.919)	205241	4.18016	412.1
	21 2-Nitrophenol	139	10.145	10.122	(0.932)	38256	1.93560	190.8
	22 2,4-Dimethylphenol	107	10.252	10.222	(0.942)	457988	15.9928	1577
	23 Bis(2-Chloroethoxy)methane	93	10.430	10.415	(0.958)	134418	4.43425	437.2
	24 Benzoic acid	105	10.545	10.538	(0.969)	256030	11.7447	1158
	25 2,4-Dichlorophenol	162	10.638	10.599	(0.977)	388986	12.5564	1238
	26 1,2,4-Trichlorobenzene	180	10.769	10.761	(0.989)	117655	4.19148	413.2
*	27 Naphthalene-d8	136	10.885	10.877	(1.000)	365220	4.00000	
	28 Naphthalene	128	10.931	10.916	(1.004)	1330696	16.6387	1640(R)
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	11.178	11.179	(1.027)	72953	4.24572	418.6
	31 4-Chloro-3-methylphenol	107	12.084	12.038	(1.110)	365424	13.3966	1321
	32 2-Methylnaphthalene	142	12.332	12.324	(1.133)	446001	7.35508	725.1(R)
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	12.935	12.912	(0.895)	252177	10.7001	1055
	35 2,4,5-Trichlorophenol	196	13.020	12.974	(0.900)	293783	11.3937	1123(H)
$	36 2-Fluorobiphenyl	172	13.098	13.090	(0.906)	307270	4.07857	402.1
	37 2-Chloronaphthalene	162	13.322	13.315	(0.921)	255292	4.41039	434.8
	38 2-Nitroaniline	65	13.570	13.547	(0.938)	125865	8.99605	886.9
	39 Dimethylphthalate	163	13.957	13.942	(0.965)	394950	6.08107	599.5(R)
	40 Acenaphthylene	152	14.174	14.166	(0.980)	560072	5.20730	513.4
	41 2,6-Dinitrotoluene	165	14.073	14.058	(0.973)	203678	13.2125	1303
*	42 Acenaphthene-d10	164	14.460	14.460	(1.000)	233193	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.529	14.522	(1.005)	302357	5.46877	539.2
	45 2,4-Dinitrophenol	184	14.638	14.615	(1.012)	13281	1.40837	138.9(R)
	46 Dibenzofuran	168	14.893	14.885	(1.030)	528309	6.21381	612.6(R)
	47 4-Nitrophenol	109	14.877	14.777	(1.029)	100053	12.7486	1257
	48 2,4-Dinitrotoluene	165	14.900	14.885	(1.030)	211459	9.85757	971.9
	50 Diethylphthalate	149	15.418	15.411	(1.066)	303822	4.78948	472.2
	49 Fluorene	166	15.596	15.597	(1.079)	396425	5.67280	559.3
	51 4-Chlorophenyl-phenylether	204	15.612	15.612	(1.080)	160549	4.58882	452.4
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	15.735	15.720	(0.898)	86967	6.35770	626.8(R)
	54 N-Nitrosodiphenylamine	169	15.874	15.859	(0.906)	204055	5.42618	535.0
$	55 2,4,6-Tribromophenol	330	16.121	16.091	(1.115)	96657	6.39873	630.9(H)
	56 4-Bromophenyl-phenylether	248	16.622	16.623	(0.948)	80495	4.36729	430.6
	57 Hexachlorobenzene	284	16.723	16.715	(0.954)	116358	5.32951	525.4
	58 Pentachlorophenol	266	17.157	17.141	(0.979)	105572	8.82004	869.6
*	59 Phenanthrene-d10	188	17.528	17.528	(1.000)	377628	4.00000	
	60 Phenanthrene	178	17.582	17.575	(1.003)	899397	11.0972	1094(R)
	61 Anthracene	178	17.683	17.683	(1.009)	502211	5.76465	568.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	62 Carbazole	167	18.046	18.039	(1.030)	357786	7.40369	729.9(R)
	63 Di-n-butylphthalate	149	18.812	18.812	(1.073)	483297	5.00248	493.2
	64 Fluoranthene	202	20.004	19.996	(1.141)	814573	7.56367	745.7(R)
	65 Pyrene	202	20.429	20.422	(0.902)	903550	8.10809	799.4(R)
$	66 Terphenyl-d14	244	20.754	20.755	(0.916)	271222	4.36730	430.6
	67 Butylbenzylphthalate	149	21.683	21.691	(0.957)	206779	5.38062	530.5
	68 Benzo(a)anthracene	228	22.636	22.636	(0.999)	500962	5.10486	503.3
*	69 Chrysene-d12	240	22.651	22.651	(1.000)	377426	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.698	22.698	(1.002)	475410	5.69532	561.5
	72 bis(2-Ethylhexyl)phthalate	149	22.721	22.729	(0.955)	311254	5.98896	590.5
*	134 Di-n-octylphthalate-d4	153	23.781	23.797	(1.000)	491592	4.00000	
	73 Di-n-octylphthalate	149	23.797	23.805	(1.001)	503840	5.30777	523.3
	74 Benzo(b)fluoranthene	252	24.416	24.409	(0.974)	580836	5.50884	543.1
	75 Benzo(k)fluoranthene	252	24.455	24.455	(0.975)	477820	4.63864	457.3
	76 Benzo(a)pyrene	252	24.974	24.966	(0.996)	454638	4.90318	483.4
*	77 Perylene-d12	264	25.075	25.067	(1.000)	415701	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.276	27.253	(1.088)	350619	2.94560	290.4
	79 Dibenzo(a,h)anthracene	278	27.315	27.299	(1.089)	213547	2.34965	231.7
	80 Benzo(g,h,i)perylene	276	27.944	27.905	(1.114)	250809	2.49200	245.7
	90 N-Nitrosodimethylamine	74	3.950	3.935	(0.469)	174421	12.3732	1220
	91 Aniline	93	7.867	7.813	(0.934)	7029	0.10446	10.30(R)
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	4.005	3.989	(0.475)	207362	21.5531	2125(R)
	105 1-methylnaphthalene	142	12.533	12.525	(1.151)	407937	7.44351	733.9(R)
	111 Azobenzene (1,2-DP-Hydrazine)	77	15.944	15.936	(1.103)	244029	5.11796	504.6
	187 Total Benzofluoranthenes	252	24.455	24.455	(0.975)	1016181	9.96861	982.8
	99 Perylene	252	25.121	25.121	(1.002)	439772	5.04346	497.2
	98 Retene	219	21.002	21.002	(0.927)	477977	10.8443	1069
	120 2,3,4,6-Tetrachlorophenol	232	15.163	15.148	(1.049)	65962	3.47668	342.8

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89dms.d
Lab Smp Id: XB89DMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: IJ13-VC-101-2-3
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	99592	-34.85
27 Naphthalene-d8	536851	268426	1073702	365220	-31.97
42 Acenaphthene-d10	348566	174283	697132	233193	-33.10
59 Phenanthrene-d10	633376	316688	1266752	377628	-40.38
69 Chrysene-d12	651036	325518	1302072	377426	-42.03
134 Di-n-octylphthala	837259	418630	1674518	491592	-41.29
77 Perylene-d12	696727	348364	1393454	415701	-40.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.42	0.18
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.07
42 Acenaphthene-d10	14.46	13.96	14.96	14.46	0.00
59 Phenanthrene-d10	17.53	17.03	18.03	17.53	0.00
69 Chrysene-d12	22.65	22.15	23.15	22.65	0.00
134 Di-n-octylphthala	23.80	23.30	24.30	23.78	-0.07
77 Perylene-d12	25.07	24.57	25.57	25.07	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA
Sample Matrix: SOLID
Lab Smp Id: XB89DMS
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDALCS.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

Client SDG: XB89
Fraction: SV
Client Smp ID: IJ13-VC-101-2-3 MS
Operator: VTS/YZ
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Phenol	493.0	594.6	120.62*	34-120
4 Bis(2-Chloroethyl)	493.0	401.1	81.38	36-120
6 2-Chlorophenol	493.0	431.9	87.61	39-120
7 1,3-Dichlorobenzen	493.0	377.7	76.63	40-120
9 1,4-Dichlorobenzen	493.0	401.4	81.42	39-120
11 Benzyl alcohol	493.0	394.3	79.99	19-120
12 1,2-Dichlorobenzen	493.0	410.8	83.33	32-120
13 2-Methylphenol	493.0	488.4	99.09	28-120
14 2,2'-oxybis(1-Chlo	493.0	733.5	148.80*	32-120
15 4-Methylphenol	985.9	1344	136.28*	29-120
16 N-Nitroso-di-n-pro	493.0	533.3	108.18	30-120
17 Hexachloroethane	493.0	62.81	12.74*	38-120
19 Nitrobenzene	493.0	414.5	84.08	36-120
20 Isophorone	493.0	412.1	83.60	37-120
21 2-Nitrophenol	493.0	190.8	38.71	37-120
22 2,4-Dimethylphenol	1479	1577	106.62	10-120
23 Bis(2-Chloroethoxy	493.0	437.2	88.68	39-120
24 Benzoic acid	2711	1158	42.71	10-120
25 2,4-Dichlorophenol	1479	1238	83.71	28-120
26 1,2,4-Trichloroben	493.0	413.2	83.83	35-120
28 Naphthalene	493.0	1640	332.77*	43-120
29 4-Chloroaniline	1479	0.000	*	11-120
30 Hexachlorobutadien	493.0	418.6	84.91	37-120
31 4-Chloro-3-methylp	1479	1321	89.31	32-120
32 2-Methylnaphthalen	493.0	725.1	147.10*	43-120
33 Hexachlorocyclope	1479	0.000	*	10-120
34 2,4,6-Trichlorophe	1479	1055	71.33	30-120
35 2,4,5-Trichlorophe	1479	1123	75.96	28-120
37 2-Chloronaphthalen	493.0	434.8	88.21	40-120
38 2-Nitroaniline	1479	886.9	59.97	31-126
39 Dimethylphthalate	493.0	599.5	121.62*	43-120
40 Acenaphthylene	493.0	513.4	104.15	42-120
41 2,6-Dinitrotoluene	1479	1303	88.08	33-123

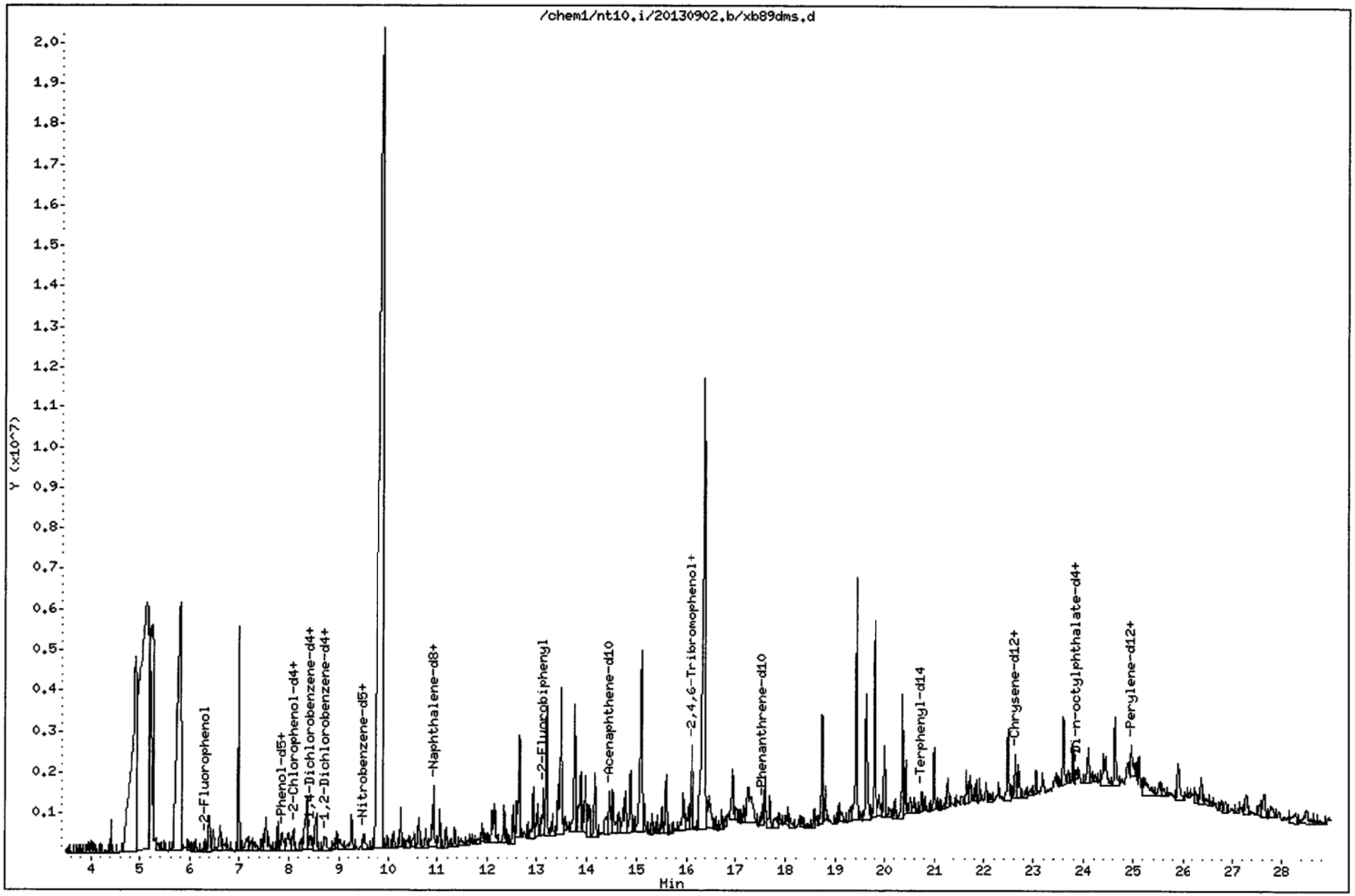
	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43	3-Nitroaniline	1479	0.000	*	22-120
44	Acenaphthene	493.0	539.2	109.38	45-120
45	2,4-Dinitrophenol	2711	138.9	5.12*	10-120
46	Dibenzofuran	493.0	612.6	124.28*	43-120
47	4-Nitrophenol	1479	1257	84.99	15-138
48	2,4-Dinitrotoluene	1479	971.9	65.72	35-127
49	Fluorene	493.0	559.3	113.46	45-120
50	Diethylphthalate	493.0	472.2	95.79	50-120
51	4-Chlorophenyl-phe	493.0	452.4	91.78	32-120
52	4-Nitroaniline	1479	0.000	*	24-125
53	4,6-Dinitro-2-meth	2711	626.8	23.12*	24-120
54	N-Nitrosodiphenyla	493.0	535.0	108.52	36-120
56	4-Bromophenyl-phen	493.0	430.6	87.35	39-120
57	Hexachlorobenzene	493.0	525.4	106.59	33-120
58	Pentachlorophenol	1479	869.6	58.80	16-120
60	Phenanthrene	493.0	1094	221.94*	49-120
61	Anthracene	493.0	568.3	115.29	45-120
62	Carbazole	493.0	729.9	148.07*	43-135
63	Di-n-butylphthalat	493.0	493.2	100.05	48-126
64	Fluoranthene	493.0	745.7	151.27*	53-120
65	Pyrene	493.0	799.4	162.16*	48-121
67	Butylbenzylphthala	493.0	530.5	107.61	45-132
68	Benzo(a)anthracene	493.0	503.3	102.10	49-120
70	3,3'-Dichlorobenz	1479	0.000	*	10-120
71	Chrysene	493.0	561.5	113.91	47-120
72	bis(2-Ethylhexyl)p	493.0	590.5	119.78	34-130
73	Di-n-octylphthalat	493.0	523.3	106.16	28-124
74	Benzo(b)fluoranthe	493.0	543.1	110.18	42-132
75	Benzo(k)fluoranthe	493.0	457.3	92.77	39-129
76	Benzo(a)pyrene	493.0	483.4	98.06	42-120
78	Indeno(1,2,3-cd)py	493.0	290.4	58.91	42-120
79	Dibenzo(a,h)anthra	493.0	231.7	46.99	30-120
80	Benzo(g,h,i)peryle	493.0	245.7	49.84	38-126
91	Aniline	1479	10.30	0.70*	10-134
111	Azobenzene (1,2-DP	493.0	504.6	102.36	35-120
90	N-Nitrosodimethyla	1479	1220	82.49	17-120
105	1-methylnaphthalen	493.0	733.9	148.87*	42-120
103	Pyridine	985.9	2125	215.53*	10-147
187	Total Benzofluoran	985.9	982.8	99.69	30-160

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	739.4	565.4	76.47	27-120

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	739.4	739.6	100.03	29-120
$ 5 2-Chlorophenol-d4	739.4	831.7	112.47	31-120
$ 10 1,2-Dichlorobenzen	493.0	375.7	76.21	32-120
$ 18 Nitrobenzene-d5	493.0	372.4	75.55	30-120
$ 36 2-Fluorobiphenyl	493.0	402.1	81.57	35-120
$ 55 2,4,6-Tribromophen	739.4	630.9	85.32	24-134
$ 66 Terphenyl-d14	493.0	430.6	87.35	37-120

Data File: /chem1/nt10.i/20130902.b/xb89dms.d
Date : 02-SEP-2013 17:40
Client ID: IJ13-VC-101-2-3 MS
Sample Info: XB89DMS
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



XB89 : 00531

CO-ELUTION SUMMARY FOR FILE - xb89dms.d

Lab ID: XB89DMS, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

KZ 9/5/13

Data file : /chem1/nt10.i/20130902.b/xb89dmsd.d
Lab Smp Id: XB89DMSD Client Smp ID: IJ13-VC-101-2-3 MSD
Inj Date : 02-SEP-2013 18:15
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89DMSD
Misc Info : 13-17439
Comment : 1ul Injection
Method : /chem1/nt10.i/20130902.b/ABN.m
Meth Date : 05-Sep-2013 15:20 yev Quant Type: ISTD
Cal Date : 02-SEP-2013 12:23 Cal File: cc0902a.d
Als bottle: 12 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	16.10000	Weight of sample extracted (g)
M	37.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	6.252	6.105	(0.743)	62565	2.21312	218.2
$ 2	Phenol-d5	99	7.836	7.736	(0.931)	281247	7.60056	749.3
3	Phenol	94	7.867	7.759	(0.935)	215765	6.11025	602.4(R)
$ 5	2-Chlorophenol-d4	132	8.068	7.991	(0.959)	265542	8.77563	865.2
4	Bis(2-Chloroethyl)ether	93	7.952	7.929	(0.945)	108679	4.26793	420.8
6	2-Chlorophenol	128	8.098	8.021	(0.962)	134990	4.56033	449.6
7	1,3-Dichlorobenzene	146	8.308	8.300	(0.987)	127206	4.11261	405.5
* 8	1,4-Dichlorobenzene-d4	152	8.416	8.409	(1.000)	96248	4.00000	
9	1,4-Dichlorobenzene	146	8.447	8.440	(1.004)	125910	4.27580	421.6
$ 10	1,2-Dichlorobenzene-d4	152	8.703	8.696	(1.034)	82230	3.97232	391.6
12	1,2-Dichlorobenzene	146	8.734	8.719	(1.038)	126069	4.47936	441.6
11	Benzyl alcohol	108	8.742	8.673	(1.039)	75551	4.38708	432.5
14	2,2'-oxybis(1-Chloropropane)	121	8.936	8.929	(1.062)	61593	7.17226	707.1(R)
13	2-Methylphenol	108	8.960	8.882	(1.065)	147220	5.41748	534.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	9.363	9.363	(1.113)	10801	0.90521	89.24(R)
	16 N-Nitroso-di-n-propylamine	70	9.239	9.185	(1.098)	97309	6.05966	597.4(R)
	15 4-Methylphenol	108	9.262	9.177	(1.101)	403500	14.4804	1428(R)
$	18 Nitrobenzene-d5	82	9.503	9.464	(0.874)	123066	4.11409	405.6
	19 Nitrobenzene	77	9.549	9.495	(0.878)	112549	4.43632	437.4
	20 Isophorone	82	9.990	9.975	(0.918)	205516	4.31889	425.8
	21 2-Nitrophenol	139	10.137	10.122	(0.932)	42531	2.22034	218.9
	22 2,4-Dimethylphenol	107	10.252	10.222	(0.943)	465974	16.7892	1655
	23 Bis(2-Chloroethoxy)methane	93	10.422	10.415	(0.958)	133633	4.54856	448.4
	24 Benzoic acid	105	10.561	10.530	(0.971)	278292	13.1719	1299
	25 2,4-Dichlorophenol	162	10.630	10.599	(0.977)	388345	12.9344	1275
	26 1,2,4-Trichlorobenzene	180	10.769	10.761	(0.990)	123055	4.52328	446.0
*	27 Naphthalene-d8	136	10.877	10.877	(1.000)	353962	4.00000	
	28 Naphthalene	128	10.923	10.916	(1.004)	1157187	14.9294	1472(R)
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	11.171	11.179	(1.027)	75413	4.52848	446.5
	31 4-Chloro-3-methylphenol	107	12.076	12.038	(1.110)	369263	13.9679	1377(H)
	32 2-Methylnaphthalene	142	12.324	12.324	(1.133)	459417	7.81730	770.7(R)
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	12.920	12.912	(0.894)	279446	12.5814	1240
	35 2,4,5-Trichlorophenol	196	13.013	12.974	(0.900)	303082	12.4723	1230
$	36 2-Fluorobiphenyl	172	13.082	13.090	(0.905)	301762	4.25012	419.0
	37 2-Chloronaphthalene	162	13.314	13.315	(0.921)	259409	4.75526	468.8
	38 2-Nitroaniline	65	13.562	13.547	(0.938)	111301	8.44102	832.2
	39 Dimethylphthalate	163	13.949	13.942	(0.965)	402962	6.58342	649.1(R)
	40 Acenaphthylene	152	14.166	14.166	(0.980)	549973	5.42574	534.9
	41 2,6-Dinitrotoluene	165	14.058	14.058	(0.973)	197886	13.6209	1343
*	42 Acenaphthene-d10	164	14.452	14.460	(1.000)	219769	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.522	14.522	(1.005)	310451	5.95816	587.4
	45 2,4-Dinitrophenol	184	14.630	14.615	(1.012)	21620	2.43271	239.8(R)
	46 Dibenzofuran	168	14.877	14.885	(1.029)	565889	7.06237	696.3(R)
	47 4-Nitrophenol	109	14.869	14.777	(1.029)	97289	13.1536	1297
	48 2,4-Dinitrotoluene	165	14.893	14.885	(1.030)	217132	10.7403	1059
	50 Diethylphthalate	149	15.403	15.411	(1.066)	350550	5.86365	578.1
	49 Fluorene	166	15.588	15.597	(1.079)	413695	6.28153	619.3(R)
	51 4-Chlorophenyl-phenylether	204	15.604	15.612	(1.080)	162395	4.92510	485.6
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	15.728	15.720	(0.898)	115263	8.67639	855.4
	54 N-Nitrosodiphenylamine	169	15.867	15.859	(0.906)	158508	4.34012	427.9
$	55 2,4,6-Tribromophenol	330	16.106	16.091	(1.114)	92631	6.50677	641.5
	56 4-Bromophenyl-phenylether	248	16.615	16.623	(0.948)	112983	6.31189	622.3(R)
	57 Hexachlorobenzene	284	16.715	16.715	(0.954)	130029	6.13246	604.6(R)
	58 Pentachlorophenol	266	17.149	17.141	(0.979)	112018	9.63636	950.1
*	59 Phenanthrene-d10	188	17.520	17.528	(1.000)	366742	4.00000	
	60 Phenanthrene	178	17.567	17.575	(1.003)	1271635	16.1558	1593(R)
	61 Anthracene	178	17.675	17.683	(1.009)	544495	6.43553	634.5(R)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	18.039	18.039	(1.030)	434072	9.24890	911.9(R)
63	Di-n-butylphthalate	149	18.797	18.812	(1.073)	475887	5.07200	500.0
64	Fluoranthene	202	19.996	19.996	(1.141)	1266272	12.1069	1194(R)
65	Pyrene	202	20.422	20.422	(0.902)	1341689	12.4151	1224(R)
$ 66	Terphenyl-d14	244	20.739	20.755	(0.916)	269233	4.47040	440.7
67	Butylbenzylphthalate	149	21.676	21.691	(0.957)	203554	5.46180	538.5
68	Benzo(a)anthracene	228	22.628	22.636	(0.999)	650316	6.83336	673.7(R)
* 69	Chrysene-d12	240	22.643	22.651	(1.000)	366017	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.690	22.698	(1.002)	660329	8.15719	804.2(R)
72	bis(2-Ethylhexyl)phthalate	149	22.705	22.729	(0.955)	307214	6.11833	603.2
* 134	Di-n-octylphthalate-d4	153	23.774	23.797	(1.000)	474951	4.00000	
73	Di-n-octylphthalate	149	23.782	23.805	(1.000)	512199	5.58488	550.6
74	Benzo(b)fluoranthene	252	24.409	24.409	(0.974)	736142	7.67073	756.3(R)
75	Benzo(k)fluoranthene	252	24.447	24.455	(0.975)	648268	6.91433	681.7(R)
76	Benzo(a)pyrene	252	24.966	24.966	(0.996)	620994	7.35815	725.4(R)
* 77	Perylene-d12	264	25.067	25.067	(1.000)	378366	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.268	27.253	(1.088)	411163	3.79508	374.2
79	Dibenzo(a,h)anthracene	278	27.307	27.299	(1.089)	219425	2.65255	261.5
80	Benzo(g,h,i)perylene	276	27.928	27.905	(1.114)	303137	3.30912	326.2
90	N-Nitrosodimethylamine	74	3.958	3.935	(0.470)	167913	12.3253	1215
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	4.012	3.989	(0.477)	208488	22.4230	2211(R)
105	1-methylnaphthalene	142	12.517	12.525	(1.151)	434377	8.17804	806.3(R)
111	Azobenzene (1,2-DP-Hydrazine)	77	15.928	15.936	(1.102)	223139	4.96570	489.6
187	Total Benzofluoranthenes	252	24.409	24.455	(0.974)	1324608	14.2764	1408
99	Perylene	252	25.113	25.121	(1.002)	480111	6.04940	596.4
98	Retene	219	20.994	21.002	(0.927)	526204	12.3106	1214
120	2,3,4,6-Tetrachlorophenol	232	15.155	15.148	(1.049)	64247	3.59313	354.2

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89dmsd.d
Lab Smp Id: XB89DMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

Calibration Date: 02-SEP-2013
Calibration Time: 12:23
Client Smp ID: IJ13-VC-101-2-3
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	96248	-37.04
27 Naphthalene-d8	536851	268426	1073702	353962	-34.07
42 Acenaphthene-d10	348566	174283	697132	219769	-36.95
59 Phenanthrene-d10	633376	316688	1266752	366742	-42.10
69 Chrysene-d12	651036	325518	1302072	366017	-43.78
134 Di-n-octylphthala	837259	418630	1674518	474951	-43.27
77 Perylene-d12	696727	348364	1393454	378366	-45.69

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.41	7.91	8.91	8.42	0.09
27 Naphthalene-d8	10.88	10.38	11.38	10.88	0.00
42 Acenaphthene-d10	14.46	13.96	14.96	14.45	-0.06
59 Phenanthrene-d10	17.53	17.03	18.03	17.52	-0.05
69 Chrysene-d12	22.65	22.15	23.15	22.64	-0.04
134 Di-n-octylphthala	23.80	23.30	24.30	23.77	-0.10
77 Perylene-d12	25.07	24.57	25.57	25.07	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA
Sample Matrix: SOLID
Lab Smp Id: XB89DMSD
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDALCS.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130902.b/ABN.m
Misc Info: 13-17439

Client SDG: XB89
Fraction: SV
Client Smp ID: IJ13-VC-101-2-3 MSD
Operator: VTS/YZ
SampleType: MSD
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	493.0	602.4	122.21*	34-120
4	Bis(2-Chloroethyl)	493.0	420.8	85.36	36-120
6	2-Chlorophenol	493.0	449.6	91.21	39-120
7	1,3-Dichlorobenzen	493.0	405.5	82.25	40-120
9	1,4-Dichlorobenzen	493.0	421.6	85.52	39-120
11	Benzyl alcohol	493.0	432.5	87.74	19-120
12	1,2-Dichlorobenzen	493.0	441.6	89.59	32-120
13	2-Methylphenol	493.0	534.1	108.35	28-120
14	2,2'-oxybis(1-Chlo	493.0	707.1	143.45*	32-120
15	4-Methylphenol	985.9	1428	144.80*	29-120
16	N-Nitroso-di-n-pro	493.0	597.4	121.19*	30-120
17	Hexachloroethane	493.0	89.24	18.10*	38-120
19	Nitrobenzene	493.0	437.4	88.73	36-120
20	Isophorone	493.0	425.8	86.38	37-120
21	2-Nitrophenol	493.0	218.9	44.41	37-120
22	2,4-Dimethylphenol	1479	1655	111.93	10-120
23	Bis(2-Chloroethoxy	493.0	448.4	90.97	39-120
24	Benzoic acid	2711	1299	47.90	10-120
25	2,4-Dichlorophenol	1479	1275	86.23	28-120
26	1,2,4-Trichloroben	493.0	446.0	90.47	35-120
28	Naphthalene	493.0	1472	298.59*	43-120
29	4-Chloroaniline	1479	0.000	*	11-120
30	Hexachlorobutadien	493.0	446.5	90.57	37-120
31	4-Chloro-3-methylp	1479	1377	93.12	32-120
32	2-Methylnaphthalen	493.0	770.7	156.35*	43-120
33	Hexachlorocyclope	1479	0.000	*	10-120
34	2,4,6-Trichlorophe	1479	1240	83.88	30-120
35	2,4,5-Trichlorophe	1479	1230	83.15	28-120
37	2-Chloronaphthalen	493.0	468.8	95.11	40-120
38	2-Nitroaniline	1479	832.2	56.27	31-126
39	Dimethylphthalate	493.0	649.1	131.67*	43-120
40	Acenaphthylene	493.0	534.9	108.51	42-120
41	2,6-Dinitrotoluene	1479	1343	90.81	33-123

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43 3-Nitroaniline	1479	0.000	*	22-120
44 Acenaphthene	493.0	587.4	119.16	45-120
45 2,4-Dinitrophenol	2711	239.8	8.85*	10-120
46 Dibenzofuran	493.0	696.3	141.25*	43-120
47 4-Nitrophenol	1479	1297	87.69	15-138
48 2,4-Dinitrotoluene	1479	1059	71.60	35-127
49 Fluorene	493.0	619.3	125.63*	45-120
50 Diethylphthalate	493.0	578.1	117.27	50-120
51 4-Chlorophenyl-phe	493.0	485.6	98.50	32-120
52 4-Nitroaniline	1479	0.000	*	24-125
53 4,6-Dinitro-2-meth	2711	855.4	31.55	24-120
54 N-Nitrosodiphenyla	493.0	427.9	86.80	36-120
56 4-Bromophenyl-phen	493.0	622.3	126.24*	39-120
57 Hexachlorobenzene	493.0	604.6	122.65*	33-120
58 Pentachlorophenol	1479	950.1	64.24	16-120
60 Phenanthrene	493.0	1593	323.12*	49-120
61 Anthracene	493.0	634.5	128.71*	45-120
62 Carbazole	493.0	911.9	184.98*	43-135
63 Di-n-butylphthalat	493.0	500.0	101.44	48-126
64 Fluoranthene	493.0	1194	242.14*	53-120
65 Pyrene	493.0	1224	248.30*	48-121
67 Butylbenzylphthala	493.0	538.5	109.24	45-132
68 Benzo(a)anthracene	493.0	673.7	136.67*	49-120
70 3,3'-Dichlorobenz	1479	0.000	*	10-120
71 Chrysene	493.0	804.2	163.14*	47-120
72 bis(2-Ethylhexyl)p	493.0	603.2	122.37	34-130
73 Di-n-octylphthalat	493.0	550.6	111.70	28-124
74 Benzo(b)fluoranthe	493.0	756.3	153.41*	42-132
75 Benzo(k)fluoranthe	493.0	681.7	138.29*	39-129
76 Benzo(a)pyrene	493.0	725.4	147.16*	42-120
78 Indeno(1,2,3-cd)py	493.0	374.2	75.90	42-120
79 Dibenzo(a,h)anthra	493.0	261.5	53.05	30-120
80 Benzo(g,h,i)peryle	493.0	326.2	66.18	38-126
91 Aniline	1479	0.000	*	10-134
111 Azobenzene (1,2-DP	493.0	489.6	99.31	35-120
90 N-Nitrosodimethyla	1479	1215	82.17	17-120
105 1-methylnaphthalen	493.0	806.3	163.56*	42-120
103 Pyridine	985.9	2211	224.23*	10-147
187 Total Benzofluoran	985.9	1408	142.76	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	739.4	218.2	29.51	27-120

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	739.4	749.3	101.34	29-120
$ 5 2-Chlorophenol-d4	739.4	865.2	117.01	31-120
$ 10 1,2-Dichlorobenzen	493.0	391.6	79.45	32-120
$ 18 Nitrobenzene-d5	493.0	405.6	82.28	30-120
$ 36 2-Fluorobiphenyl	493.0	419.0	85.00	35-120
$ 55 2,4,6-Tribromophen	739.4	641.5	86.76	24-134
$ 66 Terphenyl-d14	493.0	440.7	89.41	37-120

Data File: /chem1/nt10.i/20130902.b/xb89dmsd.d

Date : 02-SEP-2013 18:15

Client ID: IJ13-VC-101-2-3 MSD

Sample Info: XB89DMSD

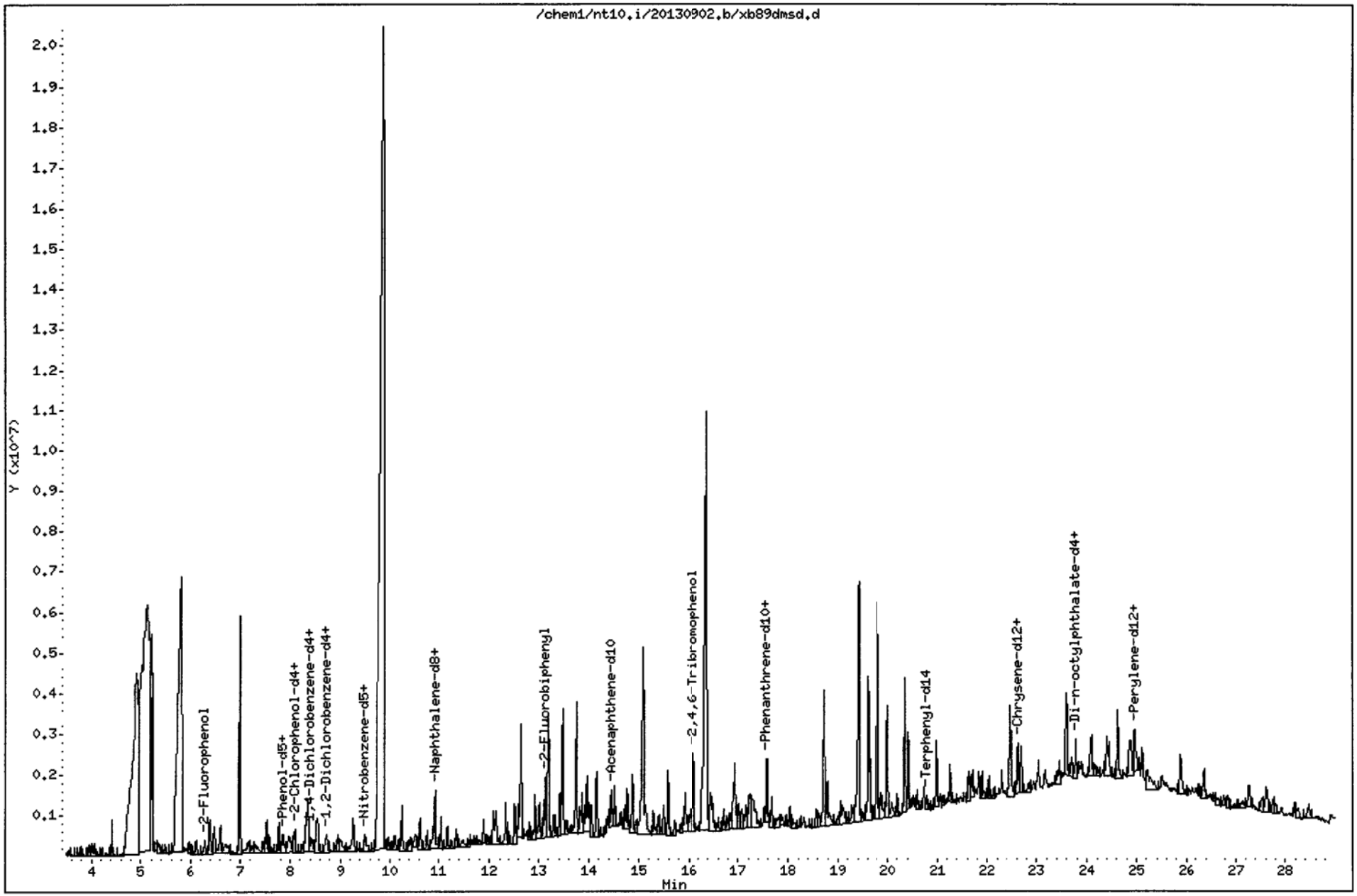
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25



XB89:00540

CO-ELUTION SUMMARY FOR FILE - xb89dmsd.d

Lab ID: XB89DMSD, Method: ABN.m, Instrument: nt10.i, Date: 02-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 09/3/13 Analysis: ABN/SIMABN Analyst: YZ

GC Program: ABN2 Column No: 227719 Column Type: ZB5-Semivol

Instrument Tune (.U or .CT.): B02284 EM Voltage: 2225

Calibration File: DF0903 Curve Date: 9/3/13 Injection Vol.: 1µL

IS/SS	Ical/Ccal	LCS/ICV
B928	B112 B943	
	B676 2664-2.	
	B931	

Document All Maintenance Tasks In Element

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130903.b

	Time	Filename	LabID	ClientId	DF													
1	1138	df0903.d	DFTPP	DFTPP	1	NO ISTDS FOUND												
2	1153	cc0903.d	CC0903		1	8.20	179409	10.62	632947	14 16	403036	17.20	713246	22.31	696534	24.65	701847	23.44	851900
3	1303	xb89e3.d	XB89E		3	8.21	143463	10.63	528228	14.17	265529	17.21	422811	22.33	536684	24 70	572551	23.46	671824
4	1338	xb89f.d	XB89F		1	8.22	146567	10.63	541366	14.17	281671	17.23	468368	22.35	535829	24.71	562073	23.47	679991
5	1414	xc83mb.d	XC83MBS1	XC83MBS1	1	8.21	177455	10.63	667222	14.17	414318	17.20	702714	22.32	633841	24.66	621570	23.45	775513
6	1449	xc83sb.d	XC83LCSS1	XC83LCSS1	1	8.21	150306	10.63	540628	14.17	352946	17.20	604640	22.32	567626	24.66	518220	23.44	659821
7	1524	xc83sbd.d	XC83LCSDS1	XC83LCSDS1	1	8.21	156685	10 62	566532	14.17	362746	17.20	634008	22.32	640476	24.66	520442	23.44	674453
8	1600	xc83a.d	XC83A	AS-01-082913	1	8.21	163423	10.62	589502	14.17	365049	17.20	503452	22.33	609902	24.68	624974	23.46	839549
9	1635	xc83b5.d	XC83B	DF-01-082913	5	8.21	143724	10.63	513517	14.17	324182	17.22	444185	22.36	508888	24.72	533763	23.49	687050
10	1711	mbtest.d	MBTEST		1	8.21	158935	10.63	609673	14.17	343613	17.21	568543	22.33	558662	24.66	589509	23.45	681015
11	1746	sbtest.d	SBTEST		1	8.21	160091	10.63	561884	14.17	360096	17.21	627891	22 33	592144	24.67	596454	23.45	738072
12	1821	sbdtest.d	SBDTEST		1	8.21	153692	10.63	542804	14.17	354998	17.21	628749	22.33	595083	24.66	582372	23.45	703422
13	1857	xc83atest.d	XC83ATEST		1	8.21	150391	10.63	538255	14.17	334522	17.21	535289	22.34	527849	24.70	556897	23.47	698606
14	1932	xc83b5test.d	XC83BTEST		5	8.21	153931	10.63	522307	14.17	292354	17.22	444507	22.37	491463	24.71	524083	23.48	661527
15	2042	xb89a6.d	XB89A		6	8.21	143609	10.63	526510	14.17	319499	17 19	55761	22.34	517043	24.68	540621	23.46	664385
16	2117	xb89c10.d	XB89C		30	8.21	154770	10.64	607144	14.17	340193	17.22	585192	22.33	543426	24.67	580672	23.45	697115

YZ 9/4/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In Element

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20130903.b

Instrument: nt10.i Date: 03-SEP-2013 Method: ABN.m

INITIAL CAL: 23-AUG-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 03-SEP-2013

Compound	%D
Benzoic acid	-27.3
~~Hexachlorocyclopentadiene~~	~~-65.8~~
~~2,4-Dinitrophenol~~	~~-25.8~~
~~4-Nitrophenol~~	~~-20.8~~
Pentachlorophenol	-37.0
~~3,3'-Dichlorobenzidine~~	~~-22.2~~
~~Benzidine~~	~~-72.7~~
~~Pyridine~~	~~-23.7~~

Data File: /chem1/nt10.i/20130903.b/df0903.d

Date : 03-SEP-2013 11:38

Client ID: DFTPP

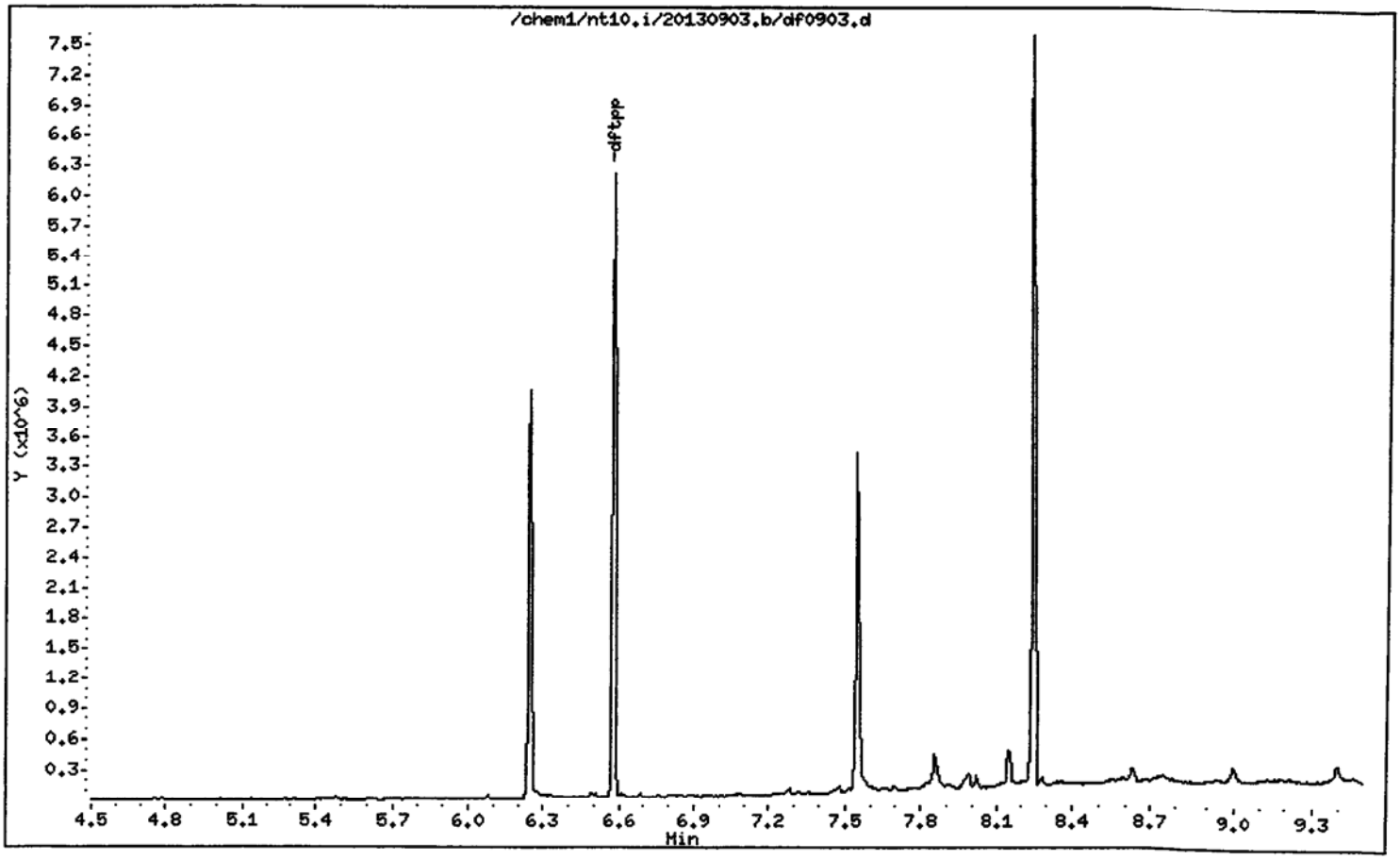
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



XB89 . 00544

Data File: /chem1/nt10.i/20130903.b/df0903.d

Date : 03-SEP-2013 11:38

Client ID: DFTPP

Instrument: nt10.i

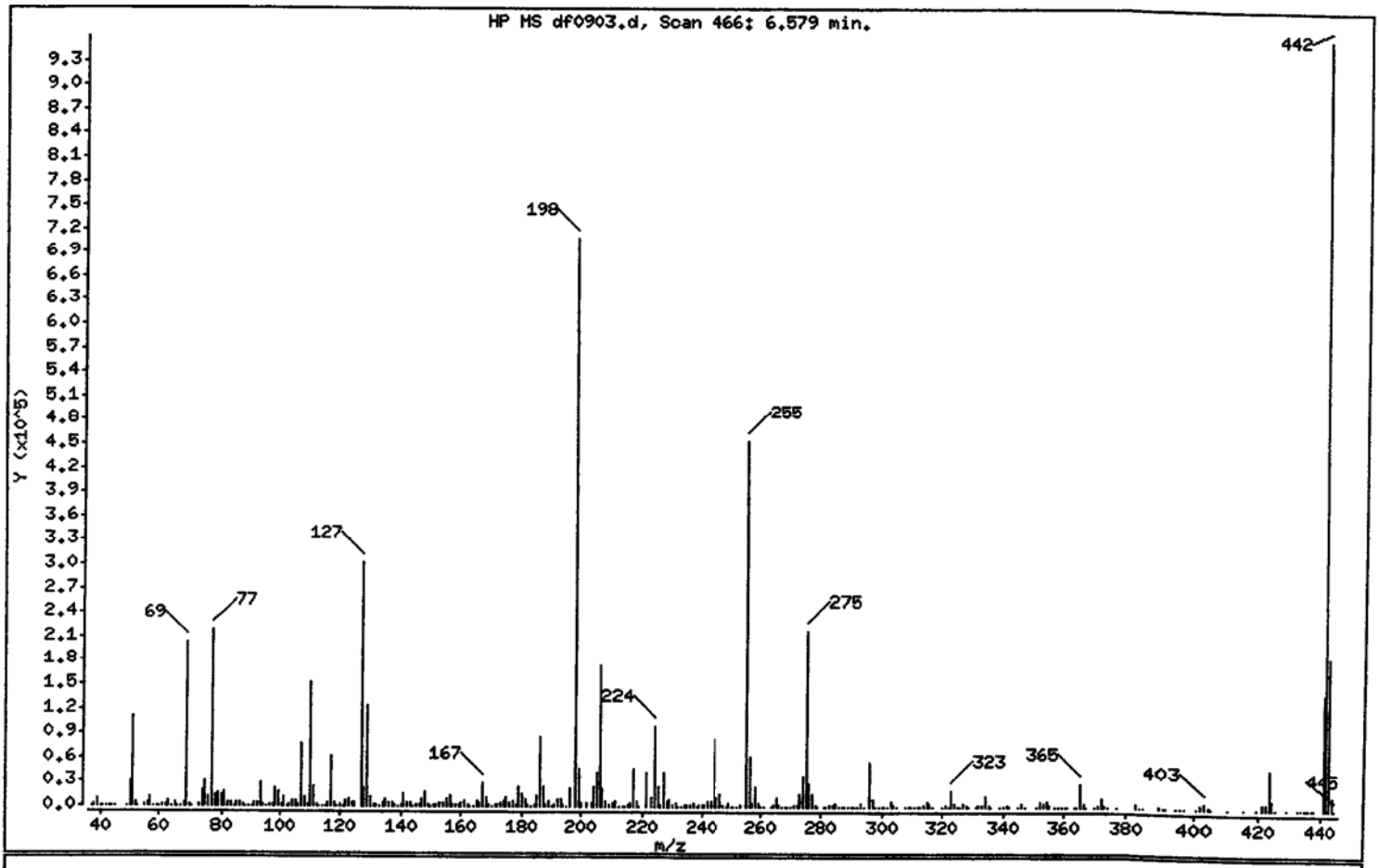
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	15.60
68	Less than 2.00% of mass 69	0.49 (1.71)
69	Mass 69 relative abundance	28.82
70	Less than 2.00% of mass 69	0.22 (0.77)
127	10.00 - 80.00% of mass 198	42.66
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.67
275	10.00 - 60.00% of mass 198	30.85
365	Greater than 1.00% of mass 198	4.05
441	0.01 - 24.00% of mass 442	20.00 (14.74)
442	50.00 - 200.00% of mass 198	135.72
443	15.00 - 24.00% of mass 442	26.42 (19.47)

XB89:00545

Data File: /chem1/nt10.i/20130903.b/df0903.d

Date : 03-SEP-2013 11:38

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0903.d

Spectrum: HP MS df0903.d, Scan 466: 6.579 min.

Location of Maximum: 442.10

Number of points: 346

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.10	606	130.00	10101	218.00	5883	312.00	252
38.10	1749	131.00	1972	219.00	542	313.00	612
39.10	8936	132.10	1207	221.00	42432	314.00	2814
40.00	894	133.00	788	223.00	11067	315.00	6433
41.00	1034	134.00	3923	224.00	98984	316.00	4066
42.00	162	135.00	9614	225.10	24448	317.00	545
43.10	1052	136.00	4047	226.10	2673	320.10	177
43.90	321	137.00	4931	227.00	41376	321.10	1416
45.00	315	138.10	1277	228.00	5676	322.10	870
49.10	1033	139.00	1073	229.00	8927	323.10	19352
50.10	30904	140.00	1446	230.00	1339	324.10	4016
51.10	110344	141.00	15298	231.00	3936	325.00	379
52.10	5298	142.00	5387	232.00	786	325.80	533
53.00	356	143.00	3705	233.00	949	327.00	3963
55.00	1539	144.00	1051	234.00	2626	328.10	1982
56.10	4569	145.10	1574	235.00	3046	328.90	325
57.10	10753	146.00	2445	236.10	1923	330.90	259
57.90	479	147.00	7796	237.00	3514	332.00	1778
59.10	544	148.00	17120	238.10	447	333.00	2687
60.00	498	149.00	2960	239.10	2208	334.10	12262
61.00	2185	150.00	1068	240.00	1698	335.10	3278
62.00	2501	151.00	2503	241.00	2855	336.00	228
63.10	7193	151.80	1652	242.00	5733	339.00	280
64.00	1050	153.00	5514	243.10	6849	340.10	427
65.10	4240	154.00	3673	244.10	84664	341.00	2381
66.00	382	155.00	8959	245.00	10857	342.00	955
67.10	587	156.00	12247	246.00	14945	345.00	176
68.00	3485	157.00	2916	247.00	3292	346.00	4024
69.00	203840	158.00	3086	248.20	858	347.10	860
70.00	1568	159.10	2087	249.00	3665	351.00	462
70.90	438	160.00	5145	250.10	729	352.10	7029
73.10	2540	161.00	7712	251.00	1005	353.10	4190
74.00	20032	162.00	2164	252.00	1102	354.10	6684
75.00	31816	163.00	815	253.00	2342	355.00	1230
76.10	10510	164.00	909	255.00	454144	357.00	230

XB89:00546

Data File: /chem1/nt10.i/20130903.b/df0903.d

Date : 03-SEP-2013 11:38

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0903.d

Spectrum: HP MS df0903.d, Scan 466: 6.579 min.

Location of Maximum: 442.10

Number of points: 346

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.10	218368	165.00	5706	256.00	61472	358.00	211
78.10	14276	166.00	4713	257.00	4760	359.10	347
79.00	15619	167.00	29608	258.00	23992	360.10	277
80.00	12277	168.00	10450	259.00	3884	360.90	180
81.00	17520	169.00	2561	260.00	646	363.30	281
82.00	5011	169.90	903	261.00	802	364.00	385
83.00	4662	170.10	902	263.10	551	365.00	28616
84.00	951	171.00	1664	263.90	1342	366.00	3341
85.00	3919	172.00	2875	265.00	10689	366.80	166
86.00	5162	173.00	3959	266.00	1974	370.10	781
87.00	2107	174.10	6601	266.90	421	371.00	1763
88.00	880	175.00	12069	267.90	562	372.10	11966
89.00	219	176.00	3392	268.80	210	373.10	3166
90.00	174	177.00	5803	270.00	628	374.00	334
91.00	4881	178.00	2560	270.90	1220	377.00	289
92.00	4484	179.00	24760	272.00	1302	383.00	3429
93.00	29784	180.00	16392	273.00	14538	384.00	961
94.00	2450	181.00	8213	274.00	37328	385.10	343
95.00	1019	182.00	1377	275.00	218176	390.00	1633
96.00	1575	183.00	673	276.00	28000	391.20	1018
97.10	1204	184.00	2060	277.00	15625	392.10	827
98.00	22176	185.00	12199	278.10	2569	395.10	279
99.00	16832	186.00	86656	278.90	451	396.10	175
100.10	1666	187.00	24680	281.00	594	397.00	184
101.00	10343	188.00	2606	282.00	752	400.90	518
101.90	752	189.00	5567	283.10	2613	402.10	4724
103.00	3173	189.90	1092	284.00	1530	403.10	7350
104.00	6566	191.00	2843	285.00	3948	404.10	2274
105.00	6900	192.00	8043	286.10	673	405.00	348
106.00	2530	193.00	7778	287.20	216	410.10	332
107.00	77456	194.00	2270	287.90	305	415.00	489
108.00	12094	195.10	1090	289.10	703	419.50	178
109.10	2858	196.00	22040	290.00	714	421.00	6679
110.00	152640	198.00	707264	291.00	345	422.10	6897
111.00	23616	199.00	47160	292.00	804	423.10	48544

Data File: /chem1/nt10.i/20130903.b/df0903.d

Date : 03-SEP-2013 11:38

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0903.d

Spectrum: HP MS df0903.d, Scan 466: 6.579 min.

Location of Maximum: 442.10

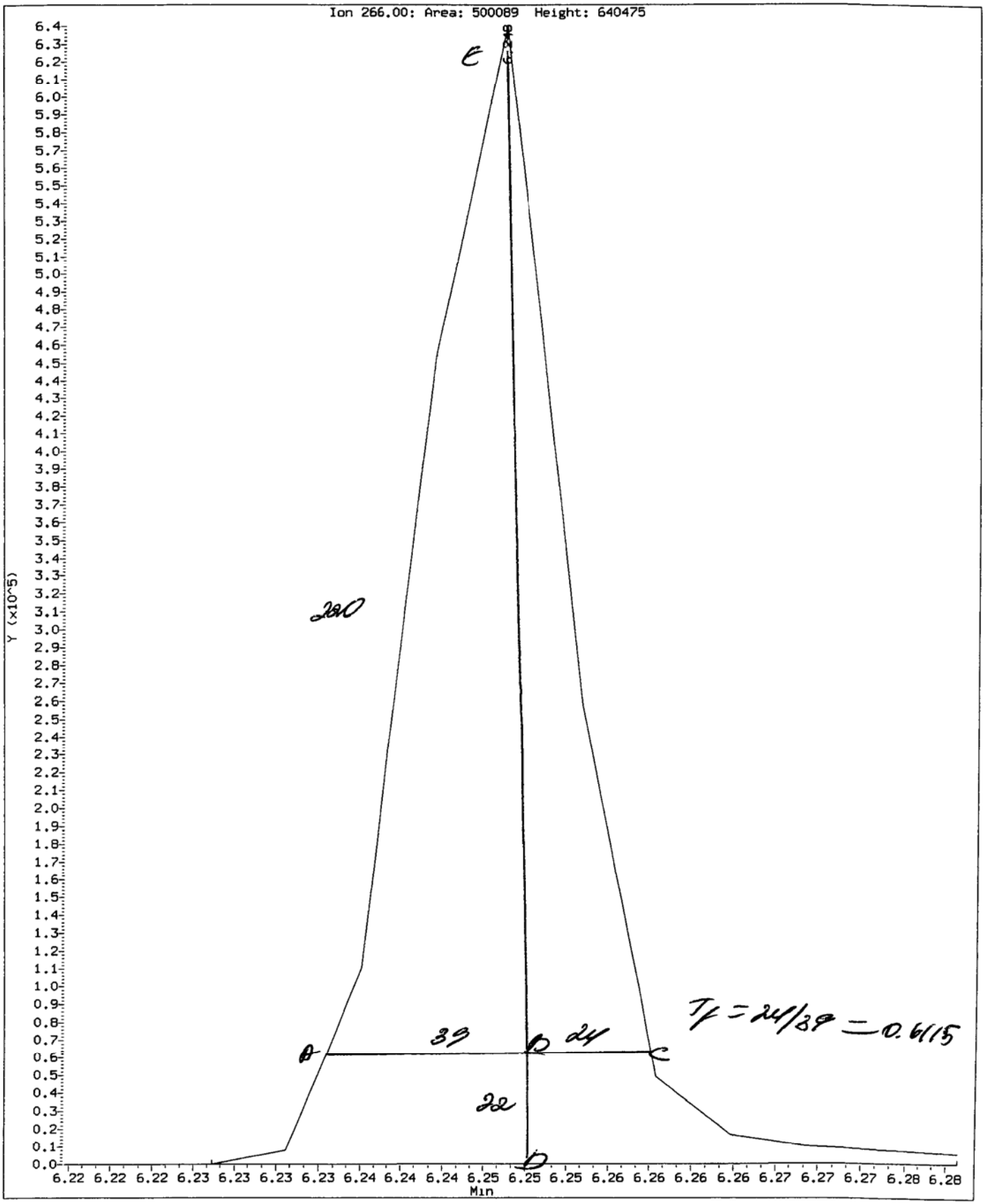
Number of points: 346

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	3130	200.00	3342	293.00	3927	424.10	9964
113.00	914	201.50	3657	294.00	748	425.10	1018
113.90	285	203.00	5366	296.00	55968	429.00	150
115.10	608	204.00	24776	297.00	8127	432.30	184
116.00	5337	205.00	41376	298.10	456	433.80	239
117.00	61480	206.10	175040	299.10	252	434.50	255
118.00	4762	207.10	22296	300.20	233	435.20	290
119.00	502	208.00	5579	300.80	544	435.90	513
120.00	1305	209.00	2084	301.10	561	436.90	727
121.10	609	210.40	3492	302.10	987	437.40	1066
122.00	5749	211.00	6915	303.00	6727	441.10	141440
123.00	9506	212.20	672	304.10	1918	442.10	959872
124.00	3769	213.10	891	305.10	238	443.10	186880
125.00	3991	214.20	422	308.00	877	444.10	16286
127.00	301696	215.10	1986	308.90	698	445.00	1016
128.00	23040	216.00	3486	310.00	687		
129.00	122512	217.00	46672	311.10	161		

XB89 : 00548

Data File: /chem1/nt10.i/20130903.b/ddt.b/df0903.d
Injection Date: 03-SEP-2013 11:38
Instrument: nt10.i
Client Sample ID: DFTPP

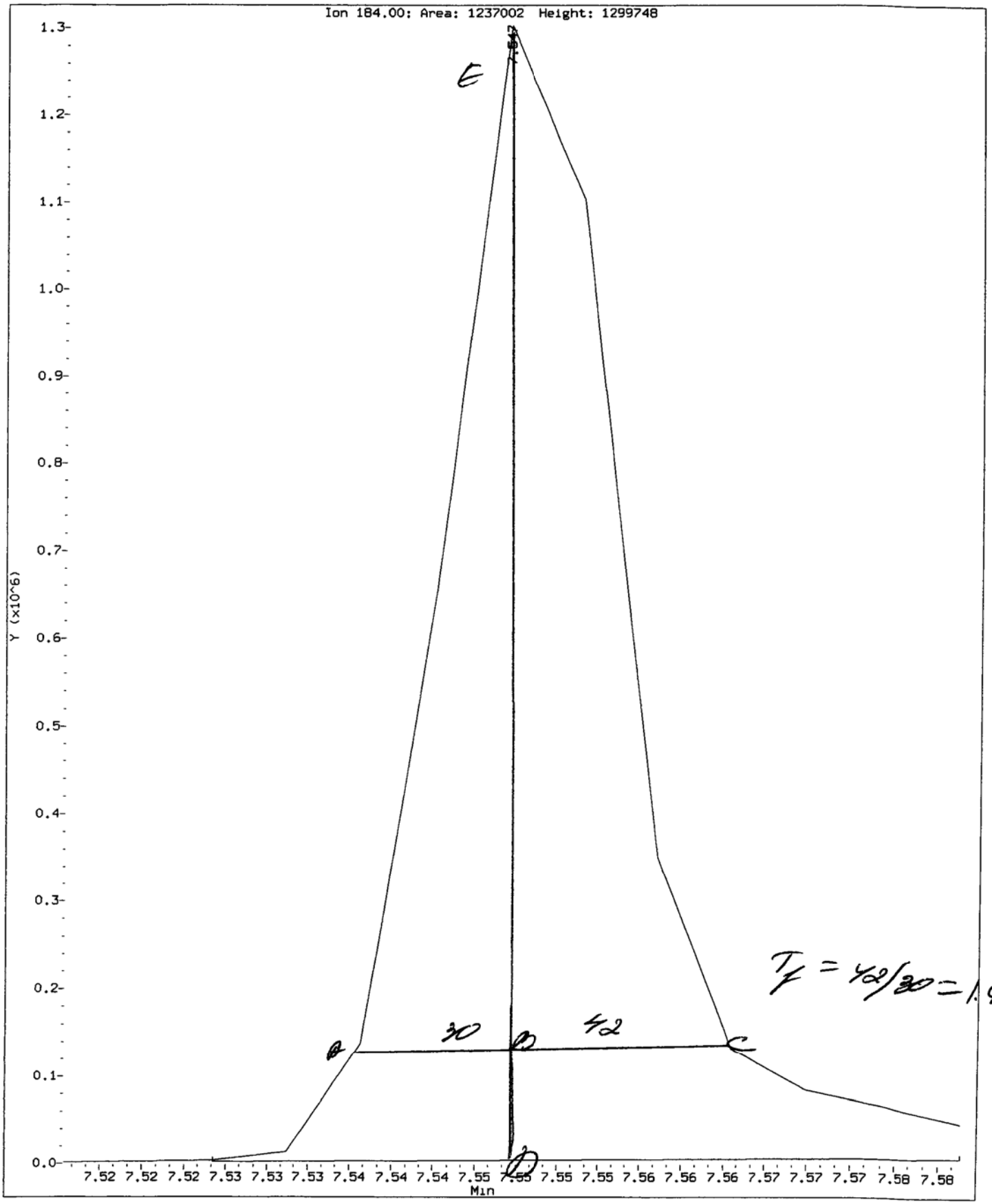
Compound: Pentachlorophenol
CAS Number: 87-86-5



XBBS : 00543

Data File: /chem1/nt10.i/20130903.b/ddt.b/df0903.d
Injection Date: 03-SEP-2013 11:38
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



XBB9 . 00550

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130903.b/ddt.b/df0903.d
Method: /chem1/nt10.i/20130903.b/ddt.b/sw846ddt.m
Analysis Date: 03-SEP-2013 11:38

ARI ID: DFTPP
Misc: 11-
Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.248	500089
Benzidine	7.547	1237002
4,4'-DDE	7.697	3421
4,4'-DDD	7.986	18183
4,4'-DDT	8.248	1351078

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 3421 + 18183) * 100}{(\ 3421 + 18183 + 1351078)}$$

DDT Percent Breakdown = 1.6 %

XD89:00551

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0903.d
Analysis Type:
Lab Sample ID: CC0903
Method: /chem1/nt10.i/20130903.b/ABN.m

Injection Date: 03-SEP-2013 11:53
Init. Cal. Date(s): 23-AUG-2013 23-AUG-2013
Init. Cal. Times: 16:04 20:20
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 2-Fluorophenol	1.16530	1.10879	1.10879	0.010	-4.84942	20.00000	Averaged
$ 2 Phenol-d5	1.50877	1.48478	1.48478	0.010	-1.59021	20.00000	Averaged
3 Phenol	1.49911	1.61873	1.61873	0.100	7.97975	20.00000	Averaged
$ 5 2-Chlorophenol-d4	1.23679	1.21177	1.21177	0.010	-2.02306	20.00000	Averaged
4 Bis(2-Chloroethyl)ether	1.10259	1.08610	1.08610	0.700	-1.49604	20.00000	Averaged
6 2-Chlorophenol	1.23872	1.20880	1.20880	0.800	-2.41509	20.00000	Averaged
7 1,3-Dichlorobenzene	1.33180	1.23081	1.23081	0.010	-7.58361	20.00000	Averaged
9 1,4-Dichlorobenzene	1.29019	1.22666	1.22666	0.010	-4.92383	20.00000	Averaged
$ 10 1,2-Dichlorobenzene-d4	0.92637	0.86088	0.86088	0.010	-7.06982	20.00000	Averaged
12 1,2-Dichlorobenzene	1.24538	1.16855	1.16855	0.010	-6.16909	20.00000	Averaged
11 Benzyl alcohol	0.64158	0.67776	0.67776	0.010	5.63925	20.00000	Averaged
14 2,2'-oxybis(1-Chloropropane	0.39116	0.36076	0.36076	0.010	-7.77029	20.00000	Averaged
13 2-Methylphenol	1.13463	1.09605	1.09605	0.700	-3.40046	20.00000	Averaged
17 Hexachloroethane	0.52176	0.48698	0.48698	0.300	-6.66497	20.00000	Averaged
16 N-Nitroso-di-n-propylamine	0.69011	0.67845	0.67845	0.500	-1.68995	20.00000	Averaged
15 4-Methylphenol	1.13745	1.14854	1.14854	0.600	0.97511	20.00000	Averaged
$ 18 Nitrobenzene-d5	0.35177	0.31837	0.31837	0.010	-9.49454	20.00000	Averaged
19 Nitrobenzene	0.29451	0.27357	0.27357	0.200	-7.10928	20.00000	Averaged
20 Isophorone	0.57217	0.51316	0.51316	0.300	-10.31398	20.00000	Averaged
21 2-Nitrophenol	0.20239	0.20438	0.20438	0.100	0.98064	20.00000	Averaged
22 2,4-Dimethylphenol	0.33249	0.31588	0.31588	0.200	-4.99456	20.00000	Averaged
23 Bis(2-Chloroethoxy)methane	0.34012	0.33204	0.33204	0.050	-2.37634	20.00000	Averaged
24 Benzoic acid	14.53227	20.00000	0.19755	0.010	-27.33865	20.00000	Quadratic <-
25 2,4-Dichlorophenol	0.29413	0.33352	0.33352	0.100	13.39290	20.00000	Averaged
26 1,2,4-Trichlorobenzene	0.32890	0.30405	0.30405	0.010	-7.55459	20.00000	Averaged
28 Naphthalene	0.90131	0.87765	0.87765	0.100	-2.62562	20.00000	Averaged
29 4-Chloroaniline	0.35423	0.31819	0.31819	0.010	-10.17396	20.00000	Averaged
30 Hexachlorobutadiene	0.20193	0.18848	0.18848	0.010	-6.66166	20.00000	Averaged
31 4-Chloro-3-methylphenol	0.28103	0.28654	0.28654	0.200	1.96063	20.00000	Averaged
32 2-Methylnaphthalene	0.66364	0.65664	0.65664	0.300	-1.05449	20.00000	Averaged
33 Hexachlorocyclopentadiene	0.42112	0.14419	0.14419	0.001	-65.76010	20.00000	Averaged <-
34 2,4,6-Trichlorophenol	0.38898	0.39448	0.39448	0.200	1.41218	20.00000	Averaged
35 2,4,5-Trichlorophenol	0.40747	0.41993	0.41993	0.200	3.05655	20.00000	Averaged
$ 36 2-Fluorobiphenyl	1.27417	1.25835	1.25835	0.010	-1.24152	20.00000	Averaged
37 2-Chloronaphthalene	0.98209	0.98422	0.98422	0.700	0.21643	20.00000	Averaged

XB89 : 66552

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0903.d
Analysis Type:
Lab Sample ID: CC0903
Method: /chem1/nt10.i/20130903.b/ABN.m

Injection Date: 03-SEP-2013 11:53
Init. Cal. Date(s): 23-AUG-2013 23-AUG-2013
Init. Cal. Times: 16:04 20:20
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
38 2-Nitroaniline	0.23330	0.23769	0.23769	0.010	1.88263	20.00000	Averaged	
39 Dimethylphthalate	1.11617	1.06148	1.06148	0.010	-4.89994	20.00000	Averaged	
40 Acenaphthylene	1.65877	1.58826	1.58826	0.900	-4.25118	20.00000	Averaged	
41 2,6-Dinitrotoluene	0.26191	0.26351	0.26351	0.100	0.60897	20.00000	Averaged	
43 3-Nitroaniline	0.21722	0.22005	0.22005	0.010	1.30178	20.00000	Averaged	
44 Acenaphthene	0.96652	0.94452	0.94452	0.100	-2.27671	20.00000	Averaged	
45 2,4-Dinitrophenol	14.84514	20.00000	0.16705	0.030	-25.77428	20.00000	Quadratic	<-
46 Dibenzofuran	1.44805	1.43467	1.43467	0.800	-0.92411	20.00000	Averaged	
47 4-Nitrophenol	0.14254	0.11287	0.11287	0.010	-20.81892	20.00000	Averaged	<-
48 2,4-Dinitrotoluene	0.35202	0.36218	0.36218	0.200	2.88635	20.00000	Averaged	
50 Diethylphthalate	1.11750	1.20587	1.20587	0.010	7.90839	20.00000	Averaged	
49 Fluorene	1.20054	1.16455	1.16455	0.100	-2.99756	20.00000	Averaged	
51 4-Chlorophenyl-phenylether	0.61353	0.58780	0.58780	0.100	-4.19255	20.00000	Averaged	
52 4-Nitroaniline	0.24586	0.21716	0.21716	0.010	-11.67091	20.00000	Averaged	
53 4,6-Dinitro-2-methylphenol	0.15039	0.16559	0.16559	0.001	10.11241	20.00000	Averaged	
54 N-Nitrosodiphenylamine	0.41547	0.49570	0.49570	0.010	19.30928	20.00000	Averaged	
$ 55 2,4,6-Tribromophenol	0.26236	0.24091	0.24091	0.010	-8.17367	20.00000	Averaged	
56 4-Bromophenyl-phenylether	0.22151	0.22199	0.22199	0.100	0.21890	20.00000	Averaged	
57 Hexachlorobenzene	0.28289	0.29443	0.29443	0.100	4.07791	20.00000	Averaged	
58 Pentachlorophenol	0.16892	0.10645	0.10645	0.010	-36.97945	20.00000	Averaged	<-
60 Phenanthrene	0.89930	0.87833	0.87833	0.700	-2.33209	20.00000	Averaged	
61 Anthracene	0.95806	0.93316	0.93316	0.700	-2.59913	20.00000	Averaged	
62 Carbazole	0.69766	0.58916	0.58916	0.010	-15.55144	20.00000	Averaged	
63 Di-n-butylphthalate	1.01760	1.03667	1.03667	0.010	1.87465	20.00000	Averaged	
64 Fluoranthene	1.15761	1.09727	1.09727	0.600	-5.21230	20.00000	Averaged	
65 Pyrene	1.10957	1.16772	1.16772	0.600	5.24095	20.00000	Averaged	
$ 66 Terphenyl-d14	0.65549	0.65667	0.65667	0.010	0.18028	20.00000	Averaged	
67 Butylbenzylphthalate	0.40440	0.41063	0.41063	0.010	1.53955	20.00000	Averaged	
68 Benzo(a)anthracene	1.05765	1.00253	1.00253	0.700	-5.21164	20.00000	Averaged	
70 3,3'-Dichlorobenzidine	0.49650	0.38649	0.38649	0.010	-22.15865	20.00000	Averaged	<-
71 Chrysene	0.91282	0.86918	0.86918	0.700	-4.78053	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.42844	0.45479	0.45479	0.010	6.14867	20.00000	Averaged	
73 Di-n-octylphthalate	0.80622	0.78754	0.78754	0.010	-2.31789	20.00000	Averaged	
74 Benzo(b)fluoranthene	1.01020	0.96057	0.96057	0.700	-4.91304	20.00000	Averaged	
75 Benzo(k)fluoranthene	1.02037	1.03999	1.03999	0.700	1.92329	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0903.d
Analysis Type:
Lab Sample ID: CC0903
Method: /chem1/nt10.i/20130903.b/ABN.m

Injection Date: 03-SEP-2013 11:53
Init. Cal. Date(s): 23-AUG-2013 23-AUG-2013
Init. Cal. Times: 16:04 20:20
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 Benzo(a)pyrene	0.92111	0.89823	0.89823	0.700	-2.48462	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.12707	1.09733	1.09733	0.500	-2.63808	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	0.87662	0.86585	0.86585	0.400	-1.22776	20.00000	Averaged	
80 Benzo(g,h,i)perylene	0.94288	0.95183	0.95183	0.500	0.94833	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.57333	0.53581	0.53581	0.010	-6.54388	20.00000	Averaged	
91 Aniline	2.86319	2.47706	2.47706	0.010	-13.48605	20.00000	Averaged	
93 Benzidine	2.73181	10.00000	0.04174	0.010	-72.68192	20.00000	Quadratic	<-
103 Pyridine	0.52942	0.40413	0.40413	0.010	-23.66631	20.00000	Averaged	<-
105 1-methylnaphthalene	0.60871	0.59144	0.59144	0.010	-2.83750	20.00000	Averaged	
111 Azobenzene (1,2-DP-Hydrazin	0.92817	0.79490	0.79490	0.010	-14.35805	20.00000	Averaged	
187 Total Benzofluoranthenes	0.99932	0.96844	0.96844	0.010	-3.09084	20.00000	Averaged	
99 Perylene	0.84681	0.84204	0.84204	0.010	-0.56381	20.00000	Averaged	
98 Retene	0.44259	0.44740	0.44740	0.010	1.08617	20.00000	Averaged	
120 2,3,4,6-Tetrachlorophenol	0.32665	0.29178	0.29178	0.010	-10.67517	20.00000	Averaged	

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 9/4/13

Data file : /chem1/nt10.i/20130903.b/cc0903.d
Lab Smp Id: CC0903
Inj Date : 03-SEP-2013 11:53
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC0903
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130903.b/ABN.m
Meth Date : 04-Sep-2013 11:11 yev Quant Type: ISTD
Cal Date : 03-SEP-2013 11:53 Cal File: cc0903.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.974	5.974	(0.729)	248658	5.00000	4.758
$	2 Phenol-d5	99	7.574	7.574	(0.924)	332979	5.00000	4.920
	3 Phenol	94	7.597	7.597	(0.926)	363019	5.00000	5.399
$	5 2-Chlorophenol-d4	132	7.806	7.806	(0.952)	271752	5.00000	4.899
	4 Bis(2-Chloroethyl)ether	93	7.728	7.728	(0.942)	243570	5.00000	4.925
	6 2-Chlorophenol	128	7.829	7.829	(0.955)	271088	5.00000	4.879
	7 1,3-Dichlorobenzene	146	8.100	8.100	(0.988)	276022	5.00000	4.621
*	8 1,4-Dichlorobenzene-d4	152	8.200	8.200	(1.000)	179409	4.00000	
	9 1,4-Dichlorobenzene	146	8.231	8.231	(1.004)	275093	5.00000	4.754
$	10 1,2-Dichlorobenzene-d4	152	8.480	8.480	(1.034)	193062	5.00000	4.647
	12 1,2-Dichlorobenzene	146	8.511	8.511	(1.038)	262060	5.00000	4.692
	11 Benzyl alcohol	108	8.472	8.472	(1.033)	151996	5.00000	5.282
	14 2,2'-oxybis(1-Chloropropane)	121	8.720	8.720	(1.063)	80905	5.00000	4.611
	13 2-Methylphenol	108	8.689	8.689	(1.060)	245801	5.00000	4.830
	17 Hexachloroethane	117	9.132	9.132	(1.114)	109211	5.00000	4.667
	16 N-Nitroso-di-n-propylamine	70	8.961	8.961	(1.093)	152149	5.00000	4.916
	15 4-Methylphenol	108	8.984	8.984	(1.096)	257574	5.00000	5.049
$	18 Nitrobenzene-d5	82	9.240	9.240	(0.870)	251890	5.00000	4.525
	19 Nitrobenzene	77	9.271	9.271	(0.873)	216446	5.00000	4.645
	20 Isophorone	82	9.736	9.736	(0.917)	406002	5.00000	4.484
	21 2-Nitrophenol	139	9.882	9.882	(0.930)	161700	5.00000	5.049
	22 2,4-Dimethylphenol	107	9.998	9.998	(0.941)	499841	10.0000	9.501
	23 Bis(2-Chloroethoxy)methane	93	10.167	10.167	(0.957)	262706	5.00000	4.881
	24 Benzoic acid	105	10.267	10.267	(0.967)	625183	20.0000	14.53
	25 2,4-Dichlorophenol	162	10.367	10.367	(0.976)	527755	10.0000	11.34
	26 1,2,4-Trichlorobenzene	180	10.514	10.514	(0.990)	240560	5.00000	4.622

