Table of Contents: ARI Job VR38

Client: Anchor QEA, LLC.

Project: 120891-01.01 City of Kenmore Sediment

AV
Signature

November-27-2012
Date

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Client: Anchor QEA, LLC. Project: 120891-01.01 City of Kenmore Sediment

AV
Signature

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Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 10, 2012

Cindy Fields
Anchor QEA
720 Olive Way, Suite 1900
Seattle, WA 98101

RE: Client Project: City of Kenmore Sediment, 120891-01.01
ARI Job No.: VR38

Dear Cindy:

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

Sample receipt and details of these 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: VR38

Enclosures

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

Chain of Custody Documentation

ARI Job ID: VR38

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: VR38	Turn-around Requested: STD	Page: 1 of 2	
ARI Client Company: Anchor QEA	Phone: 206 287 9130	Date: 11/7/12	Ice Present? Yes
Client Contact: David Gillingham / Cindy Fields		No. of Coolers: 4	Cooler Temps:
Client Project Name: City of Kenmore Sediment			
Client Project #: 120891-01.01	Samplers: DG KH		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	Grain Size	TS/TVS/TOC	metals	SVOC	PAH (SIM)	PCB	Pest	D/Fs	TBT Bulk	Archive	Notes/Comments
HT-01-S-C-121106	11/6/12	8:36	Sed	6	X	X	X	X	X	X		X		X	
HT-02-S-C-121106		8:56		6	X	X	X	X	X	X		X		X	
HT-03-S-C-121106		9:20		6	X	X	X	X	X	X		X		X	
HT-04-S-C-121106		10:02		6	X	X	X	X	X	X		X		X	
HT-05-S-C-121106		10:33		6	X	X	X	X	X	X		X		X	
HT-06SE-121106		11:12		7	X	X	X	X	X	X	X	X	X	X	
HT-07-SE-121106		11:48		7	X	X	X	X	X	X	X	X	X	X	
HT-08-S-C-121106		12:46		6	X	X	X	X	X	X		X		X	
HT-09-S-C-121106	↓	13:05	↓	6	X	X	X	X	X	X		X		X	

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
	Printed Name: David Gillingham	Printed Name: Chris Atwell	Printed Name	Printed Name
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 11/7/12 0600	Date & Time: 11/7/12 1101	Date & Time	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested: Std	Page: 2 of 2	
ARI Client Company: Anchor QEA	Phone: 206 287-9130	Date: 11/7/12	Ice Present?
Client Contact: David Gillingham / Cindy Fields		No. of Coolers:	Cooler Temps:
Client Project Name: City of Kenmore Sediment			
Client Project #: 120891-01.01	Samplers: DG - KH		

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Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Time / Date	Date / Time	Matrix	No Containers	Analysis Requested: Grain Size	TS/TVS TOC	metals	SVOC	PAH (SIM)	PCB	Pest	D/Fs	TBT Bulk	Notes/Comments: Archive
HT-10-S-LFP-121106	1341	11/6/12	Sed	6	X	X	X	X	X	X		X		X
HT-11-S-LFP-121106	1355	11/6/12	Sed	6	X	X	X	X	X	X		X		X

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by (Signature)	Received by (Signature)
	Printed Name: David Gillingham	Printed Name: Chris Atwell	Printed Name	Printed Name:
	Company: Anchor QEA	Company: ARI	Company:	Company:
	Date & Time: 11/7/12 0600	Date & Time: 11/07/12 1101	Date & Time	Date & Time

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: City of Kenmore Sed

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No.: VR38

Tracking No: _____ (NA)

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)	2.3 3.9 / 5 3.1	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#: 90877957	

Cooler Accepted by: CA Date: 11/07/12 Time: 1101

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: AV Date: 11/7/12 Time: 1406

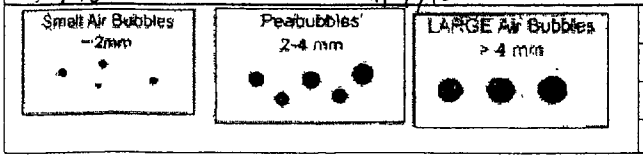
*** Notify Project Manager of discrepancies or concerns ***

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

Additional Notes, Discrepancies, & Resolutions:

HT-09-S-C-121106 Grainsize jar received broken, ~~Jar~~ Sample volume placed in new jar, and used as archive volume, original archive jar used for Grainsize.

By AV Date: 11/7/12



Small → "sm"

Peabubbles → "pb"

Large → "lg"

Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VR38

Case Narrative

Client: Anchor QEA
Project: City of Kenmore Sediment, 120891-01.01
ARI Job No.: VR38

Sample receipt

Eleven sediment samples were received on November 7, 2012 under ARI job VR38. Select sample containers were archived upon receipt. The cooler temperatures measured by IR thermometer following ARI SOP were between 1.5 and 3.9°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

Semivolatiles by SW8270

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 recoveries were within control limits.

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

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

PAHs by SW8270-SIM

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 recoveries were within control limits.

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

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

Tributyl Tin by Krone 1988 SIM

The samples and associated laboratory 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 recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS percent recovery was within control limits.

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

Dioxins/Furans by 1613B

The samples and associated laboratory QC were 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.

Both extraction and cleanup surrogates had recoveries within control limits.

The method blank contained reportable responses below the reporting limit for several compounds. "B" qualifiers were applied to associated results that were less than ten times the levels found in the method blank. No further corrective action was taken.

The OPR (Ongoing Precision and Accuracy or LCS) percent recoveries were within control limits. SRM PSR was analyzed as a reference material.

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.

Pesticides by SW8081

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

Initial calibrations were within method requirements.

The continuing calibration (CCAL) on 11/21/12 at 01:37 was outside the 20% control limit high for Hexachlorobenzene on the second column, but was within the control limit on the first column. The DDT break down on 11/21/12 at 06:58 was outside the 20% control limit. The associated CCAL at 07:16 was outside the 20% control limit for several compounds on both columns. The samples were analyzed twice and both runs had similar QC failured. Only the initial analysis data have been reported. No further corrective action was taken.

The internal standard Hexabromobiphenyl fell outside the control limits low for sample **HT-05-S-C-121106** on the second column, but was within control limits on the first column. No corrective action was taken.

The surrogate percent recoveries were within control limits.

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

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 recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS percent recoveries were within control limits. SRM PSR was analyzed as a reference material.

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

Metals and Mercury by SW6010C/7471A

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

The third continuing calibration verification (CCV) for mercury fell outside the control limits low. No sample results were associated with this CCV, no corrective action was taken.

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

The matrix spike percent recovery of antimony fell outside the control limits low for sample **HT-01-S-C-121106**. A post digestion spike was performed and the recovery was within control limits. All relevant data have been flagged with an "N" qualifier on the Form V. No further corrective action was taken.

The duplicate RPD of chromium was outside the 20% control limit for sample **HT-01-S-C-121106**. 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 recovery was within control limits.

The SRM percent recovery was within limits.

The matrix spike percent recovery and replicate RPD/RSDs 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.:** VR38
Client Project: City of Kenmore Sediments	**Client Project No.:** 120891-01.01

Case Narrative

1. Eleven samples were submitted for testing on November 7, 2012 and were in good condition.
2. The samples were submitted for grain size analysis by Puget Sound Estuary Protocol (PSEP) methodology. The samples were run in a single batch and one sample from another job, SG-06-S-C-1211, was chosen for triplicate analysis. The triplicate data is reported on the QA Summary.
3. Seven samples did not contain the required 5 grams of fines for the pipette portion of the analysis. The analytical balance has a capacity of about 200 grams (by 0.0001 grams) and a sample that would yield 5 grams of fines could not be split and stay within the capacity of the balance. The samples have been qualified on the QA summary.
4. Two samples had pipette aliquots that had weights below the levels required for accurate weighing and resulted in negative numbers in the fine portion of the analysis. The negative numbers were adjusted to 0% and the samples are qualified on the QA summary.
5. The data is provided in summary tables and plots.
6. There were no other anomalies in the samples or methods on this project.

Released by: _____ Date: 11/26/12
Title: *Geotechnical Laboratory Manager*

Reviewed by: _____ Date: 11.26.2012
Title: *Lead Technician*

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VR38
Client: Anchor QEA, LLC.
Project Event: 120891-01.01
Project Name: City of Kenmore Sediment

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	HT-01-S-C-121106	VR38A	12-22267	Sediment	11/06/12 08:36	11/07/12 11:01
2.	HT-02-S-C-121106	VR38B	12-22268	Sediment	11/06/12 08:56	11/07/12 11:01
3.	HT-03-S-C-121106	VR38C	12-22269	Sediment	11/06/12 09:20	11/07/12 11:01
4.	HT-04-S-C-121106	VR38D	12-22270	Sediment	11/06/12 10:02	11/07/12 11:01
5.	HT-05-S-C-121106	VR38E	12-22271	Sediment	11/06/12 10:33	11/07/12 11:01
6.	HT-08-S-C-121106	VR38F	12-22272	Sediment	11/06/12 12:46	11/07/12 11:01
7.	HT-09-S-C-121106	VR38G	12-22273	Sediment	11/06/12 13:05	11/07/12 11:01
8.	HT-10-S-LFP-121106	VR38H	12-22274	Sediment	11/06/12 14:11	11/07/12 11:01
9.	HT-11-S-LFP-121106	VR38I	12-22275	Sediment	11/06/12 13:55	11/07/12 11:01
10.	HT-06-S-E-121106	VR38J	12-22276	Sediment	11/06/12 11:12	11/07/12 11:01
11.	HT-07-S-E-121106	VR38K	12-22277	Sediment	11/06/12 11:48	11/07/12 11:01

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).

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)**

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

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			SIM Analysis			LCS,MS Control Limits (%)	RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)		
Phenol	8.65	10	**20**	2.56	5	**5**	30 – 160	≤ 40
bis-(2-Chloroethyl)ether	3.35	10	**20**	--	--	--	30 – 160	≤ 40
2-Chlorophenol	2.39	10	**20**	--	--	--	30 – 160	≤ 40
1,3-Dichlorobenzene	2.63	10	**20**	1.31	2.5	**5**	30 – 160	≤ 40
1,4-Dichlorobenzene	2.86	10	**20**	1.19	2.5	**5**	30 – 160	≤ 40
1,2-Dichlorobenzene	2.50	10	**20**	1.10	2.5	**5**	30 – 160	≤ 40
Benzyl alcohol	6.09	10	**20**	7.04	10	**20**[3]	30 – 160	≤ 40
2,2'-oxy-*bis*-(1-Chloropropane)	3.76	10	**20**	--	--	--	30 – 160	≤ 40
2-Methylphenol	5.25	10	**20**	1.81	2.5	**5**	30 – 160	≤ 40
Hexachloroethane	2.94	10	**20**	--	--	--	30 – 160	≤ 40
N-Nitroso-di-n-propylamine	3.36	10	**20**	9.48	10	**12**[3]	30 – 160	≤ 40
4-Methylphenol[6]	6.63	10	**20**	2.52	5	**10**	30 – 160	≤ 40
Nitrobenzene	4.06	10	**20**	--	--	--	30 – 160	≤ 40
Isophorone	2.86	10	**20**	--	--	--	30 – 160	≤ 40
2-Nitrophenol	38.7	50	**100**	--	--	--	30 – 160	≤ 40
2,4-Dimethylphenol	3.46	20	**40**	2.89	10	**20**	30 – 160	≤ 40
bis-(2-Chloroethoxy)methane	2.00	10	**20**	--	--	--	30 – 160	≤ 40
2,4-Dichlorophenol	21.5	100	**200**	--	--	--	30 – 160	≤ 40
1,2,4-Trichlorobenzene	3.48	10	**20**	1.86	2.5	**5**	30 – 160	≤ 40
Naphthalene	2.76	10	**20**	--	--	--	30 – 160	≤ 40
Benzoic acid	101	200	**400**[5]	--	--	--	30 – 160	≤ 40
4-Chloroaniline	22.3	135	**270**[4]	--	--	--	30 – 160	≤ 40
Hexachlorobutadiene	4.57	10	**20**	0.96	2.5	**5**	30 – 160	≤ 40
4-Chloro-3-methylphenol	15.1	50	**100**	--	--	--	30 – 160	≤ 40
2-Methylnaphthalene	3.06	10	**20**	--	--	--	30 – 160	≤ 40
Hexachlorocyclopentadiene	66.4	200	**400**[4]	--	--	--	30 – 160	≤ 40
2,4,6-Trichlorophenol	22.4	50	**100**	--	--	--	30 – 160	≤ 40
2,4,5-Trichlorophenol	21.4	50	**100**	--	--	--	30 – 160	≤ 40
2-Chloronaphthalene	2.64	10	**20**	--	--	--	30 – 160	≤ 40
2-Nitroaniline	18.4	50	**100**	--	--	--	30 – 160	≤ 40
Acenaphthylene	5.71	10	**20**	--	--	--	30 – 160	≤ 40
Dimethylphthalate	2.90	10	**20**	1.34	2.5	**5**	30 – 160	≤ 40
2,6-Dinitrotoluene	30.6	50	**100**	--	--	--	30 – 160	≤ 40
Acenaphthene	3.28	10	**20**	--	--	--	30 – 160	≤ 40
3-Nitroaniline	22.5	50	**100**	--	--	--	30 – 160	≤ 40

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			SIM Analysis			LCS,MS Control Limits (%)	RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)		
2,4-Dinitrophenol	111	425	**850[4]**	--	--	--	30 – 160	≤ 40
Dibenzofuran	4.10	10	**20**	--	--	--	30 – 160	≤ 40
4-Nitrophenol	34.7	50	**100**	--	--	--	30 – 160	≤ 40
2,4-Dinitrotoluene	19.5	50	**100**	--	--	--	30 – 160	≤ 40
Fluorene	4.35	10	**20**	--	--	--	30 – 160	≤ 40
4-Chlorophenyl-phenylether	5.29	10	**20**	--	--	--	30 – 160	≤ 40
Diethylphthalate	36.6	50	**50[3]**	3.26	5.0	**5.0**	30 – 160	≤ 40
4-Nitroaniline	37.9	50	**100**	--	--	--	30 – 160	≤ 40
4,6-Dinitro-2-methylphenol	21.2	100	**200**	--	--	--	30 – 160	≤ 40
N-Nitrosodiphenylamine	5.39	10	**20**	1.38	10	**20**	30 – 160	≤ 40
4-Bromophenyl-phenylether	5.03	10	**20**	--	--	--	30 – 160	≤ 40
Hexachlorobenzene	4.29	10	**20**	1.26	2.5	**5**	30 – 160	≤ 40
Pentachlorophenol	48.5	100	**200[4]**	14.3	25	**50**	30 – 160	≤ 40
Phenanthrene	3.64	10	**20**	--	--	--	30 – 160	≤ 40
Anthracene	4.50	10	**20**	--	--	--	30 – 160	≤ 40
Carbazole	2.69	10	**20**	--	--	--	30 – 160	≤ 40
Di-n-butylphthalate	8.16	10	**20**	--	--	--	30 – 160	≤ 40
Fluoranthene	2.91	10	**20**	--	--	--	30 – 160	≤ 40
Pyrene	1.94	10	**20**	--	--	--	30 – 160	≤ 40
Butylbenzylphthalate	6.14	10	**20**	2.89	5.0	**5**	30 – 160	≤ 40
Benzo(a)anthracene	3.29	10	**20**	--	--	--	30 – 160	≤ 40
3,3'-Dichlorobenzidine	17.8	75	**150[4]**	--	--	--	30 – 160	≤ 40
Chrysene	3.75	10	**20**	--	--	--	30 – 160	≤ 40
bis-(2-Ethylhexyl)phthalate	14.6	20	**25[3]**	--	--	--	30 – 160	≤ 40
Di-n-octylphthalate	5.84	10	**20**	--	--	--	30 – 160	≤ 40
Benzo(b)fluoranthene[7]	3.47	10	**20**	--	--	--	30 – 160	≤ 40
Benzo(k)fluoranthene[7]	4.18	10	**20**	--	--	--	30 – 160	≤ 40
Benzofluoranthene-Total[8]	6.67	20	**40**	--	--	--	30 – 160	≤ 40
Benzo(a)pyrene	5.45	10	**20**	--	--	--	30 – 160	≤ 40
Indeno(1,2,3-cd)pyrene	4.68	10	**20**	--	--	--	30 – 160	≤ 40
Dibenzo(a,h)anthracene	4.31	10	**20**	2.02	2.5	**5**	30 – 160	≤ 40
Benzo(g,h,i)perylene	4.40	10	**20**	--	--	--	30 – 160	≤ 40
N-Nitrosodimethylamine	14.1	50	**100**	3.15	13	**25**	30 – 160	≤ 40
Aniline	40.0	270	**540[4]**	--	--	--	30 – 160	≤ 40
Pyridine	32.7	75	**150[4]**	--	--	--	30 – 160	≤ 40
1-Methylnaphthalene	2.68	10	**20**	--	--	--	30 – 160	≤ 40

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			SIM Analysis			LCS,MS Control Limits (%)	RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)		
Azobenzene (1,2-DP-Hydrazine)	2.98	10	**20**	--	--	--	30 – 160	≤ 40
Surrogate Standards						**MB / LCS**	**Samples**	**RPD**
2-Fluorophenol						30 – 160	30 – 160	≤ 40
Phenol-d_5						30 – 160	30 – 160	≤ 40
2-Chlorophenol-d_4						30 – 160	30 – 160	≤ 40
1,2-Dichlorobenzene-d_4						30 – 160	30 – 160	≤ 40
Nitrobenzene-d_5						30 – 160	30 – 160	≤ 40
2-Fluorobiphenyl						30 – 160	30 – 160	≤ 40
2,4,6-Tribromophenol						30 – 160	30 – 160	≤ 40
p-Terphenyl-d_{14}						30 – 160	30 – 160	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD), Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(3) Spiked at 5 ppb
(4) Spiked at 100 ppb
(5) Spiked at 200 ppb
(6) 3-Methylphenol (not calibrated) co-elutes with 4-Methylphennol (calibrated)
(7) 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.
(8) Benzo(b)fluoranthene + Benzo(j)fluoranthene + Benzo(k)fluoranthene (only the b & k isomers are calibrated)

DL, LOD, LOQ and Control Limits Summary
Analysis of Solid Samples for PNA EPA Method 8270 – SIM

Microwave (EPA 3546) or Sonication (EPA 3550C) Extraction using 10 g sample with extract with 0.5 mL final volume. ARI Bench Sheet 3060F or 3051F ARI Analyses: PNSSMI & PNSSCI

Analyte	DL[1] µg/kg	LOD[1] µg/kg	LOQ[1] µg/kg	LCS Control Limit[3,4]	Replicate RPD[5]
Naphthalene	2.63	**5.0**	**5.0**	37 – **100**	≤ 40
1-Methylnaphthalene	1.71	**2.5**	**5.0**	30 – 160[6]	≤ 40
2-Methylnaphthalene	1.52	**2.5**	**5.0**	37 – **100**	≤ 40
Biphenyl	1.44	**2.5**	**5.0**	30 – 160[6]	≤ 40
2,6-Dimethylnapthalene	0.75	**2.5**	**5.0**	30 – 160[6]	≤ 40
Acenaphthylene	1.26	**2.5**	**5.0**	35 – **100**	≤ 40
Acenaphthene	1.32	**2.5**	**5.0**	39 – **100**	≤ 40
Dibenzofuran	1.51	**2.5**	**5.0**	39 – **100**	≤ 40
1,6,7-Trimethylnaphthalene	0.42	**2.5**	**5.0**	30 – 160[6]	≤ 40
Fluorene	1.29	**2.5**	**5.0**	42 – **100**	≤ 40
Benzothiophene	0.43	**2.5**	**5.0**	30 – 160[6]	≤ 40
Phenanthrene	1.98	**2.5**	**5.0**	47 – **100**	≤ 40
Anthracene	1.46	**2.5**	**5.0**	41 – 106	≤ 40
Carbazole	0.62	**2.5**	**5.0**	30 – 160[6]	≤ 40
1-Methylphenanthrene	0.70	**2.5**	**5.0**	30 – 160[6]	≤ 40
Fluoranthene	1.77	**4.0**	**5.0**	52 – 109	≤ 40
Pyrene	2.22	**4.0**	**5.0**	47 – 111	≤ 40
Benzo(a)anthracene	1.60	**2.5**	**5.0**	47 – 114	≤ 40
Chrysene	1.88	**2.5**	**5.0**	51 – 106	≤ 40
Benzo(b)fluoranthene	1.90	**2.5**	**5.0**	30 – 160[6]	≤ 40
Benzo(k)fluoranthene	2.05	**2.5**	**5.0**	30 – 160[6]	≤ 40
Benzo(j)fluoranthene	1.98[7]	**2.5**	**5.0**	30 – 160[6]	≤ 40
Benzo(e)pyrene	0.65	**2.5**	**5.0**	30 – 160[6]	≤ 40
Benzo(a)pyrene	1.75	**2.5**	**5.0**	44 – 111	≤ 40
Indeno(1,2,3-cd)pyrene	3.47	**4.0**	**5.0**	41 – 114	≤ 40
Dibenz(a,h)anthracene	2.38	**4.0**	**5.0**	42 – 116	≤ 40
Benzo(g,h,i)perylene	3.05	**4.0**	**5.0**	37 – 115	≤ 40
Perylene	2.99	**4.0**	**5.0**	30 – 160[6]	≤ 40
Surrogate Recovery			**MB / LCS**	**Samples**	**RPD**
2-Methylnapthalene-d_{10}			35 – **100**	34 – **100**	≤ 40
Dibenzo(a,h)anthracene-d_{14}			37 – 120	**10** – 117	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD), Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(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 1/1/08 through 12/31/08.
(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) Default limits pending generation of historic limits.
(7) Average of the (b) and (k) isomers used until sufficient data is available to calculate a DL.

Quality Control Summary for Butyl Tin Compounds EPA Methods 8270D – SIM

Analyte	DL[1]	LOD[1]	LOQ[1]	Spike Recovery Limits (%)[2, 3]			RPD[4]
				LCS	MB/LCS Surrogate	Sample Surrogate	
TBTWSI – Aqueous Samples (Separatory Funnel Extraction – 100 to 0.5 mL) EPA Method 3510C – ARI Benchsheet TBT#1 – 3043F							
Tributyl Tin Ion[5]	0.043 µg/L	0.096 µg/L	0.193 µg/L	30-160	--	--	≤ 40
Dibutyl Tin Ion[5]	0.096 µg/L	0.216 µg/L	0.433 µg/L	30-160	--	--	≤ 40
Butyl Tin Ion[5]	0.108 µg/L	0.153 µg/L	0.306 µg/L	30-160	--	--	≤ 40
Tripentyl Tin	--	--	--	--	30-160	30-160	≤ 40
Tripropyl Tin	--	--	--	--	30-160	30-160	≤ 40
TBTWSI – Pore Water Samples (Separatory Funnel Extraction – 150 to 0.5 mL) EPA Method 3510C – ARI Benchsheet TBT #3 – 3047F							
Tributyl Tin Ion[6]	--	--	0.0052 µg/L	30-160	--	--	≤ 40
Dibutyl Tin Ion[6]	--	--	0.0077µg/L	30-160	--	--	≤ 40
Butyl Tin Ion[6]	--	--	0.0054 µg/L	30-160	--	--	≤ 40
Tripentyl Tin	--	--	--	--	30-160	30-160	≤ 40
Tripropyl Tin	--	--	--	--	30-160	30-160	≤ 40
TBTSMI – Soil / Sediment Samples (Microwave Extraction – 5g dry wt to 0.5mL) EPA Method 3546 – ARI Benchsheet TBT#4 – 3064F							
Tributyl Tin Ion	1.52 µg/kg	1.93 µg/kg	3.86 µg/kg	40 – 144	--	--	≤ 40
Dibutyl Tin Ion	3.72 µg/kg	4.33 µg/kg	5.78 µg/kg	34 – 115	--	--	≤ 40
Butyl Tin Ion	2.95 µg/kg	3.06 µg/kg	4.08 µg/kg	**10** – 111	--	--	≤ 40
Tripentyl Tin	--	--	--	--	35 – 130	25 – 140	≤ 40
Tripropyl Tin	--	--	--	--	28 – 106	32 – 104	≤ 40

(1) Detection Limit (DL), limit of detection (LOD) and limit of quantation (LOQ) as 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, advisory control limits used when there is insufficient data to calculate historic control limits. These limits are not used as the sole reason to reject data from a batch of of analyzes.
(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) DL from ARI MDL study QD32
(6) ARI does not report concentrations below the LOQ (low calibration standard concentration) and does not, therefore, determine a DL or LOD for butyl tin analysis in interstitial (pore) water.

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	0.230	**0.5**	**1**	75 – 158	≤ 25
2,3,7,8-TCDD	0.274	**0.5**	**1**	67 – 158	≤ 25
1,2,3,7,8-PeCDF	0.832	**2.5**	**2.5**	80 – 134	≤ 25
2,3,4,7,8-PeCDF	1.076	**2.5**	**1**	68 – 160	≤ 25
1,2,3,7,8-PeCDD	0.647	**2.5**	**1**	70 – 142	≤ 25
1,2,3,4,7,8-HxCDF	0.991	**2.5**	**2.5**	72 – 134	≤ 25
1,2,3,6,7,8-HxCDF	0.769	**2.5**	**2.5**	84 – 130	≤ 25
2,3,4,6,7,8-HxCDF	0.904	**2.5**	**2.5**	70 – 156	≤ 25
1,2,3,7,8,9-HxCDF	0.857	**2.5**	**2.5**	78 – 130	≤ 25
1,2,3,4,7,8-HxCDD	0.481	**2.5**	**2.5**	70 – 164	≤ 25
1,2,3,6,7,8-HxCDD	0.561	**2.5**	**2.5**	76 – 134	≤ 25
1,2,3,7,8,9-HxCDD	0.886	**2.5**	**2.5**	64 – 162	≤ 25
1,2,3,4,6,7,8-HpCDF	1.165	**2.5**	**2.5**	82 – 122	≤ 25
1,2,3,4,7,8,9-HpCDF	0.688	**2.5**	**2.5**	78 – 138	≤ 25
1,2,3,4,6,7,8-HpCDD	0.828	**2.5**	**2.5**	70 – 140	≤ 25
OCDF	2.176	**5.0**	**5**	63 – 170	≤ 25
OCDD	7.452	**5.0**	**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

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

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

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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

Analysis Code	Extraction	DL[1] (ppb)	LOD[1] (ppb)	LOQ[1] (ppb)	Analyte	Spike Recovery Control Limits (%)[2,3,8] LCS	MB/LCS Surrogate	Sample Surrogate	RPD[4]
Soil / Sediment Samples (Microwave Extraction – EPA Method 3546)									
PCBSMI 15-3067F	12g to 4 mL	9.83	17	33	Aroclor 1016	55 – 109	--	--	≤ 40
		7.06	17	33	Aroclor 1260	50 – 125	--	--	
PCBSCI 08-3025F		--	--	--	TCMX	--	53 – 108	39 – 122	
		--	--	--	DCBP	--	49 – 126	31 – 140	
PCBDMP20 05-3017F	12.5 g to 2.5 mL[6]	9.33	10	20[6]	Aroclor 1016	46 – 110	--	--	≤ 40
		10.82	15	20[6]	Aroclor 1260	47 – 124	--	--	
PCBDCP20 06-3026F		--	--	--	TCMX	--	43 – 107	34 – 109	
		--	--	--	DCBP	--	48 – 123	24 – 127	
PCBDMP10 05-3017F	12.5 g to 2.5 mL[6]	0.759	5	10[6]	Aroclor 1016	46 – 110	--	--	≤ 40
		1.066	5	10[6]	Aroclor 1260	47 – 124	--	--	
PCBDCP10 06-3026F		--	--	--	TCMX	--	43 – 107	34 – 109	
		--	--	--	DCBP	--	48 – 123	24 – 127	
PCBDMP4 05-3017F	12.5 g to 2.5 mL[6]	0.577	2	4[6]	Aroclor 1016	46 – 110	--	--	≤ 40
		0.610	2	4[6]	Aroclor 1260	47 – 124	--	--	
PCBDCP4 06-3026F		--	--	--	TCMX	--	43 – 107	34 – 109	
		--	--	--	DCBP	--	48 – 123	24 – 127	
Soil / Sediment Samples Medium Level (Vortex Extraction – EPA Method 3546)									
PCBSVX 12-3019F	5 g to 40 mL	109[7]	400	800	Aroclor 1016	30 – 160	--	--	≤ 40
		192[7]	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

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

(6) LOQ determined by lowest concentration used to calibrate the GC-ECD instrument.
(7) MDL Study PC66 6/24/09
(8) Control Limits calculated using all data generated between 1/1/11 and 11/30/11

Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: VR38

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-01-S-C-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38A
LIMS ID: 12-22267
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 15:24
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 20.5%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.1	19	< 19 U
541-73-1	1,3-Dichlorobenzene	2.5	19	< 19 U
106-46-7	1,4-Dichlorobenzene	2.7	19	< 19 U
100-51-6	Benzyl Alcohol	5.7	19	< 19 U
95-50-1	1,2-Dichlorobenzene	2.4	19	< 19 U
95-48-7	2-Methylphenol	4.9	19	< 19 U
106-44-5	4-Methylphenol	6.2	38	< 38 U
67-72-1	Hexachloroethane	2.8	19	< 19 U
105-67-9	2,4-Dimethylphenol	3.3	19	< 19 UJ
65-85-0	Benzoic Acid	95	380	< 380 U
120-82-1	1,2,4-Trichlorobenzene	3.3	19	< 19 U
91-20-3	Naphthalene	2.6	19	< 19 U
87-68-3	Hexachlorobutadiene	4.3	10	< 10 UJ
91-57-6	2-Methylnaphthalene	2.9	19	< 19 U
131-11-3	Dimethylphthalate	2.7	19	< 19 U
208-96-8	Acenaphthylene	5.4	19	< 19 U
83-32-9	Acenaphthene	3.1	19	< 19 U
132-64-9	Dibenzofuran	3.9	19	< 19 U
84-66-2	**Diethylphthalate**	**34**	**47**	**67**
86-73-7	Fluorene	4.1	19	< 19 U
86-30-6	N-Nitrosodiphenylamine	5.1	19	< 19 U
118-74-1	Hexachlorobenzene	4.0	19	< 19 U
87-86-5	Pentachlorophenol	46	190	< 190 U
85-01-8	Phenanthrene	3.4	19	< 19 U
120-12-7	Anthracene	4.2	19	< 19 U
84-74-2	Di-n-Butylphthalate	7.7	19	< 19 U
206-44-0	Fluoranthene	2.7	19	< 19 U
129-00-0	Pyrene	1.8	19	< 19 U
85-68-7	Butylbenzylphthalate	5.8	19	< 19 U
56-55-3	Benzo(a)anthracene	3.1	19	< 19 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**24**	**16 J**
218-01-9	Chrysene	3.5	19	< 19 U
117-84-0	Di-n-Octyl phthalate	5.5	19	< 19 U
50-32-8	Benzo(a)pyrene	5.1	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.4	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	4.1	19	< 19 U
191-24-2	Benzo(g,h,i)perylene	4.1	19	< 19 U
90-12-0	1-Methylnaphthalene	2.5	19	< 19 U
TOTBFA	Total Benzofluoranthenes	2.6	38	< 38 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	67.2%	2-Fluorobiphenyl	74.2%
d14-p-Terphenyl	76.4%	d4-1,2-Dichlorobenzene	69.0%
d5-Phenol	77.7%	2-Fluorophenol	81.1%
2,4,6-Tribromophenol	82.0%	d4-2-Chlorophenol	72.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-02-S-C-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 16:02
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 15.6%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.5	20	< 20 U
541-73-1	1,3-Dichlorobenzene	2.6	20	< 20 U
106-46-7	1,4-Dichlorobenzene	2.8	20	< 20 U
100-51-6	Benzyl Alcohol	6.0	20	< 20 U
95-50-1	1,2-Dichlorobenzene	2.5	20	< 20 U
95-48-7	2-Methylphenol	5.2	20	< 20 U
106-44-5	4-Methylphenol	6.5	39	< 39 U
67-72-1	Hexachloroethane	2.9	20	< 20 U
105-67-9	2,4-Dimethylphenol	3.4	20	< 20 UJ
65-85-0	Benzoic Acid	100	390	< 390 U
120-82-1	1,2,4-Trichlorobenzene	3.4	20	< 20 U
91-20-3	**Naphthalene**	**2.7**	**20**	**12 J**
87-68-3	Hexachlorobutadiene	4.5	10	< 10 UJ
91-57-6	2-Methylnaphthalene	3.0	20	< 20 U
131-11-3	Dimethylphthalate	2.9	20	< 20 U
208-96-8	Acenaphthylene	5.6	20	< 20 U
83-32-9	Acenaphthene	3.2	20	< 20 U
132-64-9	Dibenzofuran	4.0	20	< 20 U
84-66-2	Diethylphthalate	36	49	< 49 U
86-73-7	Fluorene	4.3	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	5.3	20	< 20 U
118-74-1	Hexachlorobenzene	4.2	20	< 20 U
87-86-5	Pentachlorophenol	48	200	< 200 U
85-01-8	**Phenanthrene**	**3.6**	**20**	**20**
120-12-7	Anthracene	4.4	20	< 20 U
84-74-2	Di-n-Butylphthalate	8.0	20	< 20 U
206-44-0	**Fluoranthene**	**2.9**	**20**	**23**
129-00-0	**Pyrene**	**1.9**	**20**	**16 J**
85-68-7	Butylbenzylphthalate	6.1	20	< 20 U
56-55-3	Benzo(a)anthracene	3.2	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**25**	**18 J**
218-01-9	Chrysene	3.7	20	< 20 U
117-84-0	Di-n-Octyl phthalate	5.8	20	< 20 U
50-32-8	Benzo(a)pyrene	5.4	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.6	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	4.3	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	4.3	20	< 20 U
90-12-0	1-Methylnaphthalene	2.6	20	< 20 U
TOTBFA	Total Benzofluoranthenes	2.7	39	< 39 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.8%	2-Fluorobiphenyl	74.0%
d14-p-Terphenyl	72.8%	d4-1,2-Dichlorobenzene	66.2%
d5-Phenol	73.6%	2-Fluorophenol	75.9%
2,4,6-Tribromophenol	77.9%	d4-2-Chlorophenol	70.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-03-S-C-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38C
LIMS ID: 12-22269
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 16:39
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.2%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**8.3**	**19**	**18 J**
541-73-1	1,3-Dichlorobenzene	2.5	19	< 19 U
106-46-7	1,4-Dichlorobenzene	2.8	19	< 19 U
100-51-6	**Benzyl Alcohol**	**5.9**	**19**	**20**
95-50-1	1,2-Dichlorobenzene	2.4	19	< 19 U
95-48-7	2-Methylphenol	5.1	19	< 19 U
106-44-5	**4-Methylphenol**	**6.4**	**39**	**36 J**
67-72-1	Hexachloroethane	2.8	19	< 19 U
105-67-9	2,4-Dimethylphenol	3.3	19	< 19 UJ
65-85-0	Benzoic Acid	97	390	< 390 U
120-82-1	1,2,4-Trichlorobenzene	3.4	19	< 19 U
91-20-3	**Naphthalene**	**2.7**	**19**	**97**
87-68-3	Hexachlorobutadiene	4.4	10	< 10 UJ
91-57-6	**2-Methylnaphthalene**	**3.0**	**19**	**51**
131-11-3	Dimethylphthalate	2.8	19	< 19 U
208-96-8	Acenaphthylene	5.5	19	< 19 U
83-32-9	**Acenaphthene**	**3.2**	**19**	**55**
132-64-9	**Dibenzofuran**	**4.0**	**19**	**78**
84-66-2	Diethylphthalate	35	48	< 48 U
86-73-7	**Fluorene**	**4.2**	**19**	**72**
86-30-6	N-Nitrosodiphenylamine	5.2	19	< 19 U
118-74-1	Hexachlorobenzene	4.1	19	< 19 U
87-86-5	Pentachlorophenol	47	190	< 190 U
85-01-8	**Phenanthrene**	**3.5**	**19**	**260**
120-12-7	**Anthracene**	**4.3**	**19**	**53**
84-74-2	Di-n-Butylphthalate	7.9	19	< 19 U
206-44-0	**Fluoranthene**	**2.8**	**19**	**260**
129-00-0	**Pyrene**	**1.9**	**19**	**170**
85-68-7	**Butylbenzylphthalate**	**5.9**	**19**	**16 J**
56-55-3	**Benzo(a)anthracene**	**3.2**	**19**	**75**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**24**	**66**
218-01-9	**Chrysene**	**3.6**	**19**	**110**
117-84-0	Di-n-Octyl phthalate	5.6	19	< 19 U
50-32-8	**Benzo(a)pyrene**	**5.3**	**19**	**57**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**4.5**	**19**	**25**
53-70-3	**Dibenz(a,h)anthracene**	**4.2**	**19**	**14 J**
191-24-2	**Benzo(g,h,i)perylene**	**4.2**	**19**	**34**
90-12-0	**1-Methylnaphthalene**	**2.6**	**19**	**27**
TOTBFA	**Total Benzofluoranthenes**	**2.7**	**39**	**120**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	60.2%	2-Fluorobiphenyl	71.4%
d14-p-Terphenyl	61.4%	d4-1,2-Dichlorobenzene	60.2%
d5-Phenol	71.2%	2-Fluorophenol	71.3%
2,4,6-Tribromophenol	78.1%	d4-2-Chlorophenol	66.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-04-S-C-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38D
LIMS ID: 12-22270
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 17:16
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 40.7%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**8.5**	**20**	**180**
541-73-1	1,3-Dichlorobenzene	2.6	20	< 20 U
106-46-7	1,4-Dichlorobenzene	2.8	20	< 20 U
100-51-6	**Benzyl Alcohol**	**6.0**	**20**	**210**
95-50-1	1,2-Dichlorobenzene	2.5	20	< 20 U
95-48-7	**2-Methylphenol**	**5.2**	**20**	**16 J**
106-44-5	**4-Methylphenol**	**6.6**	**40**	**150**
67-72-1	Hexachloroethane	2.9	20	< 20 U
105-67-9	2,4-Dimethylphenol	3.4	20	< 20 UJ
65-85-0	**Benzoic Acid**	**100**	**400**	**390 J**
120-82-1	1,2,4-Trichlorobenzene	3.4	20	< 20 U
91-20-3	**Naphthalene**	**2.7**	**20**	**380**
87-68-3	Hexachlorobutadiene	4.5	10	< 10 UJ
91-57-6	**2-Methylnaphthalene**	**3.0**	**20**	**190**
131-11-3	Dimethylphthalate	2.9	20	< 20 U
208-96-8	**Acenaphthylene**	**5.6**	**20**	**17 J**
83-32-9	**Acenaphthene**	**3.2**	**20**	**120**
132-64-9	**Dibenzofuran**	**4.1**	**20**	**280**
84-66-2	Diethylphthalate	36	49	< 49 U
86-73-7	**Fluorene**	**4.3**	**20**	**230**
86-30-6	N-Nitrosodiphenylamine	5.3	20	< 20 U
118-74-1	**Hexachlorobenzene**	**4.2**	**20**	**23**
87-86-5	Pentachlorophenol	48	200	< 200 U
85-01-8	**Phenanthrene**	**3.6**	**20**	**860**
120-12-7	**Anthracene**	**4.4**	**20**	**180**
84-74-2	Di-n-Butylphthalate	8.1	20	< 20 U
206-44-0	**Fluoranthene**	**2.9**	**20**	**1,100**
129-00-0	**Pyrene**	**1.9**	**20**	**620**
85-68-7	**Butylbenzylphthalate**	**6.1**	**20**	**65**
56-55-3	**Benzo(a)anthracene**	**3.3**	**20**	**240**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**25**	**460**
218-01-9	**Chrysene**	**3.7**	**20**	**360**
117-84-0	Di-n-Octyl phthalate	5.8	20	< 20 U
50-32-8	**Benzo(a)pyrene**	**5.4**	**20**	**140**
193-39-5	Indeno(1,2,3-cd)pyrene	4.6	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	4.3	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	4.3	20	< 20 U
90-12-0	**1-Methylnaphthalene**	**2.6**	**20**	**83**
TOTBFA	**Total Benzofluoranthenes**	**2.7**	**40**	**420**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	38.0%	2-Fluorobiphenyl	85.8%
d14-p-Terphenyl	70.8%	d4-1,2-Dichlorobenzene	73.8%
d5-Phenol	87.5%	2-Fluorophenol	81.9%
2,4,6-Tribromophenol	85.5%	d4-2-Chlorophenol	79.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-05-S-C-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38E
LIMS ID: 12-22271
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 17:53
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 18.4%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**8.0**	**18**	**10 J**
541-73-1	1,3-Dichlorobenzene	2.4	18	< 18 U
106-46-7	1,4-Dichlorobenzene	2.7	18	< 18 U
100-51-6	Benzyl Alcohol	5.6	18	< 18 U
95-50-1	1,2-Dichlorobenzene	2.3	18	< 18 U
95-48-7	2-Methylphenol	4.9	18	< 18 U
106-44-5	**4-Methylphenol**	**6.1**	**37**	**24 J**
67-72-1	Hexachloroethane	2.7	18	< 18 U
105-67-9	2,4-Dimethylphenol	3.2	18	< 18 UJ
65-85-0	Benzoic Acid	94	370	< 370 U
120-82-1	1,2,4-Trichlorobenzene	3.2	18	< 18 U
91-20-3	Naphthalene	2.6	18	< 18 U
87-68-3	Hexachlorobutadiene	4.2	10	< 10 UJ
91-57-6	2-Methylnaphthalene	2.8	18	< 18 U
131-11-3	Dimethylphthalate	2.7	18	< 18 U
208-96-8	Acenaphthylene	5.3	18	< 18 U
83-32-9	Acenaphthene	3.0	18	< 18 U
132-64-9	Dibenzofuran	3.8	18	< 18 U
84-66-2	Diethylphthalate	34	46	< 46 U
86-73-7	Fluorene	4.0	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	5.0	18	< 18 U
118-74-1	Hexachlorobenzene	4.0	18	< 18 U
87-86-5	Pentachlorophenol	45	180	< 180 U
85-01-8	Phenanthrene	3.4	18	< 18 U
120-12-7	Anthracene	4.2	18	< 18 U
84-74-2	Di-n-Butylphthalate	7.6	18	< 18 U
206-44-0	**Fluoranthene**	**2.7**	**18**	**20**
129-00-0	**Pyrene**	**1.8**	**18**	**12 J**
85-68-7	Butylbenzylphthalate	5.7	18	< 18 U
56-55-3	Benzo(a)anthracene	3.0	18	< 18 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**23**	**23**
218-01-9	**Chrysene**	**3.5**	**18**	**12 J**
117-84-0	Di-n-Octyl phthalate	5.4	18	< 18 U
50-32-8	Benzo(a)pyrene	5.1	18	< 18 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.3	18	< 18 U
53-70-3	Dibenz(a,h)anthracene	4.0	18	< 18 U
191-24-2	Benzo(g,h,i)perylene	4.1	18	< 18 U
90-12-0	1-Methylnaphthalene	2.5	18	< 18 U
TOTBFA	**Total Benzofluoranthenes**	**2.5**	**37**	**10 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	61.8%	2-Fluorobiphenyl	68.6%
d14-p-Terphenyl	68.4%	d4-1,2-Dichlorobenzene	65.4%
d5-Phenol	71.6%	2-Fluorophenol	74.0%
2,4,6-Tribromophenol	89.9%	d4-2-Chlorophenol	67.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-08-S-C-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38F
LIMS ID: 12-22272
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 18:30
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.8 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 17.3%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.0	18	< 18 U
541-73-1	1,3-Dichlorobenzene	2.4	18	< 18 U
106-46-7	1,4-Dichlorobenzene	2.6	18	< 18 U
100-51-6	Benzyl Alcohol	5.6	18	< 18 U
95-50-1	1,2-Dichlorobenzene	2.3	18	< 18 U
95-48-7	2-Methylphenol	4.8	18	< 18 U
106-44-5	4-Methylphenol	6.1	37	< 37 U
67-72-1	Hexachloroethane	2.7	18	< 18 U
105-67-9	2,4-Dimethylphenol	3.2	18	< 18 UJ
65-85-0	Benzoic Acid	93	370	< 370 U
120-82-1	1,2,4-Trichlorobenzene	3.2	18	< 18 U
91-20-3	Naphthalene	2.5	18	< 18 U
87-68-3	Hexachlorobutadiene	4.2	10	< 10 UJ
91-57-6	2-Methylnaphthalene	2.8	18	< 18 U
131-11-3	**Dimethylphthalate**	**2.7**	**18**	**97**
208-96-8	Acenaphthylene	5.3	18	< 18 U
83-32-9	Acenaphthene	3.0	18	< 18 U
132-64-9	Dibenzofuran	3.8	18	< 18 U
84-66-2	Diethylphthalate	34	46	< 46 U
86-73-7	Fluorene	4.0	18	< 18 U
86-30-6	N-Nitrosodiphenylamine	5.0	18	< 18 U
118-74-1	Hexachlorobenzene	4.0	18	< 18 U
87-86-5	Pentachlorophenol	45	180	< 180 U
85-01-8	**Phenanthrene**	**3.4**	**18**	**9.2 J**
120-12-7	Anthracene	4.2	18	< 18 U
84-74-2	**Di-n-Butylphthalate**	**7.5**	**18**	**28**
206-44-0	**Fluoranthene**	**2.7**	**18**	**19**
129-00-0	**Pyrene**	**1.8**	**18**	**17 J**
85-68-7	**Butylbenzylphthalate**	**5.7**	**18**	**19**
56-55-3	Benzo(a)anthracene	3.0	18	< 18 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**13**	**23**	**72**
218-01-9	**Chrysene**	**3.5**	**18**	**10 J**
117-84-0	Di-n-Octyl phthalate	5.4	18	< 18 U
50-32-8	Benzo(a)pyrene	5.0	18	< 18 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.3	18	< 18 U
53-70-3	Dibenz(a,h)anthracene	4.0	18	< 18 U
191-24-2	Benzo(g,h,i)perylene	4.1	18	< 18 U
90-12-0	1-Methylnaphthalene	2.5	18	< 18 U
TOTBFA	**Total Benzofluoranthenes**	**2.5**	**37**	**15 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.4%	2-Fluorobiphenyl	71.6%
d14-p-Terphenyl	70.4%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	73.3%	2-Fluorophenol	75.2%
2,4,6-Tribromophenol	84.1%	d4-2-Chlorophenol	66.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-09-S-C-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38G
LIMS ID: 12-22273
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 19:07
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 26.2%

CAS Number	Analyte	MDL	RL	Result
108-95-2	**Phenol**	**8.3**	**19**	**11 J**
541-73-1	1,3-Dichlorobenzene	2.5	19	< 19 U
106-46-7	1,4-Dichlorobenzene	2.7	19	< 19 U
100-51-6	**Benzyl Alcohol**	**5.9**	**19**	**23**
95-50-1	1,2-Dichlorobenzene	2.4	19	< 19 U
95-48-7	2-Methylphenol	5.0	19	< 19 U
106-44-5	4-Methylphenol	6.4	38	< 38 U
67-72-1	Hexachloroethane	2.8	19	< 19 U
105-67-9	2,4-Dimethylphenol	3.3	19	< 19 UJ
65-85-0	**Benzoic Acid**	**97**	**380**	**140 J**
120-82-1	1,2,4-Trichlorobenzene	3.3	19	< 19 U
91-20-3	Naphthalene	2.7	19	< 19 U
87-68-3	Hexachlorobutadiene	4.4	10	< 10 UJ
91-57-6	2-Methylnaphthalene	2.9	19	< 19 U
131-11-3	**Dimethylphthalate**	**2.8**	**19**	**970**
208-96-8	Acenaphthylene	5.5	19	< 19 U
83-32-9	Acenaphthene	3.2	19	< 19 U
132-64-9	Dibenzofuran	3.9	19	< 19 U
84-66-2	Diethylphthalate	35	48	< 48 U
86-73-7	Fluorene	4.2	19	< 19 U
86-30-6	N-Nitrosodiphenylamine	5.2	19	< 19 U
118-74-1	Hexachlorobenzene	4.1	19	< 19 U
87-86-5	Pentachlorophenol	47	190	< 190 U
85-01-8	**Phenanthrene**	**3.5**	**19**	**48**
120-12-7	Anthracene	4.3	19	< 19 U
84-74-2	**Di-n-Butylphthalate**	**7.8**	**19**	**17 J**
206-44-0	**Fluoranthene**	**2.8**	**19**	**63**
129-00-0	**Pyrene**	**1.9**	**19**	**46**
85-68-7	Butylbenzylphthalate	5.9	19	< 19 U
56-55-3	**Benzo(a)anthracene**	**3.2**	**19**	**20**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**24**	**130**
218-01-9	**Chrysene**	**3.6**	**19**	**32**
117-84-0	**Di-n-Octyl phthalate**	**5.6**	**19**	**15 J**
50-32-8	**Benzo(a)pyrene**	**5.2**	**19**	**25**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**4.5**	**19**	**19**
53-70-3	Dibenz(a,h)anthracene	4.1	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**4.2**	**19**	**24**
90-12-0	1-Methylnaphthalene	2.6	19	< 19 U
TOTBFA	**Total Benzofluoranthenes**	**2.6**	**38**	**56**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	67.2%	2-Fluorobiphenyl	78.6%
d14-p-Terphenyl	69.8%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	75.6%	2-Fluorophenol	74.3%
2,4,6-Tribromophenol	87.2%	d4-2-Chlorophenol	69.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-10-S-LFP-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 19:44
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 14.3%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.4	19	< 19 U
541-73-1	1,3-Dichlorobenzene	2.5	19	< 19 U
106-46-7	1,4-Dichlorobenzene	2.8	19	< 19 U
100-51-6	Benzyl Alcohol	5.9	19	< 19 U
95-50-1	1,2-Dichlorobenzene	2.4	19	< 19 U
95-48-7	2-Methylphenol	5.1	19	< 19 U
106-44-5	4-Methylphenol	6.4	39	< 39 U
67-72-1	Hexachloroethane	2.8	19	< 19 U
105-67-9	2,4-Dimethylphenol	3.3	19	< 19 UJ
65-85-0	Benzoic Acid	98	390	< 390 U
120-82-1	1,2,4-Trichlorobenzene	3.4	19	< 19 U
91-20-3	Naphthalene	2.7	19	< 19 U
87-68-3	Hexachlorobutadiene	4.4	10	< 10 UJ
91-57-6	2-Methylnaphthalene	3.0	19	< 19 U
131-11-3	Dimethylphthalate	2.8	19	< 19 U
208-96-8	Acenaphthylene	5.5	19	< 19 U
83-32-9	Acenaphthene	3.2	19	< 19 U
132-64-9	Dibenzofuran	4.0	19	< 19 U
84-66-2	Diethylphthalate	35	48	< 48 U
86-73-7	Fluorene	4.2	19	< 19 U
86-30-6	N-Nitrosodiphenylamine	5.2	19	< 19 U
118-74-1	Hexachlorobenzene	4.1	19	< 19 U
87-86-5	Pentachlorophenol	47	190	< 190 U
85-01-8	**Phenanthrene**	**3.5**	**19**	**29**
120-12-7	Anthracene	4.3	19	< 19 U
84-74-2	Di-n-Butylphthalate	7.9	19	< 19 U
206-44-0	**Fluoranthene**	**2.8**	**19**	**56**
129-00-0	**Pyrene**	**1.9**	**19**	**41**
85-68-7	Butylbenzylphthalate	5.9	19	< 19 U
56-55-3	**Benzo(a)anthracene**	**3.2**	**19**	**18 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**24**	**31**
218-01-9	**Chrysene**	**3.6**	**19**	**26**
117-84-0	Di-n-Octyl phthalate	5.6	19	< 19 U
50-32-8	**Benzo(a)pyrene**	**5.3**	**19**	**21**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**4.5**	**19**	**16 J**
53-70-3	Dibenz(a,h)anthracene	4.2	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**4.3**	**19**	**19**
90-12-0	1-Methylnaphthalene	2.6	19	< 19 U
TOTBFA	**Total Benzofluoranthenes**	**2.7**	**39**	**44**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.2%	2-Fluorobiphenyl	70.8%
d14-p-Terphenyl	73.4%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	69.2%	2-Fluorophenol	72.3%
2,4,6-Tribromophenol	84.9%	d4-2-Chlorophenol	65.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-11-S-LFP-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 20:21
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 14.7%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.4	20	< 20 U
541-73-1	1,3-Dichlorobenzene	2.6	20	< 20 U
106-46-7	1,4-Dichlorobenzene	2.8	20	< 20 U
100-51-6	Benzyl Alcohol	5.9	20	< 20 U
95-50-1	1,2-Dichlorobenzene	2.4	20	< 20 U
95-48-7	2-Methylphenol	5.1	20	< 20 U
106-44-5	4-Methylphenol	6.4	39	< 39 U
67-72-1	Hexachloroethane	2.9	20	< 20 U
105-67-9	2,4-Dimethylphenol	3.4	20	< 20 UJ
65-85-0	Benzoic Acid	98	390	< 390 U
120-82-1	1,2,4-Trichlorobenzene	3.4	20	< 20 U
91-20-3	Naphthalene	2.7	20	< 20 U
87-68-3	Hexachlorobutadiene	4.4	10	< 10 UJ
91-57-6	2-Methylnaphthalene	3.0	20	< 20 U
131-11-3	Dimethylphthalate	2.8	20	< 20 U
208-96-8	Acenaphthylene	5.6	20	< 20 U
83-32-9	Acenaphthene	3.2	20	< 20 U
132-64-9	Dibenzofuran	4.0	20	< 20 U
84-66-2	Diethylphthalate	36	49	< 49 U
86-73-7	Fluorene	4.2	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	5.2	20	< 20 U
118-74-1	Hexachlorobenzene	4.2	20	< 20 U
87-86-5	Pentachlorophenol	47	200	< 200 U
85-01-8	Phenanthrene	3.5	20	< 20 U
120-12-7	Anthracene	4.4	20	< 20 U
84-74-2	Di-n-Butylphthalate	7.9	20	< 20 U
206-44-0	Fluoranthene	2.8	20	< 20 U
129-00-0	Pyrene	1.9	20	< 20 U
85-68-7	Butylbenzylphthalate	6.0	20	< 20 U
56-55-3	Benzo(a)anthracene	3.2	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**24**	**21 J**
218-01-9	Chrysene	3.6	20	< 20 U
117-84-0	Di-n-Octyl phthalate	5.7	20	< 20 U
50-32-8	Benzo(a)pyrene	5.3	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.6	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	4.2	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	4.3	20	< 20 U
90-12-0	1-Methylnaphthalene	2.6	20	< 20 U
TOTBFA	Total Benzofluoranthenes	2.7	39	< 39 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.2%	2-Fluorobiphenyl	70.8%
d14-p-Terphenyl	71.8%	d4-1,2-Dichlorobenzene	64.8%
d5-Phenol	72.5%	2-Fluorophenol	74.1%
2,4,6-Tribromophenol	83.6%	d4-2-Chlorophenol	68.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-06-S-E-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38J
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized: B
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 22:12
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.5 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 20.2%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.2	19	< 19 U
541-73-1	1,3-Dichlorobenzene	2.5	19	< 19 U
106-46-7	1,4-Dichlorobenzene	2.7	19	< 19 U
100-51-6	**Benzyl Alcohol**	**5.8**	**19**	**37**
95-50-1	1,2-Dichlorobenzene	2.4	19	< 19 U
95-48-7	2-Methylphenol	5.0	19	< 19 U
106-44-5	4-Methylphenol	6.3	38	< 38 U
67-72-1	Hexachloroethane	2.8	19	< 19 U
105-67-9	2,4-Dimethylphenol	3.3	19	< 19 UJ
65-85-0	Benzoic Acid	96	380	< 380 U
120-82-1	1,2,4-Trichlorobenzene	3.3	19	< 19 U
91-20-3	Naphthalene	2.6	19	< 19 U
87-68-3	Hexachlorobutadiene	4.3	10	< 10 UJ
91-57-6	2-Methylnaphthalene	2.9	19	< 19 U
131-11-3	Dimethylphthalate	2.8	19	< 19 U
208-96-8	Acenaphthylene	5.4	19	< 19 U
83-32-9	Acenaphthene	3.1	19	< 19 U
132-64-9	Dibenzofuran	3.9	19	< 19 U
84-66-2	Diethylphthalate	35	48	< 48 U
86-73-7	Fluorene	4.1	19	< 19 U
86-30-6	N-Nitrosodiphenylamine	5.1	19	< 19 U
118-74-1	Hexachlorobenzene	4.1	19	< 19 U
87-86-5	Pentachlorophenol	46	190	< 190 U
85-01-8	**Phenanthrene**	**3.5**	**19**	**20**
120-12-7	Anthracene	4.3	19	< 19 U
84-74-2	Di-n-Butylphthalate	7.7	19	< 19 U
206-44-0	**Fluoranthene**	**2.8**	**19**	**48**
129-00-0	**Pyrene**	**1.8**	**19**	**34**
85-68-7	Butylbenzylphthalate	5.8	19	< 19 U
56-55-3	**Benzo(a)anthracene**	**3.1**	**19**	**15 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**24**	**110**
218-01-9	**Chrysene**	**3.6**	**19**	**24**
117-84-0	Di-n-Octyl phthalate	5.5	19	< 19 U
50-32-8	**Benzo(a)pyrene**	**5.2**	**19**	**18 J**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**4.4**	**19**	**14 J**
53-70-3	Dibenz(a,h)anthracene	4.1	19	< 19 U
191-24-2	**Benzo(g,h,i)perylene**	**4.2**	**19**	**18 J**
90-12-0	1-Methylnaphthalene	2.5	19	< 19 U
TOTBFA	**Total Benzofluoranthenes**	**2.6**	**38**	**48**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.4%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	70.6%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	70.3%	2-Fluorophenol	71.9%
2,4,6-Tribromophenol	84.0%	d4-2-Chlorophenol	66.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-07-S-E-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 22:49
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 16.5%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.6	20	< 20 U
541-73-1	1,3-Dichlorobenzene	2.6	20	< 20 U
106-46-7	1,4-Dichlorobenzene	2.8	20	< 20 U
100-51-6	**Benzyl Alcohol**	**6.0**	**20**	**19 J**
95-50-1	1,2-Dichlorobenzene	2.5	20	< 20 U
95-48-7	2-Methylphenol	5.2	20	< 20 U
106-44-5	4-Methylphenol	6.6	40	< 40 U
67-72-1	Hexachloroethane	2.9	20	< 20 U
105-67-9	2,4-Dimethylphenol	3.4	20	< 20 UJ
65-85-0	Benzoic Acid	100	400	< 400 U
120-82-1	1,2,4-Trichlorobenzene	3.4	20	< 20 U
91-20-3	Naphthalene	2.7	20	< 20 U
87-68-3	Hexachlorobutadiene	4.5	10	< 10 UJ
91-57-6	2-Methylnaphthalene	3.0	20	< 20 U
131-11-3	Dimethylphthalate	2.9	20	< 20 U
208-96-8	Acenaphthylene	5.7	20	< 20 U
83-32-9	Acenaphthene	3.3	20	< 20 U
132-64-9	Dibenzofuran	4.1	20	< 20 U
84-66-2	Diethylphthalate	36	50	< 50 U
86-73-7	Fluorene	4.3	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	5.3	20	< 20 U
118-74-1	Hexachlorobenzene	4.3	20	< 20 U
87-86-5	Pentachlorophenol	48	200	< 200 U
85-01-8	**Phenanthrene**	**3.6**	**20**	**20**
120-12-7	Anthracene	4.5	20	< 20 U
84-74-2	Di-n-Butylphthalate	8.1	20	< 20 U
206-44-0	**Fluoranthene**	**2.9**	**20**	**50**
129-00-0	**Pyrene**	**1.9**	**20**	**39**
85-68-7	Butylbenzylphthalate	6.1	20	< 20 U
56-55-3	**Benzo(a)anthracene**	**3.3**	**20**	**18 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**14**	**25**	**79**
218-01-9	**Chrysene**	**3.7**	**20**	**29**
117-84-0	Di-n-Octyl phthalate	5.8	20	< 20 U
50-32-8	**Benzo(a)pyrene**	**5.4**	**20**	**24**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**4.6**	**20**	**20**
53-70-3	Dibenz(a,h)anthracene	4.3	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**4.4**	**20**	**26**
90-12-0	1-Methylnaphthalene	2.7	20	< 20 U
TOTBFA	**Total Benzofluoranthenes**	**2.7**	**40**	**50**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.4%	2-Fluorobiphenyl	71.2%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	63.8%
d5-Phenol	72.1%	2-Fluorophenol	73.6%
2,4,6-Tribromophenol	81.5%	d4-2-Chlorophenol	67.7%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
HT-01-S-C-121106	67.2%	74.2%	76.4%	69.0%	77.7%	81.1%	82.0%	72.9%	0
HT-02-S-C-121106	63.8%	74.0%	72.8%	66.2%	73.6%	75.9%	77.9%	70.7%	0
HT-03-S-C-121106	60.2%	71.4%	61.4%	60.2%	71.2%	71.3%	78.1%	66.1%	0
HT-04-S-C-121106	38.0%	85.8%	70.8%	73.8%	87.5%	81.9%	85.5%	79.9%	0
HT-05-S-C-121106	61.8%	68.6%	68.4%	65.4%	71.6%	74.0%	89.9%	67.1%	0
HT-08-S-C-121106	65.4%	71.6%	70.4%	64.4%	73.3%	75.2%	84.1%	66.9%	0
HT-09-S-C-121106	67.2%	78.6%	69.8%	64.4%	75.6%	74.3%	87.2%	69.7%	0
HT-10-S-LFP-121106	62.2%	70.8%	73.4%	62.0%	69.2%	72.3%	84.9%	65.7%	0
MB-111212	71.8%	76.2%	79.8%	74.2%	84.8%	84.8%	84.7%	77.2%	0
LCS-111212	75.4%	82.8%	85.6%	74.2%	88.1%	87.6%	89.2%	78.0%	0
HT-11-S-LFP-121106	64.2%	70.8%	71.8%	64.8%	72.5%	74.1%	83.6%	68.4%	0
HT-11-S-LFP-121106 MS	67.4%	74.8%	75.4%	69.6%	79.2%	79.1%	86.0%	70.9%	0
HT-11-S-LFP-121106 MSD	63.0%	72.8%	69.8%	66.4%	72.7%	74.9%	80.0%	67.1%	0
HT-06-S-E-121106	63.4%	72.0%	70.6%	64.0%	70.3%	71.9%	84.0%	66.0%	0
HT-07-S-E-121106	63.4%	71.2%	72.0%	63.8%	72.1%	73.6%	81.5%	67.7%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546
Log Number Range: 12-22267 to 12-22277

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-11-S-LFP-121106**
Page 1 of 1 **MS/MSD**

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized: JB
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted MS/MSD: 11/12/12

Date Analyzed MS: 11/19/12 20:58
MSD: 11/19/12 21:35
Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ
GPC Cleanup: Yes

Sample Amount MS: 10.27 g-dry-wt
MSD: 10.26 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.00
MSD: 1.00
Percent Moisture: 14.7 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 20 U	338	487	69.4%	330	487	67.8%	2.4%
1,3-Dichlorobenzene	< 20 U	335	487	68.8%	327	487	67.1%	2.4%
1,4-Dichlorobenzene	< 20 U	340	487	69.8%	339	487	69.6%	0.3%
Benzyl Alcohol	< 20 U	369	487	75.8%	359	487	73.7%	2.7%
1,2-Dichlorobenzene	< 20 U	336	487	69.0%	334	487	68.6%	0.6%
2-Methylphenol	< 20 U	278	487	57.1%	271	487	55.6%	2.6%
4-Methylphenol	< 39 U	585	974	60.1%	571	975	58.6%	2.4%
Hexachloroethane	< 20 U	290	487	59.5%	292	487	60.0%	0.7%
2,4-Dimethylphenol	< 20 UJ	837	1460	57.3%	808	1460	55.3%	3.5%
Benzoic Acid	< 390 U	1590	2680	59.3%	1520	2680	56.7%	4.5%
1,2,4-Trichlorobenzene	< 20 U	348	487	71.5%	347	487	71.3%	0.3%
Naphthalene	< 20 U	339	487	69.6%	330	487	67.8%	2.7%
Hexachlorobutadiene	< 10 UJ	336	487	69.0%	338	487	69.4%	0.6%
2-Methylnaphthalene	< 20 U	359	487	73.7%	351	487	72.1%	2.3%
Dimethylphthalate	< 20 U	415	487	85.2%	407	487	83.6%	1.9%
Acenaphthylene	< 20 U	352	487	72.3%	345	487	70.8%	2.0%
Acenaphthene	< 20 U	348	487	71.5%	353	487	72.5%	1.4%
Dibenzofuran	< 20 U	383	487	78.6%	378	487	77.6%	1.3%
Diethylphthalate	< 49 U	414	487	85.0%	408	487	83.8%	1.5%
Fluorene	< 20 U	358	487	73.5%	401	487	82.3%	11.3%
N-Nitrosodiphenylamine	< 20 U	417	487	85.6%	407	487	83.6%	2.4%
Hexachlorobenzene	< 20 U	392	487	80.5%	406	487	83.4%	3.5%
Pentachlorophenol	< 200 U	949	1460	65.0%	957	1460	65.5%	0.8%
Phenanthrene	< 20 U	390	487	80.1%	391	487	80.3%	0.3%
Anthracene	< 20 U	364	487	74.7%	355	487	72.9%	2.5%
Di-n-Butylphthalate	< 20 U	426	487	87.5%	417	487	85.6%	2.1%
Fluoranthene	< 20 U	398	487	81.7%	402	487	82.5%	1.0%
Pyrene	< 20 U	339	487	69.6%	332	487	68.2%	2.1%
Butylbenzylphthalate	< 20 U	389	487	79.9%	374	487	76.8%	3.9%
Benzo(a)anthracene	< 20 U	366	487	75.2%	361	487	74.1%	1.4%
bis(2-Ethylhexyl)phthalate	21 J	383	487	74.3%	356	487	68.8%	7.3%
Chrysene	< 20 U	374	487	76.8%	365	487	74.9%	2.4%
Di-n-Octyl phthalate	< 20 U	366	487	75.2%	332	487	68.2%	9.7%
Benzo(a)pyrene	< 20 U	357	487	73.3%	349	487	71.7%	2.3%
Indeno(1,2,3-cd)pyrene	< 20 U	362	487	74.3%	350	487	71.9%	3.4%
Dibenz(a,h)anthracene	< 20 U	381	487	78.2%	370	487	76.0%	2.9%
Benzo(g,h,i)perylene	< 20 U	389	487	79.9%	408	487	83.8%	4.8%
1-Methylnaphthalene	< 20 U	365	487	74.9%	362	487	74.3%	0.8%
Total Benzofluoranthenes	< 39 U	741	974	76.1%	731	975	75.0%	1.4%

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

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-11-S-LFP-121106**
Extraction Method: SW3546 **MATRIX SPIKE**
Page 1 of 1

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized:
Reported: 11/20/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 20:58
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 14.7%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.4	20	---
541-73-1	1,3-Dichlorobenzene	2.6	20	---
106-46-7	1,4-Dichlorobenzene	2.8	20	---
100-51-6	Benzyl Alcohol	5.9	20	---
95-50-1	1,2-Dichlorobenzene	2.4	20	---
95-48-7	2-Methylphenol	5.1	20	---
106-44-5	4-Methylphenol	6.5	39	---
67-72-1	Hexachloroethane	2.9	20	---
105-67-9	2,4-Dimethylphenol	3.4	39	---
65-85-0	Benzoic Acid	98	390	---
120-82-1	1,2,4-Trichlorobenzene	3.4	20	---
91-20-3	Naphthalene	2.7	20	---
87-68-3	Hexachlorobutadiene	4.4	20	---
91-57-6	2-Methylnaphthalene	3.0	20	---
131-11-3	Dimethylphthalate	2.8	20	---
208-96-8	Acenaphthylene	5.6	20	---
83-32-9	Acenaphthene	3.2	20	---
132-64-9	Dibenzofuran	4.0	20	---
84-66-2	Diethylphthalate	36	49	---
86-73-7	Fluorene	4.2	20	---
86-30-6	N-Nitrosodiphenylamine	5.2	20	---
118-74-1	Hexachlorobenzene	4.2	20	---
87-86-5	Pentachlorophenol	47	200	---
85-01-8	Phenanthrene	3.5	20	---
120-12-7	Anthracene	4.4	20	---
84-74-2	Di-n-Butylphthalate	7.9	20	---
206-44-0	Fluoranthene	2.8	20	---
129-00-0	Pyrene	1.9	20	---
85-68-7	Butylbenzylphthalate	6.0	20	---
56-55-3	Benzo(a)anthracene	3.2	20	---
117-81-7	bis(2-Ethylhexyl)phthalate	14	24	---
218-01-9	Chrysene	3.7	20	---
117-84-0	Di-n-Octyl phthalate	5.7	20	---
50-32-8	Benzo(a)pyrene	5.3	20	---
193-39-5	Indeno(1,2,3-cd)pyrene	4.6	20	---
53-70-3	Dibenz(a,h)anthracene	4.2	20	---
191-24-2	Benzo(g,h,i)perylene	4.3	20	---
90-12-0	1-Methylnaphthalene	2.6	20	---
TOTBFA	Total Benzofluoranthenes	2.7	39	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	67.4%	2-Fluorobiphenyl	74.8%
d14-p-Terphenyl	75.4%	d4-1,2-Dichlorobenzene	69.6%
d5-Phenol	79.2%	2-Fluorophenol	79.1%
2,4,6-Tribromophenol	86.0%	d4-2-Chlorophenol	70.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: HT-11-S-LFP-121106**
Extraction Method: SW3546 **MATRIX SPIKE DUPLICATE**
Page 1 of 1

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized:
Reported: 11/20/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 21:35
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.3 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 14.7%