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.622	10.622	(1.000)	632947	4.00000	
	28 Naphthalene	128	10.668	10.668	(1.004)	694379	5.00000	4.869
	29 4-Chloroaniline	127	10.800	10.800	(1.017)	503495	10.0000	8.983
	30 Hexachlorobutadiene	225	10.916	10.916	(1.028)	149123	5.00000	4.667
	31 4-Chloro-3-methylphenol	107	11.798	11.798	(1.111)	453404	10.0000	10.20
	32 2-Methylnaphthalene	142	12.053	12.053	(1.135)	519524	5.00000	4.947
	33 Hexachlorocyclopentadiene	237	12.371	12.371	(0.874)	145285	10.0000	3.424
	34 2,4,6-Trichlorophenol	196	12.642	12.642	(0.893)	397472	10.0000	10.14
	35 2,4,5-Trichlorophenol	196	12.719	12.719	(0.898)	423114	10.0000	10.31
$	36 2-Fluorobiphenyl	172	12.804	12.804	(0.904)	633951	5.00000	4.938
	37 2-Chloronaphthalene	162	13.036	13.036	(0.921)	495843	5.00000	5.011
	38 2-Nitroaniline	65	13.261	13.261	(0.937)	239494	10.0000	10.19
	39 Dimethylphthalate	163	13.648	13.648	(0.964)	534768	5.00000	4.755
	40 Acenaphthylene	152	13.872	13.872	(0.980)	800156	5.00000	4.787
	41 2,6-Dinitrotoluene	165	13.772	13.772	(0.973)	265507	10.0000	10.06
*	42 Acenaphthene-d10	164	14.158	14.158	(1.000)	403036	4.00000	
	43 3-Nitroaniline	138	14.112	14.112	(0.997)	221718	10.0000	10.13
	44 Acenaphthene	153	14.228	14.228	(1.005)	475844	5.00000	4.886
	45 2,4-Dinitrophenol	184	14.328	14.328	(1.012)	336635	20.0000	14.85
	46 Dibenzofuran	168	14.584	14.584	(1.030)	722779	5.00000	4.954
	47 4-Nitrophenol	109	14.522	14.522	(1.026)	113723	10.0000	7.918
	48 2,4-Dinitrotoluene	165	14.591	14.591	(1.031)	364929	10.0000	10.29
	50 Diethylphthalate	149	15.101	15.101	(1.067)	607513	5.00000	5.395
	49 Fluorene	166	15.287	15.287	(1.080)	586695	5.00000	4.850
	51 4-Chlorophenyl-phenylether	204	15.303	15.303	(1.081)	296133	5.00000	4.790
	52 4-Nitroaniline	138	15.364	15.364	(1.085)	218813	10.0000	8.833
	53 4,6-Dinitro-2-methylphenol	198	15.426	15.426	(0.897)	590543	20.0000	22.02
	54 N-Nitrosodiphenylamine	169	15.550	15.550	(0.904)	441944	5.00000	5.965
$	55 2,4,6-Tribromophenol	330	15.781	15.781	(1.115)	121371	5.00000	4.591
	56 4-Bromophenyl-phenylether	248	16.306	16.306	(0.948)	197921	5.00000	5.011
	57 Hexachlorobenzene	284	16.398	16.398	(0.953)	262497	5.00000	5.204
	58 Pentachlorophenol	266	16.832	16.832	(0.978)	189818	10.0000	6.302 (M)
*	59 Phenanthrene-d10	188	17.203	17.203	(1.000)	713246	4.00000	
	60 Phenanthrene	178	17.250	17.250	(1.003)	783078	5.00000	4.883
	61 Anthracene	178	17.358	17.358	(1.009)	831963	5.00000	4.870
	62 Carbazole	167	17.722	17.722	(1.030)	525270	5.00000	4.222
	63 Di-n-butylphthalate	149	18.472	18.472	(1.074)	924253	5.00000	5.094
	64 Fluoranthene	202	19.664	19.664	(1.143)	978279	5.00000	4.739
	65 Pyrene	202	20.097	20.097	(0.901)	1016699	5.00000	5.262
$	66 Terphenyl-d14	244	20.422	20.422	(0.915)	571739	5.00000	5.009
	67 Butylbenzylphthalate	149	21.351	21.351	(0.957)	357521	5.00000	5.077
	68 Benzo(a)anthracene	228	22.296	22.296	(0.999)	872873	5.00000	4.739
*	69 Chrysene-d12	240	22.311	22.311	(1.000)	696534	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.272	22.272	(0.998)	673000	10.0000	7.784
	71 Chrysene	228	22.358	22.358	(1.002)	756766	5.00000	4.761
	72 bis(2-Ethylhexyl)phthalate	149	22.389	22.389	(0.955)	484292	5.00000	5.307
*	134 Di-n-octylphthalate-d4	153	23.441	23.441	(1.000)	851900	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	23.449	23.449	(1.000)	838627	5.00000	4.884
74	Benzo(b)fluoranthene	252	24.045	24.045	(0.975)	842716	5.00000	4.754
75	Benzo(k)fluoranthene	252	24.084	24.084	(0.977)	912392	5.00000	5.096 (H)
76	Benzo(a)pyrene	252	24.556	24.556	(0.996)	788023	5.00000	4.876
* 77	Perylene-d12	264	24.649	24.649	(1.000)	701847	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.672	26.672	(1.082)	962701	5.00000	4.868
79	Dibenzo(a,h)anthracene	278	26.703	26.703	(1.083)	759622	5.00000	4.939
80	Benzo(g,h,i)perylene	276	27.270	27.270	(1.106)	835045	5.00000	5.047
90	N-Nitrosodimethylamine	74	3.835	3.835	(0.468)	240325	10.0000	9.346
91	Aniline	93	7.620	7.620	(0.929)	555508	5.00000	4.326
93	Benzidine	184	19.981	19.981	(0.896)	72683	10.0000	2.732
103	Pyridine	79	3.889	3.889	(0.474)	181261	10.0000	7.633
105	1-methylnaphthalene	142	12.247	12.247	(1.153)	467938	5.00000	4.858
111	Azobenzene (1,2-DP-Hydrazine)	77	15.627	15.627	(1.104)	400467	5.00000	4.282
187	Total Benzofluoranthenes	252	24.084	24.084	(0.977)	1699236	10.0000	9.691
99	Perylene	252	24.696	24.696	(1.002)	738726	5.00000	4.972
98	Retene	219	20.670	20.670	(0.926)	389535	5.00000	5.054
120	2,3,4,6-Tetrachlorophenol	232	14.854	14.854	(1.049)	146998	5.00000	4.466

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0903.d
Lab Smp Id: CC0903
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130903.b/ABN.m
Misc Info:

Calibration Date: 03-SEP-2013
Calibration Time: 10:31
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	179409	17.36
27 Naphthalene-d8	536851	268426	1073702	632947	17.90
42 Acenaphthene-d10	348566	174283	697132	403036	15.63
59 Phenanthrene-d10	633376	316688	1266752	713246	12.61
69 Chrysene-d12	651036	325518	1302072	696534	6.99
134 Di-n-octylphthala	837259	418630	1674518	851900	1.75
77 Perylene-d12	696727	348364	1393454	701847	0.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.20	7.70	8.70	8.20	0.00
27 Naphthalene-d8	10.62	10.12	11.12	10.62	0.00
42 Acenaphthene-d10	14.16	13.66	14.66	14.16	0.00
59 Phenanthrene-d10	17.20	16.70	17.70	17.20	0.00
69 Chrysene-d12	22.31	21.81	22.81	22.31	0.00
134 Di-n-octylphthala	23.44	22.94	23.94	23.44	0.00
77 Perylene-d12	24.65	24.15	25.15	24.65	0.00

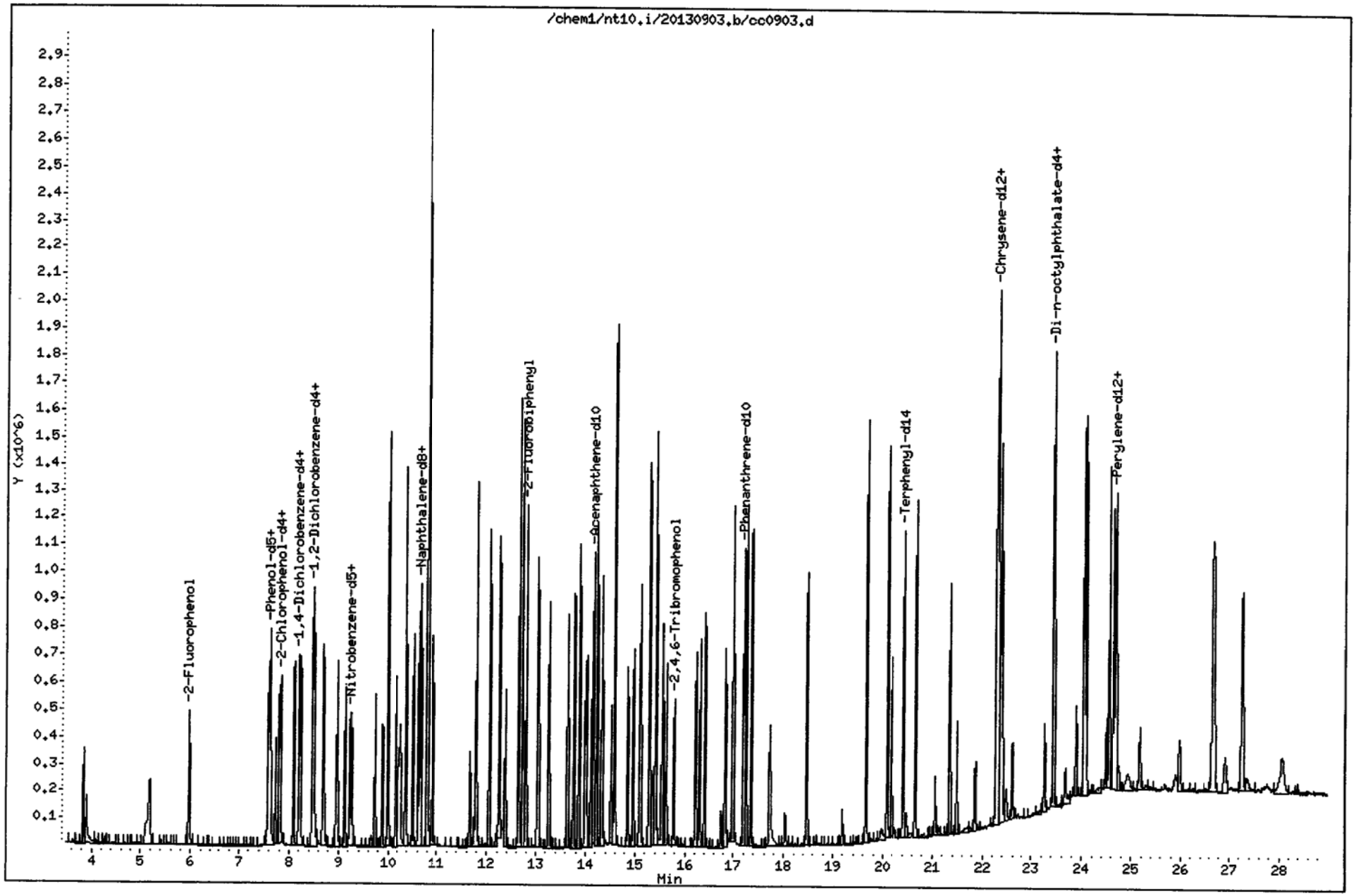
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130903.b/cc0903.d
Date : 03-SEP-2013 11:53
Client ID:
Sample Info: CC0903

Instrument: nt10.i

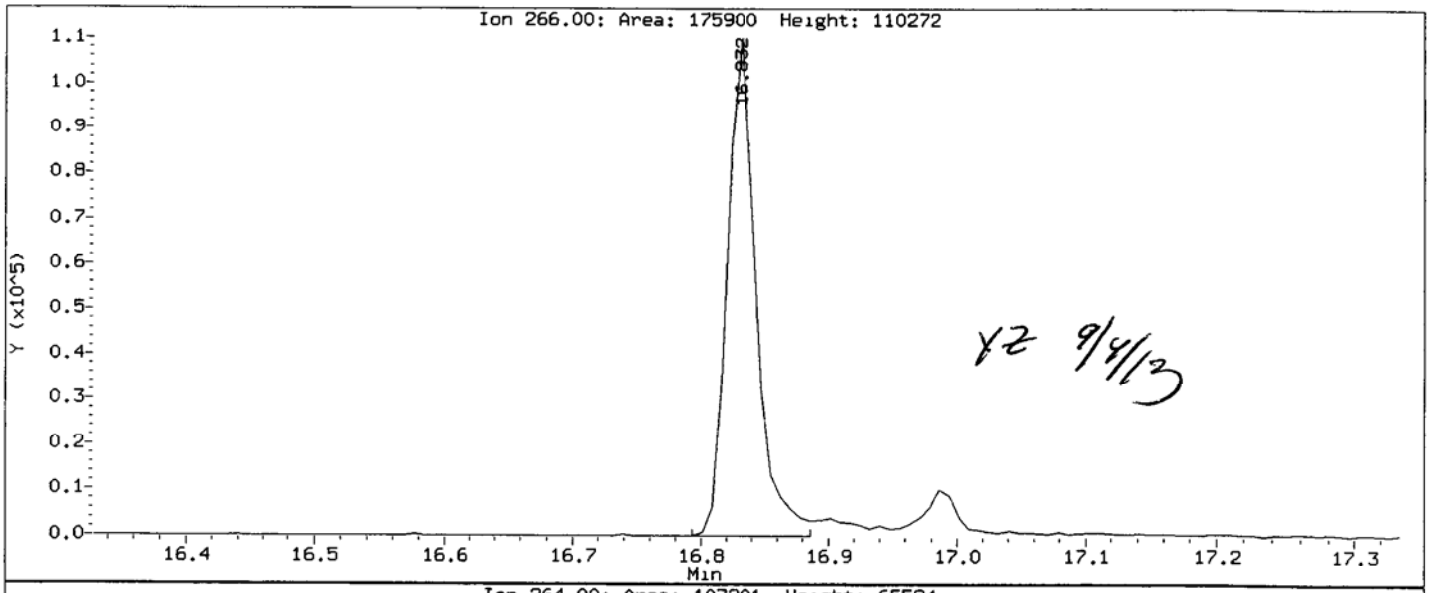
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi

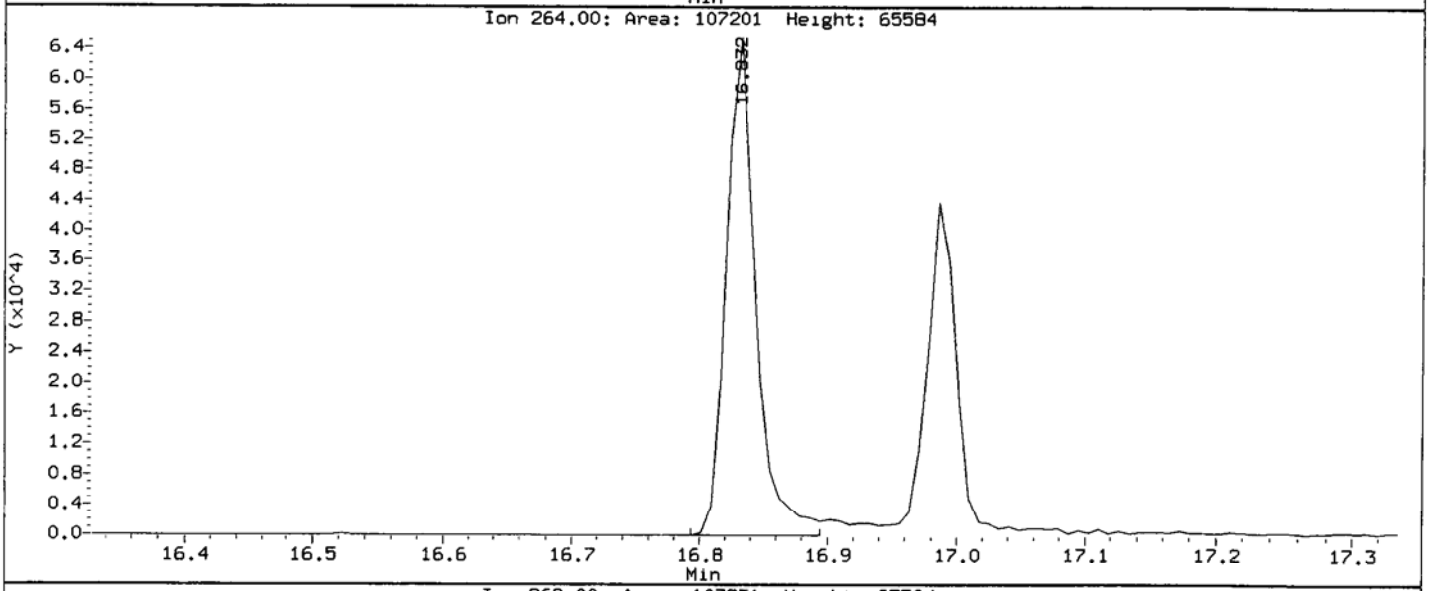


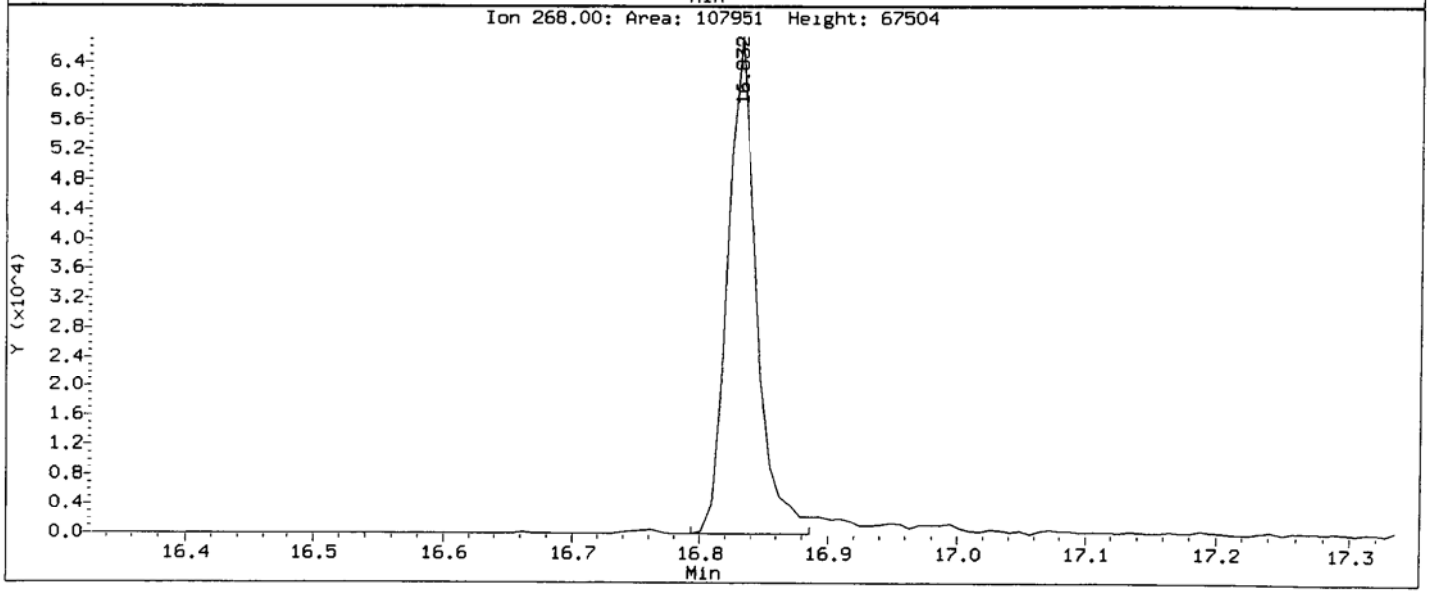
Data File: /chem1/nt10.i/20130903.b/cc0903.d
Injection Date: 03-SEP-2013 11:53
Instrument: nt10.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



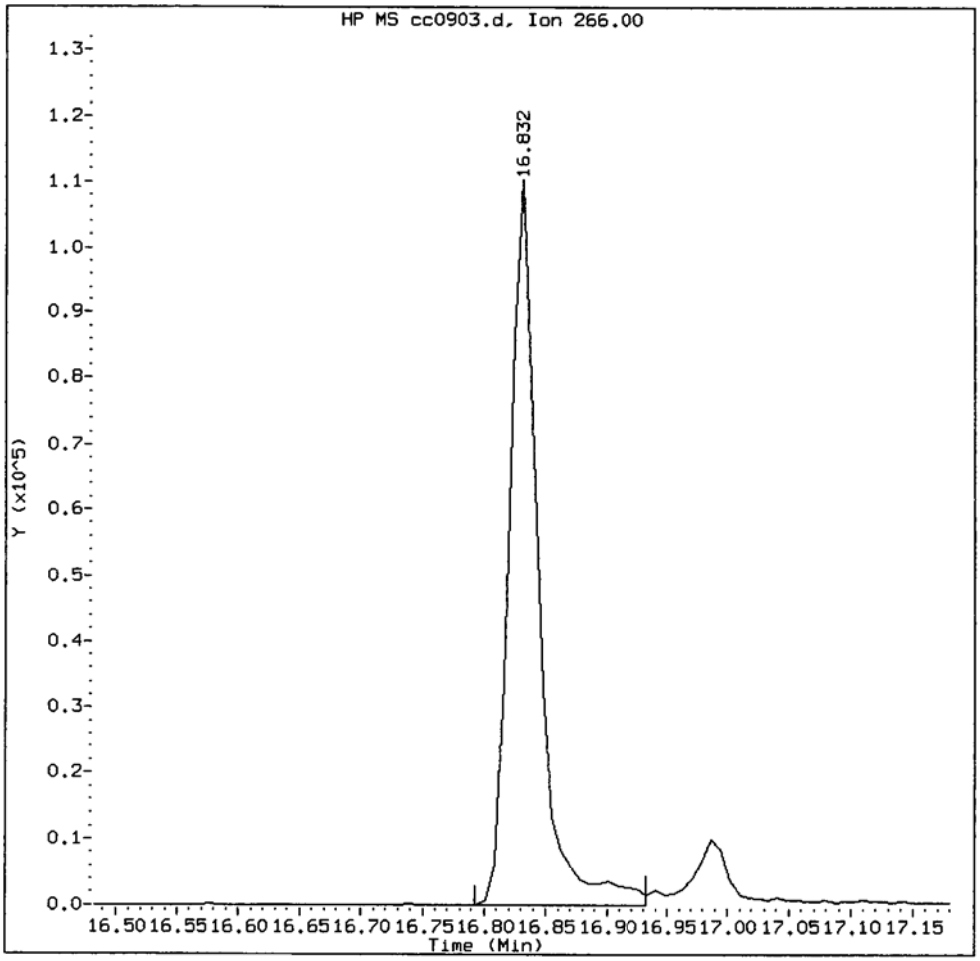
YZ 9/4/13





CC0903, /chem1/nt10.i/20130903.b/cc0903.d

Pentachlorophenol Amount: 6.30 Area: 189818



MANUAL INTEGRATION for Pentachlorophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 9/4/13

CO-ELUTION SUMMARY FOR FILE - cc0903.d

Lab ID: CC0903, Method: ABN.m, Instrument: nt10.i, Date: 03-SEP-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Y2 9/5/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130903.b/xb89e3.d
Lab Smp Id: XB89E Client Smp ID: IJ13-VC-102-2-4
Inj Date : 03-SEP-2013 13:03
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89E,3
Misc Info : 13-17440
Comment : 1ul Injection
Method : /chem1/nt10.i/20130903.b/ABN.m
Meth Date : 05-Sep-2013 15:19 yev Quant Type: ISTD
Cal Date : 03-SEP-2013 11:53 Cal File: cc0903.d
Als bottle: 4
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	18.10000	Weight of sample extracted (g)
M	42.80000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.013	5.974	(0.733)	113742	2.86018	828.8
$	2 Phenol-d5	99	7.597	7.574	(0.926)	155998	2.92939	848.8
	3 Phenol	94	7.620	7.597	(0.928)	126232	2.17427	630.0
$	5 2-Chlorophenol-d4	132	7.821	7.806	(0.953)	126357	2.90737	842.5
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.208	8.200	(1.000)	143463	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.487	8.480	(1.034)	42905	1.38959	402.7
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	8.495	8.472	(1.061)	2916	0.11996	34.76(MH)
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	8.705	8.689	(1.061)	84890	2.15947	625.7
	17 Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.000	8.984	(1.096)	269242	6.53605	1894
$	18 Nitrobenzene-d5	82	9.248	9.240	(0.870)	64990	1.54579	447.9
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.005	9.998	(0.941)	190376	4.56380	1322
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	10.275	10.267	(0.967)	93360	3.57874	1037(H)
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.630	10.622	(1.000)	528228	4.00000	
	28 Naphthalene	128	10.668	10.668	(1.004)	988466	8.52867	2471
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.061	12.053	(1.135)	478839	5.52204	1600
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.812	12.804	(0.904)	139908	1.67490	485.3
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	13.640	13.648	(0.963)	125620	1.78277	516.6(H)
	40 Acenaphthylene	152	13.880	13.872	(0.980)	89585	0.84969	246.2
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.166	14.158	(1.000)	265529	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.236	14.228	(1.005)	44619	0.71163	206.2
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.591	14.584	(1.030)	294429	3.09155	895.8
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	15.295	15.287	(1.080)	107916	1.39597	404.5
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.804	15.781	(1.116)	43967	2.74925	796.6
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.211	17.203	(1.000)	422811	4.00000	
	60 Phenanthrene	178	17.257	17.250	(1.003)	456772	4.91991	1426
	61 Anthracene	178	17.366	17.358	(1.009)	130411	1.32213	383.1
	62 Carbazole	167	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	19.679	19.664	(1.143)	393022	3.38858	981.9
	65 Pyrene	202	20.112	20.097	(0.900)	464199	2.96282	858.5
$	66 Terphenyl-d14	244	20.437	20.422	(0.915)	141485	1.60585	465.3
	67 Butylbenzylphthalate	149	21.343	21.351	(0.956)	8628	0.15660	45.38(H)
	68 Benzo(a)anthracene	228	22.319	22.296	(0.999)	125027	0.92949	269.3
*	69 Chrysene-d12	240	22.334	22.311	(1.000)	536684	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.381	22.358	(1.002)	140223	1.20241	348.4
	72 bis(2-Ethylhexyl)phthalate	149	22.404	22.389	(0.955)	31033	0.40627	117.7
*	134 Di-n-octylphthalate-d4	153	23.465	23.441	(1.000)	671824	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	24.084	24.045	(0.975)	181673	1.32132	382.9
	75 Benzo(k)fluoranthene	252	24.084	24.084	(0.975)	181673	1.22041	353.6
	76 Benzo(a)pyrene	252	24.603	24.556	(0.996)	109960	0.85525	247.8
*	77 Perylene-d12	264	24.696	24.649	(1.000)	572551	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	26.750	26.672	(1.083)	48515	0.30888	89.50
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	27.363	27.270	(1.108)	55981	0.41089	119.1
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	12.255	12.247	(1.153)	481027	6.15881	1785
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	24.084	24.084	(0.975)	197350	1.42368	412.5
	99 Perylene	252	24.742	24.696	(1.002)	633435	5.25554	1523
	98 Retene	219	20.693	20.670	(0.926)	1355487	22.5810	6543
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89e3.d
Lab Smp Id: XB89E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130903.b/ABN.m
Misc Info: 13-17440

Calibration Date: 03-SEP-2013
Calibration Time: 11:53
Client Smp ID: IJ13-VC-102-2-4
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	143463	-6.15
27 Naphthalene-d8	536851	268426	1073702	528228	-1.61
42 Acenaphthene-d10	348566	174283	697132	265529	-23.82
59 Phenanthrene-d10	633376	316688	1266752	422811	-33.24
69 Chrysene-d12	651036	325518	1302072	536684	-17.56
134 Di-n-octylphthala	837259	418630	1674518	671824	-19.76
77 Perylene-d12	696727	348364	1393454	572551	-17.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.20	7.70	8.70	8.21	0.09
27 Naphthalene-d8	10.62	10.12	11.12	10.63	0.07
42 Acenaphthene-d10	14.16	13.66	14.66	14.17	0.05
59 Phenanthrene-d10	17.20	16.70	17.70	17.21	0.04
69 Chrysene-d12	22.31	21.81	22.81	22.33	0.10
134 Di-n-octylphthala	23.44	22.94	23.94	23.46	0.10
77 Perylene-d12	24.65	24.15	25.15	24.70	0.19

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

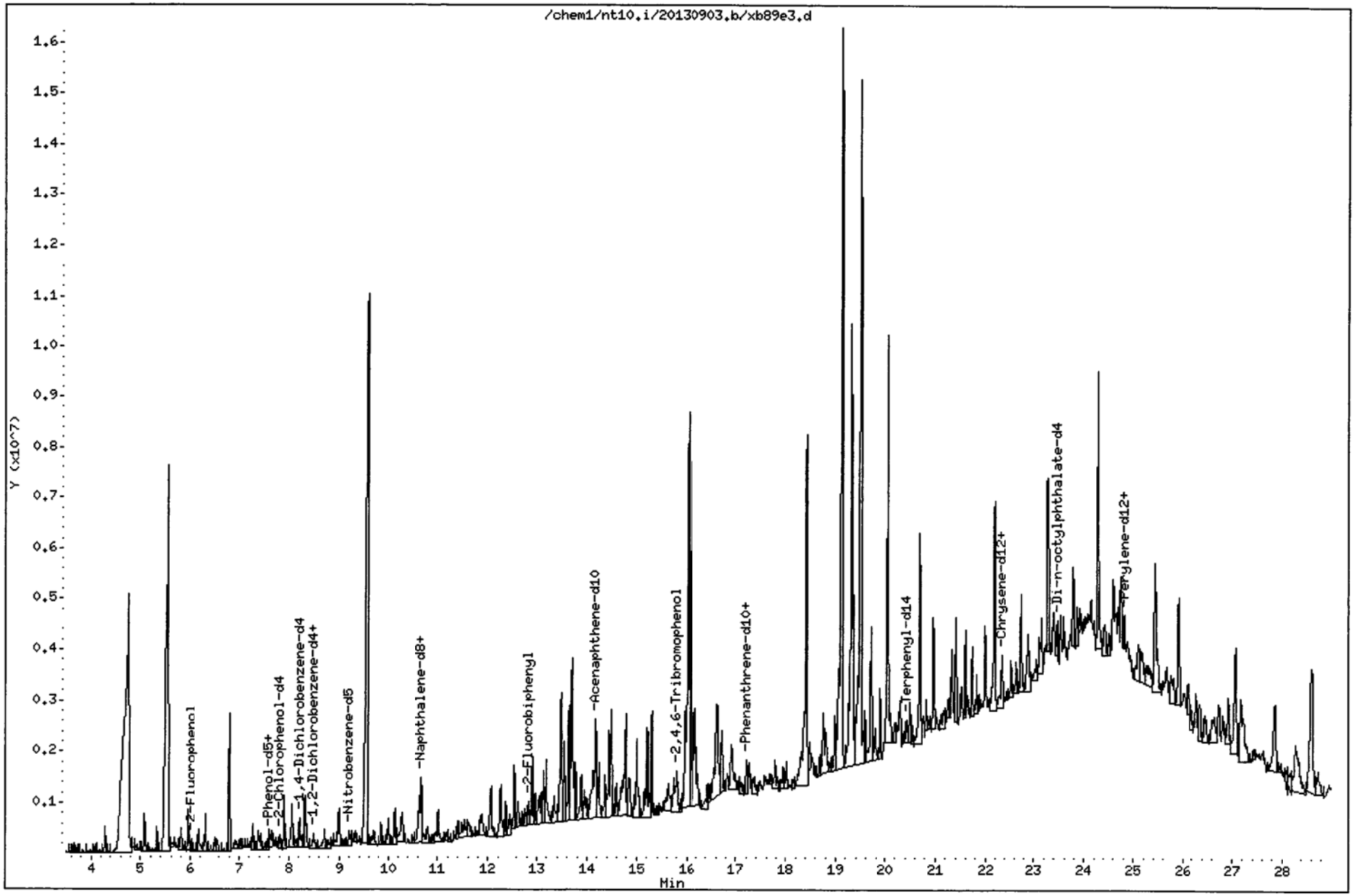
Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89E Client Smp ID: IJ13-VC-102-2-4
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130903.b/ABN.m
Misc Info: 13-17440

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	724.4	828.8	114.41	27-120
$ 2 Phenol-d5	724.4	848.8	117.18	29-120
$ 5 2-Chlorophenol-d4	724.4	842.5	116.29	31-120
$ 10 1,2-Dichlorobenzen	482.9	402.7	83.38	32-120
$ 18 Nitrobenzene-d5	482.9	447.9	92.75	30-120
$ 36 2-Fluorobiphenyl	482.9	485.3	100.49	35-120
$ 55 2,4,6-Tribromophen	724.4	796.6	109.97	24-134
$ 66 Terphenyl-d14	482.9	465.3	96.35	37-120

Data File: /chem1/nt10.i/20130903.b/xb89e3.d
Date : 03-SEP-2013 13:03
Client ID: IJ13-VC-102-2-4
Sample Info: XB89E,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



XB89:00568

Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

Operator: VTS/YZ

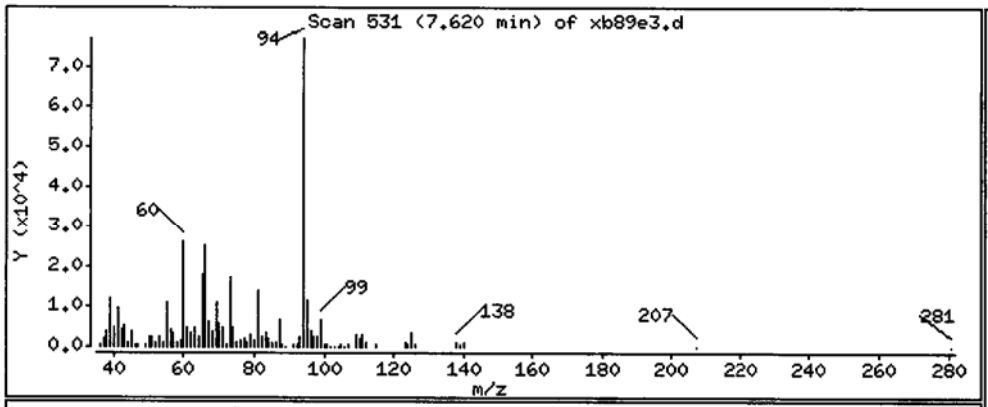
Column phase: ZB-5msi

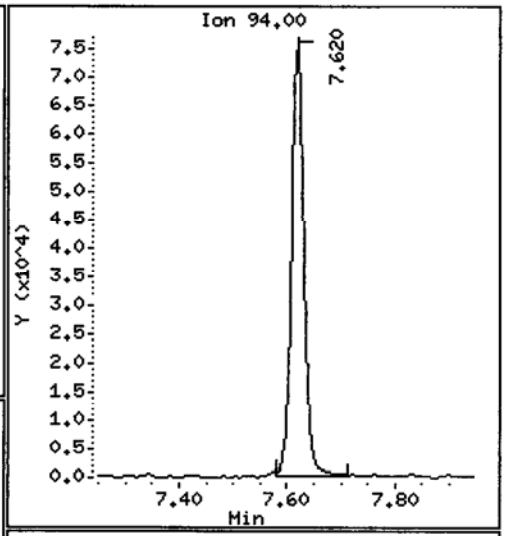
Column diameter: 0.25

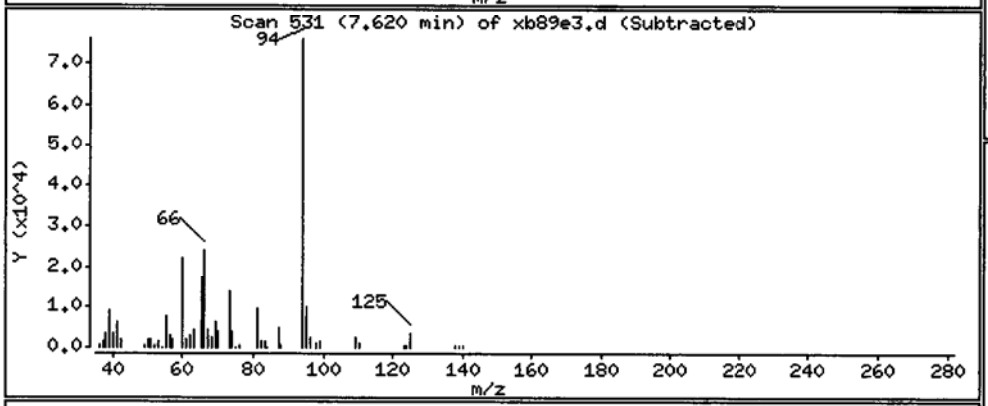
3 Phenol

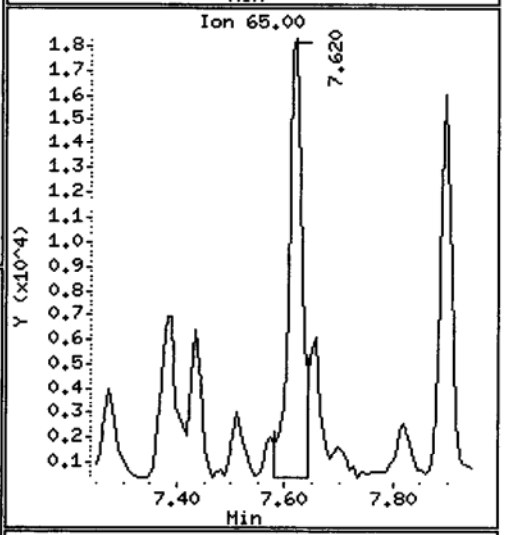
Concentration: 630.0 ug/kg

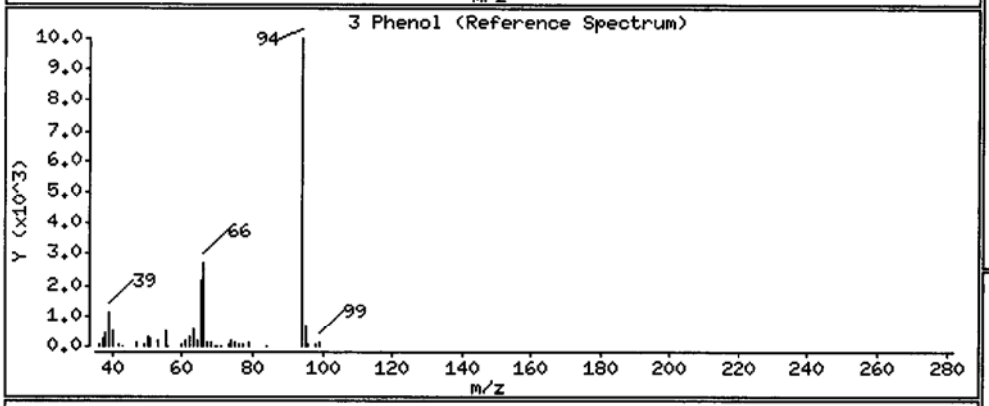
(B)

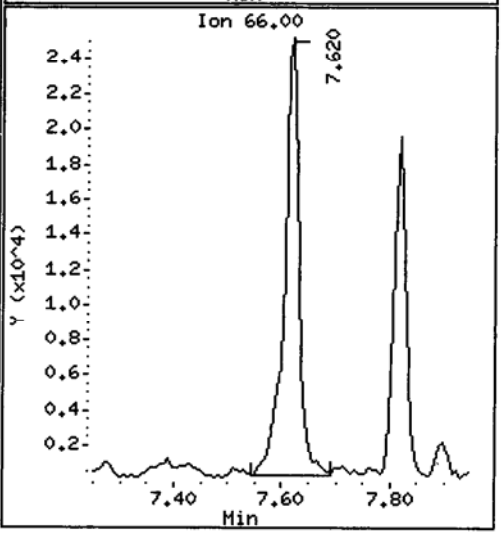


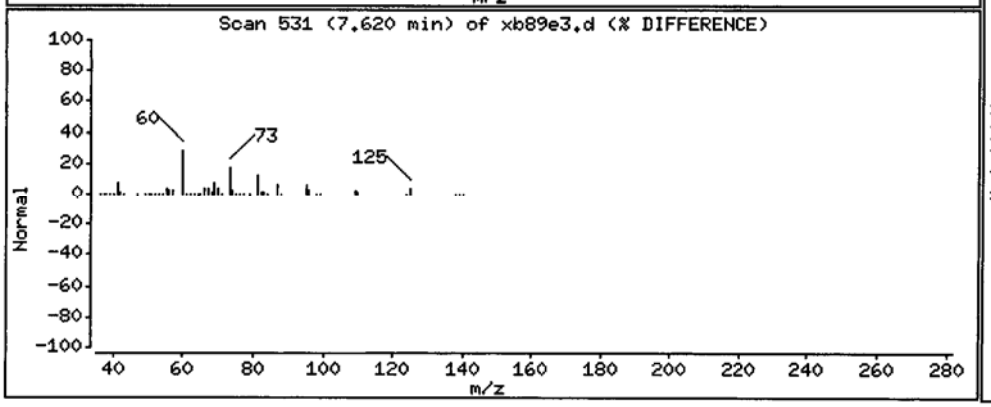












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

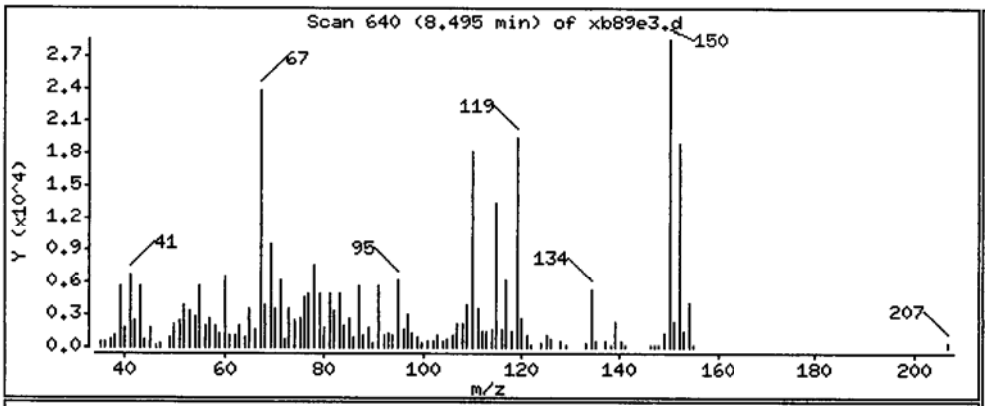
Operator: VTS/YZ

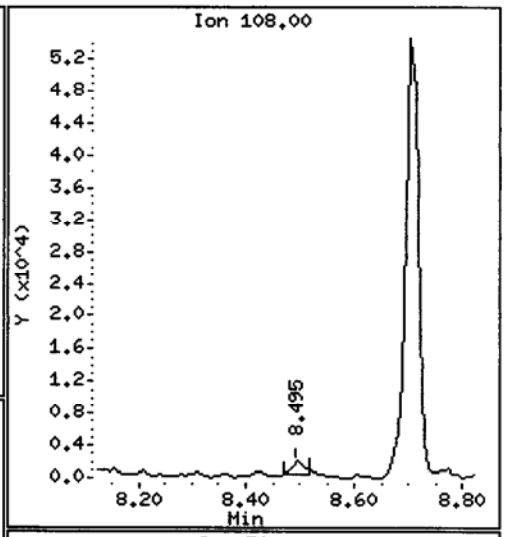
Column phase: ZB-5msi

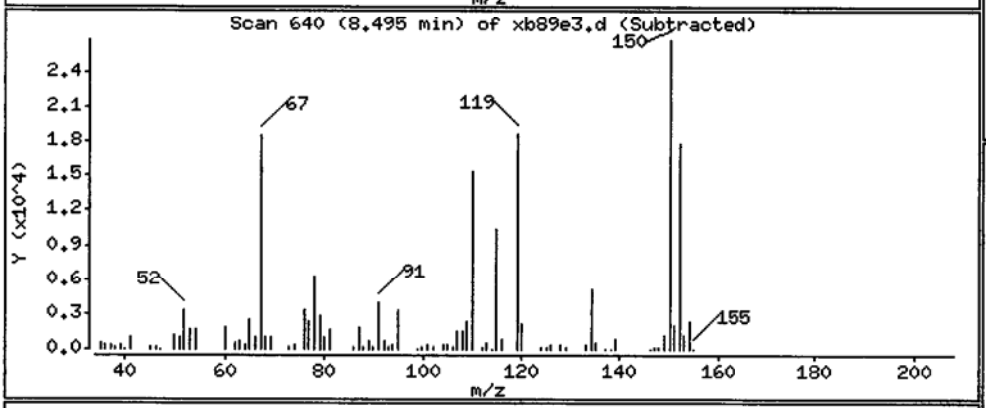
Column diameter: 0.25

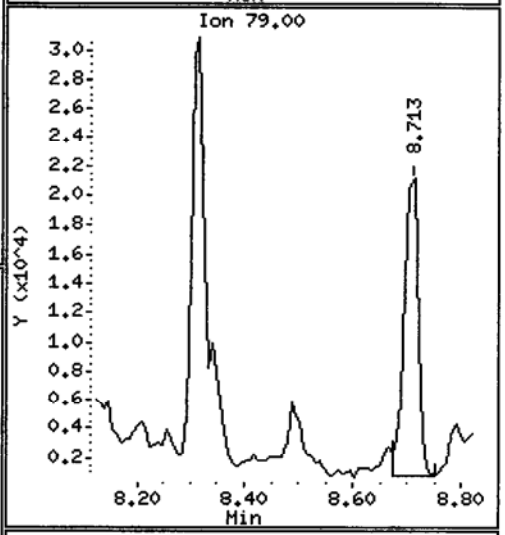
11 Benzyl alcohol

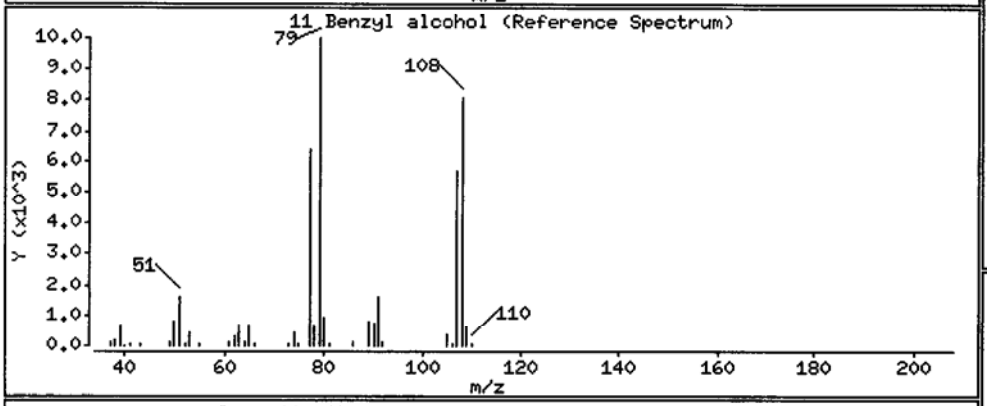
Concentration: 34.76 ug/kg

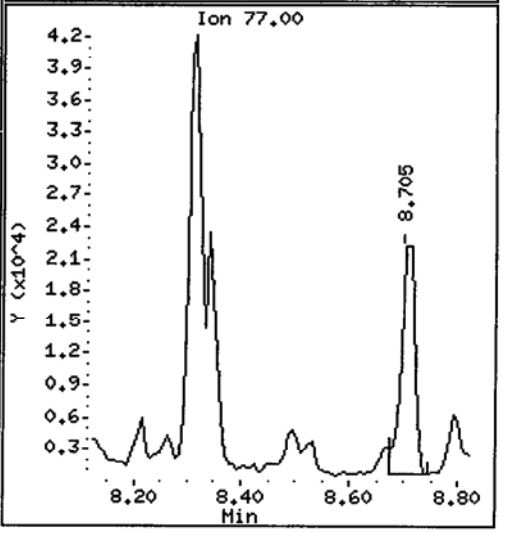


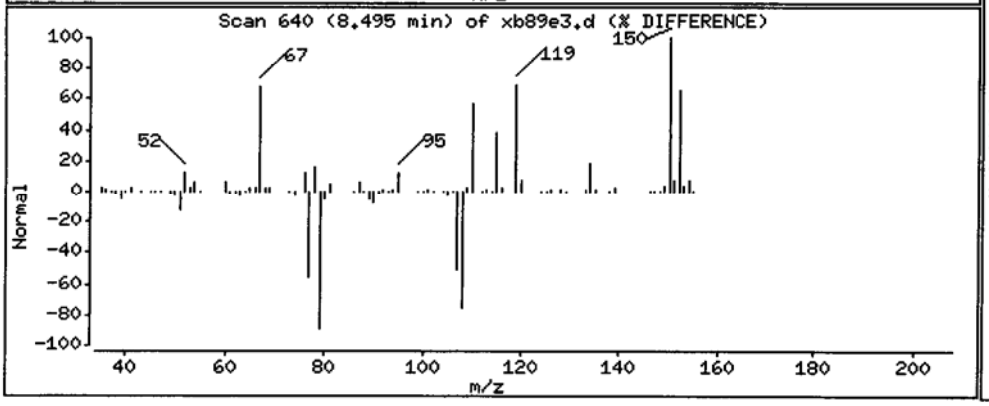












XB89 : 006576

Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

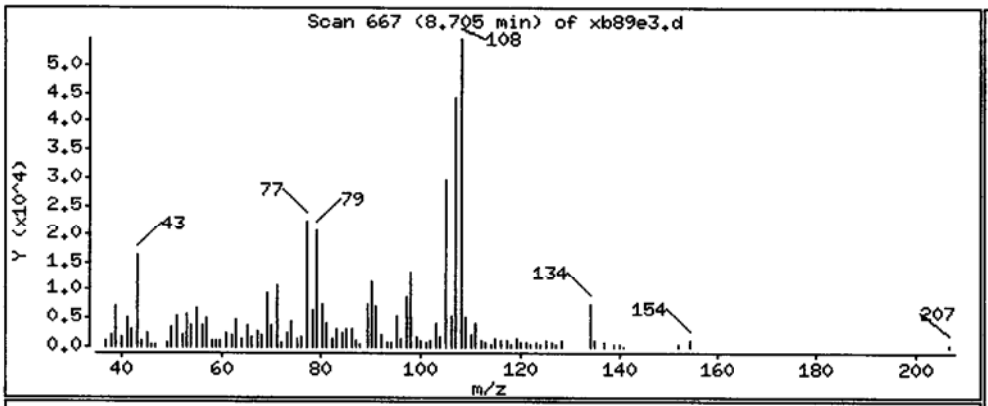
Operator: VTS/YZ

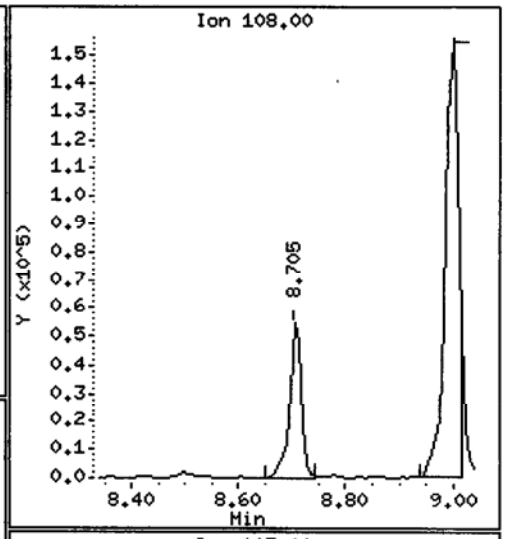
Column phase: ZB-5msi

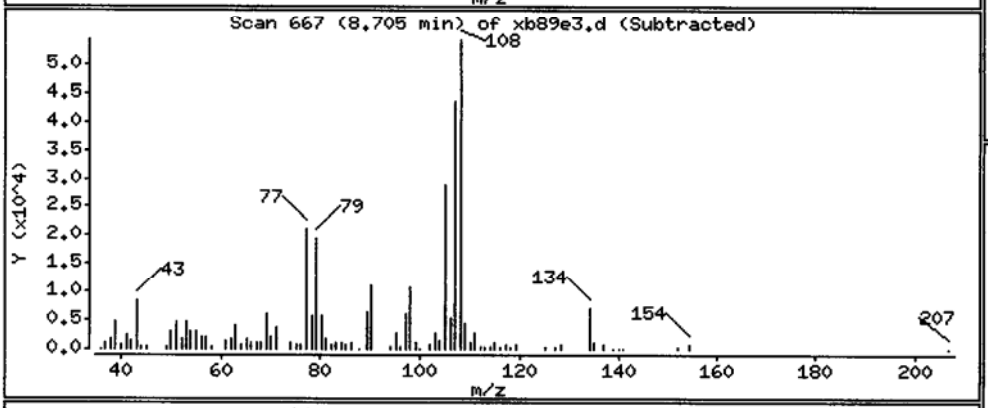
Column diameter: 0.25

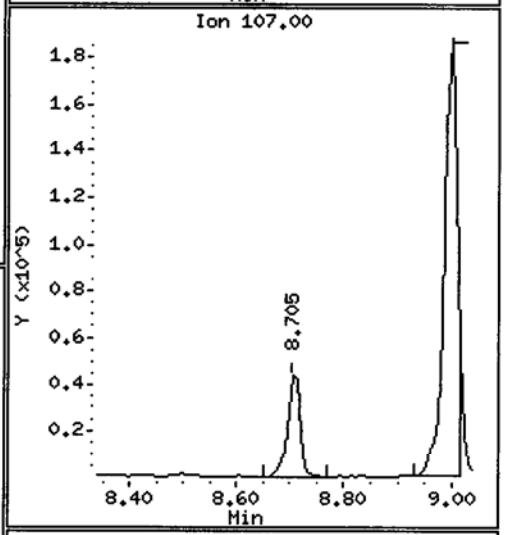
13 2-Methylphenol

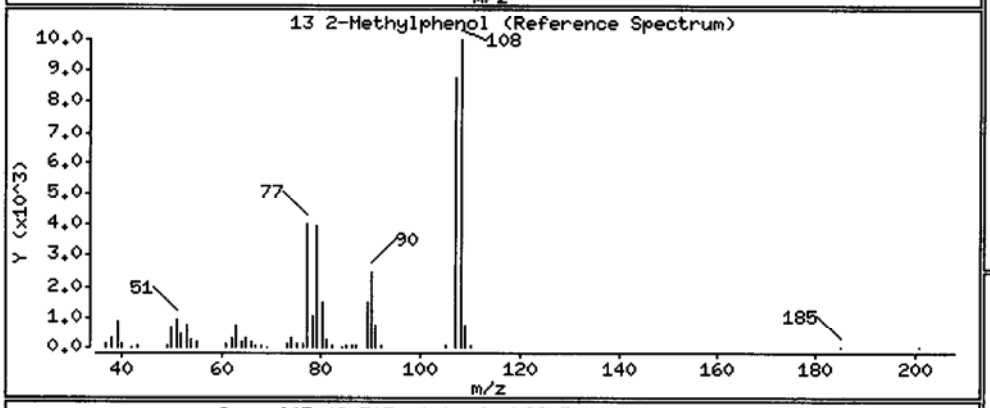
Concentration: 625.7 ug/kg

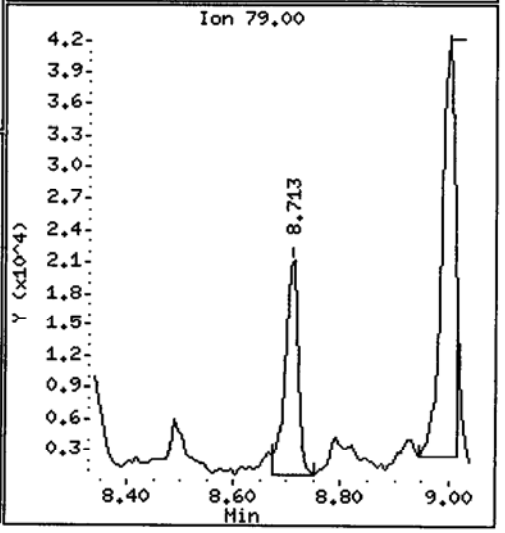


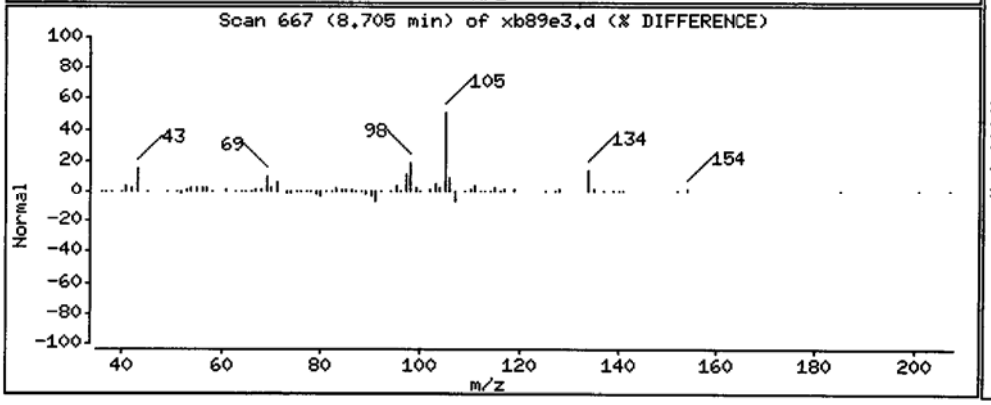












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

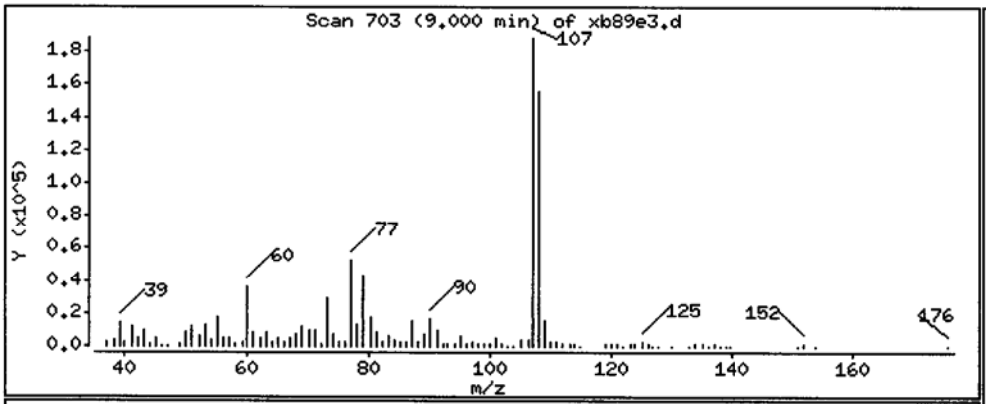
Operator: VTS/YZ

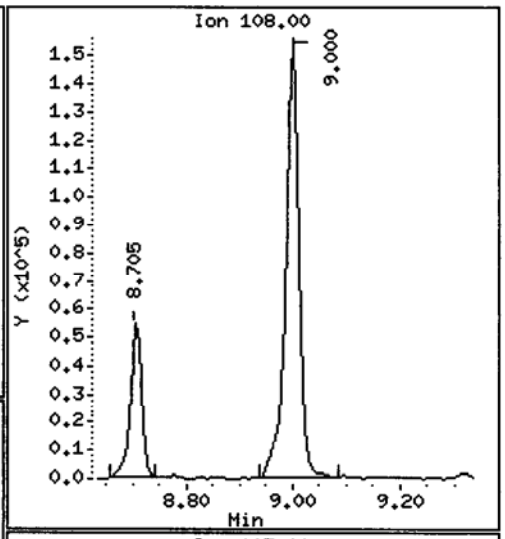
Column phase: ZB-5msi

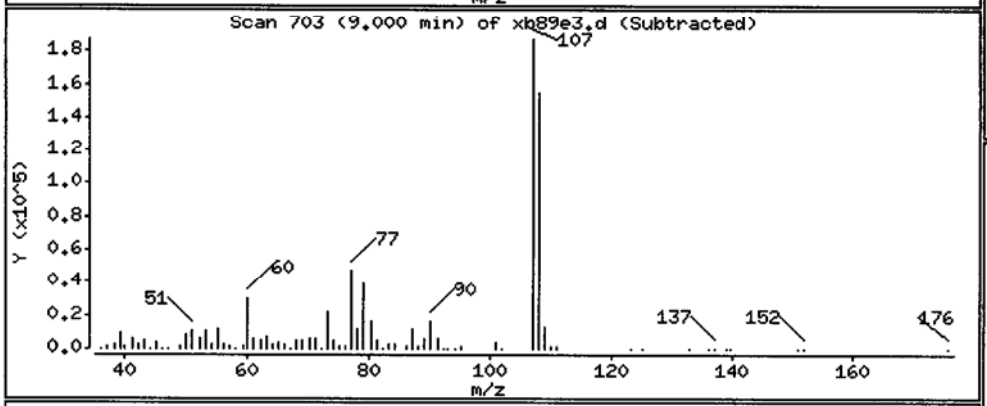
Column diameter: 0.25

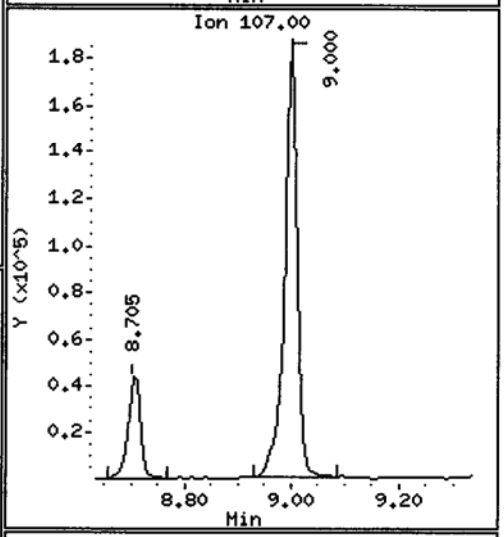
15 4-Methylphenol

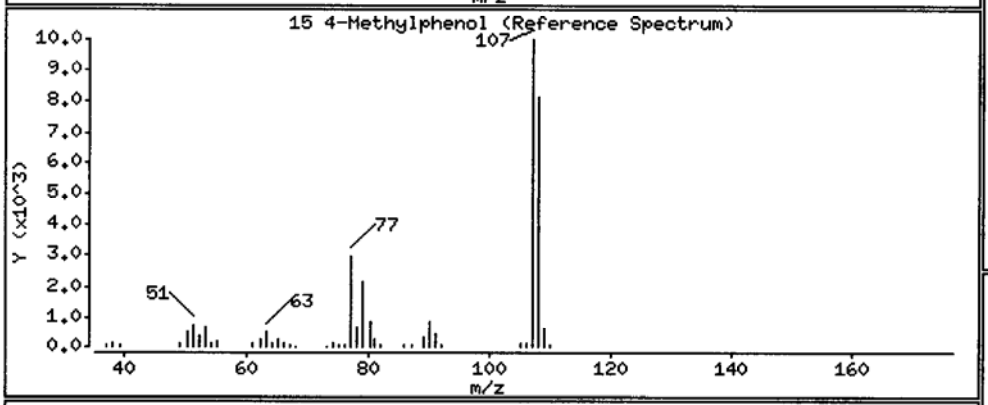
Concentration: 1894 ug/kg

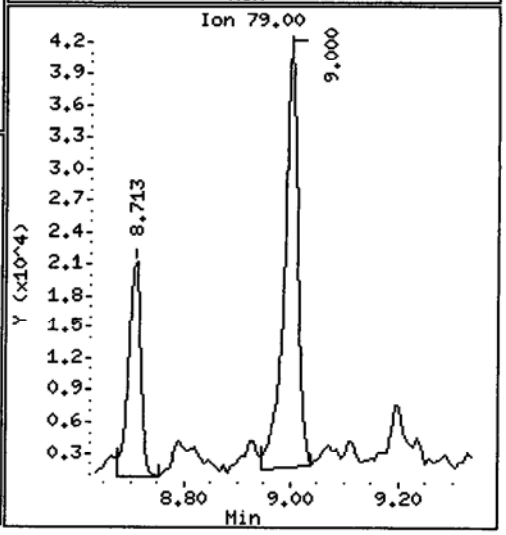


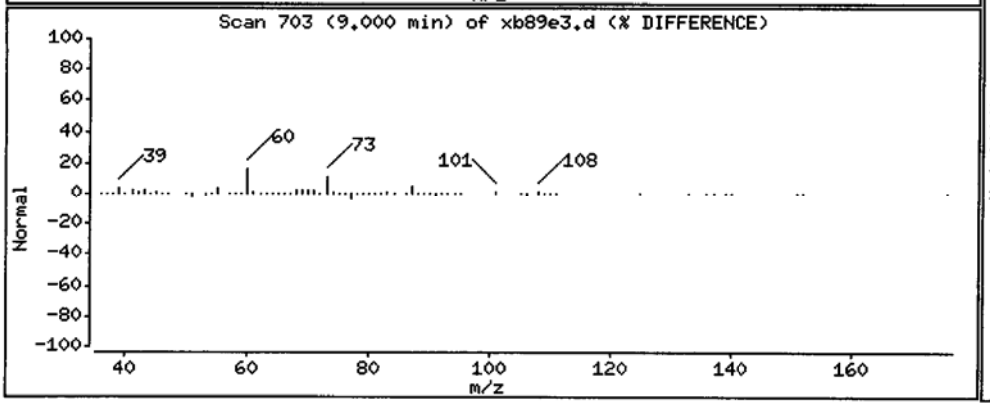












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

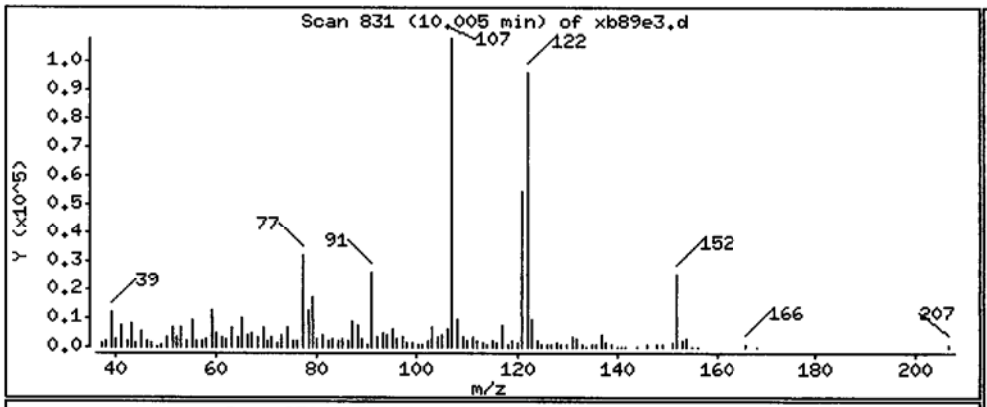
Operator: VTS/YZ

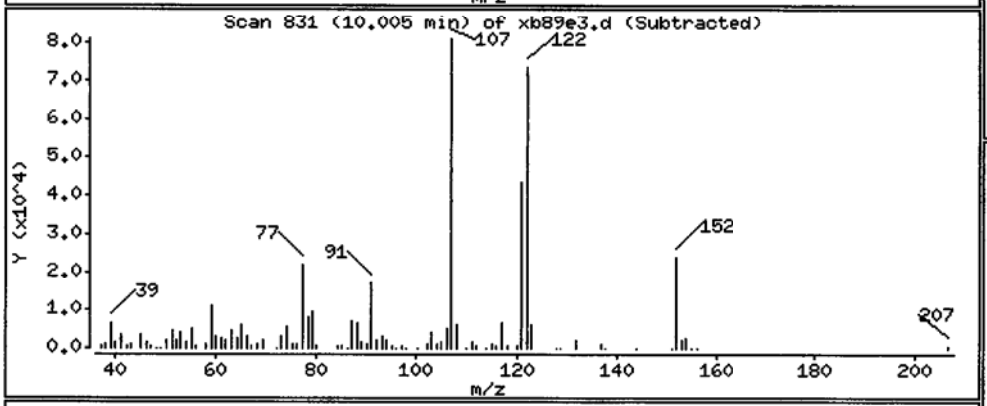
Column phase: ZB-5msi

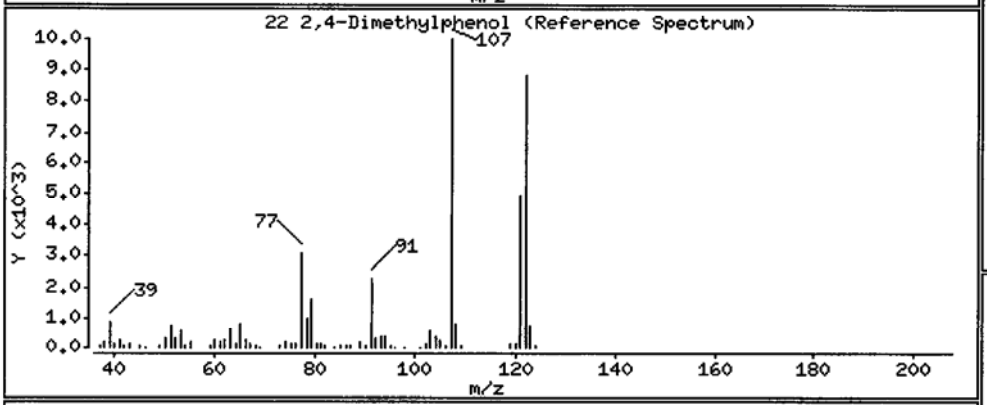
Column diameter: 0.25

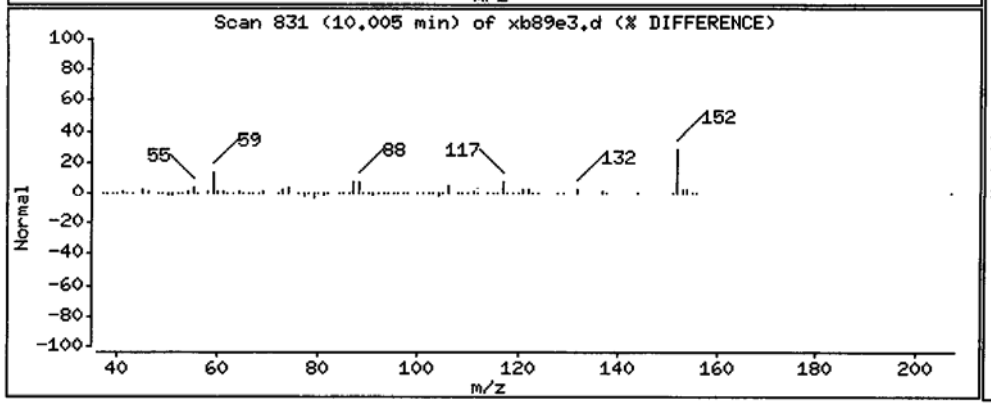
22 2,4-Dimethylphenol

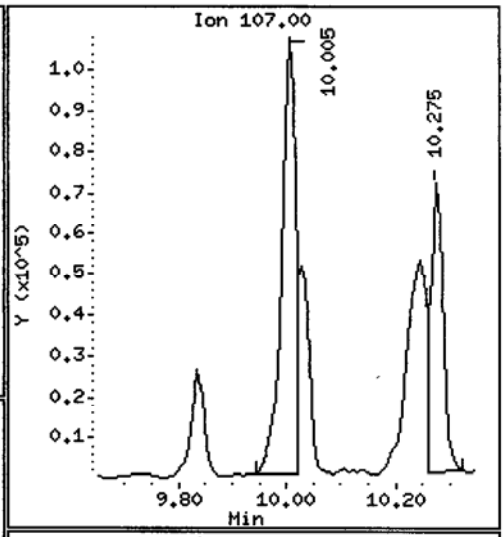
Concentration: 1322 ug/kg

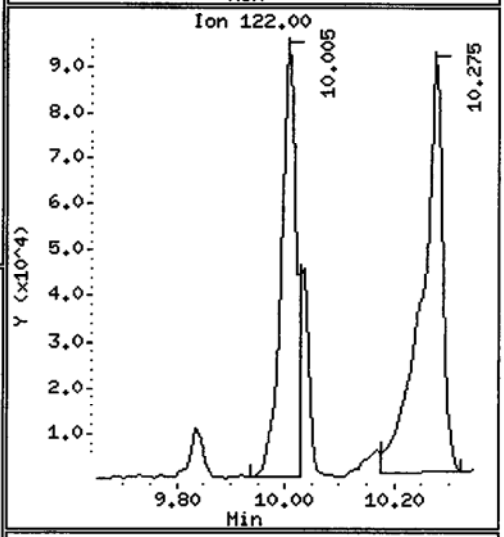


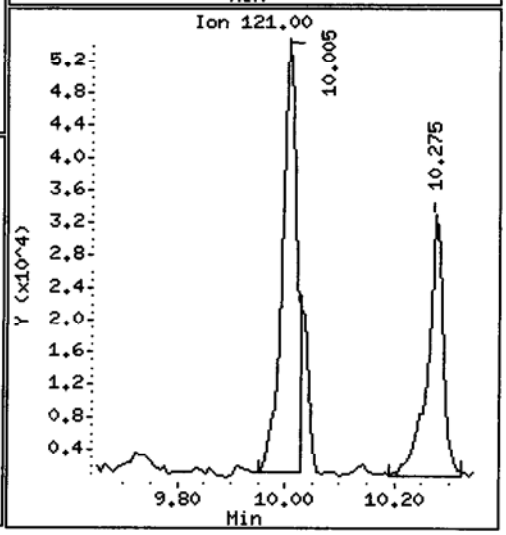












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

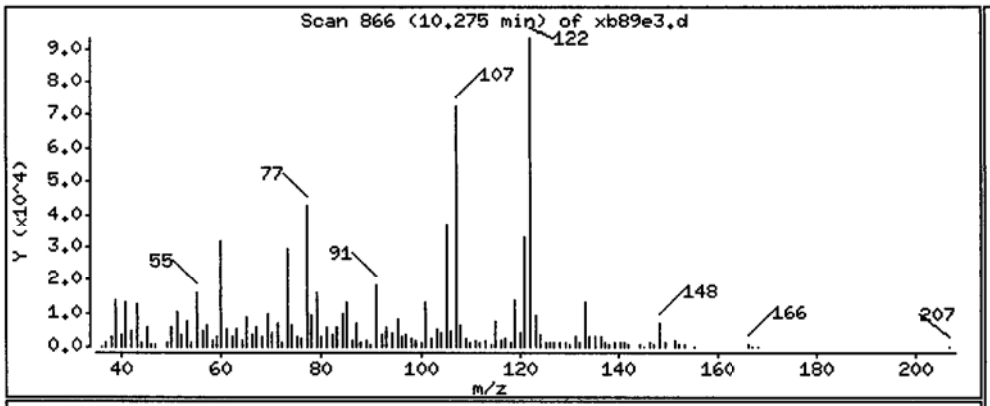
Client ID: IJ13-VC-102-2-4 Instrument: nt10.i

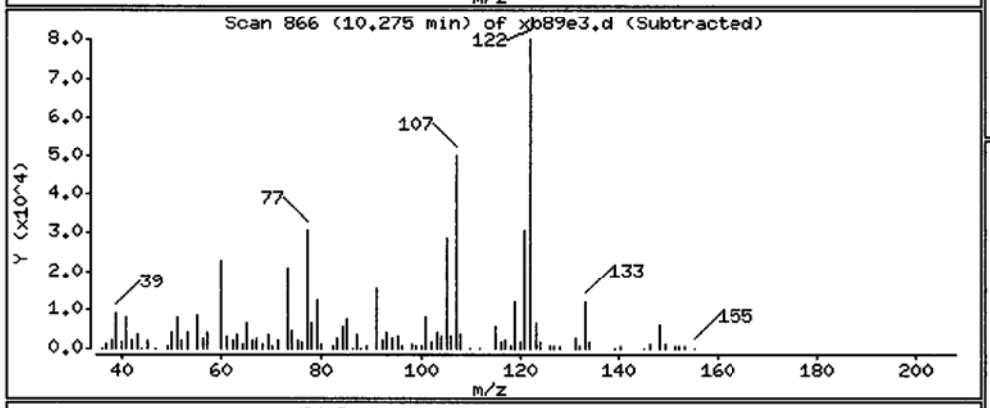
Sample Info: XB89E,3

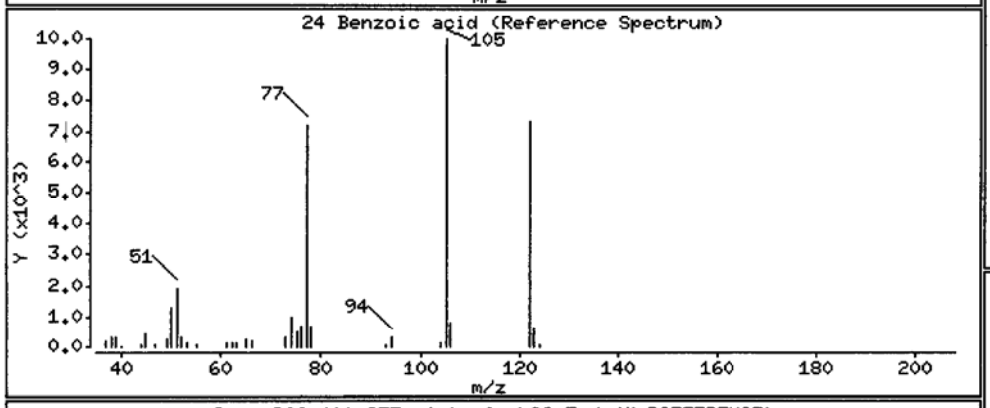
Volume Injected (uL): 1.0 Operator: VTS/YZ

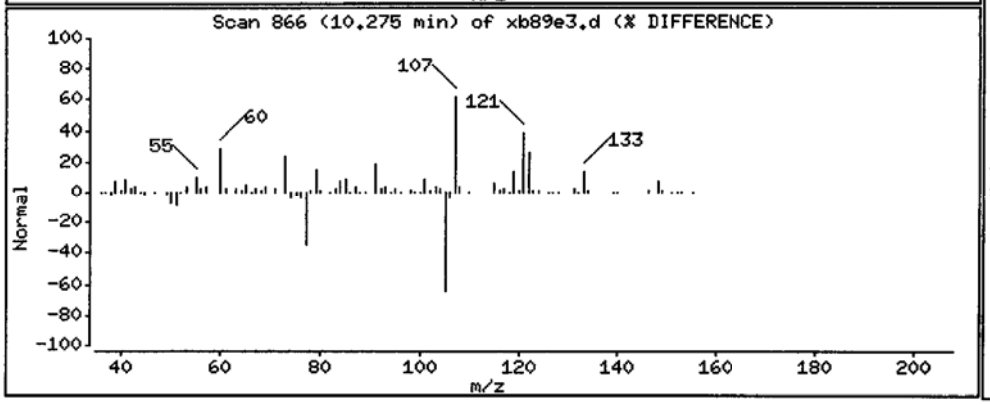
Column phase: ZB-5msi Column diameter: 0.25

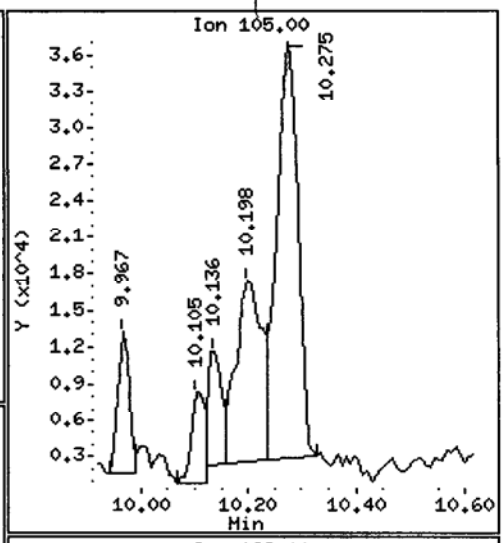
24 Benzoic acid Concentration: 1037 ug/kg

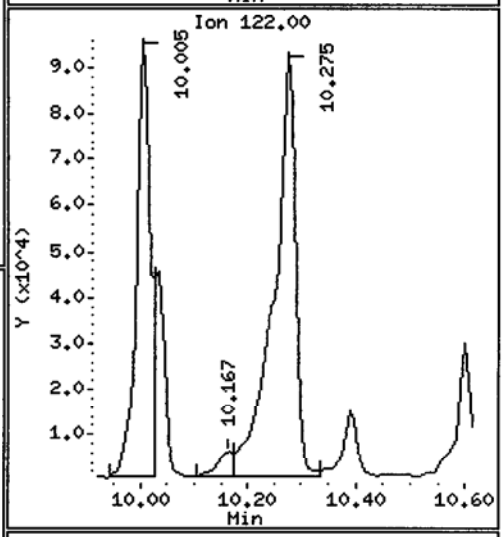


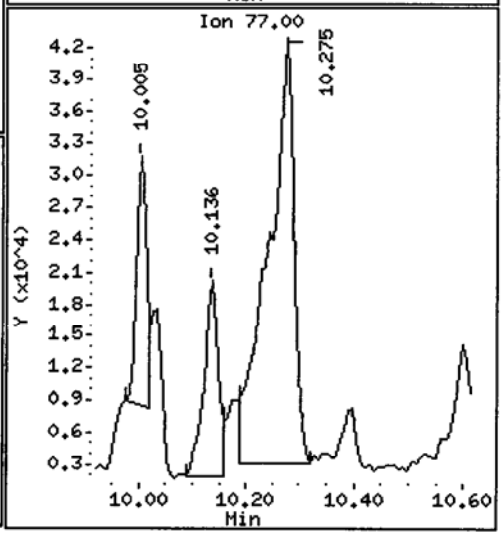












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

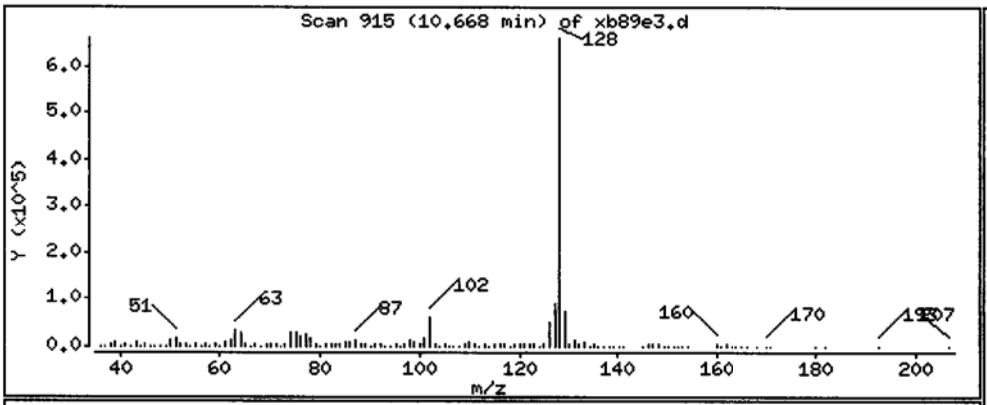
Operator: VTS/YZ

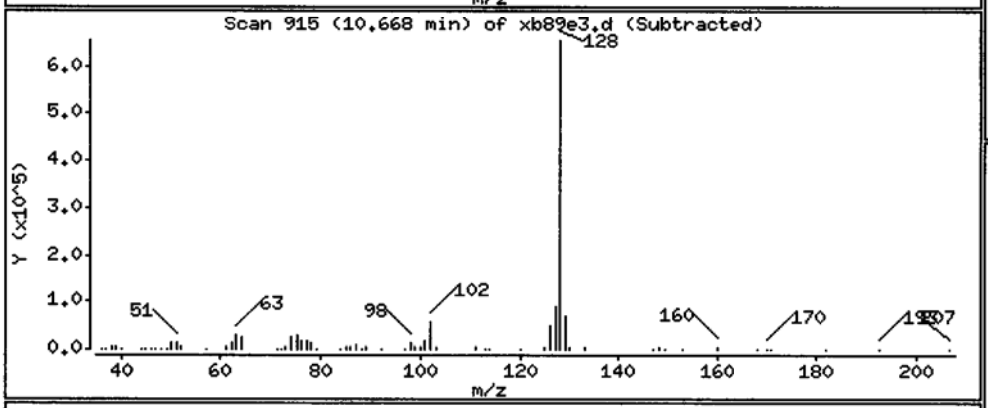
Column phase: ZB-5msi

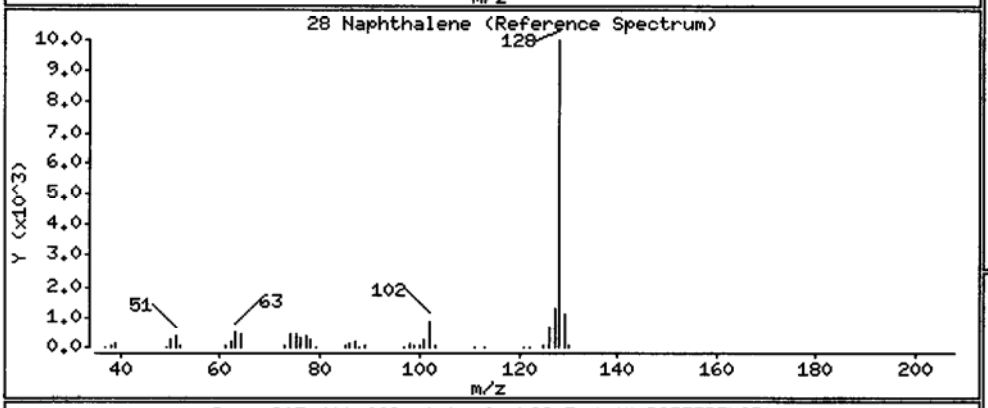
Column diameter: 0.25

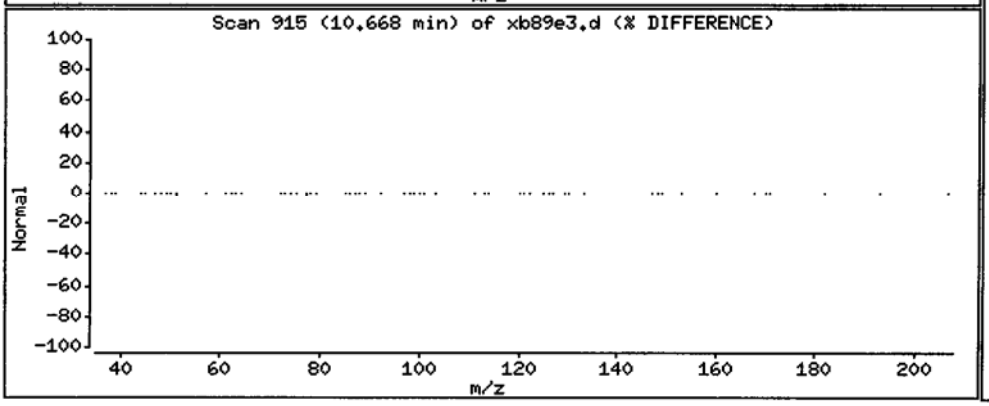
28 Naphthalene

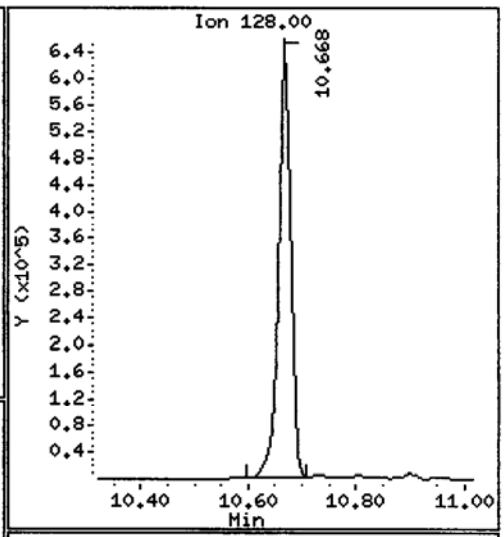
Concentration: 2471 ug/kg

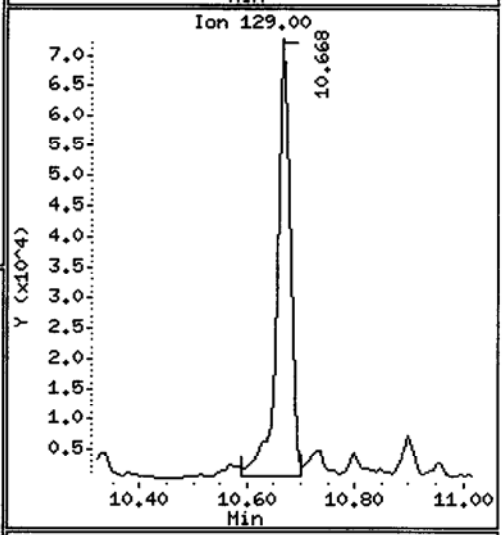


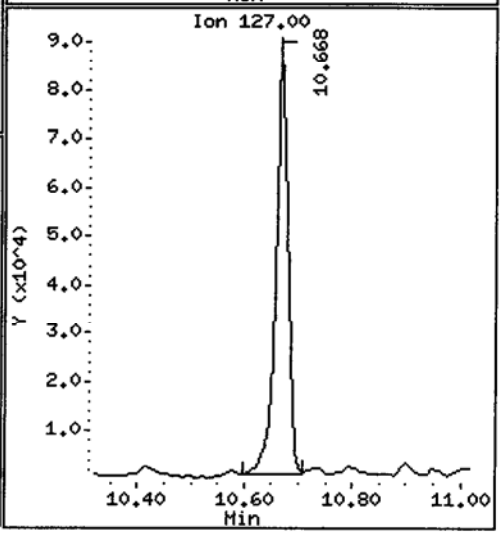












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

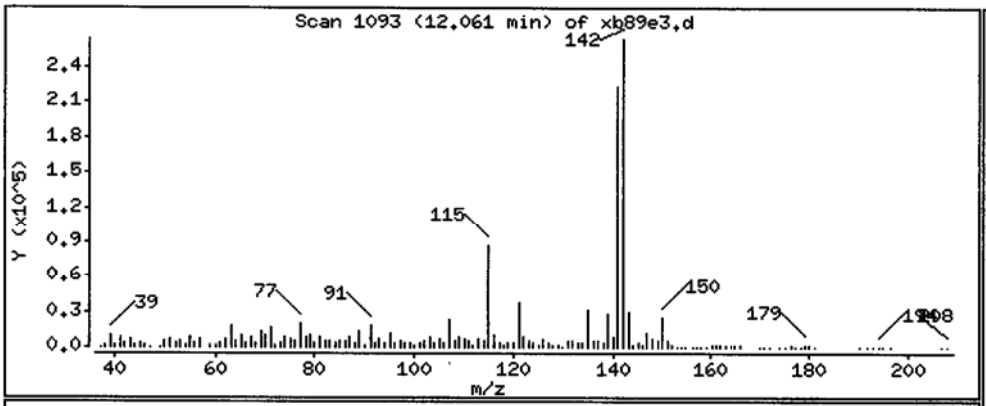
Operator: VTS/YZ

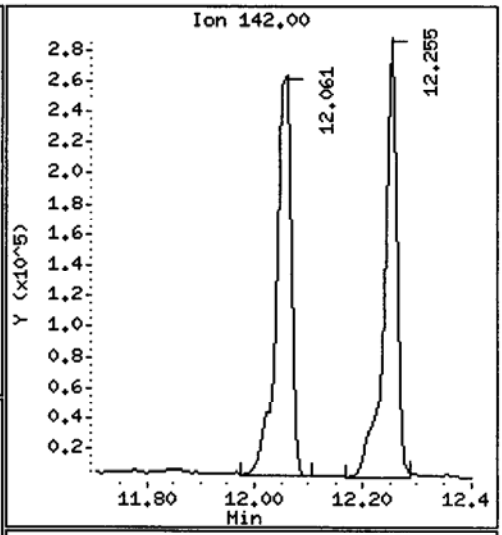
Column phase: ZB-5msi

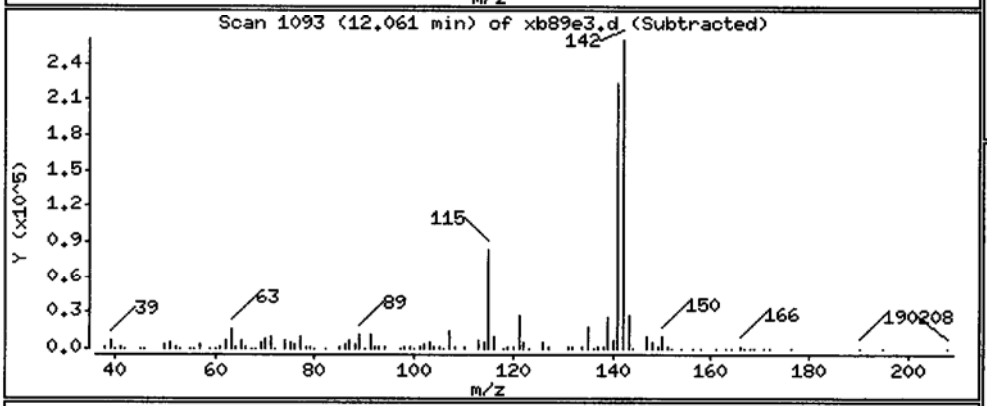
Column diameter: 0.25

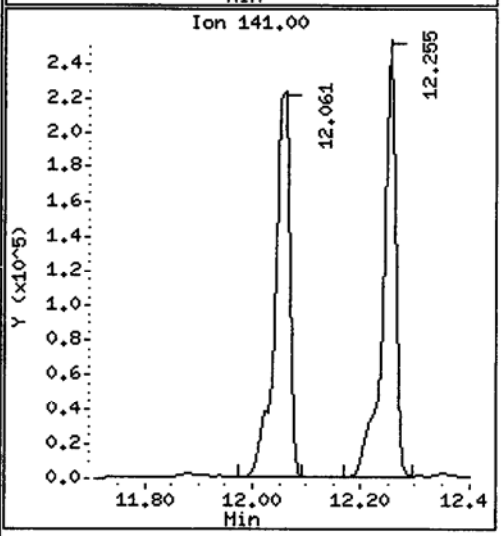
32 2-Methylnaphthalene

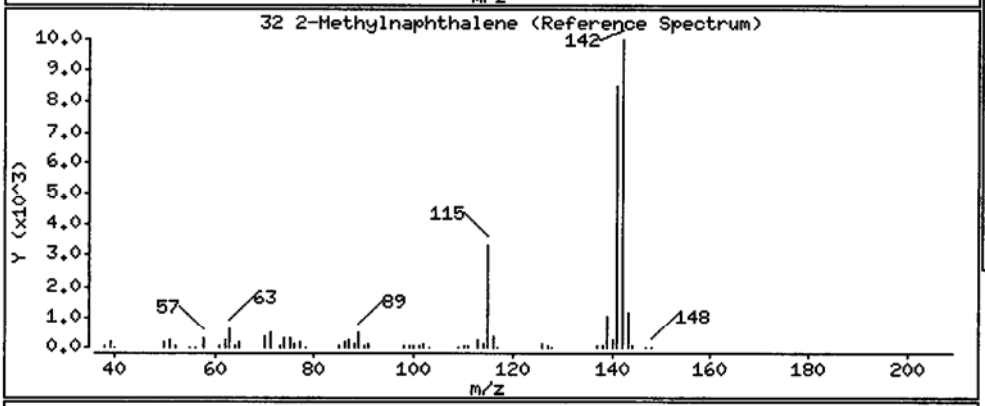
Concentration: 1600 ug/kg

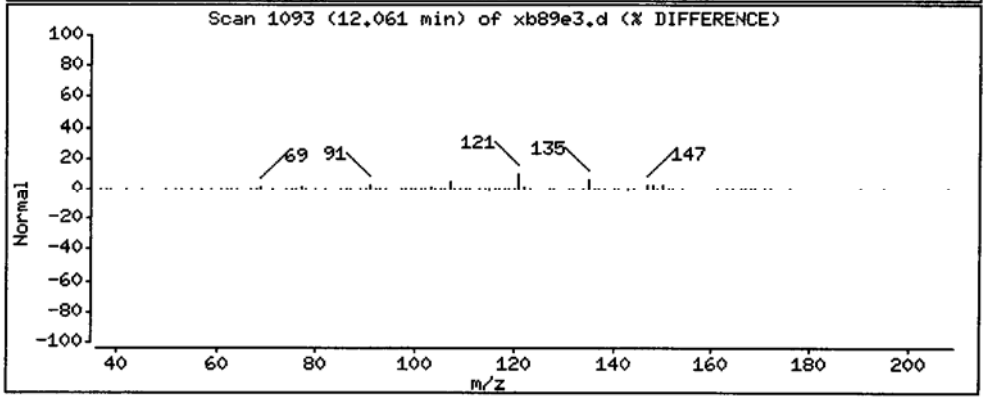












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

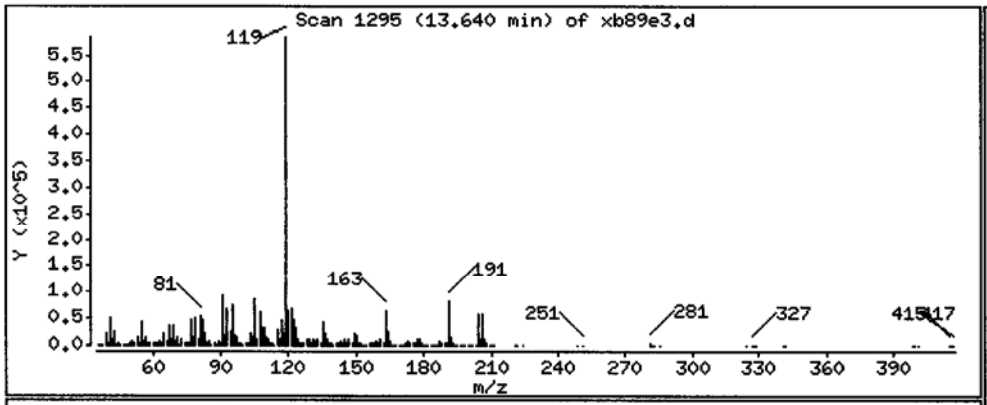
Operator: VTS/YZ

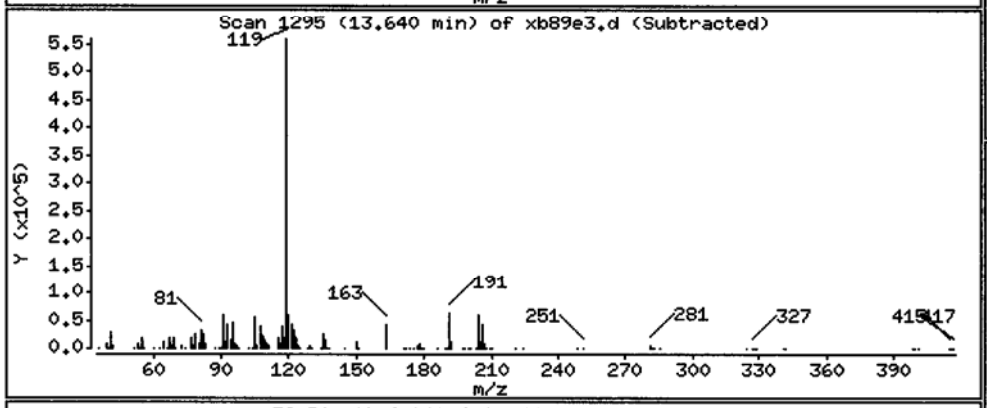
Column phase: ZB-5ms

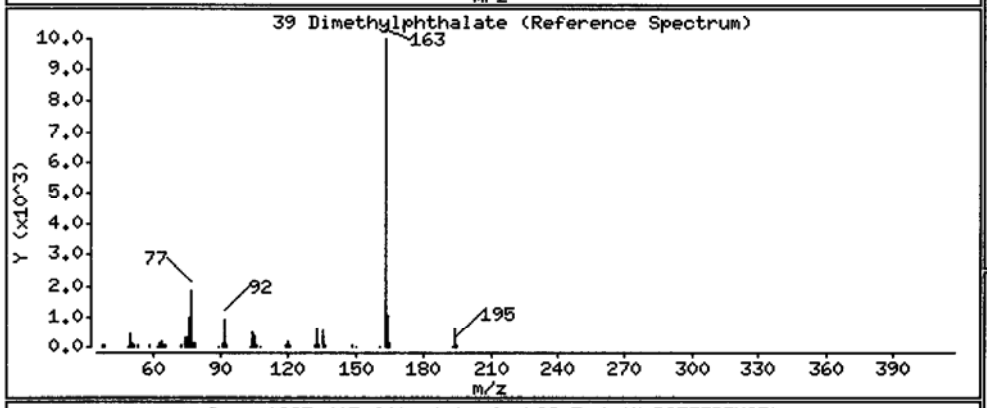
Column diameter: 0.25

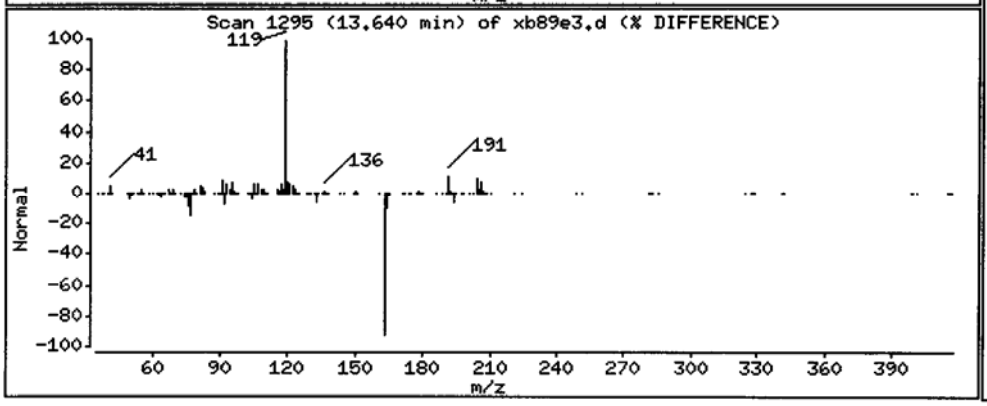
39 Dimethylphthalate

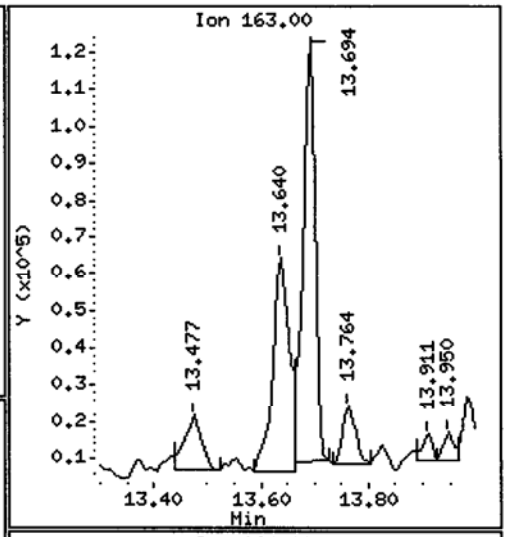
Concentration: 516.6 ug/kg

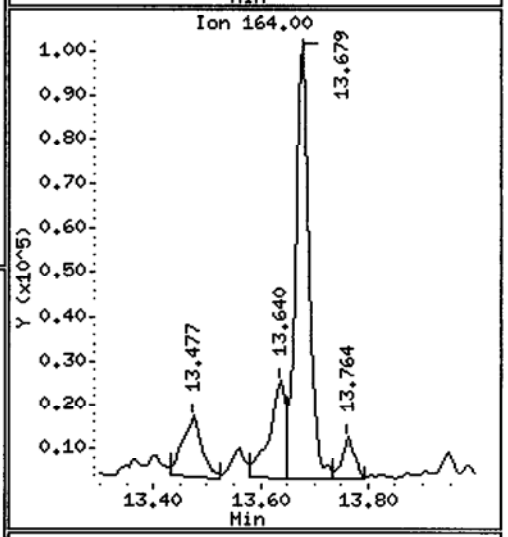


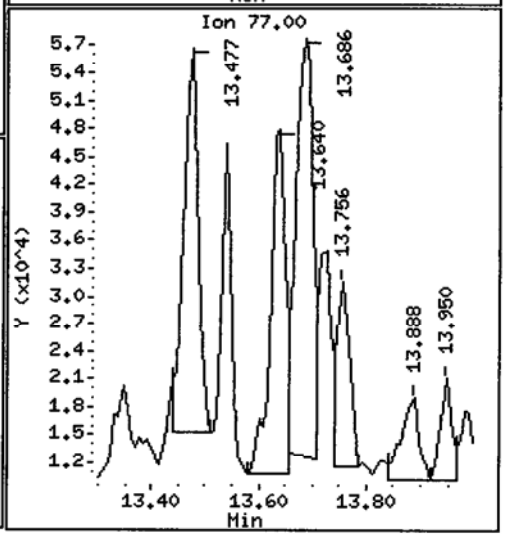












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

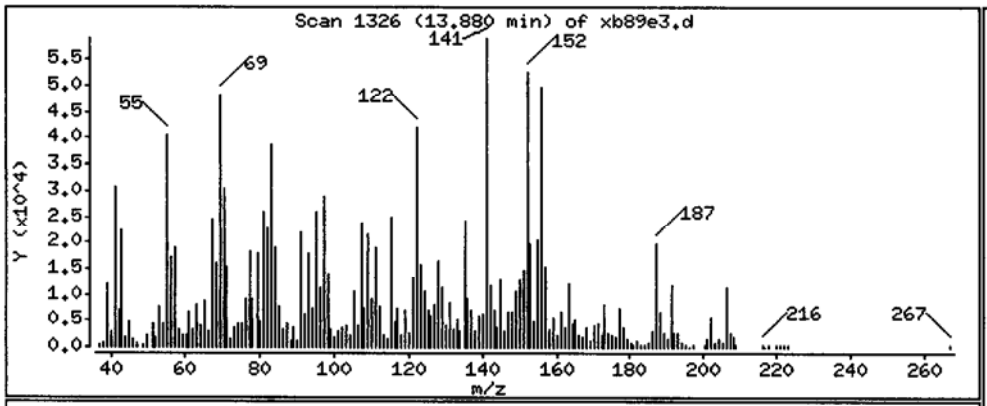
Operator: VTS/YZ

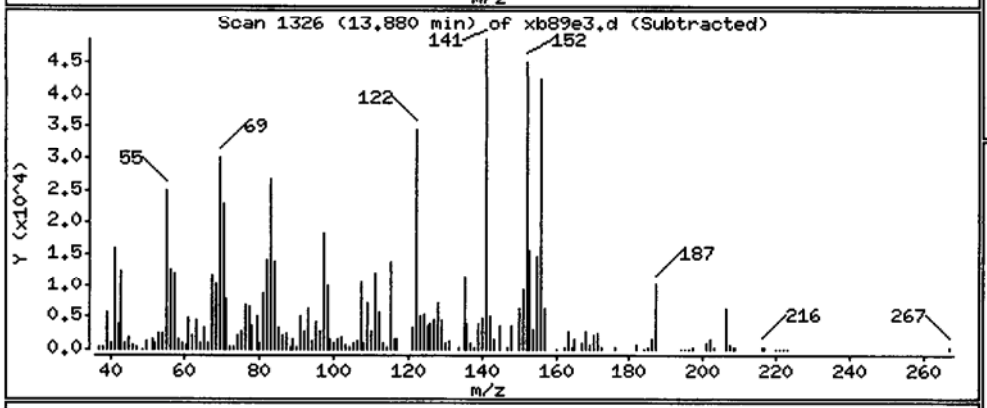
Column phase: ZB-5msi

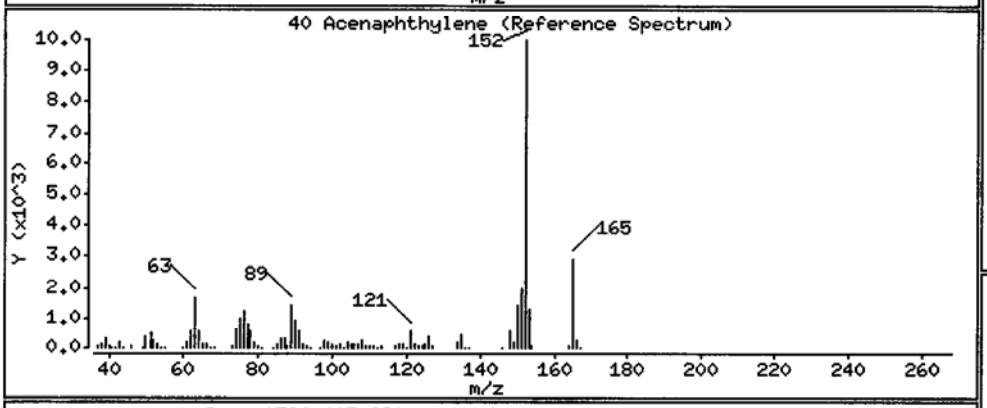
Column diameter: 0.25

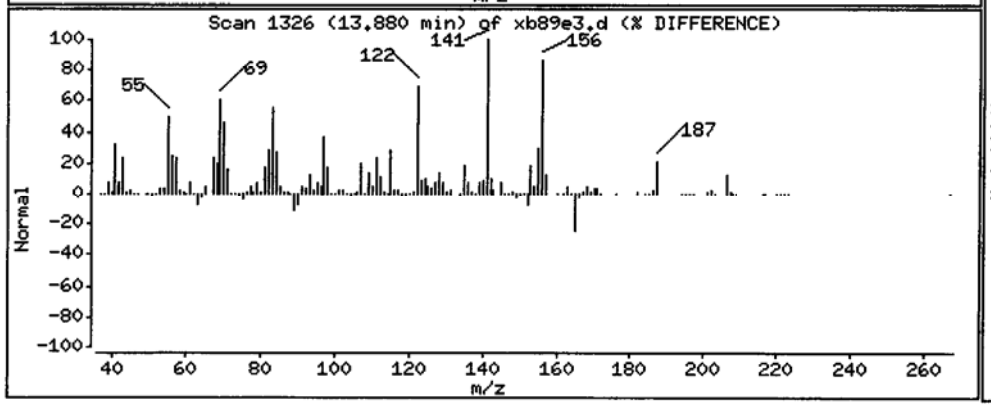
40 Acenaphthylene

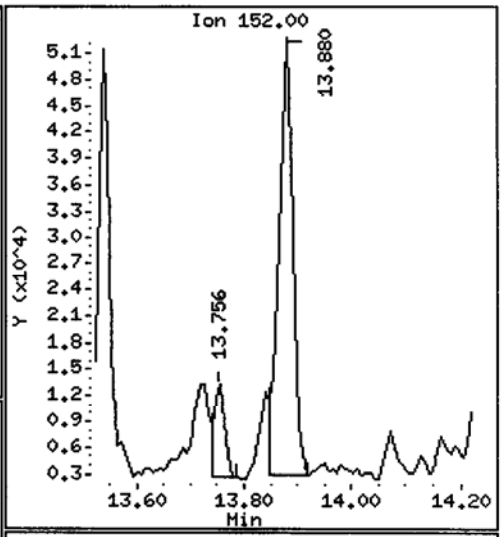
Concentration: 246.2 ug/kg

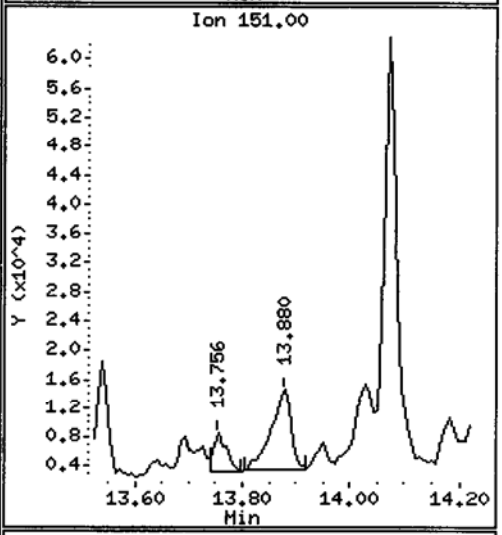


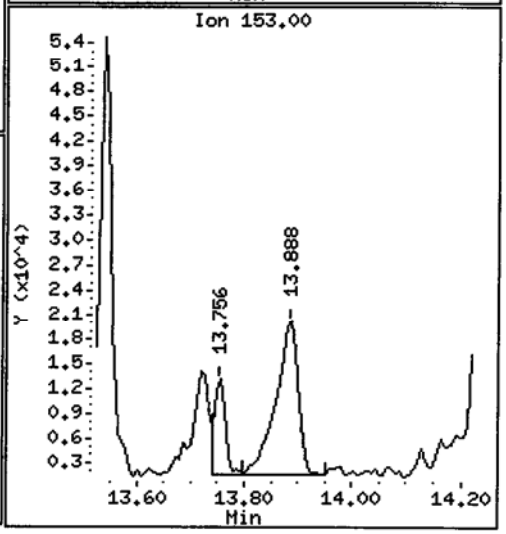












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

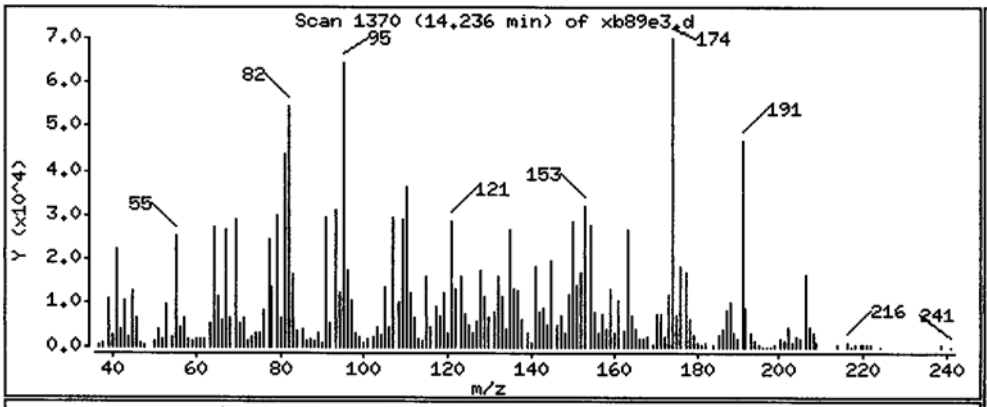
Operator: VTS/YZ

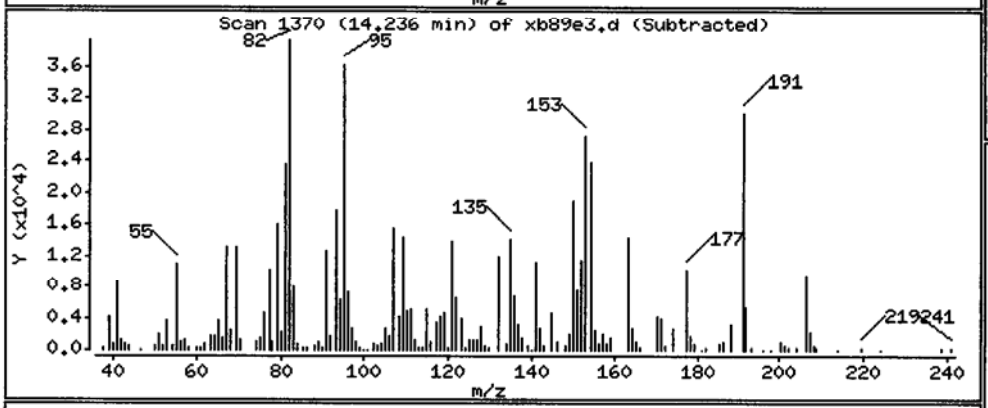
Column phase: ZB-5msi

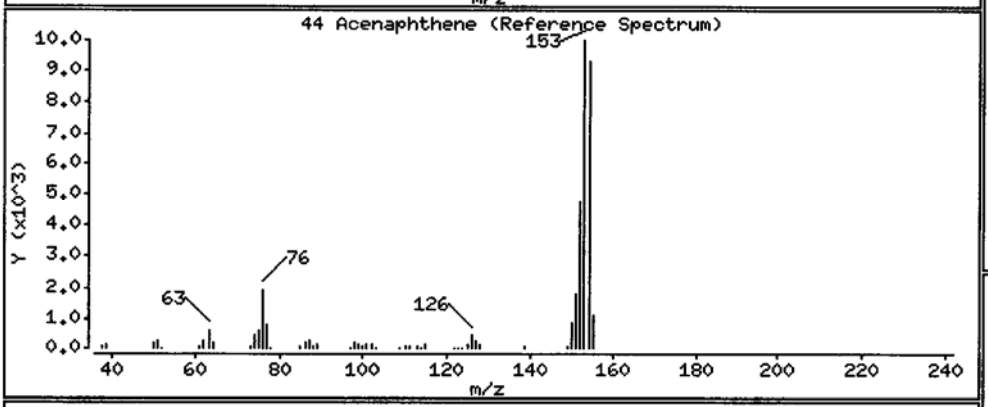
Column diameter: 0.25

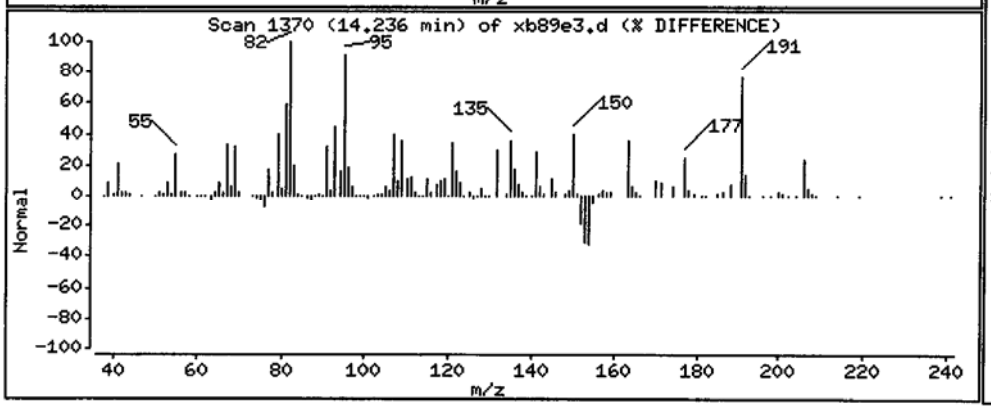
44 Acenaphthene

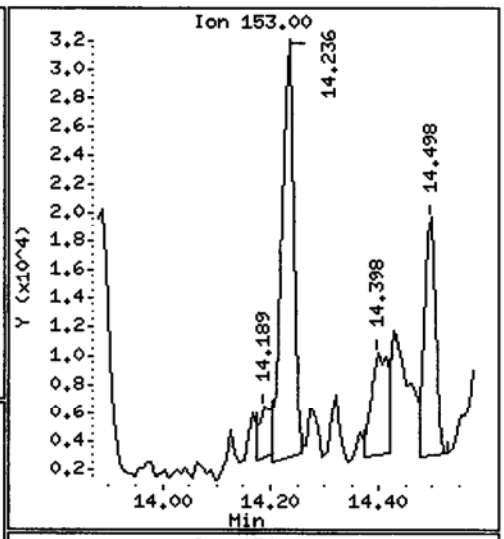
Concentration: 206.2 ug/kg

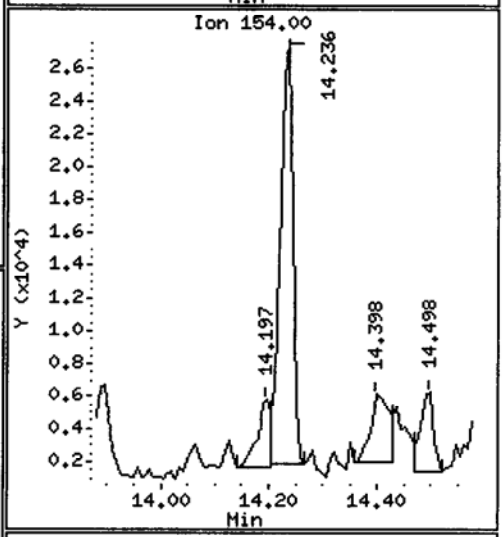


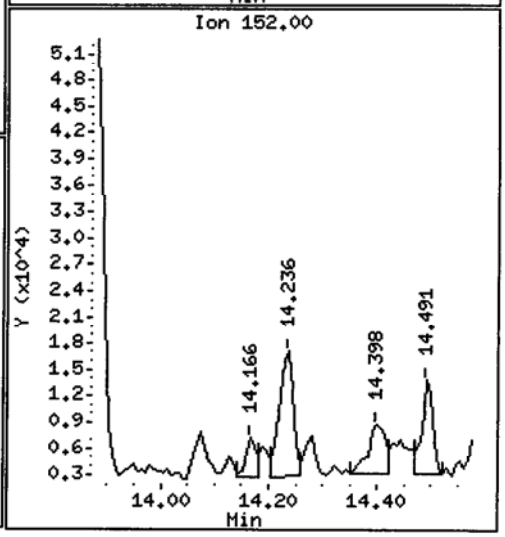












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

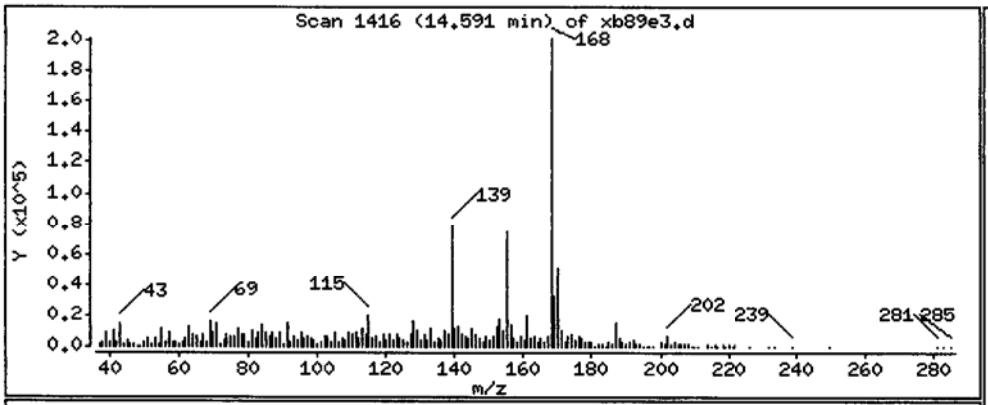
Operator: VTS/YZ

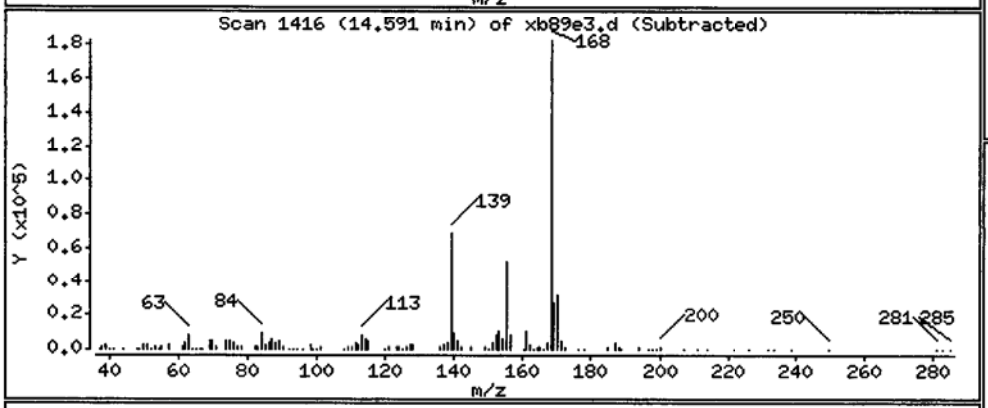
Column phase: ZB-5msi

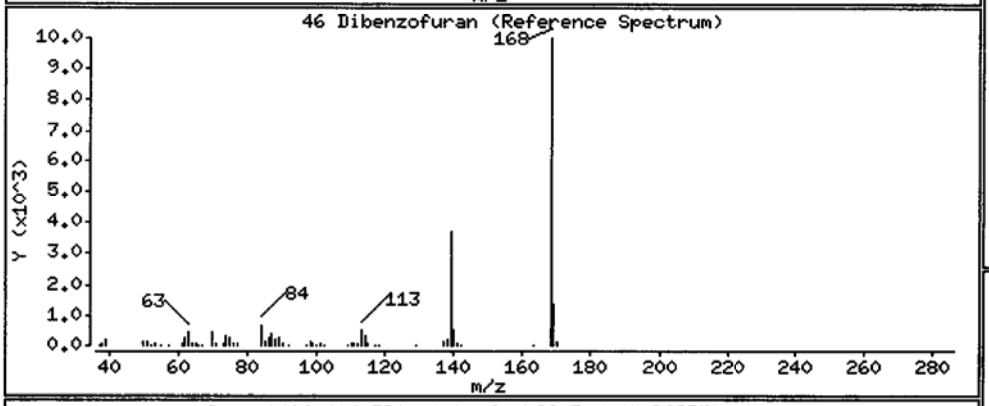
Column diameter: 0.25

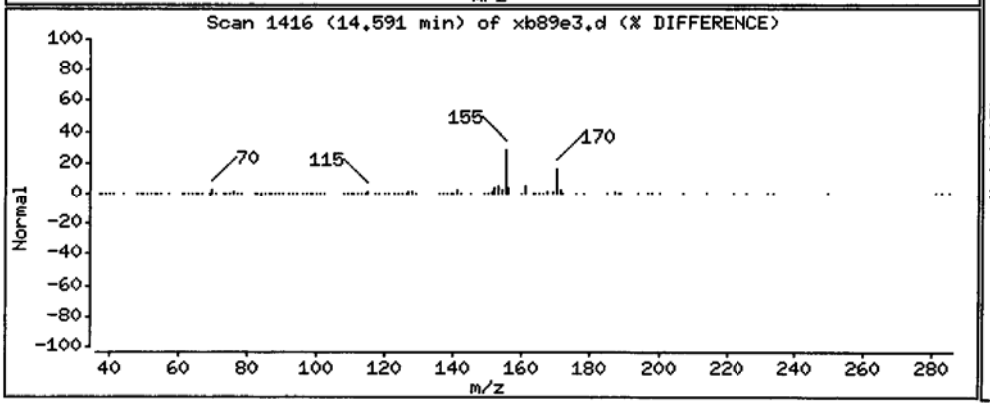
46 Dibenzofuran

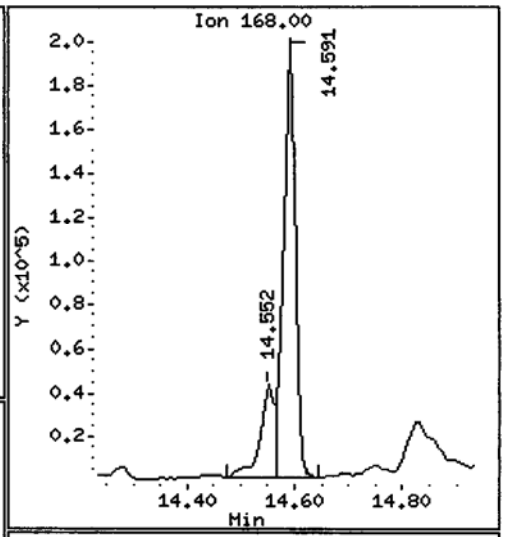
Concentration: 895.8 ug/kg

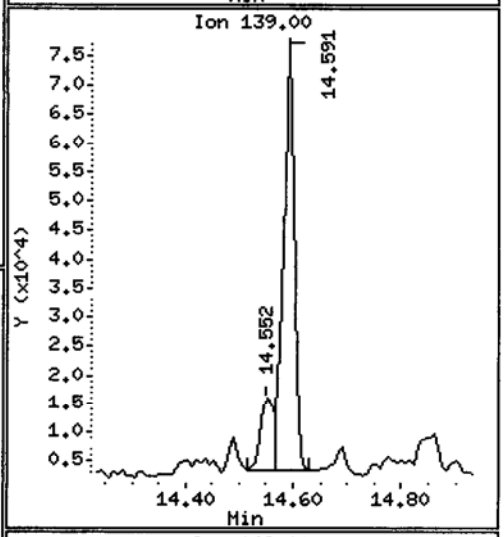


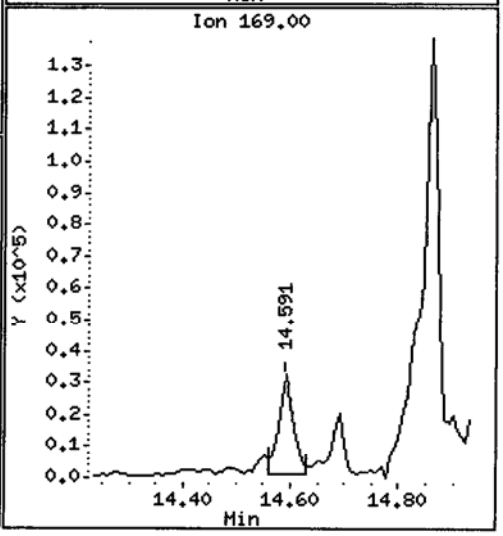












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

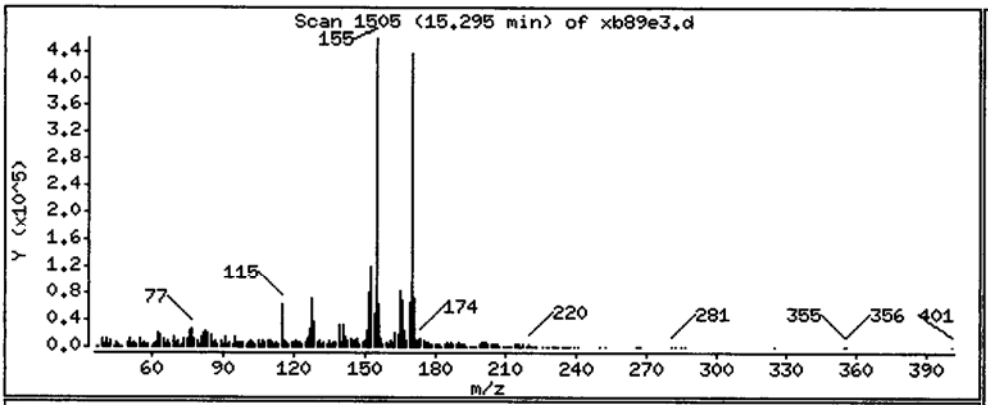
Operator: VTS/YZ

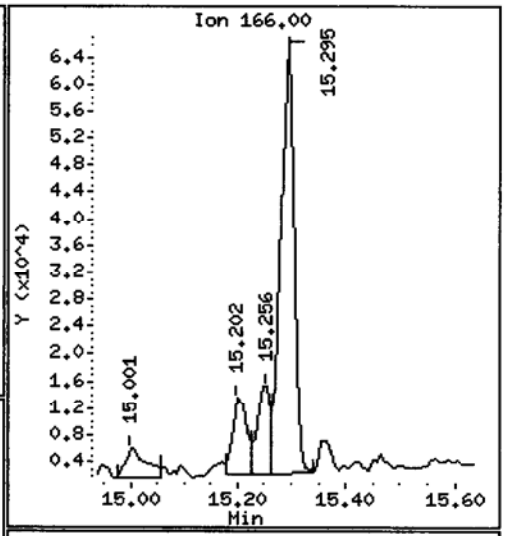
Column phase: ZB-5msi

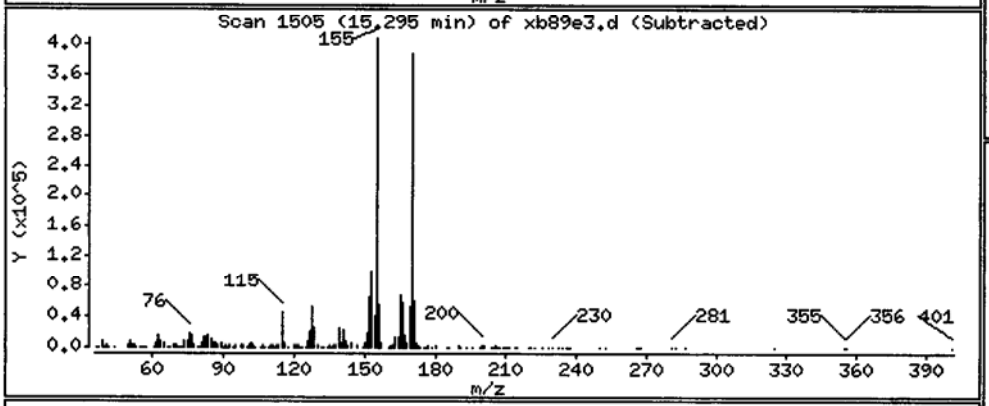
Column diameter: 0.25

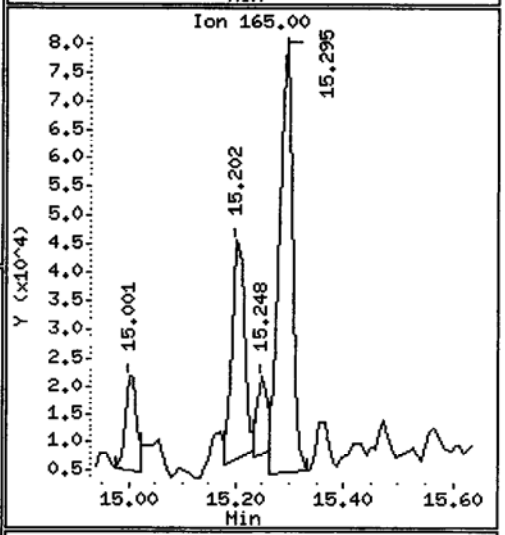
49 Fluorene

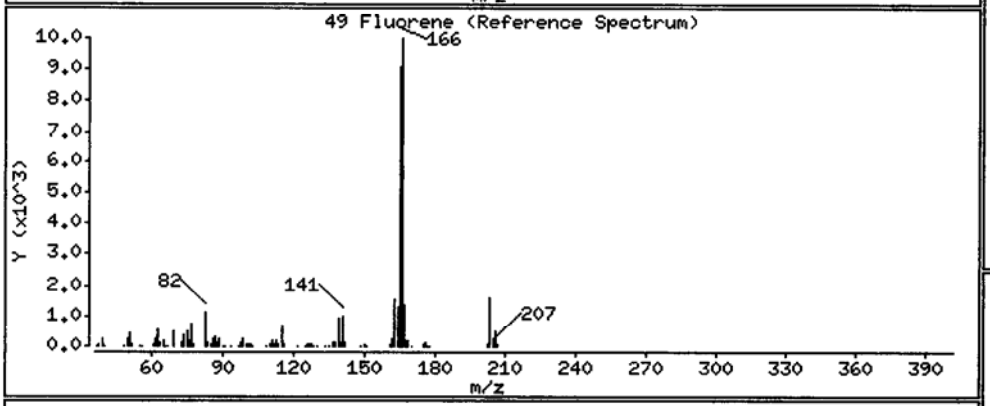
Concentration: 404.5 ug/kg

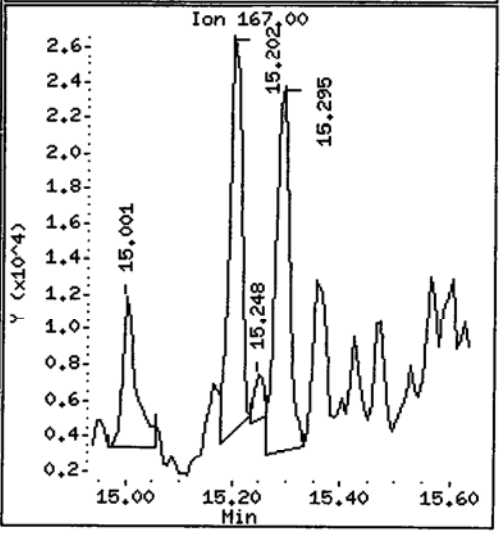


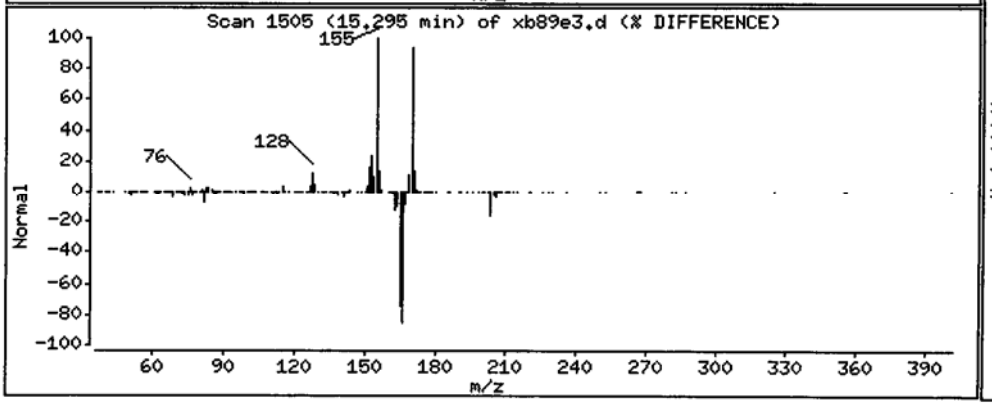












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

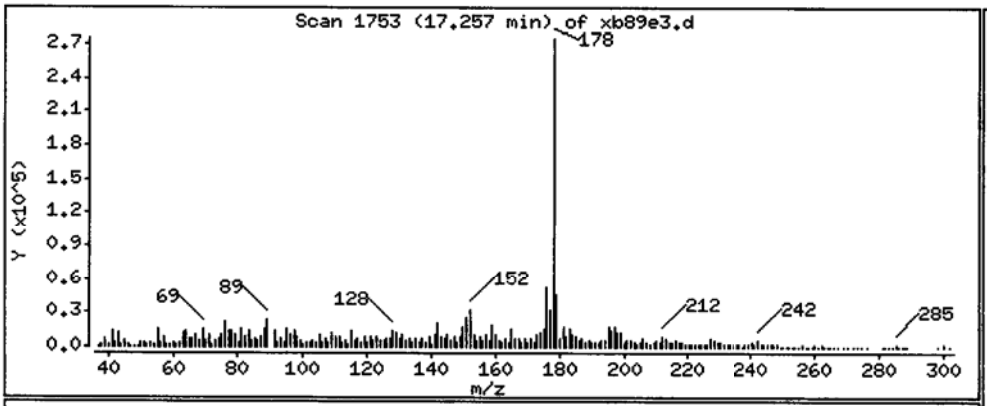
Operator: VTS/YZ

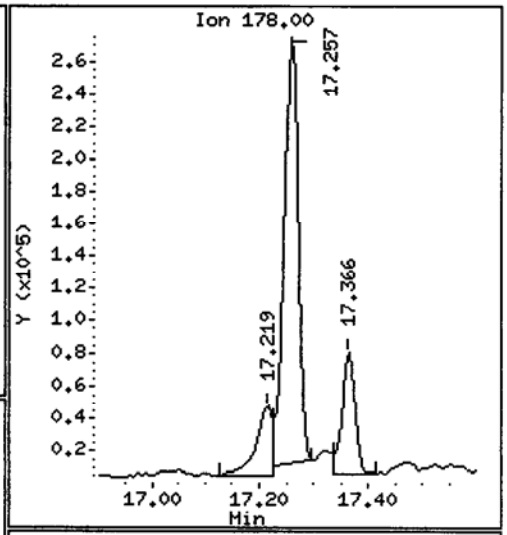
Column phase: ZB-5msi

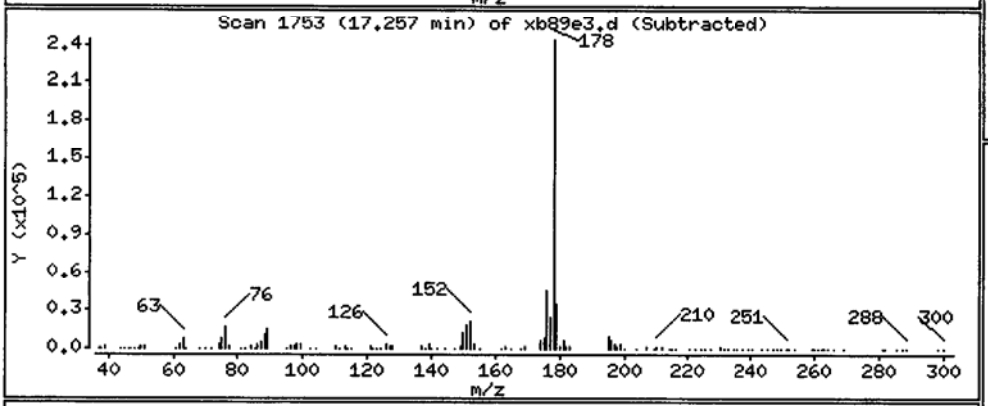
Column diameter: 0.25

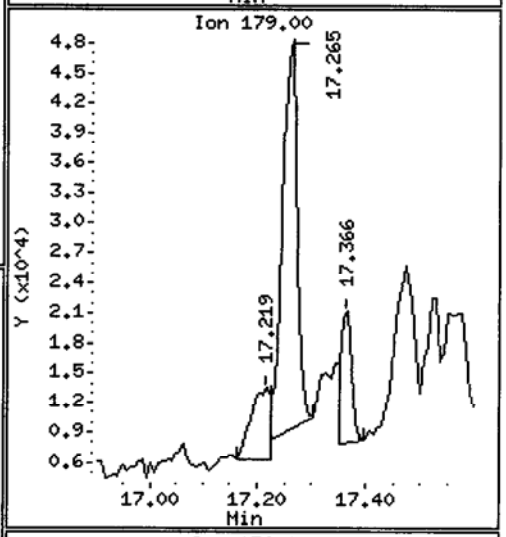
60 Phenanthrene

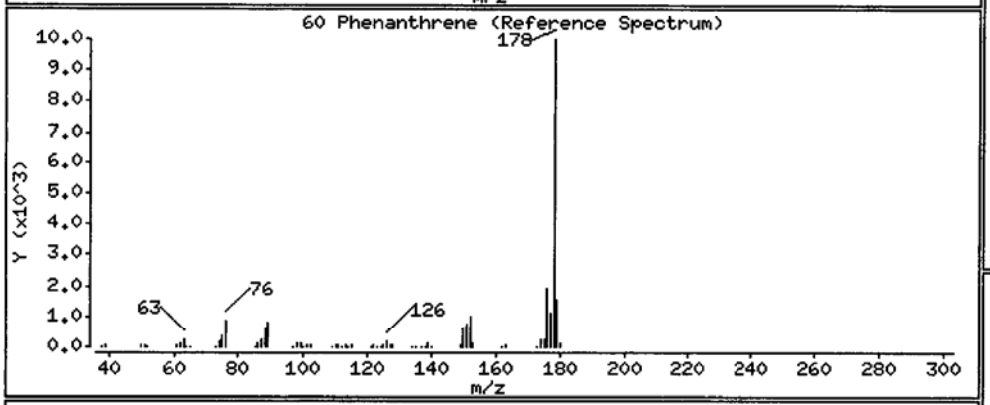
Concentration: 1426 ug/kg

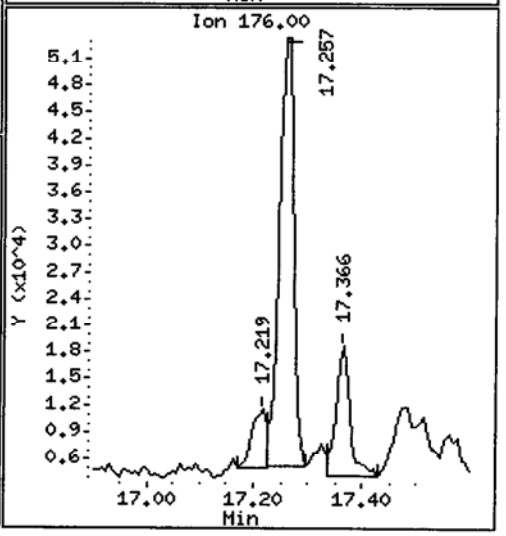


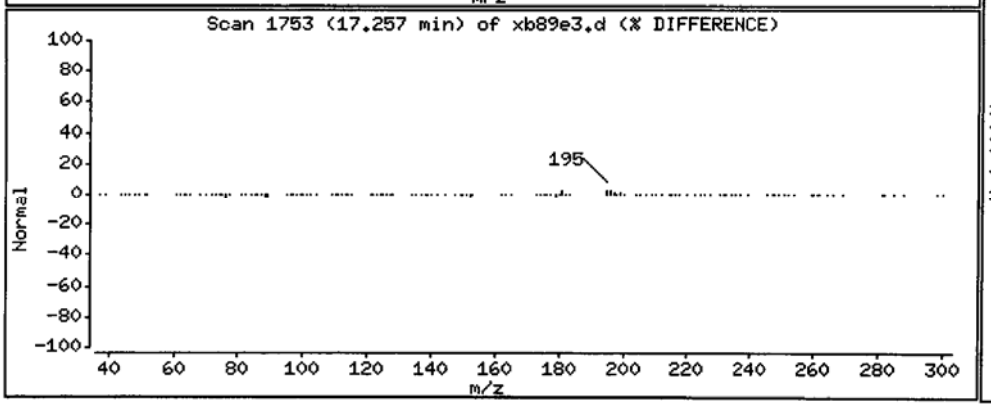












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

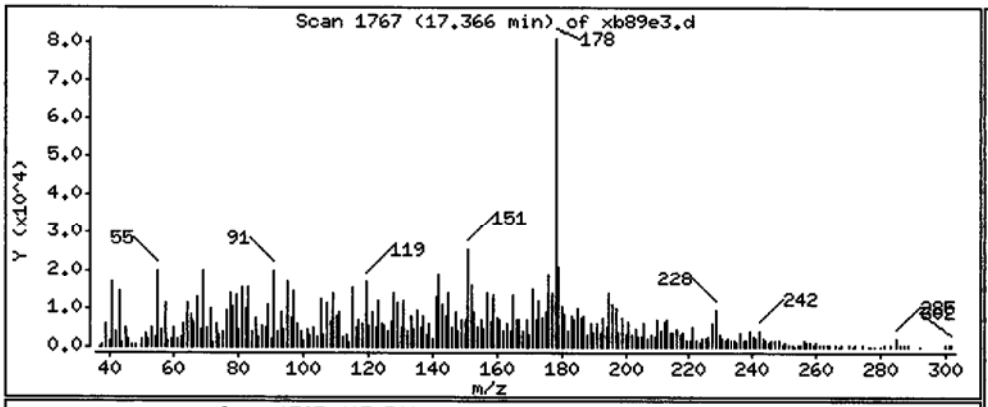
Operator: VTS/YZ

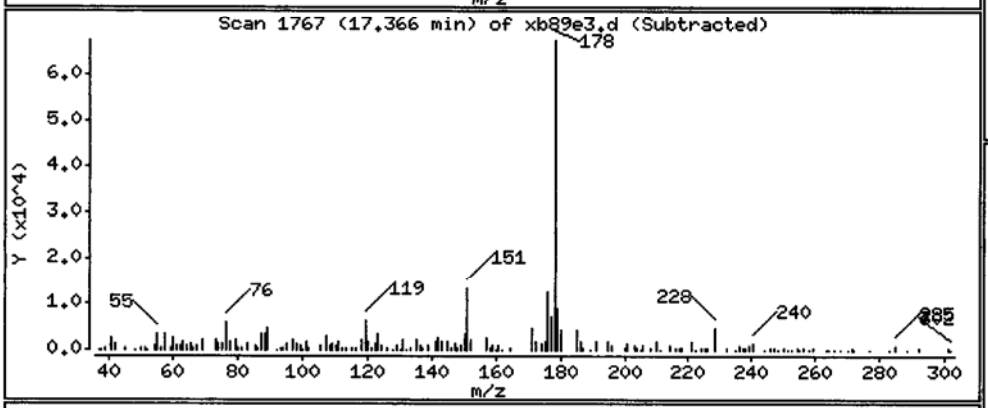
Column phase: ZB-5msi

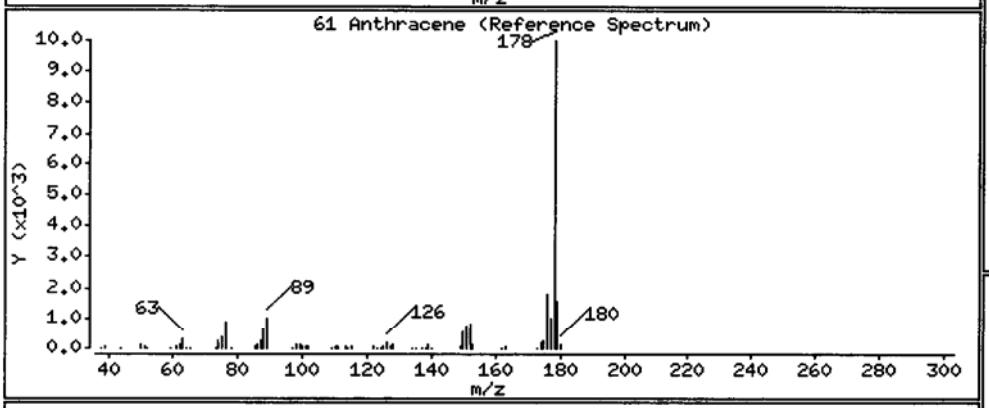
Column diameter: 0.25

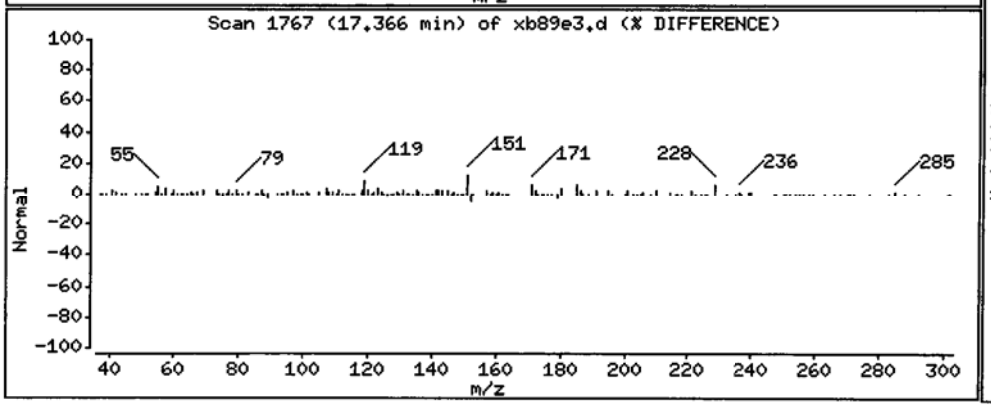
61 Anthracene

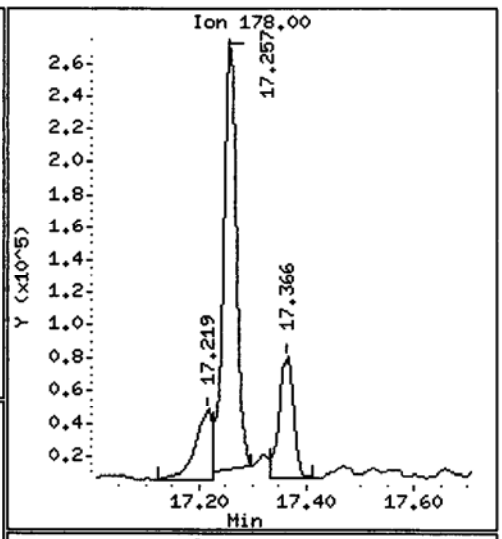
Concentration: 383.1 ug/kg

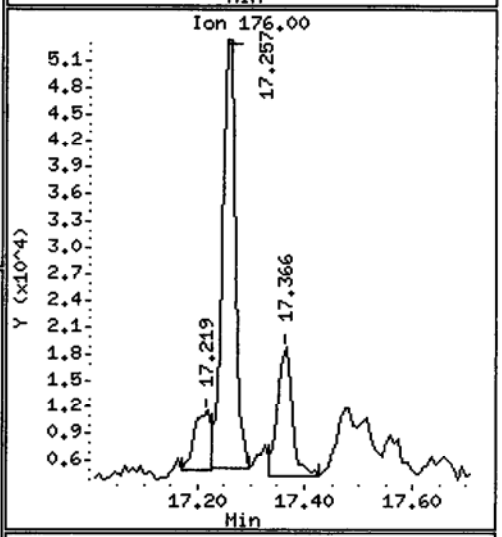


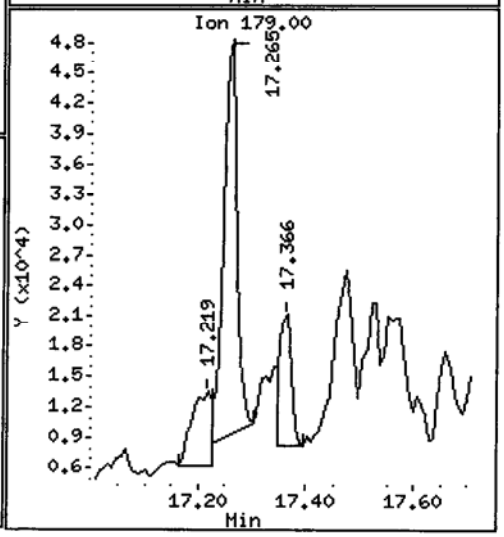












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

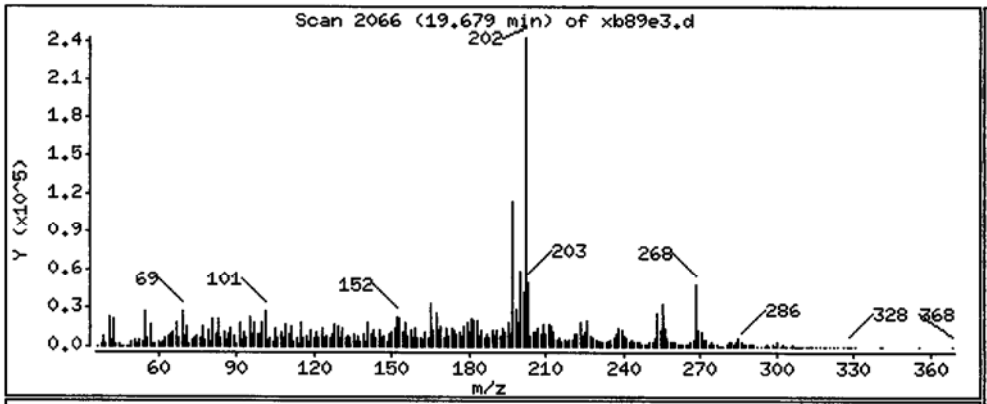
Operator: VTS/YZ

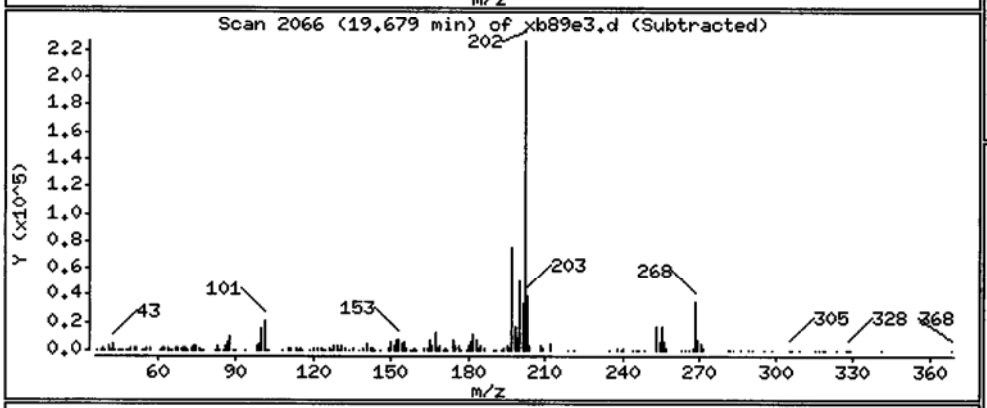
Column phase: ZB-5msi

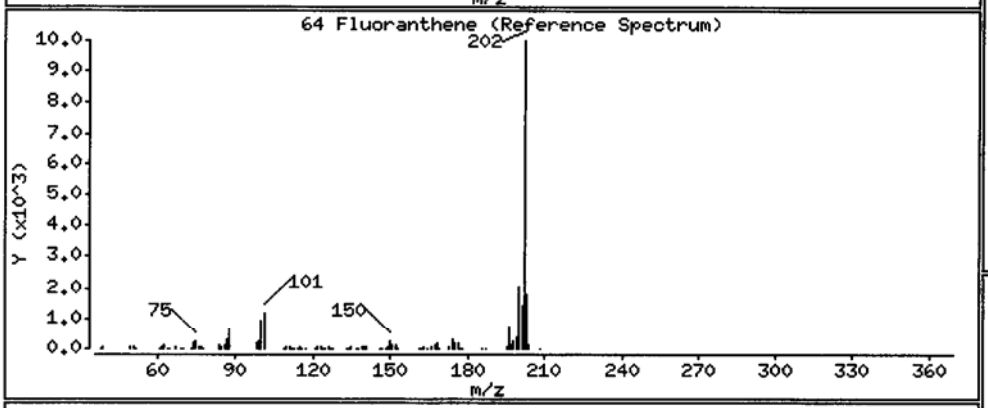
Column diameter: 0.25

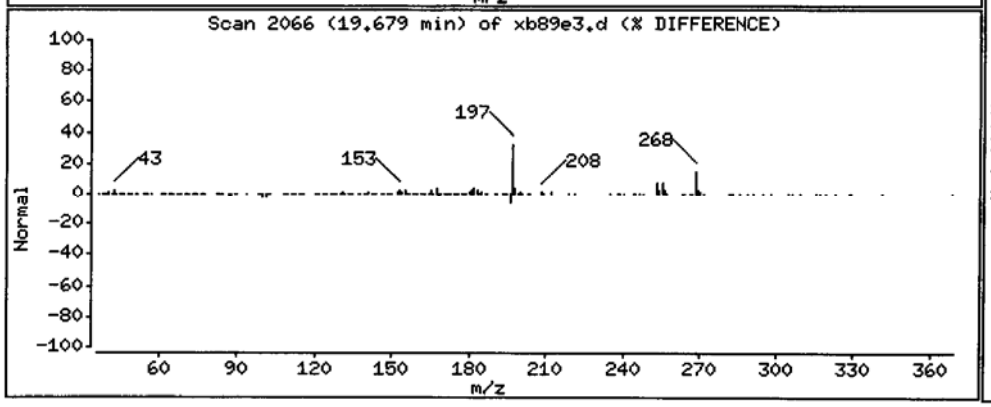
64 Fluoranthene

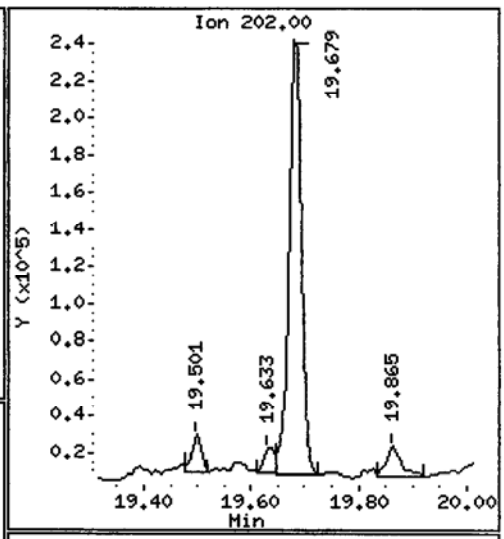
Concentration: 981.9 ug/kg

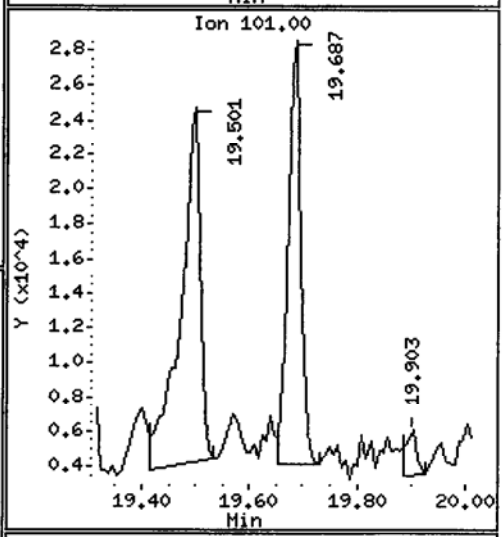


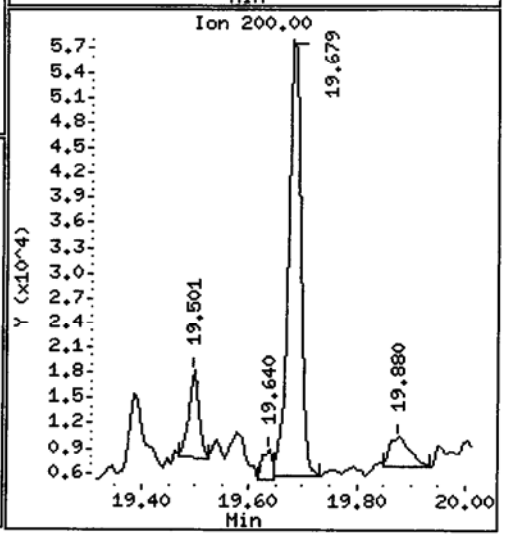












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

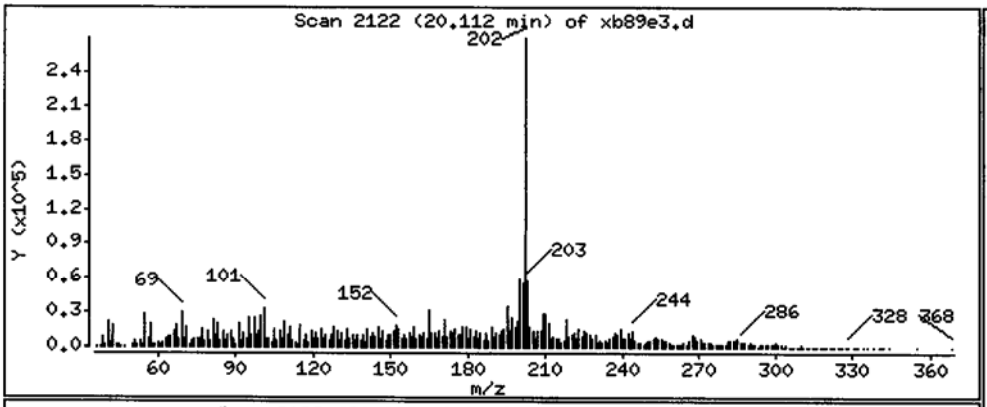
Operator: VTS/YZ

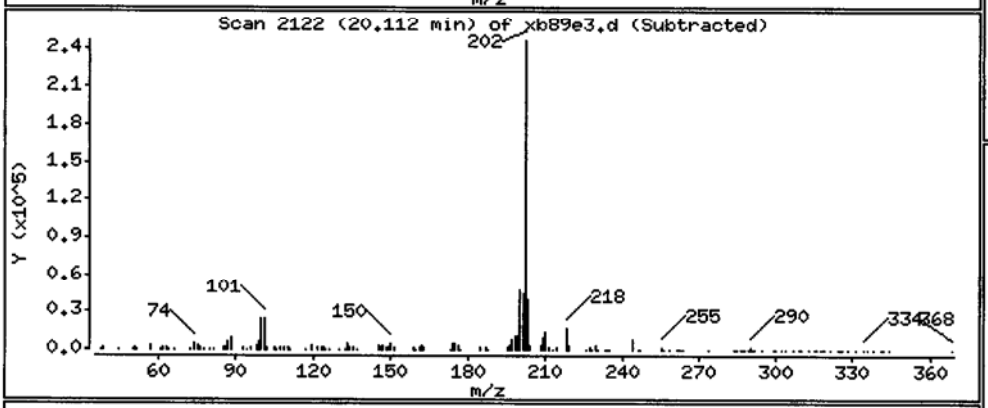
Column phase: ZB-5msi

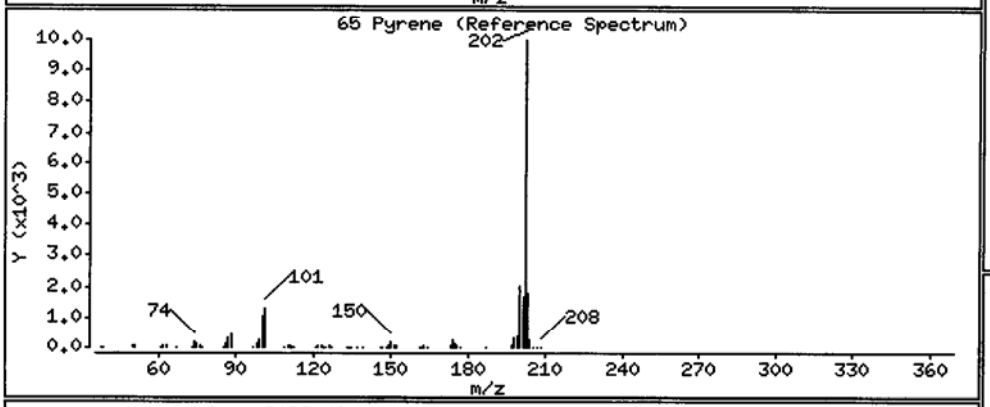
Column diameter: 0.25

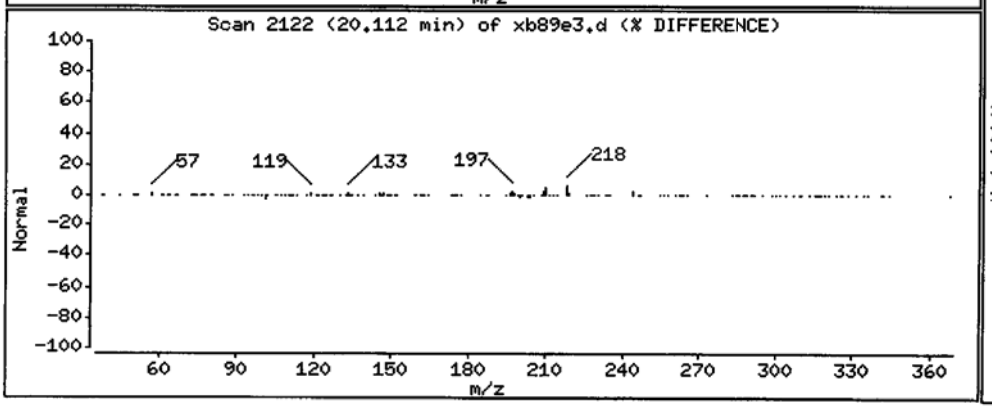
65 Pyrene

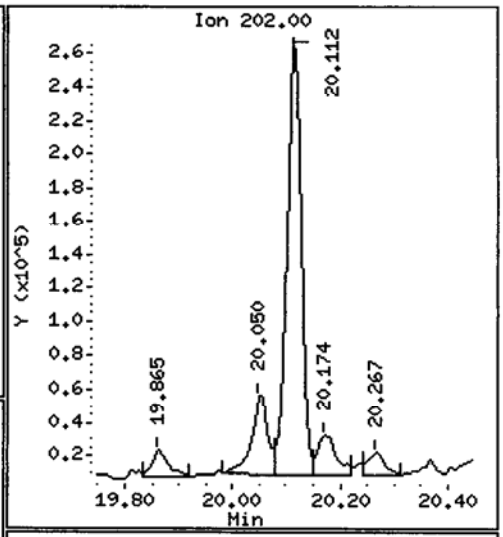
Concentration: 858.5 ug/kg

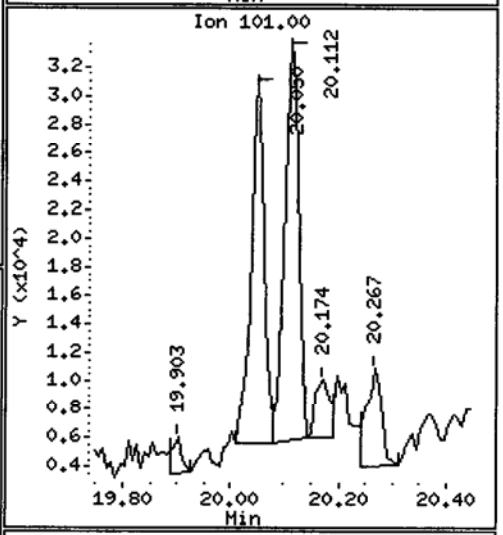


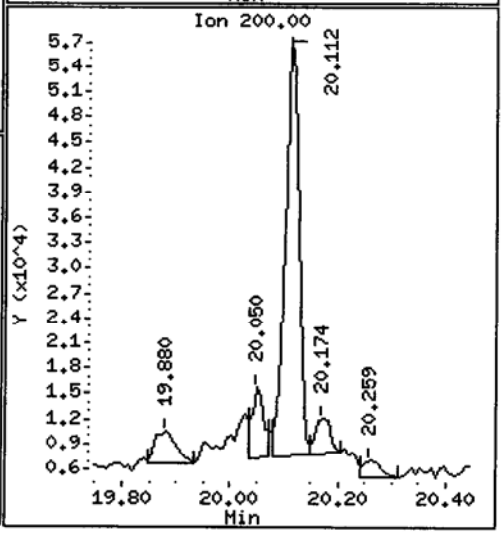












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

Operator: VTS/YZ

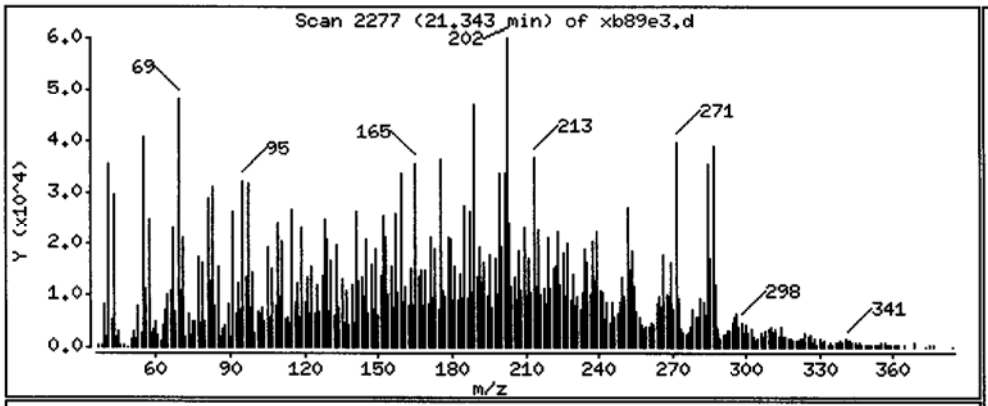
Column phase: ZB-5msi

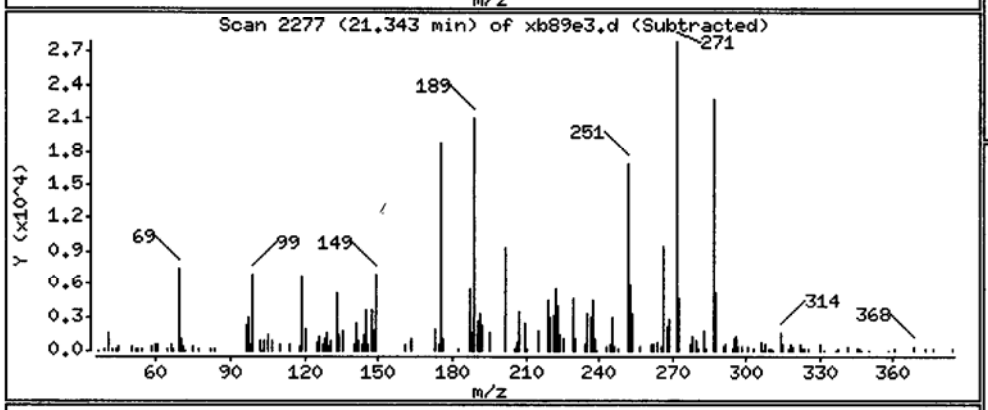
Column diameter: 0.25

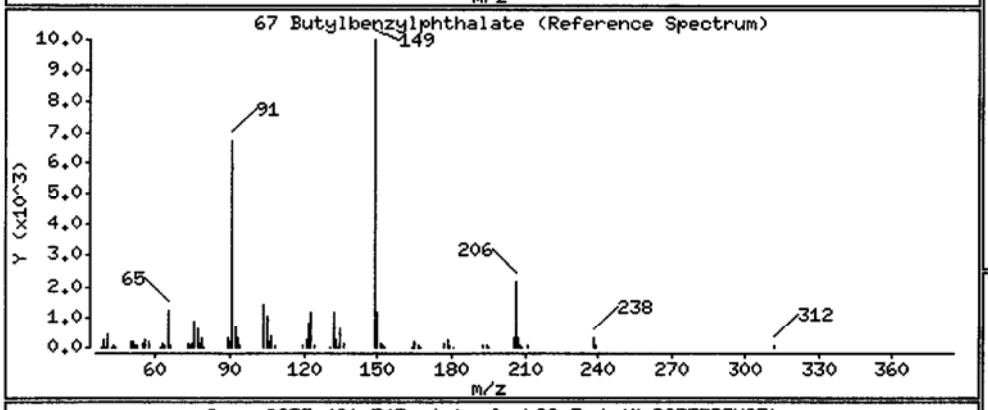
67 Butylbenzylphthalate

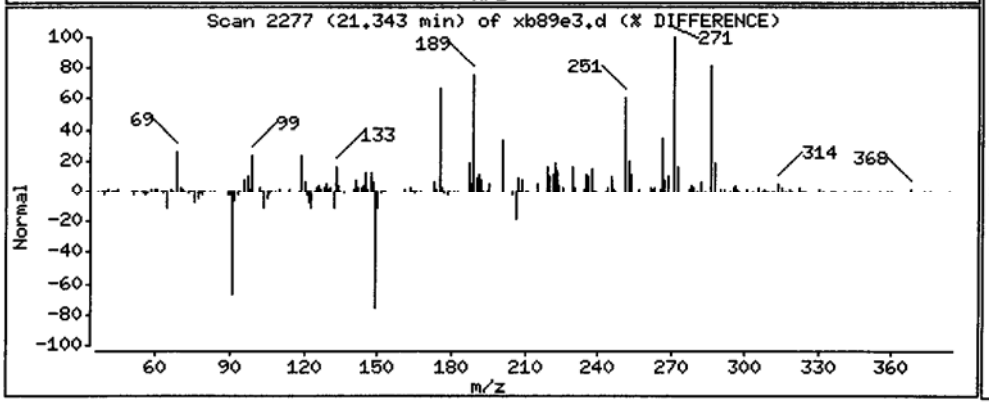
Concentration: 45.38 ug/kg

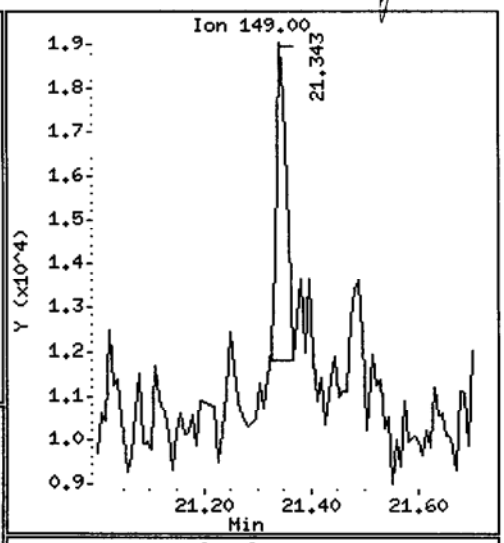
LRL NOT reported GMB 9/9/13 GURL poor fit

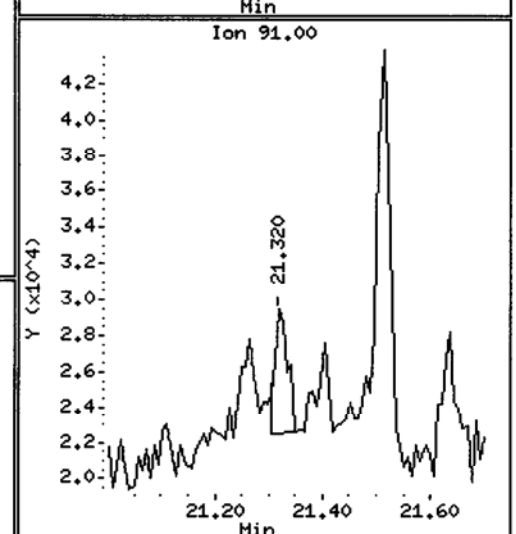


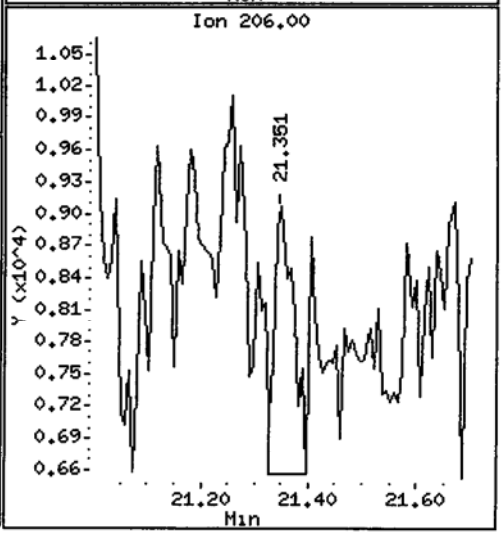












XB89 : 00586

Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

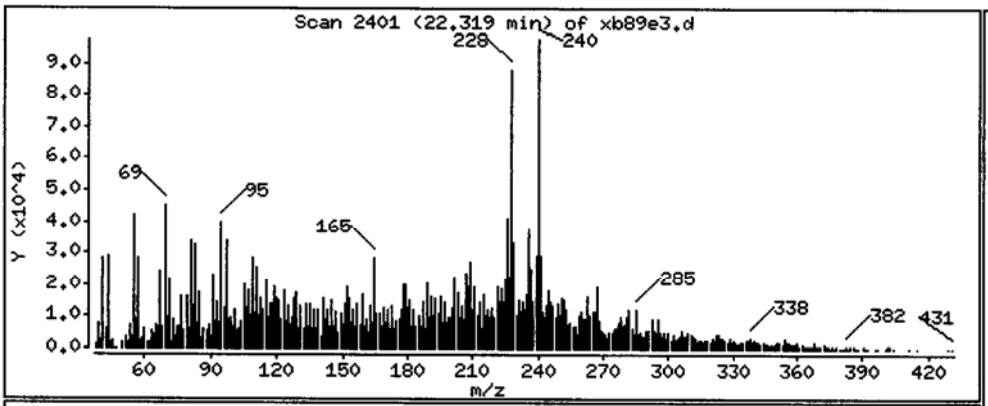
Operator: VTS/YZ

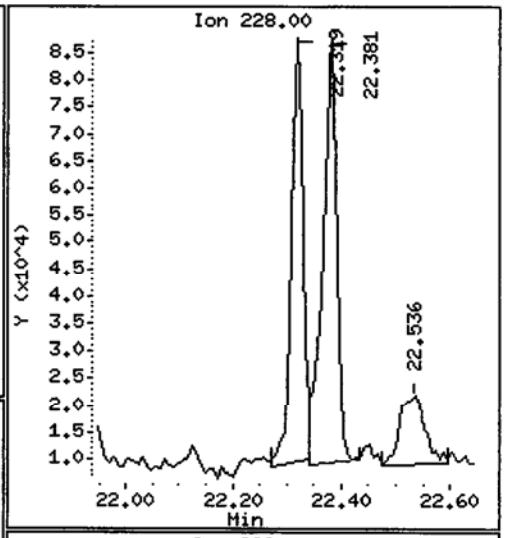
Column phase: ZB-5msi

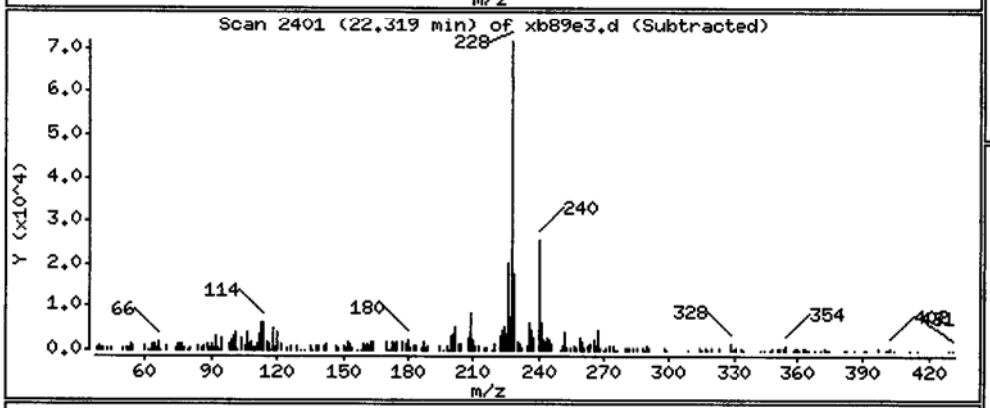
Column diameter: 0.25

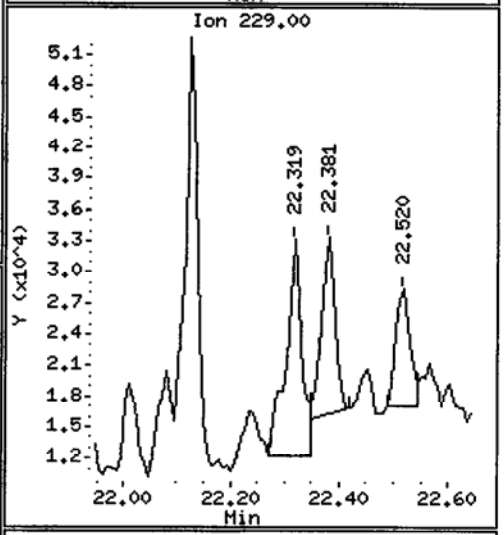
68 Benzo(a)anthracene

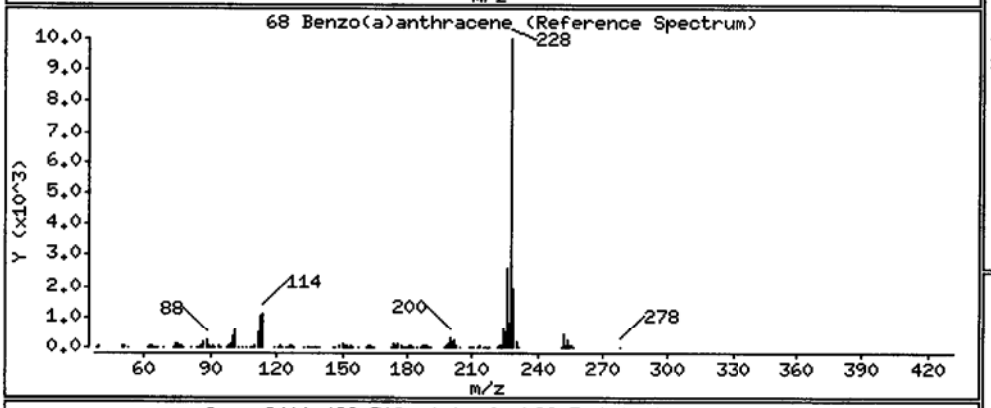
Concentration: 269.3 ug/kg

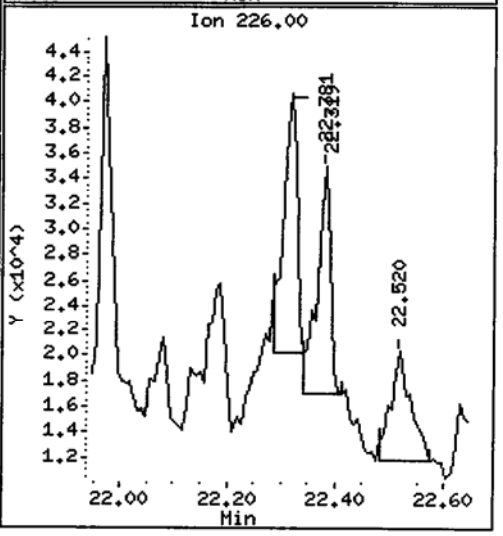


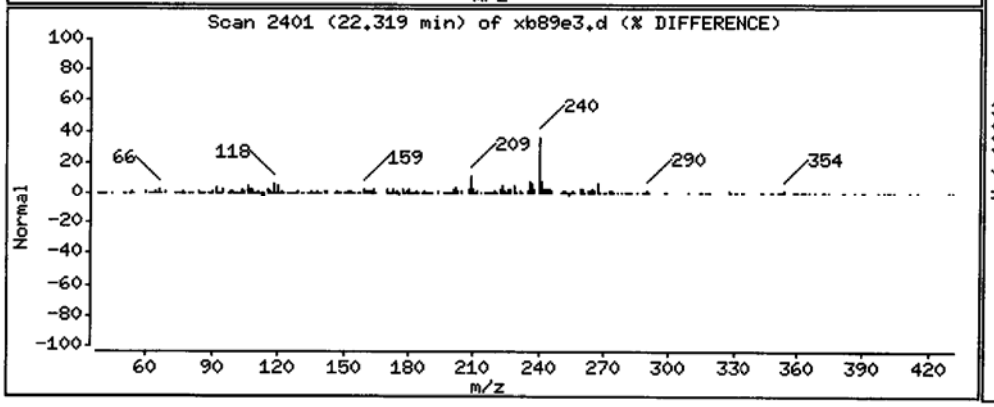












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

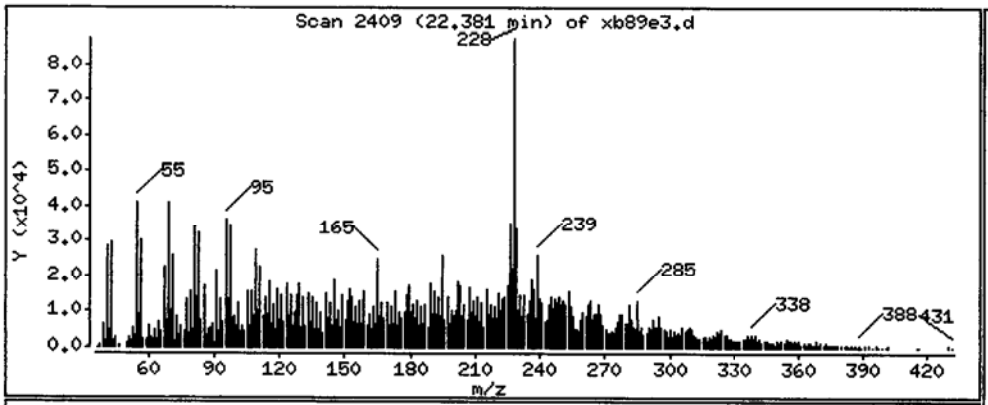
Operator: VTS/YZ

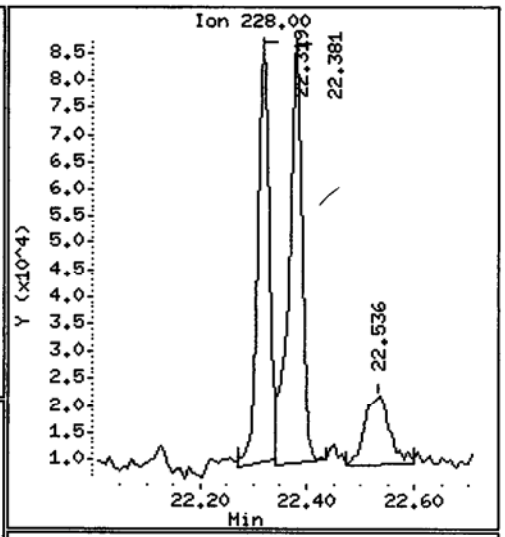
Column phase: ZB-5msi

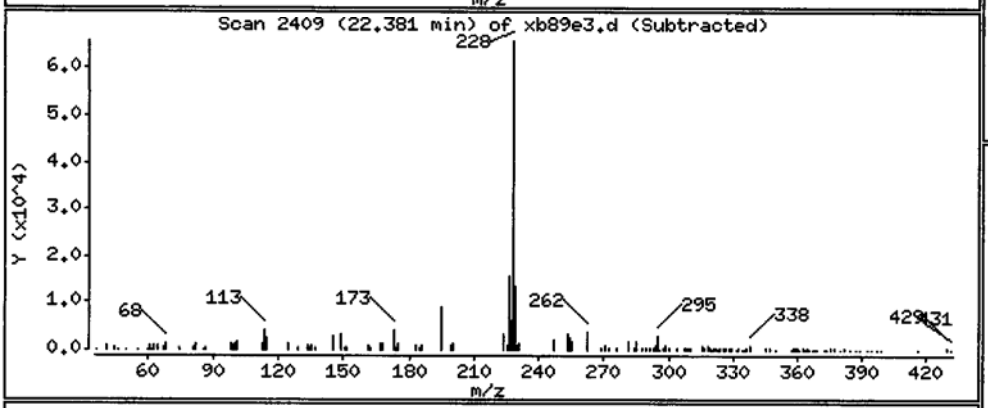
Column diameter: 0.25

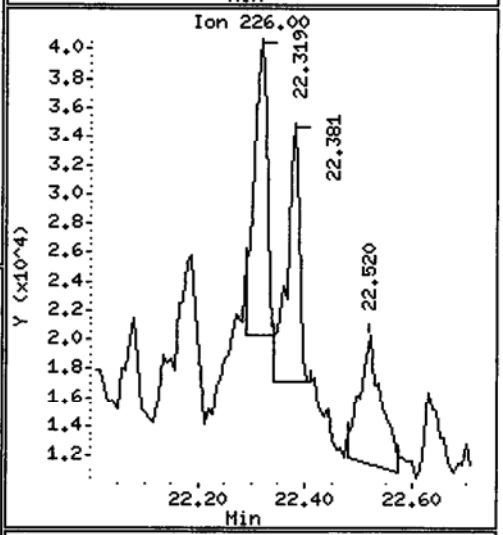
71 Chrysene

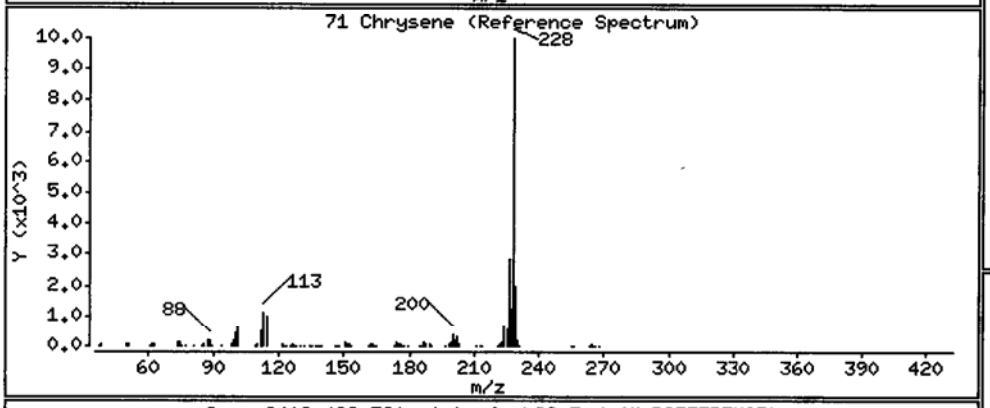
Concentration: 348.4 ug/kg

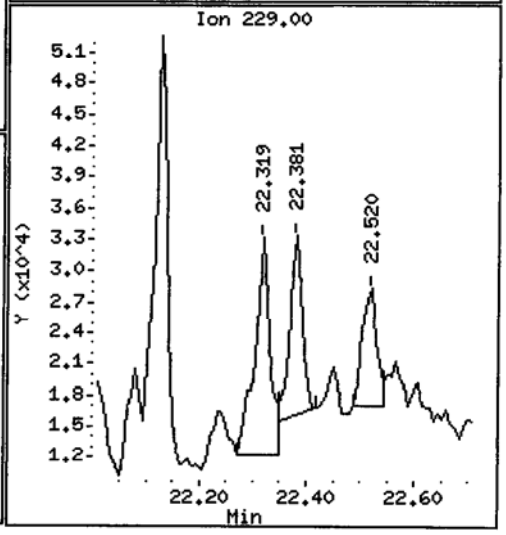


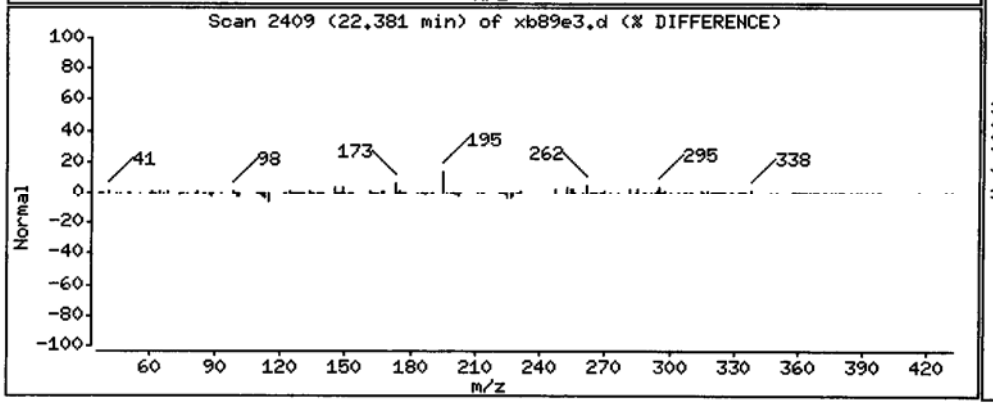












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

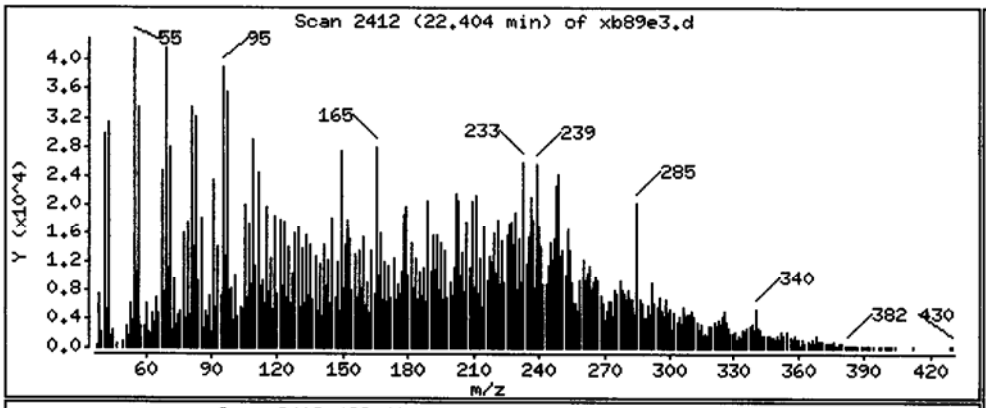
Operator: VTS/YZ

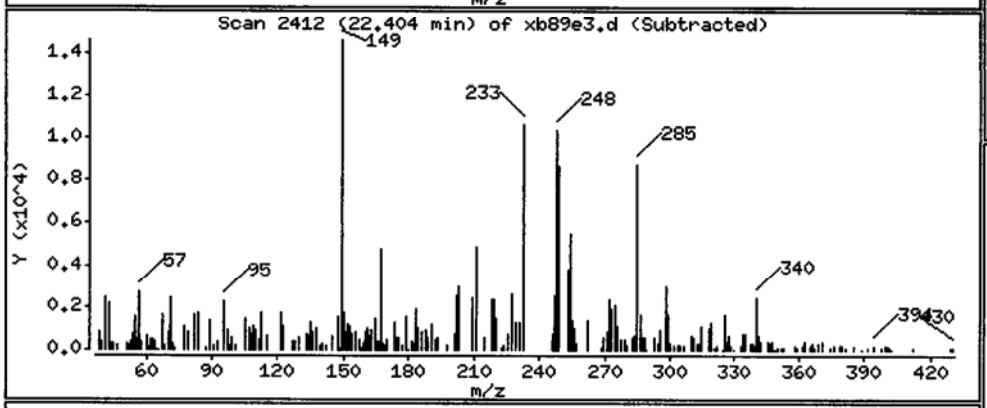
Column phase: ZB-5msi

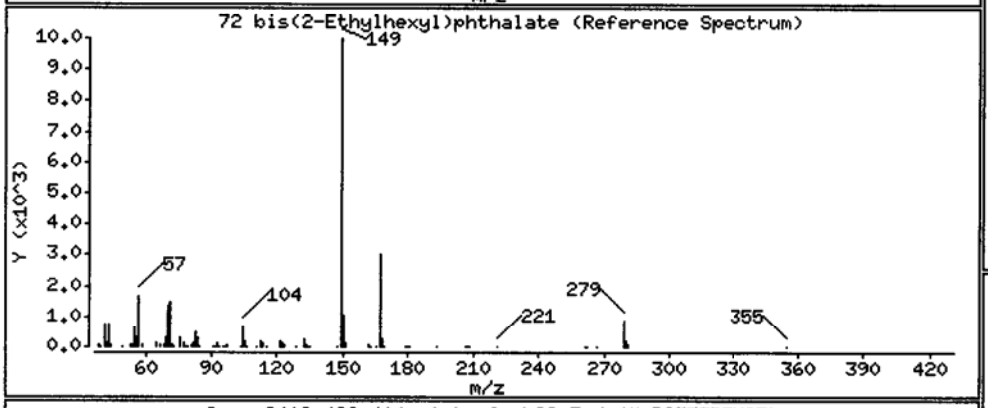
Column diameter: 0.25

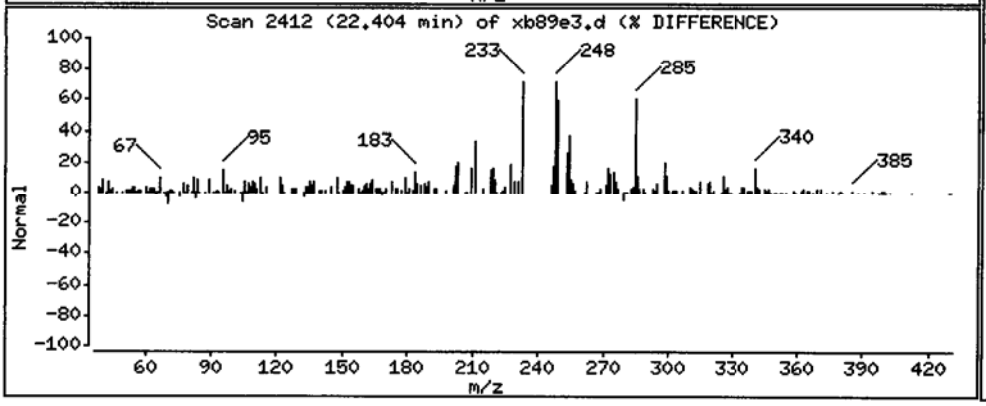
72 bis(2-Ethylhexyl)phthalate

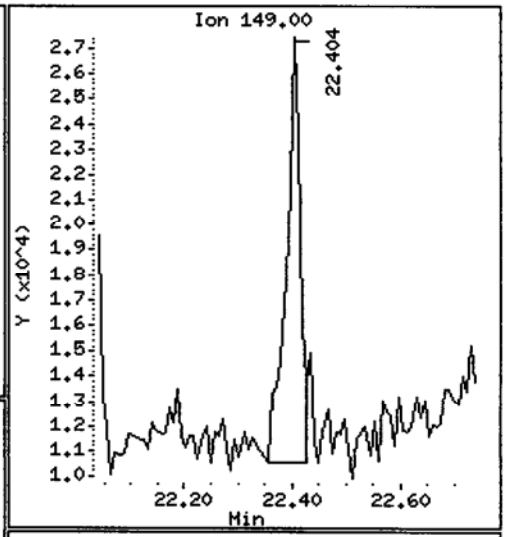
Concentration: 117.7 ug/kg

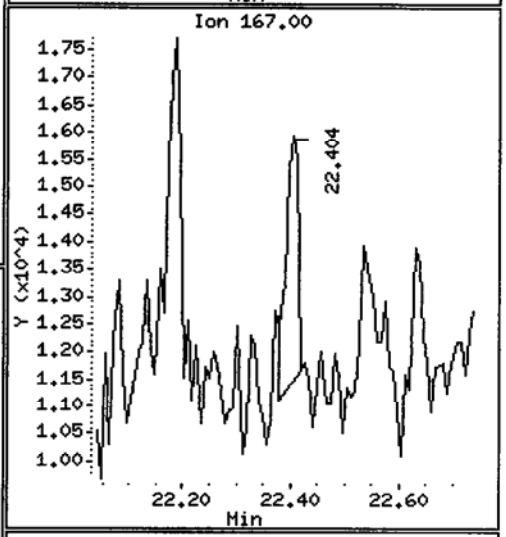


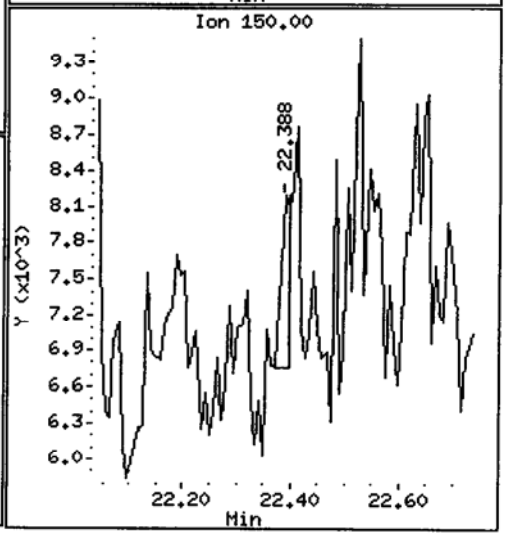












XB89 : 00589

Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

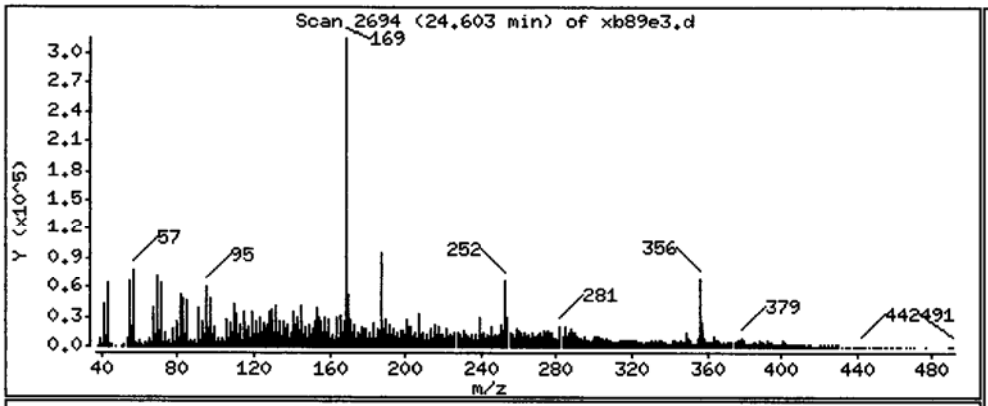