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.4	20	---
541-73-1	1,3-Dichlorobenzene	2.6	20	---
106-46-7	1,4-Dichlorobenzene	2.8	20	---
100-51-6	Benzyl Alcohol	5.9	20	---
95-50-1	1,2-Dichlorobenzene	2.4	20	---
95-48-7	2-Methylphenol	5.1	20	---
106-44-5	4-Methylphenol	6.5	39	---
67-72-1	Hexachloroethane	2.9	20	---
105-67-9	2,4-Dimethylphenol	3.4	39	---
65-85-0	Benzoic Acid	98	390	---
120-82-1	1,2,4-Trichlorobenzene	3.4	20	---
91-20-3	Naphthalene	2.7	20	---
87-68-3	Hexachlorobutadiene	4.5	20	---
91-57-6	2-Methylnaphthalene	3.0	20	---
131-11-3	Dimethylphthalate	2.8	20	---
208-96-8	Acenaphthylene	5.6	20	---
83-32-9	Acenaphthene	3.2	20	---
132-64-9	Dibenzofuran	4.0	20	---
84-66-2	Diethylphthalate	36	49	---
86-73-7	Fluorene	4.2	20	---
86-30-6	N-Nitrosodiphenylamine	5.3	20	---
118-74-1	Hexachlorobenzene	4.2	20	---
87-86-5	Pentachlorophenol	47	200	---
85-01-8	Phenanthrene	3.5	20	---
120-12-7	Anthracene	4.4	20	---
84-74-2	Di-n-Butylphthalate	8.0	20	---
206-44-0	Fluoranthene	2.8	20	---
129-00-0	Pyrene	1.9	20	---
85-68-7	Butylbenzylphthalate	6.0	20	---
56-55-3	Benzo(a)anthracene	3.2	20	---
117-81-7	bis(2-Ethylhexyl)phthalate	14	24	---
218-01-9	Chrysene	3.7	20	---
117-84-0	Di-n-Octyl phthalate	5.7	20	---
50-32-8	Benzo(a)pyrene	5.3	20	---
193-39-5	Indeno(1,2,3-cd)pyrene	4.6	20	---
53-70-3	Dibenz(a,h)anthracene	4.2	20	---
191-24-2	Benzo(g,h,i)perylene	4.3	20	---
90-12-0	1-Methylnaphthalene	2.6	20	---
TOTBFA	Total Benzofluoranthenes	2.7	39	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.0%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	69.8%	d4-1,2-Dichlorobenzene	66.4%
d5-Phenol	72.7%	2-Fluorophenol	74.9%
2,4,6-Tribromophenol	80.0%	d4-2-Chlorophenol	67.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCS-111212**
 LAB CONTROL

Lab Sample ID: LCS-111212
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized: MW
Reported: 11/20/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 14:47
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

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

Analyte	Lab Control	Spike Added	Recovery
Phenol	436	500	87.2%
1,3-Dichlorobenzene	358	500	71.6%
1,4-Dichlorobenzene	388	500	77.6%
Benzyl Alcohol	408	500	81.6%
1,2-Dichlorobenzene	372	500	74.4%
2-Methylphenol	305	500	61.0%
4-Methylphenol	642	1000	64.2%
Hexachloroethane	349	500	69.8%
2,4-Dimethylphenol	789	1500	52.6%
Benzoic Acid	1770	2750	64.4%
1,2,4-Trichlorobenzene	392	500	78.4%
Naphthalene	371	500	74.2%
Hexachlorobutadiene	376	500	75.2%
2-Methylnaphthalene	392	500	78.4%
Dimethylphthalate	467	500	93.4%
Acenaphthylene	383	500	76.6%
Acenaphthene	388	500	77.6%
Dibenzofuran	411	500	82.2%
Diethylphthalate	473	500	94.6%
Fluorene	384	500	76.8%
N-Nitrosodiphenylamine	466	500	93.2%
Hexachlorobenzene	434	500	86.8%
Pentachlorophenol	1090	1500	72.7%
Phenanthrene	429	500	85.8%
Anthracene	396	500	79.2%
Di-n-Butylphthalate	479	500	95.8%
Fluoranthene	444	500	88.8%
Pyrene	393	500	78.6%
Butylbenzylphthalate	447	500	89.4%
Benzo(a)anthracene	418	500	83.6%
bis(2-Ethylhexyl)phthalate	423	500	84.6%
Chrysene	420	500	84.0%
Di-n-Octyl phthalate	425	500	85.0%
Benzo(a)pyrene	382	500	76.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCS-111212**
 LAB CONTROL

Lab Sample ID: LCS-111212 QC Report No: VR38-Anchor QEA, LLC.
LIMS ID: 12-22275 Project: City of Kenmore Sediment
Matrix: Sediment 120891-01.01
Date Analyzed: 11/19/12 14:47

Analyte	Lab Control	Spike Added	Recovery
Indeno(1,2,3-cd)pyrene	414	500	82.8%
Dibenz(a,h)anthracene	427	500	85.4%
Benzo(g,h,i)perylene	440	500	88.0%
1-Methylnaphthalene	389	500	77.8%
Total Benzofluoranthenes	811	1000	81.1%

Semivolatile Surrogate Recovery	
d5-Nitrobenzene	75.4%
2-Fluorobiphenyl	82.8%
d14-p-Terphenyl	85.6%
d4-1,2-Dichlorobenzene	74.2%
d5-Phenol	88.1%
2-Fluorophenol	87.6%
2,4,6-Tribromophenol	89.2%
d4-2-Chlorophenol	78.0%

Reported in µg/kg (ppb)

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO. VR38MBS1

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

ARI Job No: VR38 — Project: CITY OF KENMORE SEDI

Lab File ID: VR38MB — Date Extracted: 11/12/12

Instrument ID: NT10 — Date Analyzed: 11/19/12

Matrix: SOLID — Time Analyzed: 1410

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	VR38LCSS1	VR38LCSS1	VR38SB	11/19/12
02	HT-01-S-C-121106	VR38A	VR38A	11/19/12
03	HT-02-S-C-121106	VR38B	VR38B	11/19/12
04	HT-03-S-C-121106	VR38C	VR38C	11/19/12
05	HT-04-S-C-121106	VR38D	VR38D	11/19/12
06	HT-05-S-C-121106	VR38E	VR38E	11/19/12
07	HT-08-S-C-121106	VR38F	VR38F	11/19/12
08	HT-09-S-C-121106	VR38G	VR38G	11/19/12
09	HT-10-S-LFP-1211	VR38H	VR38H	11/19/12
10	HT-11-S-LFP-1211	VR38I	VR38I	11/19/12
11	HT-11-S-LFP-121	VR38IMS	VR38IMS	11/19/12
12	HT-11-S-LFP-121	VR38IMSD	VR38IMSD	11/19/12
13	HT-06-S-E-121106	VR38J	VR38J	11/19/12
14	HT-07-S-E-121106	VR38K	VR38K	11/19/12
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FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MB-111212**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-111212
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 14:10
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	MDL	RL	Result
108-95-2	Phenol	8.6	20	< 20 U
541-73-1	1,3-Dichlorobenzene	2.6	20	< 20 U
106-46-7	1,4-Dichlorobenzene	2.9	20	< 20 U
100-51-6	Benzyl Alcohol	6.1	20	< 20 U
95-50-1	1,2-Dichlorobenzene	2.5	20	< 20 U
95-48-7	2-Methylphenol	5.2	20	< 20 U
106-44-5	4-Methylphenol	6.6	40	< 40 U
67-72-1	Hexachloroethane	2.9	20	< 20 U
105-67-9	2,4-Dimethylphenol	3.5	20	< 20 UJ
65-85-0	Benzoic Acid	100	400	< 400 U
120-82-1	1,2,4-Trichlorobenzene	3.5	20	< 20 U
91-20-3	Naphthalene	2.8	20	< 20 U
87-68-3	Hexachlorobutadiene	4.6	10	< 10 UJ
91-57-6	2-Methylnaphthalene	3.1	20	< 20 U
131-11-3	Dimethylphthalate	2.9	20	< 20 U
208-96-8	Acenaphthylene	5.7	20	< 20 U
83-32-9	Acenaphthene	3.3	20	< 20 U
132-64-9	Dibenzofuran	4.1	20	< 20 U
84-66-2	Diethylphthalate	37	50	< 50 U
86-73-7	Fluorene	4.4	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	5.4	20	< 20 U
118-74-1	Hexachlorobenzene	4.3	20	< 20 U
87-86-5	Pentachlorophenol	48	200	< 200 U
85-01-8	Phenanthrene	3.6	20	< 20 U
120-12-7	Anthracene	4.5	20	< 20 U
84-74-2	Di-n-Butylphthalate	8.2	20	< 20 U
206-44-0	Fluoranthene	2.9	20	< 20 U
129-00-0	Pyrene	1.9	20	< 20 U
85-68-7	Butylbenzylphthalate	6.1	20	< 20 U
56-55-3	Benzo(a)anthracene	3.3	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	15	25	< 25 U
218-01-9	Chrysene	3.8	20	< 20 U
117-84-0	Di-n-Octyl phthalate	5.8	20	< 20 U
50-32-8	Benzo(a)pyrene	5.4	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	4.3	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	4.4	20	< 20 U
90-12-0	1-Methylnaphthalene	2.7	20	< 20 U
TOTBFA	Total Benzofluoranthenes	2.8	40	< 40 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	71.8%	2-Fluorobiphenyl	76.2%
d14-p-Terphenyl	79.8%	d4-1,2-Dichlorobenzene	74.2%
d5-Phenol	84.8%	2-Fluorophenol	84.8%
2,4,6-Tribromophenol	84.7%	d4-2-Chlorophenol	77.2%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: CITY OF KENMORE SEDIMENT

DFTPP Injection Date: 11/14/12 DFTPP Injection Time: 1543

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	26.9
68	Less than 2.0% of mass 69	0.6 (1.9)1
69	Mass 69 relative abundance	31.3
70	Less than 2.0% of mass 69	0.2 (0.7)1
127	10.0 - 80.0% of mass 198	50.3
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	7.0
275	10.0 - 60.0% of mass 198	26.3
365	Greater than 1.0% of mass 198	4.62
441	0.0 - 24.0% of mass 442	11.8 (15.1)2
442	50.0 - 200.0% of mass 198	77.8
443	15.0 - 24.0% of mass 442	15.3 (19.7)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		IC1114A	IC1114A	11/14/12	1637
02		IC1114B	IC1114B	11/14/12	1714
03		IC1114C	IC1114C	11/14/12	1751
04		IC1114D	IC1114D	11/14/12	1828
05		IC1114E	IC1114E	11/14/12	1904
06		IC1114G	IC1114G	11/14/12	2018
07		IC1114I	IC1114I	11/14/12	2131
08					
09					
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

Instrument ID: NT10 Project: CITY OF KENMORE SEDIMENT

DFTPP Injection Date: 11/19/12 DFTPP Injection Time: 1203

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	18.8
68	Less than 2.0% of mass 69	0.5 (1.8)1
69	Mass 69 relative abundance	28.3
70	Less than 2.0% of mass 69	0.2 (0.7)1
127	10.0 - 80.0% of mass 198	50.1
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	6.5
275	10.0 - 60.0% of mass 198	27.8
365	Greater than 1.0% of mass 198	5.05
441	0.0 - 24.0% of mass 442	15.3 (14.7)2
442	50.0 - 200.0% of mass 198	104.3
443	15.0 - 24.0% of mass 442	20.7 (19.9)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		CC1119	CC1119	11/19/12	1219
02	VR38MBS1	VR38MBS1	VR38MB	11/19/12	1410
03	VR38LCSS1	VR38LCSS1	VR38SB	11/19/12	1447
04	HT-01-S-C-121106	VR38A	VR38A	11/19/12	1524
05	HT-02-S-C-121106	VR38B	VR38B	11/19/12	1602
06	HT-03-S-C-121106	VR38C	VR38C	11/19/12	1639
07	HT-04-S-C-121106	VR38D	VR38D	11/19/12	1716
08	HT-05-S-C-121106	VR38E	VR38E	11/19/12	1753
09	HT-08-S-C-121106	VR38F	VR38F	11/19/12	1830
10	HT-09-S-C-121106	VR38G	VR38G	11/19/12	1907
11	HT-10-S-LFP-1211	VR38H	VR38H	11/19/12	1944
12	HT-11-S-LFP-1211	VR38I	VR38I	11/19/12	2021
13	HT-11-S-LFP-121	VR38IMS	VR38IMS	11/19/12	2058
14	HT-11-S-LFP-121	VR38IMSD	VR38IMSD	11/19/12	2135
15	HT-06-S-E-121106	VR38J	VR38J	11/19/12	2212
16	HT-07-S-E-121106	VR38K	VR38K	11/19/12	2249
17					
18					
19					
20					
21					
22					

FORM V SV

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: VR38 Project: CITY OF KENMORE SEDIMENT

Instrument ID: NT10 Calibration Date: 11/14/12

LAB FILE ID: RRF0.2=IC1114B RRF0.5=IC1114I RRF1 =IC1114D
RRF2.5=IC1114G RRF5 =IC1114A RRF10 =IC1114E
RRF20 =IC1114C

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	RRF	%RSD /R^2
Phenol	1.263	1.104	1.126	1.032	1.102	1.220	1.179	1.146	6.9
Bis(2-Chloroethyl)ether	0.798	0.638	0.616	0.611	0.633	0.678	0.638	0.659	9.9
2-Chlorophenol	1.761	1.551	1.628	1.561	1.558	1.720	1.690	1.638	5.3
1,3-Dichlorobenzene	1.666	1.588	1.535	1.424	1.497	1.593	1.524	1.547	5.0
1,4-Dichlorobenzene	1.636	1.408	1.432	1.355	1.415	1.525	1.494	1.466	6.4
1,2-Dichlorobenzene	1.691	1.414	1.382	1.377	1.367	1.500	1.446	1.454	7.9
Benzyl alcohol	0.707	0.586	0.556	0.568	0.584	0.652	0.615	0.610	8.8
2,2'-oxybis(1-Chloropropane)	1.597	1.356	1.350	1.374	1.418	1.556	1.622	1.468	8.2
2-Methylphenol	1.243	1.138	1.036	1.038	1.054	1.169	1.166	1.120	7.1
Hexachloroethane	0.605	0.498	0.489	0.497	0.488	0.555	0.544	0.525	8.5
N-Nitroso-di-n-propylamine	0.474	0.305	0.394	0.363	0.367	0.408	0.399	0.387	13.4
4-Methylphenol	1.238	1.081	1.087	1.066	1.126	1.244	1.228	1.153	7.0
Nitrobenzene	0.217	0.190	0.191	0.184	0.192	0.196	0.198	0.195	5.4
Isophorone	0.373	0.317	0.310	0.324	0.334	0.353	0.390	0.343	8.8
2-Nitrophenol	0.276	0.211	0.230	0.231	0.236	0.246	0.244	0.239	8.3
2,4-Dimethylphenol	0.343	0.318	0.320	0.315	0.324	0.349	0.361	0.333	5.4
Bis(2-Chloroethoxy)methane	0.193	0.198	0.186	0.188	0.195	0.205	0.206	0.196	3.9
2,4-Dichlorophenol	0.379	0.354	0.348	0.355	0.370	0.397	0.412	0.374	6.4
1,2,4-Trichlorobenzene	0.347	0.306	0.340	0.323	0.326	0.342	0.339	0.332	4.4
Naphthalene	1.090	0.963	0.982	0.970	1.027	1.084	1.115	1.033	6.1
Benzoic acid		0.181	0.226	0.229	0.246	0.268	0.268	0.236	13.9
4-Chloroaniline	0.451	0.397	0.390	0.390	0.417	0.457	0.469	0.424	8.0
Hexachlorobutadiene	0.190	0.188	0.180	0.190	0.193	0.205	0.204	0.193	4.6
4-Chloro-3-methylphenol	0.255	0.224	0.236	0.237	0.256	0.286	0.302	0.256	11.1
2-Methylnaphthalene	0.660	0.666	0.650	0.631	0.676	0.729	0.744	0.679	6.2
Hexachlorocyclopentadiene		0.389	0.435	0.403	0.430	0.463	0.492	0.435	8.7
2,4,6-Trichlorophenol	0.482	0.430	0.479	0.445	0.465	0.502	0.534	0.477	7.3
2,4,5-Trichlorophenol	0.567	0.474	0.523	0.513	0.526	0.550	0.589	0.534	7.1
2-Chloronaphthalene	1.282	1.004	1.059	1.030	1.070	1.094	1.140	1.097	8.5
2-Nitroaniline	0.151	0.120	0.134	0.123	0.134	0.139	0.144	0.135	8.1
Acenaphthylene	2.170	1.798	1.892	1.792	1.839	1.896	2.039	1.918	7.2
Dimethylphthalate	1.401	1.107	1.182	1.154	1.137	1.137	1.153	1.182	8.4
2,6-Dinitrotoluene	0.317	0.298	0.297	0.271	0.272	0.290	0.313	0.294	6.1
Acenaphthene	1.204	1.093	1.139	1.097	1.095	1.173	1.253	1.150	5.4
3-Nitroaniline	0.350	0.292	0.296	0.262	0.261	0.296	0.301	0.294	10.0
2,4-Dinitrophenol		0.199	0.250	0.254	0.284	0.301	0.316	0.267	15.8
Dibenzofuran	1.602	1.454	1.493	1.416	1.454	1.527	1.552	1.500	4.3

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

FORM VI SV-1

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: VR38 Project: CITY OF KENMORE SEDIMENT

Instrument ID: NT10 Calibration Date: 11/14/12

LAB FILE ID: RRF0.2=IC1114B RRF0.5=IC1114I RRF1 =IC1114D
RRF2.5=IC1114G RRF5 =IC1114A RRF10 =IC1114E
RRF20 =IC1114C

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	RRF	%RSD /R^2
4-Nitrophenol	0.230	0.200	0.229	0.230	0.216	0.234	0.238	0.225	5.8
2,4-Dinitrotoluene	0.429	0.346	0.367	0.336	0.351	0.365	0.374	0.367	8.3
Fluorene	1.444	1.231	1.267	1.231	1.263	1.360	1.454	1.321	7.4
4-Chlorophenyl-phenylether	0.669	0.592	0.581	0.586	0.690	0.728	0.770	0.659	11.4
Diethylphthalate	1.366	1.106	1.140	1.102	1.062	1.100	1.084	1.137	9.1
4-Nitroaniline	0.399	0.310	0.271	0.244	0.266	0.293	0.301	0.298	16.9
4,6-Dinitro-2-methylphenol		0.197	0.198	0.199	0.206	0.224	0.237	0.210	7.8
N-Nitrosodiphenylamine (1)	0.529	0.488	0.500	0.477	0.453	0.466	0.481	0.485	5.1
4-Bromophenyl-phenylether	0.210	0.195	0.195	0.192	0.202	0.208	0.224	0.204	5.6
Hexachlorobenzene	0.233	0.198	0.211	0.198	0.199	0.209	0.219	0.210	6.3
Pentachlorophenol		0.154	0.171	0.174	0.186	0.196	0.214	0.182	11.6
Phenanthrene	1.207	1.011	1.039	0.996	0.990	1.055	1.152	1.064	7.8
Anthracene	1.257	1.113	1.080	1.098	1.119	1.194	1.277	1.162	6.9
Carbazole	1.114	0.921	0.863	0.687	0.626	0.754	0.898	0.838	19.6
Di-n-butylphthalate	1.495	1.148	1.160	1.179	1.183	1.308	1.407	1.268	10.9
Fluoranthene	1.498	1.184	1.218	1.266	1.281	1.434	1.552	1.348	10.8
Pyrene	1.456	1.200	1.201	1.246	1.204	1.320	1.429	1.294	8.5
Butylbenzylphthalate	0.692	0.469	0.488	0.461	0.439	0.476	0.487	0.502	17.0
Benzo(a)anthracene	1.509	1.188	1.144	1.180	1.133	1.216	1.255	1.232	10.5
3,3'-Dichlorobenzidine		0.563	0.472	0.379	0.353	0.407	0.509	0.447	18.1
Chrysene	1.210	1.038	1.001	1.020	1.001	1.100	1.181	1.079	8.1
bis(2-Ethylhexyl)phthalate	0.680	0.512	0.487	0.505	0.475	0.501	0.502	0.523	13.4
Di-n-octylphthalate	1.286	0.950	0.937	0.899	0.867	0.892	0.910	0.963	15.1
Benzo(b)fluoranthene	1.600	1.099	1.195	1.160	1.234	1.258	1.305	1.264	12.9
Benzo(k)fluoranthene	1.404	1.260	1.185	1.118	1.120	1.201	1.245	1.219	8.1
Benzo(a)pyrene	1.341	1.057	1.062	1.029	1.029	1.090	1.144	1.107	10.0
Indeno(1,2,3-cd)pyrene	1.699	1.425	1.357	1.291	1.317	1.367	1.453	1.416	9.7
Dibenzo(a,h)anthracene	1.394	1.108	1.077	1.035	1.043	1.099	1.188	1.135	11.0
Benzo(g,h,i)perylene	1.456	1.176	1.120	1.098	1.109	1.141	1.198	1.185	10.5
N-Nitrosodimethylamine	0.347	0.346	0.372	0.346	0.374	0.416	0.415	0.374	8.3
Aniline	2.513	2.120	2.084	2.001	2.142	2.397	2.338	2.228	8.5
Benzidine	0.645	0.489	0.373	0.282	0.246	0.376	0.510	0.417	0.994
Retene							0.000		
Perylene	1.344	1.217	1.159	1.145	1.125	1.197	1.291	1.211	6.6
Pyridine	0.382	0.332	0.317	0.321	0.336	0.377	0.386	0.350	8.6
1-methylnaphthalene	0.669	0.609	0.607	0.602	0.626	0.692	0.684	0.641	6.1
Azobenzene (1,2-DP-Hydrazine	0.854	0.742	0.790	0.791	0.759	0.785	0.794	0.788	4.5

(1) Cannot be seperated from Diphenylamine

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

FORM VI SV-2

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: VR38 Project: CITY OF KENMORE SEDIMENT

Instrument ID: NT10 Calibration Date: 11/14/12

LAB FILE ID: RRF0.2=IC1114B RRF0.5=IC1114I RRF1 =IC1114D
RRF2.5=IC1114G RRF5 =IC1114A RRF10 =IC1114E
RRF20 =IC1114C

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	___ RRF	%RSD /R^2
2,3,4,6-Tetrachlorophenol							0.002	0.002	0.0
Total Benzofluoranthenes	1.459	1.139	1.124	1.086	1.109	1.164	1.209	1.184	10.8
2-Fluorophenol	1.046	1.031	1.039	1.006	1.052	1.143	1.100	1.060	4.4
Phenol-d5	1.178	0.976	1.049	0.976	1.052	1.173	1.133	1.077	8.0
2-Chlorophenol-d4	1.606	1.488	1.384	1.358	1.413	1.548	1.524	1.474	6.2
1,2-Dichlorobenzene-d4	1.083	1.036	0.998	0.903	0.938	1.045	1.036	1.006	6.4
Nitrobenzene-d5	0.282	0.215	0.227	0.219	0.232	0.239	0.234	0.235	9.4
2-Fluorobiphenyl	1.531	1.333	1.386	1.368	1.396	1.445	1.488	1.421	4.9
2,4,6-Tribromophenol	0.157	0.129	0.171	0.151	0.159	0.162	0.172	0.157	9.3
Terphenyl-d14	0.910	0.794	0.771	0.791	0.781	0.809	0.855	0.816	6.1

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

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: VR38 Project: CITY OF KENMORE SEDIMENT

Instrument ID: NT10 Cont. Calib. Date: 11/19/12

Init. Calib. Date: 11/14/12 Cont. Calib. Time: 1219

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.146	1.271	0.800	AVRG	10.9	
Bis(2-Chloroethyl)ether	0.659	0.697	0.700	AVRG	5.8	*
2-Chlorophenol	1.638	1.613	0.800	AVRG	-1.5	
1,3-Dichlorobenzene	1.547	1.479	0.010	AVRG	-4.4	
1,4-Dichlorobenzene	1.466	1.423	0.010	AVRG	-2.9	
1,2-Dichlorobenzene	1.454	1.401	0.010	AVRG	-3.6	
Benzyl alcohol	0.610	0.624	0.010	AVRG	2.3	
2,2'-oxybis(1-Chloropropane)	1.468	1.204	0.010	AVRG	-18.0	
2-Methylphenol	1.120	1.115	0.700	AVRG	-0.4	
Hexachloroethane	0.525	0.466	0.300	AVRG	-11.2	
N-Nitroso-di-n-propylamine	0.387	0.360	0.500	AVRG	-7.0	*
4-Methylphenol	1.153	1.211	0.600	AVRG	5.0	
Nitrobenzene	0.195	0.182	0.200	AVRG	-6.7	*
Isophorone	0.343	0.343	0.400	AVRG	0.0	*
2-Nitrophenol	0.239	0.245	0.100	AVRG	2.5	
2,4-Dimethylphenol	0.333	0.282	0.200	AVRG	-15.3	
Bis(2-Chloroethoxy)methane	0.196	0.206	0.300	AVRG	5.1	*
2,4-Dichlorophenol	0.374	0.357	0.200	AVRG	-4.5	
1,2,4-Trichlorobenzene	0.332	0.318	0.010	AVRG	-4.2	
Naphthalene	1.033	0.977	0.700	AVRG	-5.4	
Benzoic acid	0.236	0.246	0.010	AVRG	4.2	
4-Chloroaniline	0.424	0.406	0.010	AVRG	-4.2	
Hexachlorobutadiene	0.193	0.179	0.010	AVRG	-7.2	
4-Chloro-3-methylphenol	0.256	0.249	0.200	AVRG	-2.7	
2-Methylnaphthalene	0.679	0.653	0.400	AVRG	-3.8	
Hexachlorocyclopentadiene	0.435	0.385	0.050	AVRG	-11.5	
2,4,6-Trichlorophenol	0.477	0.478	0.200	AVRG	0.2	
2,4,5-Trichlorophenol	0.534	0.535	0.200	AVRG	0.2	
2-Chloronaphthalene	1.097	1.092	0.800	AVRG	-0.4	
2-Nitroaniline	0.135	0.116	0.010	AVRG	-14.1	
Acenaphthylene	1.918	1.837	0.900	AVRG	-4.2	
Dimethylphthalate	1.182	1.152	0.010	AVRG	-2.5	
2,6-Dinitrotoluene	0.294	0.285	0.200	AVRG	-3.1	
Acenaphthene	1.150	1.083	0.900	AVRG	-5.8	
3-Nitroaniline	0.294	0.297	0.010	AVRG	1.0	
2,4-Dinitrophenol	0.267	0.276	0.010	AVRG	3.4	
Dibenzofuran	1.500	1.440	0.800	AVRG	-4.0	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: VR38 Project: CITY OF KENMORE SEDIMENT

Instrument ID: NT10 Cont. Calib. Date: 11/19/12

Init. Calib. Date: 11/14/12 Cont. Calib. Time: 1219

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	0.225	0.186	0.010	AVRG	-17.3	
2,4-Dinitrotoluene	0.367	0.357	0.200	AVRG	-2.7	
Fluorene	1.321	1.239	0.900	AVRG	-6.2	
4-Chlorophenyl-phenylether	0.659	0.583	0.400	AVRG	-11.5	
Diethylphthalate	1.137	1.060	0.010	AVRG	-6.8	
4-Nitroaniline	0.298	0.291	0.010	AVRG	-2.3	
4,6-Dinitro-2-methylphenol	0.210	0.210	0.010	AVRG	0.0	
N-Nitrosodiphenylamine(1)	0.485	0.476	0.010	AVRG	-1.8	
4-Bromophenyl-phenylether	0.204	0.203	0.100	AVRG	-0.5	
Hexachlorobenzene	0.210	0.208	0.100	AVRG	-1.0	
Pentachlorophenol	0.182	0.178	0.050	AVRG	-2.2	
Phenanthrene	1.064	1.016	0.700	AVRG	-4.5	
Anthracene	1.162	1.101	0.700	AVRG	-5.2	
Carbazole	0.838	0.829	0.010	AVRG	-1.1	
Di-n-butylphthalate	1.268	1.216	0.010	AVRG	-4.1	
Fluoranthene	1.348	1.326	0.600	AVRG	-1.6	
Pyrene	1.294	1.122	0.600	AVRG	-13.3	
Butylbenzylphthalate	0.502	0.434	0.010	AVRG	-13.5	
Benzo(a)anthracene	1.232	1.142	0.800	AVRG	-7.3	
3,3'-Dichlorobenzidine	0.447	0.442	0.010	AVRG	-1.1	
Chrysene	1.079	0.986	0.700	AVRG	-8.6	
bis(2-Ethylhexyl)phthalate	0.523	0.450	0.010	AVRG	-14.0	
Di-n-octylphthalate	0.963	0.862	0.010	AVRG	-10.5	
Benzo(b)fluoranthene	1.264	1.280	0.700	AVRG	1.3	
Benzo(k)fluoranthene	1.219	1.091	0.700	AVRG	-10.5	
Benzo(a)pyrene	1.107	1.023	0.700	AVRG	-7.6	
Indeno(1,2,3-cd)pyrene	1.416	1.329	0.500	AVRG	-6.1	
Dibenzo(a,h)anthracene	1.135	1.074	0.400	AVRG	-5.4	
Benzo(g,h,i)perylene	1.185	1.146	0.500	AVRG	-3.3	
N-Nitrosodimethylamine	0.374	0.518	0.010	AVRG	38.5	<-
Aniline	2.228	2.431	0.010	AVRG	9.1	
Benzidine	10.00	4.830	0.010	2ORDR	-51.7	<-
Retene			0.010	AVRG		
Perylene	1.211	1.123	0.010	AVRG	-7.3	
Pyridine	0.350	0.475	0.010	AVRG	35.7	<-
1-methylnaphthalene	0.641	0.588	0.010	AVRG	-8.3	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: VR38 Project: CITY OF KENMORE SEDIMENT

Instrument ID: NT10 Cont. Calib. Date: 11/19/12

Init. Calib. Date: 11/14/12 Cont. Calib. Time: 1219

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Azobenzene (1,2-DP-Hydrazine	0.788	0.626	0.010	AVRG	-20.6	<-
2,3,4,6-Tetrachlorophenol	0.002	0.002	0.010	AVRG	0.0	*
Total Benzofluoranthenes	1.184	1.098	0.010	AVRG	-7.3	
2-Fluorophenol	1.060	1.219	0.010	AVRG	15.0	
Phenol-d5	1.077	1.204	0.010	AVRG	11.8	
2-Chlorophenol-d4	1.474	1.481	0.010	AVRG	0.5	
1,2-Dichlorobenzene-d4	1.006	0.950	0.010	AVRG	-5.6	
Nitrobenzene-d5	0.235	0.219	0.010	AVRG	-6.8	
2-Fluorobiphenyl	1.421	1.407	0.010	AVRG	-1.0	
2,4,6-Tribromophenol	0.157	0.163	0.010	AVRG	3.8	
Terphenyl-d14	0.816	0.710	0.010	AVRG	-13.0	

<- 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: VR38 Project: CITY OF KENMORE SEDIMENT

Ical Midpoint ID: IC1114A Ical Date: 11/14/12

Instrument ID: NT10 Cont. Cal Date: 11/19/12

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	97486	9.04	357150	11.67	217259	15.52
	UPPER LIMIT	194972		714300		434518	
	LOWER LIMIT	48743		178575		108630	
	CCAL	121480	8.91	434031	11.53	243381	15.39
	UPPER LIMIT		9.41		12.03		15.89
	LOWER LIMIT		8.41		11.03		14.89
01	VR38MBS1	102604	8.91	370330	11.53	208035	15.38
02	VR38LCSS1	103589	8.90	362820	11.53	198188	15.39
03	HT-01-S-C-12	100349	8.91	363652	11.53	200462	15.38
04	HT-02-S-C-12	96548	8.91	347999	11.53	195430	15.38
05	HT-03-S-C-12	104944	8.90	377456	11.53	215809	15.38
06	HT-04-S-C-12	96129	8.91	358266	11.53	208114	15.39
07	HT-05-S-C-12	118759	8.91	435116	11.53	259137	15.39
08	HT-08-S-C-12	125049	8.91	449837	11.53	255416	15.39
09	HT-09-S-C-12	122994	8.91	435383	11.53	245794	15.39
10	HT-10-S-LFP-	119268	8.91	414777	11.53	241118	15.39
11	HT-11-S-LFP-	108845	8.91	393621	11.53	225275	15.39
12	HT-11-S-LFP-	102836	8.91	365601	11.53	212557	15.39
13	HT-11-S-LFP-	103116	8.91	367518	11.53	208334	15.39
14	HT-06-S-E-12	104263	8.91	369346	11.53	212199	15.39
15	HT-07-S-E-12	101999	8.91	364758	11.53	214360	15.39
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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No: VR38 Project: CITY OF KENMORE SEDIMENT

Ical Midpoint ID: IC1114A Ical Date: 11/14/12

Instrument ID: NT10 Cont. Cal Date: 11/19/12

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	355415	18.74	390458	23.72	386299	26.08
	UPPER LIMIT	710830		780916		772598	
	LOWER LIMIT	177708		195229		193150	
	CCAL	379666	18.62	472209	23.62	523210	25.97
	UPPER LIMIT		19.12		24.12		26.47
	LOWER LIMIT		18.12		23.12		25.47
01	VR38MBS1	355379	18.62	424771	23.61	454680	25.95
02	VR38LCSS1	317959	18.62	385025	23.62	434441	25.96
03	HT-01-S-C-12	323447	18.62	362099	23.61	395240	25.95
04	HT-02-S-C-12	319067	18.62	370468	23.61	414791	25.95
05	HT-03-S-C-12	342351	18.62	444081	23.62	495162	25.99
06	HT-04-S-C-12	362154	18.62	504464	23.65	569610	26.09
07	HT-05-S-C-12	449432	18.62	554267	23.62	579715	25.98
08	HT-08-S-C-12	429894	18.62	522882	23.62	561457	25.98
09	HT-09-S-C-12	401439	18.62	517768	23.63	553437	25.98
10	HT-10-S-LFP-	406539	18.62	486491	23.62	522251	25.97
11	HT-11-S-LFP-	368492	18.62	453213	23.62	489636	25.96
12	HT-11-S-LFP-	346314	18.62	439589	23.62	480563	25.96
13	HT-11-S-LFP-	338497	18.62	440197	23.62	490278	25.97
14	HT-06-S-E-12	365006	18.62	444484	23.62	478887	25.97
15	HT-07-S-E-12	362879	18.62	444880	23.62	469551	25.96
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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: VR38 | Project: CITY OF KENMORE SEDIMENT

Ical Midpoint ID: IC1114A | Ical Date: 11/14/12

Instrument ID: NT10 | Cont. Cal Date: 11/19/12

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	532303	24.76				
	UPPER LIMIT	1064606					
	LOWER LIMIT	266152					
	CCAL	695596	24.68				
	UPPER LIMIT		25.18				
	LOWER LIMIT		24.18				
01	VR38MBS1	607744	24.68				
02	VR38LCSS1	571831	24.68				
03	HT-01-S-C-12	525462	24.68				
04	HT-02-S-C-12	533850	24.68				
05	HT-03-S-C-12	622594	24.71				
06	HT-04-S-C-12	700060	24.76				
07	HT-05-S-C-12	746139	24.69				
08	HT-08-S-C-12	733295	24.68				
09	HT-09-S-C-12	729080	24.70				
10	HT-10-S-LFP-	681171	24.68				
11	HT-11-S-LFP-	630799	24.68				
12	HT-11-S-LFP-	632853	24.68				
13	HT-11-S-LFP-	639617	24.68				
14	HT-06-S-E-12	616192	24.68				
15	HT-07-S-E-12	620661	24.68				
16							
17							
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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