Client ID: IJ13-VC-102-2-4 Instrument: nt10.i

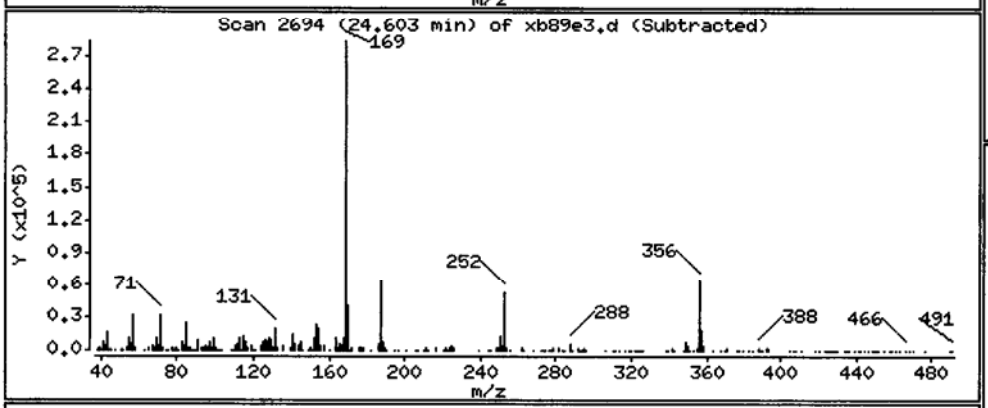
Sample Info: XB89E,3

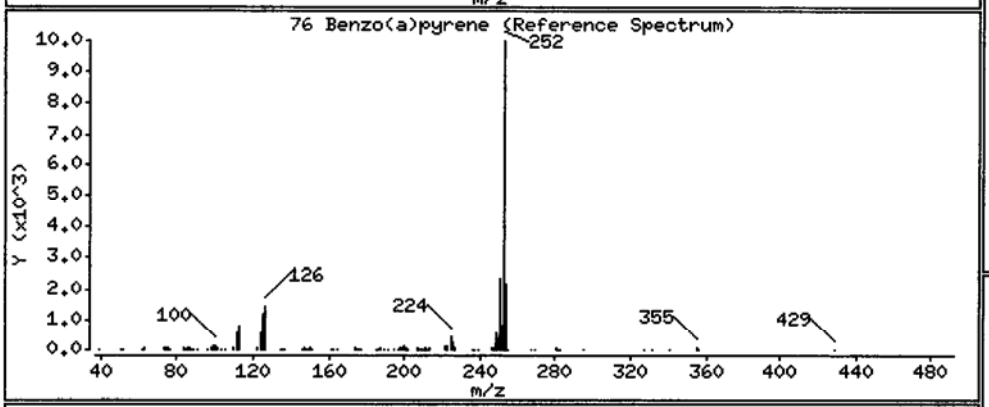
Volume Injected (uL): 1.0 Operator: VTS/YZ

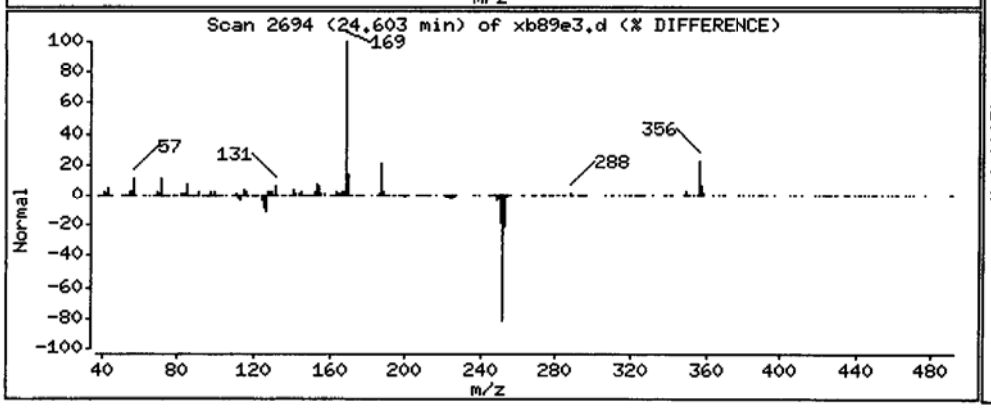
Column phase: ZB-5msi Column diameter: 0.25

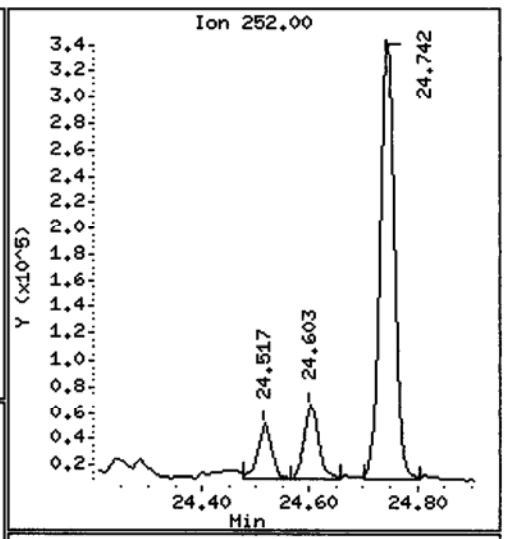
76 Benzo(a)pyrene Concentration: 247.8 ug/kg

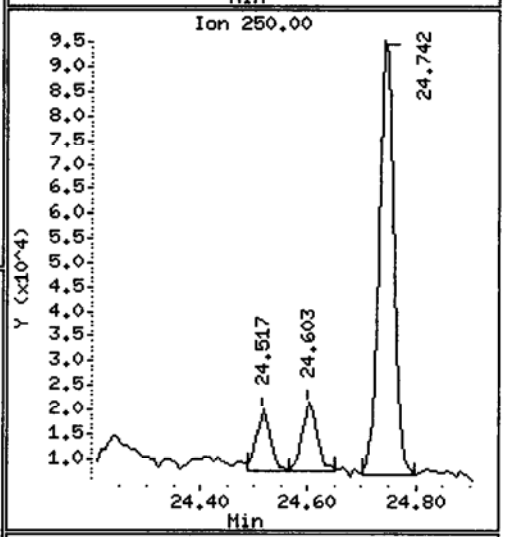


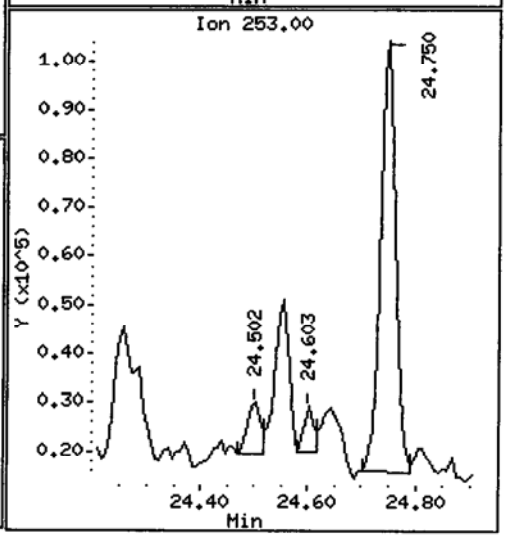












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

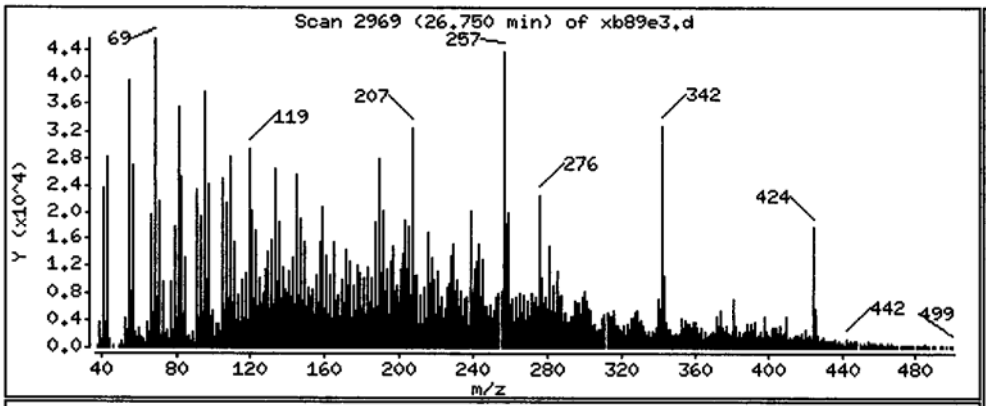
Operator: VTS/YZ

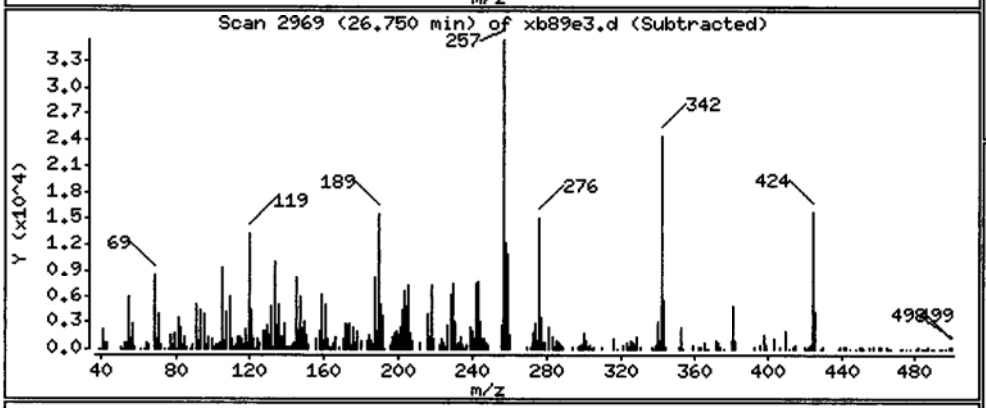
Column phase: ZB-5msi

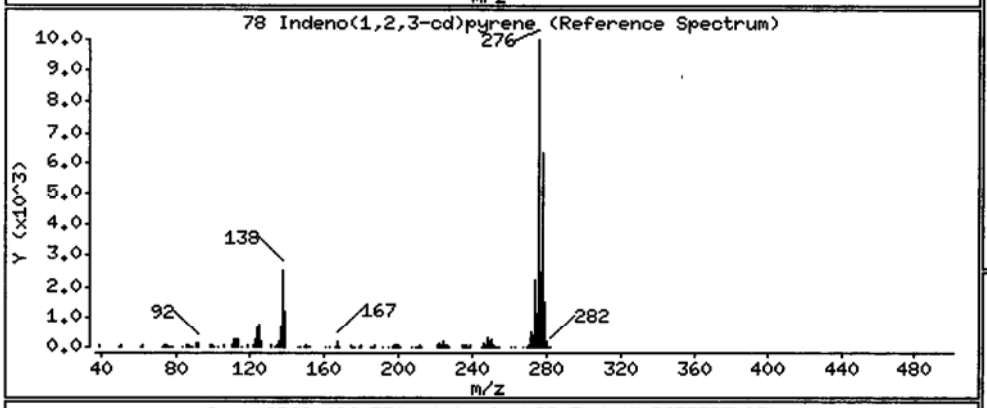
Column diameter: 0.25

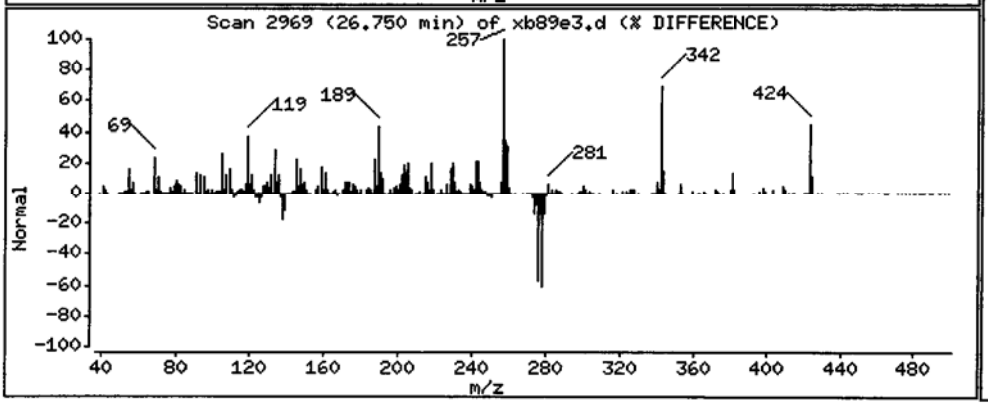
78 Indeno(1,2,3-cd)pyrene

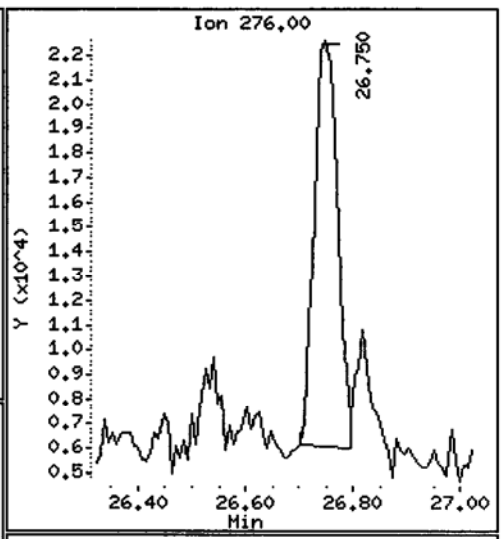
Concentration: 89.50 ug/kg

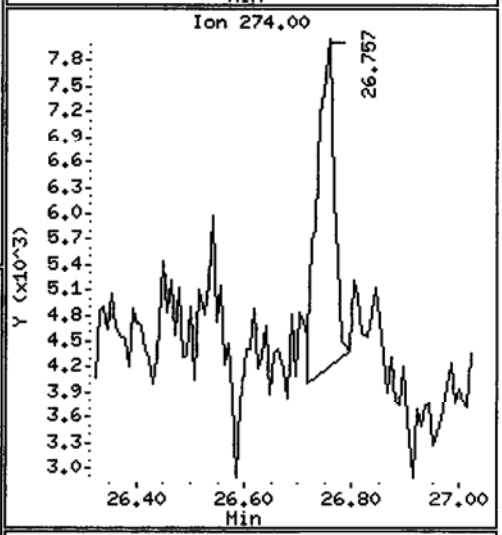


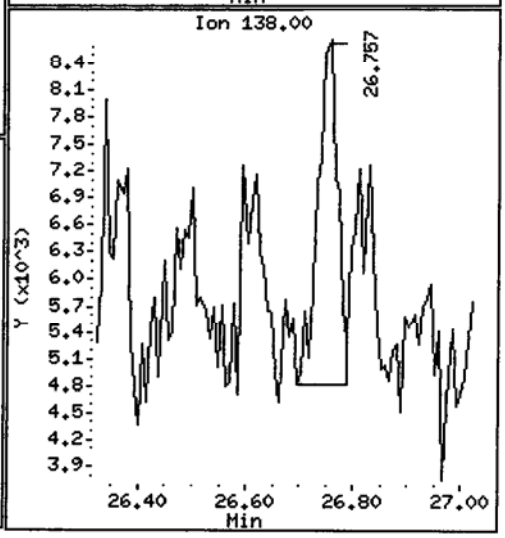












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

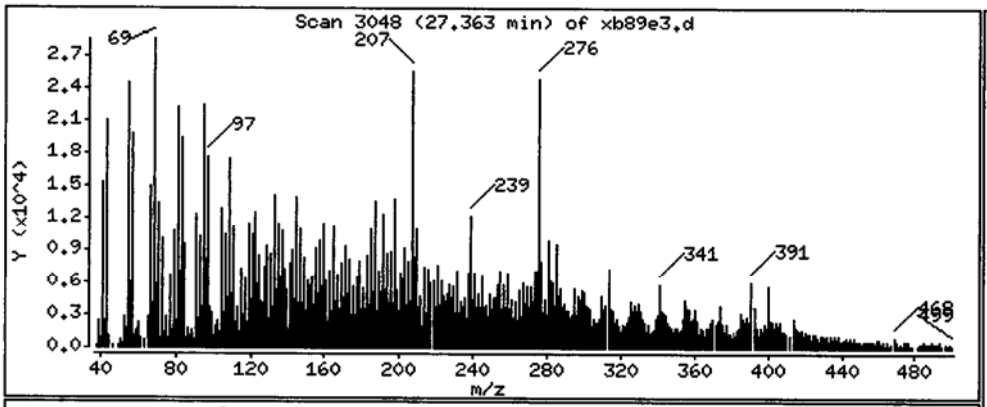
Operator: VTS/YZ

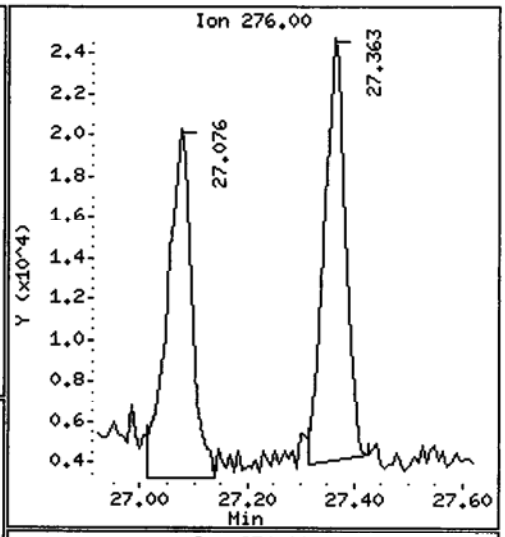
Column phase: ZB-5msi

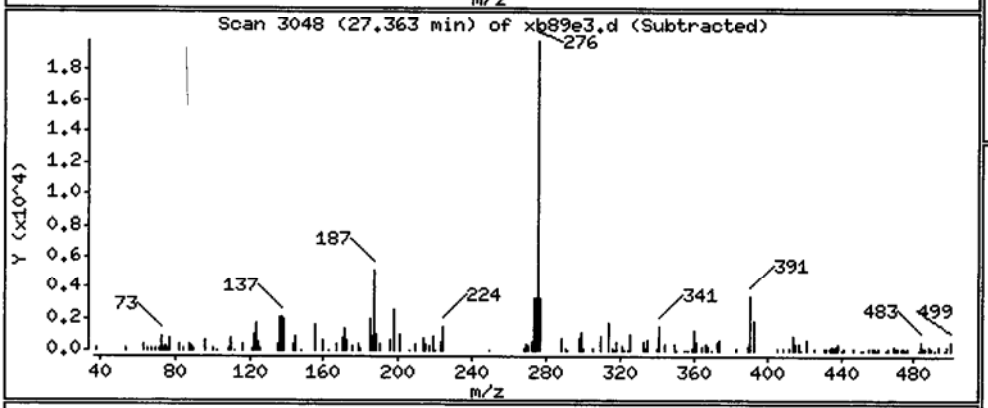
Column diameter: 0.25

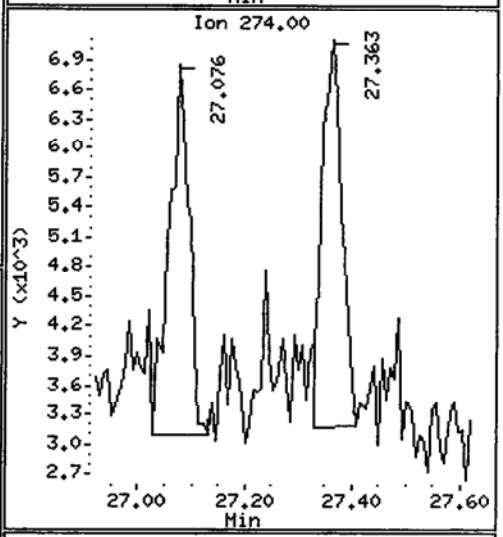
80 Benzo(g,h,i)perylene

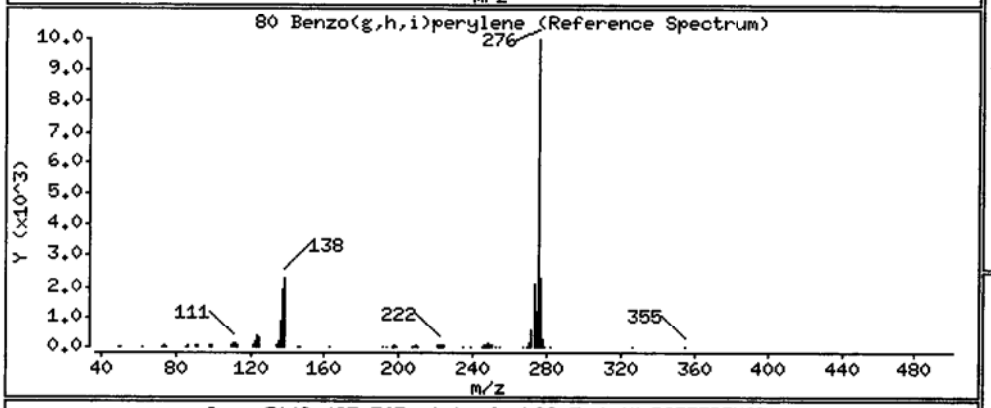
Concentration: 119.1 ug/kg

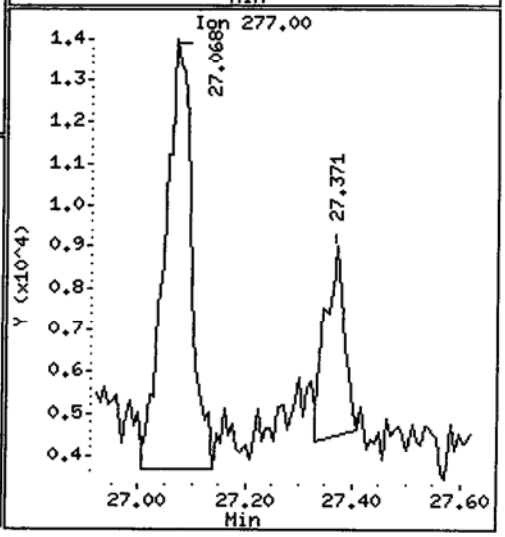


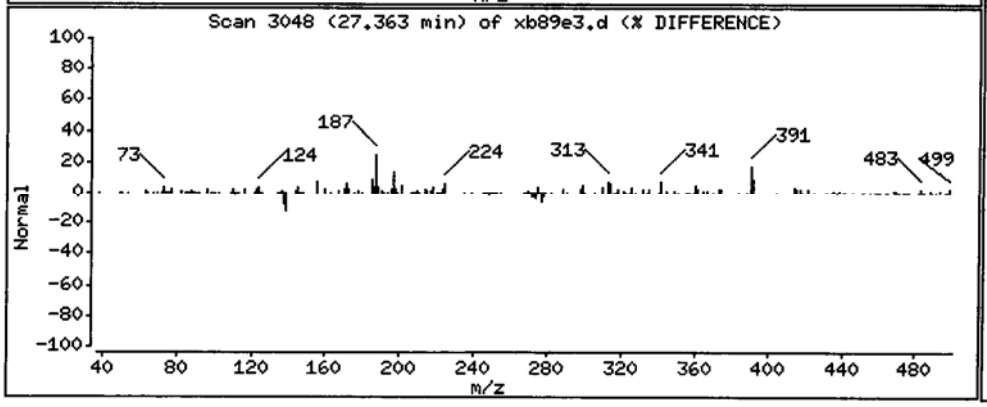












Data File: /chem1/nt10.i/20130903.b/xb89e3.d

Date : 03-SEP-2013 13:03

Client ID: IJ13-VC-102-2-4

Instrument: nt10.i

Sample Info: XB89E,3

Volume Injected (uL): 1.0

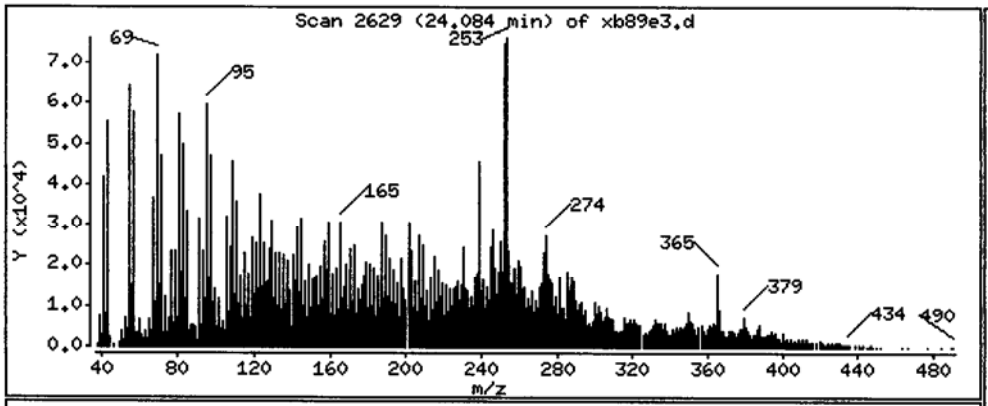
Operator: VTS/YZ

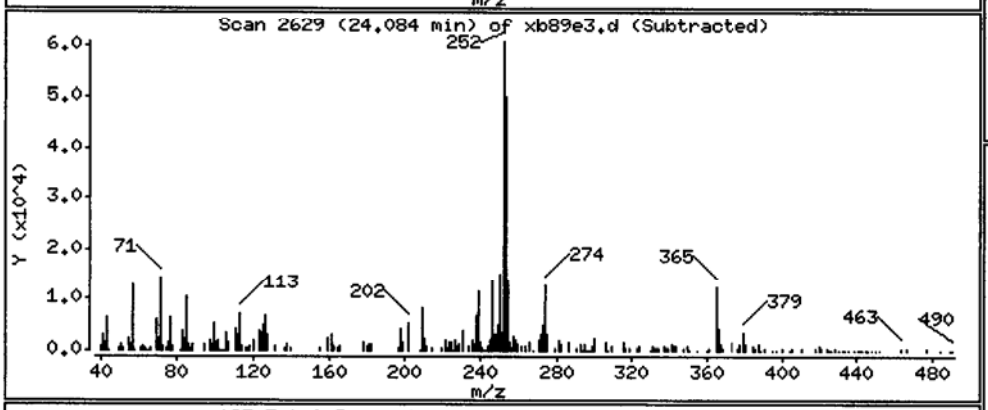
Column phase: ZB-5msi

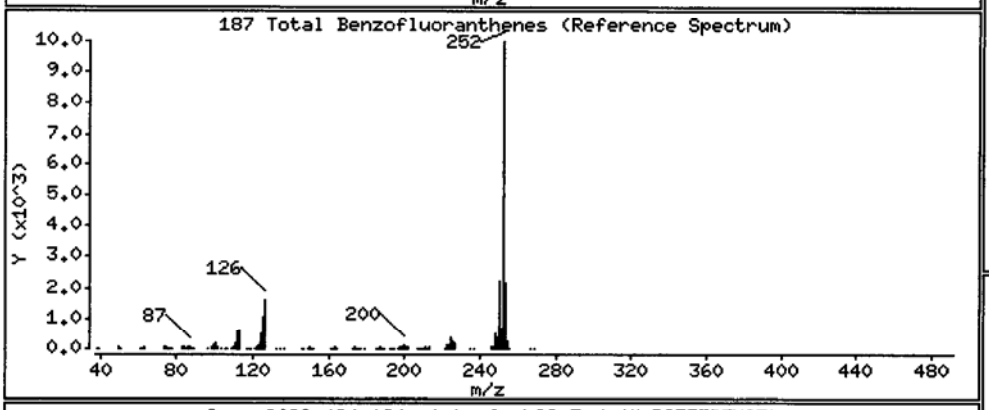
Column diameter: 0.25

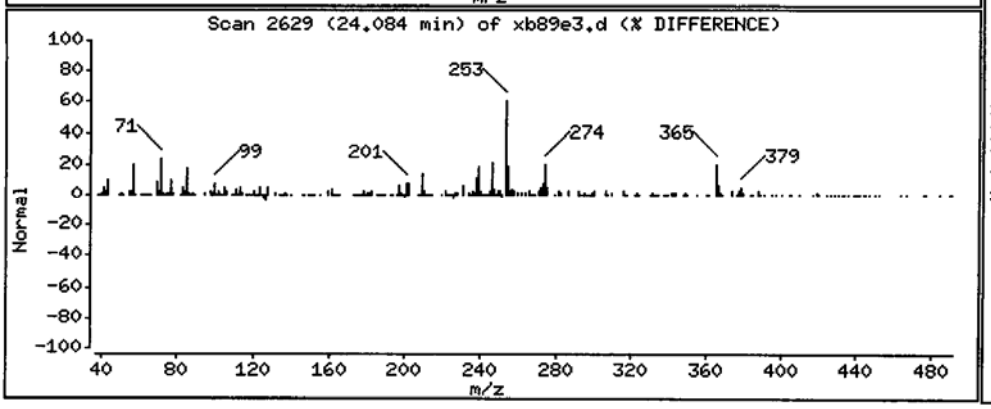
187 Total Benzofluoranthenes

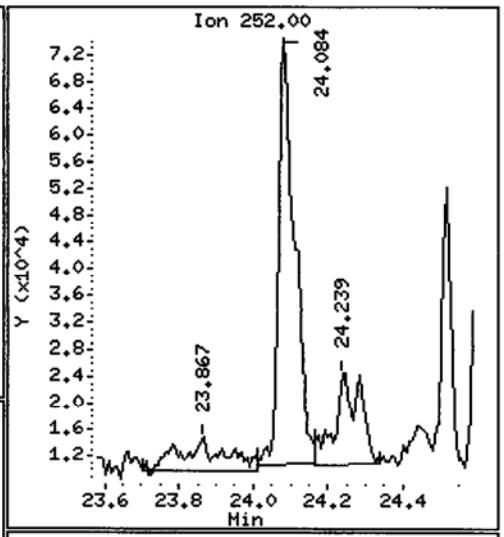
Concentration: 412.5 ug/kg

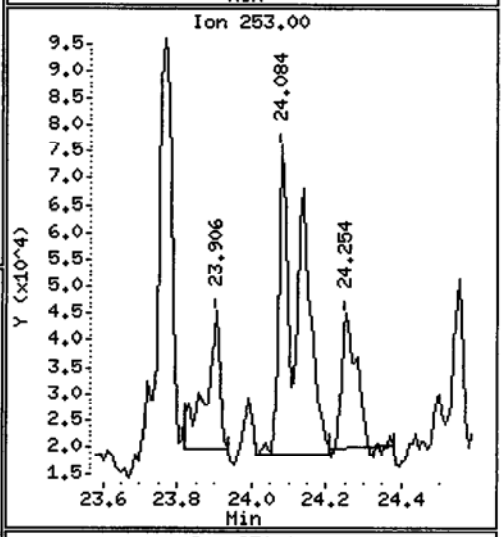


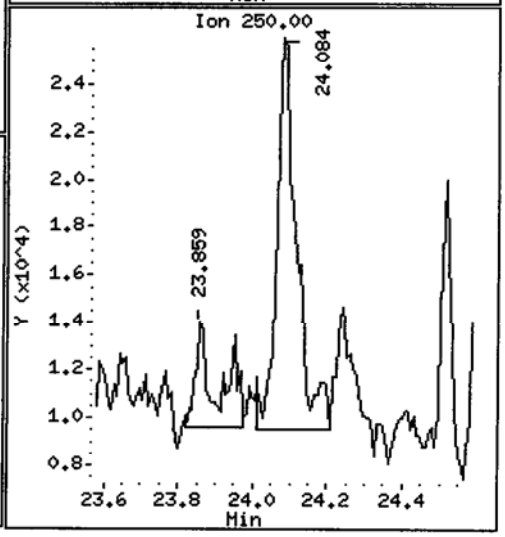






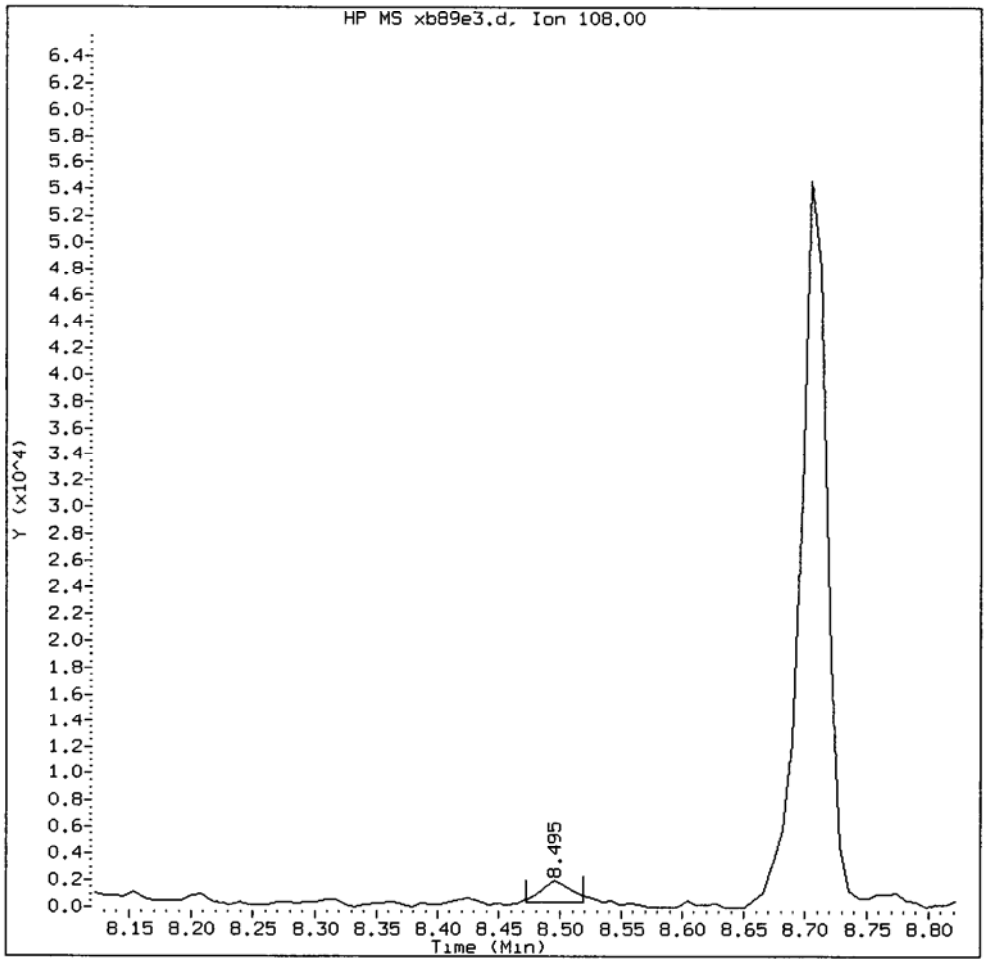






XB89E, /chem1/nt10.i/20130903.b/xb89e3.d

Benzyl alcohol Amount: 0.12 Area: 2916



MANUAL INTEGRATION for Benzyl alcohol

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 9/5/13

CO-ELUTION SUMMARY FOR FILE - xb89e3.d

Lab ID: XB89E, Method: ABN.m, Instrument: nt10.i, Date: 03-SEP-2013

RT	CO-ELUTION COMPOUNDS
24.084	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 9/5/13

Data file : /chem1/nt10.i/20130903.b/xb89f.d
Lab Smp Id: XB89F Client Smp ID: IJ13-VC-102-4-5.4
Inj Date : 03-SEP-2013 13:38
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89F
Misc Info : 13-17441
Comment : 1ul Injection
Method : /chem1/nt10.i/20130903.b/ABN.m
Meth Date : 05-Sep-2013 15:19 yev Quant Type: ISTD
Cal Date : 03-SEP-2013 11:53 Cal File: cc0903.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	16.20000	Weight of sample extracted (g)
M	35.20000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.067	5.974	(0.738)	325377	8.00871	762.9
$	2 Phenol-d5	99	7.628	7.574	(0.928)	433027	7.95932	758.2
	3 Phenol	94	7.651	7.597	(0.931)	113608	1.91539	182.5
$	5 2-Chlorophenol-d4	132	7.844	7.806	(0.955)	354291	7.97931	760.1(H)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.216	8.200	(1.000)	146567	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.495	8.480	(1.034)	122409	3.88056	369.7
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	8.728	8.689	(1.062)	65434	1.62929	155.2
	17 Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.023	8.984	(1.098)	224188	5.32707	507.5
$	18 Nitrobenzene-d5	82	9.256	9.240	(0.871)	173257	4.02093	383.0
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.013	9.998	(0.942)	190064	4.44574	423.5
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	10.282	10.267	(0.967)	75824	2.83600	270.2
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.629	10.622	(1.000)	541366	4.00000	
	28 Naphthalene	128	10.676	10.668	(1.004)	1321548	11.1258	1060
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	12.061	12.053	(1.135)	403054	4.53528	432.0
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.819	12.804	(0.904)	393771	4.44385	423.3
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	13.640	13.648	(0.962)	110944	1.48426	141.4
	40 Acenaphthylene	152	13.888	13.872	(0.980)	172628	1.54351	147.0
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.174	14.158	(1.000)	281671	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.243	14.228	(1.005)	53213	0.80006	76.21
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.599	14.584	(1.030)	298836	2.95801	281.8
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	15.117	15.101	(1.067)	18552	0.21848	20.81
	49 Fluorene	166	15.302	15.287	(1.080)	119528	1.45757	138.8
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.812	15.781	(1.116)	149553	8.81560	839.8
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.226	17.203	(1.000)	468368	4.00000	
	60 Phenanthrene	178	17.273	17.250	(1.003)	690567	6.71464	639.6
	61 Anthracene	178	17.373	17.358	(1.009)	160115	1.46538	139.6
	62 Carbazole	167	17.745	17.722	(1.030)	39498	0.57255	54.54
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	64 Fluoranthene	202	19.710	19.664	(1.144)	549797	4.27919	407.6
	65 Pyrene	202	20.128	20.097	(0.901)	682973	4.36614	415.9
$	66 Terphenyl-d14	244	20.453	20.422	(0.915)	394716	4.48718	427.4
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	22.326	22.296	(0.999)	139426	1.03819	98.90
*	69 Chrysene-d12	240	22.350	22.311	(1.000)	535829	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.388	22.358	(1.002)	165011	1.41722	135.0
	72 bis(2-Ethylhexyl)phthalate	149	22.412	22.389	(0.955)	33575	0.43427	41.37
*	134 Di-n-octylphthalate-d4	153	23.472	23.441	(1.000)	679991	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	24.091	24.045	(0.975)	214035	1.58571	151.1
	75 Benzo(k)fluoranthene	252	24.091	24.084	(0.975)	214035	1.46461	139.5
	76 Benzo(a)pyrene	252	24.618	24.556	(0.996)	125228	0.99216	94.51
*	77 Perylene-d12	264	24.711	24.649	(1.000)	562073	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	26.765	26.672	(1.083)	63766	0.41354	39.39
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	27.379	27.270	(1.108)	82387	0.61598	58.68
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	12.254	12.247	(1.153)	384729	4.80632	457.8
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	24.091	24.084	(0.975)	227430	1.67126	159.2(M)
	99 Perylene	252	24.750	24.696	(1.002)	625993	5.29061	504.0
	98 Retene	219	20.700	20.670	(0.926)	1451380	24.2170	2307
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

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

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89f.d
Lab Smp Id: XB89F
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130903.b/ABN.m
Misc Info: 13-17441

Calibration Date: 03-SEP-2013
Calibration Time: 11:53
Client Smp ID: IJ13-VC-102-4-5.
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	146567	-4.12
27 Naphthalene-d8	536851	268426	1073702	541366	0.84
42 Acenaphthene-d10	348566	174283	697132	281671	-19.19
59 Phenanthrene-d10	633376	316688	1266752	468368	-26.05
69 Chrysene-d12	651036	325518	1302072	535829	-17.70
134 Di-n-octylphthala	837259	418630	1674518	679991	-18.78
77 Perylene-d12	696727	348364	1393454	562073	-19.33

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.20	7.70	8.70	8.22	0.19
27 Naphthalene-d8	10.62	10.12	11.12	10.63	0.07
42 Acenaphthene-d10	14.16	13.66	14.66	14.17	0.11
59 Phenanthrene-d10	17.20	16.70	17.70	17.23	0.13
69 Chrysene-d12	22.31	21.81	22.81	22.35	0.17
134 Di-n-octylphthala	23.44	22.94	23.94	23.47	0.13
77 Perylene-d12	24.65	24.15	25.15	24.71	0.25

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

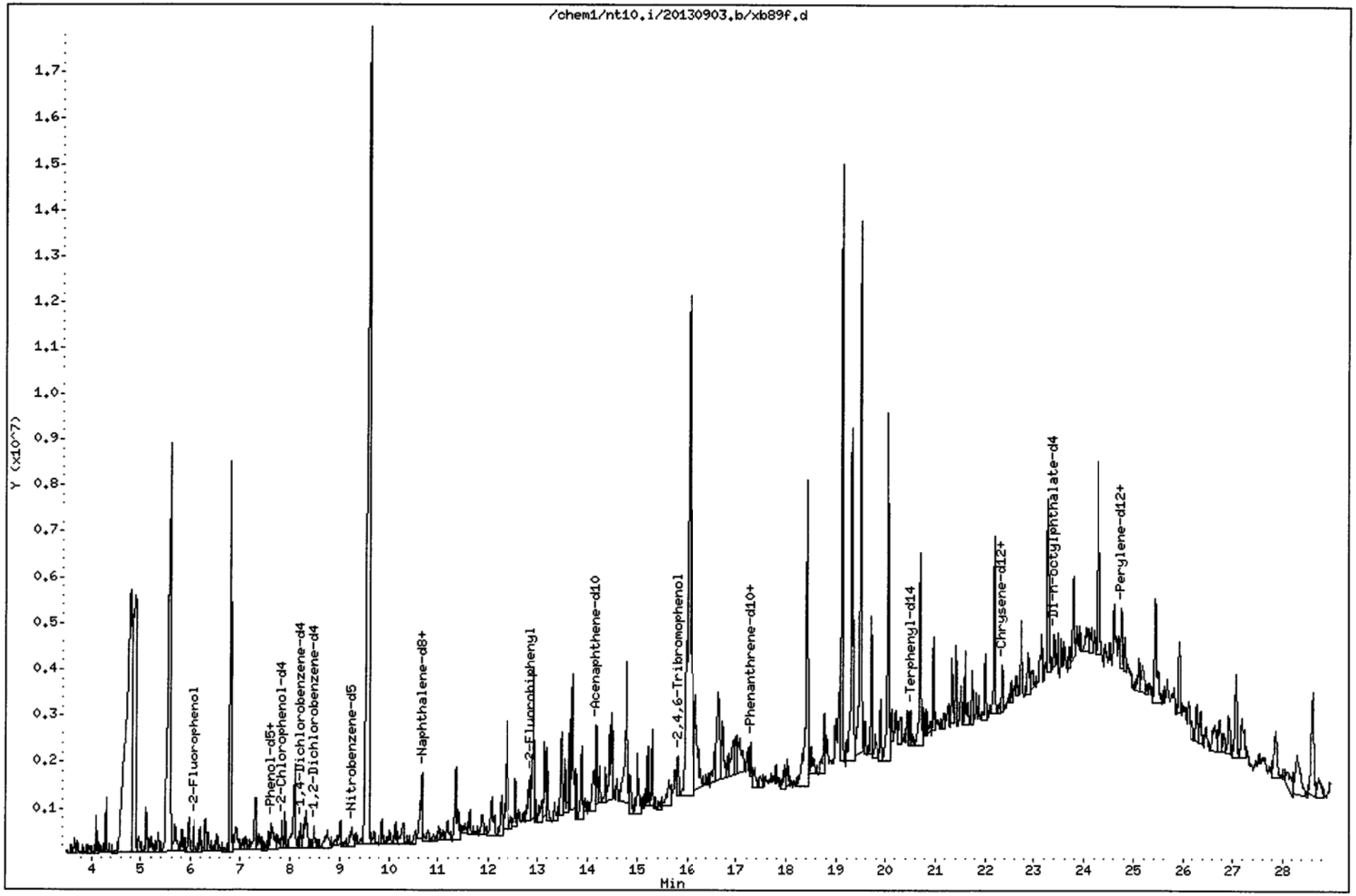
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89F Client Smp ID: IJ13-VC-102-4-5.4
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130903.b/ABN.m
Misc Info: 13-17441

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	714.4	762.9	106.78	27-120
$ 2 Phenol-d5	714.4	758.2	106.12	29-120
$ 5 2-Chlorophenol-d4	714.4	760.1	106.39	31-120
$ 10 1,2-Dichlorobenzen	476.3	369.7	77.61	32-120
$ 18 Nitrobenzene-d5	476.3	383.0	80.42	30-120
$ 36 2-Fluorobiphenyl	476.3	423.3	88.88	35-120
$ 55 2,4,6-Tribromophen	714.4	839.8	117.54	24-134
$ 66 Terphenyl-d14	476.3	427.4	89.74	37-120

Data File: /chem1/nt10.i/20130903.b/xb89f.d
Date : 03-SEP-2013 13:38
Client ID: IJ13-VC-102-4-5.4
Sample Info: XB89F
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



XB89 : 00601

Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

Operator: VTS/YZ

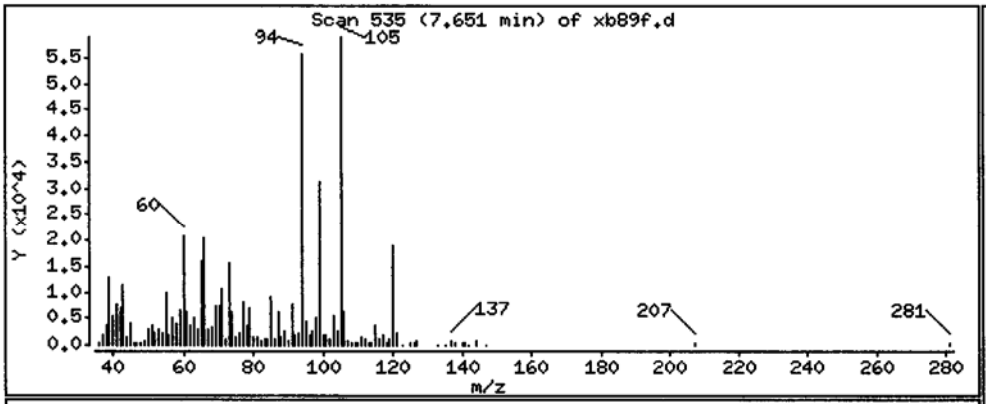
Column phase: ZB-5msi

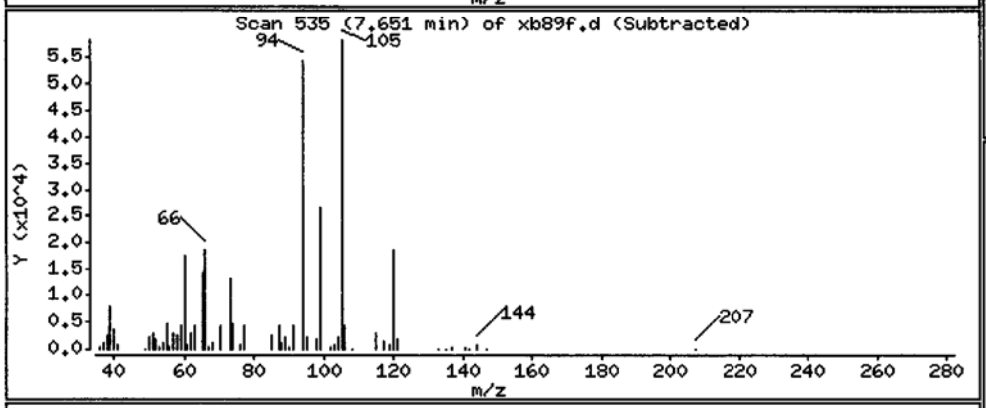
Column diameter: 0.25

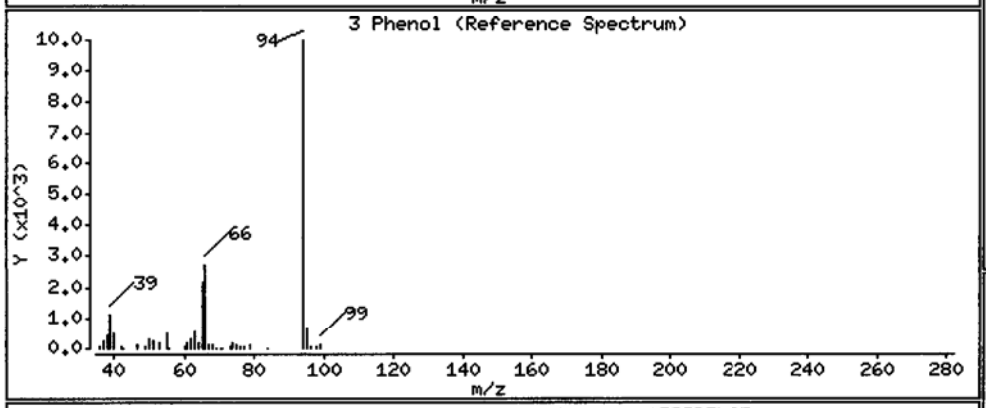
3 Phenol

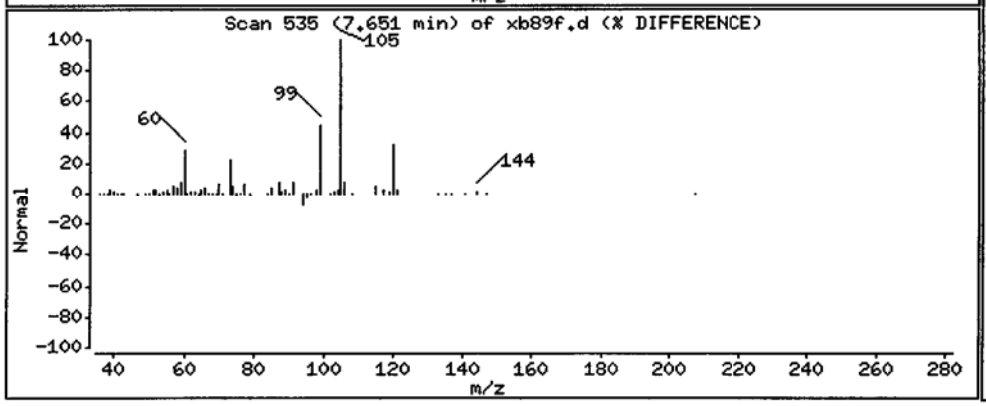
Concentration: 182.5 ug/kg

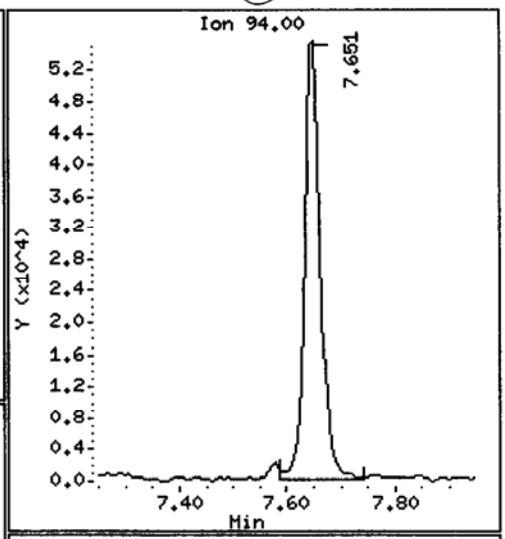
(5)