SIM PAH Analysis
Report and Summary QC Forms

ARI Job ID: VR38

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-01-S-C-121106
SAMPLE

Lab Sample ID: VR38A
LIMS ID: 12-22267
Matrix: Sediment
Data Release Authorized: 
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 17:56
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.9 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 20.5 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	2.4	4.6	< 4.6 U
91-57-6	2-Methylnaphthalene	1.4	4.6	< 4.6 U
90-12-0	1-Methylnaphthalene	1.6	4.6	< 4.6 U
208-96-8	Acenaphthylene	1.2	4.6	< 4.6 U
83-32-9	Acenaphthene	1.2	4.6	< 4.6 U
86-73-7	Fluorene	1.2	4.6	< 4.6 U
85-01-8	**Phenanthrene**	**1.8**	**4.6**	**3.1 J**
120-12-7	Anthracene	1.3	4.6	< 4.6 U
206-44-0	**Fluoranthene**	**1.6**	**4.6**	**4.3 J**
129-00-0	**Pyrene**	**2.0**	**4.6**	**3.0 J**
56-55-3	Benzo(a)anthracene	1.5	4.6	< 4.6 U
218-01-9	Chrysene	1.7	4.6	< 4.6 U
205-99-2	Benzo(b)fluoranthene	1.7	4.6	< 4.6 U
207-08-9	Benzo(k)fluoranthene	1.9	4.6	< 4.6 U
50-32-8	Benzo(a)pyrene	1.6	4.6	< 4.6 U
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	4.6	< 4.6 U
53-70-3	Dibenz(a,h)anthracene	2.2	4.6	< 4.6 U
191-24-2	Benzo(g,h,i)perylene	2.8	4.6	< 4.6 U
132-64-9	Dibenzofuran	1.4	4.6	< 4.6 U
TOTBFA	Total Benzofluoranthenes	1.7	4.6	< 4.6 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	53.3%
d14-Dibenzo(a,h)anthracen	96.3%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-02-S-C-121106
SAMPLE

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 18:26
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.3 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 15.6 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	**Naphthalene**	**2.6**	**4.9**	**6.8**
91-57-6	**2-Methylnaphthalene**	**1.5**	**4.9**	**4.0 J**
90-12-0	**1-Methylnaphthalene**	**1.7**	**4.9**	**2.5 J**
208-96-8	Acenaphthylene	1.2	4.9	< 4.9 U
83-32-9	**Acenaphthene**	**1.3**	**4.9**	**3.1 J**
86-73-7	**Fluorene**	**1.3**	**4.9**	**5.8**
85-01-8	**Phenanthrene**	**1.9**	**4.9**	**20**
120-12-7	**Anthracene**	**1.4**	**4.9**	**4.6 J**
206-44-0	**Fluoranthene**	**1.7**	**4.9**	**24**
129-00-0	**Pyrene**	**2.2**	**4.9**	**19**
56-55-3	**Benzo(a)anthracene**	**1.6**	**4.9**	**6.0**
218-01-9	**Chrysene**	**1.8**	**4.9**	**8.0**
205-99-2	**Benzo(b)fluoranthene**	**1.9**	**4.9**	**4.6 J**
207-08-9	**Benzo(k)fluoranthene**	**2.0**	**4.9**	**2.2 J**
50-32-8	**Benzo(a)pyrene**	**1.7**	**4.9**	**3.3 J**
193-39-5	Indeno(1,2,3-cd)pyrene	3.4	4.9	< 4.9 U
53-70-3	Dibenz(a,h)anthracene	2.3	4.9	< 4.9 U
191-24-2	Benzo(g,h,i)perylene	3.0	4.9	< 4.9 U
132-64-9	**Dibenzofuran**	**1.5**	**4.9**	**5.5**
TOTBFA	**Total Benzofluoranthenes**	**1.8**	**4.9**	**9.0**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	55.0%
d14-Dibenzo(a,h)anthracen	92.7%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-03-S-C-121106
SAMPLE

Lab Sample ID: VR38C
LIMS ID: 12-22269
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 18:56
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.5 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 26.2 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	2.5	4.8	76
91-57-6	2-Methylnaphthalene	1.5	4.8	42
90-12-0	1-Methylnaphthalene	1.6	4.8	25
208-96-8	Acenaphthylene	1.2	4.8	3.4 J
83-32-9	Acenaphthene	1.3	4.8	49
86-73-7	Fluorene	1.2	4.8	69
85-01-8	Phenanthrene	1.9	4.8	210
120-12-7	Anthracene	1.4	4.8	54
206-44-0	Fluoranthene	1.7	4.8	210
129-00-0	Pyrene	2.1	4.8	160
56-55-3	Benzo(a)anthracene	1.5	4.8	60
218-01-9	Chrysene	1.8	4.8	89
205-99-2	Benzo(b)fluoranthene	1.8	4.8	60
207-08-9	Benzo(k)fluoranthene	2.0	4.8	31
50-32-8	Benzo(a)pyrene	1.7	4.8	45
193-39-5	Indeno(1,2,3-cd)pyrene	3.3	4.8	23
53-70-3	Dibenz(a,h)anthracene	2.3	4.8	7.0
191-24-2	Benzo(g,h,i)perylene	2.9	4.8	26
132-64-9	Dibenzofuran	1.4	4.8	56
TOTBFA	Total Benzofluoranthenes	1.8	4.8	120

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	56.0%
d14-Dibenzo(a,h)anthracen	81.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

Sample ID: HT-04-S-C-121106
SAMPLE

Lab Sample ID: VR38D
LIMS ID: 12-22270
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 19:26
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 40.7 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	2.6	4.9	290
91-57-6	2-Methylnaphthalene	1.5	4.9	180
90-12-0	1-Methylnaphthalene	1.7	4.9	73
208-96-8	Acenaphthylene	1.2	4.9	20
83-32-9	Acenaphthene	1.3	4.9	110
86-73-7	Fluorene	1.3	4.9	200
85-01-8	Phenanthrene	2.0	4.9	660 E
120-12-7	Anthracene	1.4	4.9	190
206-44-0	Fluoranthene	1.7	4.9	750 E
129-00-0	Pyrene	2.2	4.9	560 E
56-55-3	Benzo(a)anthracene	1.6	4.9	330
218-01-9	Chrysene	1.9	4.9	480
205-99-2	Benzo(b)fluoranthene	1.9	4.9	290
207-08-9	Benzo(k)fluoranthene	2.0	4.9	140
50-32-8	Benzo(a)pyrene	1.7	4.9	210
193-39-5	Indeno(1,2,3-cd)pyrene	3.4	4.9	69
53-70-3	Dibenz(a,h)anthracene	2.4	4.9	23
191-24-2	Benzo(g,h,i)perylene	3.0	4.9	74
132-64-9	Dibenzofuran	1.5	4.9	200
TOTBFA	Total Benzofluoranthenes	1.8	4.9	550

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	57.7%
d14-Dibenzo(a,h)anthracen	62.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

Sample ID: HT-04-S-C-121106
DILUTION

Lab Sample ID: VR38D
LIMS ID: 12-22270
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/20/12 16:40
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 3.00
Percent Moisture: 40.7 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	7.8	15	320
91-57-6	2-Methylnaphthalene	4.5	15	200
90-12-0	1-Methylnaphthalene	5.1	15	78
208-96-8	Acenaphthylene	3.7	15	19
83-32-9	Acenaphthene	3.9	15	120
86-73-7	Fluorene	3.8	15	230
85-01-8	Phenanthrene	5.9	15	810
120-12-7	Anthracene	4.3	15	230
206-44-0	Fluoranthene	5.2	15	990
129-00-0	Pyrene	6.6	15	740
56-55-3	Benzo(a)anthracene	4.7	15	360
218-01-9	Chrysene	5.6	15	500
205-99-2	Benzo(b)fluoranthene	5.6	15	250
207-08-9	Benzo(k)fluoranthene	6.1	15	140
50-32-8	Benzo(a)pyrene	5.2	15	210
193-39-5	Indeno(1,2,3-cd)pyrene	10	15	96
53-70-3	Dibenz(a,h)anthracene	7.1	15	36
191-24-2	Benzo(g,h,i)perylene	9.0	15	100
132-64-9	Dibenzofuran	4.5	15	220
TOTBFA	Total Benzofluoranthenes	5.5	15	500

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	62.0%
d14-Dibenzo(a,h)anthracen	83.0%

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

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-05-S-C-121106
SAMPLE

Lab Sample ID: VR38E
LIMS ID: 12-22271
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 19:56
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.8 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 18.4 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	**Naphthalene**	**2.4**	**4.6**	**2.6 J**
91-57-6	2-Methylnaphthalene	1.4	4.6	< 4.6 U
90-12-0	1-Methylnaphthalene	1.6	4.6	< 4.6 U
208-96-8	Acenaphthylene	1.2	4.6	< 4.6 U
83-32-9	Acenaphthene	1.2	4.6	< 4.6 U
86-73-7	**Fluorene**	**1.2**	**4.6**	**2.4 J**
85-01-8	**Phenanthrene**	**1.8**	**4.6**	**8.0**
120-12-7	**Anthracene**	**1.4**	**4.6**	**3.8 J**
206-44-0	**Fluoranthene**	**1.6**	**4.6**	**22**
129-00-0	**Pyrene**	**2.1**	**4.6**	**18**
56-55-3	**Benzo(a)anthracene**	**1.5**	**4.6**	**10**
218-01-9	**Chrysene**	**1.7**	**4.6**	**18**
205-99-2	**Benzo(b)fluoranthene**	**1.8**	**4.6**	**9.1**
207-08-9	**Benzo(k)fluoranthene**	**1.9**	**4.6**	**4.4 J**
50-32-8	**Benzo(a)pyrene**	**1.6**	**4.6**	**5.7**
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	4.6	< 4.6 U
53-70-3	Dibenz(a,h)anthracene	2.2	4.6	< 4.6 U
191-24-2	**Benzo(g,h,i)perylene**	**2.8**	**4.6**	**3.2 J**
132-64-9	Dibenzofuran	1.4	4.6	< 4.6 U
TOTBFA	**Total Benzofluoranthenes**	**1.7**	**4.6**	**16**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	52.0%
d14-Dibenzo(a,h)anthracen	84.7%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-08-S-C-121106
SAMPLE

Lab Sample ID: VR38F
LIMS ID: 12-22272
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 20:26
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.8 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 17.3 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	**Naphthalene**	**2.4**	**4.6**	**3.3 J**
91-57-6	**2-Methylnaphthalene**	**1.4**	**4.6**	**3.5 J**
90-12-0	1-Methylnaphthalene	1.6	4.6	< 4.6 U
208-96-8	Acenaphthylene	1.2	4.6	< 4.6 U
83-32-9	Acenaphthene	1.2	4.6	< 4.6 U
86-73-7	**Fluorene**	**1.2**	**4.6**	**3.2 J**
85-01-8	**Phenanthrene**	**1.8**	**4.6**	**11**
120-12-7	Anthracene	1.3	4.6	< 4.6 U
206-44-0	**Fluoranthene**	**1.6**	**4.6**	**28**
129-00-0	**Pyrene**	**2.0**	**4.6**	**26**
56-55-3	**Benzo(a)anthracene**	**1.5**	**4.6**	**9.6**
218-01-9	**Chrysene**	**1.7**	**4.6**	**15**
205-99-2	**Benzo(b)fluoranthene**	**1.8**	**4.6**	**14**
207-08-9	**Benzo(k)fluoranthene**	**1.9**	**4.6**	**6.2**
50-32-8	**Benzo(a)pyrene**	**1.6**	**4.6**	**10**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**3.2**	**4.6**	**5.7**
53-70-3	Dibenz(a,h)anthracene	2.2	4.6	< 4.6 U
191-24-2	**Benzo(g,h,i)perylene**	**2.8**	**4.6**	**6.9**
132-64-9	Dibenzofuran	1.4	4.6	< 4.6 U
TOTBFA	**Total Benzofluoranthenes**	**1.7**	**4.6**	**25**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	53.3%
d14-Dibenzo(a,h)anthracen	69.7%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-09-S-C-121106
SAMPLE

Lab Sample ID: VR38G
LIMS ID: 12-22273
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 20:56
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.5 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 26.2 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	**Naphthalene**	**2.5**	**4.8**	**4.2 J**
91-57-6	**2-Methylnaphthalene**	**1.5**	**4.8**	**5.8**
90-12-0	**1-Methylnaphthalene**	**1.6**	**4.8**	**3.0 J**
208-96-8	Acenaphthylene	1.2	4.8	< 4.8 U
83-32-9	Acenaphthene	1.3	4.8	< 4.8 U
86-73-7	**Fluorene**	**1.2**	**4.8**	**4.2 J**
85-01-8	**Phenanthrene**	**1.9**	**4.8**	**34**
120-12-7	**Anthracene**	**1.4**	**4.8**	**3.7 J**
206-44-0	**Fluoranthene**	**1.7**	**4.8**	**60**
129-00-0	**Pyrene**	**2.1**	**4.8**	**68**
56-55-3	**Benzo(a)anthracene**	**1.5**	**4.8**	**24**
218-01-9	**Chrysene**	**1.8**	**4.8**	**35**
205-99-2	**Benzo(b)fluoranthene**	**1.8**	**4.8**	**34**
207-08-9	**Benzo(k)fluoranthene**	**2.0**	**4.8**	**16**
50-32-8	**Benzo(a)pyrene**	**1.7**	**4.8**	**24**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**3.3**	**4.8**	**14**
53-70-3	**Dibenz(a,h)anthracene**	**2.3**	**4.8**	**3.8 J**
191-24-2	**Benzo(g,h,i)perylene**	**2.9**	**4.8**	**16**
132-64-9	Dibenzofuran	1.4	4.8	< 4.8 U
TOTBFA	**Total Benzofluoranthenes**	**1.8**	**4.8**	**64**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	53.0%
d14-Dibenzo(a,h)anthracen	67.3%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546
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ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-10-S-LFP-121106
SAMPLE

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 21:26
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 14.3 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	2.5	4.8	< 4.8 U
91-57-6	2-Methylnaphthalene	1.5	4.8	< 4.8 U
90-12-0	1-Methylnaphthalene	1.6	4.8	< 4.8 U
208-96-8	Acenaphthylene	1.2	4.8	< 4.8 U
83-32-9	Acenaphthene	1.3	4.8	< 4.8 U
86-73-7	Fluorene	1.2	4.8	< 4.8 U
85-01-8	**Phenanthrene**	**1.9**	**4.8**	**6.6**
120-12-7	Anthracene	1.4	4.8	< 4.8 U
206-44-0	**Fluoranthene**	**1.7**	**4.8**	**14**
129-00-0	**Pyrene**	**2.1**	**4.8**	**14**
56-55-3	**Benzo(a)anthracene**	**1.5**	**4.8**	**4.7 J**
218-01-9	**Chrysene**	**1.8**	**4.8**	**8.6**
205-99-2	**Benzo(b)fluoranthene**	**1.8**	**4.8**	**7.5**
207-08-9	**Benzo(k)fluoranthene**	**2.0**	**4.8**	**3.8 J**
50-32-8	**Benzo(a)pyrene**	**1.7**	**4.8**	**6.6**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**3.3**	**4.8**	**3.8 J**
53-70-3	Dibenz(a,h)anthracene	2.3	4.8	< 4.8 U
191-24-2	**Benzo(g,h,i)perylene**	**2.9**	**4.8**	**4.7 J**
132-64-9	Dibenzofuran	1.5	4.8	< 4.8 U
TOTBFA	**Total Benzofluoranthenes**	**1.8**	**4.8**	**14**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	56.0%
d14-Dibenzo(a,h)anthracen	80.3%

FORM I

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

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-11-S-LFP-121106
SAMPLE

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 22:56
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 14.7 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	2.5	4.8	< 4.8 U
91-57-6	2-Methylnaphthalene	1.5	4.8	< 4.8 U
90-12-0	1-Methylnaphthalene	1.6	4.8	< 4.8 U
208-96-8	Acenaphthylene	1.2	4.8	< 4.8 U
83-32-9	Acenaphthene	1.3	4.8	< 4.8 U
86-73-7	Fluorene	1.2	4.8	< 4.8 U
85-01-8	Phenanthrene	1.9	4.8	< 4.8 U
120-12-7	Anthracene	1.4	4.8	< 4.8 U
206-44-0	**Fluoranthene**	**1.7**	**4.8**	**3.0 J**
129-00-0	**Pyrene**	**2.1**	**4.8**	**3.2 J**
56-55-3	Benzo(a)anthracene	1.5	4.8	< 4.8 U
218-01-9	**Chrysene**	**1.8**	**4.8**	**2.4 J**
205-99-2	**Benzo(b)fluoranthene**	**1.8**	**4.8**	**2.5 J**
207-08-9	Benzo(k)fluoranthene	2.0	4.8	< 4.8 U
50-32-8	Benzo(a)pyrene	1.7	4.8	< 4.8 U
193-39-5	Indeno(1,2,3-cd)pyrene	3.3	4.8	< 4.8 U
53-70-3	Dibenz(a,h)anthracene	2.3	4.8	< 4.8 U
191-24-2	Benzo(g,h,i)perylene	2.9	4.8	< 4.8 U
132-64-9	Dibenzofuran	1.5	4.8	< 4.8 U
TOTBFA	**Total Benzofluoranthenes**	**1.8**	**4.8**	**2.5 J**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	56.7%
d14-Dibenzo(a,h)anthracen	76.0%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-06-S-E-121106
SAMPLE

Lab Sample ID: VR38J
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 23:26
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.6 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 20.2 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	**Naphthalene**	**2.5**	**4.7**	**5.8**
91-57-6	**2-Methylnaphthalene**	**1.4**	**4.7**	**6.1**
90-12-0	1-Methylnaphthalene	1.6	4.7	< 4.7 U
208-96-8	Acenaphthylene	1.2	4.7	< 4.7 U
83-32-9	**Acenaphthene**	**1.2**	**4.7**	**3.4 J**
86-73-7	**Fluorene**	**1.2**	**4.7**	**6.1**
85-01-8	**Phenanthrene**	**1.9**	**4.7**	**51**
120-12-7	**Anthracene**	**1.4**	**4.7**	**7.8**
206-44-0	**Fluoranthene**	**1.7**	**4.7**	**100**
129-00-0	**Pyrene**	**2.1**	**4.7**	**85**
56-55-3	**Benzo(a)anthracene**	**1.5**	**4.7**	**38**
218-01-9	**Chrysene**	**1.8**	**4.7**	**50**
205-99-2	**Benzo(b)fluoranthene**	**1.8**	**4.7**	**46**
207-08-9	**Benzo(k)fluoranthene**	**1.9**	**4.7**	**22**
50-32-8	**Benzo(a)pyrene**	**1.7**	**4.7**	**42**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**3.3**	**4.7**	**19**
53-70-3	**Dibenz(a,h)anthracene**	**2.2**	**4.7**	**5.8**
191-24-2	**Benzo(g,h,i)perylene**	**2.9**	**4.7**	**21**
132-64-9	**Dibenzofuran**	**1.4**	**4.7**	**5.6**
TOTBFA	**Total Benzofluoranthenes**	**1.7**	**4.7**	**88**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	55.0%
d14-Dibenzo(a,h)anthracen	69.3%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-07-S-E-121106
SAMPLE

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 23:56
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 16.5 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	**Naphthalene**	**2.6**	**4.9**	**2.8 J**
91-57-6	**2-Methylnaphthalene**	**1.5**	**4.9**	**6.7**
90-12-0	**1-Methylnaphthalene**	**1.7**	**4.9**	**4.4 J**
208-96-8	Acenaphthylene	1.2	4.9	< 4.9 U
83-32-9	Acenaphthene	1.3	4.9	< 4.9 U
86-73-7	Fluorene	1.3	4.9	< 4.9 U
85-01-8	**Phenanthrene**	**1.9**	**4.9**	**17**
120-12-7	Anthracene	1.4	4.9	< 4.9 U
206-44-0	**Fluoranthene**	**1.7**	**4.9**	**35**
129-00-0	**Pyrene**	**2.2**	**4.9**	**32**
56-55-3	**Benzo(a)anthracene**	**1.6**	**4.9**	**12**
218-01-9	**Chrysene**	**1.8**	**4.9**	**21**
205-99-2	**Benzo(b)fluoranthene**	**1.9**	**4.9**	**22**
207-08-9	**Benzo(k)fluoranthene**	**2.0**	**4.9**	**11**
50-32-8	**Benzo(a)pyrene**	**1.7**	**4.9**	**17**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**3.4**	**4.9**	**8.5**
53-70-3	Dibenz(a,h)anthracene	2.3	4.9	< 4.9 U
191-24-2	**Benzo(g,h,i)perylene**	**3.0**	**4.9**	**12**
132-64-9	Dibenzofuran	1.5	4.9	< 4.9 U
TOTBFA	**Total Benzofluoranthenes**	**1.8**	**4.9**	**41**

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	57.0%
d14-Dibenzo(a,h)anthracen	64.3%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01

Client ID	MNP	DBA	TOT OUT
HT-01-S-C-121106	53.3%	96.3%	0
HT-02-S-C-121106	55.0%	92.7%	0
HT-03-S-C-121106	56.0%	81.7%	0
HT-04-S-C-121106	57.7%	62.7%	0
HT-04-S-C-121106 DL	62.0%	83.0%	0
HT-05-S-C-121106	52.0%	84.7%	0
HT-08-S-C-121106	53.3%	69.7%	0
HT-09-S-C-121106	53.0%	67.3%	0
MB-111212	53.7%	93.7%	0
LCS-111212	54.7%	98.3%	0
HT-10-S-LFP-121106	56.0%	80.3%	0
HT-10-S-LFP-121106 MS	58.7%	78.7%	0
HT-10-S-LFP-121106 MSD	57.7%	77.0%	0
HT-11-S-LFP-121106	56.7%	76.0%	0
HT-06-S-E-121106	55.0%	69.3%	0
HT-07-S-E-121106	57.0%	64.3%	0

	LCS/MB LIMITS	QC LIMITS
(MNP) = d10-2-Methylnaphthalene	(35-100)	(34-100)
(DBA) = d14-Dibenzo(a,h)anthracene	(37-120)	(10-117)

Prep Method: SW3546
Log Number Range: 12-22267 to 12-22277

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D-SIM GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-10-S-LFP-121106
MATRIX SPIKE

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted MS/MSD: 11/12/12

Sample Amount MS: 10.37 g-dry-wt
MSD: 10.39 g-dry-wt

Date Analyzed MS: 11/19/12 21:56
MSD: 11/19/12 22:26

Final Extract Volume MS: 0.50 mL
MSD: 0.50 mL

Instrument/Analyst MS: NT11/JZ
MSD: NT11/JZ

Dilution Factor MS: 1.00
MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Naphthalene	< 4.8 U	90.3	145	62.3%	90.7	144	63.0%	0.4%
2-Methylnaphthalene	< 4.8 U	93.8	145	64.7%	92.6	144	64.3%	1.3%
1-Methylnaphthalene	< 4.8 U	101	145	69.7%	100	144	69.4%	1.0%
Acenaphthylene	< 4.8 U	111	145	76.6%	109	144	75.7%	1.8%
Acenaphthene	< 4.8 U	106	145	73.1%	103	144	71.5%	2.9%
Fluorene	< 4.8 U	116	145	80.0%	115	144	79.9%	0.9%
Phenanthrene	6.6	122	145	79.6%	117	144	76.7%	4.2%
Anthracene	< 4.8 U	125	145	86.2%	122	144	84.7%	2.4%
Fluoranthene	14	128	145	78.6%	123	144	75.7%	4.0%
Pyrene	14	131	145	80.7%	128	144	79.2%	2.3%
Benzo(a)anthracene	4.7 J	124	145	82.3%	122	144	81.5%	1.6%
Chrysene	8.6	127	145	81.7%	124	144	80.1%	2.4%
Benzo(b)fluoranthene	7.5	146	145	95.5%	141	144	92.7%	3.5%
Benzo(k)fluoranthene	3.8 J	132	145	88.4%	128	144	86.2%	3.1%
Benzo(a)pyrene	6.6	124	145	81.0%	120	144	78.8%	3.3%
Indeno(1,2,3-cd)pyrene	3.8 J	101	145	67.0%	101	144	67.5%	0.0%
Dibenz(a,h)anthracene	< 4.8 U	103	145	71.0%	103	144	71.5%	0.0%
Benzo(g,h,i)perylene	4.7 J	94.6	145	62.0%	91.8	144	60.5%	3.0%
Dibenzofuran	< 4.8 U	98.7	145	68.1%	97.6	144	67.8%	1.1%
Total Benzofluoranthenes	14	391	434	86.9%	382	433	85.0%	2.3%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-10-S-LFP-121106
MATRIX SPIKE

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 21:56
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 14.3 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	2.5	4.8	---
91-57-6	2-Methylnaphthalene	1.5	4.8	---
90-12-0	1-Methylnaphthalene	1.6	4.8	---
208-96-8	Acenaphthylene	1.2	4.8	---
83-32-9	Acenaphthene	1.3	4.8	---
86-73-7	Fluorene	1.2	4.8	---
85-01-8	Phenanthrene	1.9	4.8	---
120-12-7	Anthracene	1.4	4.8	---
206-44-0	Fluoranthene	1.7	4.8	---
129-00-0	Pyrene	2.1	4.8	---
56-55-3	Benzo(a)anthracene	1.5	4.8	---
218-01-9	Chrysene	1.8	4.8	---
205-99-2	Benzo(b)fluoranthene	1.8	4.8	---
207-08-9	Benzo(k)fluoranthene	2.0	4.8	---
50-32-8	Benzo(a)pyrene	1.7	4.8	---
193-39-5	Indeno(1,2,3-cd)pyrene	3.3	4.8	---
53-70-3	Dibenz(a,h)anthracene	2.3	4.8	---
191-24-2	Benzo(g,h,i)perylene	2.9	4.8	---
132-64-9	Dibenzofuran	1.5	4.8	---
TOTBFA	Total Benzofluoranthenes	1.8	4.8	---

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	58.7%
d14-Dibenzo(a,h)anthracen	78.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

Sample ID: HT-10-S-LFP-121106
MATRIX SPIKE DUP

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 22:26
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.4 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: 14.3 %

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	2.5	4.8	---
91-57-6	2-Methylnaphthalene	1.5	4.8	---
90-12-0	1-Methylnaphthalene	1.6	4.8	---
208-96-8	Acenaphthylene	1.2	4.8	---
83-32-9	Acenaphthene	1.3	4.8	---
86-73-7	Fluorene	1.2	4.8	---
85-01-8	Phenanthrene	1.9	4.8	---
120-12-7	Anthracene	1.4	4.8	---
206-44-0	Fluoranthene	1.7	4.8	---
129-00-0	Pyrene	2.1	4.8	---
56-55-3	Benzo(a)anthracene	1.5	4.8	---
218-01-9	Chrysene	1.8	4.8	---
205-99-2	Benzo(b)fluoranthene	1.8	4.8	---
207-08-9	Benzo(k)fluoranthene	2.0	4.8	---
50-32-8	Benzo(a)pyrene	1.7	4.8	---
193-39-5	Indeno(1,2,3-cd)pyrene	3.3	4.8	---
53-70-3	Dibenz(a,h)anthracene	2.3	4.8	---
191-24-2	Benzo(g,h,i)perylene	2.9	4.8	---
132-64-9	Dibenzofuran	1.5	4.8	---
TOTBFA	Total Benzofluoranthenes	1.8	4.8	---

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	57.7%
d14-Dibenzo(a,h)anthracen	77.0%

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D-SIM GC/MS
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

Sample ID: LCS-111212
LAB CONTROL SAMPLE

Lab Sample ID: LCS-111212
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/12/12
Date Analyzed LCS: 11/19/12 17:26
Instrument/Analyst LCS: NT11/JZ

Sample Amount LCS: 10.00 g-dry-wt
Final Extract Volume LCS: 0.50 mL
Dilution Factor LCS: 1.00

Analyte	LCS	Spike Added	Recovery
Naphthalene	89.6	150	59.7%
2-Methylnaphthalene	88.8	150	59.2%
1-Methylnaphthalene	96.0	150	64.0%
Acenaphthylene	95.6	150	63.7%
Acenaphthene	97.5	150	65.0%
Fluorene	108	150	72.0%
Phenanthrene	111	150	74.0%
Anthracene	114	150	76.0%
Fluoranthene	123	150	82.0%
Pyrene	124	150	82.7%
Benzo(a)anthracene	127	150	84.7%
Chrysene	127	150	84.7%
Benzo(b)fluoranthene	137	150	91.3%
Benzo(k)fluoranthene	126	150	84.0%
Benzo(a)pyrene	117	150	78.0%
Indeno(1,2,3-cd)pyrene	133	150	88.7%
Dibenz(a,h)anthracene	135	150	90.0%
Benzo(g,h,i)perylene	131	150	87.3%
Dibenzofuran	92.1	150	61.4%
Total Benzofluoranthenes	372	450	82.7%

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	54.7%
d14-Dibenzo(a,h)anthracen	98.3%

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

VR38MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No: VR38

Project: CITY OF KENMORE SEDI

Lab File ID: 11191211

Date Extracted: 11/12/12

Instrument ID: NT11

Date Analyzed: 11/19/12

Matrix: SOLID

Time Analyzed: 1656

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	VR38LCSS1	VR38LCSS1	11191212	11/19/12
02	HT-01-S-C-121106	VR38A	11191213	11/19/12
03	HT-02-S-C-121106	VR38B	11191214	11/19/12
04	HT-03-S-C-121106	VR38C	11191215	11/19/12
05	HT-04-S-C-121106	VR38D	11191216	11/19/12
06	HT-05-S-C-121106	VR38E	11191217	11/19/12
07	HT-08-S-C-121106	VR38F	11191218	11/19/12
08	HT-09-S-C-121106	VR38G	11191219	11/19/12
09	HT-10-S-LFP-1211	VR38H	11191220	11/19/12
10	HT-10-S-LFP-121	VR38HMS	11191221	11/19/12
11	HT-10-S-LFP-121	VR38HMSD	11191222	11/19/12
12	HT-11-S-LFP-1211	VR38I	11191223	11/19/12
13	HT-06-S-E-121106	VR38J	11191224	11/19/12
14	HT-07-S-E-121106	VR38K	11191225	11/19/12
15	HT-04-S-C-121106	VR38D	11201210	11/20/12
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FORM IV SV

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546

ANALYTICAL RESOURCES INCORPORATED

Sample ID: MB-111212
METHOD BLANK

Lab Sample ID: MB-111212
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/12/12
Date Analyzed: 11/19/12 16:56
Instrument/Analyst: NT11/JZ
GPC Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	2.6	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.5	5.0	< 5.0 U
90-12-0	1-Methylnaphthalene	1.7	5.0	< 5.0 U
208-96-8	Acenaphthylene	1.3	5.0	< 5.0 U
83-32-9	Acenaphthene	1.3	5.0	< 5.0 U
86-73-7	Fluorene	1.3	5.0	< 5.0 U
85-01-8	Phenanthrene	2.0	5.0	< 5.0 U
120-12-7	Anthracene	1.5	5.0	< 5.0 U
206-44-0	Fluoranthene	1.8	5.0	< 5.0 U
129-00-0	Pyrene	2.2	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.6	5.0	< 5.0 U
218-01-9	Chrysene	1.9	5.0	< 5.0 U
205-99-2	Benzo(b)fluoranthene	1.9	5.0	< 5.0 U
207-08-9	Benzo(k)fluoranthene	2.0	5.0	< 5.0 U
50-32-8	Benzo(a)pyrene	1.8	5.0	< 5.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	3.5	5.0	< 5.0 U
53-70-3	Dibenz(a,h)anthracene	2.4	5.0	< 5.0 U
191-24-2	Benzo(g,h,i)perylene	3.0	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.5	5.0	< 5.0 U
TOTBFA	Total Benzofluoranthenes	1.8	5.0	< 5.0 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	53.7%
d14-Dibenzo(a,h)anthracen	93.7%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

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

Instrument ID: NT11 Project: CITY OF KENMORE

DFTPP Injection Date: 11/15/12 DFTPP Injection Time: 1733

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	45.3
68	Less than 2.0% of mass 69	0.5 (1.0)1
69	Mass 69 relative abundance	51.4
70	Less than 2.0% of mass 69	0.4 (0.7)1
127	10.0 - 80.0% of mass 198	68.2
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	24.2
365	Greater than 1.0% of mass 198	4.30
441	0.0 - 24.0% of mass 442	23.8 (15.5)2
442	50.0 - 200.0% of mass 198	153.9
443	15.0 - 24.0% of mass 442	30.9 (20.1)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	IC251115	IC251115	11151202	11/15/12	1853
02	IC011115	IC011115	11151203	11/15/12	1924
03	IC051115	IC051115	11151204	11/15/12	1954
04	IC11115	IC11115	11151205	11/15/12	2024
05	IC51115	IC51115	11151206	11/15/12	2054
06	IC101115	IC101115	11151207	11/15/12	2124
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FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

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

Instrument ID: NT11 Project: CITY OF KENMORE

DFTPP Injection Date: 11/19/12 DFTPP Injection Time: 1207

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	48.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.5
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	10.0 - 80.0% of mass 198	70.4
197	Less than 2.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 60.0% of mass 198	21.6
365	Greater than 1.0% of mass 198	3.03
441	0.0 - 24.0% of mass 442	13.8 (14.0)2
442	50.0 - 200.0% of mass 198	99.2
443	15.0 - 24.0% of mass 442	21.8 (22.0)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	CC1119	CC1119	11191202	11/19/12	1225
02	VR38MBS1	VR38MBS1	11191211	11/19/12	1656
03	VR38LCSS1	VR38LCSS1	11191212	11/19/12	1726
04	HT-01-S-C-121106	VR38A	11191213	11/19/12	1756
05	HT-02-S-C-121106	VR38B	11191214	11/19/12	1826
06	HT-03-S-C-121106	VR38C	11191215	11/19/12	1856
07	HT-04-S-C-121106	VR38D	11191216	11/19/12	1926
08	HT-05-S-C-121106	VR38E	11191217	11/19/12	1956
09	HT-08-S-C-121106	VR38F	11191218	11/19/12	2026
10	HT-09-S-C-121106	VR38G	11191219	11/19/12	2056
11	HT-10-S-LFP-1211	VR38H	11191220	11/19/12	2126
12	HT-10-S-LFP-121	VR38HMS	11191221	11/19/12	2156
13	HT-10-S-LFP-121	VR38HMSD	11191222	11/19/12	2226
14	HT-11-S-LFP-1211	VR38I	11191223	11/19/12	2256
15	HT-06-S-E-121106	VR38J	11191224	11/19/12	2326
16	HT-07-S-E-121106	VR38K	11191225	11/19/12	2356
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FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

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

Instrument ID: NT11 Project: CITY OF KENMORE

DFTPP Injection Date: 11/20/12 DFTPP Injection Time: 1207

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	38.3
68	Less than 2.0% of mass 69	0.4 (0.8)1
69	Mass 69 relative abundance	46.8
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	10.0 - 80.0% of mass 198	64.2
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	6.3
275	10.0 - 60.0% of mass 198	24.2
365	Greater than 1.0% of mass 198	3.93
441	0.0 - 24.0% of mass 442	27.6 (14.4)2
442	50.0 - 200.0% of mass 198	192.5
443	15.0 - 24.0% of mass 442	37.0 (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	CC1120	CC1120	11201202	11/20/12	1231
02	HT-04-S-C-121106	VR38D	11201210	11/20/12	1640
03					
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FORM V SV

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

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

ARI Job No: VR38 Project: CITY OF KENMORE

Instrument ID: NT11 Calibration Date: 11/15/12

LAB FILE ID: RRF0.1=11151203 RRF0.5=11151204 RRF1 =11151205
RRF2.5=11151202 RRF5 =11151206 RRF10 =11151207

COMPOUND	RRF 0.1	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	___ RRF	%RSD /R^2
Naphthalene	1.245	1.165	1.063	1.031	0.963	0.946	1.069	10.9
2-Methylnaphthalene	0.652	0.656	0.611	0.596	0.559	0.539	0.602	7.9
Acenaphthylene	1.780	1.828	1.734	1.783	1.669	1.634	1.738	4.3
Acenaphthene	1.315	1.214	1.089	1.067	0.991	0.956	1.105	12.3
Dibenzofuran	1.884	1.804	1.594	1.582	1.455	1.397	1.619	11.8
Fluorene	1.321	1.376	1.242	1.254	1.159	1.114	1.244	7.8
Phenanthrene	1.424	1.320	1.230	1.160	1.086	1.028	1.208	12.2
Anthracene	1.231	1.250	1.167	1.166	1.094	1.049	1.160	6.7
Fluoranthene	1.312	1.325	1.228	1.203	1.123	1.072	1.210	8.3
Pyrene	1.201	1.172	1.102	1.101	1.027	1.010	1.102	6.9
Benzo(a)anthracene	1.137	1.059	1.006	0.974	0.924	0.929	1.005	8.2
Chrysene	1.153	1.046	0.950	0.936	0.899	0.868	0.975	10.9
Benzo(b)fluoranthene	0.974	0.952	0.931	0.915	0.865	0.917	0.926	4.0
Benzo(k)fluoranthene	1.077	1.031	0.996	1.025	0.954	0.948	1.005	4.9
Benzo(j)fluoranthene	1.141	1.106	1.090	1.046	0.986	0.995	1.061	5.9
Benzo(a)pyrene	0.902	1.004	0.943	0.960	0.913	0.919	0.940	4.0
Indeno(1,2,3-cd)pyrene	0.995	1.146	1.148	1.224	1.150	1.176	1.140	6.8
Dibenzo(a,h)anthracene	0.816	0.930	0.944	0.993	0.944	0.941	0.928	6.4
Benzo(g,h,i)perylene	0.902	0.961	0.977	0.970	0.957	1.050	0.970	4.9
1-methylnaphthalene	0.667	0.620	0.568	0.566	0.529	0.511	0.577	10.1
Perylene	1.111	1.037	0.960	0.952	0.903	0.886	0.975	8.7
2-Methylnaphthalene-d10	0.782	0.748	0.682	0.674	0.618	0.597	0.684	10.5
Dibenzo(a,h)anthracene-d14	0.518	0.628	0.642	0.717	0.721	0.752	0.663	12.9

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

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

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

ARI Job No: VR38 — Project: CITY OF KENMORE

Instrument ID: NT11 — Cont. Calib. Date: 11/19/12

Init. Calib. Date: 11/15/12 — Cont. Calib. Time: 1225

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Naphthalene	1.069	1.021	0.700	AVRG	-4.5
2-Methylnaphthalene	0.602	0.598	0.400	AVRG	-0.7
Acenaphthylene	1.738	1.787	0.900	AVRG	2.8
Acenaphthene	1.105	1.065	0.900	AVRG	-3.6
Dibenzofuran	1.619	1.562	0.800	AVRG	-3.5
Fluorene	1.244	1.251	0.900	AVRG	0.6
Phenanthrene	1.208	1.167	0.700	AVRG	-3.4
Anthracene	1.160	1.185	0.700	AVRG	2.2
Fluoranthene	1.210	1.209	0.600	AVRG	-0.1
Pyrene	1.102	1.093	0.600	AVRG	-0.8
Benzo(a)anthracene	1.005	0.987	0.800	AVRG	-1.8
Chrysene	0.975	0.936	0.700	AVRG	-4.0
Benzo(b)fluoranthene	0.926	0.969	0.700	AVRG	4.6
Benzo(k)fluoranthene	1.005	1.044	0.700	AVRG	3.9
Benzo(j)fluoranthene	1.061	1.087	0.010	AVRG	2.4
Benzo(a)pyrene	0.940	0.960	0.700	AVRG	2.1
Indeno(1,2,3-cd)pyrene	1.140	1.036	0.500	AVRG	-9.1
Dibenzo(a,h)anthracene	0.928	0.801	0.400	AVRG	-13.7
Benzo(g,h,i)perylene	0.970	0.866	0.500	AVRG	-10.7
1-methylnaphthalene	0.577	0.562	0.010	AVRG	-2.6
Perylene	0.975	0.937	0.010	AVRG	-3.9
2-Methylnaphthalene-d10	0.684	0.666	0.010	AVRG	-2.6
Dibenzo(a,h)anthracene-d14	0.663	0.602	0.010	AVRG	-9.2

<- 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, LLC.