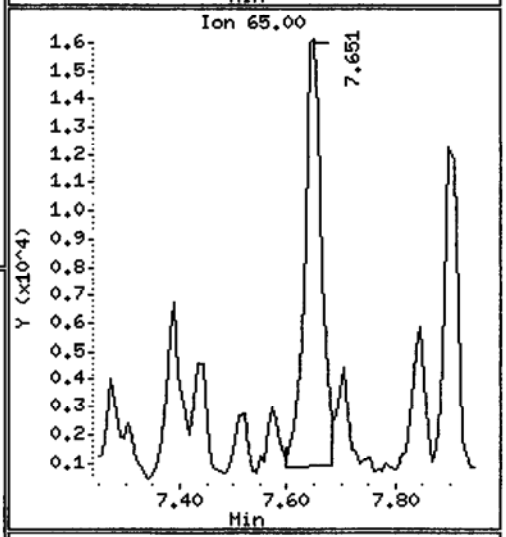


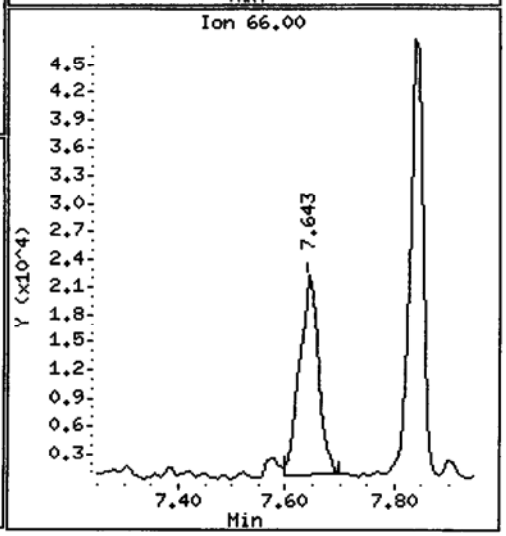












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

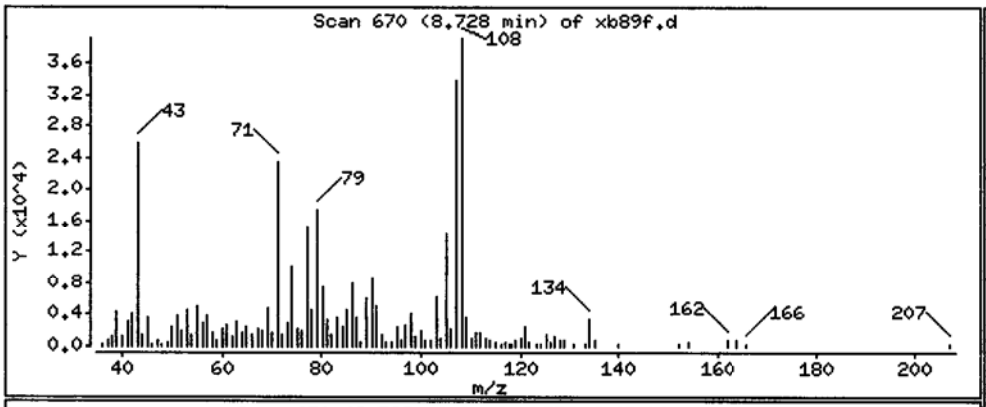
Operator: VTS/YZ

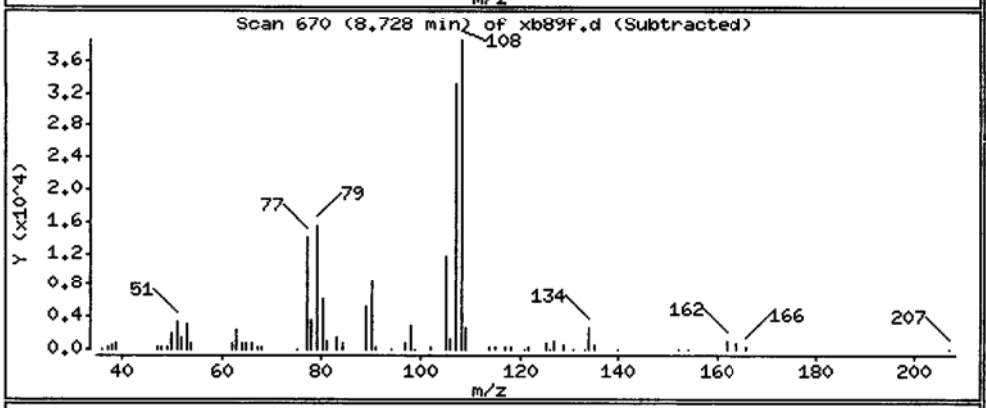
Column phase: ZB-5msi

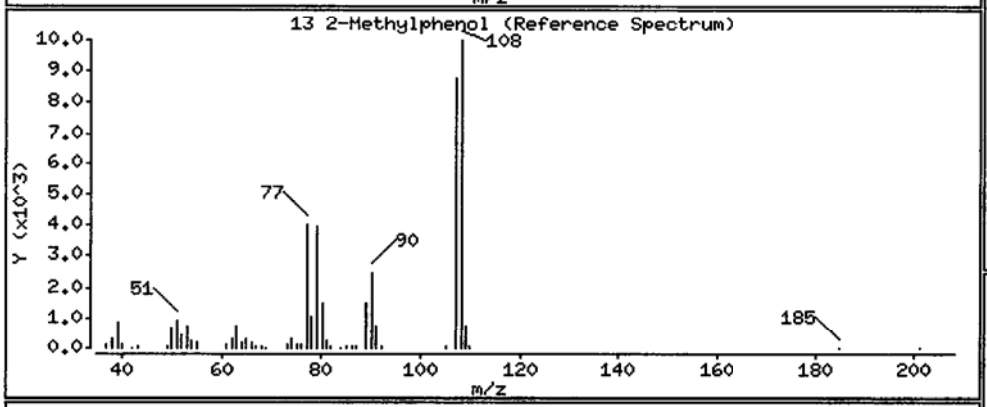
Column diameter: 0.25

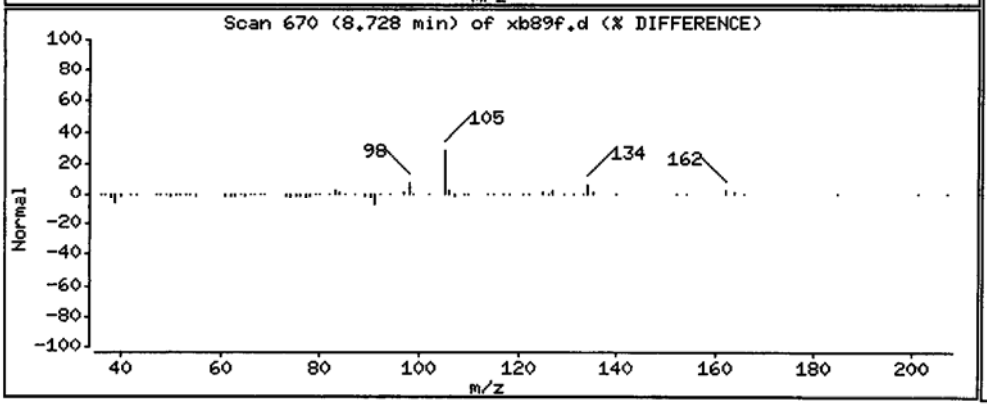
13 2-Methylphenol

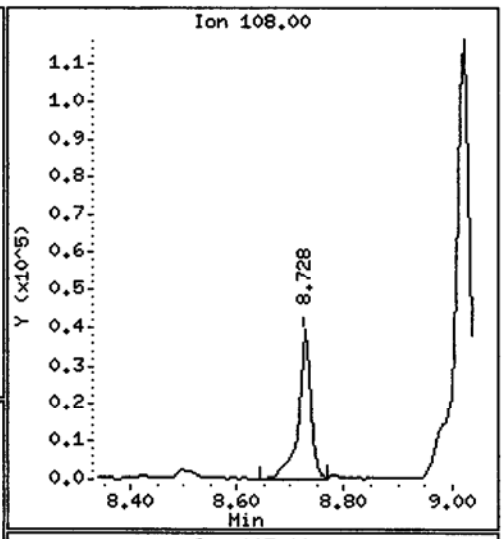
Concentration: 155.2 ug/kg

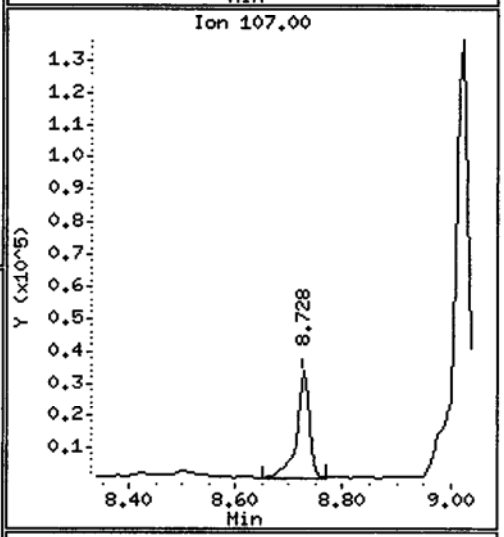


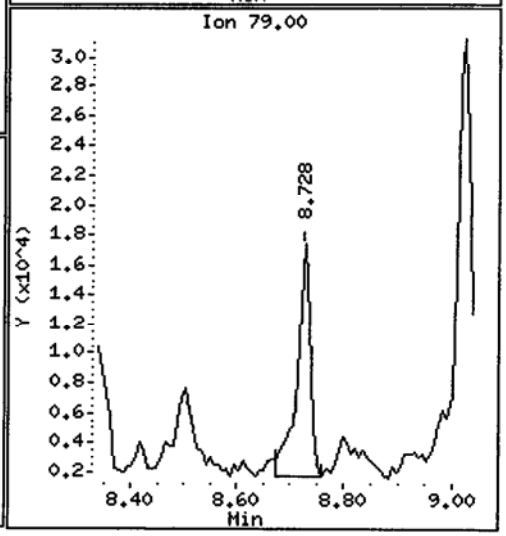












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

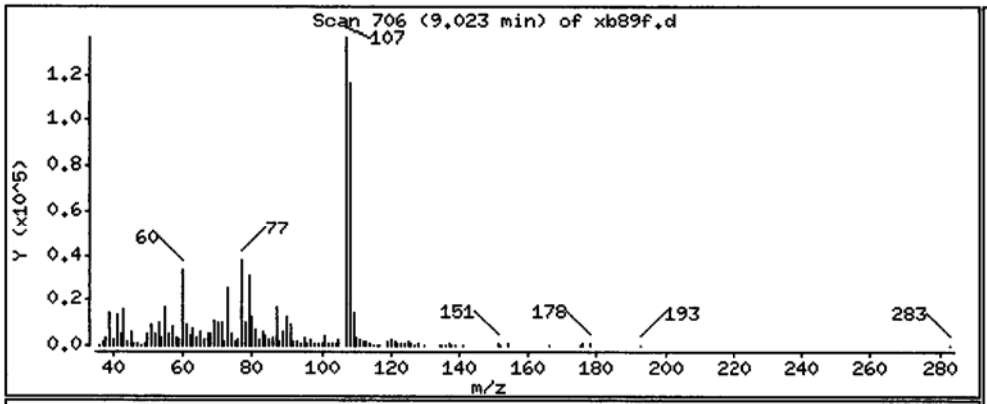
Operator: VTS/YZ

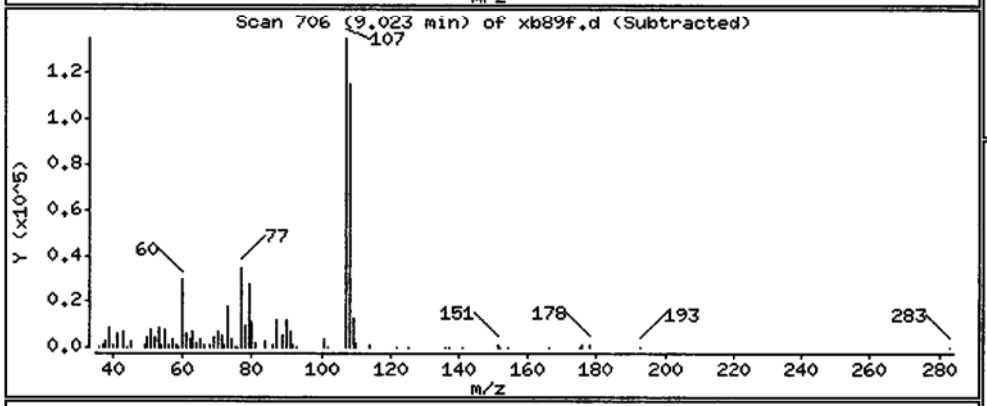
Column phase: ZB-5msi

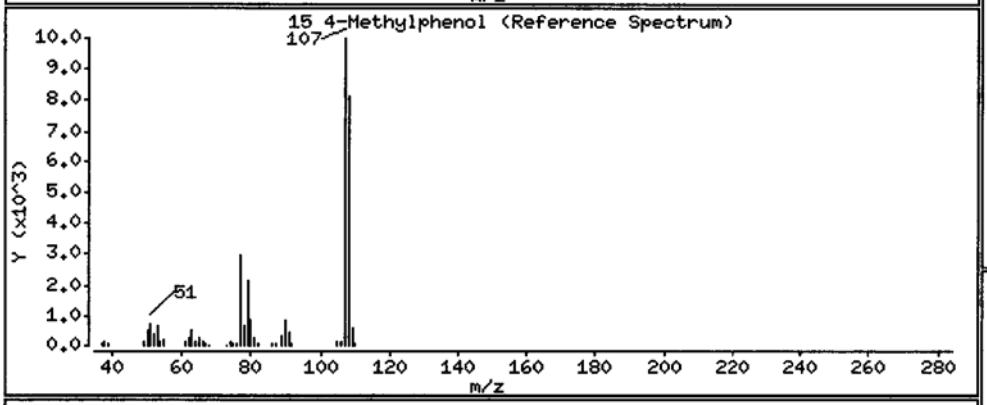
Column diameter: 0.25

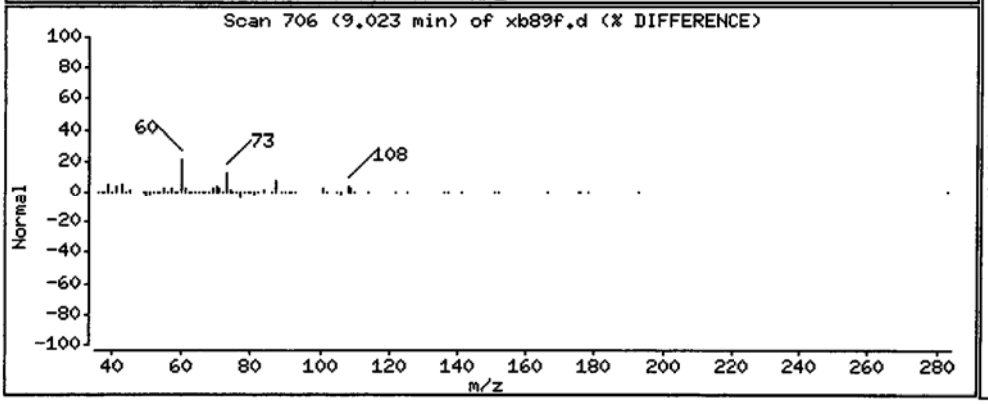
15 4-Methylphenol

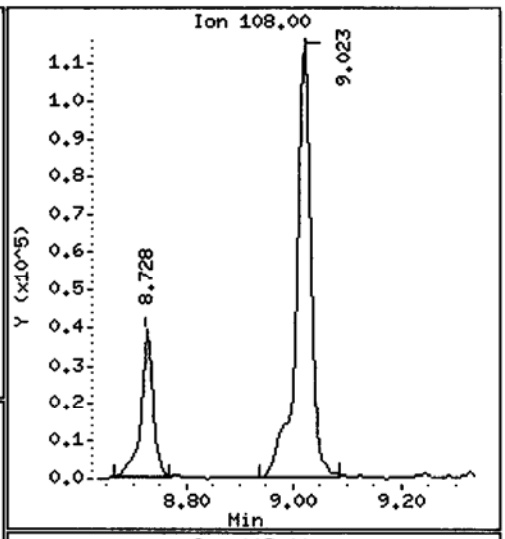
Concentration: 507.5 ug/kg

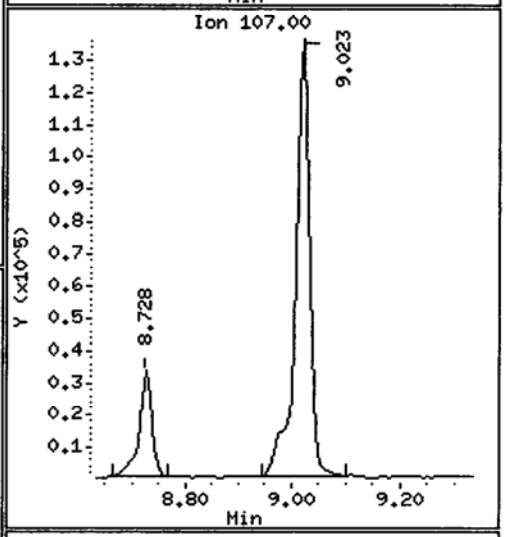


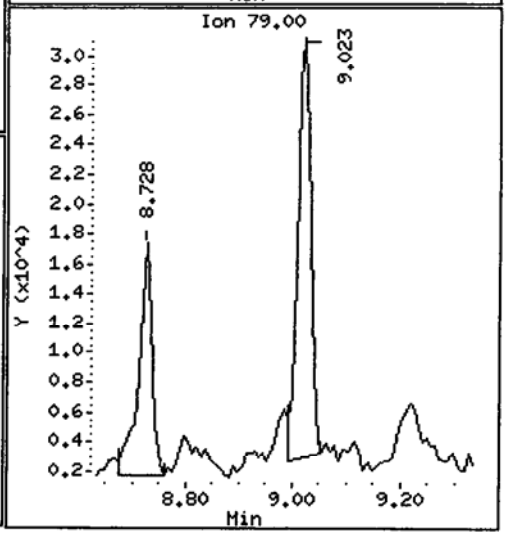












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

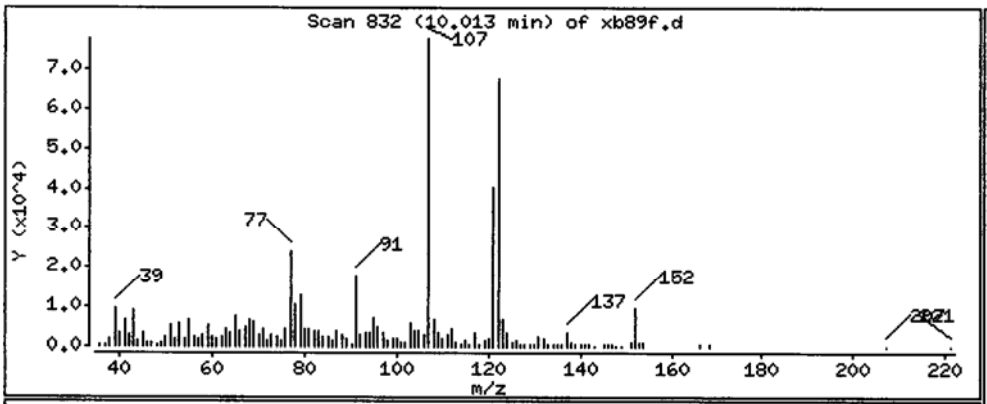
Operator: VTS/YZ

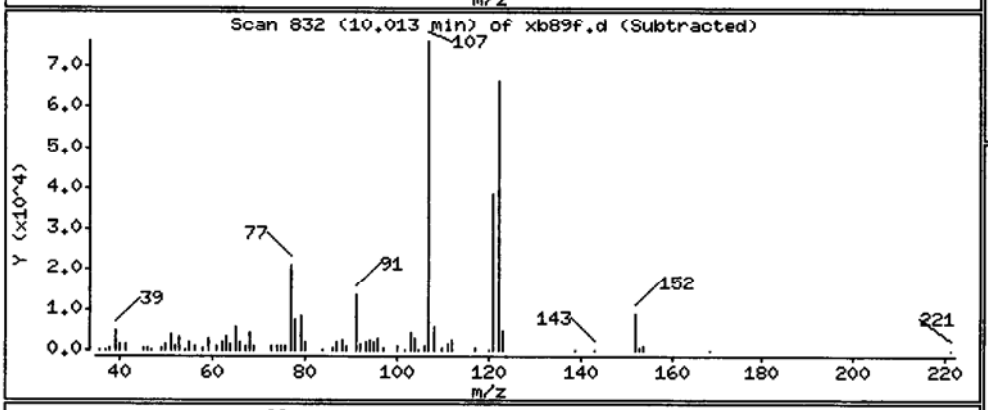
Column phase: ZB-5msi

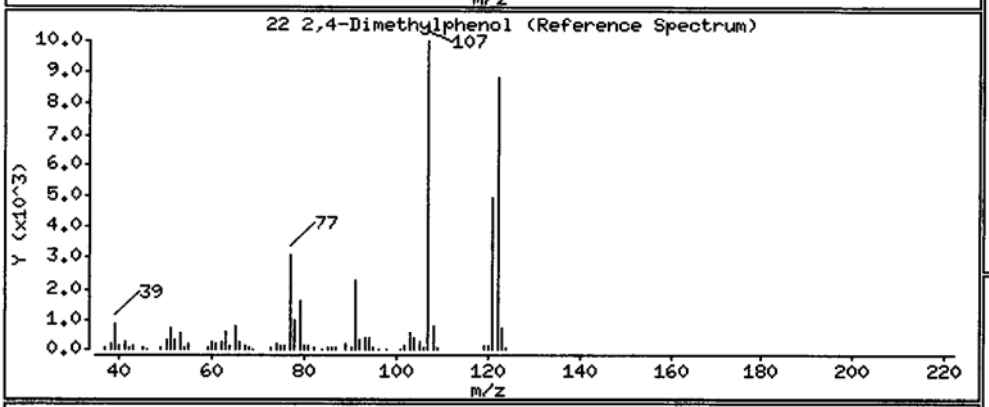
Column diameter: 0.25

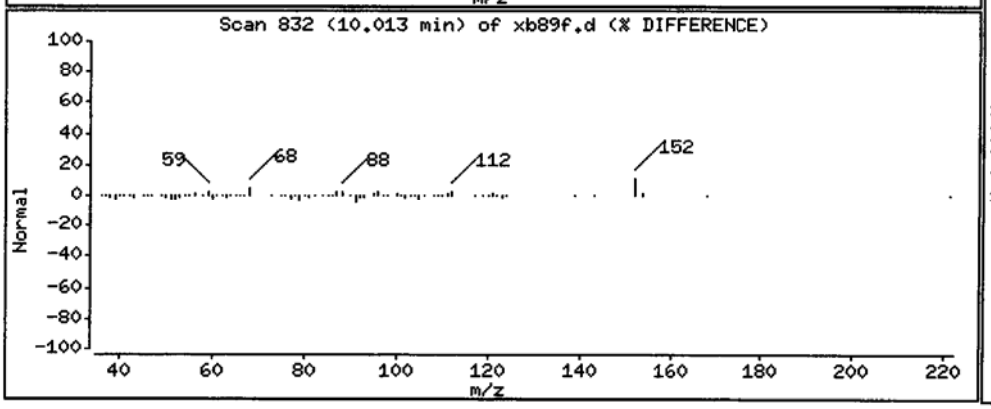
22 2,4-Dimethylphenol

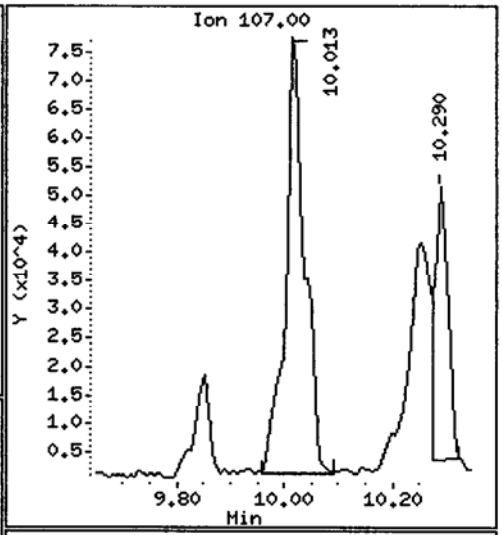
Concentration: 423.5 ug/kg

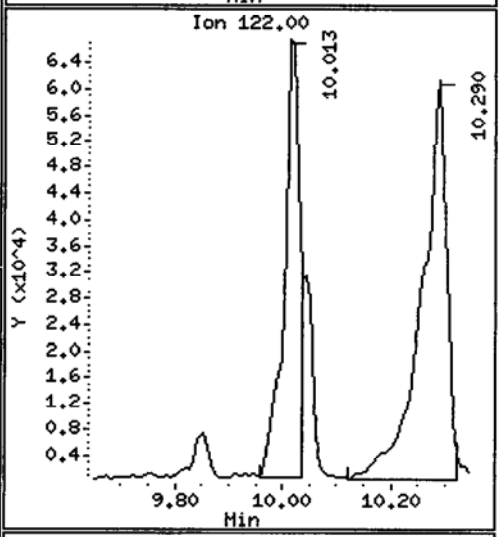


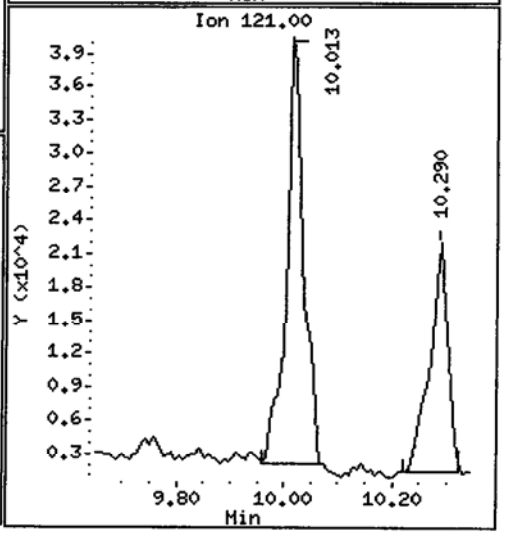












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

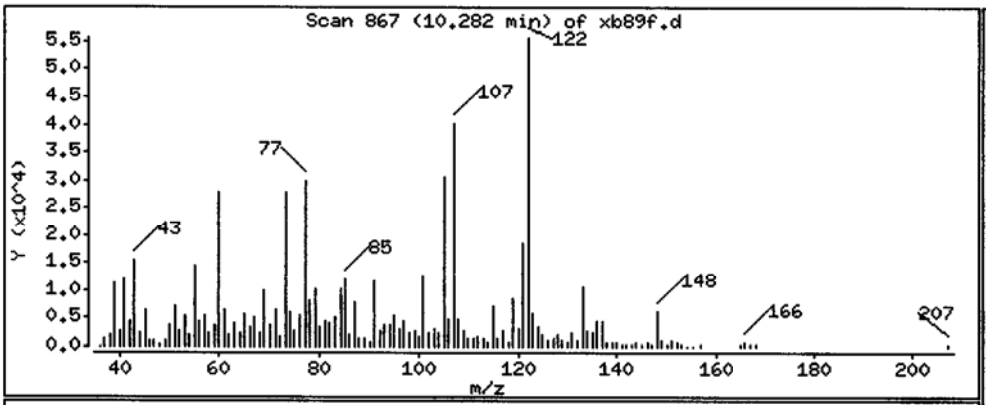
Operator: VTS/YZ

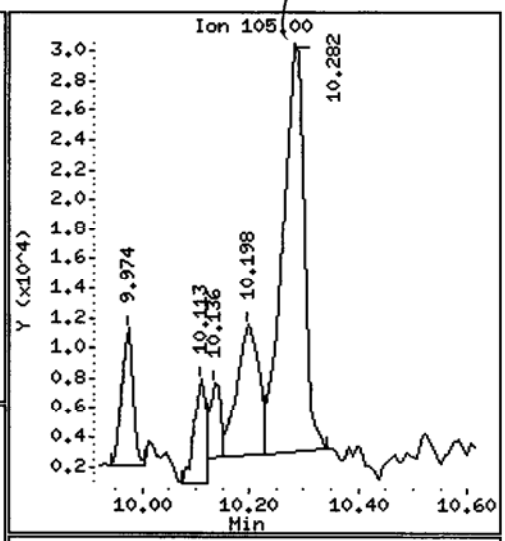
Column phase: ZB-5msi

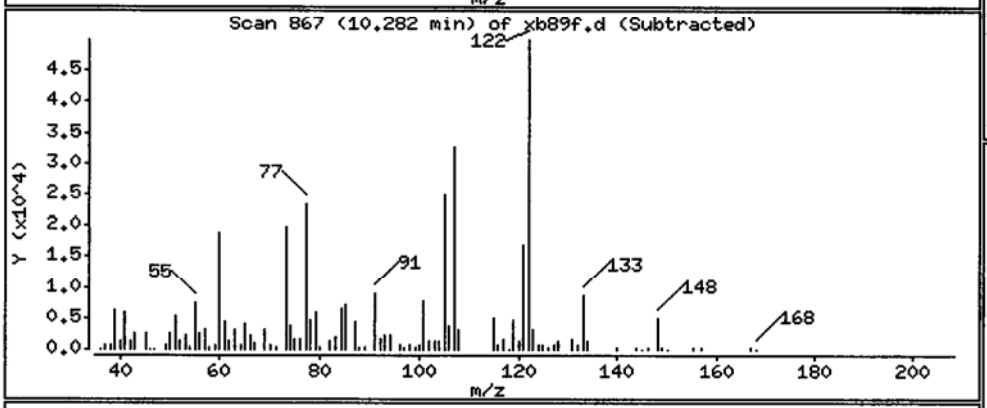
Column diameter: 0.25

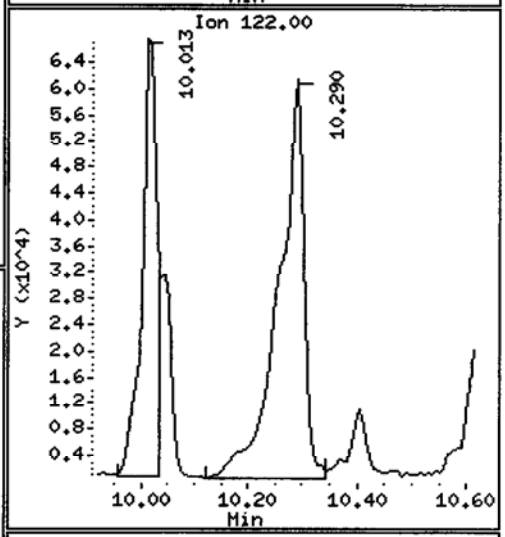
24 Benzoic acid

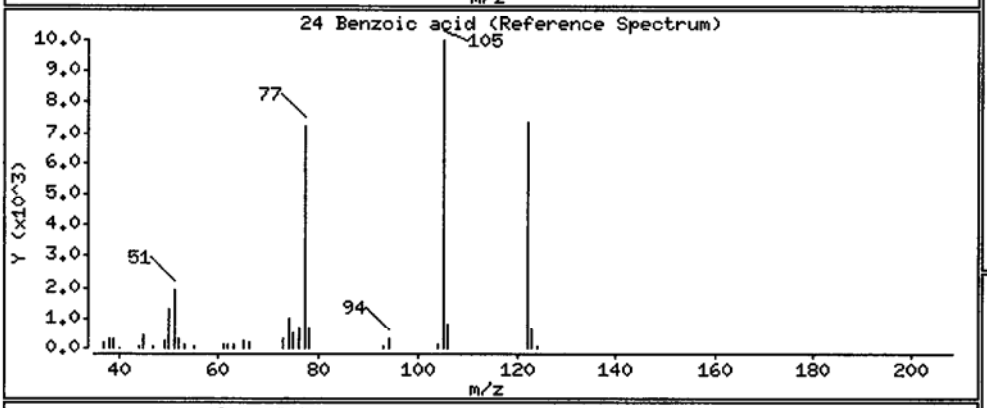
Concentration: 270.2 ug/kg

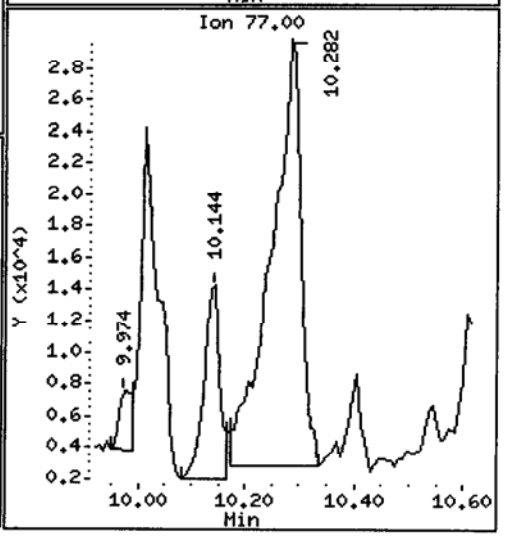


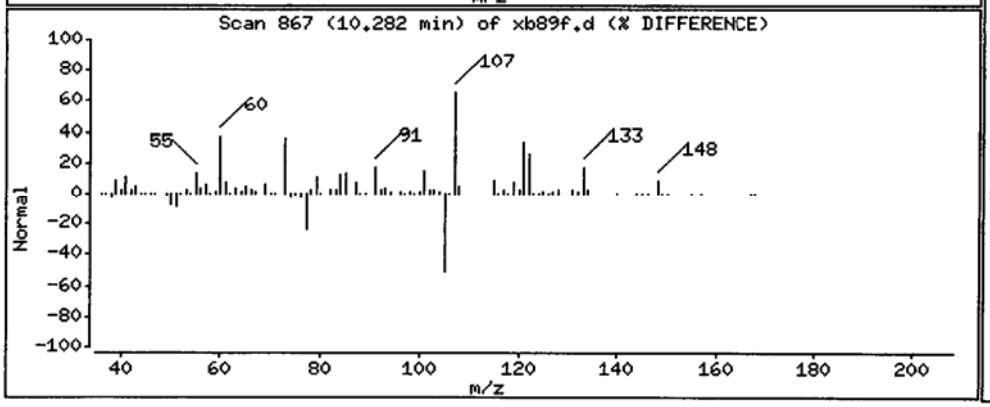












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

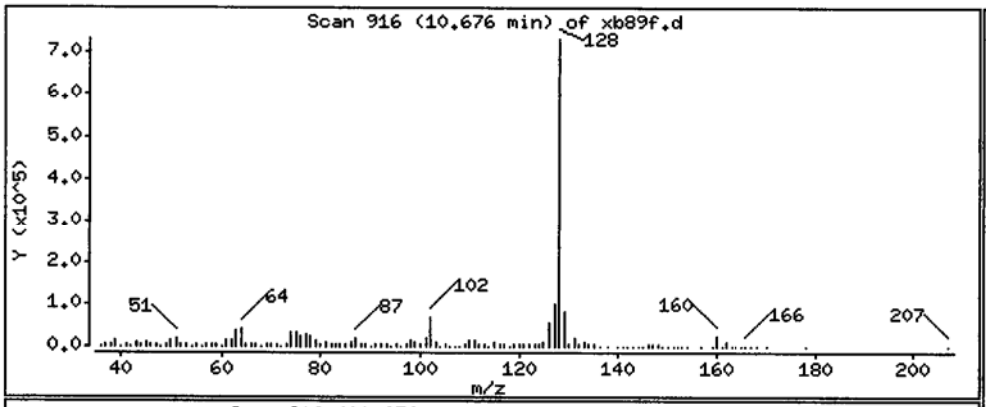
Operator: VTS/YZ

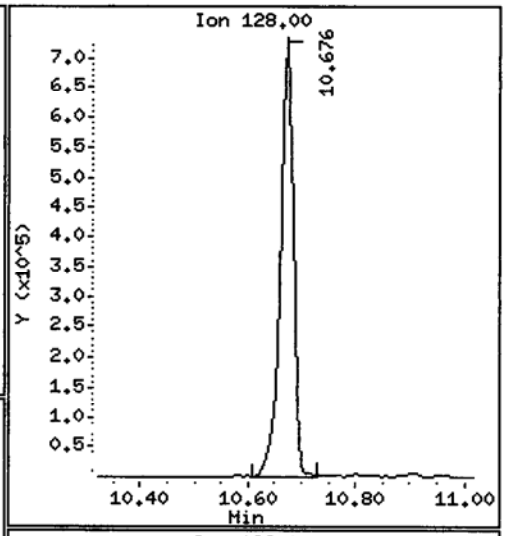
Column phase: ZB-5msi

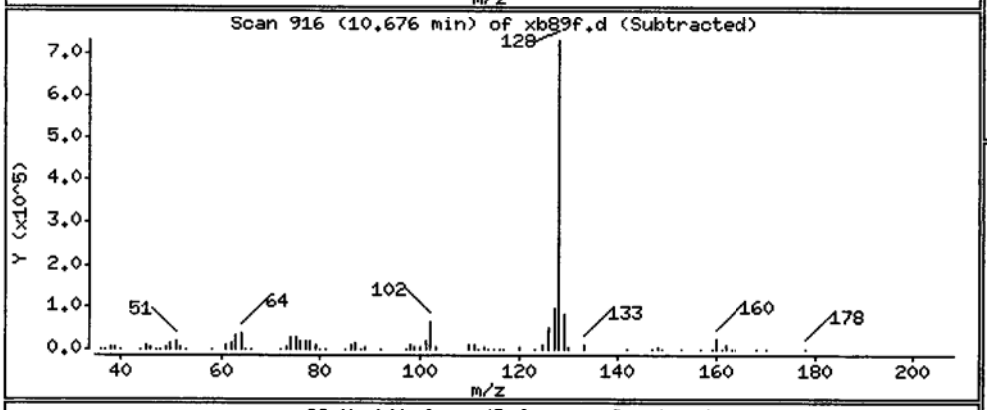
Column diameter: 0.25

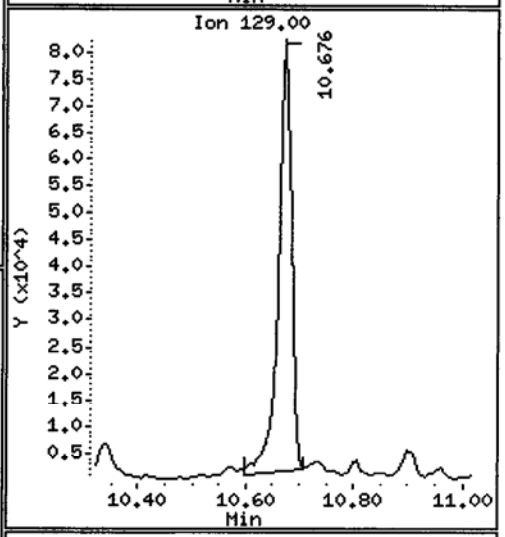
28 Naphthalene

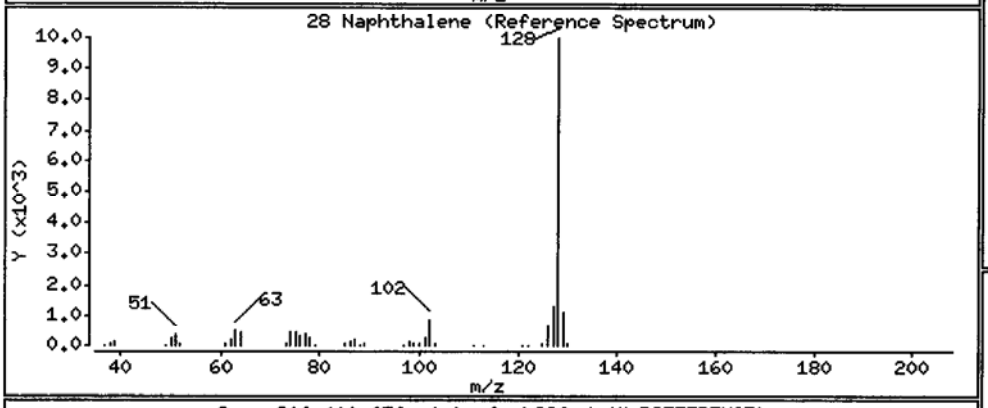
Concentration: 1060 ug/kg

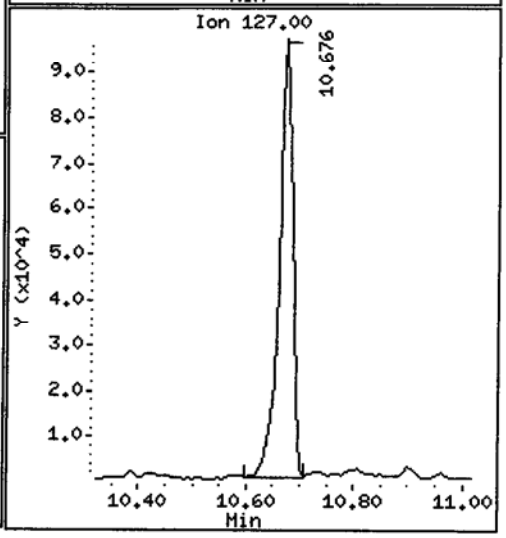


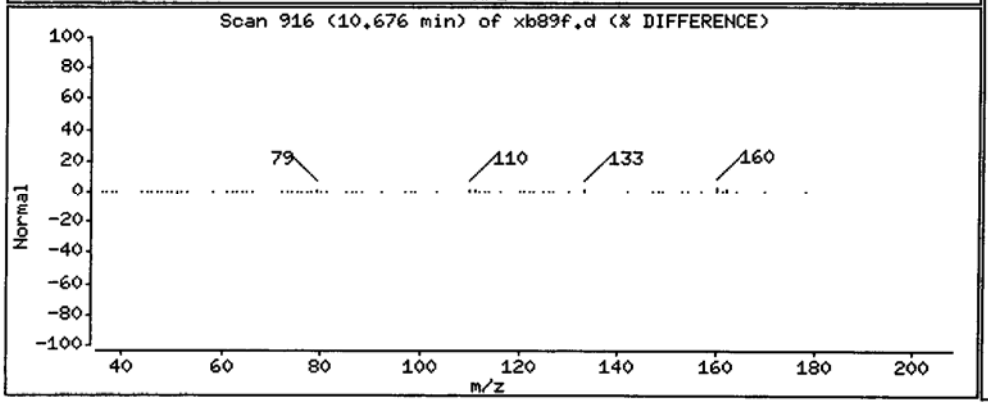












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

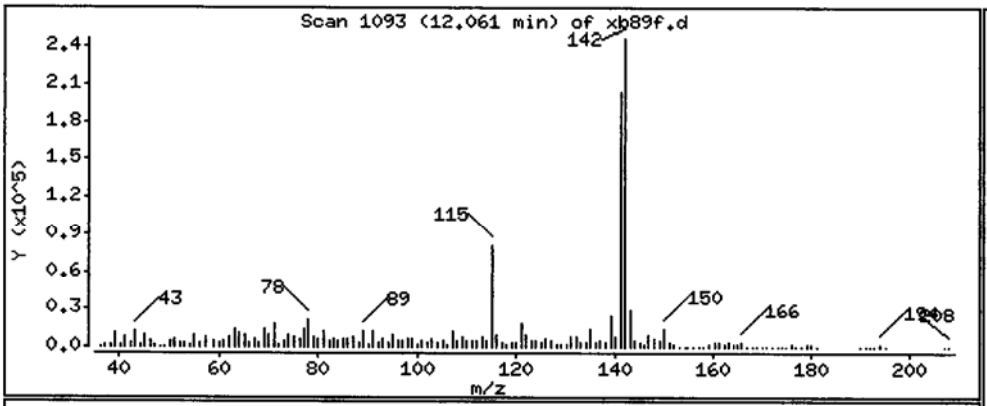
Operator: VTS/YZ

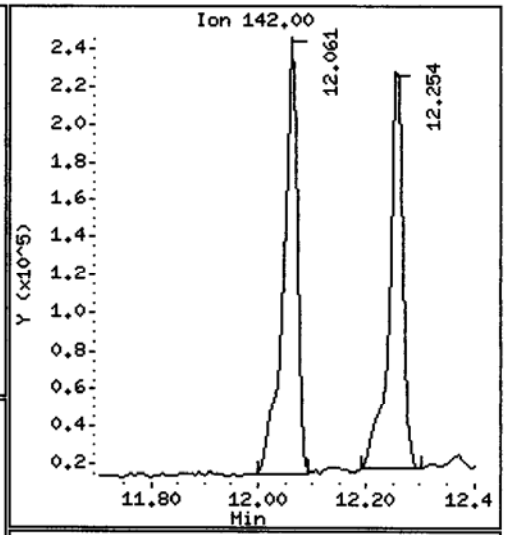
Column phase: ZB-5msi

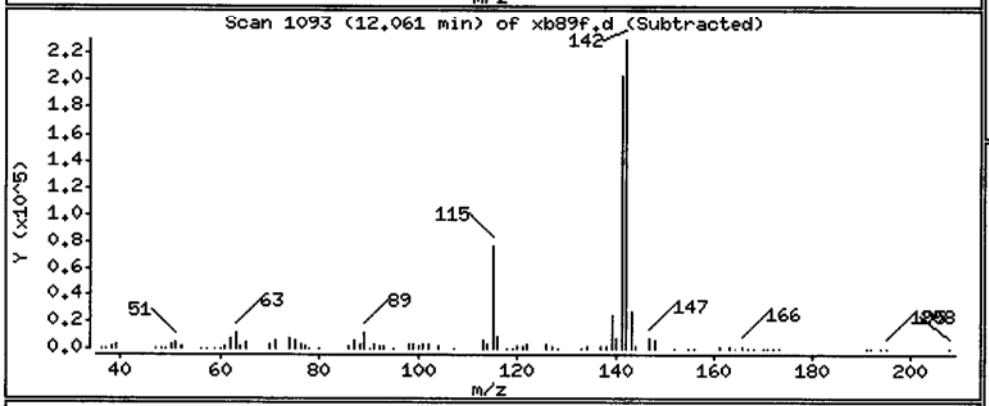
Column diameter: 0.25

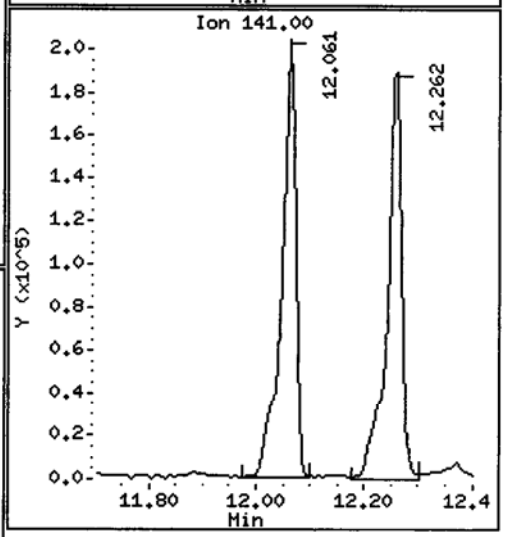
32 2-Methylnaphthalene

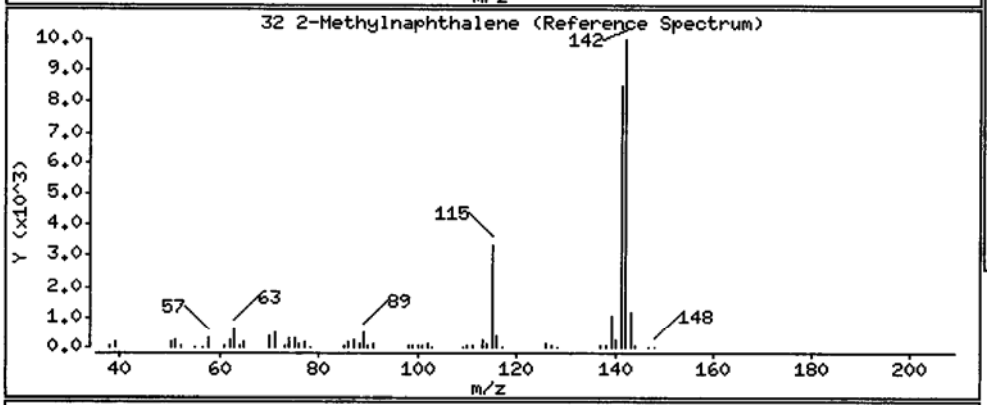
Concentration: 432.0 ug/kg

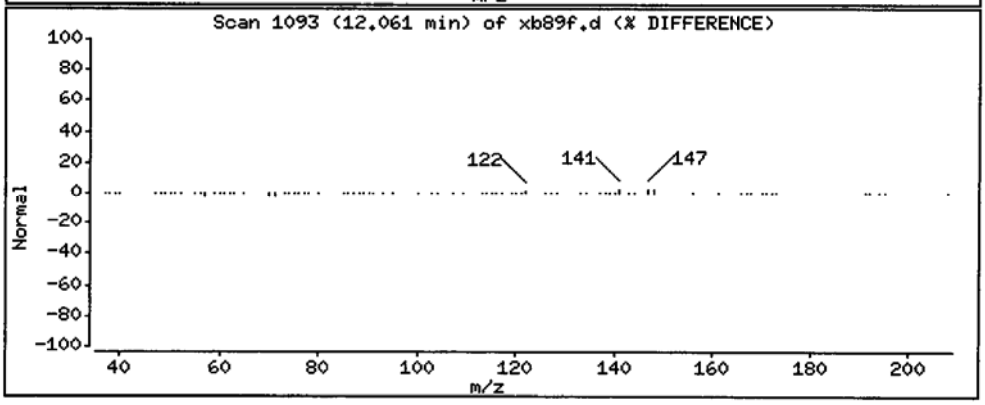












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

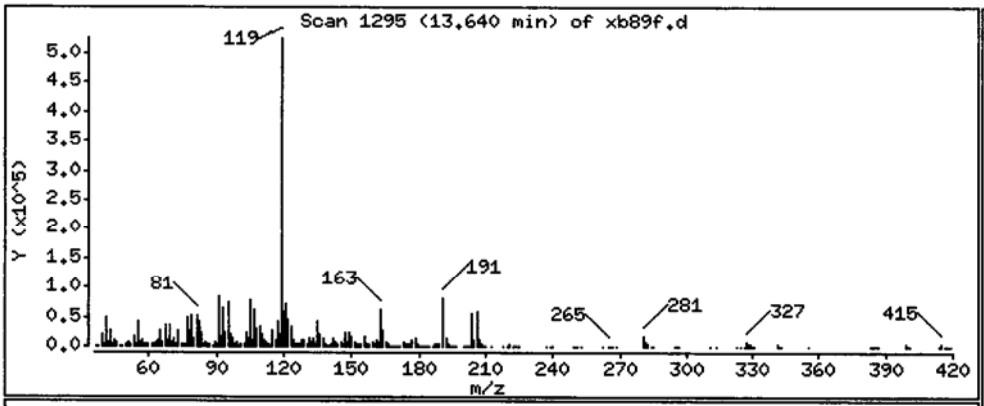
Operator: VTS/YZ

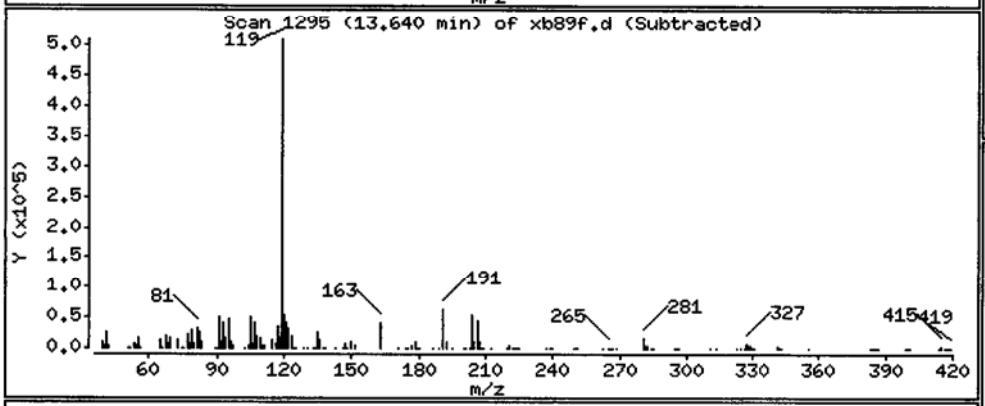
Column phase: ZB-5msi

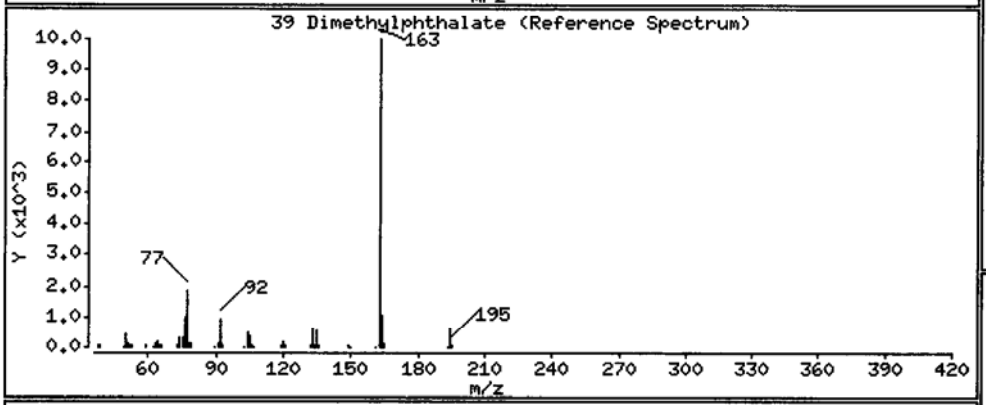
Column diameter: 0.25

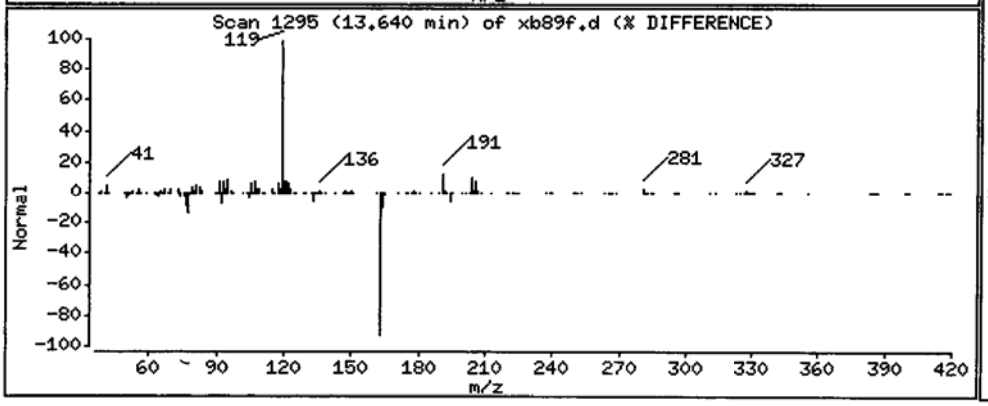
39 Dimethylphthalate

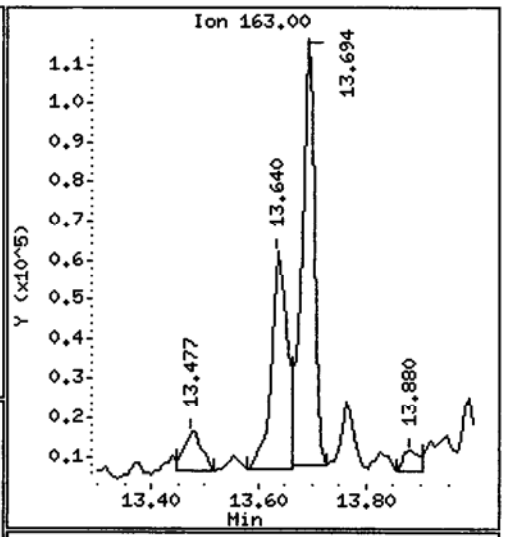
Concentration: 141.4 ug/kg

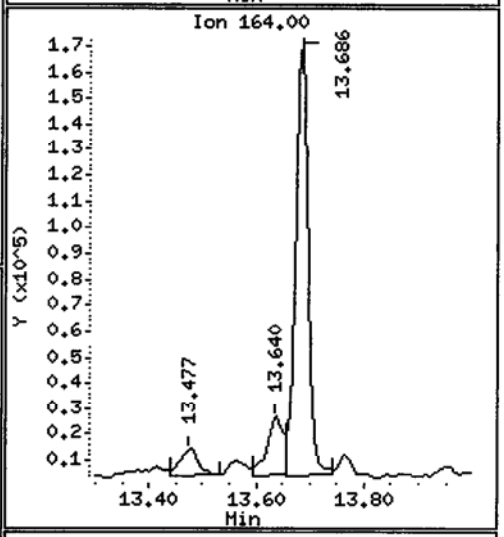


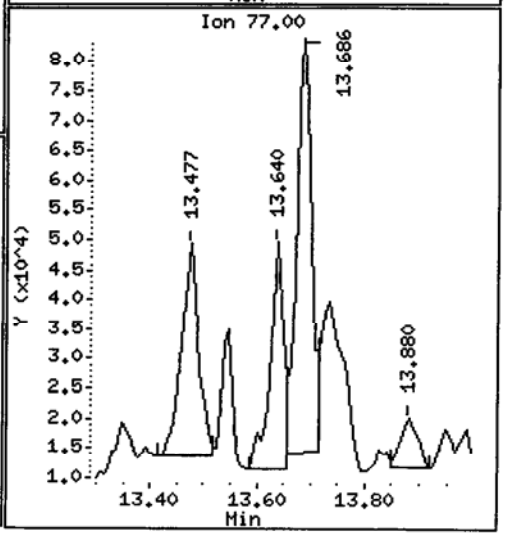












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

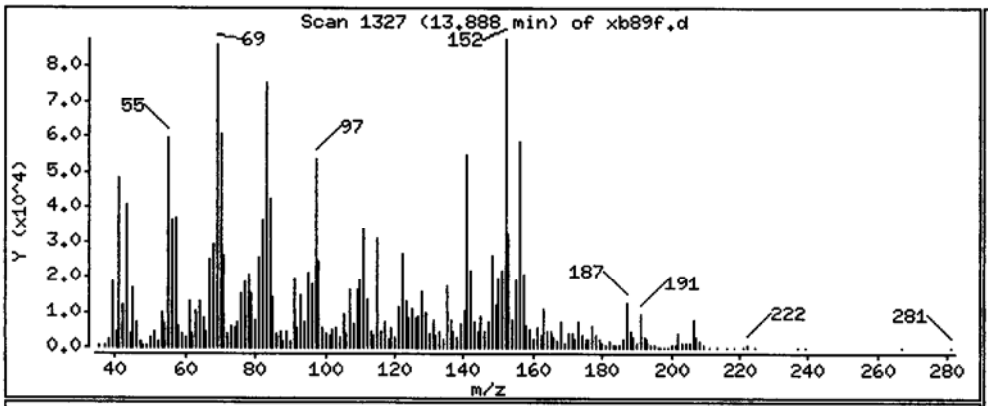
Operator: VTS/YZ

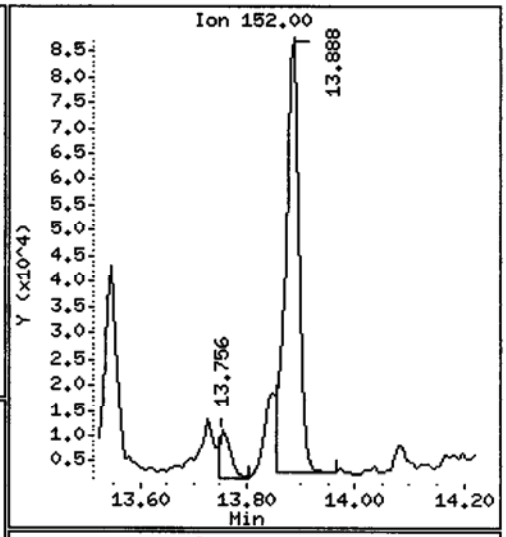
Column phase: ZB-5msi

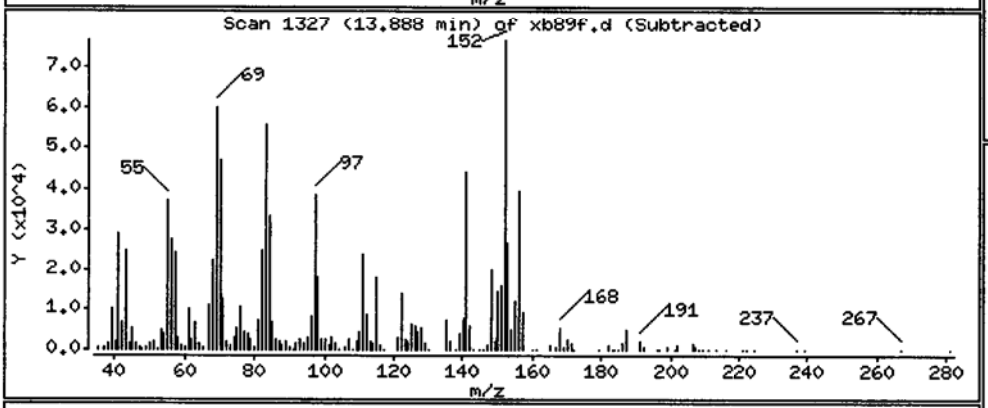
Column diameter: 0.25

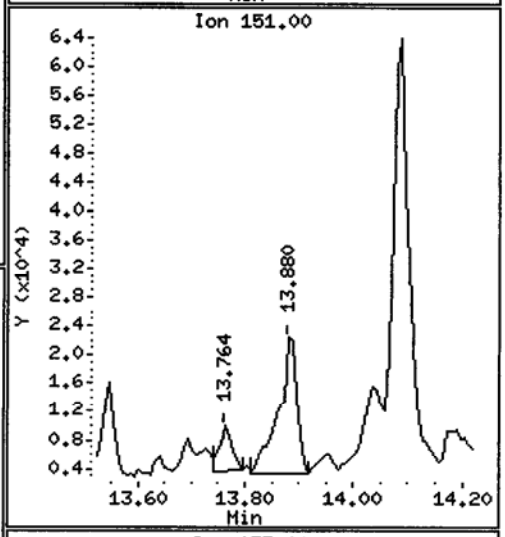
40 Acenaphthylene

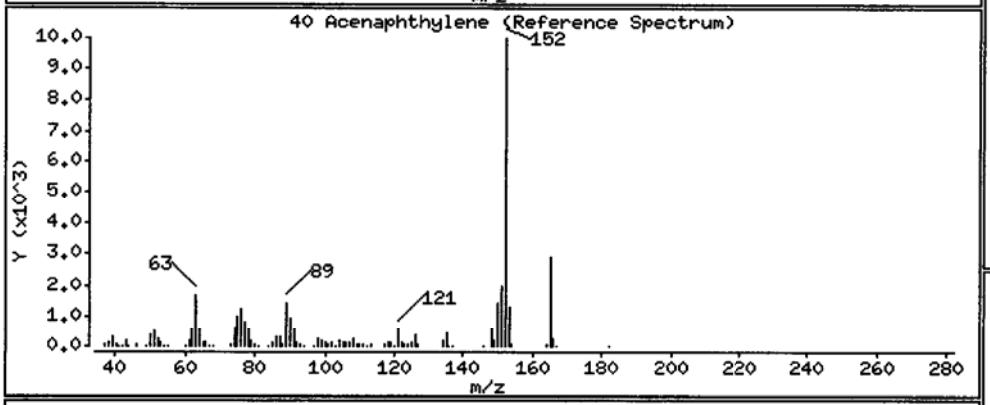
Concentration: 147.0 ug/kg

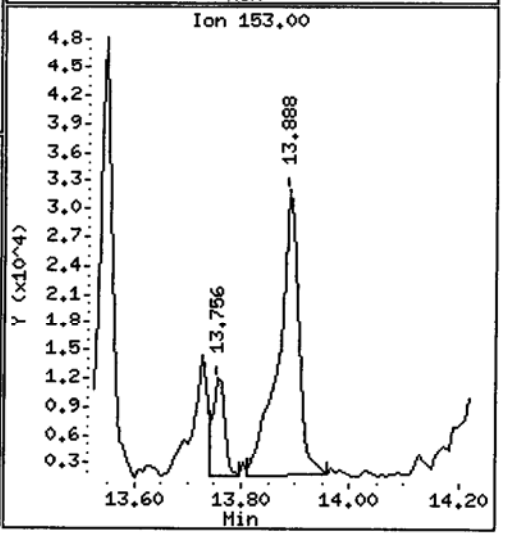


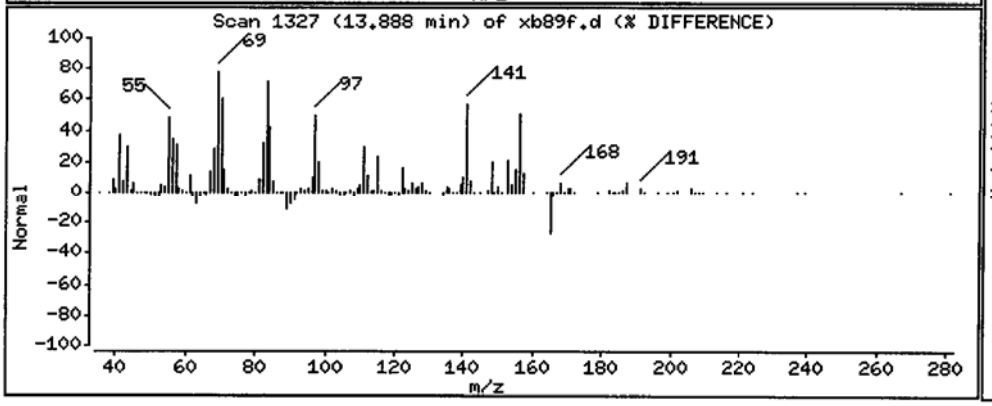












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

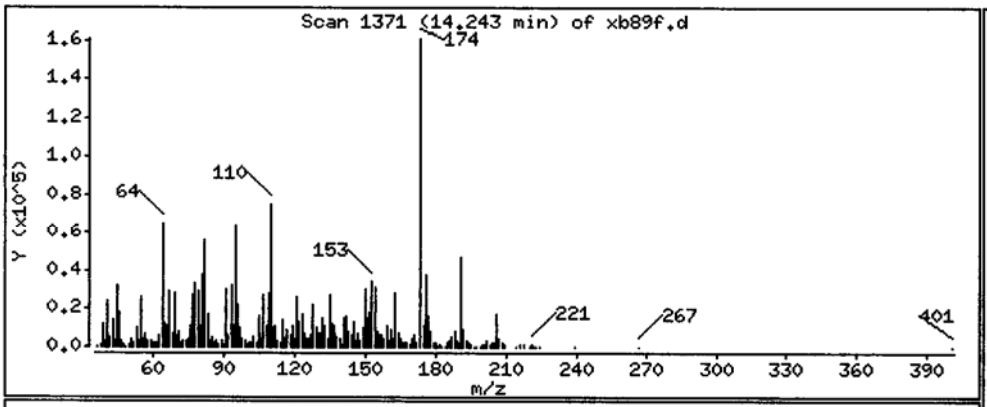
Operator: VTS/YZ

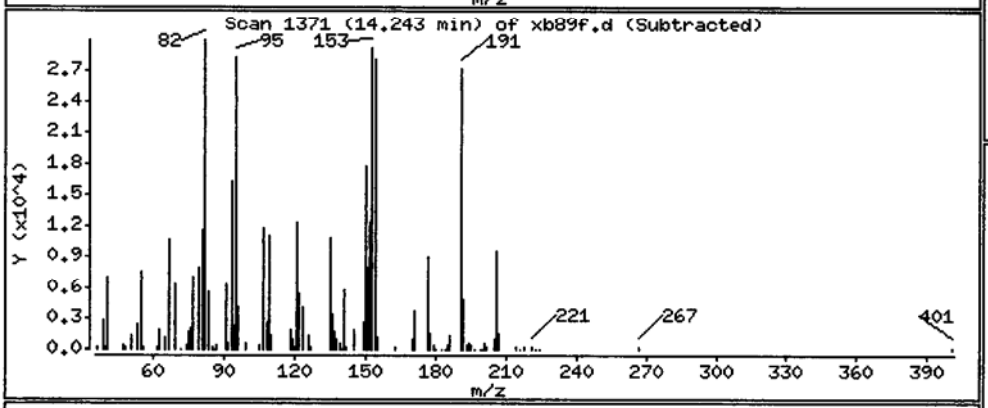
Column phase: ZB-5msi

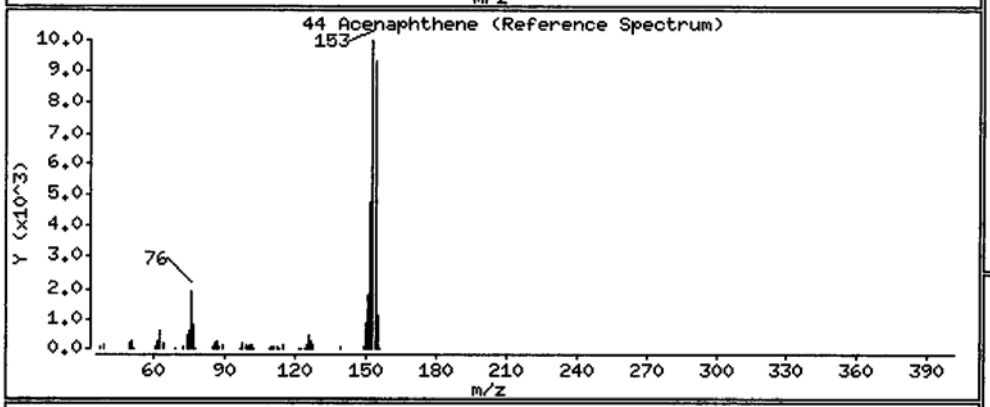
Column diameter: 0.25

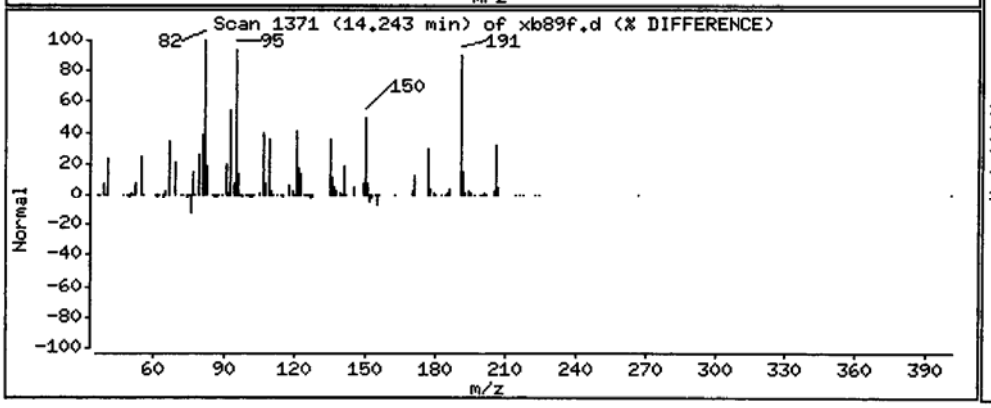
44 Acenaphthene

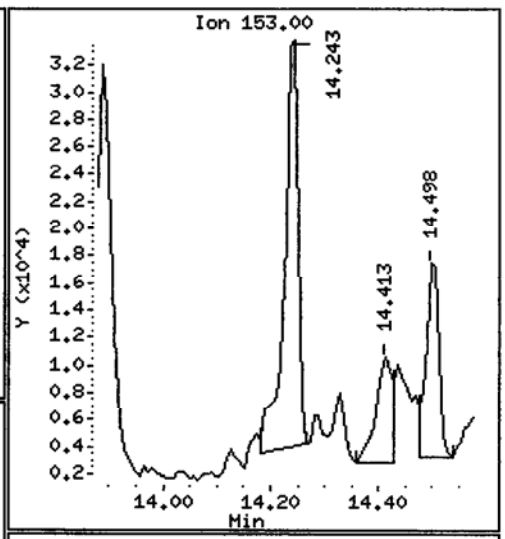
Concentration: 76.21 ug/kg

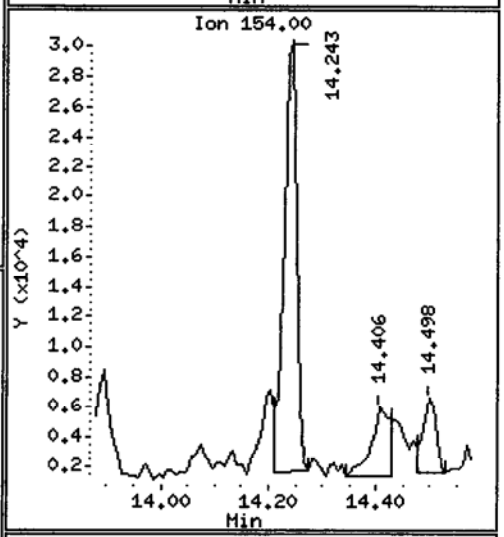


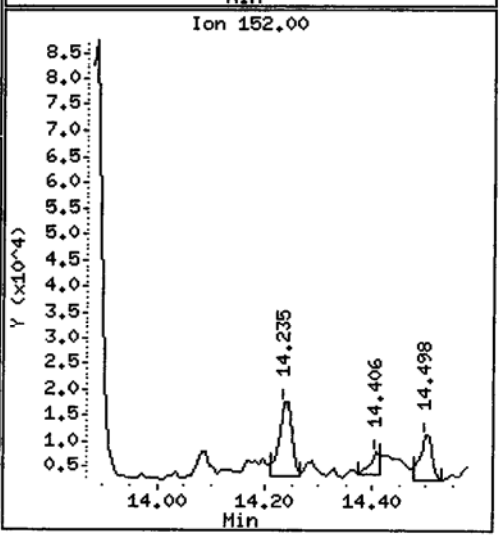












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

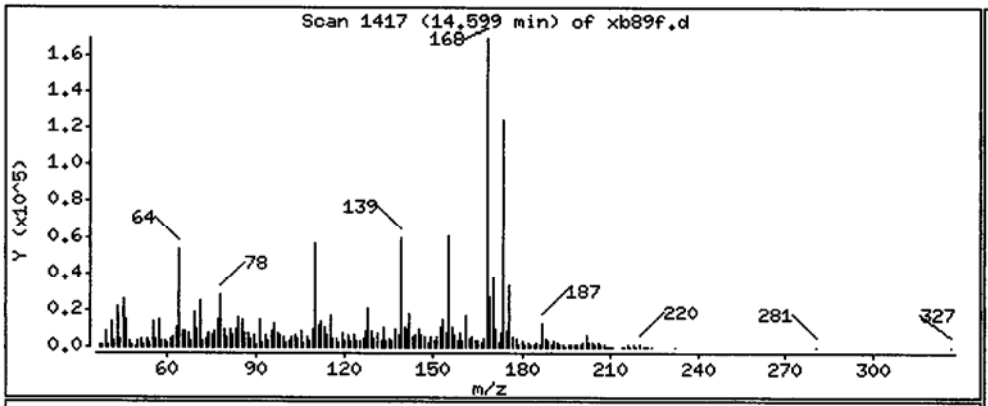
Operator: VTS/YZ

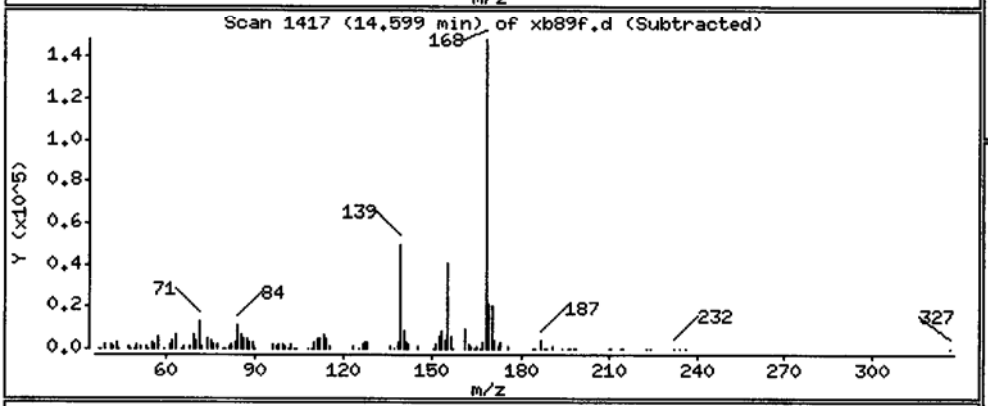
Column phase: ZB-5msi

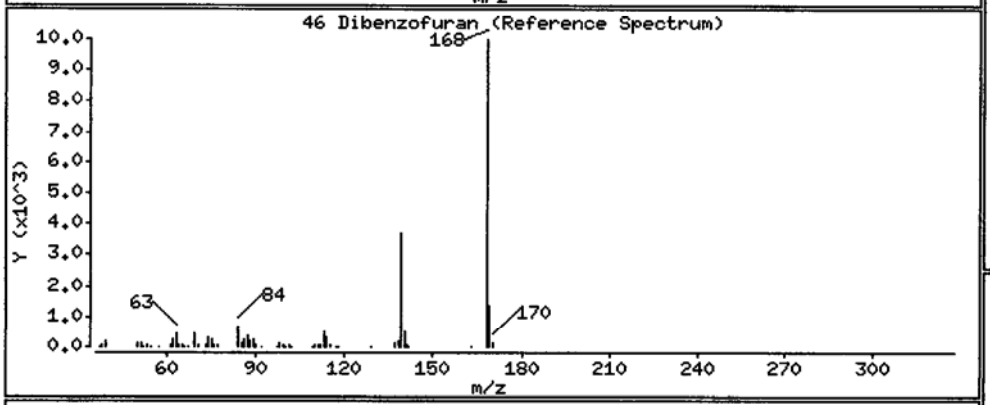
Column diameter: 0.25

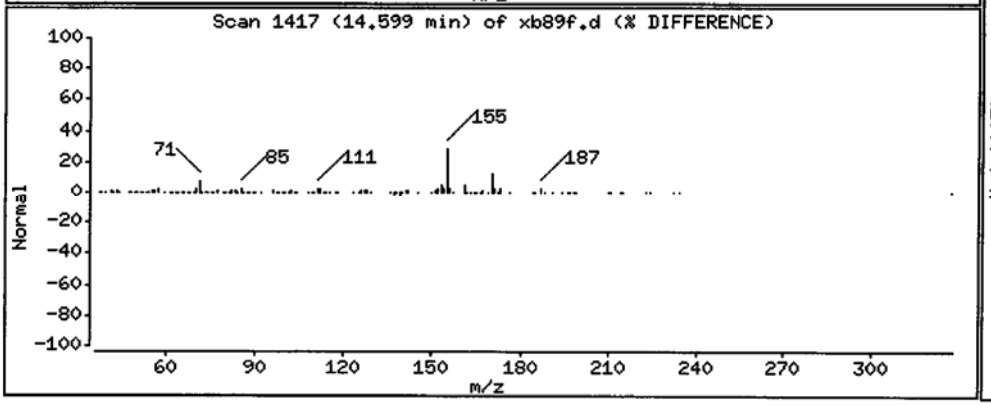
46 Dibenzofuran

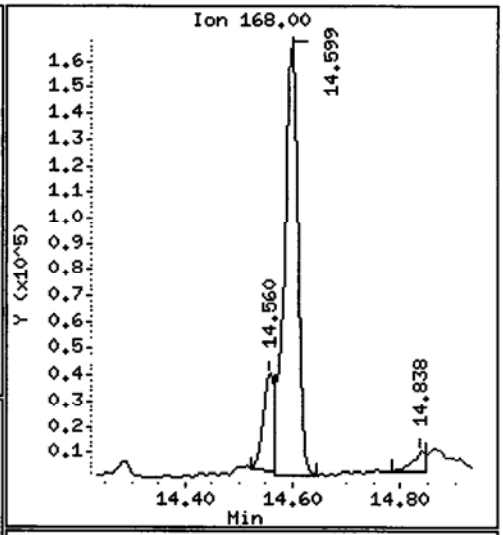
Concentration: 281.8 ug/kg

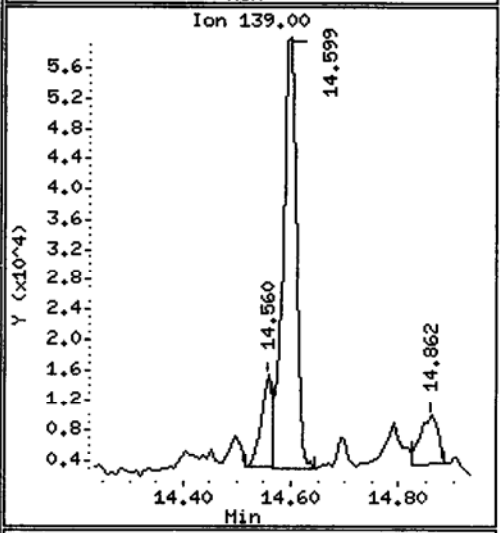


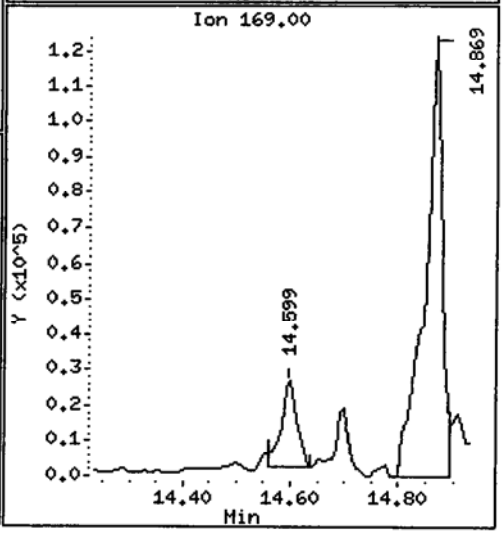












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

Operator: VTS/YZ

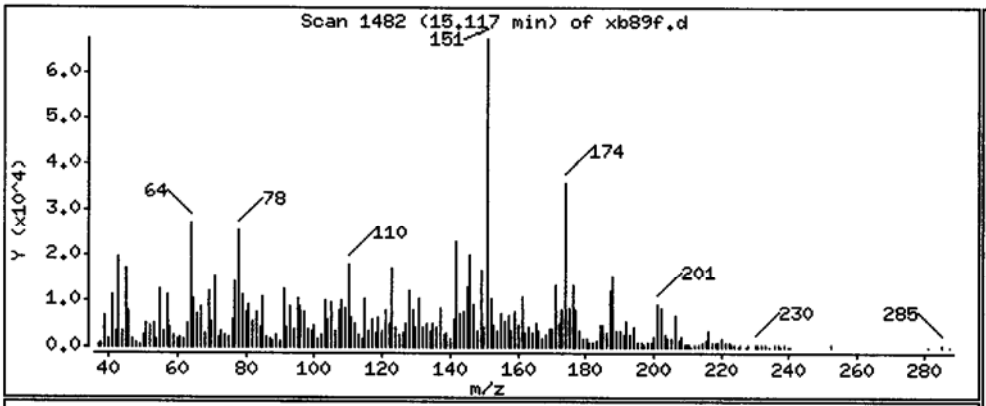
Column phase: ZB-5msi

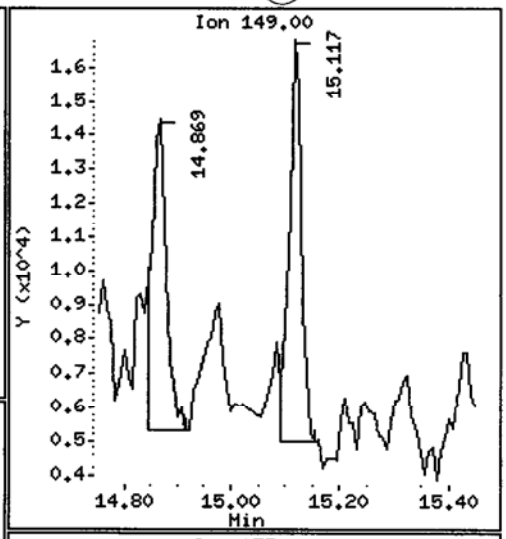
Column diameter: 0.25

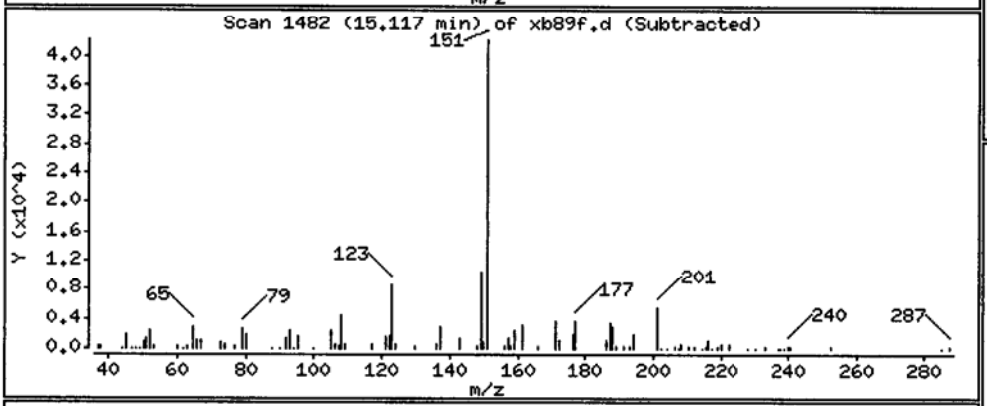
(3)

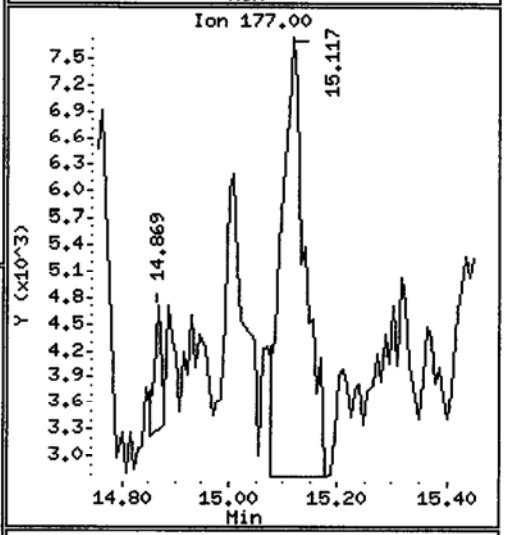
50 Diethylphthalate

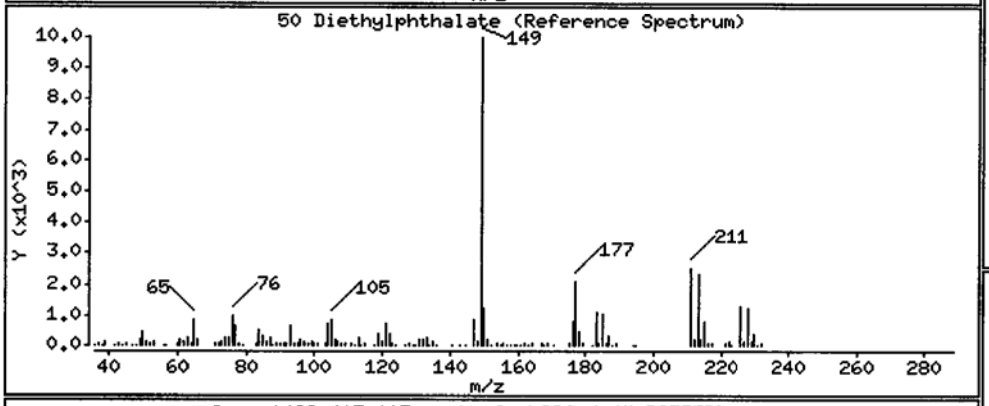
Concentration: 20.81 ug/kg

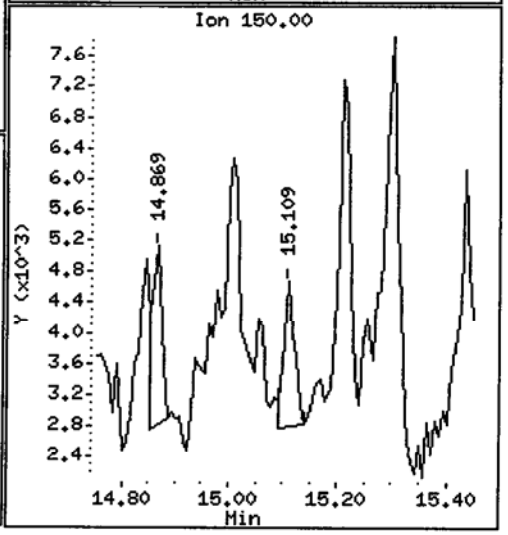


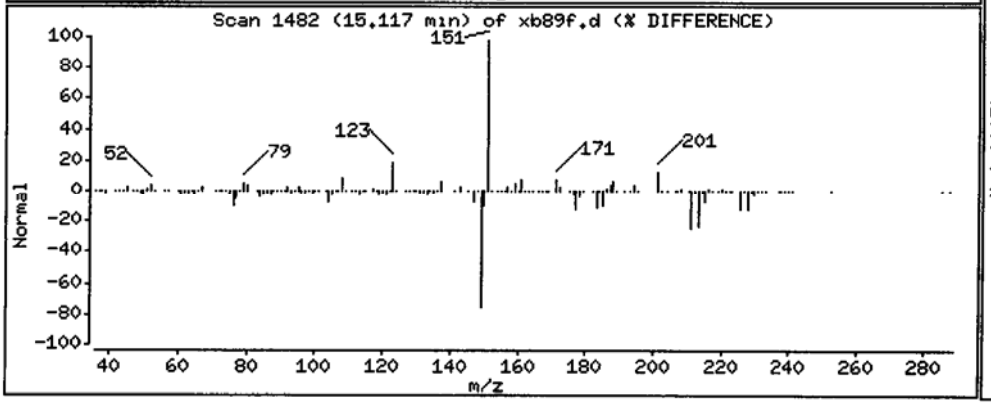












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

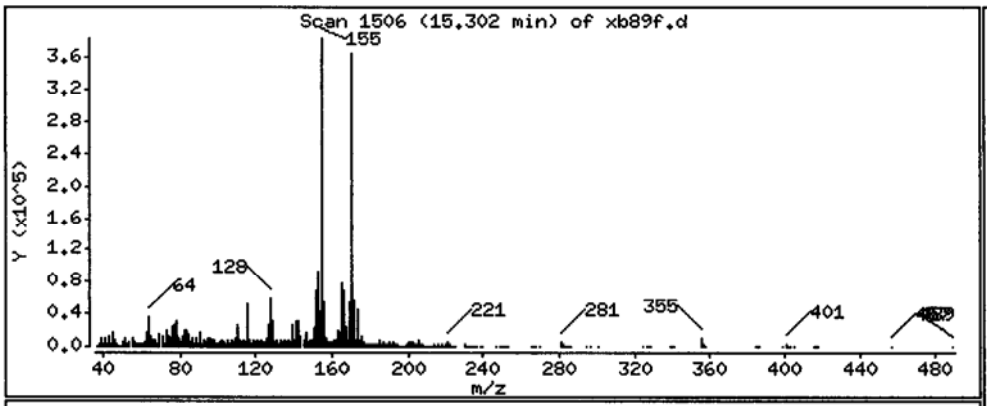
Operator: VTS/YZ

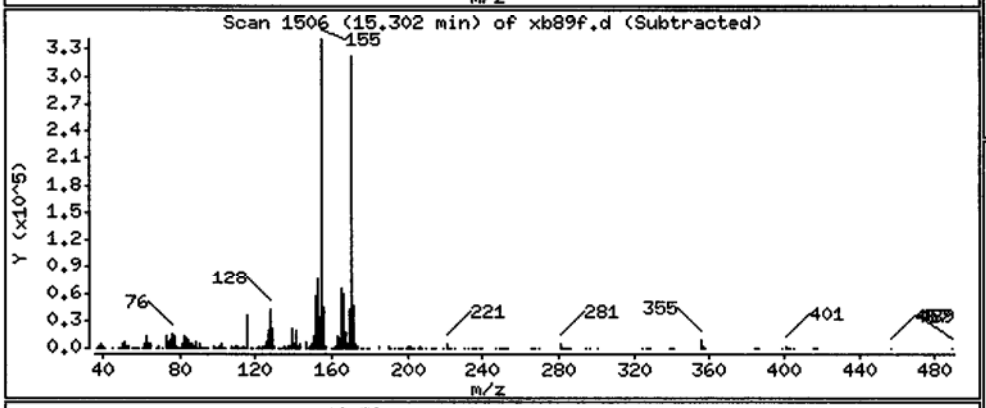
Column phase: ZB-5msi

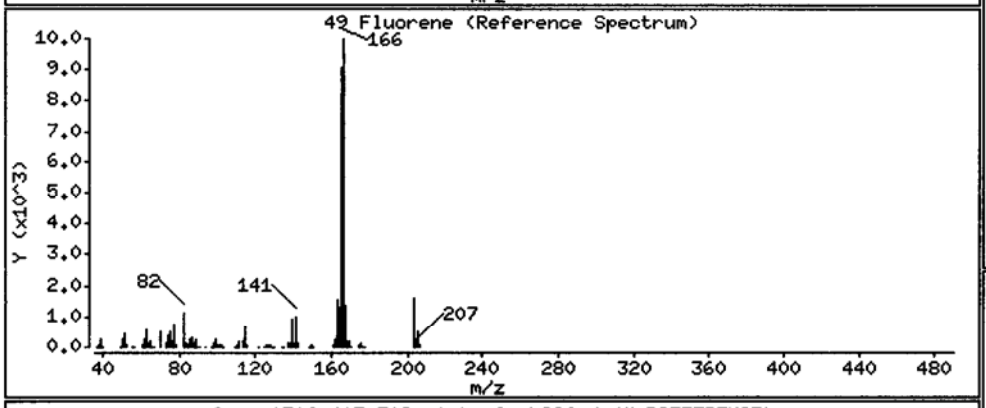
Column diameter: 0.25

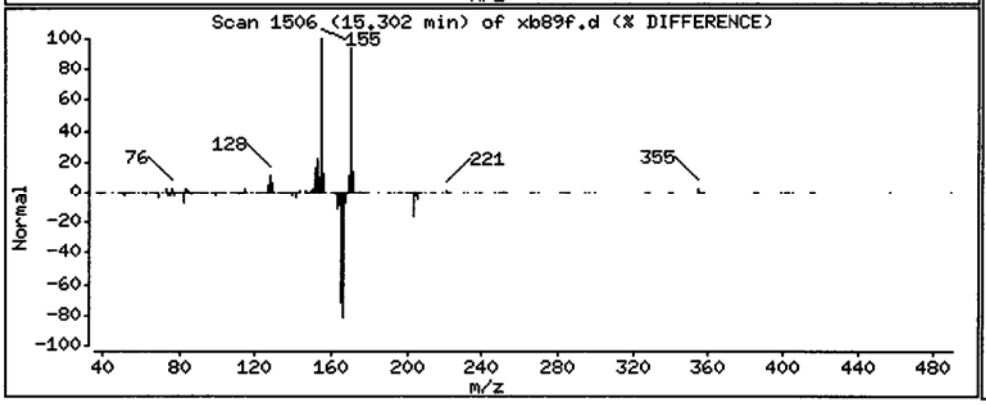
49 Fluorene

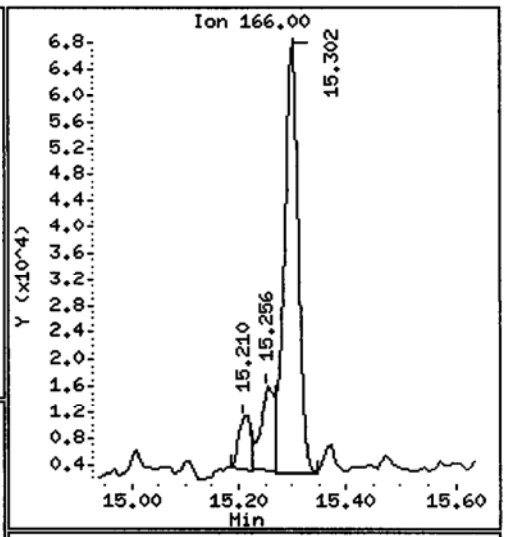
Concentration: 138.8 ug/kg

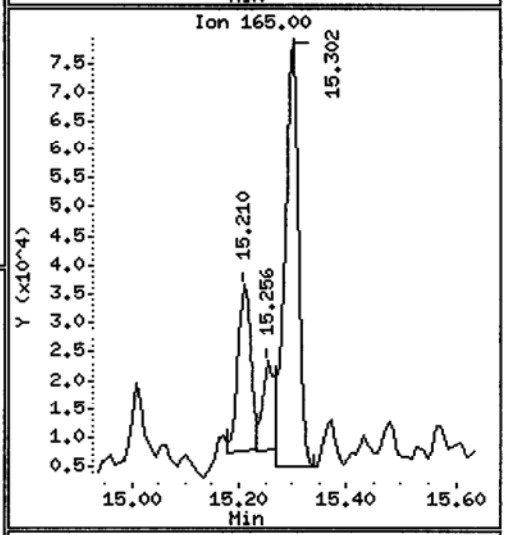


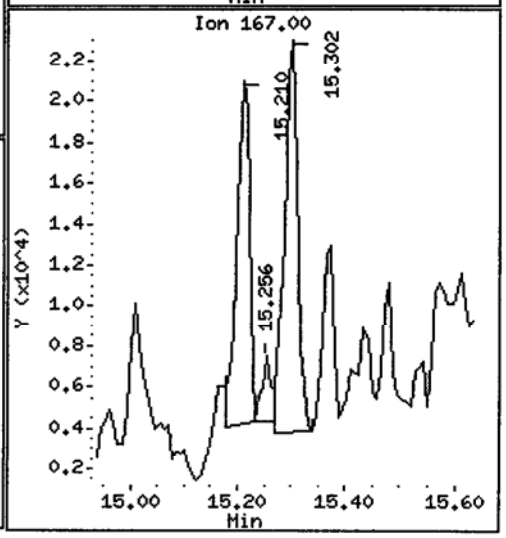












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

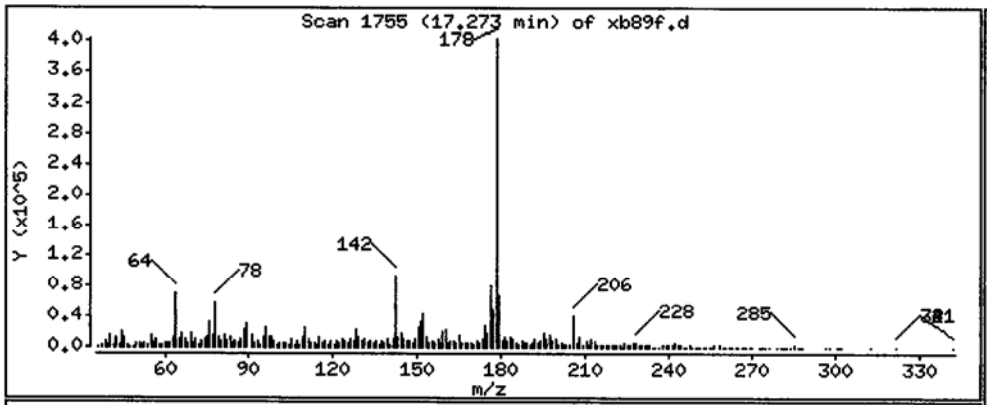
Operator: VTS/YZ

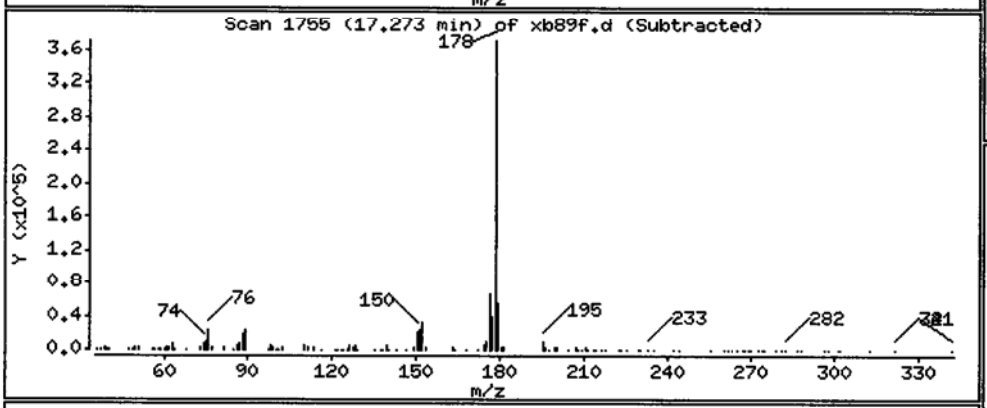
Column phase: ZB-5msi

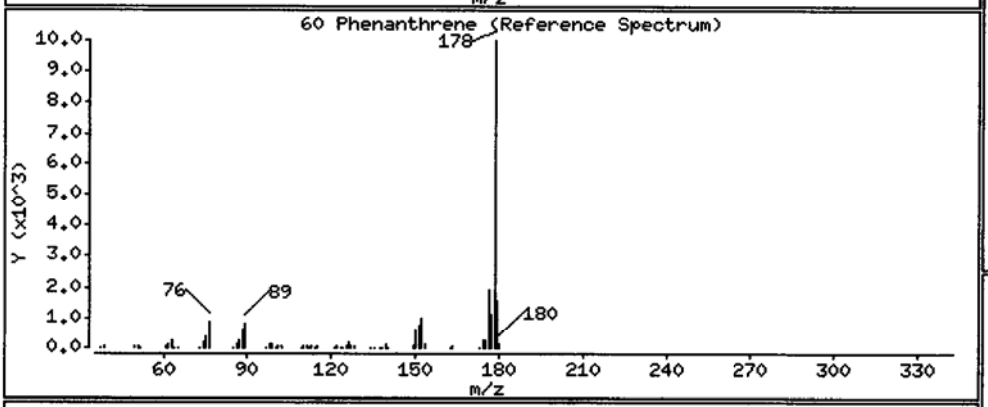
Column diameter: 0.25

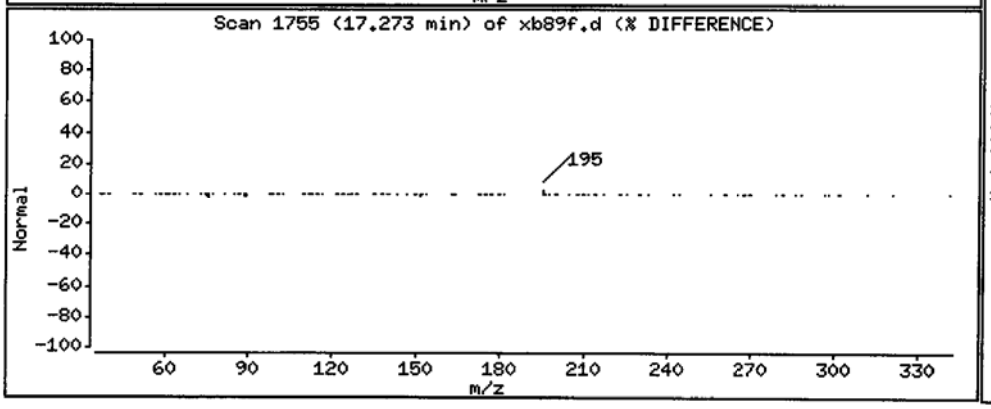
60 Phenanthrene

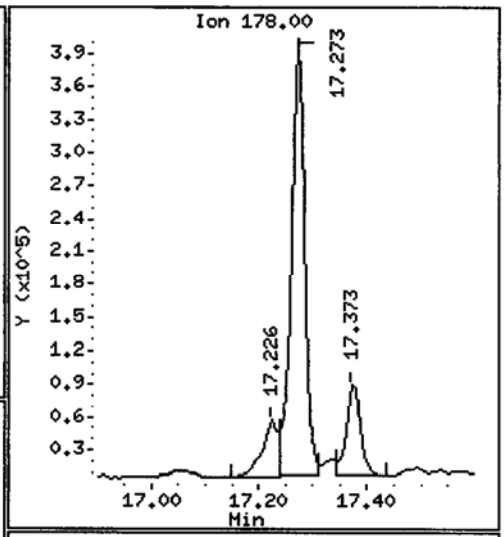
Concentration: 639.6 ug/kg

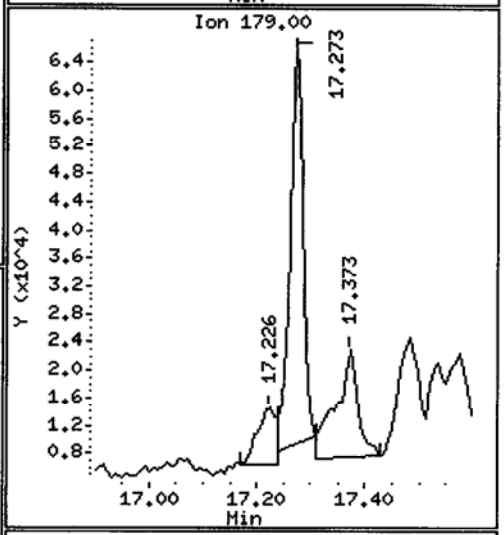


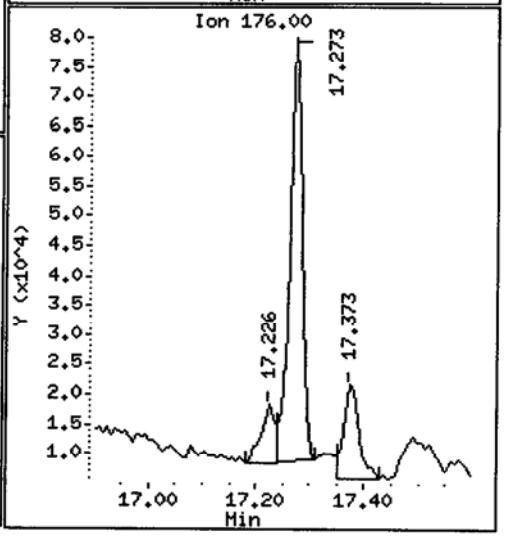












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

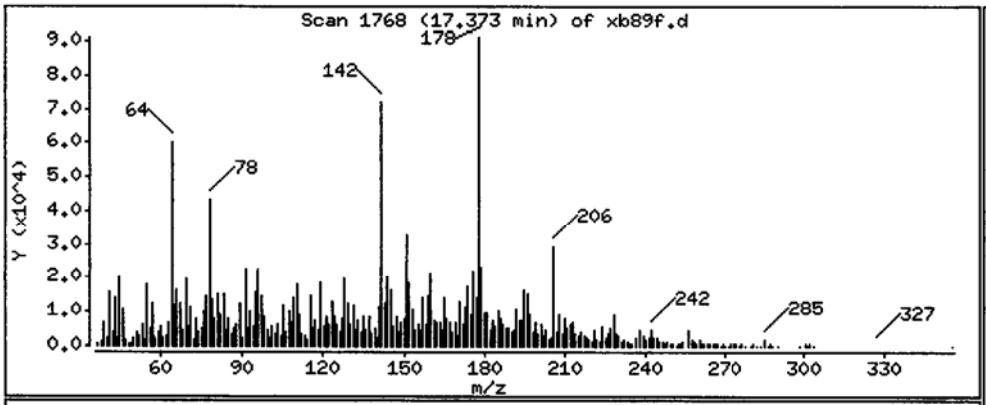
Operator: VTS/YZ

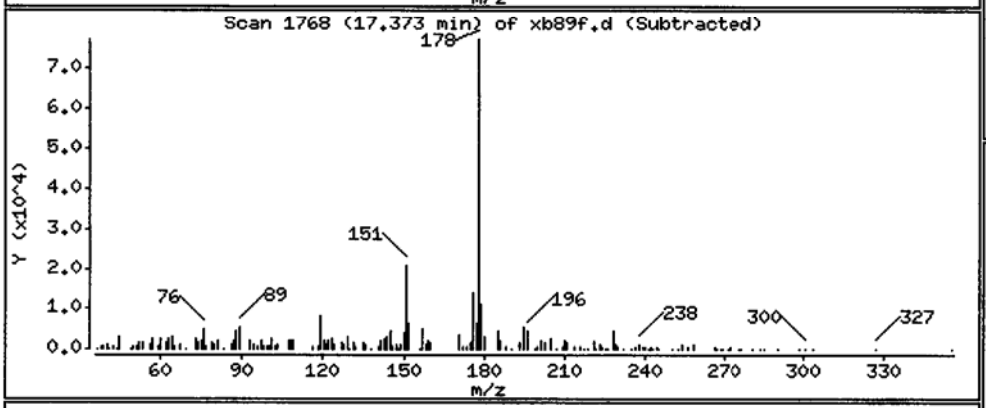
Column phase: ZB-5msi

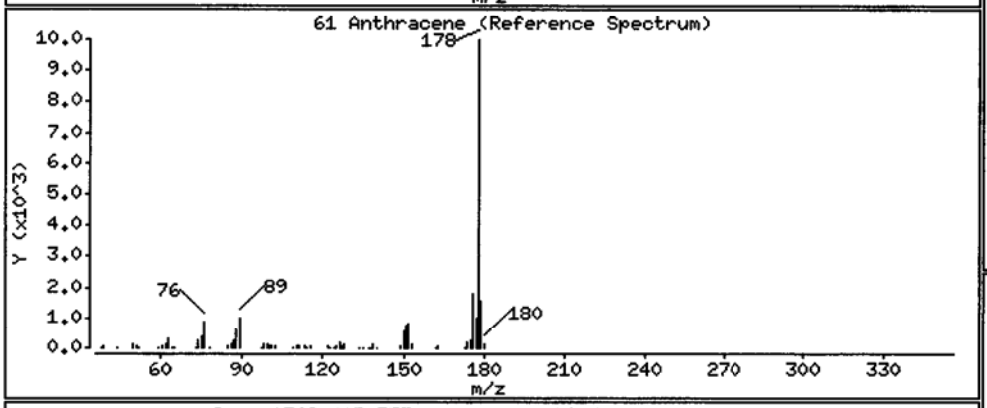
Column diameter: 0.25

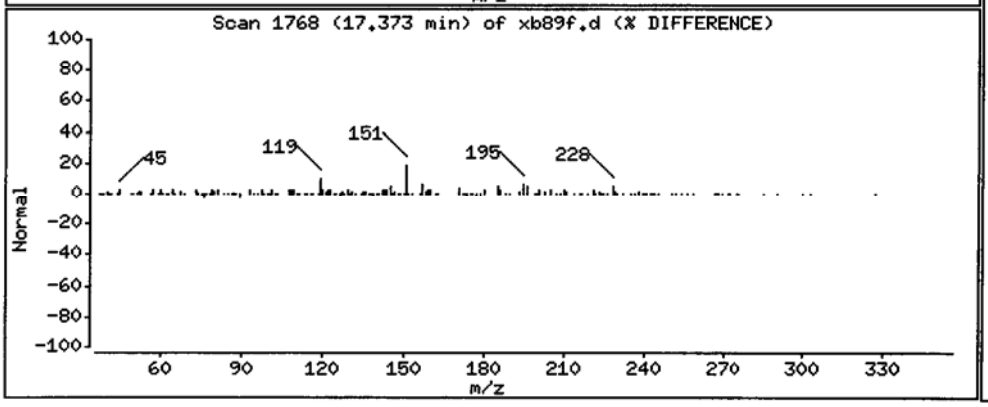
61 Anthracene

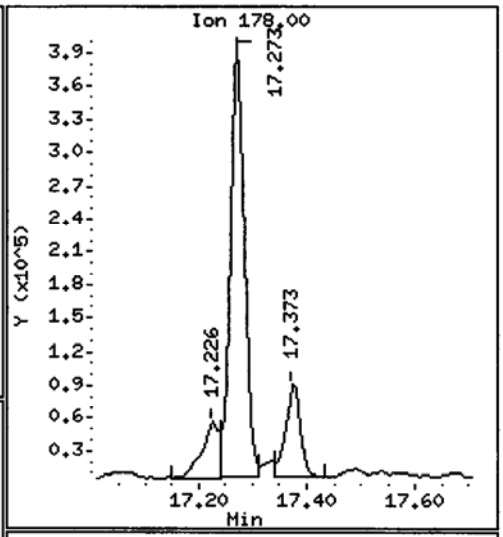
Concentration: 139.6 ug/kg

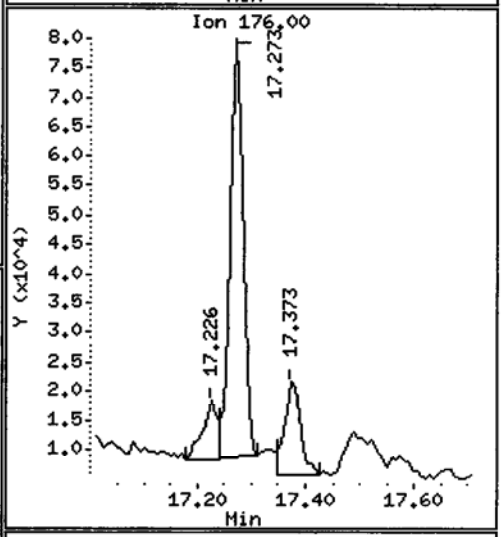


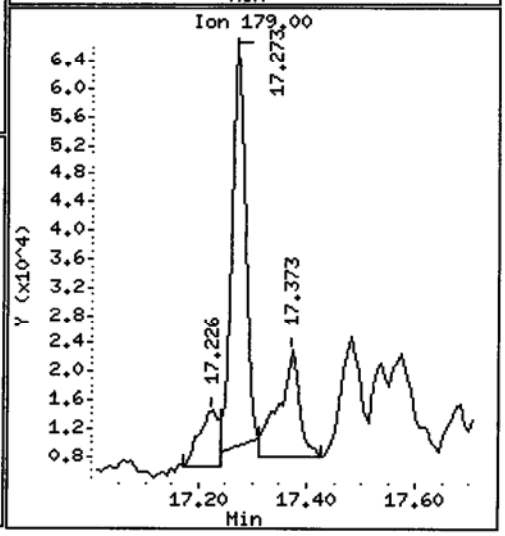












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

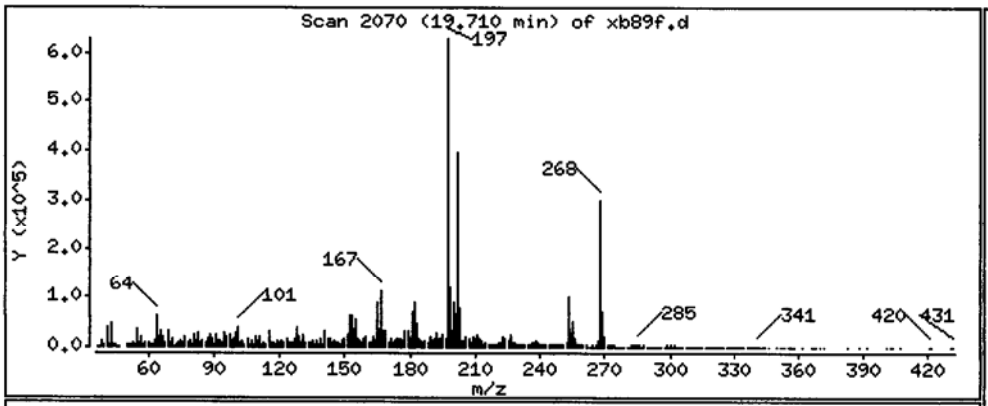
Operator: VTS/YZ

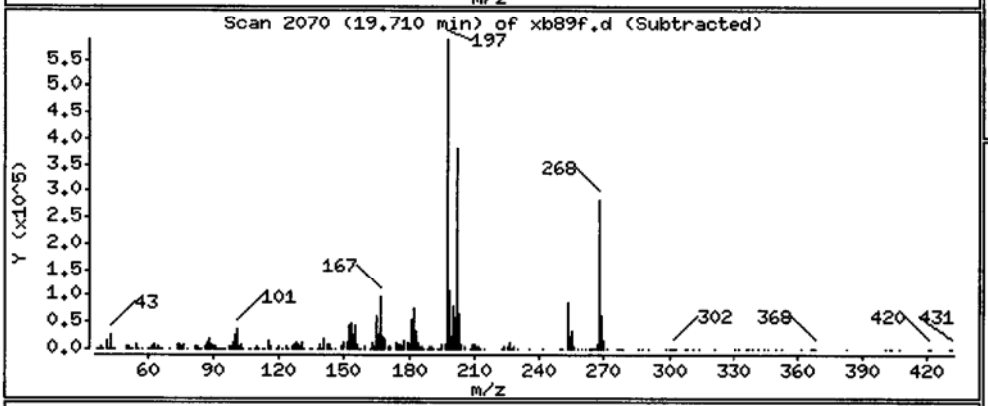
Column phase: ZB-5msi

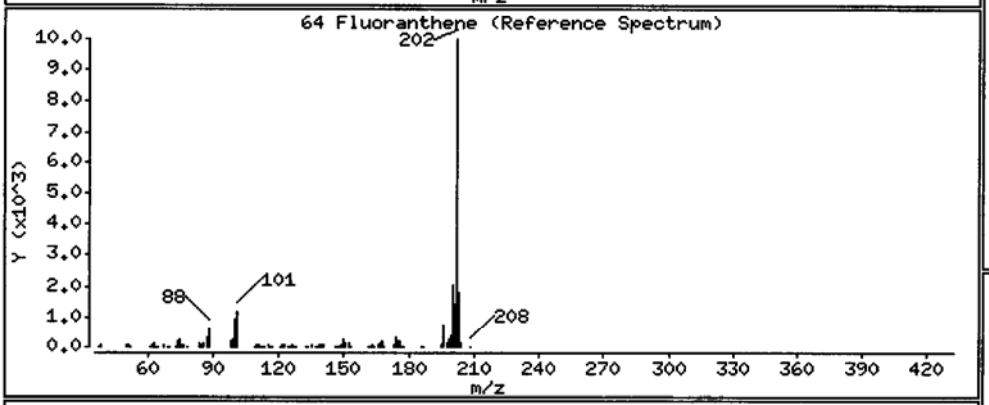
Column diameter: 0.25

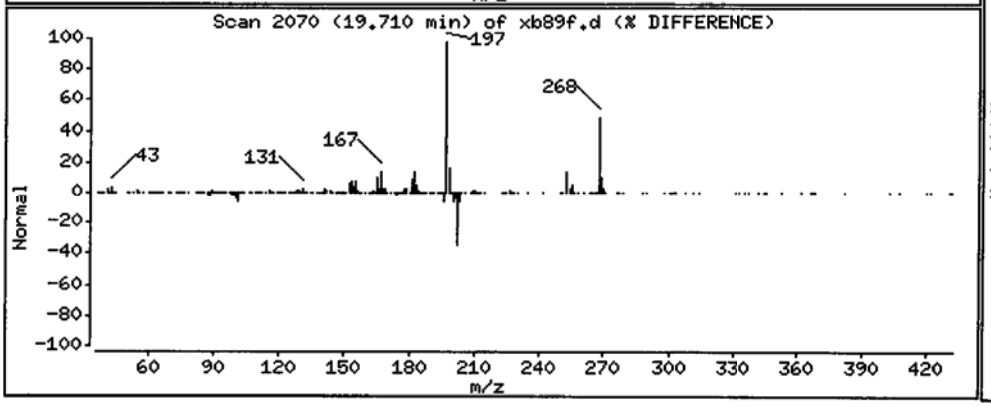
64 Fluoranthene

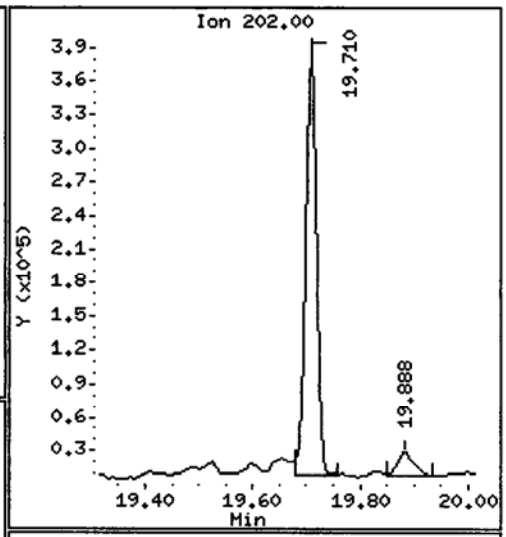
Concentration: 407.6 ug/kg

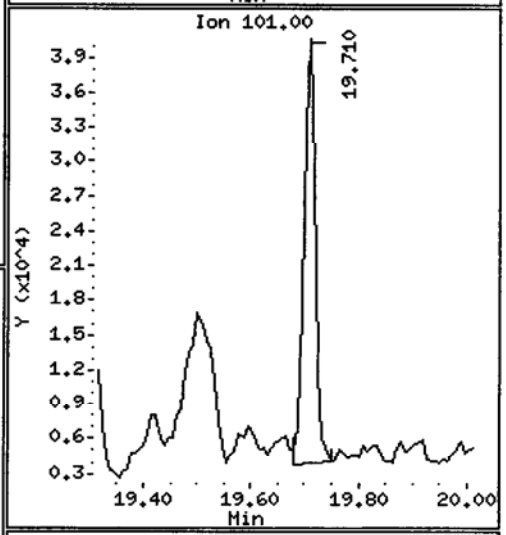


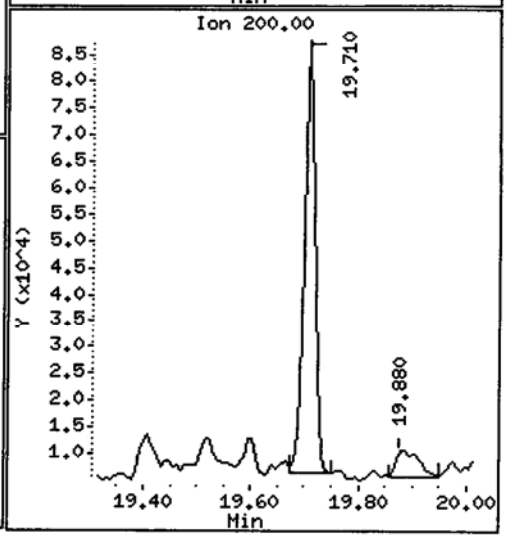












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

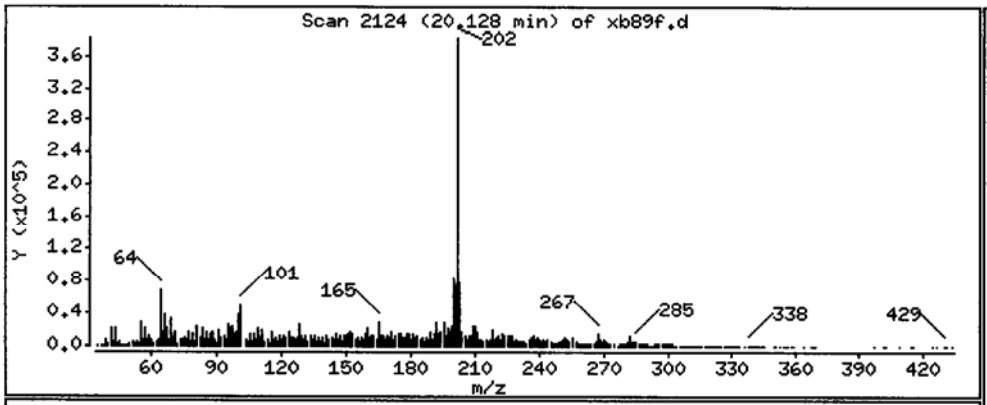
Operator: VTS/YZ

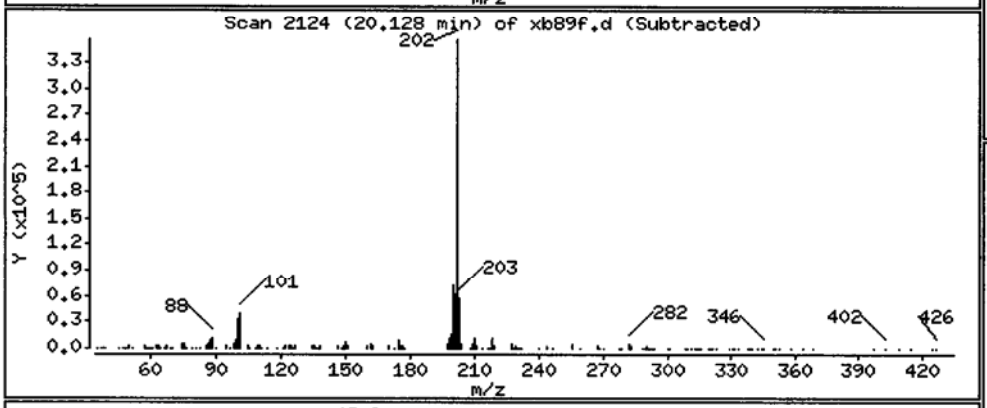
Column phase: ZB-5msi

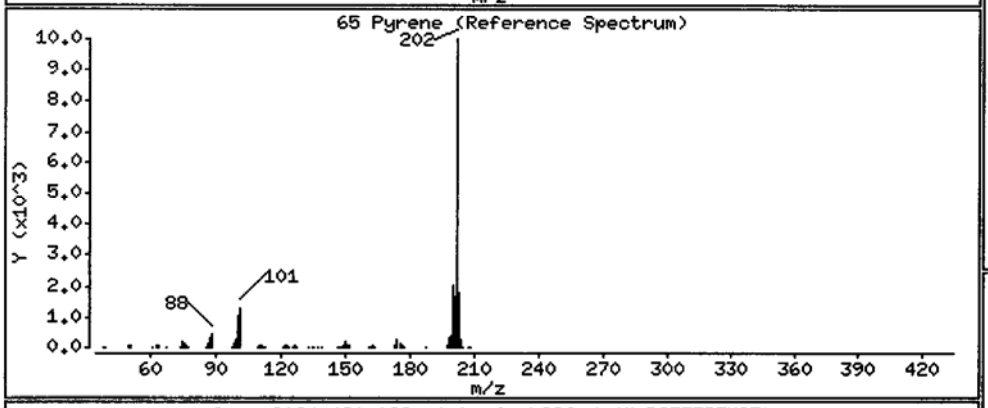
Column diameter: 0.25

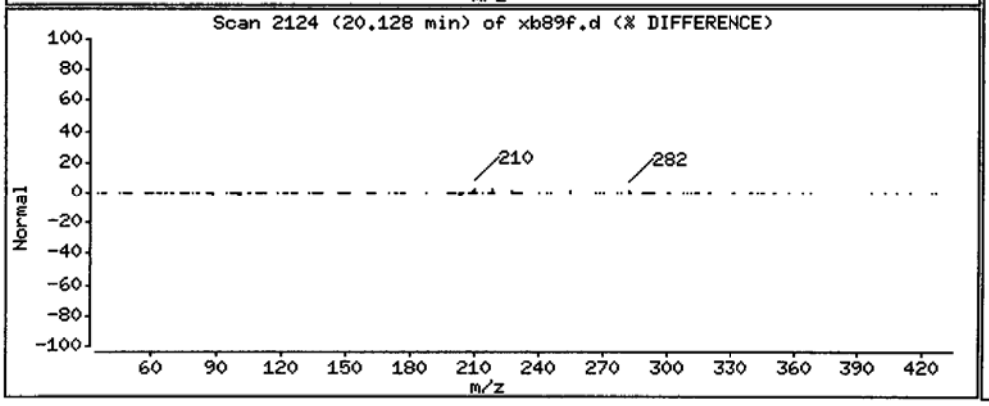
65 Pyrene

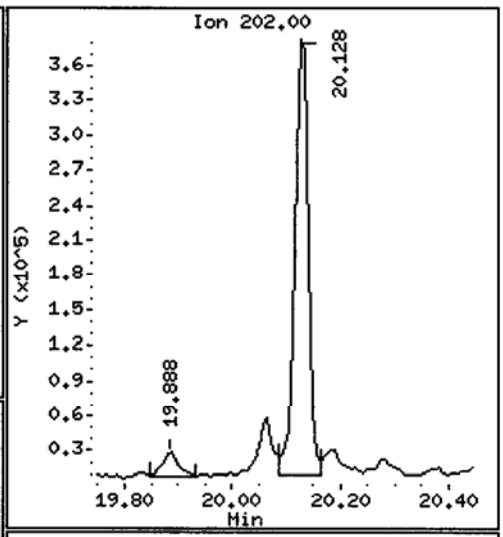
Concentration: 415.9 ug/kg

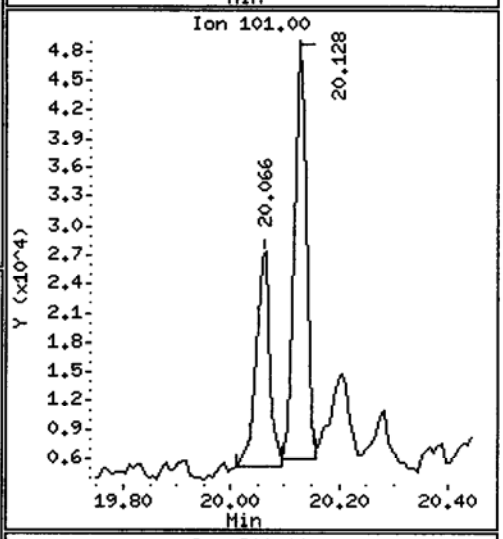


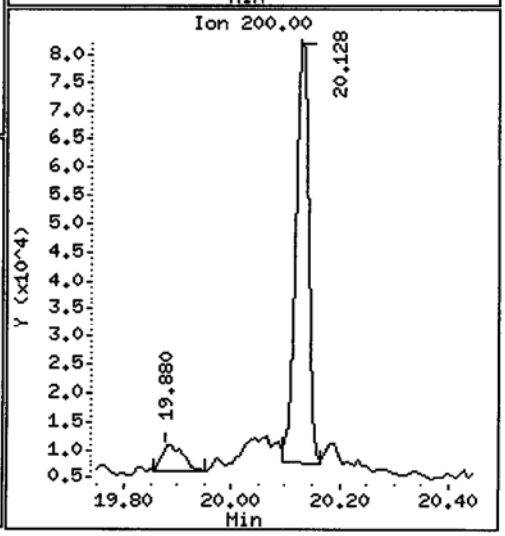












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

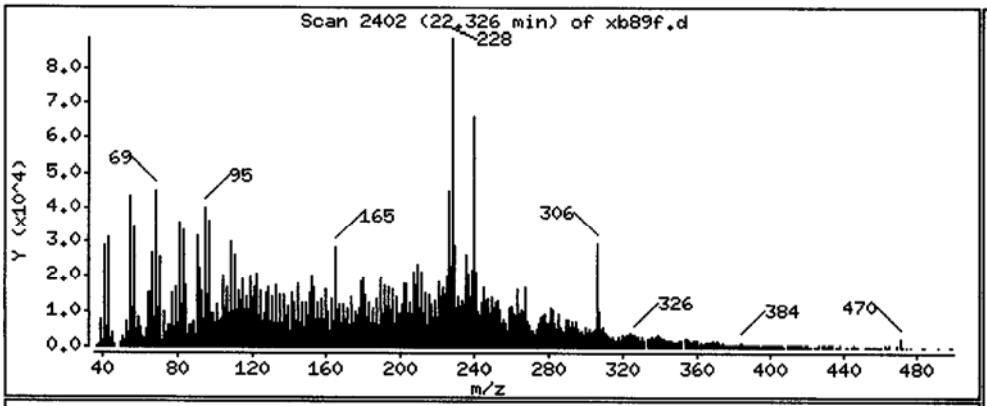
Operator: VTS/YZ

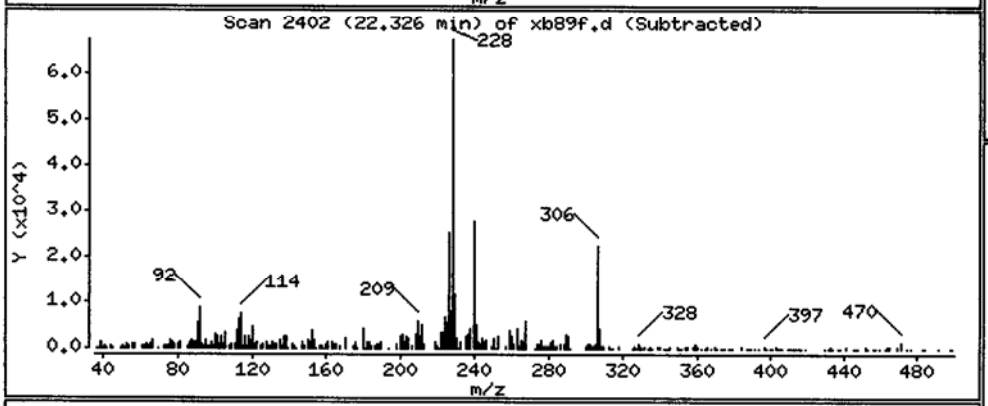
Column phase: ZB-5msi

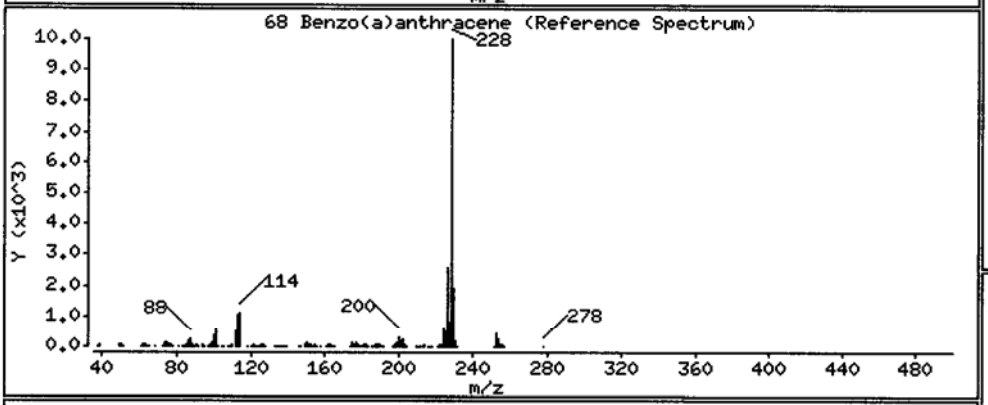
Column diameter: 0.25

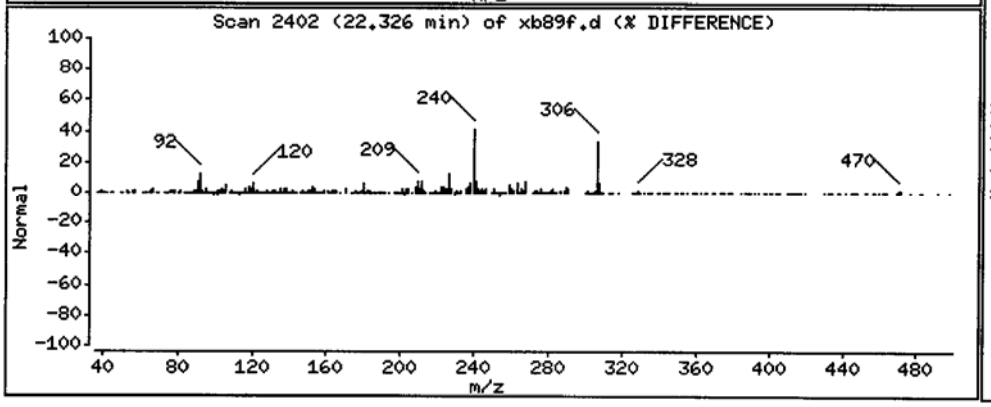
68 Benzo(a)anthracene

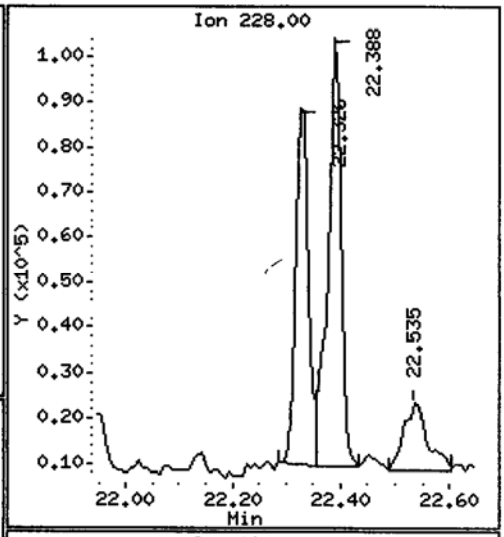
Concentration: 98.90 ug/kg

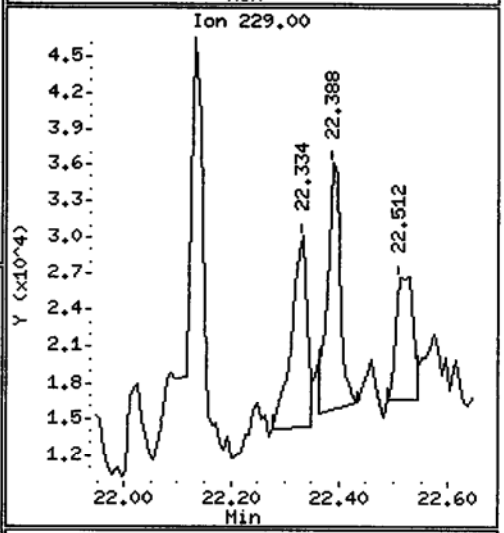


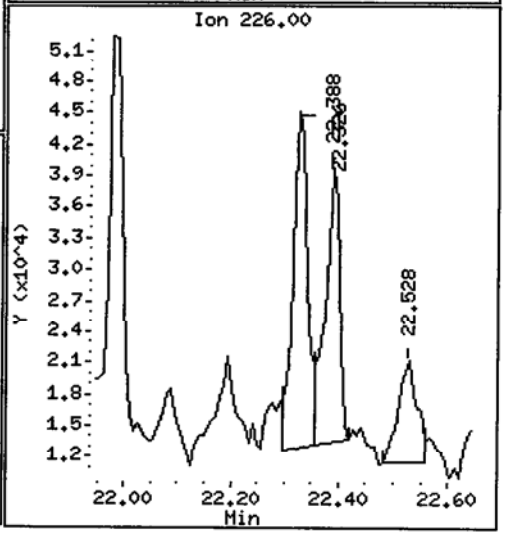












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

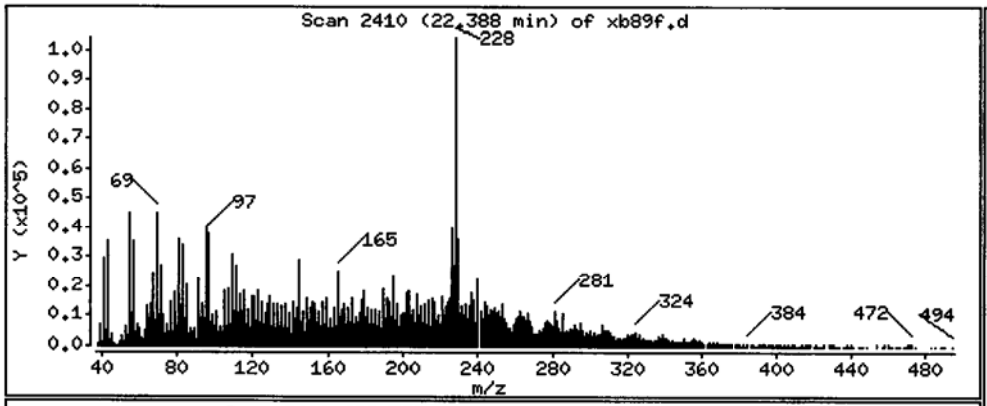
Operator: VTS/YZ

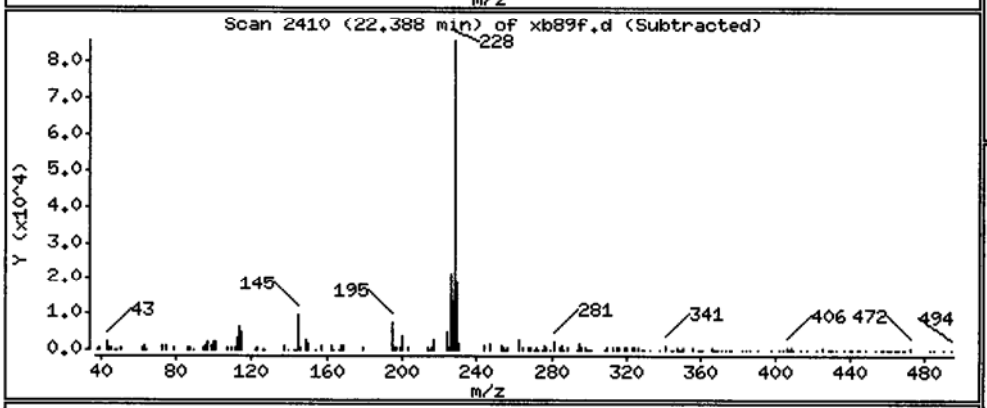
Column phase: ZB-5msi

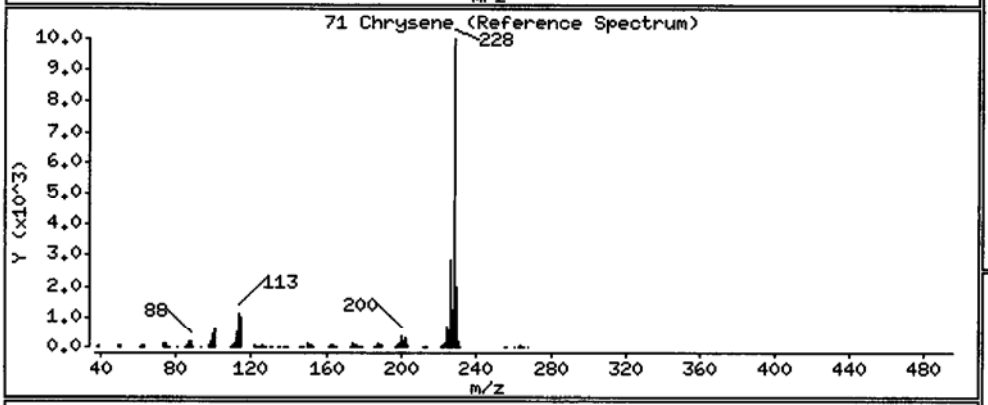
Column diameter: 0.25

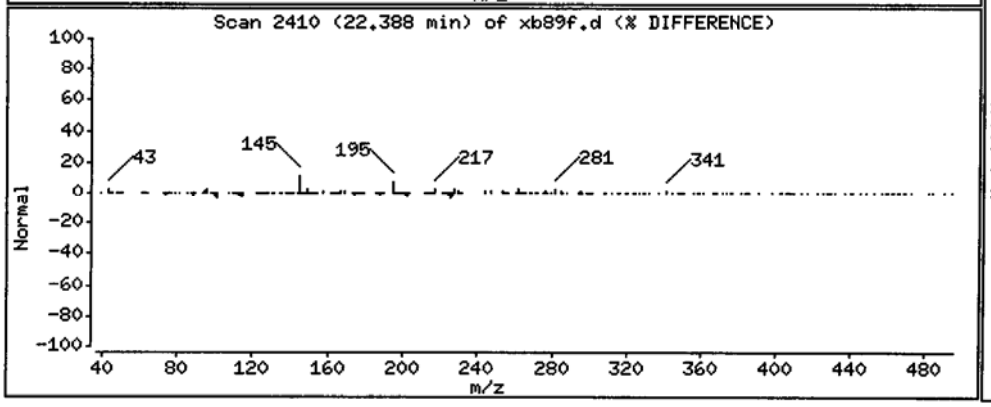
71 Chrysene

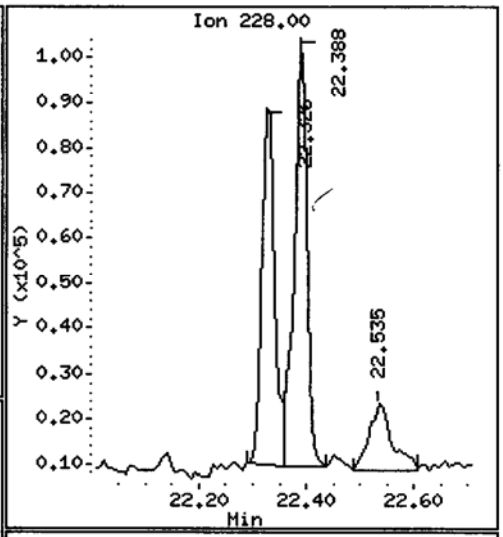
Concentration: 135.0 ug/kg

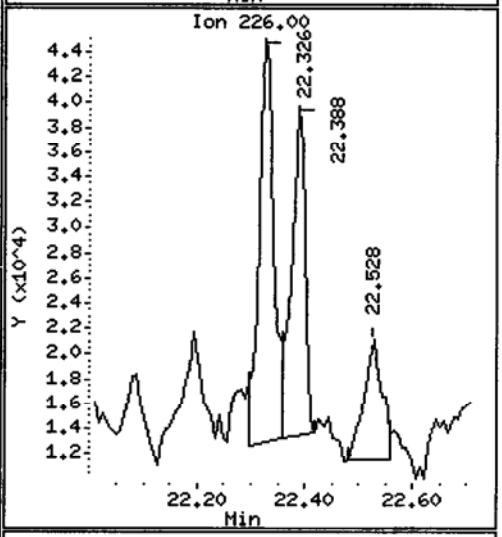


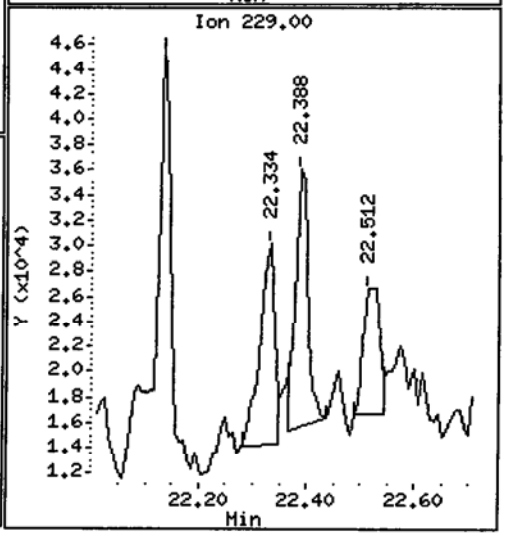












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

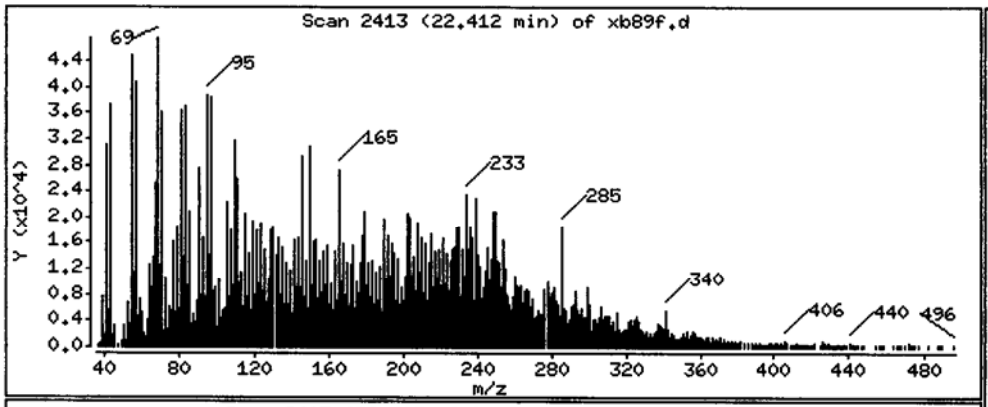
Operator: VTS/YZ

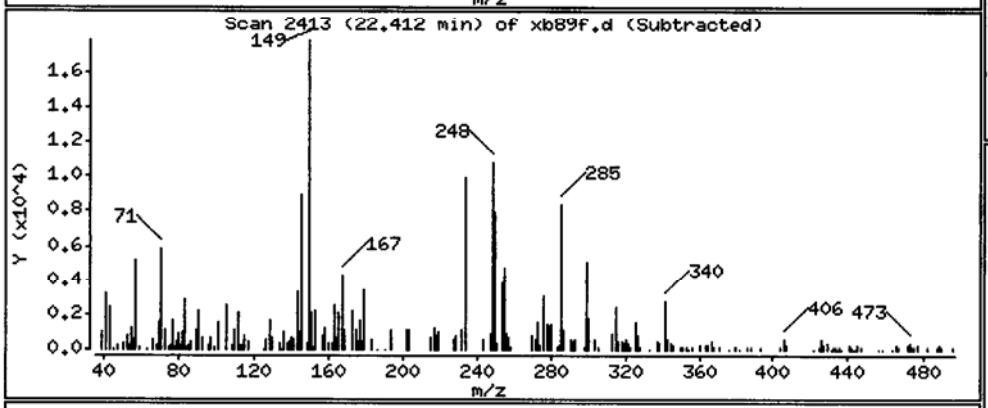
Column phase: ZB-5msi

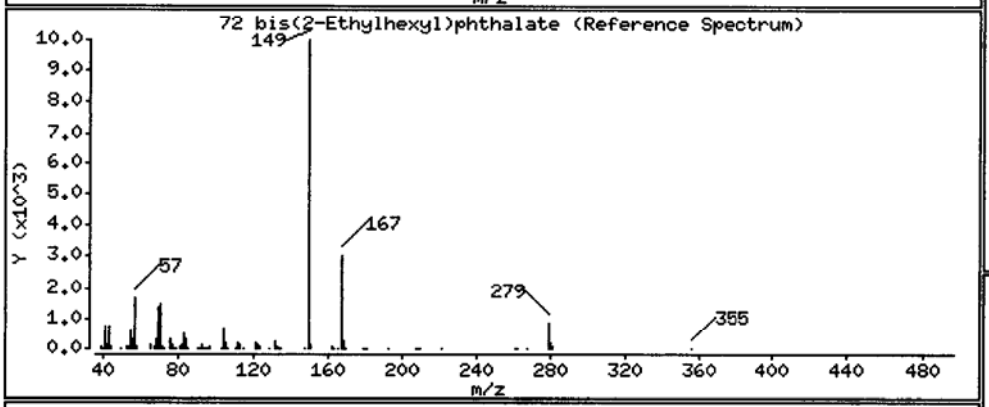
Column diameter: 0.25

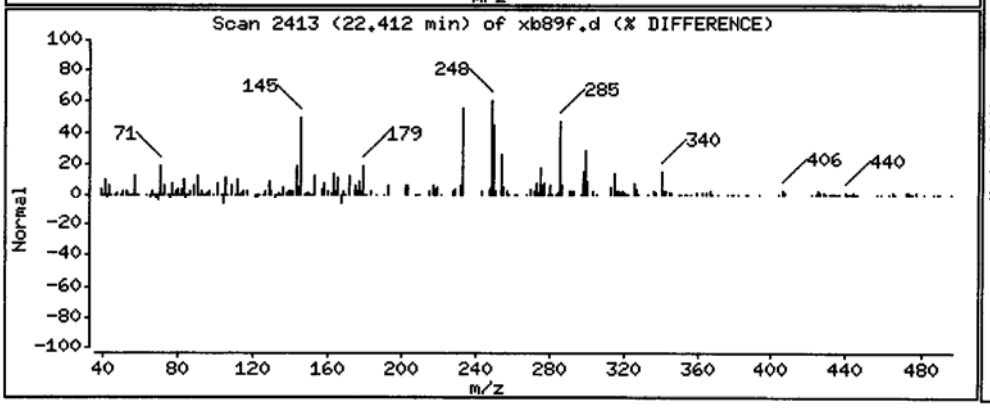
72 bis(2-Ethylhexyl)phthalate

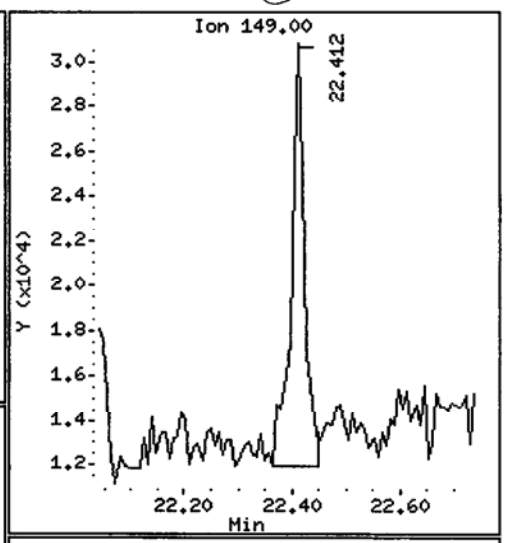
Concentration: 41.37 ug/kg

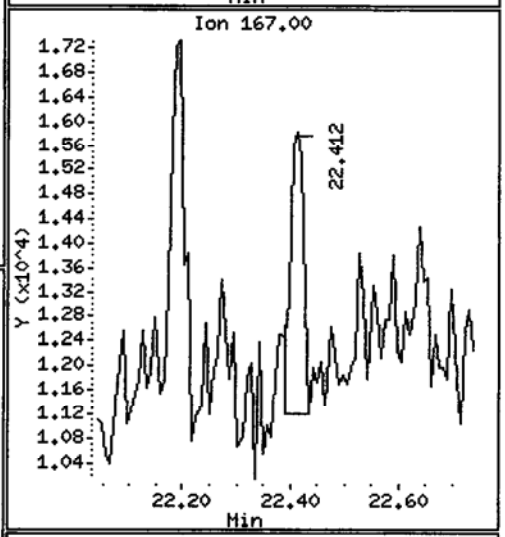


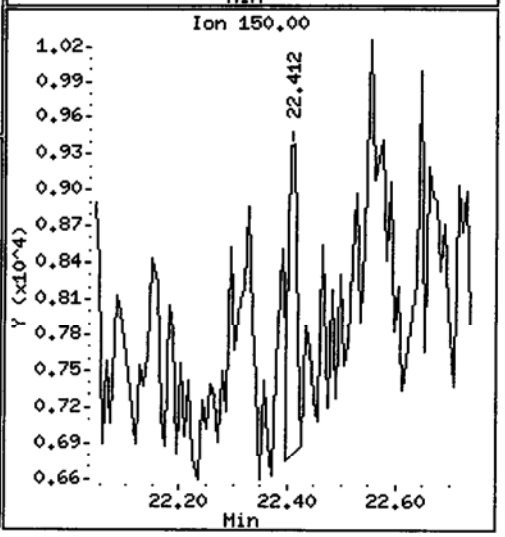












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

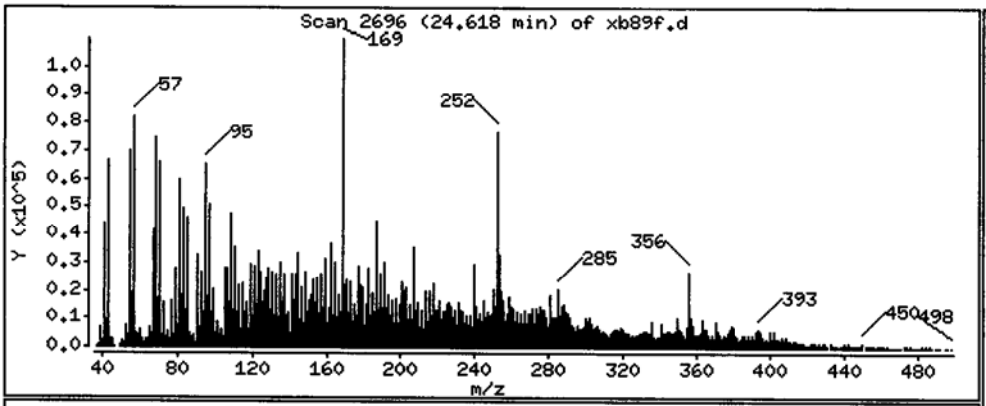
Operator: VTS/YZ

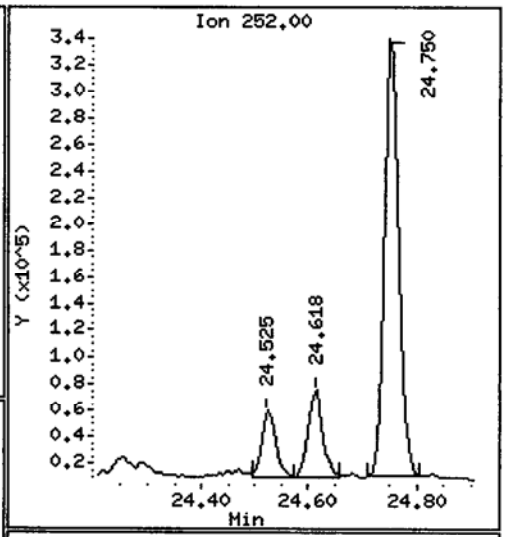
Column phase: ZB-5msi

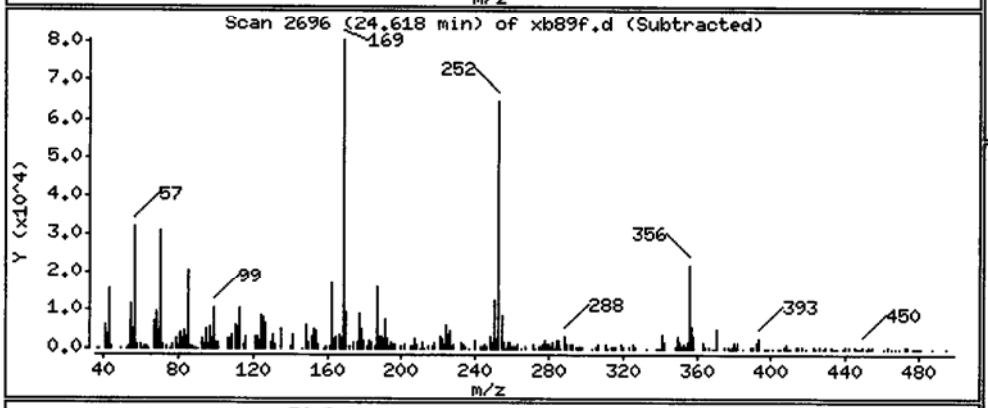
Column diameter: 0.25

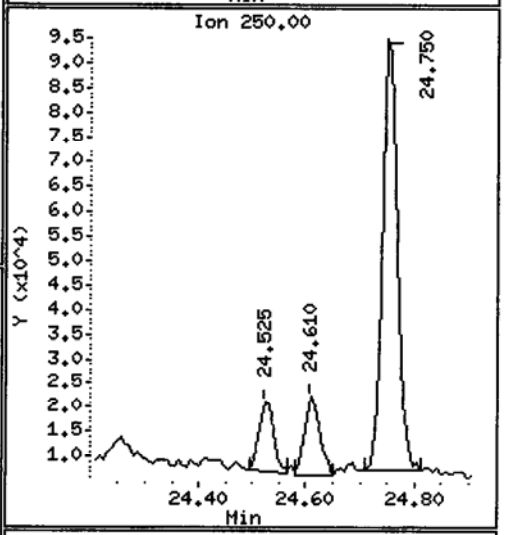
76 Benzo(a)pyrene

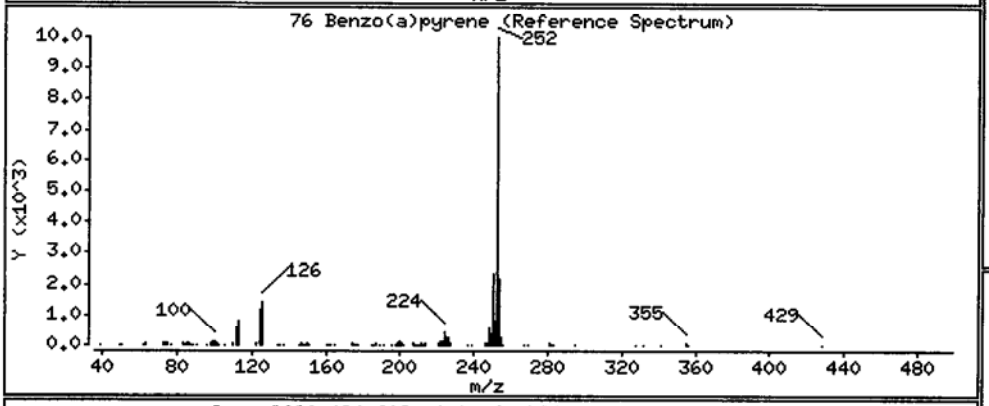
Concentration: 94.51 ug/kg

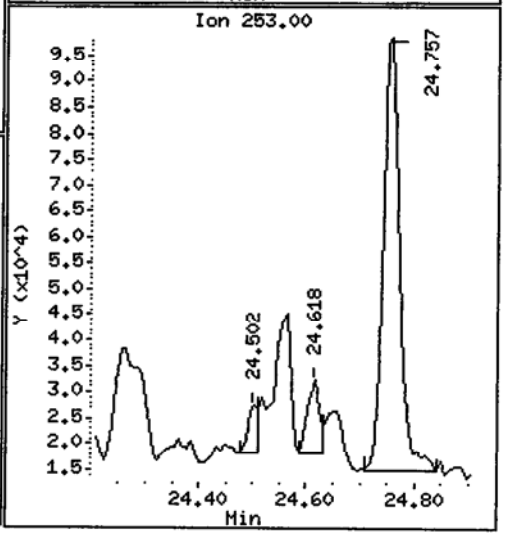


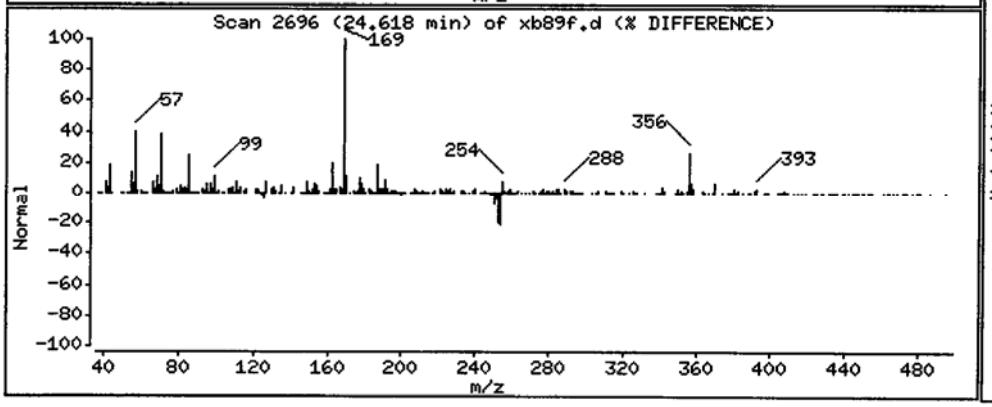












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

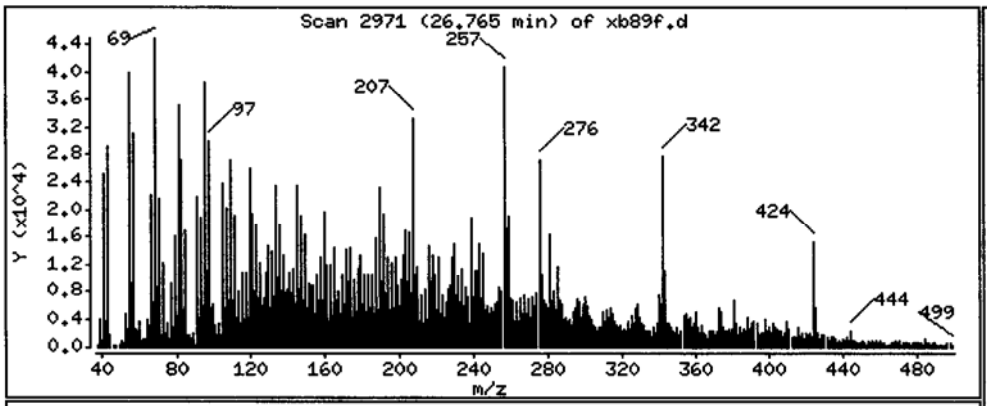
Operator: VTS/YZ

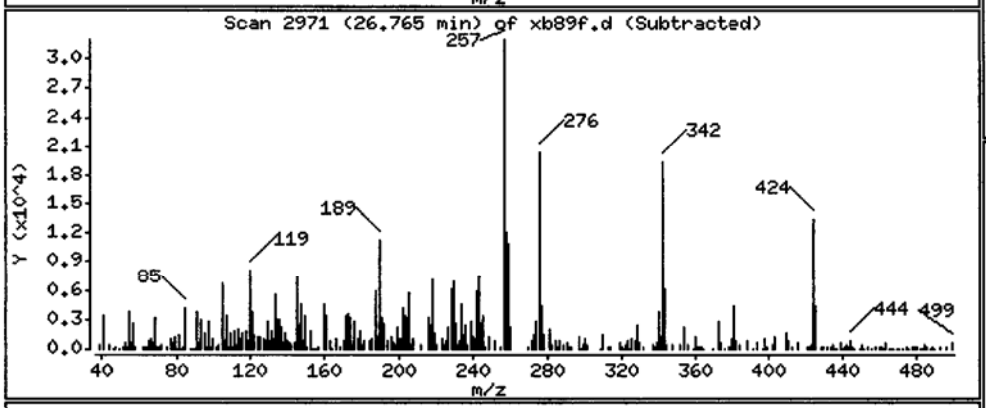
Column phase: ZB-5msi

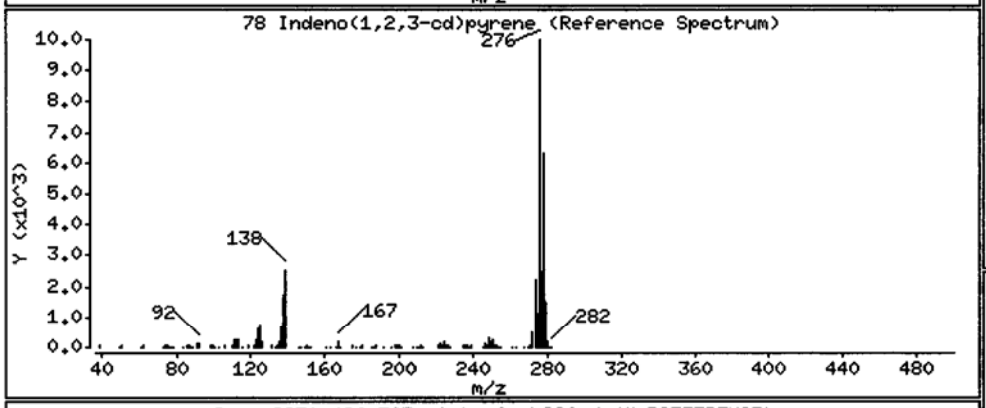
Column diameter: 0.25

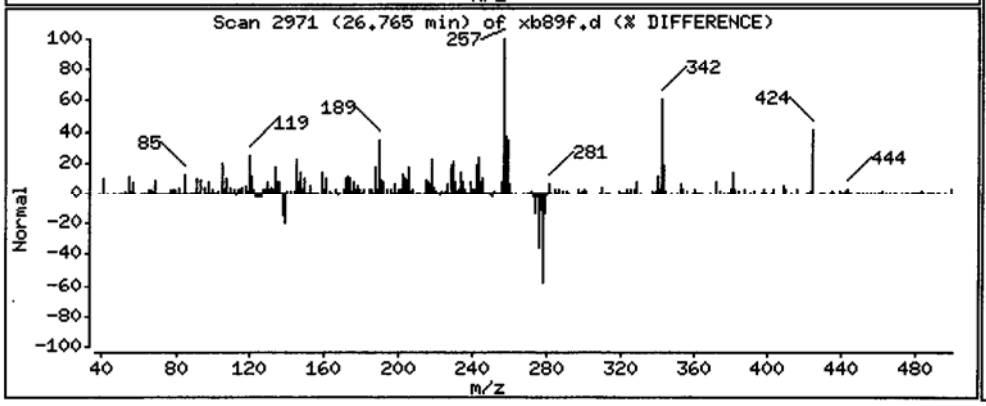
78 Indeno(1,2,3-cd)pyrene

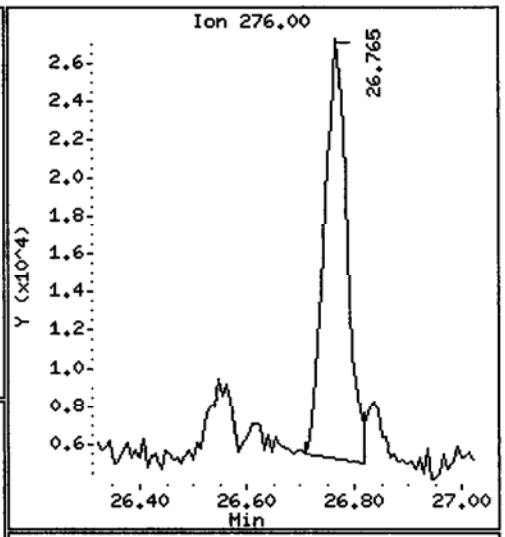
Concentration: 39.39 ug/kg

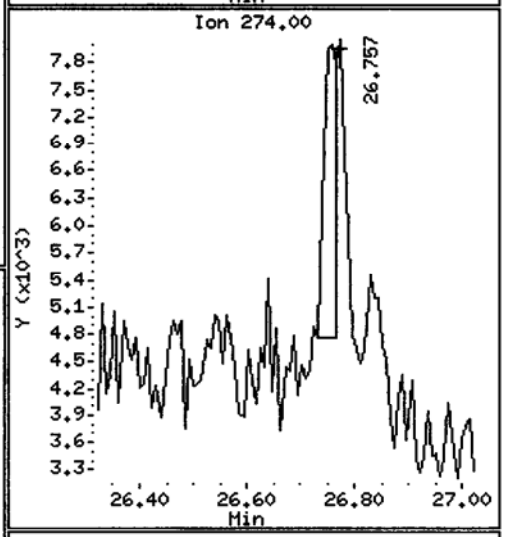


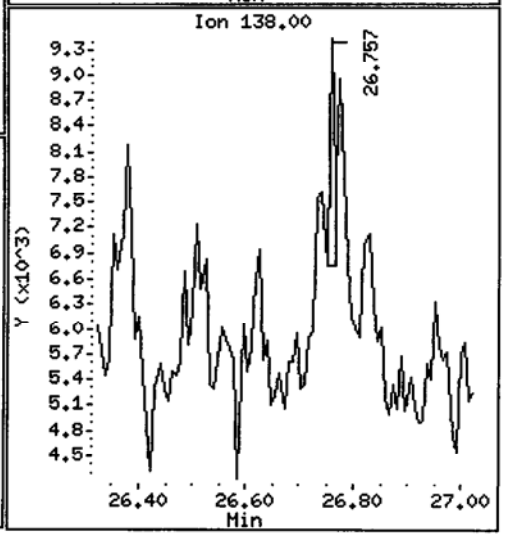












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

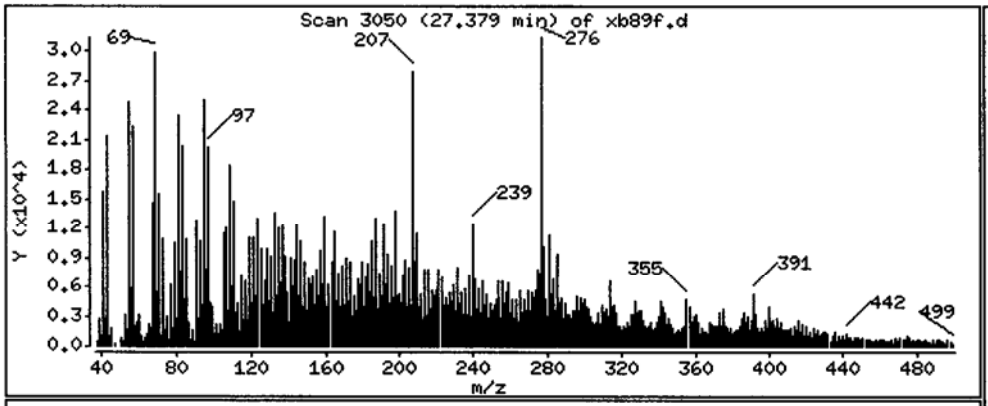
Operator: VTS/YZ

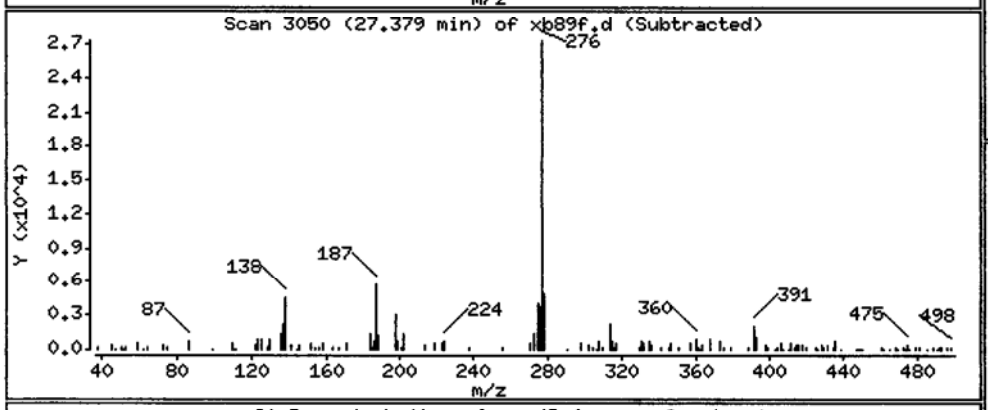
Column phase: ZB-5msi

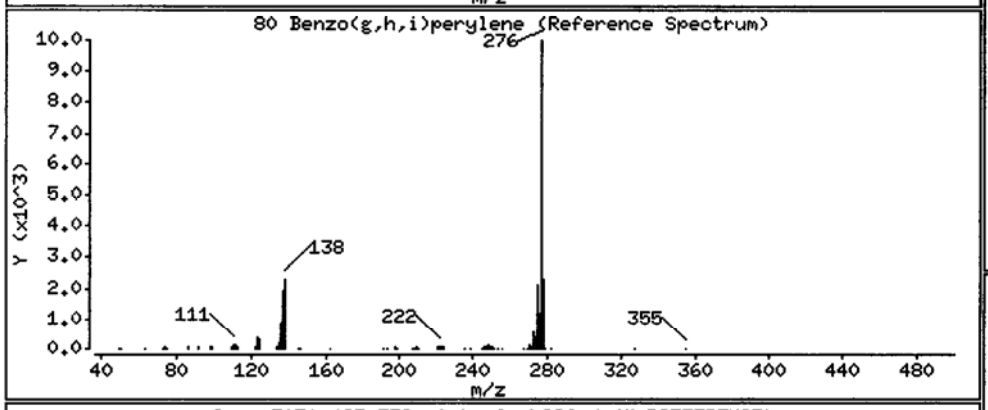
Column diameter: 0.25

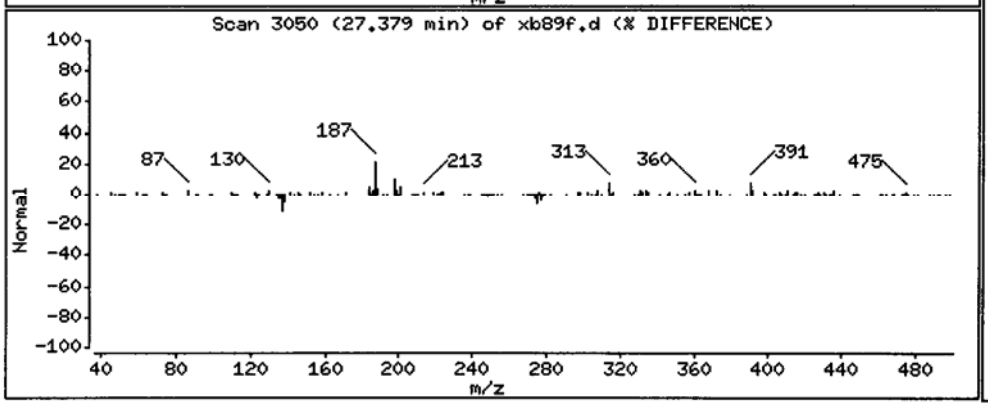
80 Benzo(g,h,i)perylene

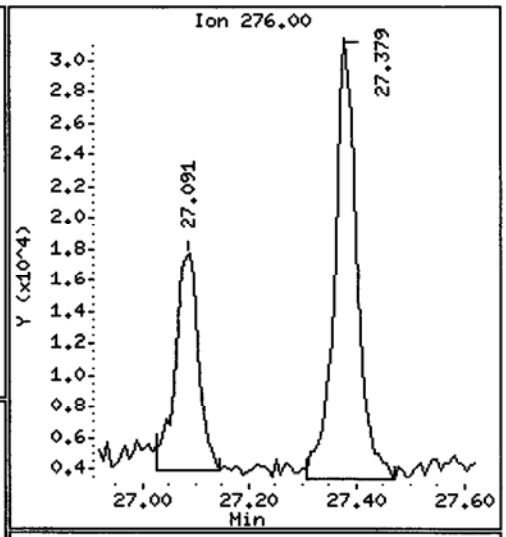
Concentration: 58.68 ug/kg

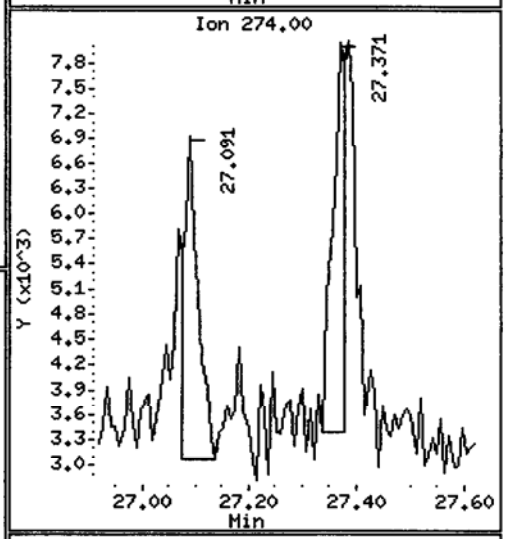


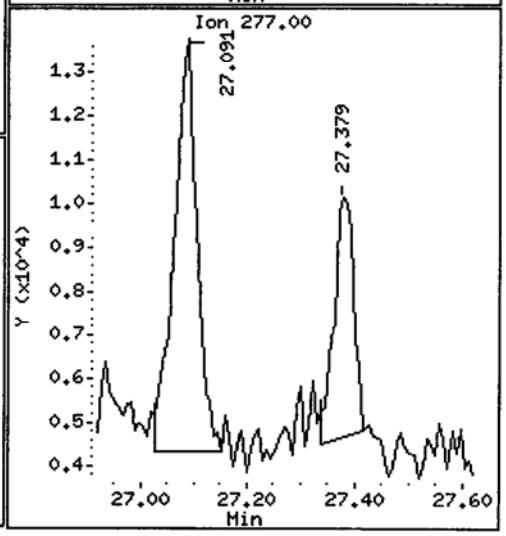












Data File: /chem1/nt10.i/20130903.b/xb89f.d

Date : 03-SEP-2013 13:38

Client ID: IJ13-VC-102-4-5.4

Instrument: nt10.i

Sample Info: XB89F

Volume Injected (uL): 1.0

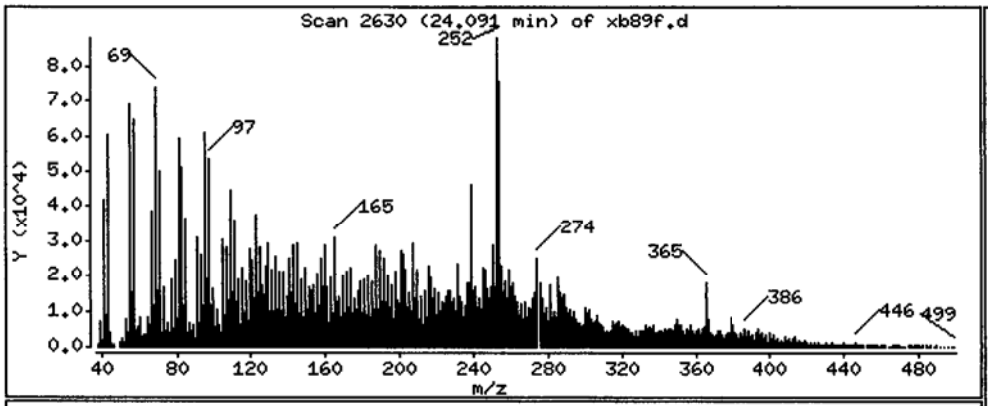
Operator: VTS/YZ

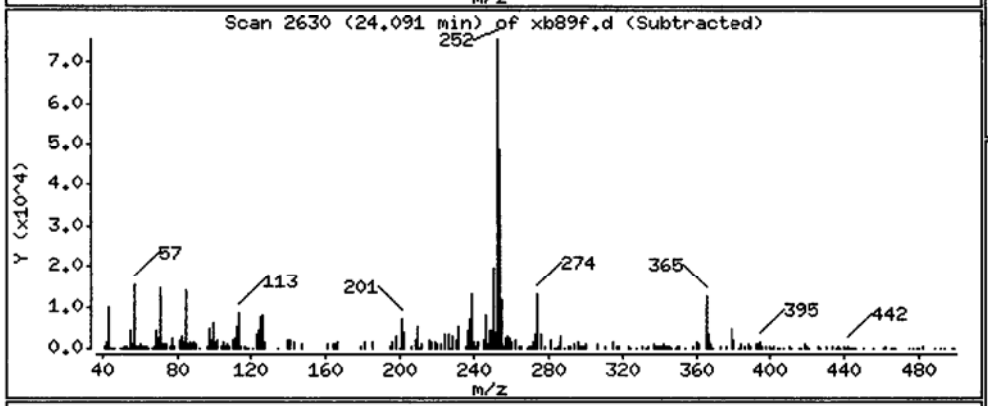
Column phase: ZB-5msi

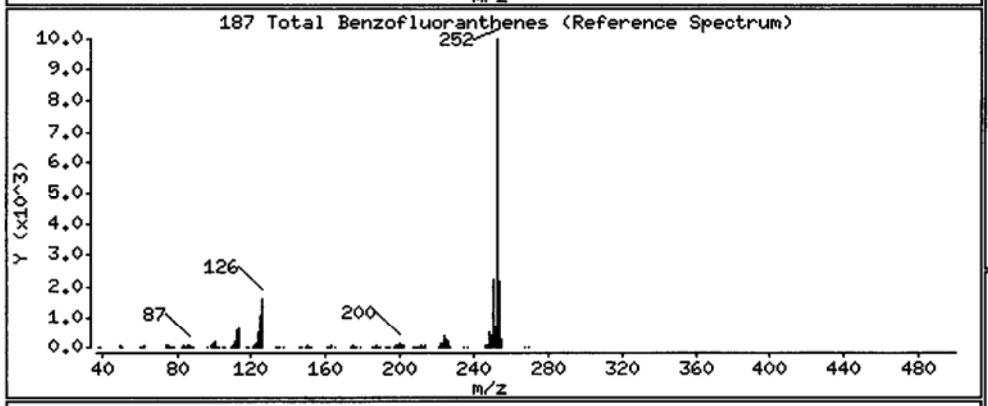
Column diameter: 0.25

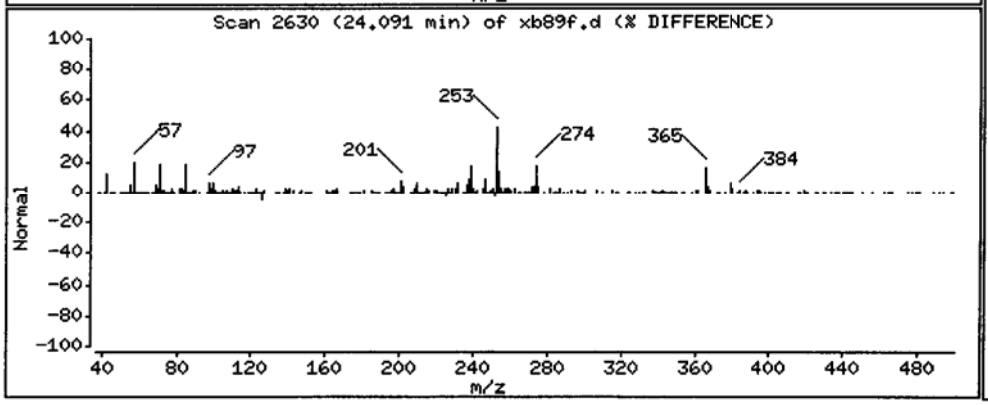
187 Total Benzofluoranthenes

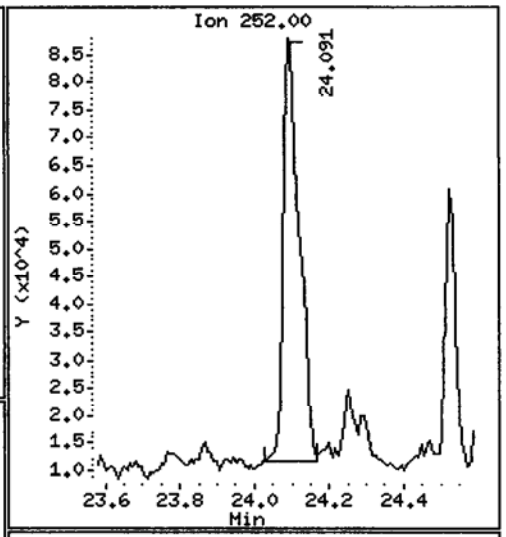
Concentration: 159.2 ug/kg

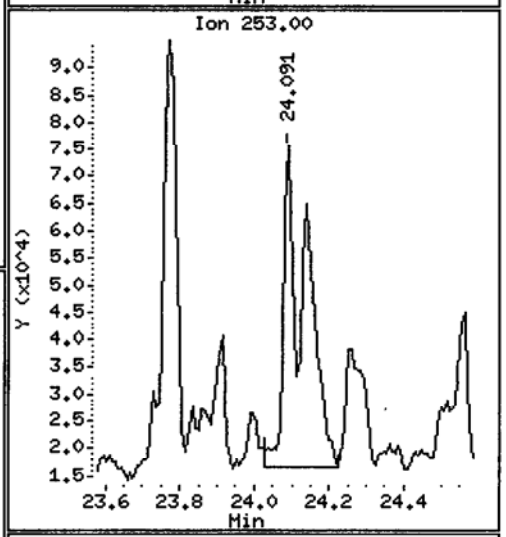


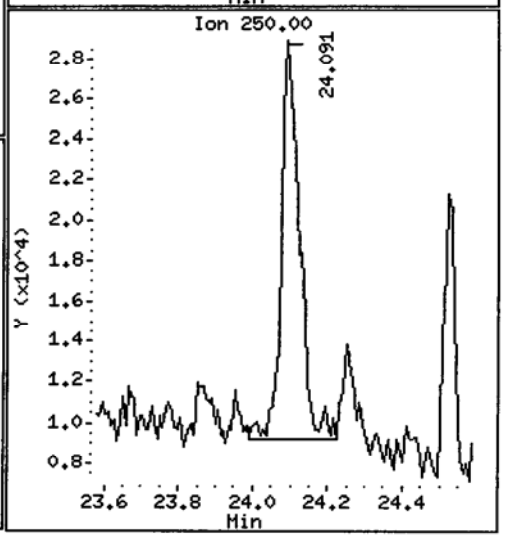






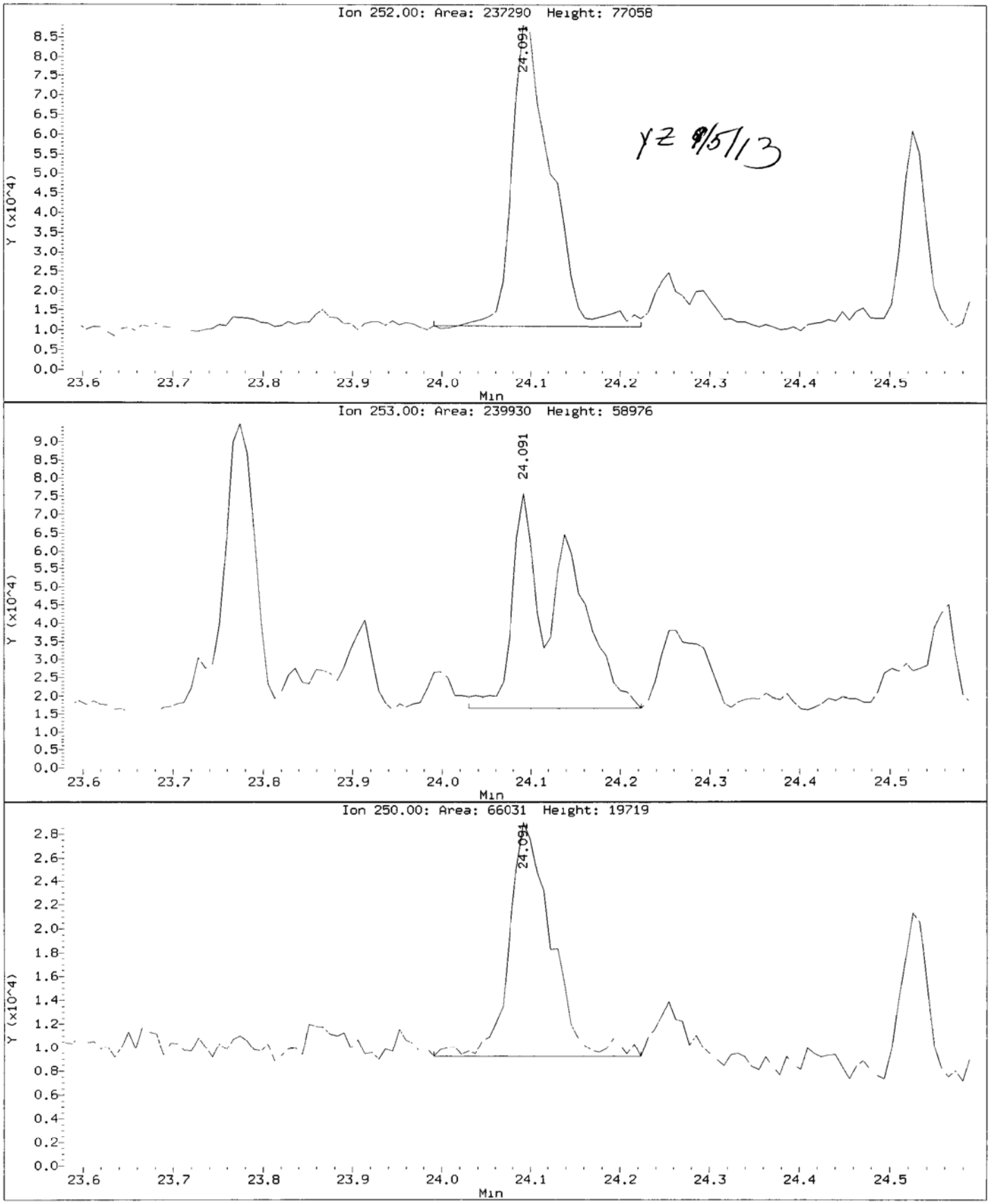






Data File: /chem1/nt10.i/20130903.b/xb89f.d
Injection Date: 03-SEP-2013 13:38
Instrument: nt10.i
Client Sample ID: IJ13-VC-102-4-5.4

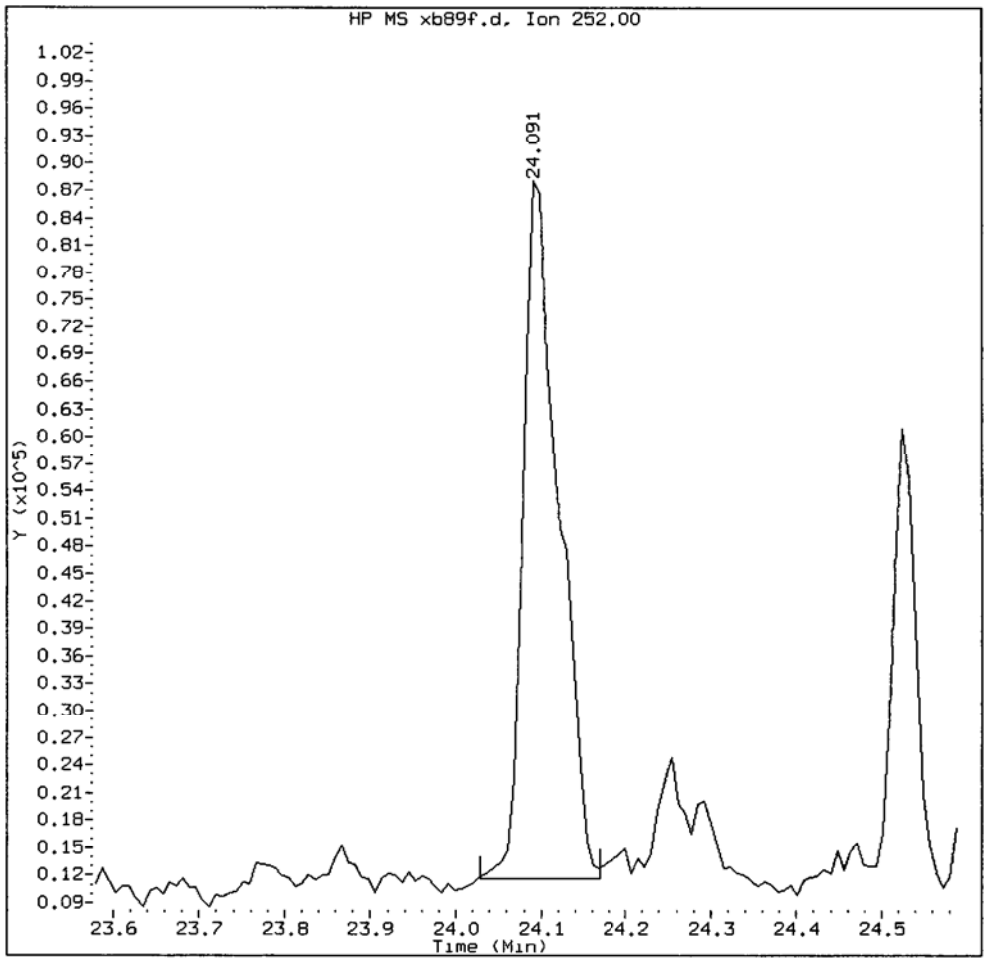
Compound: Total Benzofluoranthenes
CAS Number:



XB89 : 00626

XB89F, /chem1/nt10.i/20130903.b/xb89f.d

Total Benzofluoranthenes Amount: 1.67 Area: 227430



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 9/5/13

CO-ELUTION SUMMARY FOR FILE - xb89f.d

Lab ID: XB89F, Method: ABN.m, Instrument: nt10.i, Date: 03-SEP-2013

RT	CO-ELUTION COMPOUNDS
24.091	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Analytical Resources, Inc.

YZ 9/9/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130903.b/xb89a6.d
Lab Smp Id: XB89A Client Smp ID: IJ13-SS-102
Inj Date : 03-SEP-2013 20:42
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : XB89A,6
Misc Info : 13-17436
Comment : 1ul Injection
Method : /chem1/nt10.i/20130903.b/ABN.m
Meth Date : 05-Sep-2013 15:19 yev Quant Type: ISTD
Cal Date : 03-SEP-2013 11:53 Cal File: cc0903.d
Als bottle: 17
Dil Factor: 6.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	6.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	21.30000	Weight of sample extracted (g)
M	52.30000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	6.005	5.974	(0.732)	57721	1.44999	856.3
$	2 Phenol-d5	99	7.605	7.574	(0.926)	75242	1.41148	833.5
	3 Phenol	94	7.628	7.597	(0.929)	29264	0.50354	297.4
$	5 2-Chlorophenol-d4	132	7.821	7.806	(0.953)	66447	1.52734	902.0(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.208	8.200	(1.000)	143609	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.487	8.480	(1.034)	22719	0.73506	434.1
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	8.720	8.689	(1.062)	8412	0.21377	126.2
	17 Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	9.008	8.984	(1.097)	87019	2.11030	1246
$ 18	Nitrobenzene-d5	82	9.248	9.240	(0.870)	30514	0.72815	430.0
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	10.013	9.998	(0.942)	15421	0.37089	219.0
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	10.190	10.267	(0.959)	23579	0.90679	535.5(H)
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.630	10.622	(1.000)	526510	4.00000	
28	Naphthalene	128	10.676	10.668	(1.004)	396069	3.42851	2025
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	142	12.061	12.053	(1.135)	122977	1.42282	840.2
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	12.820	12.804	(0.904)	81902	0.81486	481.2
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	13.663	13.648	(0.964)	21008	0.24778	146.3
40	Acenaphthylene	152	13.888	13.872	(0.980)	33872	0.26700	157.7
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	14.174	14.158	(1.000)	319499	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	14.243	14.228	(1.005)	265700	3.52185	2080
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	14.599	14.584	(1.030)	381898	3.33262	1968
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	Compound Not Detected.					
49	Fluorene	166	15.303	15.287	(1.080)	274360	2.94953	1742
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	15.565	15.550	(0.906)	16485	0.26064	153.9
$ 55	2,4,6-Tribromophenol	330	15.812	15.781	(1.116)	30591	1.58973	938.8
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	17.226	17.203	(1.000)	510375	4.00000	(H)
60	Phenanthrene	178	17.273	17.250	(1.005)	1385729	12.3650	7302(H)
61	Anthracene	178	17.373	17.358	(1.011)	244193	2.05092	1211
62	Carbazole	167	17.737	17.722	(1.032)	43794	0.58258	344.0
63	Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	64 Fluoranthene	202	19.710	19.664	(1.147)	2660177	19.0006	11220
	65 Pyrene	202	20.135	20.097	(0.901)	2226204	14.7489	8710
$	66 Terphenyl-d14	244	20.445	20.422	(0.915)	74121	0.87323	515.7
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	22.319	22.296	(0.999)	521072	4.02098	2375
*	69 Chrysene-d12	240	22.342	22.311	(1.000)	517043	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	22.388	22.358	(1.002)	667747	5.94341	3510
	72 bis(2-Ethylhexyl)phthalate	149	22.404	22.389	(0.955)	162378	2.14961	1269
*	134 Di-n-octylphthalate-d4	153	23.457	23.441	(1.000)	664385	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	24.076	24.045	(0.976)	373614	2.87781	1699
	75 Benzo(k)fluoranthene	252	24.115	24.084	(0.977)	158617	1.12846	666.4
	76 Benzo(a)pyrene	252	24.587	24.556	(0.996)	171982	1.41665	836.6
*	77 Perylene-d12	264	24.680	24.649	(1.000)	540621	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	26.726	26.672	(1.083)	64676	0.43609	257.5
	79 Dibenzo(a,h)anthracene	278	26.742	26.703	(1.084)	18415	0.15736 J	92.93
	80 Benzo(g,h,i)perylene	276	27.332	27.270	(1.107)	55207	0.42914	253.4
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	12.262	12.247	(1.154)	109945	1.41227	834.0
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	24.076	24.084	(0.976)	500674	3.82517	2259
	99 Perylene	252	24.727	24.696	(1.002)	78218	0.68729	405.9
	98 Retene	219	20.693	20.670	(0.926)	90085	1.55773	919.9
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: xb89a6.d
Lab Smp Id: XB89A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130903.b/ABN.m
Misc Info: 13-17436

Calibration Date: 03-SEP-2013
Calibration Time: 11:53
Client Smp ID: IJ13-SS-102
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	152867	76434	305734	143609	-6.06
27 Naphthalene-d8	536851	268426	1073702	526510	-1.93
42 Acenaphthene-d10	348566	174283	697132	319499	-8.34
59 Phenanthrene-d10	633376	316688	1266752	510375	-19.42
69 Chrysene-d12	651036	325518	1302072	517043	-20.58
134 Di-n-octylphthala	837259	418630	1674518	664385	-20.65
77 Perylene-d12	696727	348364	1393454	540621	-22.41

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.20	7.70	8.70	8.21	0.09
27 Naphthalene-d8	10.62	10.12	11.12	10.63	0.07
42 Acenaphthene-d10	14.16	13.66	14.66	14.17	0.11
59 Phenanthrene-d10	17.20	16.70	17.70	17.23	0.13
69 Chrysene-d12	22.31	21.81	22.81	22.34	0.14
134 Di-n-octylphthala	23.44	22.94	23.94	23.46	0.07
77 Perylene-d12	24.65	24.15	25.15	24.68	0.13

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: XB89
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: XB89A Client Smp ID: IJ13-SS-102
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130903.b/ABN.m
Misc Info: 13-17436

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	738.2	856.3	116.00	27-120
$ 2 Phenol-d5	738.2	833.5	112.92	29-120
$ 5 2-Chlorophenol-d4	738.2	902.0	122.19*	31-120
$ 10 1,2-Dichlorobenzen	492.1	434.1	88.21	32-120
$ 18 Nitrobenzene-d5	492.1	430.0	87.38	30-120
$ 36 2-Fluorobiphenyl	492.1	481.2	97.78	35-120
$ 55 2,4,6-Tribromophen	738.2	938.8	127.18	24-134
$ 66 Terphenyl-d14	492.1	515.7	104.79	37-120

Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Sample Info: XB89A,6

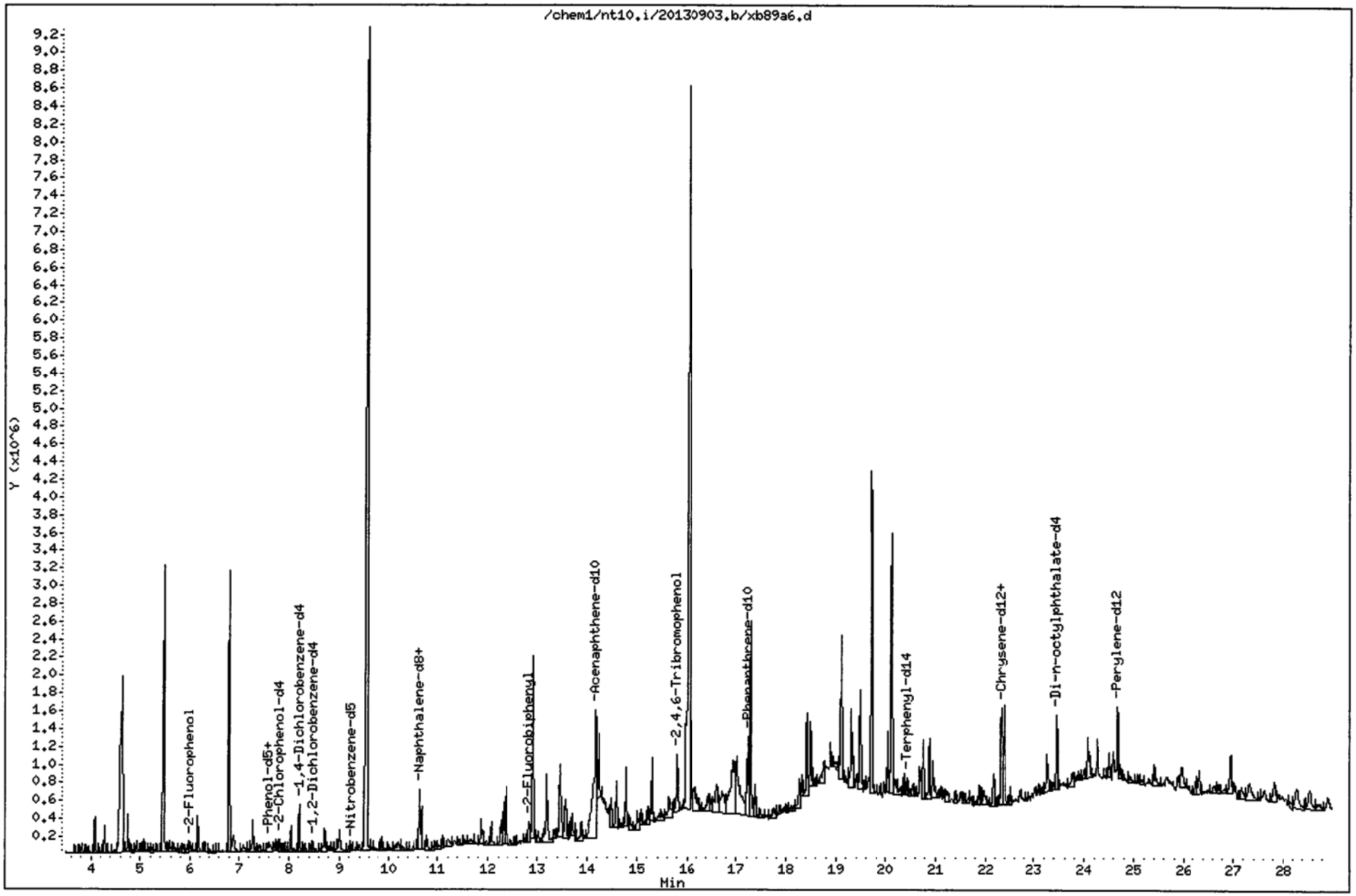
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25