ARI Job No: VR38 | Project: CITY OF KENMORE

Instrument ID: NT11 | Cont. Calib. Date: 11/20/12

Init. Calib. Date: 11/15/12 | Cont. Calib. Time: 1231

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Naphthalene	1.069	1.021	0.700	AVRG	-4.5
2-Methylnaphthalene	0.602	0.599	0.400	AVRG	-0.5
Acenaphthylene	1.738	1.778	0.900	AVRG	2.3
Acenaphthene	1.105	1.056	0.900	AVRG	-4.4
Dibenzofuran	1.619	1.537	0.800	AVRG	-5.1
Fluorene	1.244	1.259	0.900	AVRG	1.2
Phenanthrene	1.208	1.162	0.700	AVRG	-3.8
Anthracene	1.160	1.162	0.700	AVRG	0.2
Fluoranthene	1.210	1.221	0.600	AVRG	0.9
Pyrene	1.102	1.086	0.600	AVRG	-1.4
Benzo(a)anthracene	1.005	0.974	0.800	AVRG	-3.1
Chrysene	0.975	0.943	0.700	AVRG	-3.3
Benzo(b)fluoranthene	0.926	0.973	0.700	AVRG	5.1
Benzo(k)fluoranthene	1.005	1.037	0.700	AVRG	3.2
Benzo(j)fluoranthene	1.061	1.062	0.010	AVRG	0.1
Benzo(a)pyrene	0.940	0.948	0.700	AVRG	0.8
Indeno(1,2,3-cd)pyrene	1.140	1.247	0.500	AVRG	9.4
Dibenzo(a,h)anthracene	0.928	1.021	0.400	AVRG	10.0
Benzo(g,h,i)perylene	0.970	1.078	0.500	AVRG	11.1
1-methylnaphthalene	0.577	0.563	0.010	AVRG	-2.4
Perylene	0.975	0.947	0.010	AVRG	-2.9
2-Methylnaphthalene-d10	0.684	0.677	0.010	AVRG	-1.0
Dibenzo(a,h)anthracene-d14	0.663	0.769	0.010	AVRG	16.0

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

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

ARI Job No: VR38 | Project: CITY OF KENMORE

Ical Midpoint ID: 11151202 | Ical Date: 11/15/12

Instrument ID: NT11 | Cont. Cal Date: 11/19/12

		IS1(NPT) AREA #	RT #	IS2(ANT) AREA #	RT #	IS3(PHN) AREA #	RT #
	ICAL MIDPT	516111	5.47	284255	7.74	410660	9.76
	UPPER LIMIT	1032222		568510		821320	
	LOWER LIMIT	258056		142128		205330	
	CCAL	582036	5.47	321776	7.74	464307	9.76
	UPPER LIMIT		5.97		8.24		10.26
	LOWER LIMIT		4.97		7.24		9.26
01	VR38MBS1	622986	5.46	346823	7.74	492267	9.76
02	VR38LCSS1	649092	5.47	356276	7.74	512960	9.76
03	HT-01-S-C-12	647311	5.47	358664	7.74	505083	9.76
04	HT-02-S-C-12	647233	5.47	360943	7.74	500516	9.76
05	HT-03-S-C-12	619522	5.46	348394	7.74	484343	9.76
06	HT-04-S-C-12	598661	5.47	328034	7.74	444689	9.77
07	HT-05-S-C-12	656966	5.46	362341	7.74	511781	9.76
08	HT-08-S-C-12	644239	5.46	358881	7.74	502206	9.76
09	HT-09-S-C-12	656246	5.46	361274	7.74	498232	9.76
10	HT-10-S-LFP-	626390	5.46	352406	7.74	494684	9.76
11	HT-10-S-LFP-	649774	5.47	364637	7.74	507442	9.76
12	HT-10-S-LFP-	663747	5.47	368497	7.74	521171	9.76
13	HT-11-S-LFP-	641651	5.46	352250	7.74	510678	9.76
14	HT-06-S-E-12	662707	5.47	368944	7.74	516393	9.76
15	HT-07-S-E-12	687317	5.47	380338	7.74	535730	9.76
16							
17							
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23							
24							
25							

IS1 = Naphthalene-d8
IS2 = Acenaphthene-d10
IS3 = Phenanthrene-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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

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

ARI Job No: VR38 Project: CITY OF KENMORE

Ical Midpoint ID: 11151202 Ical Date: 11/15/12

Instrument ID: NT11 Cont. Cal Date: 11/19/12

		IS4(CRY) AREA #	RT #	IS5(PRY) AREA #	RT #	AREA #	RT #
	ICAL MIDPT	467886	14.38	472330	18.14		
	UPPER LIMIT	935772		944660			
	LOWER LIMIT	233943		236165			
	CCAL	534705	14.39	532104	18.15		
	UPPER LIMIT		14.89		18.65		
	LOWER LIMIT		13.89		17.65		
01	VR38MBS1	559332	14.38	563336	18.14		
02	VR38LCSS1	577811	14.38	587089	18.14		
03	HT-01-S-C-12	552833	14.38	573370	18.14		
04	HT-02-S-C-12	557560	14.38	584411	18.14		
05	HT-03-S-C-12	528056	14.39	574060	18.15		
06	HT-04-S-C-12	433081	14.41	411616	18.16		
07	HT-05-S-C-12	573928	14.38	577426	18.14		
08	HT-08-S-C-12	541910	14.38	571706	18.16		
09	HT-09-S-C-12	568350	14.39	545303	18.16		
10	HT-10-S-LFP-	556793	14.38	532427	18.14		
11	HT-10-S-LFP-	576292	14.38	529037	18.15		
12	HT-10-S-LFP-	580978	14.38	538804	18.14		
13	HT-11-S-LFP-	574808	14.38	530683	18.14		
14	HT-06-S-E-12	579501	14.38	495919	18.14		
15	HT-07-S-E-12	591980	14.39	463981	18.15		
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IS4 = Chrysene-d12
IS5 = 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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

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

ARI Job No: VR38 Project: CITY OF KENMORE

Ical Midpoint ID: 11151202 Ical Date: 11/15/12

Instrument ID: NT11 Cont. Cal Date: 11/20/12

		IS1(NPT) AREA #	RT #	IS2(ANT) AREA #	RT #	IS3(PHN) AREA #	RT #
	ICAL MIDPT	516111	5.47	284255	7.74	410660	9.76
	UPPER LIMIT	1032222		568510		821320	
	LOWER LIMIT	258056		142128		205330	
	CCAL	632714	5.44	355653	7.72	513102	9.74
	UPPER LIMIT		5.94		8.22		10.24
	LOWER LIMIT		4.94		7.22		9.24
01	HT-04-S-C-12	641589	5.44	358015	7.71	498531	9.74
02							
03							
04							
05							
06							
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24							
25							

IS1 = Naphthalene-d8
IS2 = Acenaphthene-d10
IS3 = Phenanthrene-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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

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

ARI Job No: VR38 Project: CITY OF KENMORE

Ical Midpoint ID: 11151202 Ical Date: 11/15/12

Instrument ID: NT11 Cont. Cal Date: 11/20/12

		IS4(CRY) AREA #	RT #	IS5(PRY) AREA #	RT #	AREA #	RT #
	ICAL MIDPT	467886	14.38	472330	18.14		
	UPPER LIMIT	935772		944660			
	LOWER LIMIT	233943		236165			
	CCAL	617135	14.34	629632	18.10		
	UPPER LIMIT		14.84		18.60		
	LOWER LIMIT		13.84		17.60		
01	HT-04-S-C-12	553225	14.36	636065	18.11		
02							
03							
04							
05							
06							
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23							
24							
25							

IS4 = Chrysene-d12
IS5 = 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

Butyl Tin Analysis
Report and Summary QC Forms

ARI Job ID: VR38

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: HT-06-S-E-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38J
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized:
Reported: 11/15/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/13/12
Date Analyzed: 11/14/12 16:16
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: No

Sample Amount: 5.70 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 20.2%

CAS Number	Analyte	LOD	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.9	3.4	< 3.4	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	73.0%
Tripentyl Tin Chloride	76.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: HT-07-S-E-121106**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/15/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/13/12
Date Analyzed: 11/14/12 16:30
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: No

Sample Amount: 5.19 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 16.5%

CAS Number	Analyte	LOD	LOQ	Result	Q
36643-28-4	Tributyltin Ion	1.0	3.7	< 3.7	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	72.7%
Tripentyl Tin Chloride	75.4%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
Event: 120891-01.01

Client ID	TPRT	TPNT	TOT OUT
HT-06-S-E-121106	73.0%	76.6%	0
MB-111312	68.7%	79.5%	0
LCS-111312	74.4%	84.4%	0
HT-07-S-E-121106	72.7%	75.4%	0
HT-07-S-E-121106 MS	74.5%	79.5%	0
HT-07-S-E-121106 MSD	71.1%	77.7%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(28-106)	(32-104)
(TPNT) = Tripentyl Tin Chloride	(35-130)	(25-140)

Prep Method: SW3546
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 12-22276 to 12-22277

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: HT-07-S-E-121106**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/15/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted MS: 11/13/12

Sample Amount MS: 5.16 g-dry-wt
MSD: 5.10 g-dry-wt

Date Analyzed MS: 11/14/12 16:43
MSD: 11/14/12 16:57

Final Extract Volume MS: 0.5 mL
MSD: 0.5 mL

Instrument/Analyst MS: NT12/VTS
MSD: NT12/VTS

Dilution Factor MS: 1.00
MSD: 1.00

Silica Gel Cleanup: No

Alumina Cleanup: Yes

Moisture: 16.5%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Tributyltin Ion	< 3.7 U	36.2	43.2	83.8%	35.3	43.7	80.8%	2.5%

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

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: HT-07-S-E-121106**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/15/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/13/12
Date Analyzed: 11/14/12 16:43
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: No

Sample Amount: 5.16 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 16.5%

CAS Number	Analyte	LOD	LOQ	Result	Q
36643-28-4	Tributyltin Ion	1.0	3.7	---	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	74.5%
Tripentyl Tin Chloride	79.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: HT-07-S-E-121106**
Extraction Method: SW3546 **MATRIX SPIKE DUP**

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/15/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/13/12
Date Analyzed: 11/14/12 16:57
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: No

Sample Amount: 5.10 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 16.5%

CAS Number	Analyte	LOD	LOQ	Result	Q
36643-28-4	Tributyltin Ion	1.0	3.8	---	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	71.1%
Tripentyl Tin Chloride	77.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: LCS-111312**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-111312
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/15/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted LCS: 11/13/12
Date Analyzed LCS: 11/14/12 16:02
Instrument/Analyst LCS: NT12/VTS
Silica Gel Cleanup: No

Sample Amount LCS: 5.00 g-dry-wt
Final Extract Volume LCS: 0.50 mL
Dilution Factor LCS: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added	Recovery
Tributyltin Ion	39.0	44.6	87.4%

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	74.4%
Tripentyl Tin Chloride	84.4%

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

VR38MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No: VR58

Project: CITY OF KENMORE SEDI

Lab File ID: VR38MB

Date Extracted: 11/13/12

Instrument ID: NT12

Date Analyzed: 11/14/12

Matrix: SOLID

Time Analyzed: 1548

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	VR38LCSS1	VR38LCSS1	VR38SB	11/14/12
02	HT-06-S-E-121106	VR38J	VR38J	11/14/12
03	HT-07-S-E-121106	VR38K	VR38K	11/14/12
04	HT-07-S-E-12110	VR38KMS	VR38KMS	11/14/12
05	HT-07-S-E-12110	VR38KMSD	VR38KMSD	11/14/12
06	SG-10-S-E-121107	VR58A	VR58A	11/14/12
07	SG-11-S-E-121107	VR58B	VR58B	11/14/12
08	SG-12-S-E-121107	VR58C	VR58C	11/14/12
09	SG-13-S-E-121107	VR58D	VR58D	11/14/12
10	SG-13-S-E-DUP-12	VR58E	VR58E	11/14/12
11	SG-15-S-E-121107	VR58G	VR58G	11/14/12
12				
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FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-111312**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-111312
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/15/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/13/12
Date Analyzed: 11/14/12 15:48
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: No

Sample Amount: 5.00 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	LOD	LOQ	Result	Q
36643-28-4	Tributyltin Ion	1.0	3.9	< 3.9	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	68.7%
Tripentyl Tin Chloride	79.5%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

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

Instrument ID: NT12 Project: CITY OF KENMORE

DFTPP Injection Date: 10/06/12 DFTPP Injection Time: 1351

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	28.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	89.8
70	Less than 2.0% of mass 69	0.5 (0.6)1
127	10.0 - 80.0% of mass 198	65.6
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	8.2
275	10.0 - 60.0% of mass 198	33.4
365	Greater than 1.0% of mass 198	4.54
441	0.0 - 24.0% of mass 442	19.8 (17.5)2
442	50.0 - 200.0% of mass 198	113.4
443	15.0 - 24.0% of mass 442	26.0 (23.0)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		TBT 1	IC1006A	10/06/12	1405
02		TBT 4	IC1006B	10/06/12	1418
03		TBT .05	IC1006C	10/06/12	1432
04		TBT 2	IC1006D	10/06/12	1446
05		TBT .2	IC1006E	10/06/12	1500
06		TBT .5	IC1006F	10/06/12	1514
07					
08					
09					
10					
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22					

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

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

Instrument ID: NT12 Project: CITY OF KENMORE

DFTPP Injection Date: 11/14/12 DFTPP Injection Time: 1138

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	27.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	88.9
70	Less than 2.0% of mass 69	0.5 (0.6)1
127	10.0 - 80.0% of mass 198	67.4
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	8.5
275	10.0 - 60.0% of mass 198	33.1
365	Greater than 1.0% of mass 198	5.22
441	0.0 - 24.0% of mass 442	19.4 (18.3)2
442	50.0 - 200.0% of mass 198	106.0
443	15.0 - 24.0% of mass 442	24.8 (23.4)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		TBT 1	CC1114	11/14/12	1151
02	VR38MBS1	VR38MBS1	VR38MB	11/14/12	1548
03	VR38LCSS1	VR38LCSS1	VR38SB	11/14/12	1602
04	HT-06-S-E-121106	VR38J	VR38J	11/14/12	1616
05	HT-07-S-E-121106	VR38K	VR38K	11/14/12	1630
06	HT-07-S-E-12110	VR38KMS	VR38KMS	11/14/12	1643
07	HT-07-S-E-12110	VR38KMSD	VR38KMSD	11/14/12	1657
08	SG-10-S-E-121107	VR58A	VR58A	11/14/12	1711
09	SG-11-S-E-121107	VR58B	VR58B	11/14/12	1725
10	SG-12-S-E-121107	VR58C	VR58C	11/14/12	1739
11	SG-13-S-E-121107	VR58D	VR58D	11/14/12	1752
12	SG-13-S-E-DUP-12	VR58E	VR58E	11/14/12	1806
13	SG-15-S-E-121107	VR58G	VR58G	11/14/12	1820
14					
15					
16					
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22					

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

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

ARI Job No: VR58 Project: CITY OF KENMORE

Instrument ID: NT12 Calibration Date: 10/06/12

LAB FILE ID: RRF0.05=IC1006C RRF0.2=IC1006E RRF0.5=IC1006F
RRF1 =IC1006A RRF2 =IC1006D RRF4 =IC1006B

COMPOUND	RRF 0.05	RRF 0.2	RRF 0.5	RRF 1	RRF 2	RRF 4	___ RRF	%RSD /R^2
Tributyl Tin (Hexyl)	0.550	0.592	0.667	0.684	0.684	0.664	0.640	8.7
Dibutyl Tin (Hexyl)	0.046	0.049	0.053	0.053	0.052	0.055	0.051	6.5
Butyl Tin (Hexyl)	0.060	0.067	0.081	0.084	0.083	0.090	0.078	14.8
Tetrabutyl Tin	0.652	0.697	0.749	0.791	0.755	0.730	0.729	6.7
Tripropyl Tin (Hexyl)	0.647	0.674	0.712	0.756	0.721	0.690	0.700	5.5
Tripentyl Tin (Hexyl)	0.054	0.060	0.072	0.071	0.072	0.079	0.068	13.1

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

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

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

ARI Job No: VR58 Project: CITY OF KENMORE

Instrument ID: NT12 Cont. Calib. Date: 11/14/12

Init. Calib. Date: 10/06/12 Cont. Calib. Time: 1151

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Tributyl Tin (Hexyl)	0.640	0.741	0.010	AVRG	15.8
Dibutyl Tin (Hexyl)	0.051	0.050	0.010	AVRG	-2.0
Butyl Tin (Hexyl)	0.078	0.081	0.010	AVRG	3.8
Tetrabutyl Tin	0.729	0.781	0.010	AVRG	7.1
Tripropyl Tin (Hexyl)	0.700	0.756	0.010	AVRG	8.0
Tripentyl Tin (Hexyl)	0.068	0.070	0.010	AVRG	2.9

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

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

ARI Job No: VR58 Project: CITY OF KENMORE

Ical Midpoint ID: IC1006A Ical Date: 10/06/12

Instrument ID: NT12 Cont. Cal Date: 11/14/12

		IS1 AREA #	RT #	IS2 AREA #	RT #	AREA #	RT #
	ICAL MIDPT	343457	7.80	317005	8.77		
	UPPER LIMIT	686914		634010			
	LOWER LIMIT	171728		158502			
	CCAL	348078	7.81	335859	8.78		
	UPPER LIMIT		8.31		9.28		
	LOWER LIMIT		7.31		8.28		
01	VR38MBS1	372403	7.80	344209	8.77		
02	VR38LCSS1	363079	7.80	335464	8.77		
03	HT-06-S-E-12	367009	7.80	348335	8.77		
04	HT-07-S-E-12	364472	7.80	340114	8.77		
05	HT-07-S-E-12	377212	7.80	349164	8.77		
06	HT-07-S-E-12	384249	7.80	348526	8.77		
07	SG-10-S-E-12	373082	7.80	352219	8.77		
08	SG-11-S-E-12	390935	7.80	373865	8.78		
09	SG-12-S-E-12	397853	7.80	378443	8.78		
10	SG-13-S-E-12	404376	7.80	410881	8.78		
11	SG-13-S-E-DU	396662	7.80	389934	8.78		
12	SG-15-S-E-12	390399	7.80	371267	8.78		
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS1 = Tetrapentyl Tin
IS2 = p-Terphenyl-d14

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

Dioxin Analysis
Report and Summary QC Forms

ARI Job ID: VR38

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-01-S-C-121106**

Lab Sample ID: VR38A
LIMS ID: 12-22267
Matrix: Sediment
Data Release Authorized:
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 15:55
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	1.00	0.65-0.89		0.986	0.0355	BJEMPC
2,3,7,8-TCDD	0.14	0.65-0.89		0.986	0.134	JEMPC
1,2,3,7,8-PeCDF	1.53	1.32-1.78		1.97	0.0611	BJ
2,3,4,7,8-PeCDF	2.28	1.32-1.78		0.986	0.0454	JEMPC
1,2,3,7,8-PeCDD	3.13	1.32-1.78		0.986	0.0671	BJEMPC
1,2,3,4,7,8-HxCDF	0.88	1.05-1.43		1.97	0.0375	JEMPC
1,2,3,6,7,8-HxCDF	1.04	1.05-1.43		1.97	0.0493	JEMPC
2,3,4,6,7,8-HxCDF	1.12	1.05-1.43		1.97	0.0572	J
1,2,3,7,8,9-HxCDF	1.62	1.05-1.43		1.97	0.0335	JEMPC
1,2,3,4,7,8-HxCDD		1.05-1.43	0.209	1.97	< 0.209	U
1,2,3,6,7,8-HxCDD	1.28	1.05-1.43		1.97	0.193	J
1,2,3,7,8,9-HxCDD	1.28	1.05-1.43		1.97	0.103	J
1,2,3,4,6,7,8-HpCDF	1.00	0.88-1.20		1.97	0.643	J
1,2,3,4,7,8,9-HpCDF		0.88-1.20	0.414	1.97	< 0.414	U
1,2,3,4,6,7,8-HpCDD	0.98	0.88-1.20		1.97	3.79	
OCDF	0.90	0.76-1.02		4.93	1.91	J
OCDD	0.89	0.76-1.02		4.93	31.4	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC	
Total TCDF		0.986	0.170	0.444	
Total TCDD		0.986	< 0.134	0.132	U
Total PeCDF		1.97	0.744	0.876	
Total PeCDD		0.986	< 0.0671	0.170	U
Total HxCDF		1.97	1.07	1.18	
Total HxCDD		1.97	0.675	1.20	
Total HpCDF		1.97	1.88		
Total HpCDD		1.97	7.37		

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.32

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.33

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-01-S-C-121106**

Lab Sample ID: VR38A
LIMS ID: 12-22267
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 15:55
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	0.77	0.65-0.89	88.8	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	88.6	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	96.1	24-185	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	85.1	21-178	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	88.6	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	85.3	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	85.8	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	77.1	28-136	
13C-1,2,3,7,8,9-HxCDF	0.53	0.43-0.59	81.8	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	84.4	32-141	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	86.5	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	71.1	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	74.2	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	80.7	23-140	
13C-OCDD	0.88	0.76-1.02	58.3	17-157	
37Cl4-2,3,7,8-TCDD			90.8	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-02-S-C-121106**

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 16:48
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	0.86	0.65-0.89		0.990	0.135	BJ
2,3,7,8-TCDD	0.18	0.65-0.89		0.990	0.168	JEMPC
1,2,3,7,8-PeCDF	1.56	1.32-1.78		1.98	0.0990	BJ
2,3,4,7,8-PeCDF	1.48	1.32-1.78		0.990	0.0812	J
1,2,3,7,8-PeCDD	1.35	1.32-1.78		0.990	0.158	BJ
1,2,3,4,7,8-HxCDF	1.00	1.05-1.43		1.98	0.105	JEMPC
1,2,3,6,7,8-HxCDF	1.71	1.05-1.43		1.98	0.115	JEMPC
2,3,4,6,7,8-HxCDF	1.23	1.05-1.43		1.98	0.129	J
1,2,3,7,8,9-HxCDF		1.05-1.43	0.145	1.98	< 0.145	U
1,2,3,4,7,8-HxCDD	1.01	1.05-1.43		1.98	0.137	JEMPC
1,2,3,6,7,8-HxCDD	1.15	1.05-1.43		1.98	0.434	J
1,2,3,7,8,9-HxCDD	1.19	1.05-1.43		1.98	0.275	J
1,2,3,4,6,7,8-HpCDF	0.84	0.88-1.20		1.98	1.21	JEMPC
1,2,3,4,7,8,9-HpCDF	1.95	0.88-1.20		1.98	0.0495	JEMPC
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		1.98	9.30	
OCDF	0.88	0.76-1.02		4.95	3.44	J
OCDD	0.90	0.76-1.02		4.95	101	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.990	0.897	1.46
Total TCDD		0.990	0.166	0.362
Total PeCDF		1.98	1.64	1.84
Total PeCDD		0.990	0.396	0.780
Total HxCDF		1.98	1.05	2.42
Total HxCDD		1.98	2.82	3.17
Total HpCDF		1.98	2.49	3.61
Total HpCDD		1.98	21.4	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.62

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.63

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-02-S-C-121106**

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 16:48
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	92.2	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	87.0	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	90.9	24-185	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	84.6	21-178	
13C-1,2,3,7,8-PeCDD	1.59	1.32-1.78	86.1	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	86.0	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	84.7	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	77.5	28-136	
13C-1,2,3,7,8,9-HxCDF	0.53	0.43-0.59	86.9	29-147	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	84.5	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	86.5	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	72.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	75.6	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	80.3	23-140	
13C-OCDD	0.89	0.76-1.02	59.3	17-157	
37Cl4-2,3,7,8-TCDD			90.7	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-03-S-C-121106**
Page 1 of 1

Lab Sample ID: VR38C
LIMS ID: 12-22269
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 17:40
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	0.69	0.65-0.89		0.997	0.397	J
2,3,7,8-TCDD	0.43	0.65-0.89		0.997	0.239	JEMPC
1,2,3,7,8-PeCDF	1.39	1.32-1.78		1.99	0.303	BJX
2,3,4,7,8-PeCDF	1.60	1.32-1.78		0.997	0.317	J
1,2,3,7,8-PeCDD	1.25	1.32-1.78		0.997	0.640	JEMPC
1,2,3,4,7,8-HxCDF	1.13	1.05-1.43		1.99	0.459	J
1,2,3,6,7,8-HxCDF	1.01	1.05-1.43		1.99	0.518	JEMPC
2,3,4,6,7,8-HxCDF	1.13	1.05-1.43		1.99	0.754	J
1,2,3,7,8,9-HxCDF	2.23	1.05-1.43		1.99	0.185	JEMPC
1,2,3,4,7,8-HxCDD	1.08	1.05-1.43		1.99	0.654	J
1,2,3,6,7,8-HxCDD	1.19	1.05-1.43		1.99	2.25	
1,2,3,7,8,9-HxCDD	1.20	1.05-1.43		1.99	1.29	J
1,2,3,4,6,7,8-HpCDF	0.98	0.88-1.20		1.99	5.68	
1,2,3,4,7,8,9-HpCDF	1.21	0.88-1.20		1.99	0.349	JEMPC
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20		1.99	38.7	
OCDF	0.81	0.76-1.02		4.99	11.8	
OCDD	0.88	0.76-1.02		4.99	272	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.997	5.17	6.63
Total TCDD		0.997	1.96	2.56
Total PeCDF		1.99	9.70	9.79
Total PeCDD		0.997	1.37	4.21
Total HxCDF		1.99	12.9	13.6
Total HxCDD		1.99	15.9	16.3
Total HpCDF		1.99	18.0	18.4
Total HpCDD		1.99	83.9	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 2.17

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 2.17

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-03-S-C-121106**
Page 1 of 1

Lab Sample ID: VR38C
LIMS ID: 12-22269
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 17:40
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	89.8	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	82.0	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	87.5	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	78.5	21-178	
13C-1,2,3,7,8-PeCDD	1.58	1.32-1.78	79.1	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	77.7	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	77.2	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	75.0	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	83.5	29-147	
13C-1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	77.9	32-141	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	79.3	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	66.7	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	70.2	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	72.0	23-140	
13C-OCDD	0.90	0.76-1.02	53.6	17-157	
37Cl4-2,3,7,8-TCDD			90.0	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-04-S-C-121106**
Page 1 of 1

Lab Sample ID: VR38D
LIMS ID: 12-22270
Matrix: Sediment
Data Release Authorized:
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 18:32
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		0.996	1.41	
2,3,7,8-TCDD	0.55	0.65-0.89		0.996	0.546	JEMPC
1,2,3,7,8-PeCDF	1.56	1.32-1.78		1.99	0.871	JX
2,3,4,7,8-PeCDF	1.39	1.32-1.78		0.996	1.05	
1,2,3,7,8-PeCDD	1.52	1.32-1.78		0.996	2.14	
1,2,3,4,7,8-HxCDF	1.08	1.05-1.43		1.99	1.79	J
1,2,3,6,7,8-HxCDF	1.16	1.05-1.43		1.99	1.78	J
2,3,4,6,7,8-HxCDF	1.14	1.05-1.43		1.99	2.65	
1,2,3,7,8,9-HxCDF	1.09	1.05-1.43		1.99	0.618	J
1,2,3,4,7,8-HxCDD	1.20	1.05-1.43		1.99	2.18	
1,2,3,6,7,8-HxCDD	1.22	1.05-1.43		1.99	8.69	
1,2,3,7,8,9-HxCDD	1.28	1.05-1.43		1.99	4.33	
1,2,3,4,6,7,8-HpCDF	0.96	0.88-1.20		1.99	26.8	
1,2,3,4,7,8,9-HpCDF	0.89	0.88-1.20		1.99	1.77	JEMPC
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		1.99	178	
OCDF	0.83	0.76-1.02		4.98	71.5	
OCDD	0.88	0.76-1.02		4.98	1,460	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.996	25.0	25.6
Total TCDD		0.996	6.71	7.22
Total PeCDF		1.99	30.9	31.3
Total PeCDD		0.996	9.71	14.3
Total HxCDF		1.99	49.6	50.5
Total HxCDD		1.99	65.0	65.1
Total HpCDF		1.99	77.9	79.5
Total HpCDD		1.99	423	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 7.90

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 7.90

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-04-S-C-121106**

Lab Sample ID: VR38D
LIMS ID: 12-22270
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 18:32
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	80.9	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	81.0	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	85.7	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	82.9	21-178	
13C-1,2,3,7,8-PeCDD	1.58	1.32-1.78	83.4	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	69.4	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	69.1	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	71.1	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	73.2	29-147	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	72.6	32-141	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	75.7	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	60.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	67.6	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.06	0.88-1.20	70.0	23-140	
13C-OCDD	0.91	0.76-1.02	55.8	17-157	
37Cl4-2,3,7,8-TCDD			89.9	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-05-S-C-121106

Lab Sample ID: VR38E
LIMS ID: 12-22271
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 20:25
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.2 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		0.978	0.0860	BJ
2,3,7,8-TCDD	0.17	0.65-0.89		0.978	0.151	JEMPC
1,2,3,7,8-PeCDF	1.24	1.32-1.78		1.96	0.115	BJEMPC
2,3,4,7,8-PeCDF	1.39	1.32-1.78		0.978	0.117	J
1,2,3,7,8-PeCDD	1.27	1.32-1.78		0.978	0.420	JEMPC
1,2,3,4,7,8-HxCDF	1.44	1.05-1.43		1.96	0.205	JEMPC
1,2,3,6,7,8-HxCDF	1.19	1.05-1.43		1.96	0.219	J
2,3,4,6,7,8-HxCDF	1.54	1.05-1.43		1.96	0.270	JEMPC
1,2,3,7,8,9-HxCDF	1.02	1.05-1.43		1.96	0.127	JEMPC
1,2,3,4,7,8-HxCDD	1.14	1.05-1.43		1.96	0.340	J
1,2,3,6,7,8-HxCDD	1.26	1.05-1.43		1.96	0.884	J
1,2,3,7,8,9-HxCDD	1.27	1.05-1.43		1.96	0.790	J
1,2,3,4,6,7,8-HpCDF	1.01	0.88-1.20		1.96	2.44	
1,2,3,4,7,8,9-HpCDF	0.82	0.88-1.20		1.96	0.233	JEMPC
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20		1.96	18.4	
OCDF	0.84	0.76-1.02		4.89	7.39	
OCDD	0.89	0.76-1.02		4.89	136	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.978	0.702	1.25
Total TCDD		0.978	0.252	0.667
Total PeCDF		1.96	2.86	3.87
Total PeCDD		0.978	1.08	2.79
Total HxCDF		1.96	4.02	4.60
Total HxCDD		1.96	8.17	8.55
Total HpCDF		1.96	6.70	6.91
Total HpCDD		1.96	40.0	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 1.16