XB89:00634

Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

Operator: VTS/YZ

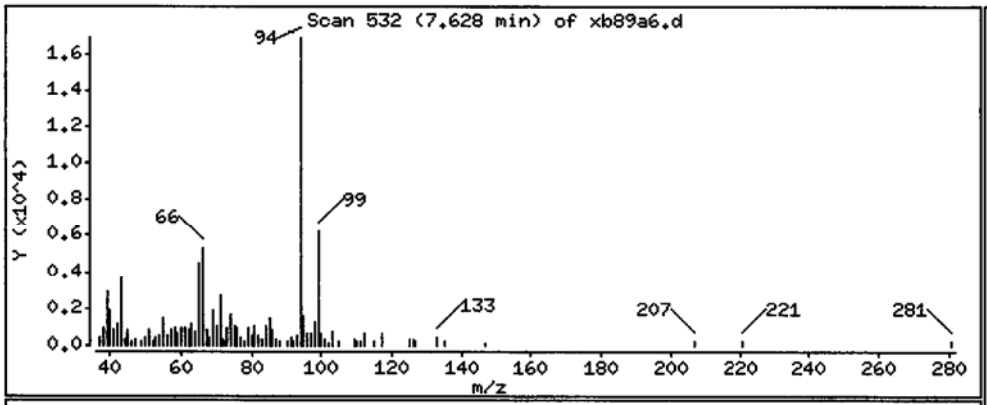
Column phase: ZB-5msi

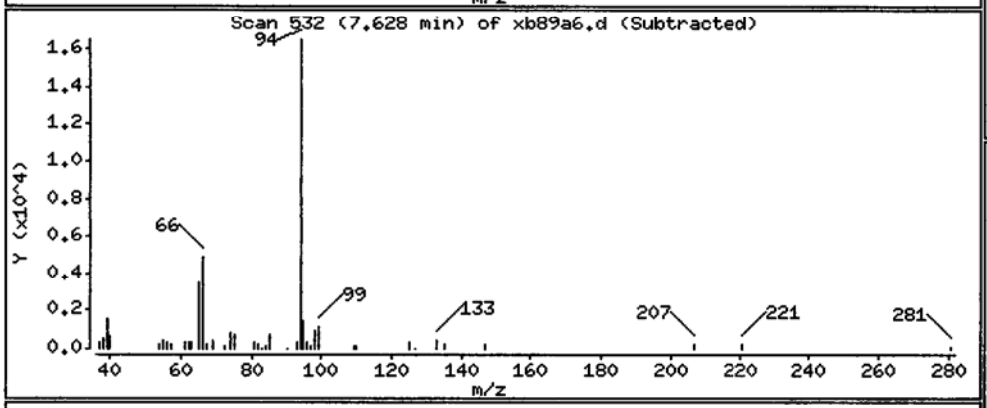
Column diameter: 0.25

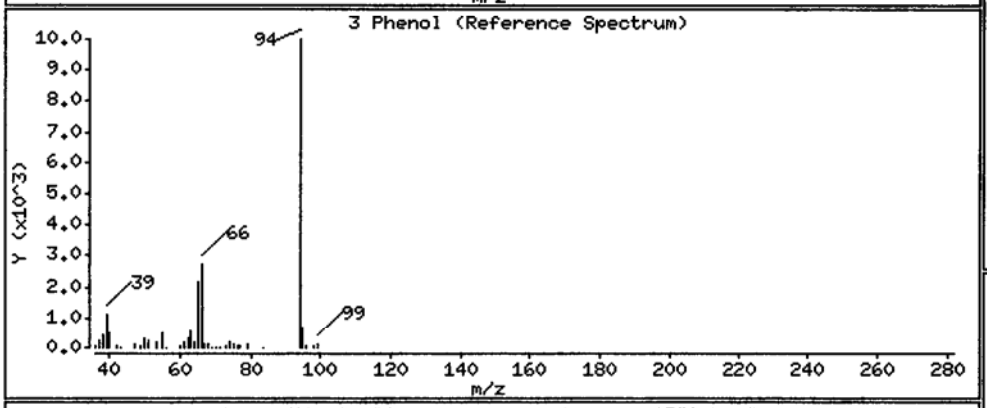
B

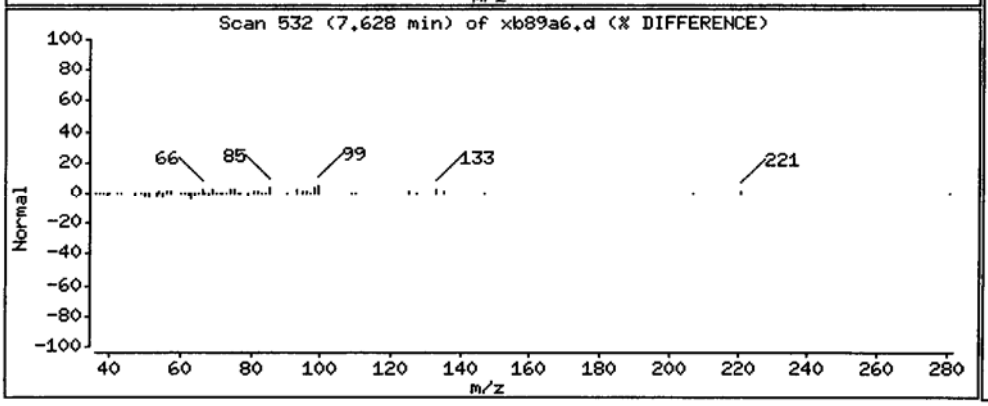
3 Phenol

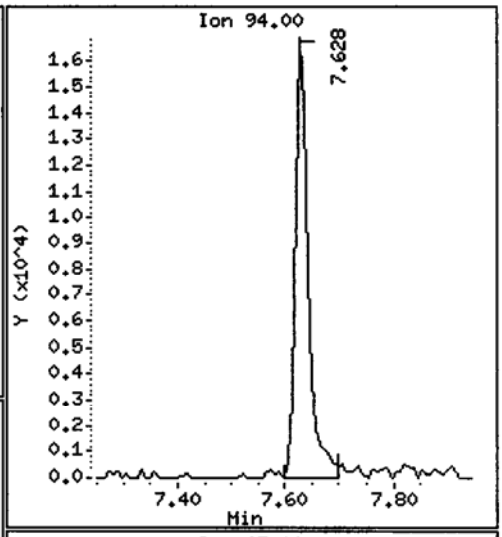
Concentration: 297.4 ug/kg

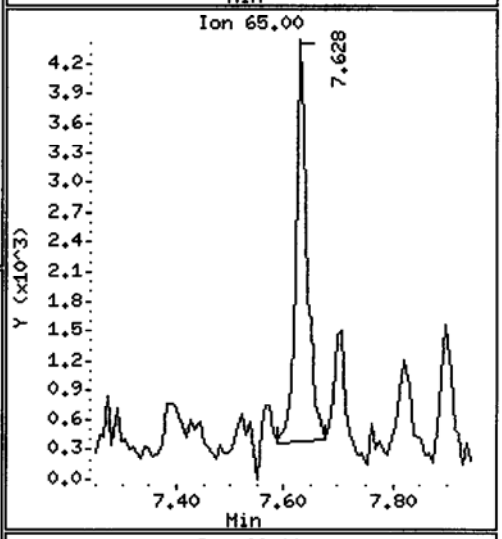


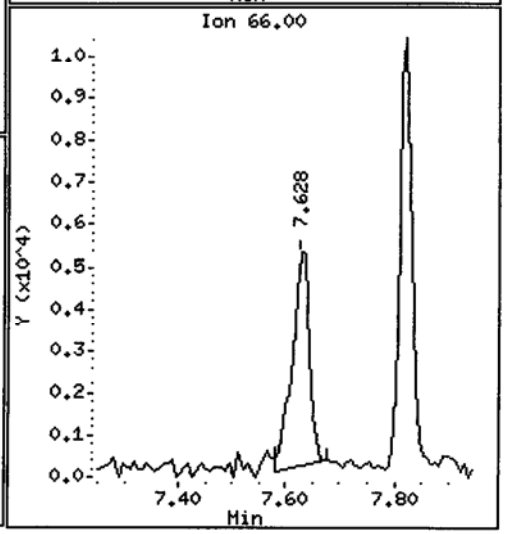












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

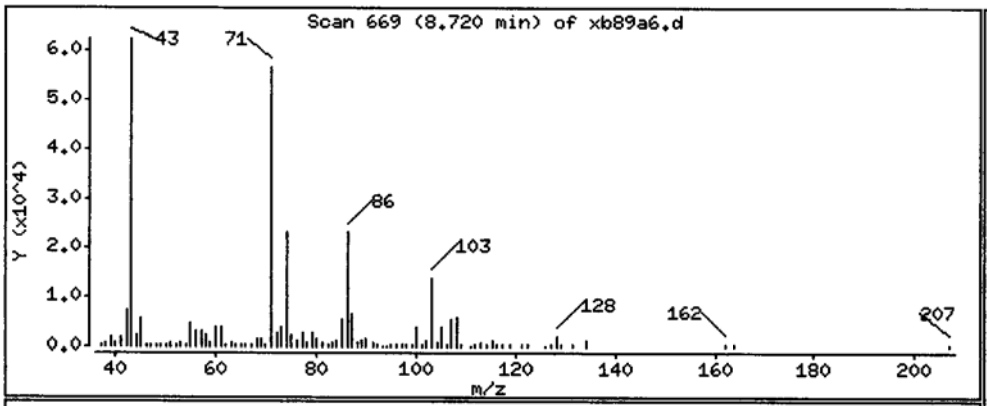
Operator: VTS/YZ

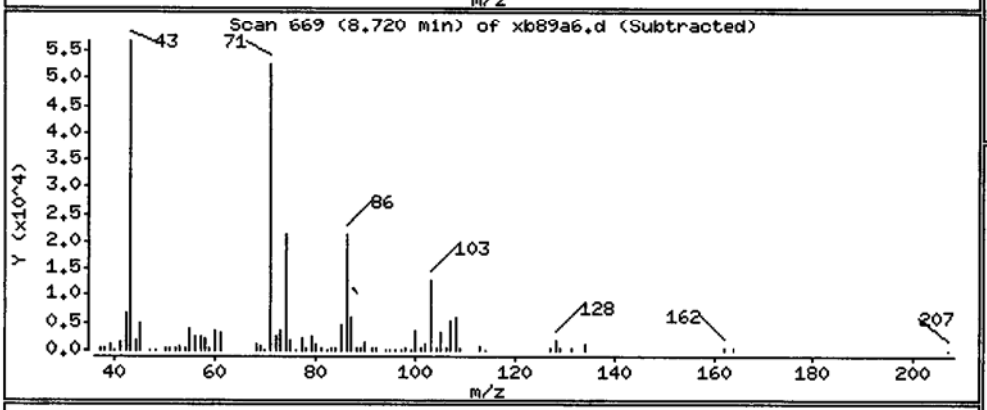
Column phase: ZB-5msi

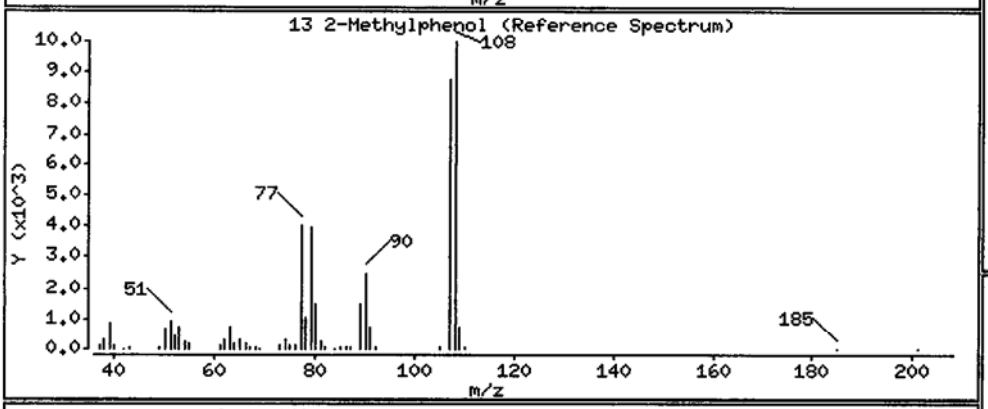
Column diameter: 0.25

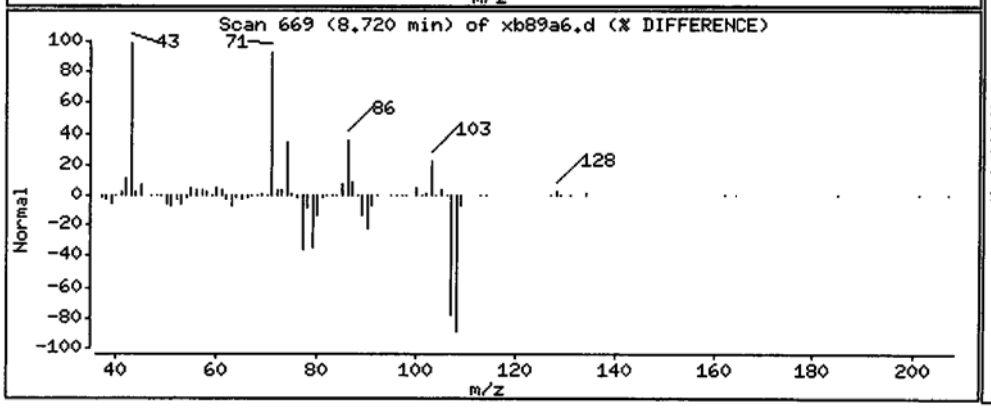
13 2-Methylphenol

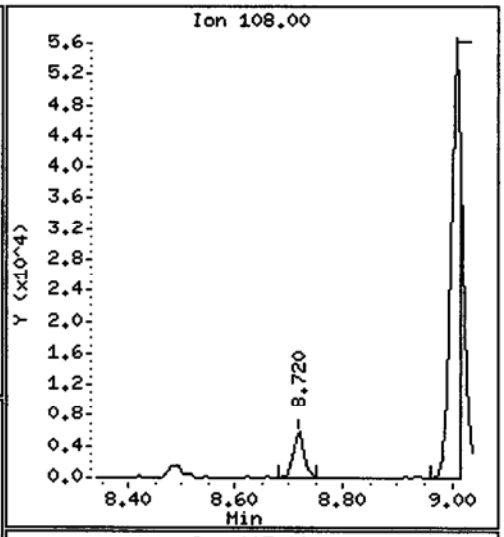
Concentration: 126.2 ug/kg

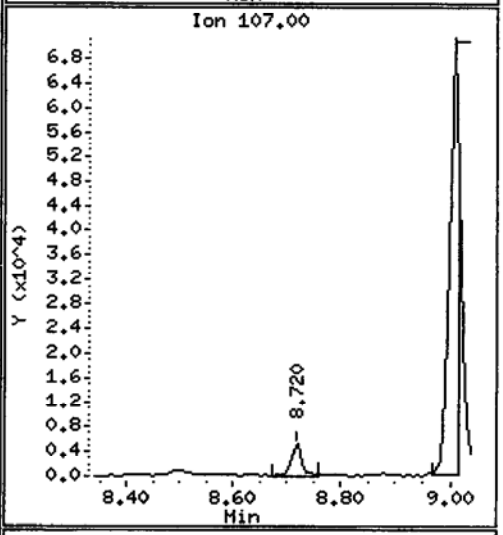


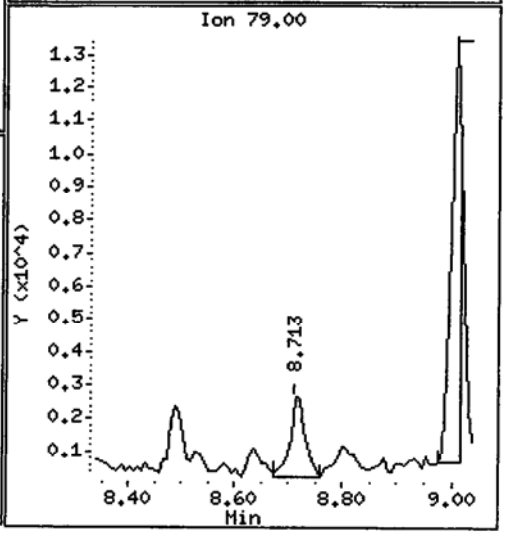












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

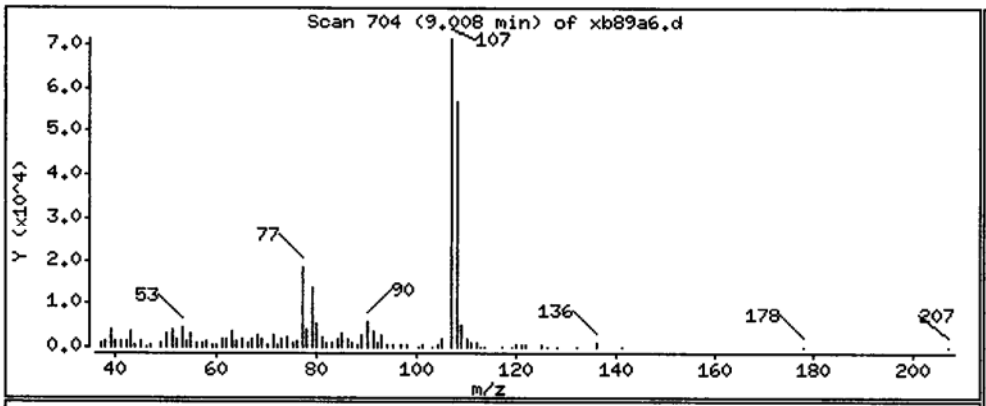
Operator: VTS/YZ

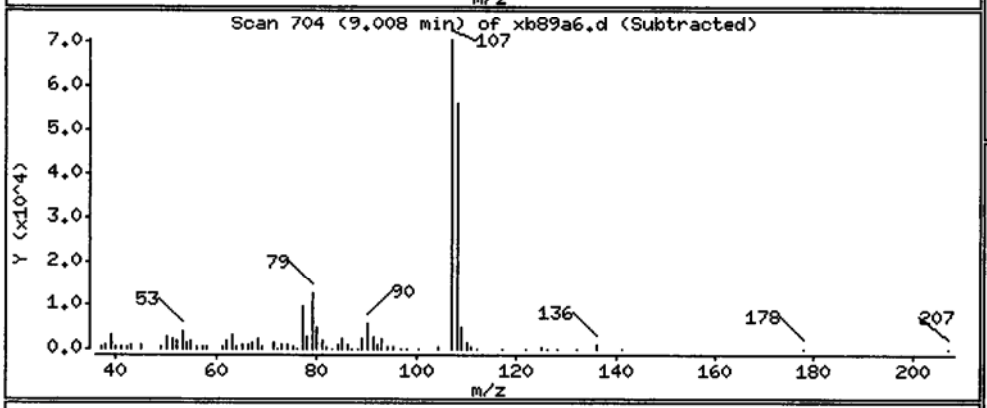
Column phase: ZB-5msi

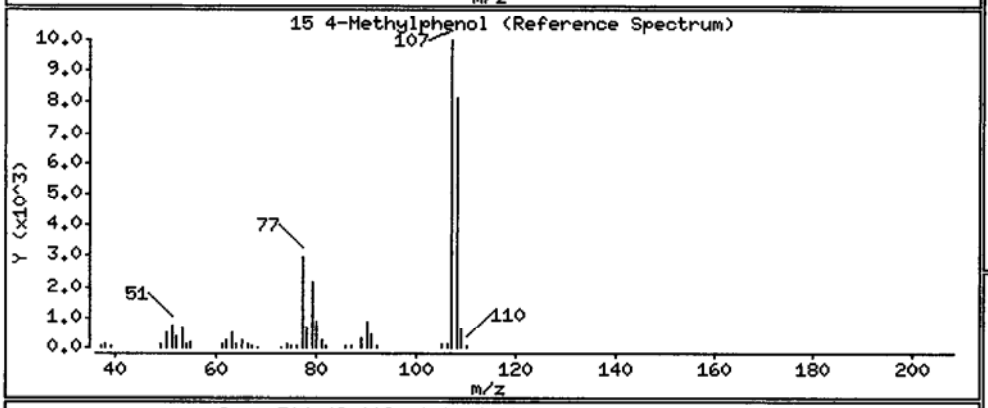
Column diameter: 0.25

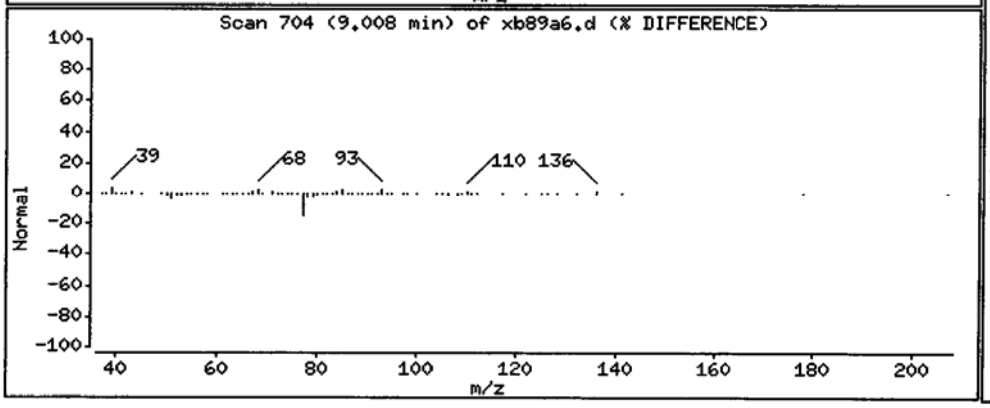
15 4-Methylphenol

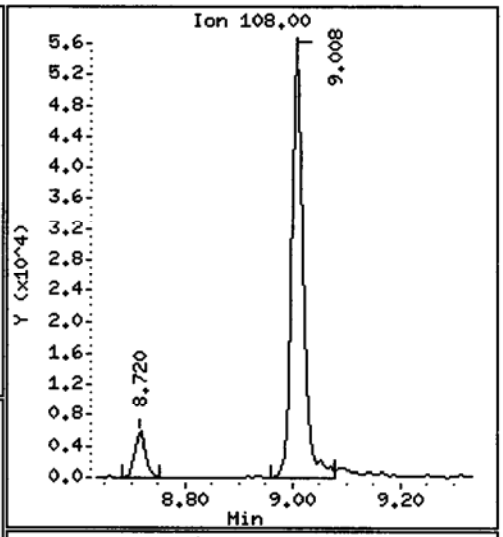
Concentration: 1246 ug/kg

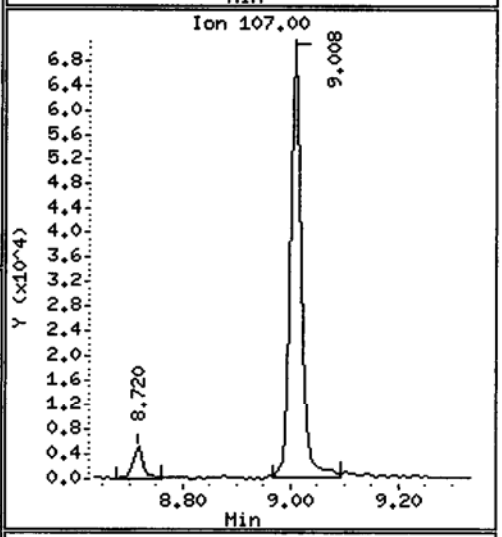


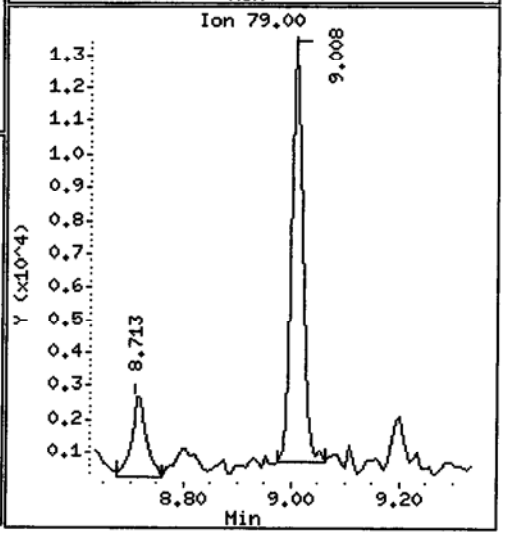












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

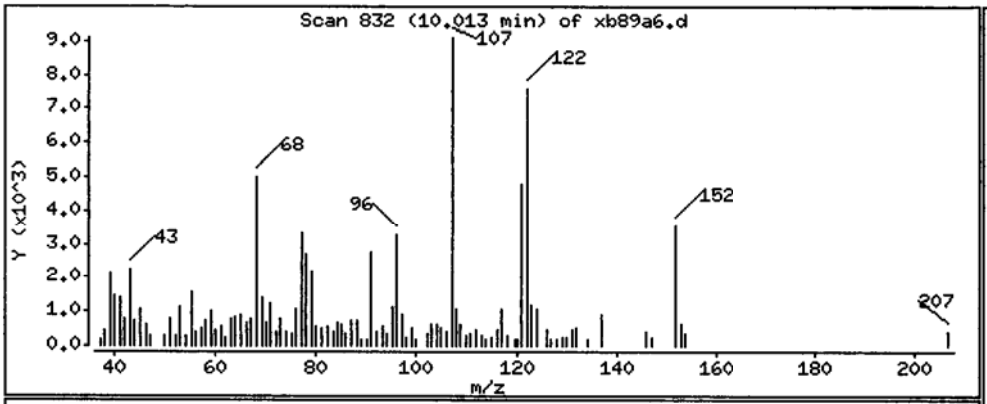
Operator: VTS/YZ

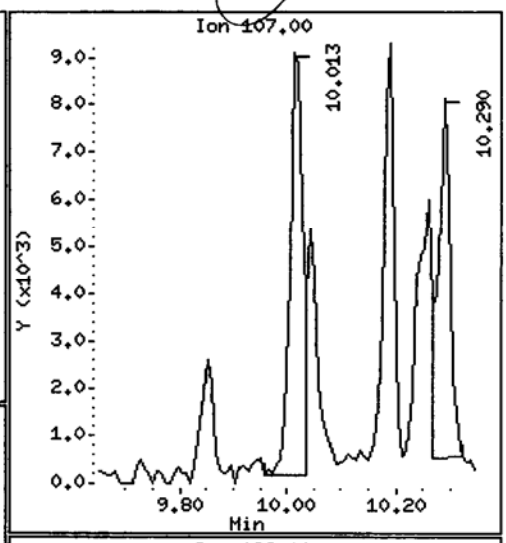
Column phase: ZB-5msi

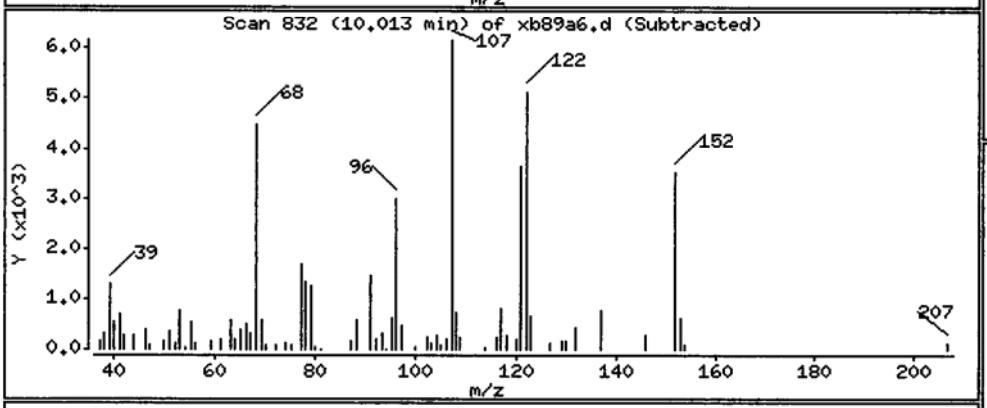
Column diameter: 0.25

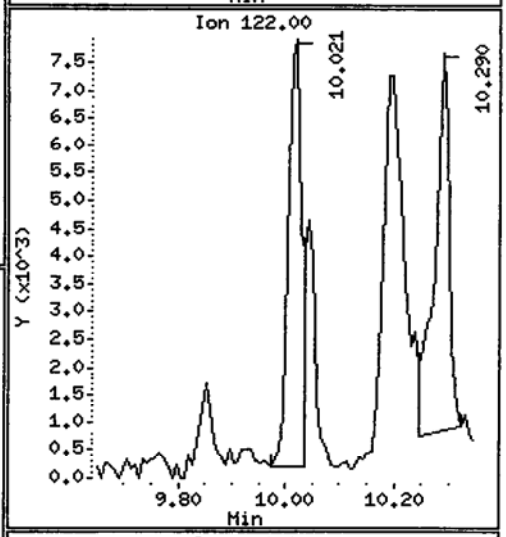
22 2,4-Dimethylphenol

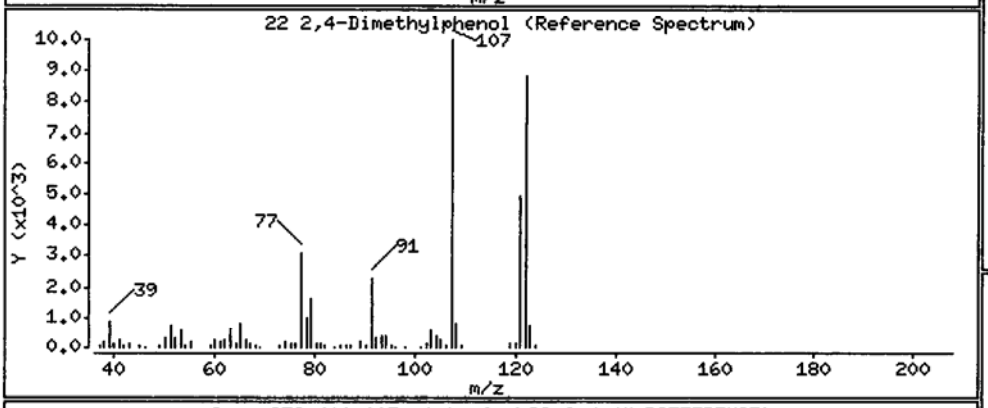
Concentration: 219.0 ug/kg

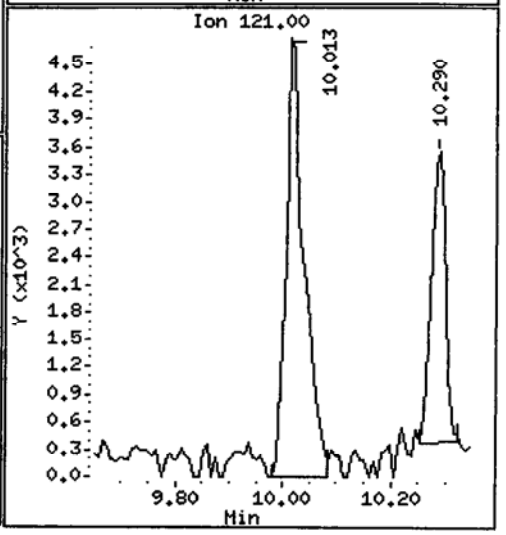


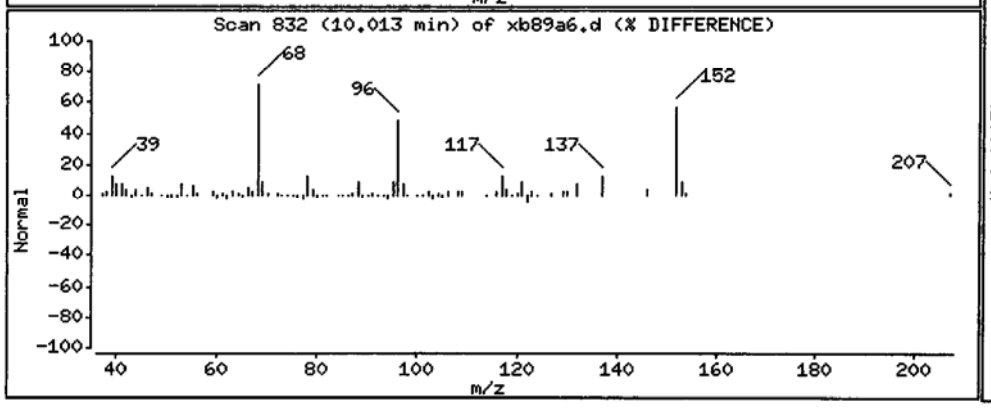












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

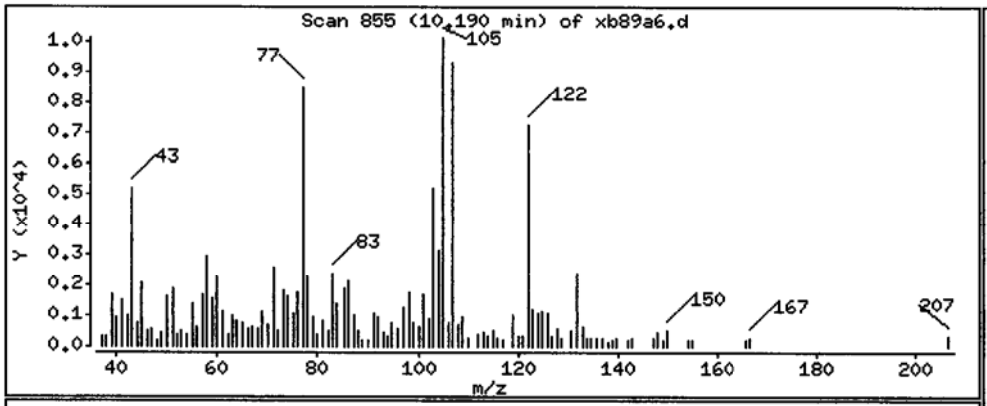
Operator: VTS/YZ

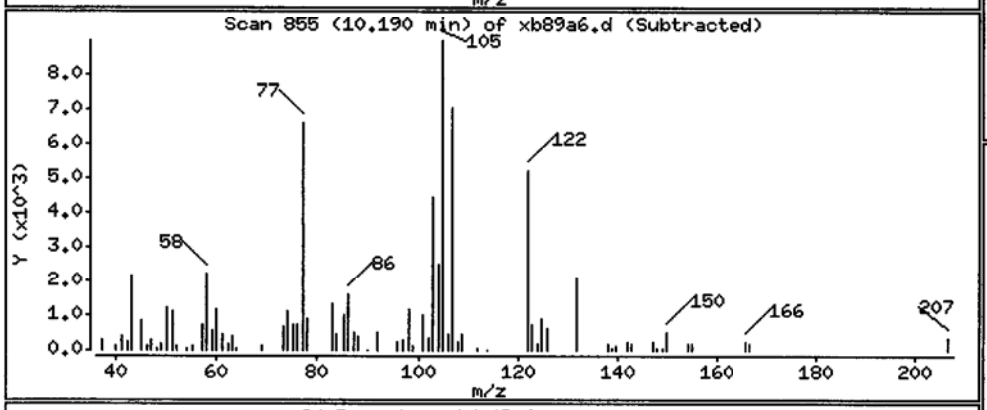
Column phase: ZB-5msi

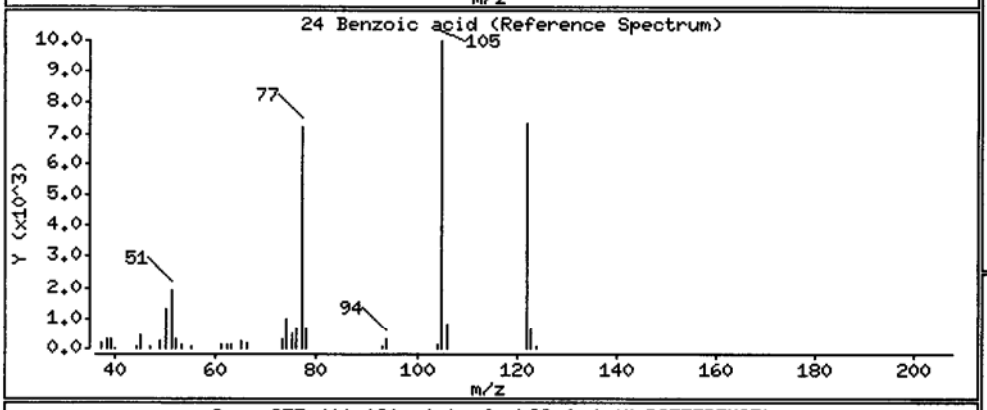
Column diameter: 0.25

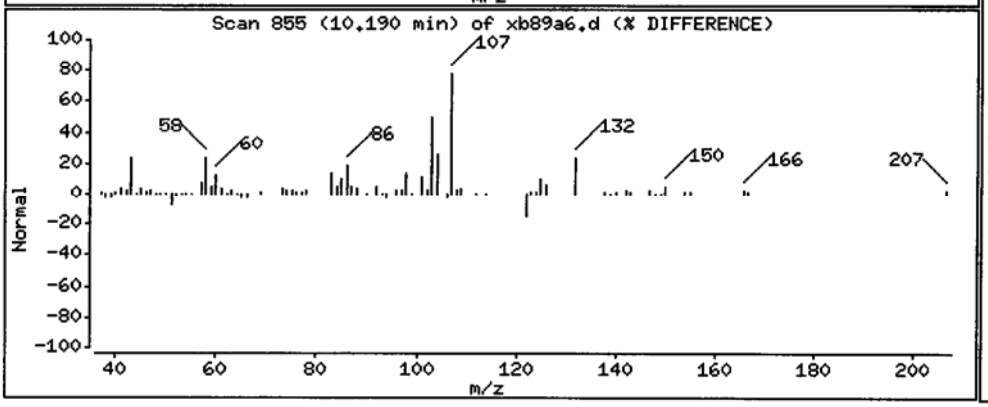
24 Benzoic acid

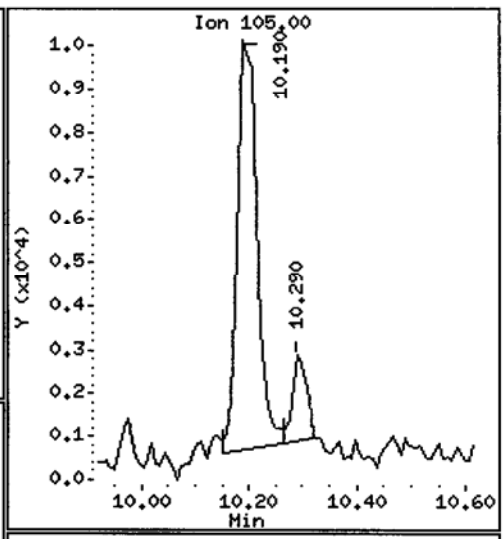
Concentration: 535.5 ug/kg

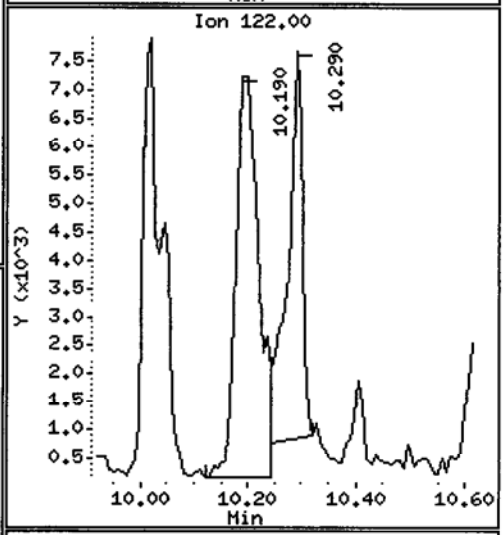


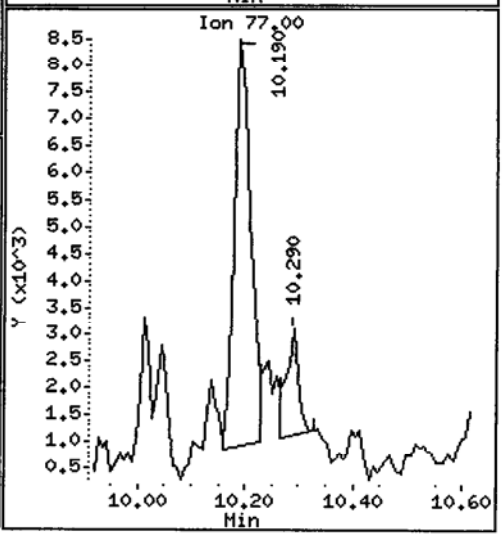












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

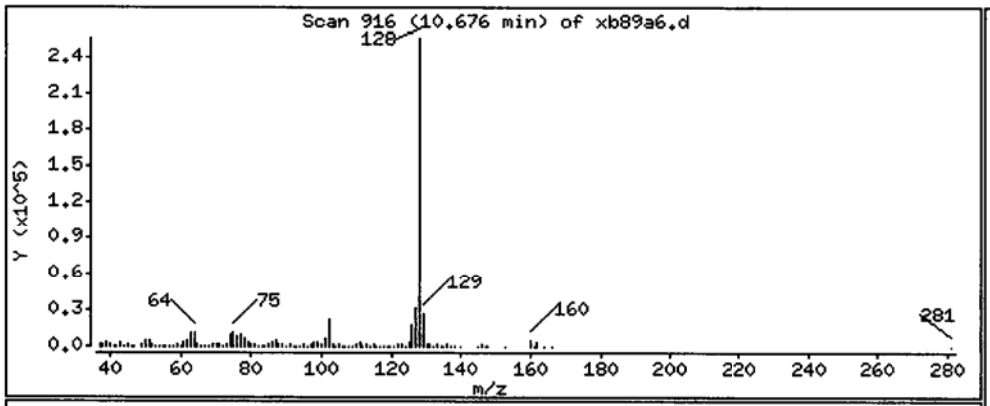
Operator: VTS/YZ

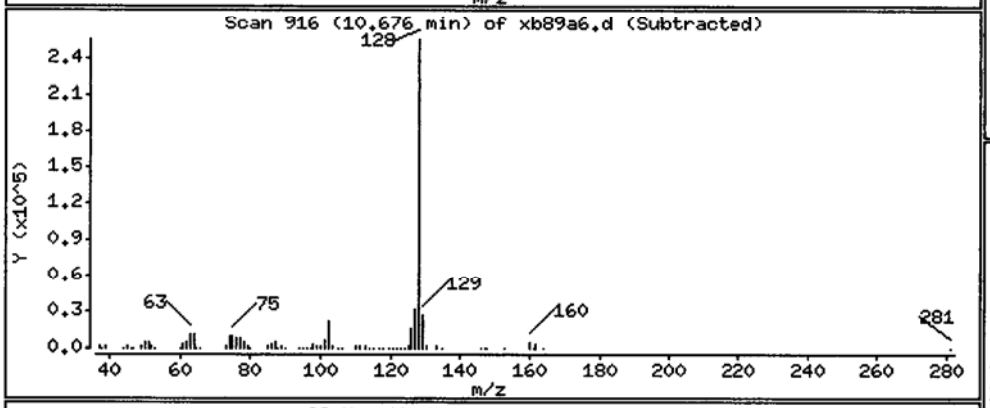
Column phase: ZB-5ms1

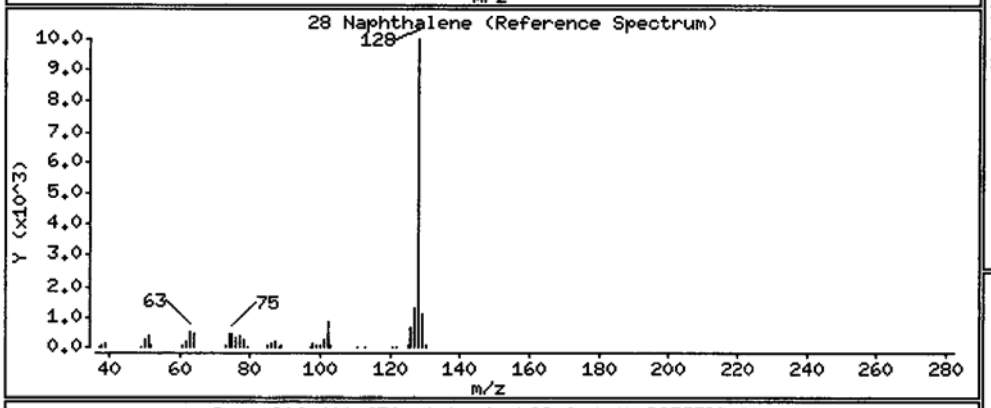
Column diameter: 0.25

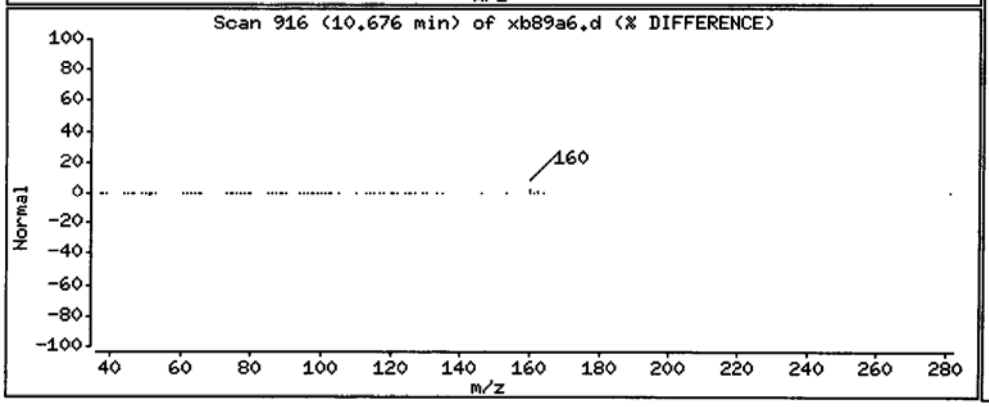
28 Naphthalene

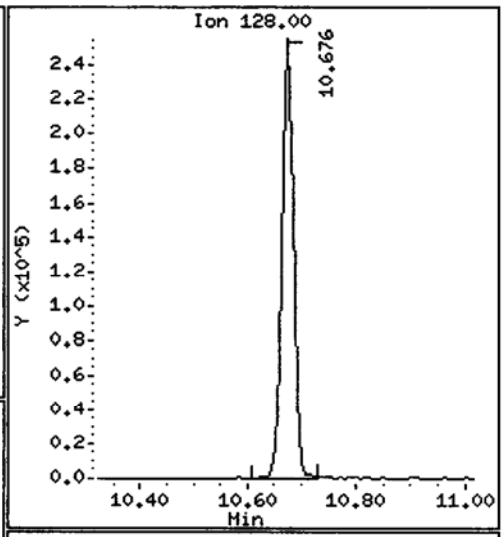
Concentration: 2025 ug/kg

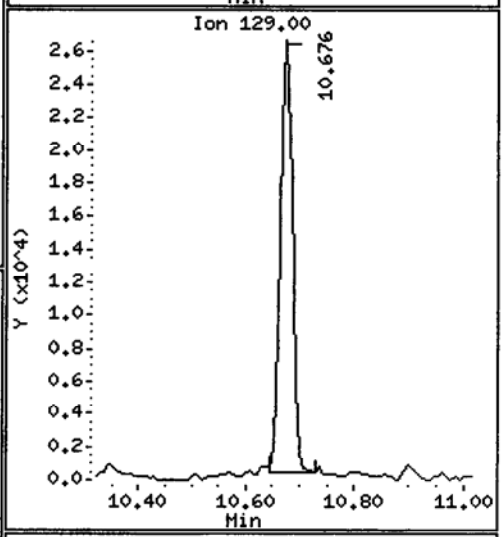


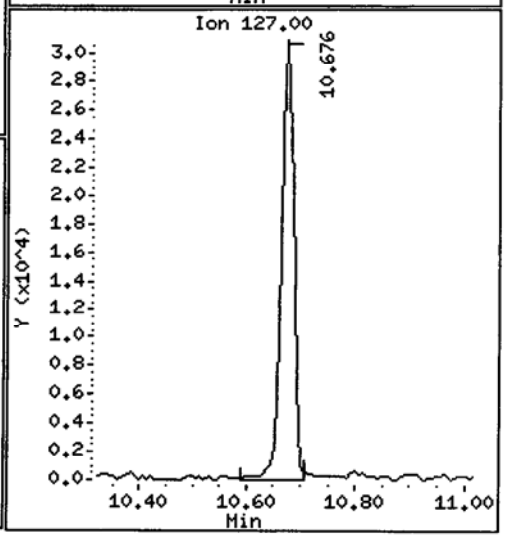












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

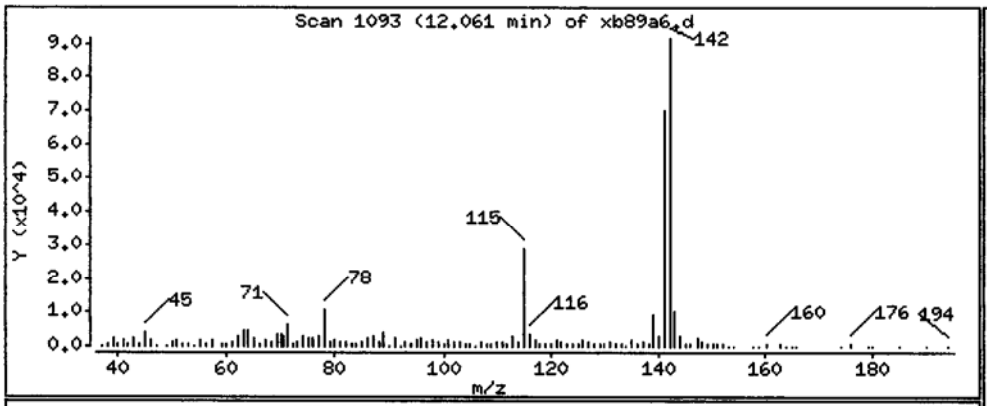
Operator: VTS/YZ

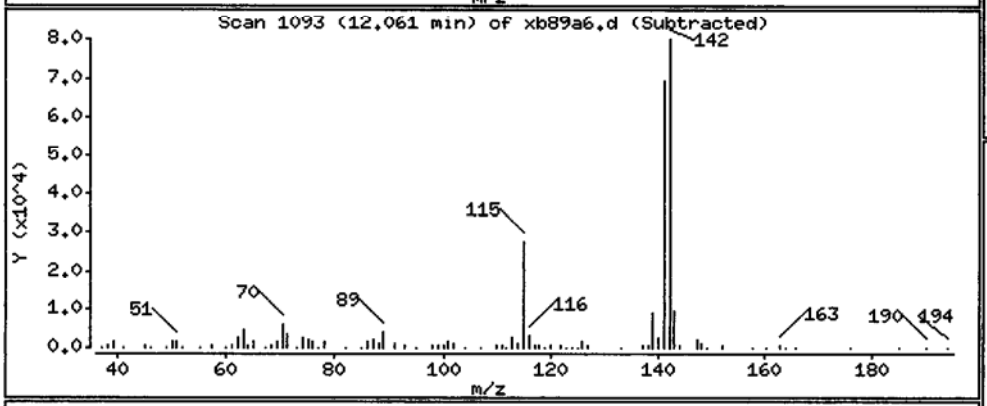
Column phase: ZB-5msi

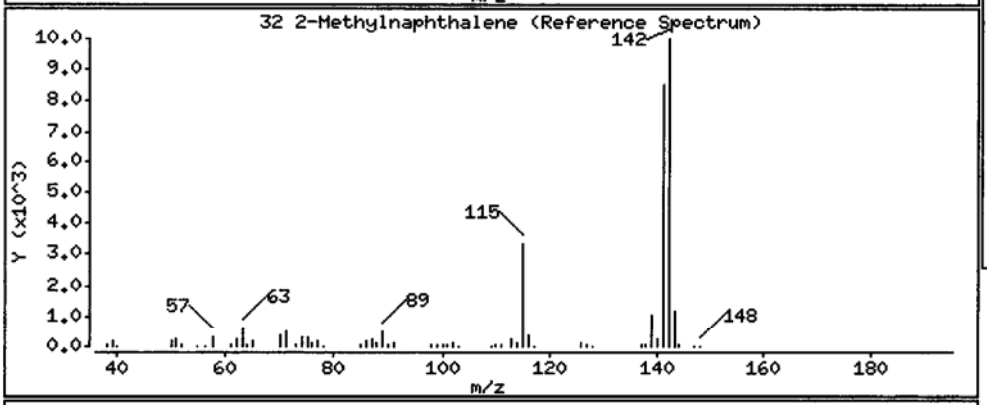
Column diameter: 0.25

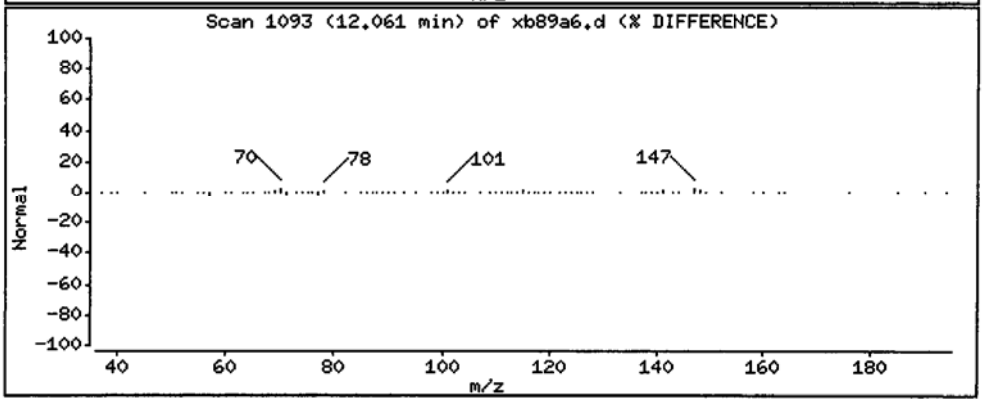
32 2-Methylnaphthalene

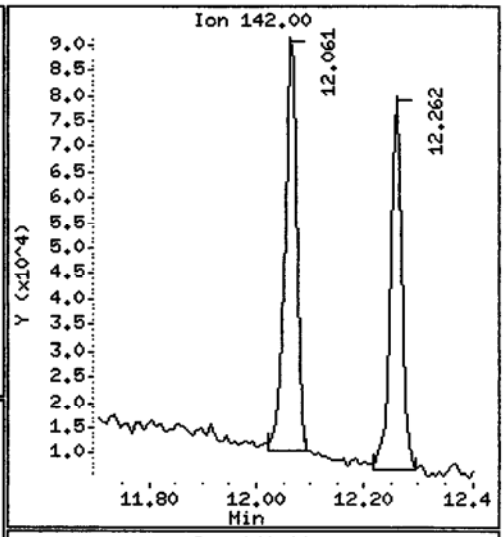
Concentration: 840.2 ug/kg

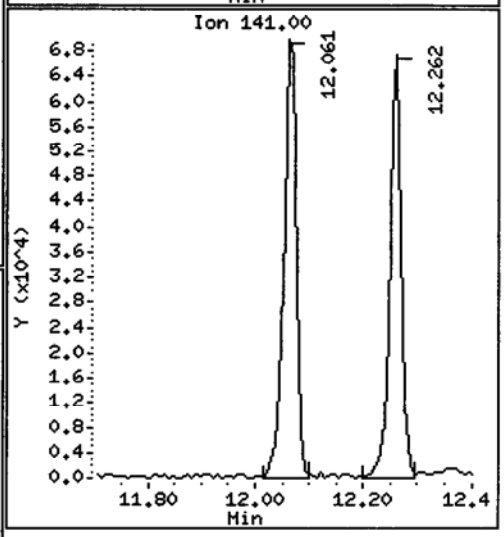












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

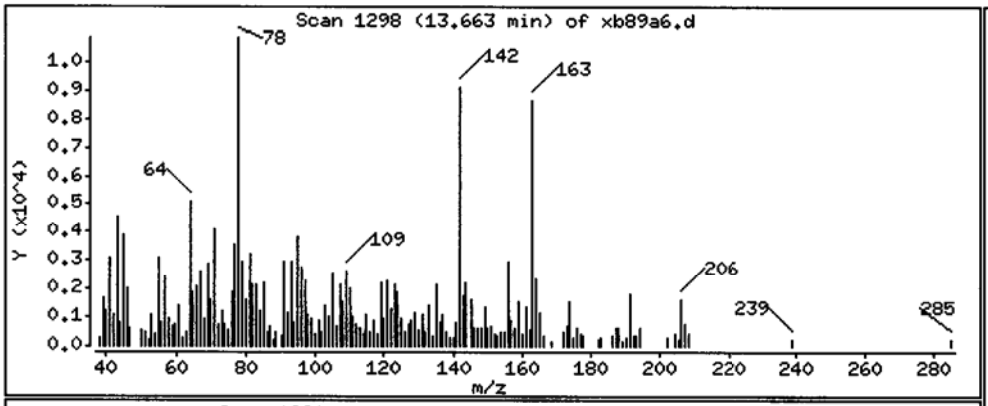
Operator: VTS/YZ

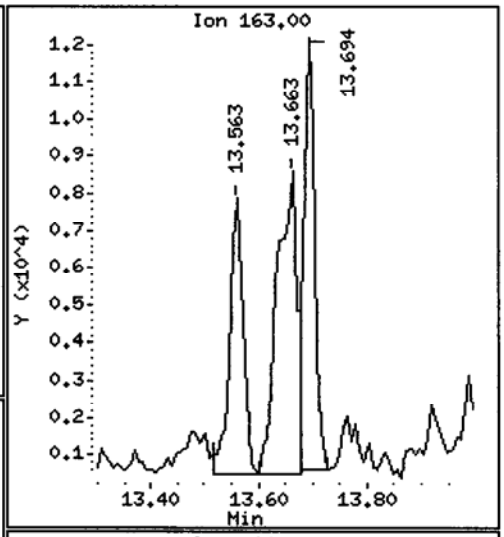
Column phase: ZB-5msi

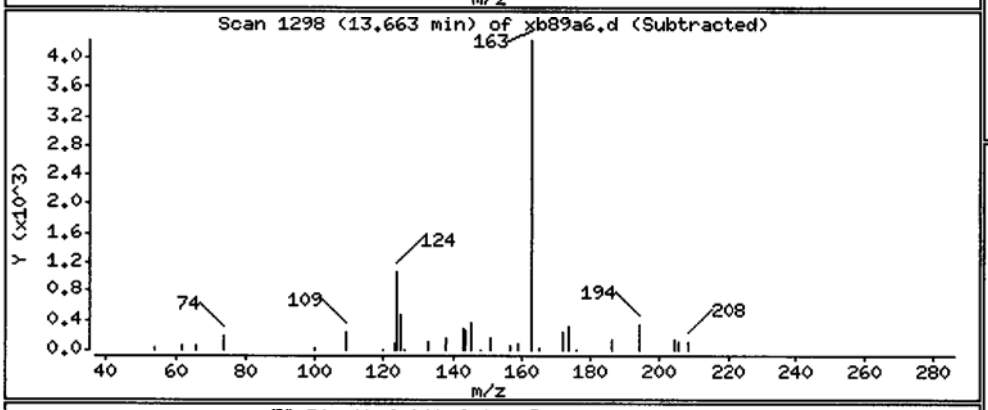
Column diameter: 0.25

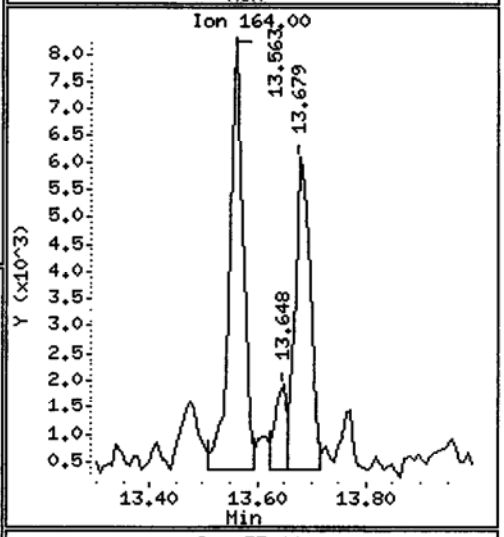
39 Dimethylphthalate

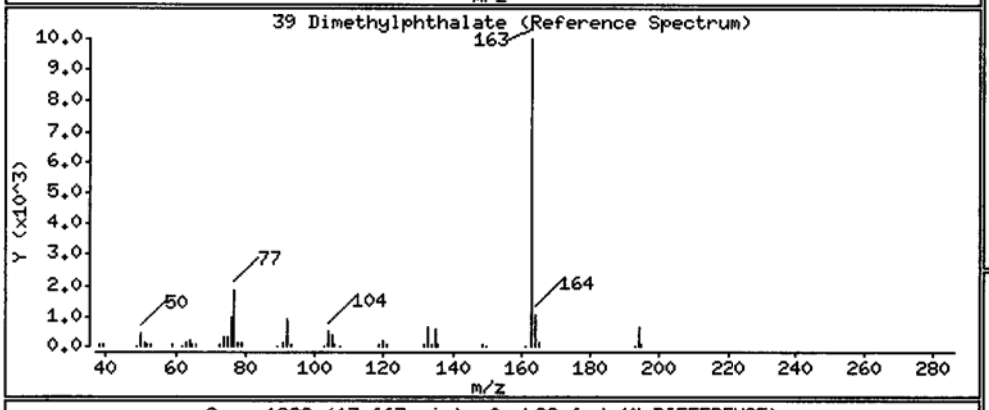
Concentration: 146.3 ug/kg

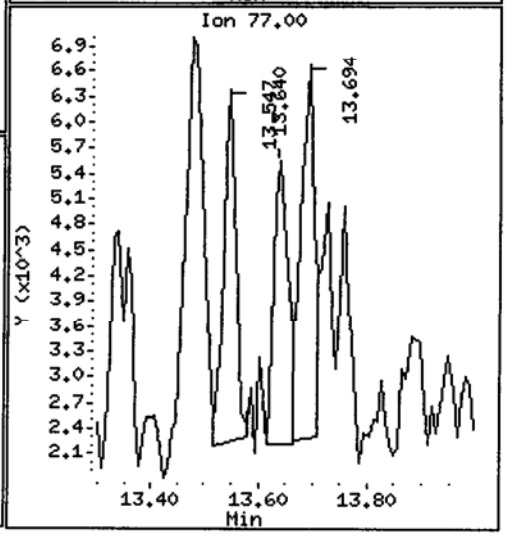


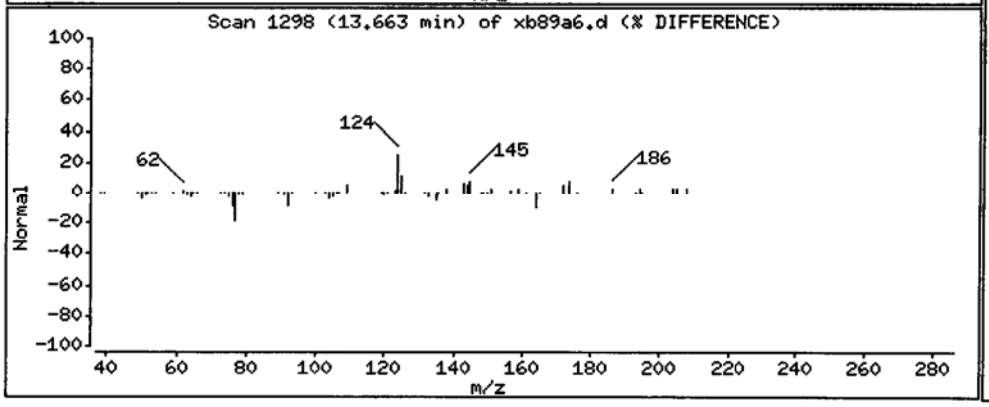












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

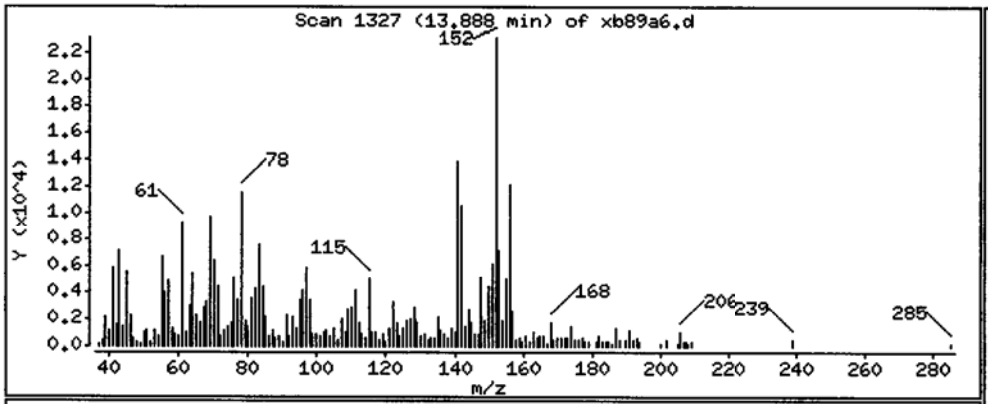
Operator: VTS/YZ

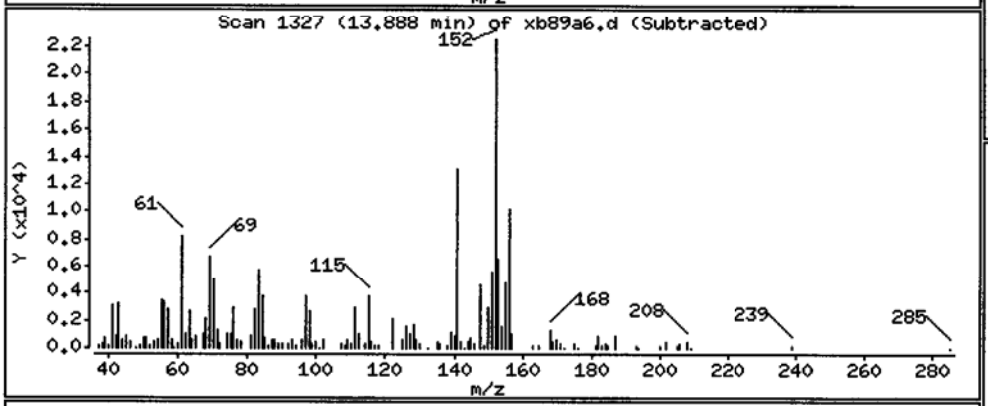
Column phase: ZB-5msi

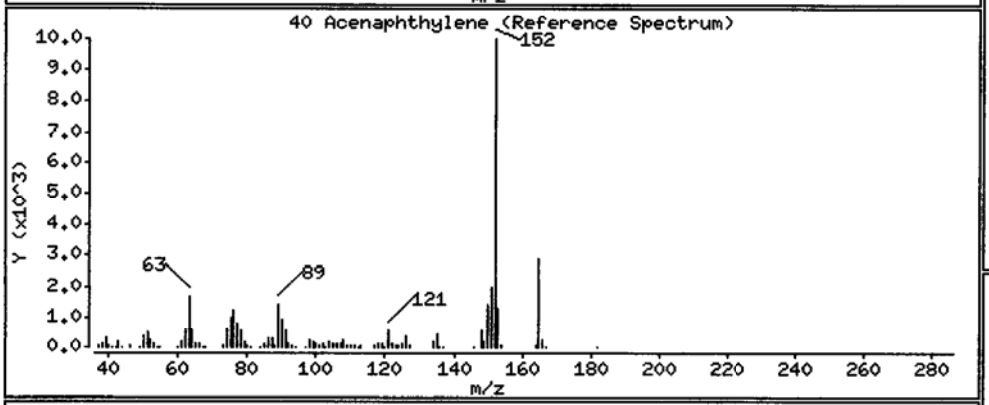
Column diameter: 0.25

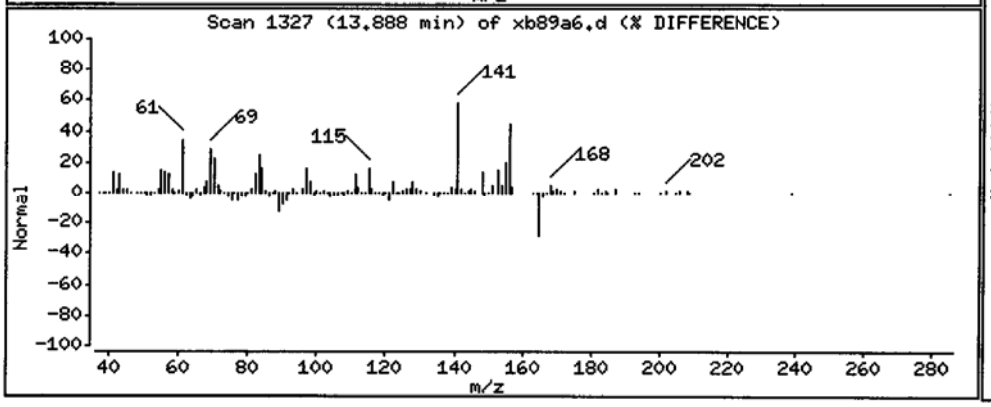
40 Acenaphthylene

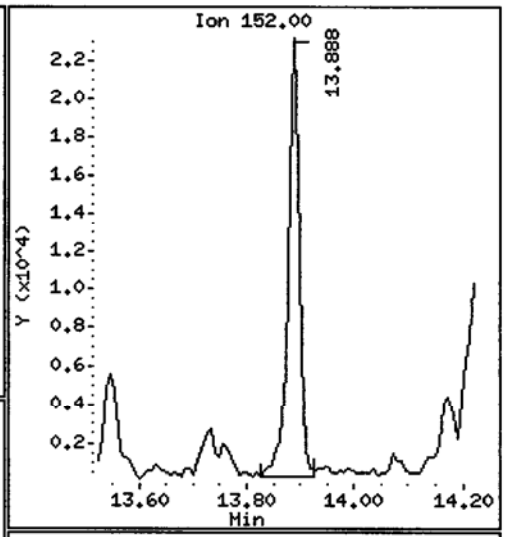
Concentration: 157.7 ug/kg

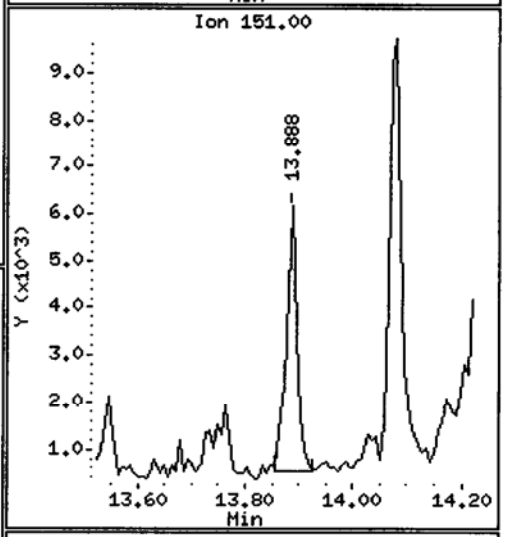


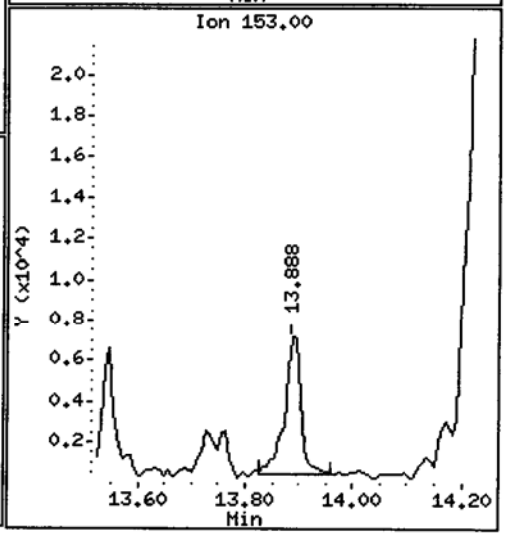












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

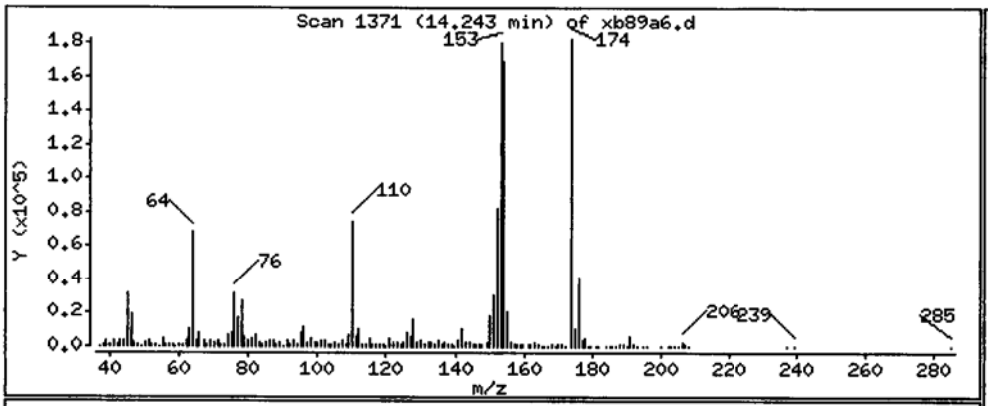
Operator: VTS/YZ

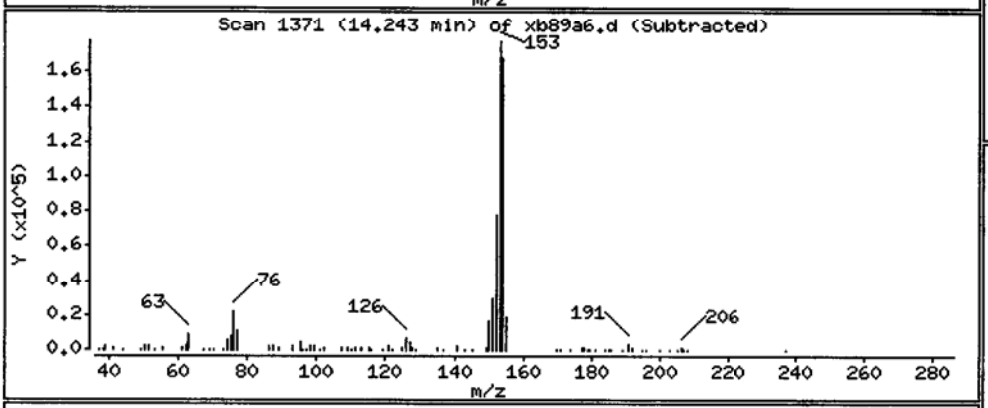
Column phase: ZB-5msi

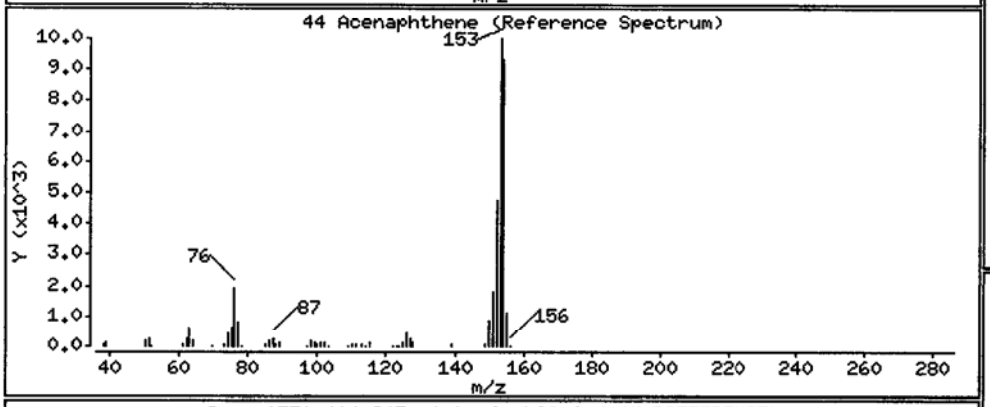
Column diameter: 0.25

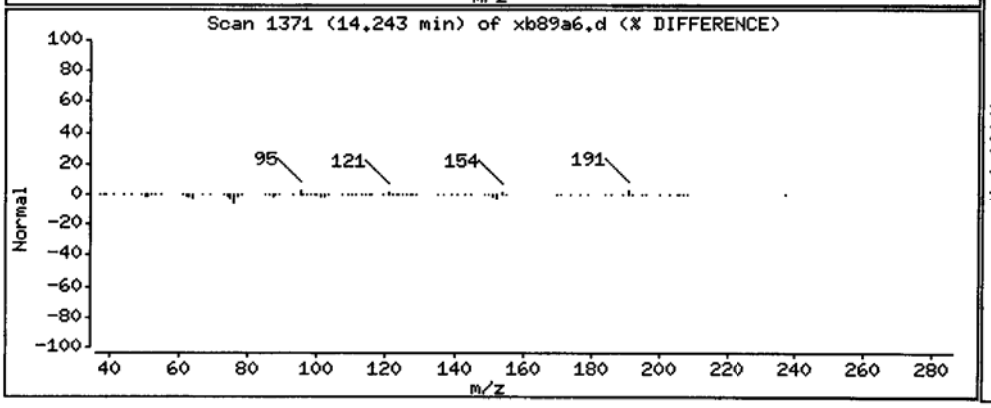
44 Acenaphthene

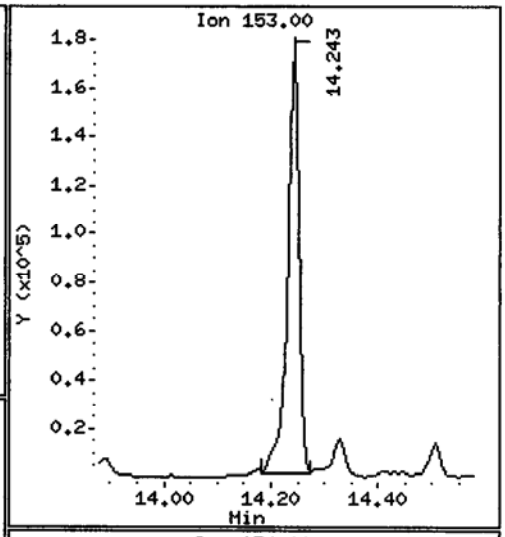
Concentration: 2080 ug/kg

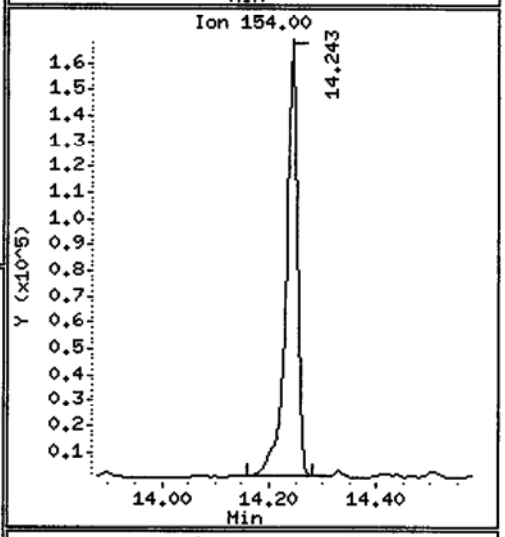


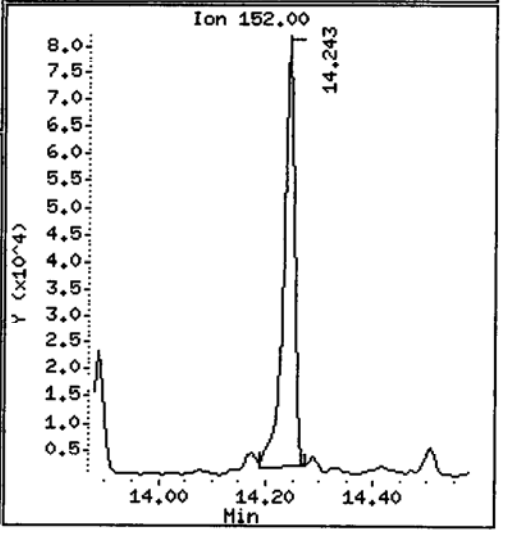












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

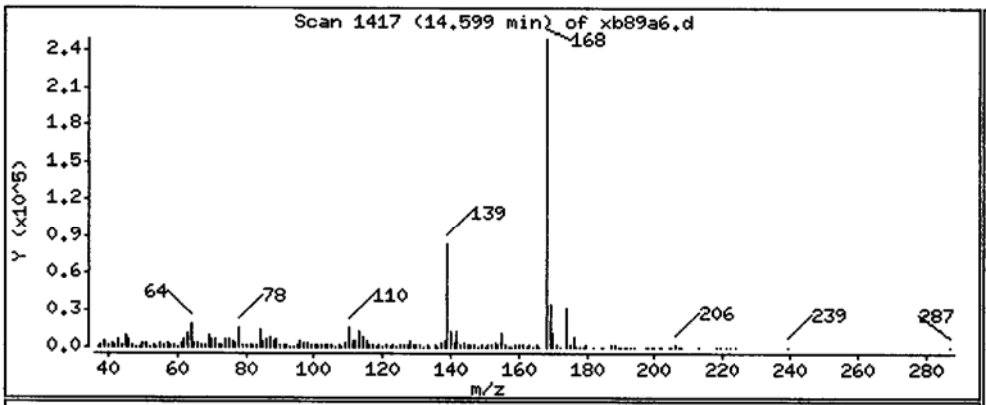
Operator: VTS/YZ

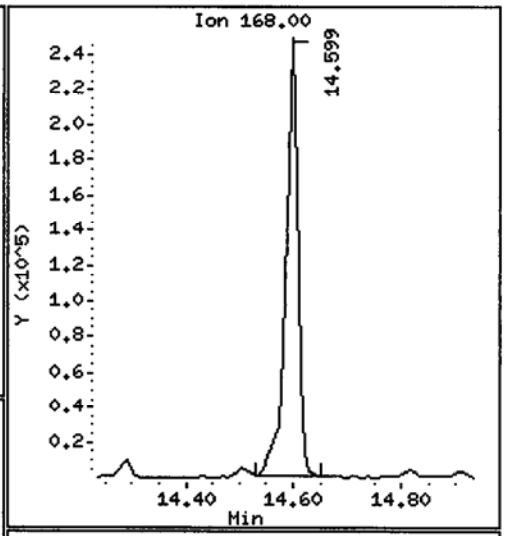
Column phase: ZB-5msi

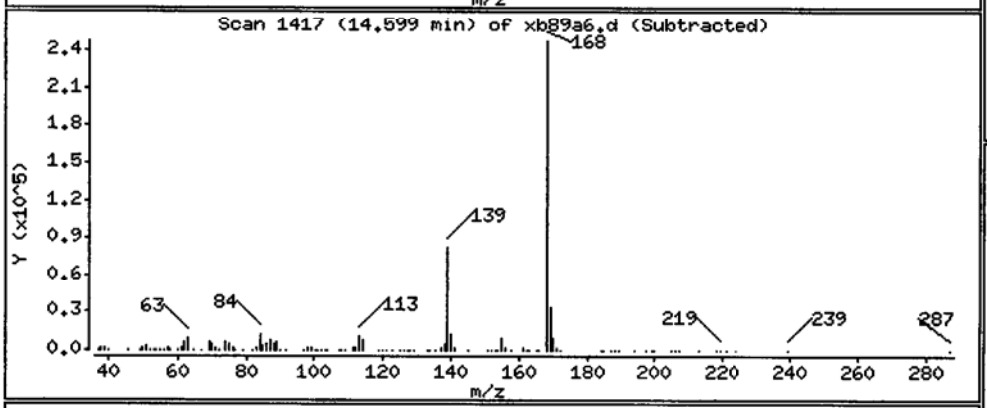
Column diameter: 0.25

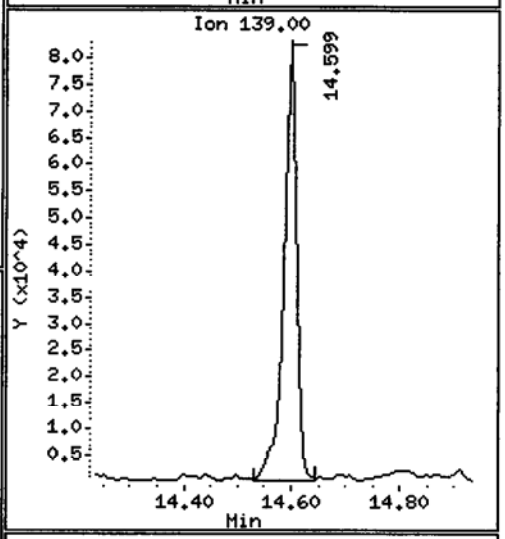
46 Dibenzofuran

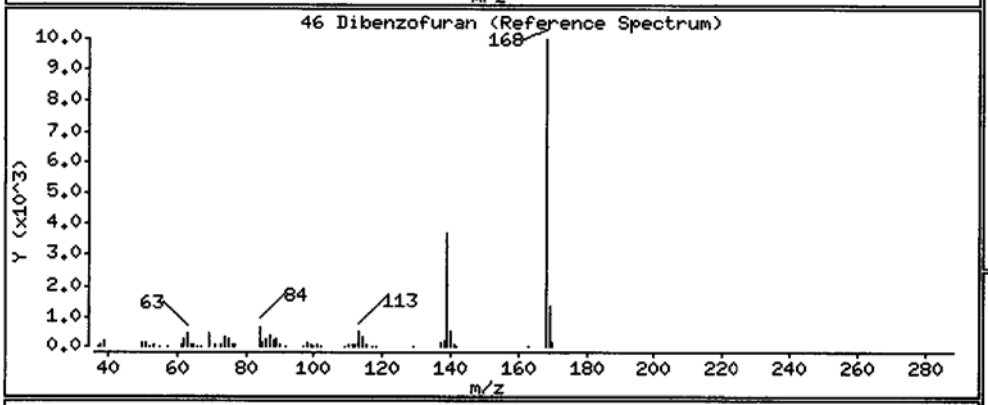
Concentration: 1968 ug/kg

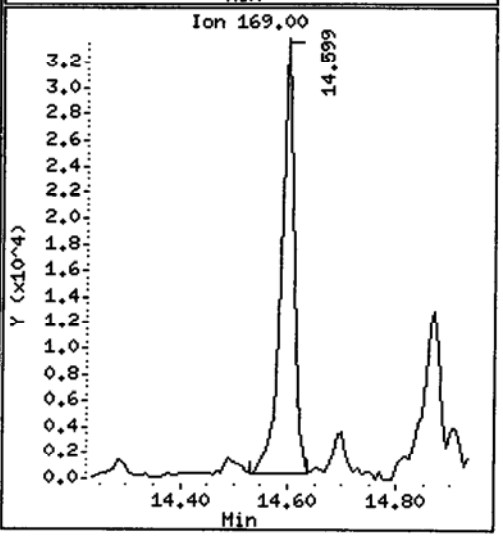


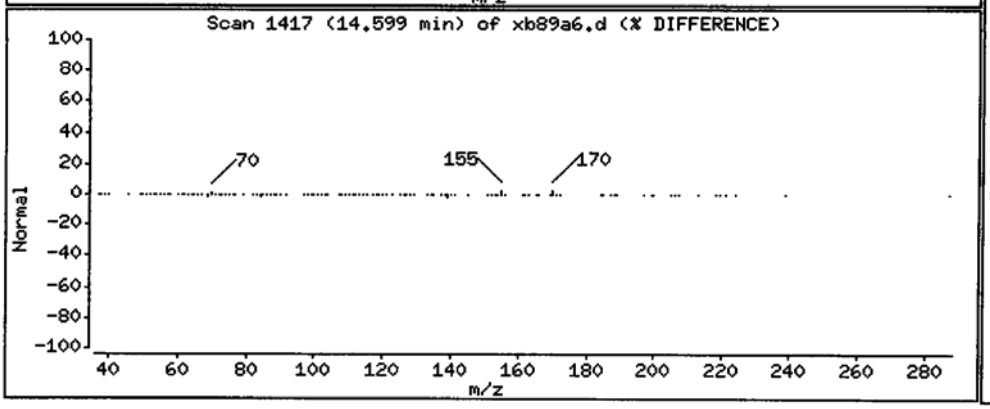












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

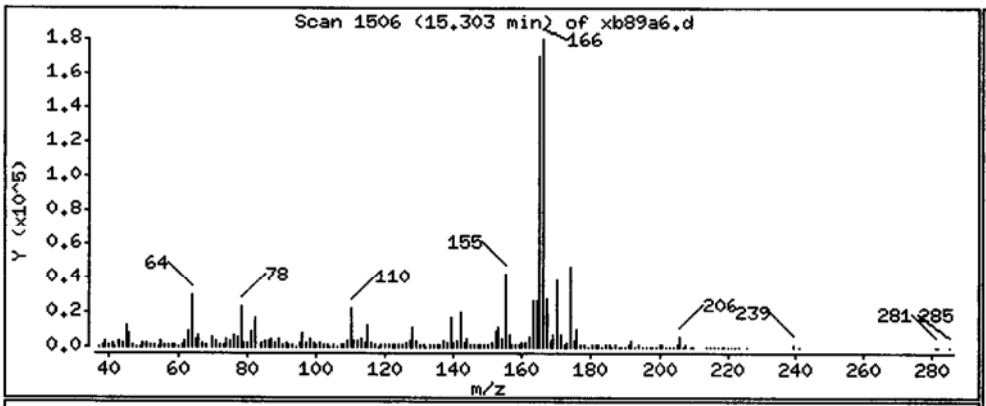
Operator: VTS/YZ

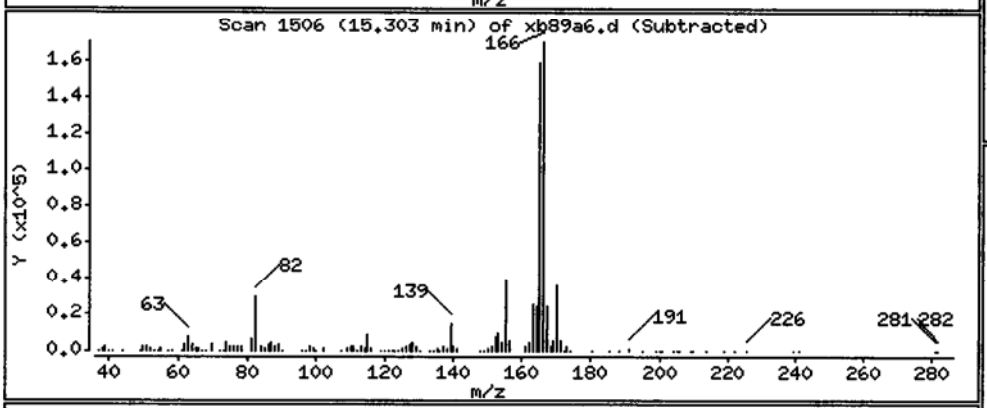
Column phase: ZB-5msi

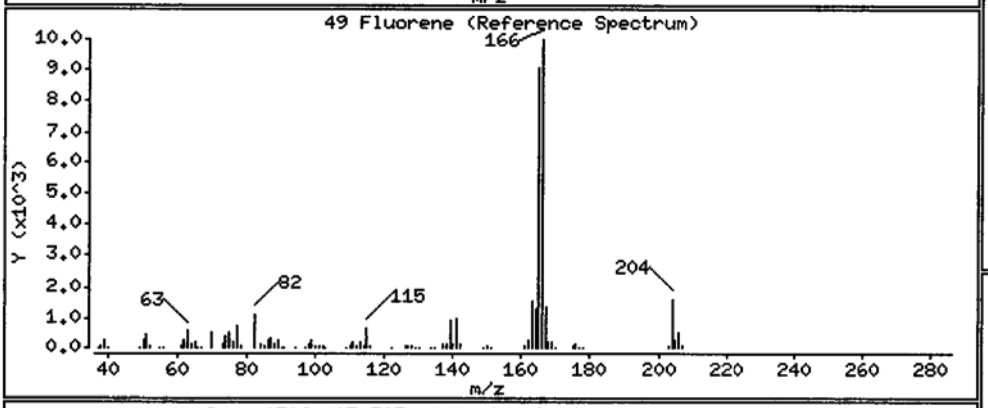
Column diameter: 0.25

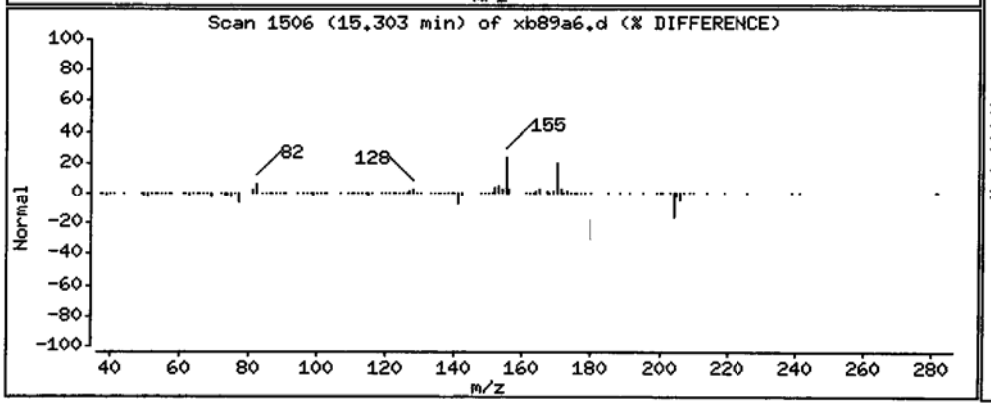
49 Fluorene

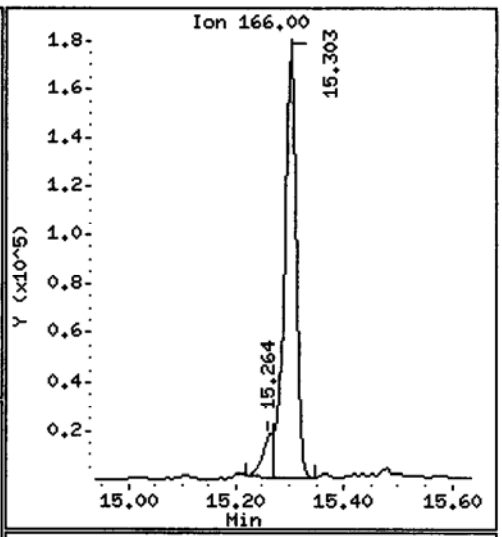
Concentration: 1742 ug/kg

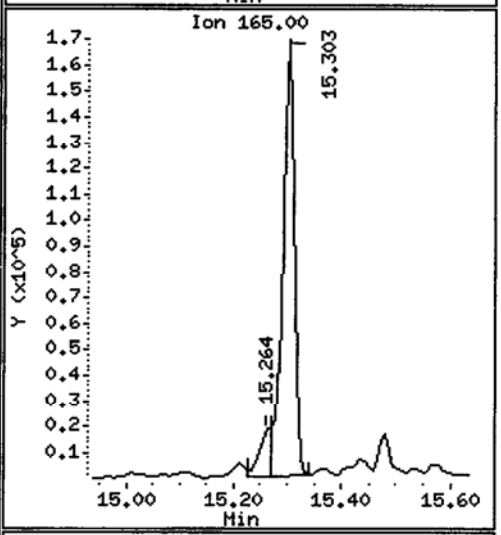


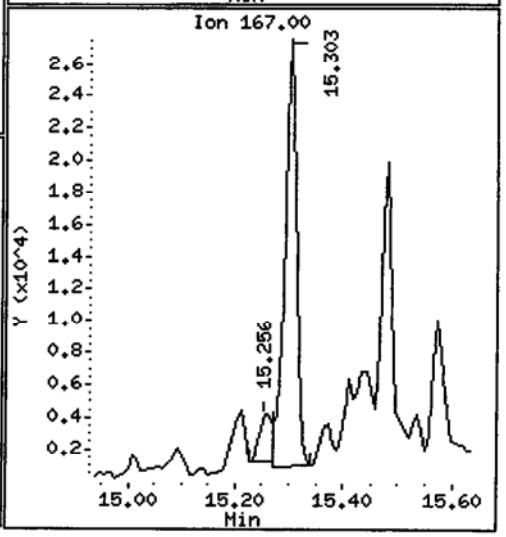












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

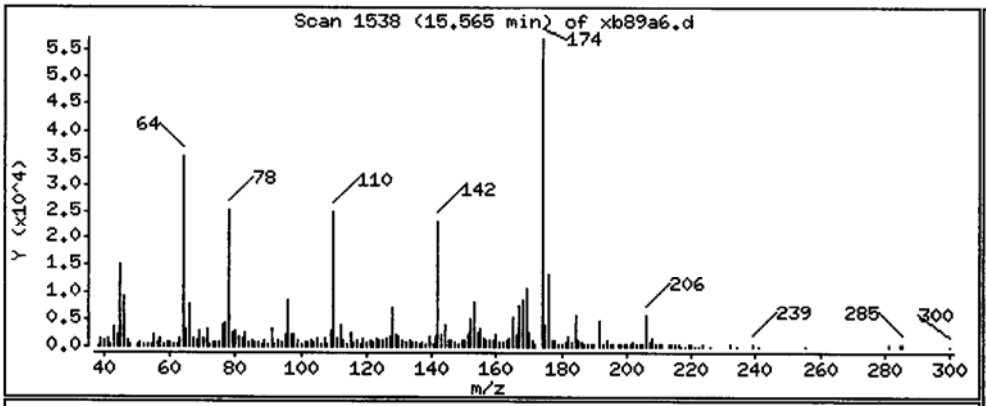
Operator: VTS/YZ

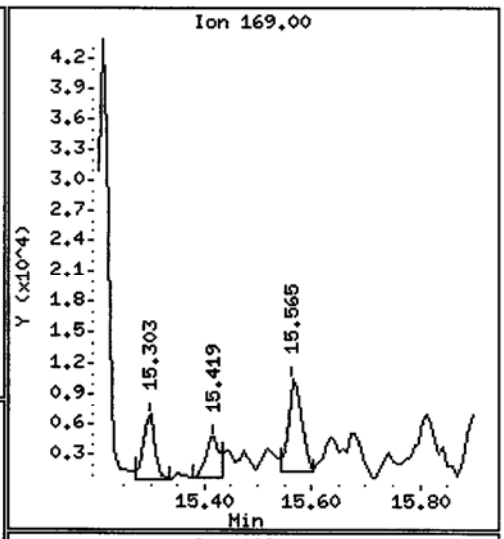
Column phase: ZB-5msi

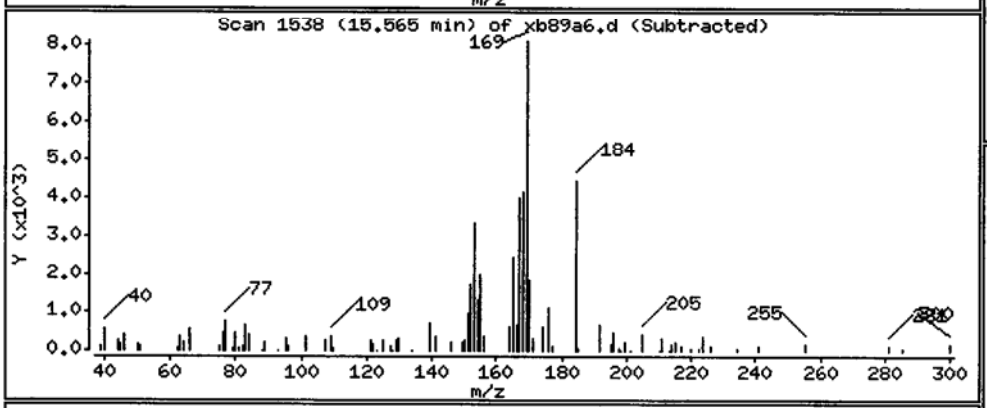
Column diameter: 0.25

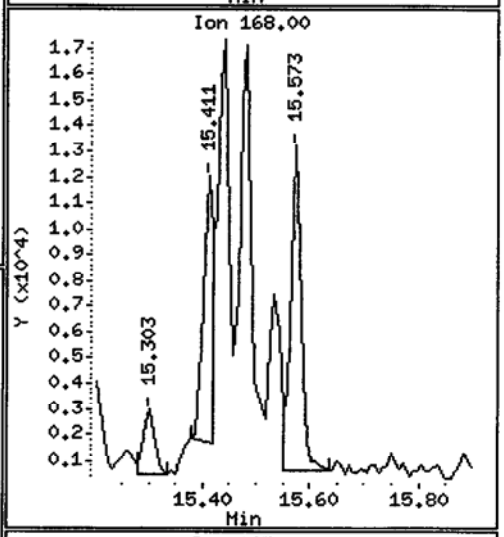
54 N-Nitrosodiphenylamine

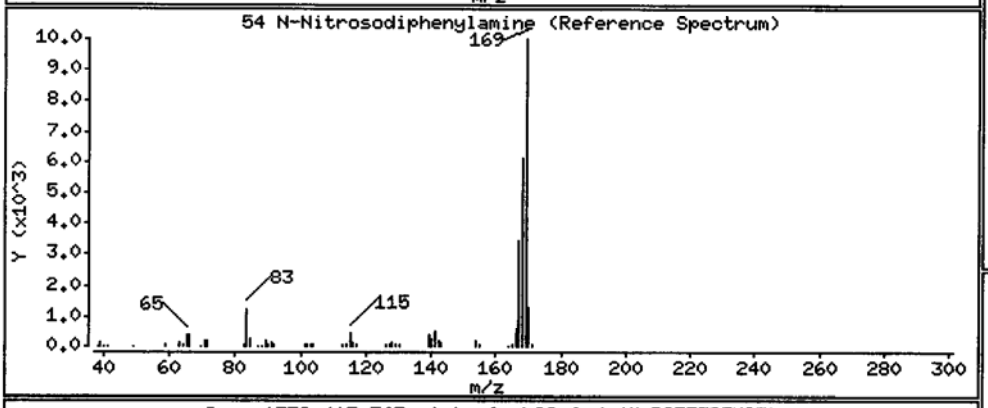
Concentration: 153.9 ug/kg

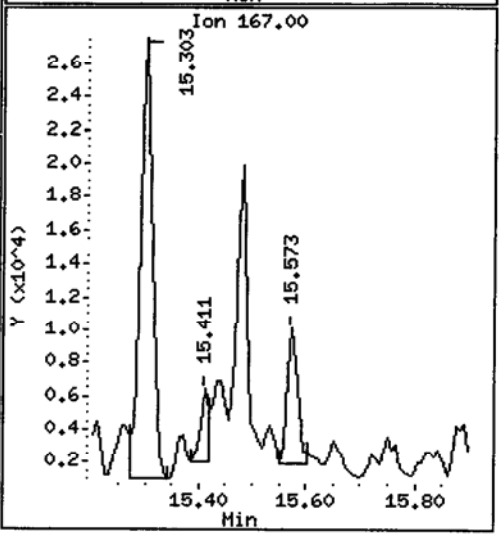


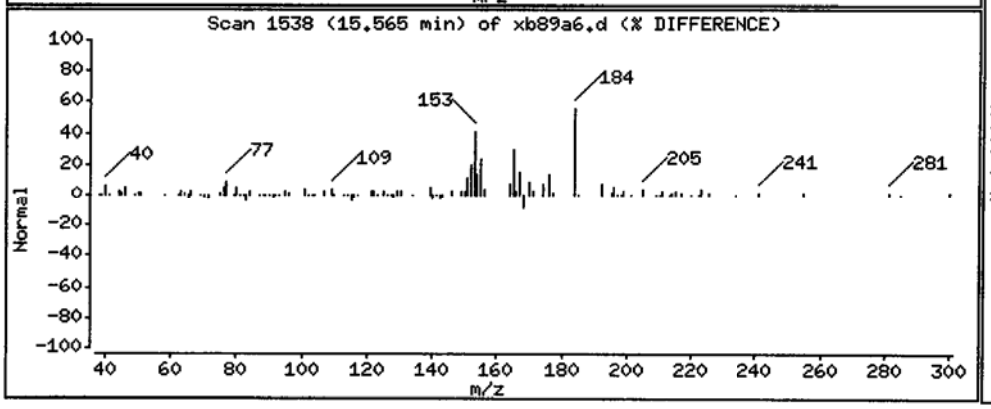












Data File: /chem1/nt10.i/20130903.b/xb89a6.d

Date : 03-SEP-2013 20:42

Client ID: IJ13-SS-102

Instrument: nt10.i

Sample Info: XB89A,6

Volume Injected (uL): 1.0

Operator: VTS/YZ

Column phase: ZB-5msi

Column diameter: 0.25

60 Phenanthrene

Concentration: 7302 ug/kg