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 1.16

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-05-S-C-121106**

Lab Sample ID: VR38E
LIMS ID: 12-22271
Matrix: Sediment
Data Release Authorized:
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 20:25
Instrument/Analyst: AS1/PK

Sample Amount: 10.2 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	85.3	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	84.4	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	95.9	24-185	
13C-2,3,4,7,8-PeCDF	1.57	1.32-1.78	81.1	21-178	
13C-1,2,3,7,8-PeCDD	1.59	1.32-1.78	82.1	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	80.6	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	82.2	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	75.1	28-136	
13C-1,2,3,7,8,9-HxCDF	0.53	0.43-0.59	82.2	29-147	
13C-1,2,3,4,7,8-HxCDD	1.28	1.05-1.43	80.5	32-141	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	82.7	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	69.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	75.4	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	78.5	23-140	
13C-OCDD	0.89	0.76-1.02	60.8	17-157	
37Cl4-2,3,7,8-TCDD			88.4	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-08-S-C-121106**

Lab Sample ID: VR38F
LIMS ID: 12-22272
Matrix: Sediment
Data Release Authorized:
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 21:21
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		0.998	0.0818	BJ
2,3,7,8-TCDD	0.15	0.65-0.89		0.998	0.148	JEMPC
1,2,3,7,8-PeCDF	1.09	1.32-1.78		2.00	0.0818	BJXEMPC
2,3,4,7,8-PeCDF	1.60	1.32-1.78		0.998	0.0758	J
1,2,3,7,8-PeCDD	1.50	1.32-1.78		0.998	0.144	BJ
1,2,3,4,7,8-HxCDF	0.88	1.05-1.43		2.00	0.124	JEMPC
1,2,3,6,7,8-HxCDF	0.98	1.05-1.43		2.00	0.130	JEMPC
2,3,4,6,7,8-HxCDF	0.77	1.05-1.43		2.00	0.0858	JEMPC
1,2,3,7,8,9-HxCDF	1.74	1.05-1.43		2.00	0.0539	JEMPC
1,2,3,4,7,8-HxCDD	1.18	1.05-1.43		2.00	0.120	J
1,2,3,6,7,8-HxCDD	1.14	1.05-1.43		2.00	0.387	J
1,2,3,7,8,9-HxCDD	0.97	1.05-1.43		2.00	0.289	JEMPC
1,2,3,4,6,7,8-HpCDF	0.91	0.88-1.20		2.00	1.59	J
1,2,3,4,7,8,9-HpCDF	1.03	0.88-1.20		2.00	0.134	J
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		2.00	8.06	
OCDF	0.88	0.76-1.02		4.99	3.89	J
OCDD	0.89	0.76-1.02		4.99	59.8	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.998	0.687	1.15
Total TCDD		0.998	0.411	0.601
Total PeCDF		2.00	1.18	1.56
Total PeCDD		0.998	0.517	0.735
Total HxCDF		2.00	1.67	2.41
Total HxCDD		2.00	2.28	2.53
Total HpCDF		2.00	4.22	
Total HpCDD		2.00	14.5	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.56

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.56

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-08-S-C-121106**

Lab Sample ID: VR38F
LIMS ID: 12-22272
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 21:21
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	85.9	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	86.3	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	90.9	24-185	
13C-2,3,4,7,8-PeCDF	1.55	1.32-1.78	82.2	21-178	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	82.0	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	81.0	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	81.0	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	76.2	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	85.9	29-147	
13C-1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	82.1	32-141	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	82.6	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	71.4	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.43	0.37-0.51	79.6	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	79.8	23-140	
13C-OCDD	0.89	0.76-1.02	62.6	17-157	
37Cl4-2,3,7,8-TCDD			90.0	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-09-S-C-121106**
Page 1 of 1

Lab Sample ID: VR38G
LIMS ID: 12-22273
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 22:13
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	0.78	0.65-0.89		0.996	0.175	BJ
2,3,7,8-TCDD	0.28	0.65-0.89		0.996	0.183	JEMPC
1,2,3,7,8-PeCDF	1.66	1.32-1.78		1.99	0.159	BJ
2,3,4,7,8-PeCDF	1.91	1.32-1.78		0.996	0.165	JEMPC
1,2,3,7,8-PeCDD	1.49	1.32-1.78		0.996	0.305	J
1,2,3,4,7,8-HxCDF	1.23	1.05-1.43		1.99	0.556	J
1,2,3,6,7,8-HxCDF	0.79	1.05-1.43		1.99	0.373	JEMPC
2,3,4,6,7,8-HxCDF	1.09	1.05-1.43		1.99	0.534	J
1,2,3,7,8,9-HxCDF	1.31	1.05-1.43		1.99	0.265	J
1,2,3,4,7,8-HxCDD	1.26	1.05-1.43		1.99	0.414	J
1,2,3,6,7,8-HxCDD	1.11	1.05-1.43		1.99	1.25	J
1,2,3,7,8,9-HxCDD	1.20	1.05-1.43		1.99	0.825	J
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20		1.99	6.28	
1,2,3,4,7,8,9-HpCDF	0.96	0.88-1.20		1.99	0.574	J
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20		1.99	24.8	
OCDF	0.82	0.76-1.02		4.98	14.0	
OCDD	0.89	0.76-1.02		4.98	169	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.996	1.36	2.79
Total TCDD		0.996	1.29	1.70
Total PeCDF		1.99	3.84	4.39
Total PeCDD		0.996	1.12	2.15
Total HxCDF		1.99	10.7	11.2
Total HxCDD		1.99	8.76	
Total HpCDF		1.99	19.5	
Total HpCDD		1.99	47.3	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 1.35

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 1.35

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-09-S-C-121106**

Lab Sample ID: VR38G
LIMS ID: 12-22273
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 22:13
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	81.5	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	84.6	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	89.1	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	84.3	21-178	
13C-1,2,3,7,8-PeCDD	1.59	1.32-1.78	85.4	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	76.7	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	76.6	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	72.8	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	85.4	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	78.9	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	80.0	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	66.6	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	75.4	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	76.9	23-140	
13C-OCDD	0.89	0.76-1.02	58.2	17-157	
37Cl4-2,3,7,8-TCDD			89.1	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-10-S-LFP-121106**
Page 1 of 1

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 23:05
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	0.85	0.65-0.89		0.988	0.0751	BJ
2,3,7,8-TCDD	0.26	0.65-0.89		0.988	0.168	JEMPC
1,2,3,7,8-PeCDF	1.52	1.32-1.78		1.98	0.0909	BJ
2,3,4,7,8-PeCDF	1.74	1.32-1.78		0.988	0.146	J
1,2,3,7,8-PeCDD	1.10	1.32-1.78		0.988	0.117	BJEMPC
1,2,3,4,7,8-HxCDF	1.65	1.05-1.43		1.98	0.136	JEMPC
1,2,3,6,7,8-HxCDF	1.33	1.05-1.43		1.98	0.119	J
2,3,4,6,7,8-HxCDF	1.06	1.05-1.43		1.98	0.128	J
1,2,3,7,8,9-HxCDF		1.05-1.43	0.140	1.98	< 0.140	U
1,2,3,4,7,8-HxCDD		1.05-1.43	0.303	1.98	< 0.303	U
1,2,3,6,7,8-HxCDD	1.10	1.05-1.43		1.98	0.377	J
1,2,3,7,8,9-HxCDD	1.18	1.05-1.43		1.98	0.245	J
1,2,3,4,6,7,8-HpCDF	0.93	0.88-1.20		1.98	1.05	J
1,2,3,4,7,8,9-HpCDF	1.23	0.88-1.20		1.98	0.0652	JEMPC
1,2,3,4,6,7,8-HpCDD	1.02	0.88-1.20		1.98	6.32	
OCDF	0.82	0.76-1.02		4.94	2.38	J
OCDD	0.89	0.76-1.02		4.94	40.1	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC	
Total TCDF		0.988	1.74	2.82	
Total TCDD		0.988	< 0.168	0.338	U
Total PeCDF		1.98	2.24	2.74	
Total PeCDD		0.988	0.233	0.617	
Total HxCDF		1.98	2.06	2.46	
Total HxCDD		1.98	2.21	2.30	
Total HpCDF		1.98	1.05	2.73	
Total HpCDD		1.98	11.0		

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.53

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.55

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-10-S-LFP-121106**
Page 1 of 1

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 23:05
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	0.77	0.65-0.89	92.2	24-169	
13C-2,3,7,8-TCDD	0.79	0.65-0.89	94.5	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	103	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	92.1	21-178	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	94.7	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	87.9	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	88.6	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	91.1	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	90.3	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	90.6	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	76.2	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	84.4	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	86.8	23-140	
13C-OCDD	0.90	0.76-1.02	65.5	17-157	
37Cl4-2,3,7,8-TCDD			97.9	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-11-S-LFP-121106**

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 23:57
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.3 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	0.153	0.970	< 0.153	U
2,3,7,8-TCDD	0.17	0.65-0.89		0.970	0.153	JEMPC
1,2,3,7,8-PeCDF	1.32	1.32-1.78		1.94	0.0563	BJ
2,3,4,7,8-PeCDF	1.52	1.32-1.78		0.970	0.0466	J
1,2,3,7,8-PeCDD	1.13	1.32-1.78		0.970	0.0660	BJEMPC
1,2,3,4,7,8-HxCDF	1.35	1.05-1.43		1.94	0.0834	J
1,2,3,6,7,8-HxCDF	0.76	1.05-1.43		1.94	0.0660	JEMPC
2,3,4,6,7,8-HxCDF	0.86	1.05-1.43		1.94	0.134	JEMPC
1,2,3,7,8,9-HxCDF		1.05-1.43	0.162	1.94	< 0.162	U
1,2,3,4,7,8-HxCDD	1.94	1.05-1.43		1.94	0.0718	JEMPC
1,2,3,6,7,8-HxCDD	1.39	1.05-1.43		1.94	0.312	J
1,2,3,7,8,9-HxCDD	2.70	1.05-1.43		1.94	0.103	JEMPC
1,2,3,4,6,7,8-HpCDF	0.91	0.88-1.20		1.94	0.840	J
1,2,3,4,7,8,9-HpCDF	0.02	0.88-1.20		1.94	0.0272	JEMPC
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		1.94	5.45	
OCDF	0.91	0.76-1.02		4.85	1.61	J
OCDD	0.89	0.76-1.02		4.85	44.9	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF	0.153	0.970	0.210	0.720
Total TCDD		0.970	0.0466	0.341
Total PeCDF		1.94	2.66	2.97
Total PeCDD		0.970	0.111	0.293
Total HxCDF		1.94	1.32	2.49
Total HxCDD		1.94	1.52	1.76
Total HpCDF		1.94	2.20	2.23
Total HpCDD		1.94	14.0	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.39

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.40

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-11-S-LFP-121106**

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 23:57
Instrument/Analyst: AS1/PK

Sample Amount: 10.3 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	90.4	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	89.1	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	92.7	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	86.1	21-178	
13C-1,2,3,7,8-PeCDD	1.59	1.32-1.78	87.2	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	85.3	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	85.7	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	76.7	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	84.5	29-147	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	83.9	32-141	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	85.0	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	72.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	77.8	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	81.9	23-140	
13C-OCDD	0.90	0.76-1.02	61.6	17-157	
37Cl4-2,3,7,8-TCDD			92.6	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-06-S-E-121106**

Lab Sample ID: VR38J
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/28/12 00:50
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		0.999	0.252	J
2,3,7,8-TCDD	0.14	0.65-0.89		0.999	0.176	JEMPC
1,2,3,7,8-PeCDF	1.46	1.32-1.78		2.00	0.204	BJX
2,3,4,7,8-PeCDF	1.31	1.32-1.78		0.999	0.252	JEMPC
1,2,3,7,8-PeCDD	1.27	1.32-1.78		0.999	0.274	JEMPC
1,2,3,4,7,8-HxCDF	1.24	1.05-1.43		2.00	0.559	J
1,2,3,6,7,8-HxCDF	1.51	1.05-1.43		2.00	0.320	JEMPC
2,3,4,6,7,8-HxCDF	1.27	1.05-1.43		2.00	0.503	J
1,2,3,7,8,9-HxCDF	1.32	1.05-1.43		2.00	0.180	J
1,2,3,4,7,8-HxCDD	1.47	1.05-1.43		2.00	0.374	JEMPC
1,2,3,6,7,8-HxCDD	1.20	1.05-1.43		2.00	1.50	J
1,2,3,7,8,9-HxCDD	1.31	1.05-1.43		2.00	0.785	J
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20		2.00	3.93	
1,2,3,4,7,8,9-HpCDF	1.00	0.88-1.20		2.00	0.302	J
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		2.00	25.4	
OCDF	0.83	0.76-1.02		5.00	8.80	
OCDD	0.88	0.76-1.02		5.00	188	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.999	2.45	4.09
Total TCDD		0.999	0.501	1.26
Total PeCDF		2.00	5.06	6.10
Total PeCDD		0.999	0.517	1.77
Total HxCDF		2.00	7.45	8.75
Total HxCDD		2.00	8.27	9.16
Total HpCDF		2.00	11.6	
Total HpCDD		2.00	47.3	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 1.33

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 1.33

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-06-S-E-121106**

Lab Sample ID: VR38J
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/28/12 00:50
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	88.8	24-169	
13C-2,3,7,8-TCDD	0.79	0.65-0.89	88.3	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	94.0	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	87.5	21-178	
13C-1,2,3,7,8-PeCDD	1.59	1.32-1.78	89.3	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	78.9	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	79.8	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	75.5	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	86.3	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	81.4	32-141	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	83.3	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	72.5	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	80.5	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	83.2	23-140	
13C-OCDD	0.89	0.76-1.02	66.3	17-157	
37Cl4-2,3,7,8-TCDD			94.1	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-07-S-E-121106**

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/28/12 01:42
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	0.50	0.65-0.89		0.997	0.116	BJEMPC
2,3,7,8-TCDD	0.27	0.65-0.89		0.997	0.156	JEMPC
1,2,3,7,8-PeCDF	1.47	1.32-1.78		1.99	0.142	BJ
2,3,4,7,8-PeCDF	1.42	1.32-1.78		0.997	0.156	J
1,2,3,7,8-PeCDD	1.00	1.32-1.78		0.997	0.243	JEMPC
1,2,3,4,7,8-HxCDF	1.36	1.05-1.43		1.99	0.261	J
1,2,3,6,7,8-HxCDF	1.36	1.05-1.43		1.99	0.221	J
2,3,4,6,7,8-HxCDF	1.13	1.05-1.43		1.99	0.355	J
1,2,3,7,8,9-HxCDF	1.41	1.05-1.43		1.99	0.0917	J
1,2,3,4,7,8-HxCDD	1.14	1.05-1.43		1.99	0.347	J
1,2,3,6,7,8-HxCDD	1.36	1.05-1.43		1.99	0.911	J
1,2,3,7,8,9-HxCDD	1.13	1.05-1.43		1.99	0.660	J
1,2,3,4,6,7,8-HpCDF	0.98	0.88-1.20		1.99	3.43	
1,2,3,4,7,8,9-HpCDF	0.97	0.88-1.20		1.99	0.215	J
1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20		1.99	17.1	
OCDF	0.81	0.76-1.02		4.99	9.54	
OCDD	0.87	0.76-1.02		4.99	136	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.997	2.02	4.03
Total TCDD		0.997	0.931	1.27
Total PeCDF		1.99	4.85	5.70
Total PeCDD		0.997	0.915	1.68
Total HxCDF		1.99	6.69	6.85
Total HxCDD		1.99	6.05	
Total HpCDF		1.99	10.2	
Total HpCDD		1.99	30.4	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 1.00

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 1.00

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: HT-07-S-E-121106**

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/28/12 01:42
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	0.78	0.65-0.89	85.3	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	87.6	25-164	
13C-1,2,3,7,8-PeCDF	1.58	1.32-1.78	90.7	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	86.4	21-178	
13C-1,2,3,7,8-PeCDD	1.58	1.32-1.78	88.7	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	80.3	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	81.0	26-123	
13C-2,3,4,6,7,8-HxCDF	0.53	0.43-0.59	75.8	28-136	
13C-1,2,3,7,8,9-HxCDF	0.53	0.43-0.59	87.6	29-147	
13C-1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	81.6	32-141	
13C-1,2,3,6,7,8-HxCDD	1.26	1.05-1.43	84.1	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.46	0.37-0.51	71.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	77.2	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	80.4	23-140	
13C-OCDD	0.89	0.76-1.02	57.3	17-157	
37Cl4-2,3,7,8-TCDD			92.7	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-07-S-E-121106
DUPLICATE

Lab Sample ID: VR38KDUP
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/28/12 02:35
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	0.61	0.65-0.89		0.995	0.113	BJEMPC
2,3,7,8-TCDD	0.18	0.65-0.89		0.995	0.143	JEMPC
1,2,3,7,8-PeCDF	1.16	1.32-1.78		1.99	0.115	BJEMPC
2,3,4,7,8-PeCDF	1.41	1.32-1.78		0.995	0.153	J
1,2,3,7,8-PeCDD	1.40	1.32-1.78		0.995	0.241	J
1,2,3,4,7,8-HxCDF	1.37	1.05-1.43		1.99	0.265	J
1,2,3,6,7,8-HxCDF	1.29	1.05-1.43		1.99	0.219	J
2,3,4,6,7,8-HxCDF	1.25	1.05-1.43		1.99	0.368	J
1,2,3,7,8,9-HxCDF	1.17	1.05-1.43		1.99	0.113	J
1,2,3,4,7,8-HxCDD	1.25	1.05-1.43		1.99	0.314	J
1,2,3,6,7,8-HxCDD	1.27	1.05-1.43		1.99	0.848	J
1,2,3,7,8,9-HxCDD	1.30	1.05-1.43		1.99	0.633	J
1,2,3,4,6,7,8-HpCDF	0.94	0.88-1.20		1.99	3.45	
1,2,3,4,7,8,9-HpCDF	1.02	0.88-1.20		1.99	0.213	J
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		1.99	16.4	
OCDF	0.89	0.76-1.02		4.98	8.73	
OCDD	0.89	0.76-1.02		4.98	130	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.995	1.83	3.22
Total TCDD		0.995	0.553	1.10
Total PeCDF		1.99	3.82	4.36
Total PeCDD		0.995	0.876	1.60
Total HxCDF		1.99	6.43	6.56
Total HxCDD		1.99	4.48	5.84
Total HpCDF		1.99	10.1	
Total HpCDD		1.99	29.0	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.96

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.96

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B

Sample ID: HT-07-S-E-121106
DUPLICATE

Lab Sample ID: VR38KDUP
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/28/12 02:35
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	Sample	Duplicate	RPD
2,3,7,8-TCDF	0.116	0.113	2.6
2,3,7,8-TCDD	0.156	0.143	8.7
1,2,3,7,8-PeCDF	0.142	0.115	21.0
2,3,4,7,8-PeCDF	0.156	0.153	1.9
1,2,3,7,8-PeCDD	0.243	0.241	0.8
1,2,3,4,7,8-HxCDF	0.261	0.265	1.5
1,2,3,6,7,8-HxCDF	0.221	0.219	0.9
2,3,4,6,7,8-HxCDF	0.355	0.368	3.6
1,2,3,7,8,9-HxCDF	0.0917	0.113	20.8
1,2,3,4,7,8-HxCDD	0.347	0.314	10.0
1,2,3,6,7,8-HxCDD	0.911	0.848	7.2
1,2,3,7,8,9-HxCDD	0.660	0.633	4.2
1,2,3,4,6,7,8-HpCDF	3.43	3.45	0.6
1,2,3,4,7,8,9-HpCDF	0.215	0.213	0.9
1,2,3,4,6,7,8-HpCDD	17.1	16.4	4.2
OCDF	9.54	8.73	8.9
OCDD	136	130	4.5

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-07-S-E-121106
DUPLICATE

Lab Sample ID: VR38KDUP
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/28/12 02:35
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	91.3	24-169	
13C-2,3,7,8-TCDD	0.79	0.65-0.89	93.2	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	98.2	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	92.4	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	87.6	26-152	
13C-1,2,3,6,7,8-HxCDF	0.53	0.43-0.59	87.9	26-123	
13C-2,3,4,6,7,8-HxCDF	0.53	0.43-0.59	82.3	28-136	
13C-1,2,3,7,8,9-HxCDF	0.53	0.43-0.59	92.8	29-147	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	89.8	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	90.8	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	77.2	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	82.0	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.07	0.88-1.20	86.5	23-140	
13C-OCDD	0.89	0.76-1.02	64.0	17-157	
37Cl4-2,3,7,8-TCDD			101	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: SRM-111612**
Page 1 of 1 **PSR**

Lab Sample ID: SRM-111612
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 15:05
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	0.75	0.65-0.89		0.998	1.09	
2,3,7,8-TCDD	0.68	0.65-0.89		0.998	1.10	
1,2,3,7,8-PeCDF	1.50	1.32-1.78		2.00	1.31	J
2,3,4,7,8-PeCDF	1.38	1.32-1.78		0.998	0.944	J
1,2,3,7,8-PeCDD	1.56	1.32-1.78		0.998	1.16	
1,2,3,4,7,8-HxCDF	1.17	1.05-1.43		2.00	2.99	
1,2,3,6,7,8-HxCDF	1.20	1.05-1.43		2.00	1.07	J
2,3,4,6,7,8-HxCDF	1.18	1.05-1.43		2.00	2.18	
1,2,3,7,8,9-HxCDF	1.06	1.05-1.43		2.00	0.557	J
1,2,3,4,7,8-HxCDD	1.26	1.05-1.43		2.00	1.59	J
1,2,3,6,7,8-HxCDD	1.27	1.05-1.43		2.00	4.18	
1,2,3,7,8,9-HxCDD	1.20	1.05-1.43		2.00	2.68	
1,2,3,4,6,7,8-HpCDF	0.98	0.88-1.20		2.00	19.0	
1,2,3,4,7,8,9-HpCDF	1.03	0.88-1.20		2.00	1.62	J
1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20		2.00	102	
OCDF	0.84	0.76-1.02		4.99	61.6	
OCDD	0.90	0.76-1.02		4.99	871	

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		0.998	14.9	18.2
Total TCDD		0.998	6.33	6.82
Total PeCDF		2.00	18.7	20.1
Total PeCDD		0.998	7.58	
Total HxCDF		2.00	32.6	32.7
Total HxCDD		2.00	33.2	
Total HpCDF		2.00	64.2	
Total HpCDD		2.00	244	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 5.72

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 5.72

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: SRM-111612**
Page 1 of 1 **PSR**

Lab Sample ID: SRM-111612
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 15:05
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	89.3	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	89.6	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	93.5	24-185	
13C-2,3,4,7,8-PeCDF	1.58	1.32-1.78	97.4	21-178	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	95.8	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	80.2	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	80.5	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	77.7	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	75.5	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	87.5	32-141	
13C-1,2,3,6,7,8-HxCDD	1.22	1.05-1.43	87.8	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	68.7	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.43	0.37-0.51	79.0	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	79.1	23-140	
13C-OCDD	0.90	0.76-1.02	62.4	17-157	
37Cl4-2,3,7,8-TCDD			95.6	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-111612**

Lab Sample ID: OPR-111612
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 13:59
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	0.75	0.65-0.89	1.00	22.4
2,3,7,8-TCDD	0.74	0.65-0.89	1.00	21.7
1,2,3,7,8-PeCDF	1.50	1.32-1.78	2.00	110
2,3,4,7,8-PeCDF	1.49	1.32-1.78	1.00	110
1,2,3,7,8-PeCDD	1.54	1.32-1.78	1.00	109
1,2,3,4,7,8-HxCDF	1.18	1.05-1.43	2.00	109
1,2,3,6,7,8-HxCDF	1.19	1.05-1.43	2.00	111
2,3,4,6,7,8-HxCDF	1.19	1.05-1.43	2.00	120
1,2,3,7,8,9-HxCDF	1.22	1.05-1.43	2.00	109
1,2,3,4,7,8-HxCDD	1.21	1.05-1.43	2.00	110
1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	2.00	110
1,2,3,7,8,9-HxCDD	1.22	1.05-1.43	2.00	109
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20	2.00	119
1,2,3,4,7,8,9-HpCDF	0.96	0.88-1.20	2.00	109
1,2,3,4,6,7,8-HpCDD	1.06	0.88-1.20	2.00	106
OCDF	0.88	0.76-1.02	5.00	215
OCDD	0.87	0.76-1.02	5.00	212

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC
Total TCDF		1.00	23.6	23.9
Total TCDD		1.00	22.5	
Total PeCDF		2.00	224	226
Total PeCDD		1.00	110	
Total HxCDF		2.00	450	
Total HxCDD		2.00	329	
Total HpCDF		2.00	229	
Total HpCDD		2.00	107	

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-111612**

Lab Sample ID: OPR-111612
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 13:59
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	93.2	22-152	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	90.4	20-175	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	89.4	21-192	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	83.4	13-328	
13C-1,2,3,7,8-PeCDD	1.59	1.32-1.78	84.7	21-227	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	89.0	19-202	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	90.9	21-159	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	80.7	22-176	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	87.8	17-205	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	88.3	21-193	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	90.5	25-163	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	84.0	21-158	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	81.8	20-186	
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	87.8	26-166	
13C-OCDD	0.90	0.76-1.02	56.6	13-198	
37Cl4-2,3,7,8-TCDD			95.1	31-191	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-111612**

Lab Sample ID: OPR-111612
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 13:59
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	22.4	20.0	112	75-158
2,3,7,8-TCDD	21.7	20.0	108	67-158
1,2,3,7,8-PeCDF	110	100	110	80-134
2,3,4,7,8-PeCDF	110	100	110	68-160
1,2,3,7,8-PeCDD	109	100	109	70-142
1,2,3,4,7,8-HxCDF	109	100	109	72-134
1,2,3,6,7,8-HxCDF	111	100	111	84-130
2,3,4,6,7,8-HxCDF	120	100	120	70-156
1,2,3,7,8,9-HxCDF	109	100	109	78-130
1,2,3,4,7,8-HxCDD	110	100	110	70-164
1,2,3,6,7,8-HxCDD	110	100	110	76-134
1,2,3,7,8,9-HxCDD	109	100	109	64-162
1,2,3,4,6,7,8-HpCDF	119	100	119	82-132
1,2,3,4,7,8,9-HpCDF	109	100	109	78-138
1,2,3,4,6,7,8-HpCDD	106	100	106	70-140
OCDF	215	200	108	63-170
OCDD	212	200	106	78-144

Reported in pg/g

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

Blank No.
VR38MB

Lab Name: ANALYTICAL RESOURCES, INC. Contract: ANCHOR

Lab Code: VR38 Project: CITY OF KENMORE

Matrix:(Soil/Water/Ash/Tissue/Oil) SOIL Lab Sample ID: VR38MBS

Sample wt/vol: 10 (g/ml) g Lab File ID: 12112704

Water Sample Prep: (sep/spe) Date Received: 07-NOV-12

GC Column: RTX-DIOXIN2 ID: 0.25 mm Date Extracted: 16-NOV-12

Instrument ID: AUTOSPEC1 Date Analyzed: 27-NOV-12

Client Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
VR38OPR	VR38OPR	12112705	11/27/12
VR38SRM	VR38SRM	12112706	11/27/12
HT-01-S-C-121106	VR38A	12112707	11/27/12
HT-02-S-C-121106	VR38B	12112708	11/27/12
HT-03-S-C-121106	VR38C	12112709	11/27/12
HT-04-S-C-121106	VR38D	12112710	11/27/12
HT-05-S-C-121106	VR38E	12112712	11/27/12
HT-08-S-C-121106	VR38F	12112713	11/27/12
HT-09-S-C-121106	VR38G	12112714	11/27/12
HT-10-S-LFP-121106	VR38H	12112715	11/27/12
HT-11-S-LFP-121106	VR38I	12112716	11/27/12
HT-06-S-E-121106	VR38J	12112717	11/28/12
HT-07-S-E-121106	VR38K	12112718	11/28/12
HT-07-S-E-121106	VR38KDUP	12112719	11/28/12

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: MB-111612**

Lab Sample ID: MB-111612
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized: MW
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 13:09
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	0.84	0.65-0.89		1.00	0.0240	J
2,3,7,8-TCDD		0.65-0.89	0.253	1.00	< 0.253	U
1,2,3,7,8-PeCDF	0.87	1.32-1.78		2.00	0.0320	JEMPC
2,3,4,7,8-PeCDF		1.32-1.78	0.0776	1.00	< 0.0776	U
1,2,3,7,8-PeCDD	1.01	1.32-1.78		1.00	0.0200	JEMPC
1,2,3,4,7,8-HxCDF		1.05-1.43	0.0739	2.00	< 0.0739	U
1,2,3,6,7,8-HxCDF		1.05-1.43	0.0531	2.00	< 0.0531	U
2,3,4,6,7,8-HxCDF		1.05-1.43	0.0859	2.00	< 0.0859	U
1,2,3,7,8,9-HxCDF		1.05-1.43	0.0709	2.00	< 0.0709	U
1,2,3,4,7,8-HxCDD		1.05-1.43	0.0797	2.00	< 0.0797	U
1,2,3,6,7,8-HxCDD		1.05-1.43	0.0611	2.00	< 0.0611	U
1,2,3,7,8,9-HxCDD		1.05-1.43	0.0647	2.00	< 0.0647	U
1,2,3,4,6,7,8-HpCDF	2.05	0.88-1.20		2.00	0.0540	JEMPC
1,2,3,4,7,8,9-HpCDF		0.88-1.20	0.0380	2.00	< 0.0380	U
1,2,3,4,6,7,8-HpCDD	0.92	0.88-1.20		2.00	0.144	J
OCDF		0.76-1.02	0.106	5.00	< 0.106	U
OCDD	0.81	0.76-1.02		5.00	0.772	J

Homologue Group	EDL	RL	W/O EMPC	WITH EMPC	
Total TCDF		1.00	0.0600		
Total TCDD	0.253	1.00	< 0.253	0.0320	U
Total PeCDF		2.00	< 0.0776	0.0260	U
Total PeCDD		1.00	< 0.0200	0.0320	U
Total HxCDF	0.0859	2.00	< 0.0859		U
Total HxCDD	0.0797	2.00	< 0.0797	0.0340	U
Total HpCDF		2.00	< 0.0380	0.0500	U
Total HpCDD		2.00	0.230		

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.03

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.19

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: MB-111612**

Lab Sample ID: MB-111612
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized: mw
Reported: 12/04/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/27/12 13:09
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	110	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	103	25-164	
13C-1,2,3,7,8-PeCDF	1.60	1.32-1.78	102	24-185	
13C-2,3,4,7,8-PeCDF	1.58	1.32-1.78	94.2	21-178	
13C-1,2,3,7,8-PeCDD	1.58	1.32-1.78	95.8	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	104	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	107	26-123	
13C-2,3,4,6,7,8-HxCDF	0.53	0.43-0.59	93.2	28-136	
13C-1,2,3,7,8,9-HxCDF	0.51	0.43-0.59	96.4	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	101	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	106	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	84.4	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	85.8	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.06	0.88-1.20	93.0	23-140	
13C-OCDD	0.90	0.76-1.02	66.4	17-157	
37Cl4-2,3,7,8-TCDD			107	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: VR38 Project: CITY OF KENMORE

GC Column: RTX-DIOXIN2 ID: 0.25 mm Lab File ID: 12112702

Instrument ID: AUTOSPEC1 Date Analyzed: 27-NOV-12

Time Analyzed: 11:23

CDD/CDF	RT First Eluting	RT Last Eluting
TCDD	23.87	27.30
TCDF	22.58	27.56
PeCDD	29.08	32.21
PeCDF	27.42	32.58
HxCDD	34.30	37.02
HxCDF	33.50	37.47
HpCDD	40.08	41.34
HpCDF	39.52	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: VR38
GC Column: RTX-DIOXIN2 ID: .25 mm
Instrument ID:
AUTOSPEC1

Contract: ANCHOR
Project: CITY OF KENMORE
Lab File ID: 12112703
Date Analyzed: 27-NOV-12
Time Analyzed: 12:13

Percent Valley determination for RTX-DIOXIN2 column -
For the column performance solution beginning 12-hour period:

1278-TCDD/2378-TCDD: 8.5

Quality Control (QC) Limits:
Percent Valley between the TCDD isomers must be less than or equal to 25%

Percent Valley determination for RTX-DIOXIN2 column -
For the column performance solution beginning 12-hour period:

3467-TCDF/2378-TCDF: 6.3

QC Limits:
Percent Valley between the 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: VR38 Project: CITY OF KENMORE

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

Init. Calib. Date(s): 23-NOV-12

Init: Calib. Times: 14:07 to 18:30

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
I7214	CS3	12112702	11/27/12	1123
1997-2	TETRA ISC	12112703	11/27/12	1213
VR38MB	VR38MBS	12102704	11/27/12	1309
VR38OPR	VR38OPR	12112705	11/27/12	1359
VR38SRM	VR38SRM	12112706	11/27/12	1505
HT-01-S-C-121106	VR38A	12112707	11/27/12	1555
HT-02-S-C-121106	VR38B	12112708	11/27/12	1648
HT-03-S-C-121106	VR38C	12112709	11/27/12	1740
HT-04-S-C-121106	VR38D	12112710	11/27/12	1832
I7214	CS3	12112711	11/27/12	1925
HT-05-S-C-121106	VR38E	12112712	11/27/12	2025
HT-08-S-C-121106	VR38F	12112713	11/27/12	2121
HT-09-S-C-121106	VR38G	12112714	11/27/12	2213
HT-10-S-LFP-121106	VR38H	12112715	11/27/12	2305
HT-11-S-LFP-121106	VR38I	12112716	11/27/12	2357
HT-06-S-E-121106	VR38J	12112717	11/28/12	0050
HT-07-S-E-121106	VR38K	12112718	11/28/12	0142
HT-07-S-E-121106	VR38KDUP	12112719	11/28/12	0235
I7214	CS3	12112720	11/28/12	0327

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

Lab Name:	ARI	Contract:	ANCHOR
Lab Code:	VR38	Case No.:	CITY OF KENMORE
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CSL:	23-Nov-12	Init.Calib.Time CSL:	14:07:24
Init.Calib.Date CS1:	23-Nov-12	Init.Calib.Time CS1:	15:02:34
Init.Calib.Date CS2:	23-Nov-12	Init.Calib.Time CS2:	15:55:02
Init.Calib.Date CS3:	23-Nov-12	Init.Calib.Time CS3:	16:45:35
Init.Calib.Date CS4:	23-Nov-12	Init.Calib.Time CS4:	17:37:45
Init.Calib.Date CS5:	23-Nov-12	Init.Calib.Time CS5:	18:30:06

Target Analytes	RR/RRF						Mean RR/RRF	% RSD	Limits (% +/-)
	CSL	CS1	CS2	CS3	CS4	CS5			
2378-TCDD	1.14	1.03	1.01	1.03	1.04	1.05	1.05	4.5	20.0
2378-TCDF	0.97	0.80	0.86	0.86	0.88	0.89	0.88	6.3	20.0
12378-PeCDF	0.90	0.89	0.87	0.89	0.91	0.91	0.90	1.6	20.0
12378-PeCDD	0.99	0.98	0.99	0.99	1.01	1.03	1.00	1.7	20.0
23478-PeCDF	0.97	0.89	0.90	0.92	0.94	0.94	0.93	3.2	20.0
123478-HxCDF	1.06	1.05	1.05	1.05	1.09	1.11	1.07	2.1	20.0
123678-HxCDF	1.02	1.01	1.01	1.04	1.06	1.07	1.03	2.4	20.0
123478-HxCDD	0.91	0.96	0.97	0.98	1.00	1.00	0.97	3.4	20.0
123678-HxCDD	0.89	0.92	0.90	0.92	0.92	0.95	0.92	2.0	20.0
123789-HxCDD[2]	0.95	0.91	0.92	0.95	0.91	0.95	0.93	2.2	20.0
234678-HxCDF	1.02	1.01	1.03	1.03	1.06	1.07	1.04	2.1	20.0
123789-HxCDF	0.97	0.96	0.99	0.98	1.01	1.02	0.99	2.3	20.0
1234678-HpCDF	1.25	1.21	1.20	1.22	1.25	1.25	1.23	1.9	20.0
1234678-HpCDD	1.08	0.98	0.99	1.00	1.02	1.03	1.02	3.4	20.0
1234789-HpCDF	1.19	1.20	1.20	1.21	1.25	1.25	1.22	2.2	20.0
OCDD	1.04	1.01	0.98	0.99	1.01	1.02	1.01	2.3	20.0
OCDF[1]	1.11	1.10	1.12	1.15	1.16	1.18	1.14	2.7	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	0.95	0.91	0.97	0.94	0.89	1.00	0.95	4.1	35.0
13C-12378-PeCDD	0.72	0.68	0.72	0.68	0.67	0.86	0.72	9.7	35.0
13C-123478-HxCDD	0.97	0.99	0.97	0.98	1.02	1.00	0.99	2.0	35.0
13C-123678-HxCDD	1.00	1.02	1.02	1.01	1.06	1.03	1.02	2.0	35.0
13C-1234678-HpCDD	0.85	0.85	0.89	0.86	0.87	0.88	0.87	2.0	35.0
13C-OCDD	0.73	0.73	0.80	0.72	0.80	0.84	0.77	6.4	35.0
13C-2378-TCDF	1.48	1.43	1.54	1.47	1.40	1.52	1.47	3.5	35.0
13C-12378-PeCDF	1.13	1.09	1.15	1.09	1.09	1.33	1.15	8.2	35.0
13C-23478-PeCDF	1.11	1.05	1.13	1.05	1.04	1.30	1.11	8.7	35.0
13C-123478-HxCDF	1.16	1.24	1.20	1.22	1.25	1.18	1.21	3.0	35.0
13C-123678-HxCDF	1.22	1.29	1.25	1.27	1.33	1.25	1.27	3.1	35.0
13C-234678-HxCDF	1.21	1.24	1.23	1.24	1.27	1.22	1.24	1.8	35.0
13C-123789-HxCDF	1.11	1.10	1.13	1.11	1.09	1.10	1.11	1.0	35.0
13C-1234678-HpCDF	1.03	1.04	1.06	1.04	1.08	1.06	1.05	1.7	35.0
13C-1234789-HpCDF	0.80	0.79	0.86	0.81	0.81	0.83	0.81	3.0	35.0

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

Lab Name:	ARI	Contract:	ANCHOR
Lab Code:	VR38	Case No.:	CITY OF KENMORE
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CSL:	23-Nov-12	Init.Calib.Time CSL:	14:07:24
Init.Calib.Date CS1:	23-Nov-12	Init.Calib.Time CS1:	15:02:34
Init.Calib.Date CS2:	23-Nov-12	Init.Calib.Time CS2:	15:55:02
Init.Calib.Date CS3:	23-Nov-12	Init.Calib.Time CS3:	16:45:35
Init.Calib.Date CS4:	23-Nov-12	Init.Calib.Time CS4:	17:37:45
Init.Calib.Date CS5:	23-Nov-12	Init.Calib.Time CS5:	18:30:06

Target Analytes	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ratio QC Limits#
		CSL	CS1	CS2	CS3	CS4	CS5		
2378-TCDD	320/322	0.77	0.78	0.75	0.77	0.78	0.77		0.65 - 0.89
2378-TCDF	304/306	0.76	0.74	0.72	0.74	0.75	0.75		0.65 - 0.89
12378-PeCDF	340/342	1.47	1.50	1.46	1.48	1.49	1.46		1.32 - 1.78
12378-PeCDD	356/358	1.48	1.57	1.54	1.56	1.55	1.55		1.32 - 1.78
23478-PeCDF	340/342	1.49	1.43	1.45	1.47	1.48	1.45		1.32 - 1.78
123478-HxCDF	374/376	1.23	1.16	1.19	1.19	1.19	1.19		1.05 - 1.43
123678-HxCDF	374/376	1.18	1.15	1.20	1.18	1.19	1.18		1.05 - 1.43
123478-HxCDD	390/392	1.31	1.26	1.26	1.22	1.25	1.25		1.05 - 1.43
123678-HxCDD	390/392	1.37	1.26	1.23	1.24	1.24	1.24		1.05 - 1.43
123789-HxCDD	390/392	1.13	1.21	1.18	1.25	1.24	1.24		1.05 - 1.43
234678-HxCDF	374/376	1.15	1.13	1.19	1.19	1.18	1.19		1.05 - 1.43
123789-HxCDF	374/376	1.24	1.20	1.20	1.20	1.18	1.19		1.05 - 1.43
1234678-HpCDF	408/410	1.05	0.99	0.97	0.98	0.99	1.00		0.89 - 1.21
1234678-HpCDD	424/426	0.90	0.98	1.05	1.04	1.04	1.04		0.89 - 1.21
1234789-HpCDF	408/410	0.96	0.96	0.98	0.98	0.99	1.00		0.89 - 1.21
OCDD	458/460	0.92	0.92	0.89	0.89	0.88	0.89		0.76 - 1.02
OCDF	442/444	0.81	0.88	0.86	0.87	0.87	0.88		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	0.78	0.78	0.78	0.76	0.78	0.77		0.65 - 0.89
13C-12378-PeCDD	368/370	1.59	1.57	1.57	1.58	1.57	1.57		1.32 - 1.78
13C-123478-HxCDD	402/404	1.27	1.26	1.27	1.28	1.26	1.26		1.05 - 1.43
13C-123678-HxCDD	402/404	1.24	1.24	1.25	1.24	1.25	1.25		1.05 - 1.43
13C-1234678-HpCDD	436/438	1.06	1.05	1.06	1.05	1.03	1.05		0.89 - 1.21
13C-OCDD	470/472	0.89	0.90	0.89	0.89	0.89	0.89		0.76 - 1.02
13C-2378-TCDF	316/318	0.78	0.78	0.79	0.78	0.79	0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1.55	1.56	1.57	1.57	1.55	1.56		1.32 - 1.78
13C-23478-PeCDF	352/354	1.56	1.56	1.56	1.55	1.56	1.56		1.32 - 1.78
13C-123478-HxCDF	384/386	0.52	0.52	0.52	0.52	0.51	0.52		0.43 - 0.59
13C-123678-HxCDF	384/386	0.53	0.52	0.52	0.52	0.52	0.52		0.43 - 0.59
13C-234678-HxCDF	384/386	0.52	0.52	0.52	0.52	0.52	0.52		0.43 - 0.59
13C-123789-HxCDF	384/386	0.52	0.52	0.52	0.52	0.53	0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.45	0.45	0.44	0.45	0.45	0.45		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.45	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	0.79	0.79	0.79	0.79	0.79	0.78		0.65 - 0.89
13C-123789-HxCDD	402/404	1.26	1.25	1.25	1.25	1.23	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.

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

Lab Name:	ARI	Contract:	ANCHOR
Lab Code:	VR38	Case No :	CITY OF KENMORE
TO No :		SDG No.:	
GC Column.	RTX-DIOXIN2	ID (mm):	25
Instrument ID:	AUTOSPEC1	Lab File ID:	12112702
Date Analysed	27-Nov-12	Time Analysed	11:23.07
Init.Calib.Date.	23-NOV-12	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	1.05	-4.2		0.78		0.65 - 0.89
2378-TCDF	304/306	0.87	0.88	-1.2		0.72		0.65 - 0.89
12378-PeCDF	340/342	0.90	0.90	0.8		1.49		1.32 - 1.78
12378-PeCDD	356/358	0.99	1.00	-0.7		1.57		1.32 - 1.78
23478-PeCDF	340/342	0.92	0.93	-0.6		1.49		1.32 - 1.78
123478-HxCDF	374/376	1.08	1.07	0.7		1.19		1.05 - 1.43
123678-HxCDF	374/376	1.04	1.03	0.3		1.17		1 05 - 1 43
123478-HxCDD	390/392	0.99	0 97	2.0		1.23		1.05 - 1.43
123678-HxCDD	390/392	0.92	0 92	0.3		1 24		1.05 - 1.43
123789-HxCDD	390/392	0 94	0.93	1.0		1.24		1.05 - 1.43
234678-HxCDF	374/376	1 05	1 04	1.3		1.19		1.05 - 1.43
123789-HxCDF	374/376	0 99	0.99	0.4		1.20		1 05 - 1.43
1234678-HpCDF	408/410	1.20	1.23	-3.0		0 97		0.89 - 1.21
1234678-HpCDD	424/426	1 02	1.02	0.3		1.07		0.89 - 1.21
1234789-HpCDF	408/410	1.22	1.22	0.4		0.97		0.89 - 1.21
OCDD	458/460	0 99	1.01	-1.4		0.87		0.76 - 1.02
OCDF	442/444	1.16	1.14	1 6		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	0.95	0.95	0.4		0.78		0.65 - 0.89
13C-12378-PeCDD	368/370	0.71	0.72	-1.7		1.59		1.32 - 1.78
13C-123478-HxCDD	402/404	0.97	0.99	-2.3		1.26		1.05 - 1 43
13C-123678-HxCDD	402/404	1.04	1.02	1.2		1 25		1 05 - 1.43
13C-1234678-HpCDD	436/438	0.84	0.87	-2.6		1.04		0.89 - 1 21
13C-OCDD	470/472	0.73	0.77	-5.6		0.90		0.76 - 1.02
13C-2378-TCDF	316/318	1 49	1.47	1.4		0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1 14	1.15	-0.3		1.56		1.32 - 1.78
13C-23478-PeCDF	352/354	1.12	1.11	0 6		1.56		1.32 - 1.78
13C-123478-HxCDF	384/386	1.20	1.21	-0.7		0.52		0.43 - 0.59
13C-123678-HxCDF	384/386	1.29	1.27	1.7		0.52		0 43 - 0.59
13C-234678-HxCDF	384/386	1.24	1.24	0 6		0.53		0.43 - 0.59
13C-123789-HxCDF	384/386	1.12	1.11	0.9		0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	1.04	1.05	-1 4		0.44		0.37 - 0 51
13C-1234789-HpCDF	418/420	0.80	0.81	-1 9		0.46		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	1.03	1.04	-0.9		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	0.78		0.65 - 0.89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1.24		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:	ARI	Contract:	ANCHOR
Lab Code:	VR38	Case No.:	CITY OF KENMORE
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	12112702
Date Analysed	27-Nov-12	Time Analysed	11:23:07
Init.Calib.Date:	23-NOV-12	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1.00	26.72
2378-TCDF	1.00	26.08
12378-PeCDF	1.00	30.21
12378-PeCDD	1.00	31.81
23478-PeCDF	1.00	31.55
123478-HxCDF	1.00	35.23
123678-HxCDF	1.00	35.38
123478-HxCDD	1.00	36.46
123678-HxCDD	1.00	36.59
123789-HxCDD	1.01	37.02
234678-HxCDF	1.00	36.32
123789-HxCDF	1.00	37.47
1234678-HpCDF	1.00	39.52
1234678-HpCDD	1.00	41.34
1234789-HpCDF	1.00	42.22
OCDD	1.00	47.24
OCDF	1.01	47.51

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	26.69
13C-12378-PeCDD	1.23	31.79
13C-123478-HxCDD	0.98	36.44
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	26.06
13C-12378-PeCDF	1.17	30.20
13C-23478-PeCDF	1.22	31.54
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 45
13C-1234678-HpCDF	1 07	39.51
13C-1234789-HpCDF	1 14	42.20

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

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	25.88
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:	ARI	Contract:	ANCHOR
Lab Code.	VR38	Case No.:	CITY OF KENMORE
TO No..		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID.	12112711
Date Analysed	27-Nov-12	Time Analysed	19:25:07
Init.Calib Date:	23-NOV-12	Init Calib Time.	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	1.03	1.05	-2.0		0.76		0.65 - 0.89
2378-TCDF	304/306	0.86	0.88	-2.2		0.73		0.65 - 0.89
12378-PeCDF	340/342	0.91	0.90	1.2		1.51		1 32 - 1.78
12378-PeCDD	356/358	0.99	1.00	-0.3		1.56		1.32 - 1.78
23478-PeCDF	340/342	0.93	0.93	0.4		1.52		1.32 - 1.78
123478-HxCDF	374/376	1.06	1.07	-1.0		1.18		1.05 - 1.43
123678-HxCDF	374/376	1.05	1 03	1.6		1.19		1.05 - 1.43
123478-HxCDD	390/392	0.98	0.97	1.2		1.24		1.05 - 1 43
123678-HxCDD	390/392	0.91	0 92	-0.7		1.25		1.05 - 1 43
123789-HxCDD	390/392	0.92	0.93	-1.4		1.23		1.05 - 1.43
234678-HxCDF	374/376	1.04	1 04	0.3		1 20		1 05 - 1.43
123789-HxCDF	374/376	0.99	0.99	0.2		1.19		1.05 - 1.43
1234678-HpCDF	408/410	1.19	1 23	-3.1		0.97		0.89 - 1.21
1234678-HpCDD	424/426	1.01	1.02	-0.4		1.03		0.89 - 1.21
1234789-HpCDF	408/410	1.21	1.22	-0.3		0.98		0.89 - 1.21
OCDD	458/460	0.99	1.01	-2.1		0.90		0.76 - 1.02
OCDF	442/444	1 12	1.14	-1.2		0.86		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	0.96	0.95	1.7		0.78		0.65 - 0 89
13C-12378-PeCDD	368/370	0.76	0.72	5.3		1.58		1.32 - 1 78
13C-123478-HxCDD	402/404	1.00	0 99	0.6		1.25		1.05 - 1.43
13C-123678-HxCDD	402/404	1.03	1 02	0.5		1.24		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.83	0.87	-3.9		1.05		0.89 - 1.21
13C-OCDD	470/472	0.71	0.77	-7.7		0.89		0.76 - 1.02
13C-2378-TCDF	316/318	1.51	1.47	2.2		0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1.19	1.15	3.9		1.56		1.32 - 1.78
13C-23478-PeCDF	352/354	1.16	1.11	4.5		1 56		1.32 - 1 78
13C-123478-HxCDF	384/386	1.22	1.21	0.8		0.51		0 43 - 0.59
13C-123678-HxCDF	384/386	1.27	1.27	-0.1		0.52		0.43 - 0.59
13C-234678-HxCDF	384/386	1.23	1 24	-0.1		0.53		0.43 - 0.59
13C-123789-HxCDF	384/386	1.10	1 11	-0.3		0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	1.02	1.05	-3.1		0.44		0.37 - 0.51
13C-1234789-HpCDF	418/420	0 79	0.81	-3.3		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	1.06	1.04	1.6		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	1.25		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:	ARI	Contract:	ANCHOR
Lab Code:	VR38	Case No.:	CITY OF KENMORE
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	12112711
Date Analysed	27-Nov-12	Time Analysed	19:25:07
Init.Calib.Date:	23-NOV-12	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1 00	26.69
2378-TCDF	1 00	26.05
12378-PeCDF	1.00	30.19
12378-PeCDD	1.00	31.80
23478-PeCDF	1.00	31.54
123478-HxCDF	1 00	35.21
123678-HxCDF	1.00	35.36
123478-HxCDD	1 00	36.45
123678-HxCDD	1.00	36.58
123789-HxCDD	1.01	37.00
234678-HxCDF	1.00	36.31
123789-HxCDF	1.00	37 45
1234678-HpCDF	1.00	39.51
1234678-HpCDD	1.00	41.33
1234789-HpCDF	1.00	42 20
OCDD	1.00	47.24
OCDF	1.01	47 51

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	26.68
13C-12378-PeCDD	1.23	31.78
13C-123478-HxCDD	0.98	36.43
13C-123678-HxCDD	0 99	36.56
13C-1234678-HpCDD	1.12	41.31
13C-OCDD	1.28	47.23
13C-2378-TCDF	1.01	26 03
13C-12378-PeCDF	1.17	30 18
13C-23478-PeCDF	1.22	31.53
13C-123478-HxCDF	0.95	35.20
13C-123678-HxCDF	0.96	35.34
13C-234678-HxCDF	0.98	36.30
13C-123789-HxCDF	1.01	37.44
13C-1234678-HpCDF	1.07	39.50
13C-1234789-HpCDF	1.14	42.19

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	26.69

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	25.87
13C-123789-HxCDD	0.00	36.99

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

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

Lab Name:	ARI	Contract:	ANCHOR
Lab Code:	VR38	Case No.:	CITY OF KENMORE
TO No.:		SDG No	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	12112720
Date Analysed	28-Nov-12	Time Analysed	03:27:25
Init.Calib.Date:	23-NOV-12	Init.Calib.Time:	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	1.02	1.05	-2.5		0.76		0.65 - 0.89
2378-TCDF	304/306	0.86	0.88	-1.9		0.72		0.65 - 0.89
12378-PeCDF	340/342	0.90	0.90	0.4		1.52		1.32 - 1.78
12378-PeCDD	356/358	0 99	1.00	-0.8		1.56		1.32 - 1.78
23478-PeCDF	340/342	0.93	0.93	0.2		1.49		1.32 - 1.78
123478-HxCDF	374/376	1.07	1.07	-0.1		1.18		1.05 - 1.43
123678-HxCDF	374/376	1.05	1.03	1 3		1.19		1.05 - 1 43
123478-HxCDD	390/392	0.99	0.97	2.5		1.25		1.05 - 1.43
123678-HxCDD	390/392	0.92	0.92	0.0		1.23		1.05 - 1.43
123789-HxCDD	390/392	0.94	0.93	1.2		1.24		1 05 - 1.43
234678-HxCDF	374/376	1 05	1.04	1.2		1.18		1.05 - 1.43
123789-HxCDF	374/376	0 99	0.99	0.3		1.21		1 05 - 1.43
1234678-HpCDF	408/410	1.21	1.23	-1.6		0.98		0.89 - 1.21
1234678-HpCDD	424/426	1.00	1.02	-1.6		1.04		0.89 - 1 21
1234789-HpCDF	408/410	1.21	1.22	-0.4		0.99		0.89 - 1.21
OCDD	458/460	0.99	1.01	-1.8		0.89		0.76 - 1.02
OCDF	442/444	1.15	1.14	1.1		0.85		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	0.96	0.95	1.2		0 78		0.65 - 0.89
13C-12378-PeCDD	368/370	0.75	0.72	3 6		1.57		1.32 - 1 78
13C-123478-HxCDD	402/404	0.97	0.99	-2.0		1.26		1.05 - 1.43
13C-123678-HxCDD	402/404	1.01	1.02	-1.2		1.24		1.05 - 1 43
13C-1234678-HpCDD	436/438	0.86	0.87	-0.7		1.04		0.89 - 1.21
13C-OCDD	470/472	0.74	0 77	-3.2		0.88		0.76 - 1.02
13C-2378-TCDF	316/318	1.51	1.47	2.3		0.78		0.65 - 0.89
13C-12378-PeCDF	352/354	1 17	1.15	2.1		1.56		1 32 - 1.78
13C-23478-PeCDF	352/354	1 15	1.11	3.2		1.58		1.32 - 1.78
13C-123478-HxCDF	384/386	1.18	1.21	-2.4		0.52		0 43 - 0.59
13C-123678-HxCDF	384/386	1.24	1.27	-2 1		0.52		0.43 - 0.59
13C-234678-HxCDF	384/386	1.22	1.24	-1.0		0.52		0.43 - 0.59
13C-123789-HxCDF	384/386	1.10	1.11	-0.6		0.53		0 43 - 0.59
13C-1234678-HpCDF	418/420	1.02	1.05	-3.3		0 44		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.81	0.81	-0.2		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	1.07	1.04	2 7		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	1.25		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:	ARI	Contract:	ANCHOR
Lab Code:	VR38	Case No.:	CITY OF KENMORE
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	12112720
Date Analysed	28-Nov-12	Time Analysed	03:27:25
Init.Calib.Date:	23-NOV-12	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1.00	26.71
2378-TCDF	1.00	26.06
12378-PeCDF	1.00	30.20
12378-PeCDD	1.00	31.81
23478-PeCDF	1.00	31.55
123478-HxCDF	1.00	35.22
123678-HxCDF	1.00	35.37
123478-HxCDD	1.00	36.46
123678-HxCDD	1.00	36.58
123789-HxCDD	1.01	37 01
234678-HxCDF	1.00	36 32
123789-HxCDF	1.00	37 46
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	0.98	36.44
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 19
13C-23478-PeCDF	1.22	31.54
13C-123478-HxCDF	0.95	35 21
13C-123678-HxCDF	0.96	35.35
13C-234678-HxCDF	0.98	36 30
13C-123789-HxCDF	1.01	37 45
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).

Pesticide Analysis
Report and Summary QC Forms

ARI Job ID: VR38

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

ANALYTICAL RESOURCES INCORPORATED

Sample ID: HT-06-S-E-121106
SAMPLE

Lab Sample ID: VR38J
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized:
Reported: 11/27/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/15/12
Date Analyzed: 11/21/12 03:42
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 20.2%

CAS Number	Analyte	MDL	RL	Result
76-44-8	Heptachlor	0.64	2.4	< 2.4 U
309-00-2	Aldrin	0.27	2.4	< 2.4 U
60-57-1	Dieldrin	0.49	4.9	< 4.9 U
72-55-9	4,4'-DDE	0.60	4.9	< 4.9 U
72-54-8	4,4'-DDD	0.66	4.9	< 4.9 U
50-29-3	4,4'-DDT	0.93	4.9	< 4.9 U
5103-74-2	trans-Chlordane	0.37	2.4	< 2.4 U
5103-71-9	cis-Chlordane	0.25	2.4	< 2.4 U
118-74-1	Hexachlorobenzene	0.46	4.9	< 4.9 U
87-68-3	Hexachlorobutadiene	0.67	4.9	< 4.9 U
27304-13-8	oxy Chlordane	4.0	4.9	< 4.9 U
5103-73-1	cis-Nonachlor	2.6	4.9	< 4.9 U
39765-80-5	trans-Nonachlor	2.6	4.9	< 4.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	110%
Tetrachlorometaxylene	78.6%

This analyte (CAS registry No. 5103-74-2) is named trans-Chlordane in EPA Method 8081B(Feb 2007). It has also been named gamma-Chlordane and beta-Chlordane.

$ This analyte (CAS registry No. 5103-71-9) is named cis-Chlordane in EPA Method 8081B(Feb 2007). It has also been named alpha-Chlordane.

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-07-S-E-121106
SAMPLE

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/27/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/15/12
Date Analyzed: 11/21/12 04:00
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 16.5%

CAS Number	Analyte	MDL	RL	Result
76-44-8	Heptachlor	0.65	2.4	< 2.4 U
309-00-2	Aldrin	0.27	2.4	< 2.4 U
60-57-1	Dieldrin	0.49	4.9	< 4.9 U
72-55-9	4,4'-DDE	0.61	4.9	< 4.9 U
72-54-8	4,4'-DDD	0.66	4.9	< 4.9 U
50-29-3	4,4'-DDT	0.94	4.9	< 4.9 U
5103-74-2	trans-Chlordane	0.38	2.4	< 2.4 U
5103-71-9	cis-Chlordane	0.25	2.4	< 2.4 U
118-74-1	Hexachlorobenzene	0.46	4.9	< 4.9 U
87-68-3	Hexachlorobutadiene	0.68	4.9	< 4.9 U
27304-13-8	oxy Chlordane	4.0	4.9	< 4.9 U
5103-73-1	cis-Nonachlor	2.6	4.9	< 4.9 U
39765-80-5	trans-Nonachlor	2.6	4.9	< 4.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	92.0%
Tetrachlorometaxylene	80.9%

This analyte (CAS registry No. 5103-74-2) is named trans-Chlordane in EPA Method 8081B(Feb 2007). It has also been named gamma-Chlordane and beta-Chlordane.

$ This analyte (CAS registry No. 5103-71-9) is named cis-Chlordane in EPA Method 8081B(Feb 2007). It has also been named alpha-Chlordane.

ANALYTICAL RESOURCES INCORPORATED

SW8081 PESTICIDE SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01

Client ID	DCBP	TCMX	TOT OUT
MB-111512	85.2%	68.8%	0
LCS-111512	78.8%	61.0%	0
HT-06-S-E-121106	110%	78.6%	0
HT-07-S-E-121106	92.0%	80.9%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(60-149)	(36-182)
(TCMX) = Tetrachlorometaxylene	(47-124)	(34-169)

Prep Method: SW3546
Log Number Range: 12-22276 to 12-22277

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-111512
LAB CONTROL

Lab Sample ID: LCS-111512
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized:
Reported: 11/27/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/15/12
Date Analyzed: 11/21/12 03:24
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Heptachlor	3.20	4.00	80.0%
Aldrin	3.28	4.00	82.0%
Dieldrin	7.56	8.00	94.5%
4,4'-DDE	7.58	8.00	94.8%
4,4'-DDD	8.38	8.00	105%
4,4'-DDT	7.26	8.00	90.8%
trans-Chlordane	3.60	4.00	90.0%
cis-Chlordane	3.54	4.00	88.5%
Hexachlorobenzene	2.56	4.00	64.0%
Hexachlorobutadiene	2.50	4.00	62.5%

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	78.8%
Tetrachlorometaxylene	61.0%

Reported in µg/kg (ppb)

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

VR38MBS1

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

ARI Job No.: VR38
Project: CITY OF KENMORE SEDI

Lab Sample ID: VR38MBS1
Lab File ID: 1120A053

Date Extracted: 11/15/12
Matrix: SOLID

Date Analyzed: 11/21/12
Instrument ID: ECD6

Time Analyzed: 0306
GC Columns: STX-CLP1/STX-CLP2

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	VR38LCSS1	VR38LCSS1	11/21/12
02	HT-06-S-E-121106	VR38J	11/21/12
03	HT-07-S-E-121106	VR38K	11/21/12
04	SG-10-S-E-121107	VR58A	11/21/12
05	SG-11-S-E-121107	VR58B	11/21/12
06	SG-12-S-E-121107	VR58C	11/21/12
07	SG-13-S-E-121107	VR58D	11/21/12
08	SG-13-S-E-DUP-12110	VR58E	11/21/12
09	SG-14-S-E-121107	VR58F	11/21/12
10	SG-15-S-E-121107	VR58G	11/21/12
11	SG-15-S-E-12110 MS	VR58GMS	11/21/12
12	SG-15-S-E-12110 MSD	VR58GMSD	11/21/12

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MB-111512
METHOD BLANK

Lab Sample ID: MB-111512
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized:
Reported: 11/27/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/15/12
Date Analyzed: 11/21/12 03:06
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	MDL	RL	Result
76-44-8	Heptachlor	0.13	0.50	< 0.50 U
309-00-2	Aldrin	0.055	0.50	< 0.50 U
60-57-1	Dieldrin	0.10	1.0	< 1.0 U
72-55-9	4,4'-DDE	0.12	1.0	< 1.0 U
72-54-8	4,4'-DDD	0.14	1.0	< 1.0 U
50-29-3	4,4'-DDT	0.19	1.0	< 1.0 U
5103-74-2	trans-Chlordane	0.077	0.50	< 0.50 U
5103-71-9	cis-Chlordane	0.051	0.50	< 0.50 U
118-74-1	Hexachlorobenzene	0.094	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	0.14	1.0	< 1.0 U
27304-13-8	oxy Chlordane	0.82	1.0	< 1.0 U
5103-73-1	cis-Nonachlor	0.54	1.0	< 1.0 U
39765-80-5	trans-Nonachlor	0.53	1.0	< 1.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	85.2%
Tetrachlorometaxylene	68.8%

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 10/03/12

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.10	4.20
beta-BHC	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.45	4.55
delta-BHC	4.66	4.66	4.66	4.66	4.66	4.66	4.66	4.66	4.61	4.71
gamma-BHC (Lindane)	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.37	4.47
Heptachlor	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.81	4.91
Aldrin	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.10	5.20
Heptachlor epoxide b	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.67	5.77
Endosulfan I	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.05	6.15
Dieldrin	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.27	6.37
4,4'-DDE	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	5.98	6.08
Endrin	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.49	6.59
Endosulfan II	6.75	6.75	6.75	6.75	6.75	6.74	6.75	6.75	6.70	6.80
4,4'-DDD	6.58	6.58	6.58	6.58	6.58	6.58	6.58	6.58	6.53	6.63
Endosulfan sulfate	7.51	7.51	7.51	7.51	7.51	7.51	7.51	7.51	7.46	7.56
4,4'-DDT	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.79	6.89
Methoxychlor	7.27	7.27	7.27	7.27	7.27	7.27	7.27	7.27	7.22	7.32
Endrin ketone	7.77	7.77	7.77	7.77	7.77	7.77	7.77	7.77	7.72	7.82
Endrin aldehyde	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.07	7.17
gamma-Chlordane	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.79	5.89
alpha-Chlordane	5.97	5.97	5.97	5.97	5.97	5.97	5.97	5.97	5.92	6.02
Hexachlorobutadiene	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.16	2.26
Hexachlorobenzene	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.95	4.05
Tetrachloro-m-xylene	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.62	3.72
Decachlorobiphenyl	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.56	8.66

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 10/03/12

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.58	4.58	4.58	4.58	4.58	4.58	4.59	4.58	4.54	4.64
beta-BHC	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	4.96	5.06
delta-BHC	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.26	5.36
gamma-BHC (Lindane)	4.94	4.94	4.94	4.94	4.94	4.94	4.94	4.94	4.89	4.99
Heptachlor	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.35	5.45
Aldrin	5.73	5.73	5.73	5.73	5.74	5.74	5.74	5.73	5.69	5.79
Heptachlor epoxide b	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.24	6.34
Endosulfan I	6.68	6.68	6.68	6.68	6.68	6.68	6.68	6.68	6.63	6.73
Dieldrin	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.89	6.99
4,4'-DDE	6.74	6.74	6.74	6.74	6.74	6.74	6.75	6.74	6.70	6.80
Endrin	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.18	7.28
Endosulfan II	7.42	7.42	7.42	7.42	7.42	7.42	7.42	7.42	7.37	7.47
4,4'-DDD	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.23	7.33
Endosulfan sulfate	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.91	8.01
4,4'-DDT	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.52	7.62
Methoxychlor	8.16	8.16	8.16	8.16	8.16	8.16	8.16	8.16	8.11	8.21
Endrin ketone	8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.40	8.50
Endrin aldehyde	7.71	7.71	7.71	7.71	7.71	7.71	7.71	7.71	7.66	7.76
gamma-Chlordane	6.47	6.47	6.47	6.47	6.47	6.47	6.48	6.47	6.43	6.53
alpha-Chlordane	6.61	6.61	6.61	6.61	6.61	6.61	6.61	6.61	6.56	6.66
Hexachlorobutadiene	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.33	2.43
Hexachlorobenzene	4.46	4.46	4.46	4.46	4.46	4.46	4.46	4.46	4.41	4.51
Tetrachloro-m-xylene	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	3.96	4.06
Decachlorobiphenyl	9.57	9.57	9.57	9.57	9.57	9.57	9.57	9.57	9.52	9.62

6E
8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 10/03/12

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.4836	1.4616	1.4938	1.4882	1.4985	1.4906	1.5199	1.4909	1.2
beta-BHC	0.7515	0.6928	0.6569	0.6074	0.5837	0.5625	0.5568	0.6302	11.6
delta-BHC	1.2027	1.1705	1.1786	1.1878	1.2088	1.2162	1.2478	1.2018	2.2
gamma-BHC (Lindane)	1.4203	1.3736	1.3766	1.3565	1.3552	1.3431	1.3628	1.3697	1.8
Heptachlor	1.3710	1.2938	1.2653	1.2234	1.2040	1.1717	1.1640	1.2419	5.9
Aldrin	1.3883	1.3094	1.2895	1.2509	1.2369	1.2047	1.1979	1.2682	5.3
Heptachlor epoxide b	1.4111	1.3113	1.2616	1.1995	1.1708	1.1149	1.0884	1.2225	9.3
Endosulfan I	1.3006	1.2127	1.1670	1.1114	1.0773	1.0349	1.0155	1.1313	9.0
Dieldrin	1.2696	1.2204	1.2149	1.1719	1.1402	1.0940	1.0752	1.1694	6.1
4,4'-DDE	1.1509	1.1089	1.1091	1.0833	1.0630	1.0274	1.0156	1.0797	4.5
Endrin	1.1855	1.1373	1.1231	1.0879	1.0757	1.0200	1.0221	1.0931	5.6
Endosulfan II	1.1881	1.1269	1.0957	1.0423	1.0170	0.9634	0.9552	1.0555	8.2
4,4'-DDD	1.0319	0.9916	0.9750	0.9474	0.9355	0.8986	0.9012	0.9544	5.1
Endosulfan sulfate	0.9858	0.9374	0.9084	0.8788	0.8558	0.8264	0.8267	0.8885	6.7
4,4'-DDT	1.0119	0.9801	0.9720	0.9504	0.9467	0.9240	0.9327	0.9597	3.2
Methoxychlor	0.5578	0.5238	0.4924	0.4554	0.4308	0.4096	0.4145	0.4692	12.2
Endrin ketone	1.2244	1.1156	1.0606	1.0086	0.9677	0.9416	0.9544	1.0390	9.9
Endrin aldehyde	0.9849	0.9225	0.8807	0.8346	0.8072	0.7659	0.7630	0.8512	9.7
gamma-Chlordane	1.3792	1.2811	1.2367	1.1861	1.1606	1.1322	1.1335	1.2156	7.4
alpha-Chlordane	1.3429	1.2457	1.2000	1.1461	1.1150	1.0849	1.0777	1.1732	8.2
Hexachlorobutadiene	2.0812	1.9402	1.8804	1.7634	1.7036	1.6425	1.6366	1.8068	9.2
Hexachlorobenzene	1.5903	1.4533	1.3696	1.2635	1.1969	1.1324	1.1201	1.3037	13.5
Tetrachloro-m-xylene	1.3460	1.2798	1.2458	1.1734	1.1286	1.0704	1.0536	1.1854	9.3
Decachlorobiphenyl	1.3890	1.2243	1.1239	1.0205	0.9531	0.8948	0.8784	1.0691	17.6

6E
8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 10/03/12

COMPOUND	CALIBRATION FACTORS LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	R^2 %RSD
alpha-BHC	1.7068	1.7328	1.8043	1.7772	1.7612	1.7241	1.7099	1.7452	2.1
beta-BHC	0.7886	0.7507	0.7499	0.7007	0.6746	0.6525	0.6274	0.7063	8.3
delta-BHC	1.3355	1.3664	1.4106	1.3838	1.4129	1.3944	1.3874	1.3844	1.9
gamma-BHC (Lindane)	1.6094	1.6044	1.6375	1.5988	1.5712	1.5315	1.4910	1.5777	3.2
Heptachlor	1.5856	1.5485	1.5510	1.4820	1.4155	1.3165	1.2123	1.4445	9.6
Aldrin	1.5160	1.4979	1.5123	1.4628	1.4083	1.3241	1.2212	1.4204	7.8
Heptachlor epoxide b	1.4476	1.4003	1.3792	1.3046	1.2384	1.1438	1.0491	1.2804	11.3
Endosulfan I	1.2698	1.2439	1.2336	1.1730	1.1176	1.0464	0.9643	1.1498	9.9
Dieldrin	1.3591	1.3384	1.3315	1.2542	1.1663	1.0710	0.9940	1.2164	11.8
4,4'-DDE	1.2998	1.2792	1.2771	1.2008	1.1147	1.0160	0.9308	1.1598	12.4
Endrin	1.5909	1.5373	1.4937	1.4092	1.3284	1.1857	1.1161	1.3802	13.0
Endosulfan II	1.5871	1.5228	1.4855	1.3975	1.3177	1.2030	1.1435	1.3796	12.1
4,4'-DDD	1.4343	1.4084	1.3921	1.3338	1.2712	1.1686	1.1160	1.3035	9.5
Endosulfan sulfate	1.2785	1.2434	1.2172	1.1779	1.1320	1.0535	1.0179	1.1600	8.4
4,4'-DDT	1.3464	1.3100	1.3003	1.2588	1.2128	1.1433	1.1114	1.2404	7.1
Methoxychlor	0.6592	0.6042	0.5527	0.4972	0.4495	0.4126	0.3783	0.5077	17.7
Endrin ketone	1.3456	1.2690	1.2127	1.1525	1.0924	1.0274	1.0120	1.1588	10.8
Endrin aldehyde	1.2587	1.1952	1.1528	1.0937	1.0369	0.9549	0.9102	1.0860	11.7
gamma-Chlordane	1.4955	1.4315	1.4100	1.3398	1.2967	1.2245	1.1522	1.3357	9.1
alpha-Chlordane	1.3740	1.3339	1.3210	1.2563	1.2048	1.1471	1.0808	1.2454	8.6
Hexachlorobutadiene	1.9645	1.8894	1.8576	1.7256	1.6592	1.5549	1.5070	1.7369	10.0
Hexachlorobenzene	1.7774	1.6637	1.6110	1.4932	1.4081	1.3179	1.2412	1.5018	12.9
Tetrachloro-m-xylene	1.6512	1.5834	1.5355	1.4058	1.2945	1.1692	1.0938	1.3905	15.3
Decachlorobiphenyl	1.5427	1.4016	1.2929	1.1902	1.1187	1.0455	1.0196	1.2302	15.7

FORM VI PEST-2

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 10/03/12

COMPOUND	RT OF STANDARDS							MEAN RT	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7		FROM	TO
Oxychlordane	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.58	5.68
2,4-DDE	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.65	5.75
trans-Nonachlor	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.90	6.00
2,4-DDD	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.14	6.24
2,4-DDT	6.43	6.43	6.43	6.43	6.43	6.43	6.43	6.43	6.38	6.48
cis-Nonachlor	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.52	6.62
Mirex	7.44	7.44	7.44	7.44	7.44	7.44	7.44	7.44	7.39	7.49
Tetrachloro-m-xylene	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.67	3.62	3.72
Decachlorobiphenyl	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.61	8.56	8.66

FORM VI PEST-1

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 10/03/12

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
Oxychlordane	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.15	6.25
2,4-DDE	6.45	6.45	6.45	6.45	6.45	6.45	6.45	6.45	6.40	6.50
trans-Nonachlor	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.51	6.61
2,4-DDD	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.89	6.99
2,4-DDT	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.18	7.28
cis-Nonachlor	7.29	7.29	7.29	7.29	7.29	7.29	7.29	7.29	7.24	7.34
Mirex	8.43	8.43	8.43	8.43	8.43	8.43	8.43	8.43	8.38	8.48
Tetrachloro-m-xylene	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	3.96	4.06
Decachlorobiphenyl	9.57	9.57	9.57	9.57	9.57	9.57	9.57	9.57	9.52	9.62

FORM VI PEST-1

6E
8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 10/03/12

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
Oxychlordane	1.2075	1.0390	1.0107	0.9691	0.9497	0.9191	0.8679	0.9947	11.0
2,4-DDE	0.8809	0.7598	0.7410	0.7297	0.7047	0.6744	0.6274	0.7311	10.9
trans-Nonachlor	1.3975	1.2236	1.1955	1.1584	1.1389	1.1150	1.0643	1.1847	9.1
2,4-DDD	0.8017	0.6924	0.6634	0.6359	0.6204	0.6009	0.5700	0.6550	11.6
2,4-DDT	0.8939	0.7774	0.7494	0.7225	0.7039	0.6924	0.6502	0.7414	10.6
cis-Nonachlor	1.4493	1.2717	1.2594	1.2276	1.2192	1.2034	1.1538	1.2549	7.5
Mirex	1.0931	0.9043	0.8544	0.7952	0.7622	0.7376	0.7004	0.8353	15.9
Tetrachloro-m-xylene	1.3460	1.2798	1.2458	1.1734	1.1286	1.0704	1.0536	1.1854	9.3
Decachlorobiphenyl	1.3890	1.2243	1.1239	1.0205	0.9531	0.8948	0.8784	1.0691	17.6

FORM VI PEST-2

6E
8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 10/03/12

COMPOUND	CALIBRATION FACTORS LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	R^2 %RSD
Oxychlordane	1.2276	1.0951	1.0852	1.0203	0.9700	0.9037	0.8394	1.0202	12.8
2,4-DDE	0.9795	0.8349	0.7999	0.7348	0.6762	0.6053	0.5337	0.7378	20.3
trans-Nonachlor	2.0049	1.7706	1.7565	1.6845	1.5851	1.4861	1.3560	1.6634	12.7
2,4-DDD	1.1355	0.9797	0.9448	0.8995	0.8441	0.7771	0.6914	0.8960	16.1
2,4-DDT	1.2121	1.0533	1.0307	0.9841	0.9224	0.8676	0.7723	0.9775	14.5
cis-Nonachlor	2.0973	1.8438	1.8172	1.7490	1.6479	1.5661	1.4532	1.7392	12.1
Mirex	1.2745	1.0584	1.0014	0.9248	0.8611	0.8279	0.7832	0.9616	17.5
Tetrachloro-m-xylene	1.6512	1.5834	1.5355	1.4058	1.2945	1.1692	1.0938	1.3905	15.3
Decachlorobiphenyl	1.5427	1.4016	1.2929	1.1902	1.1187	1.0455	1.0196	1.2302	15.7

FORM VI PEST-2

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: VR38

Analysis Date: 21-NOV-2012 01:19 Init. Calib. Date: 03-OCT-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.020	107198
Endrin	6.522	4579690
4,4'-DDD	6.576	436296
4,4'-DDT	6.830	4169507
Endrin ketone	7.748	585575
Endrin aldehyde	7.106	174856

DDT Percent Breakdown = 11.5 %
((107198+436296) * 100)/(107198+436296+4169507)

Endrin Percent Breakdown = 14.2 %
((174856+585575) * 100)/(174856+585575+4579690)

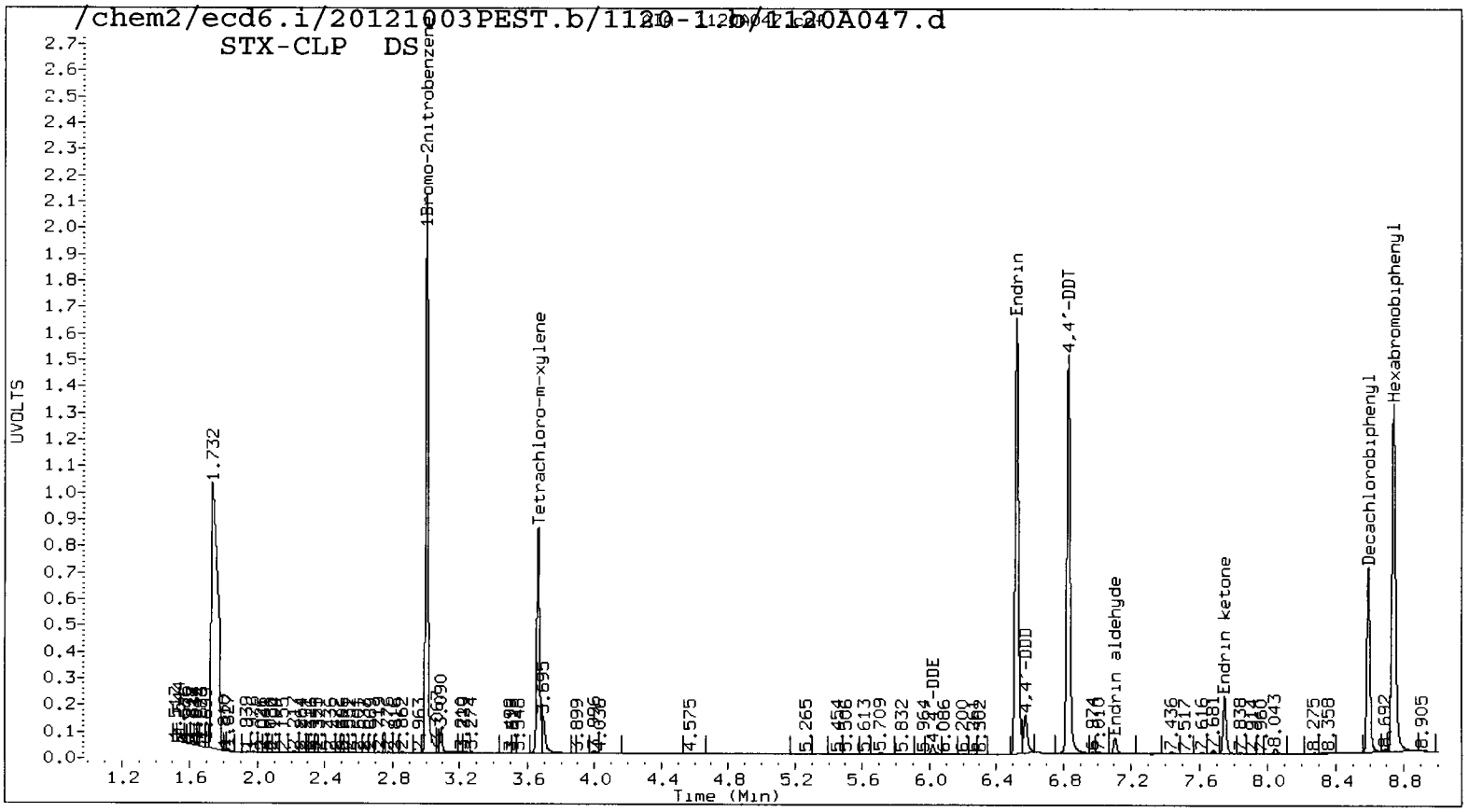
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.734	662007
Endrin	7.212	20532021
4,4'-DDD	7.273	2086306
4,4'-DDT	7.559	19008478
Endrin ketone	8.432	2470224
Endrin aldehyde	7.700	776131

DDT Percent Breakdown = 12.6 %
((662007+2086306) * 100)/(662007+2086306+19008478)

Endrin Percent Breakdown = 13.7 %
((776131+2470224) * 100)/(776131+2470224+20532021)

Form VII Pest-1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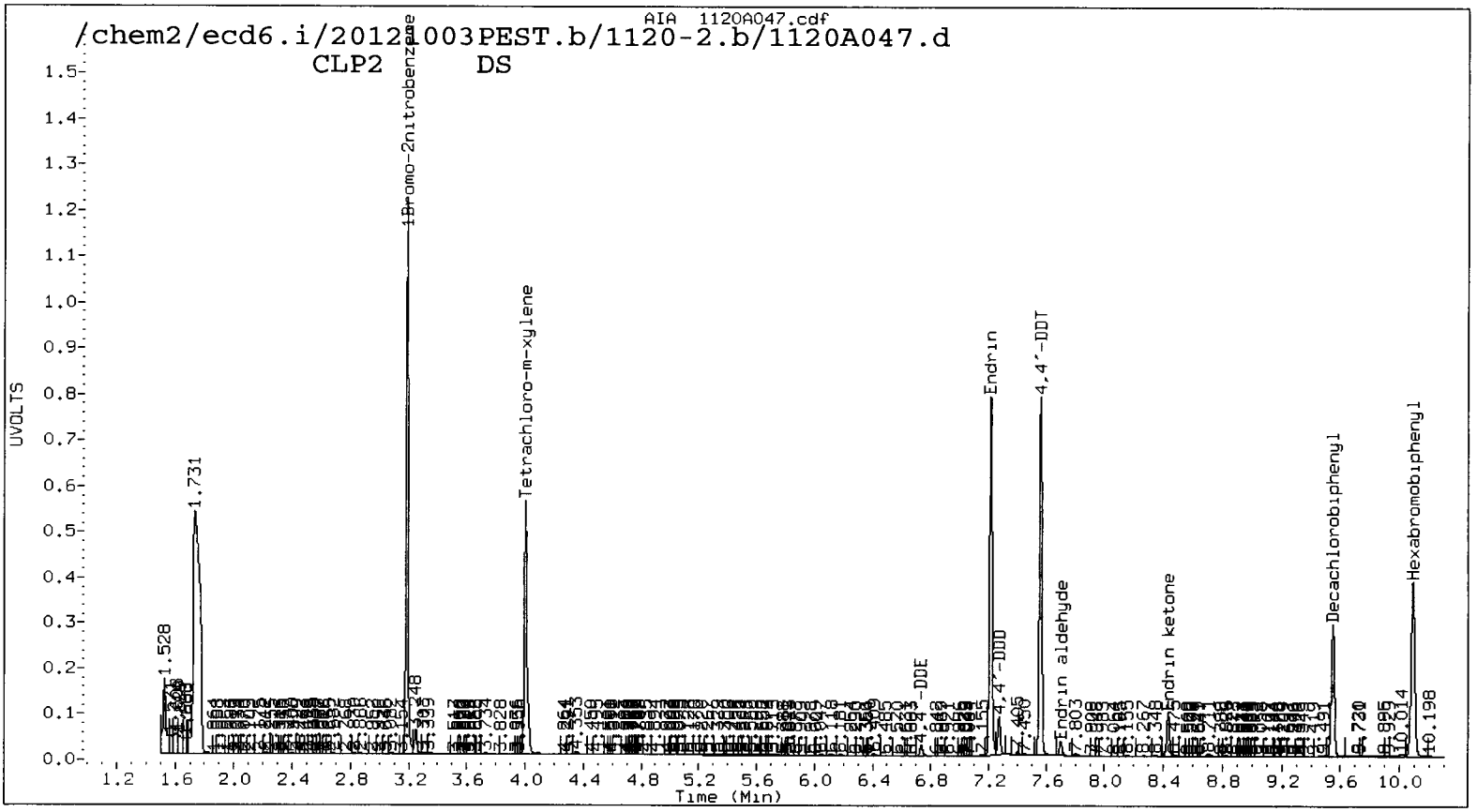
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD
1.732
UVOLTS
Time (Min)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CLP2 DS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD
1.528
1.731
UVOLTS
Time (Min)

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 10/03/12

Lab Ccal ID: INDAE Date/Time Analyzed: 11/21/12,0137

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.13	4.10	4.20	21.8	20.0	8.9
beta-BHC	4.50	4.45	4.55	20.3	20.0	1.4
delta-BHC	4.66	4.61	4.71	21.5	20.0	7.5
gamma-BHC (Lindane)	4.41	4.37	4.47	20.7	20.0	3.4
Heptachlor	4.85	4.81	4.91	20.4	20.0	2.0
Aldrin	5.13	5.10	5.20	21.1	20.0	5.4
Heptachlor epoxide b	5.70	5.67	5.77	20.3	20.0	1.5
Endosulfan I	6.08	6.05	6.15	22.0	20.0	10.0
Dieldrin	6.30	6.27	6.37	41.9	40.0	4.8
4,4'-DDE	6.02	5.98	6.08	40.4	40.0	1.0
Endrin	6.52	6.49	6.59	37.1	40.0	-7.1
Endosulfan II	6.73	6.70	6.80	40.8	40.0	2.0
4,4'-DDD	6.57	6.53	6.63	41.9	40.0	4.8
Endosulfan sulfate	7.49	7.46	7.56	39.9	40.0	-0.2
4,4'-DDT	6.83	6.79	6.89	38.2	40.0	-4.6
Methoxychlor	7.26	7.22	7.32	179.2	200.0	-10.4
Endrin ketone	7.75	7.72	7.82	47.7	40.0	19.2
Endrin aldehyde	7.10	7.07	7.17	40.0	40.0	0.1
gamma-Chlordane	5.83	5.79	5.89	20.6	20.0	2.9
alpha-Chlordane	5.95	5.92	6.02	20.1	20.0	0.6
Hexachlorobutadiene	2.20	2.16	2.26	22.3	20.0	11.4
Hexachlorobenzene	4.00	3.95	4.05	21.2	20.0	6.1
Tetrachloro-m-xylene	3.66	3.62	3.72	37.0	40.0	-7.4
Decachlorobiphenyl	8.59	8.56	8.66	39.5	40.0	-1.2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 10/03/12

Lab Ccal ID: INDAE Date/Time Analyzed: 11/21/12,0137

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.57	4.54	4.64	20.3	20.0	1.6	
beta-BHC	5.00	4.96	5.06	18.8	20.0	-6.1	
delta-BHC	5.31	5.26	5.36	19.7	20.0	-1.4	
gamma-BHC (Lindane)	4.92	4.89	4.99	19.7	20.0	-1.7	
Heptachlor	5.38	5.35	5.45	19.1	20.0	-4.3	
Aldrin	5.72	5.69	5.79	19.9	20.0	-0.6	
Heptachlor epoxide b	6.28	6.24	6.34	19.1	20.0	-4.6	
Endosulfan I	6.66	6.63	6.73	19.0	20.0	-5.1	
Dieldrin	6.92	6.89	6.99	37.1	40.0	-7.2	
4,4'-DDE	6.73	6.70	6.80	37.7	40.0	-5.6	
Endrin	7.21	7.18	7.28	40.2	40.0	0.6	
Endosulfan II	7.40	7.37	7.47	44.2	40.0	10.5	
4,4'-DDD	7.27	7.23	7.33	45.2	40.0	13.0	
Endosulfan sulfate	7.94	7.91	8.01	42.2	40.0	5.4	
4,4'-DDT	7.56	7.52	7.62	39.2	40.0	-2.0	
Methoxychlor	8.14	8.11	8.21	180.2	200.0	-9.9	
Endrin ketone	8.43	8.40	8.50	50.5	40.0	26.3	<-
Endrin aldehyde	7.70	7.66	7.76	43.3	40.0	8.2	
gamma-Chlordane	6.46	6.43	6.53	18.3	20.0	-8.5	
alpha-Chlordane	6.60	6.56	6.66	18.2	20.0	-9.0	
Hexachlorobutadiene	2.37	2.33	2.43	19.5	20.0	-2.5	
Hexachlorobenzene	4.45	4.41	4.51	25.2	20.0	26.2	<-
Tetrachloro-m-xylene	4.00	3.96	4.06	40.3	40.0	0.8	
Decachlorobiphenyl	9.55	9.52	9.62	48.6	40.0	21.5	<-

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: VR38

Analysis Date: 21-NOV-2012 06:58 Init. Calib. Date: 03-OCT-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.012	30098
Endrin	6.519	3458250
4,4'-DDD	6.568	1575126
4,4'-DDT	6.824	819680
Endrin ketone	7.745	498279
Endrin aldehyde	7.102	45949

DDT Percent Breakdown = 66.2 %
((30098+1575126) * 100)/(30098+1575126+819680)

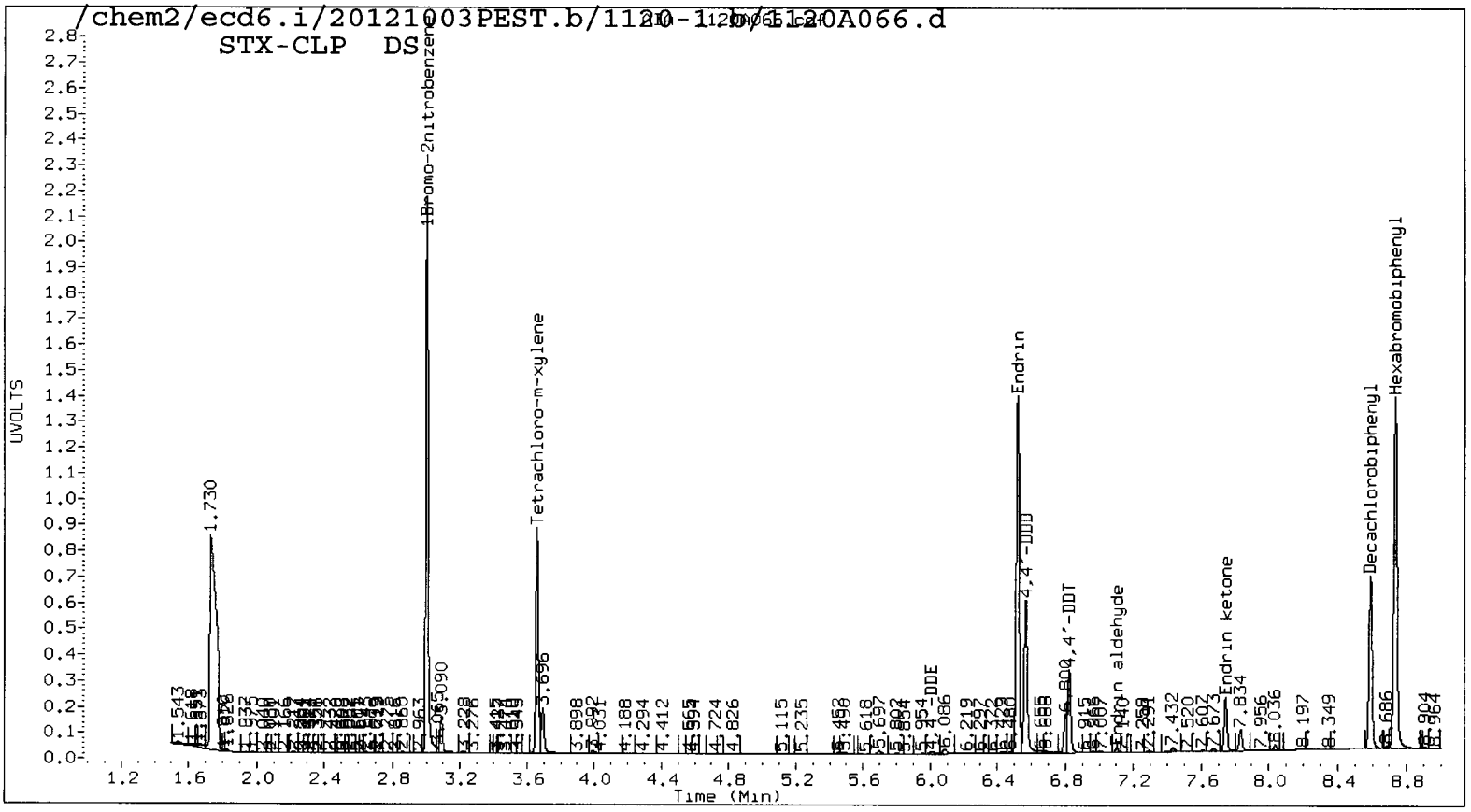
Endrin Percent Breakdown = 13.6 %
((45949+498279) * 100)/(45949+498279+3458250)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.722	356482
Endrin	7.211	10356187
4,4'-DDD	7.270	5473137
4,4'-DDT	7.556	2616252
Endrin ketone	8.431	1433100
Endrin aldehyde	7.698	238294

DDT Percent Breakdown = 69.0 %
((356482+5473137) * 100)/(356482+5473137+2616252)

Endrin Percent Breakdown = 13.9 %
((238294+1433100) * 100)/(238294+1433100+10356187)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STX-CLP DS
UVOLTS
Time (Min)
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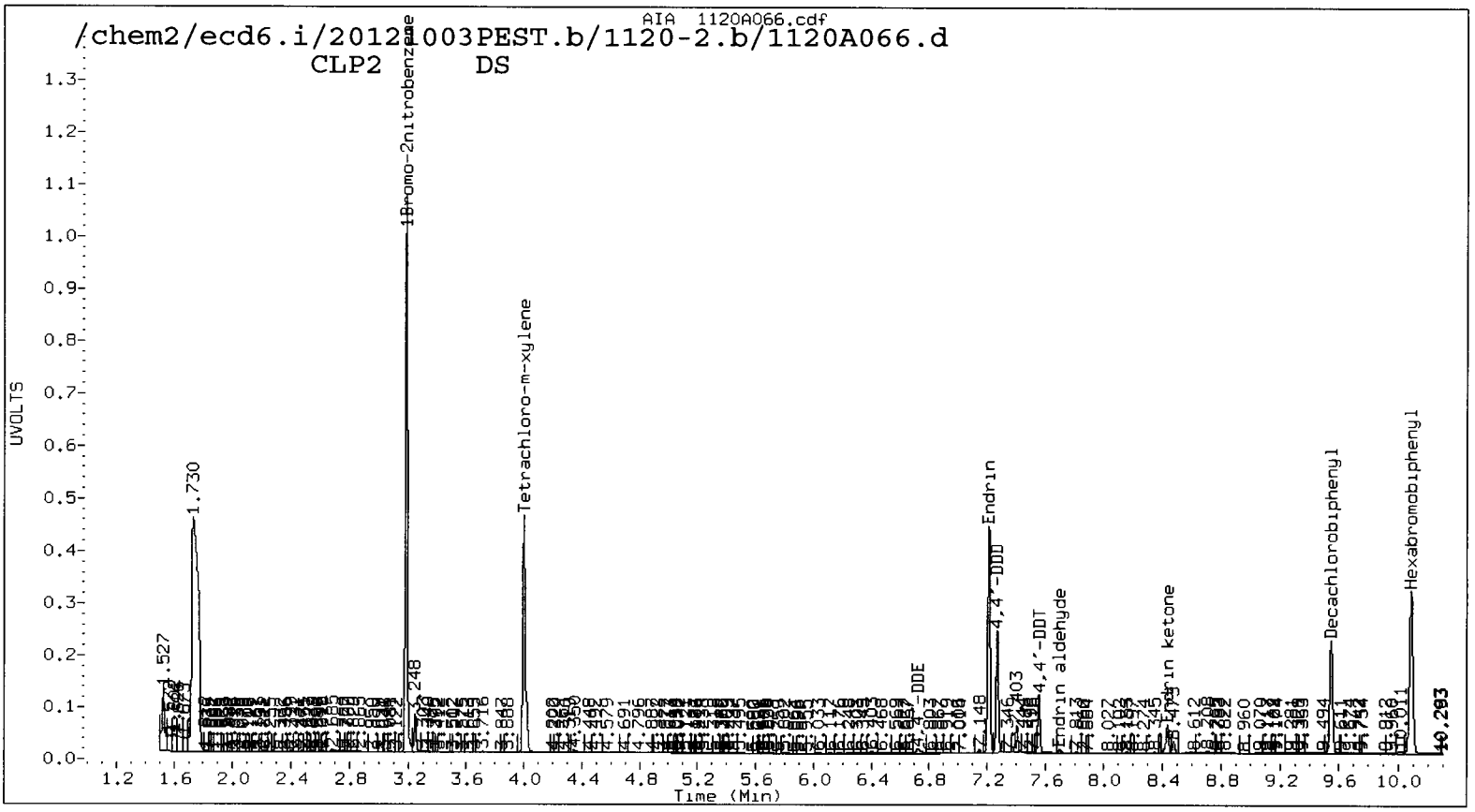
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
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1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 10/03/12

Lab Ccal ID: INDAE Date/Time Analyzed: 11/21/12,0716

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.57	4.54	4.64	19.6	20.0	-2.1	
beta-BHC	5.00	4.96	5.06	15.8	20.0	-20.9	<-
delta-BHC	5.30	5.26	5.36	18.6	20.0	-6.9	
gamma-BHC (Lindane)	4.92	4.89	4.99	16.0	20.0	-19.8	
Heptachlor	5.38	5.35	5.45	13.1	20.0	-34.6	<-
Aldrin	5.72	5.69	5.79	18.4	20.0	-7.8	
Heptachlor epoxide b	6.28	6.24	6.34	16.8	20.0	-16.0	
Endosulfan I	6.66	6.63	6.73	16.6	20.0	-16.8	
Dieldrin	6.92	6.89	6.99	32.5	40.0	-18.8	
4,4'-DDE	6.73	6.70	6.80	33.1	40.0	-17.4	
Endrin	7.21	7.18	7.28	33.4	40.0	-16.6	
Endosulfan II	7.40	7.37	7.47	50.4	40.0	25.9	<-
4,4'-DDD	7.27	7.23	7.33	53.1	40.0	32.7	<-
Endosulfan sulfate	7.94	7.91	8.01	37.8	40.0	-5.4	
4,4'-DDT	7.56	7.52	7.62	10.0	40.0	-74.9	<-
Methoxychlor	8.14	8.11	8.21	60.5	200.0	-69.8	<-
Endrin ketone	8.43	8.40	8.50	25.6	40.0	-36.0	<-
Endrin aldehyde	7.70	7.66	7.76	41.5	40.0	3.7	
gamma-Chlordane	6.46	6.43	6.53	15.9	20.0	-20.6	<-
alpha-Chlordane	6.60	6.56	6.66	15.5	20.0	-22.4	<-
Hexachlorobutadiene	2.37	2.33	2.43	18.8	20.0	-5.9	
Hexachlorobenzene	4.45	4.41	4.51	24.6	20.0	23.1	<-
Tetrachloro-m-xylene	4.00	3.96	4.06	39.9	40.0	-0.3	
Decachlorobiphenyl	9.54	9.52	9.62	47.0	40.0	17.6	

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 10/03/12

Lab Ccal ID: INDAE Date/Time Analyzed: 11/21/12,0716

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.13	4.10	4.20	21.4	20.0	7.2	
beta-BHC	4.49	4.45	4.55	16.9	20.0	-15.6	
delta-BHC	4.66	4.61	4.71	19.7	20.0	-1.7	
gamma-BHC (Lindane)	4.41	4.37	4.47	18.0	20.0	-10.2	
Heptachlor	4.84	4.81	4.91	14.7	20.0	-26.5	<-
Aldrin	5.13	5.10	5.20	20.9	20.0	4.5	
Heptachlor epoxide b	5.70	5.67	5.77	19.6	20.0	-2.0	
Endosulfan I	6.08	6.05	6.15	21.1	20.0	5.6	
Dieldrin	6.30	6.27	6.37	42.0	40.0	5.0	
4,4'-DDE	6.01	5.98	6.08	41.1	40.0	2.8	
Endrin	6.52	6.49	6.59	33.1	40.0	-17.2	
Endosulfan II	6.72	6.70	6.80	39.4	40.0	-1.5	
4,4'-DDD	6.57	6.53	6.63	53.1	40.0	32.8	<-
Endosulfan sulfate	7.49	7.46	7.56	37.9	40.0	-5.3	
4,4'-DDT	6.82	6.79	6.89	11.0	40.0	-72.6	<-
Methoxychlor	7.25	7.22	7.32	60.8	200.0	-69.6	<-
Endrin ketone	7.74	7.72	7.82	25.6	40.0	-36.0	<-
Endrin aldehyde	7.10	7.07	7.17	39.0	40.0	-2.5	
gamma-Chlordane	5.82	5.79	5.89	19.4	20.0	-2.8	
alpha-Chlordane	5.95	5.92	6.02	19.4	20.0	-3.0	
Hexachlorobutadiene	2.20	2.16	2.26	22.1	20.0	10.6	
Hexachlorobenzene	3.99	3.95	4.05	21.2	20.0	6.0	
Tetrachloro-m-xylene	3.66	3.62	3.72	36.9	40.0	-7.8	
Decachlorobiphenyl	8.59	8.56	8.66	38.3	40.0	-4.3	

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 10/03/12

Lab Ccal ID: WNDE Date/Time Analyzed: 11/21/12,0213

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Hexachloroethane	1.73	1.69	1.79	0.0	20.0	-100.0	<-
Oxychlordane	5.61	5.58	5.68	37.6	40.0	-6.1	
2,4-DDE	5.69	5.65	5.75	42.3	40.0	5.8	
trans-Nonachlor	5.94	5.90	6.00	40.1	40.0	0.1	
2,4-DDD	6.18	6.14	6.24	40.2	40.0	0.6	
2,4-DDT	6.42	6.38	6.48	35.4	40.0	-11.4	
cis-Nonachlor	6.55	6.52	6.62	40.3	40.0	0.8	
Mirex	7.42	7.39	7.49	38.0	40.0	-5.0	

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 10/03/12

Lab Ccal ID: WNDE Date/Time Analyzed: 11/21/12,0213

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Hexachloroethane	1.73	1.68	1.78	0.0	40.0	-100.0	<-
Oxychlordane	6.19	6.15	6.25	35.6	40.0	-11.0	
2,4-DDE	6.44	6.40	6.50	37.1	40.0	-7.4	
trans-Nonachlor	6.55	6.51	6.61	41.7	40.0	4.3	
2,4-DDD	6.93	6.89	6.99	45.4	40.0	13.4	
2,4-DDT	7.21	7.18	7.28	37.1	40.0	-7.3	
cis-Nonachlor	7.27	7.24	7.34	39.8	40.0	-0.5	
Mirex	8.42	8.38	8.48	36.7	40.0	-8.2	

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 10/03/12

Lab Ccal ID: WNDE Date/Time Analyzed: 11/21/12,0733

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Hexachloroethane	1.73	1.68	1.78	0.0	40.0	-100.0	<-
Oxychlordane	6.19	6.15	6.25	31.4	40.0	-21.6	<-
2,4-DDE	6.44	6.40	6.50	34.4	40.0	-14.0	
trans-Nonachlor	6.54	6.51	6.61	41.0	40.0	2.5	
2,4-DDD	6.93	6.89	6.99	54.5	40.0	36.3	<-
2,4-DDT	7.21	7.18	7.28	14.9	40.0	-62.6	<-
cis-Nonachlor	7.27	7.24	7.34	38.6	40.0	-3.6	
Mirex	8.42	8.38	8.48	27.4	40.0	-31.5	<-

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 10/03/12

Lab Ccal ID: WNDE Date/Time Analyzed: 11/21/12,0733

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Hexachloroethane	1.73	1.69	1.79	0.0	20.0	-100.0	<-
Oxychlordane	5.61	5.58	5.68	36.8	40.0	-8.1	
2,4-DDE	5.69	5.65	5.75	41.2	40.0	3.1	
trans-Nonachlor	5.93	5.90	6.00	38.7	40.0	-3.4	
2,4-DDD	6.17	6.14	6.24	48.9	40.0	22.3	<-
2,4-DDT	6.41	6.38	6.48	14.8	40.0	-63.1	<-
cis-Nonachlor	6.55	6.52	6.62	39.5	40.0	-1.3	
Mirex	7.42	7.39	7.49	29.3	40.0	-26.8	<-

FORM VII PEST-2

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 10/03/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	4060064	3.015	3748709	8.750
	UPPER LIMIT	8120128	3.065	7497418	8.800
	LOWER LIMIT	2030032	2.965	1874354	8.700

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		INDAE	10/03/12	1639	4060064	3.015	3748709	8.750
02		INDAA	10/03/12	1656	4049993	3.015	3734455	8.750
03		INDAB	10/03/12	1714	4090558	3.015	3771845	8.750
04		INDAC	10/03/12	1732	4021073	3.015	3724289	8.750
05		INDAD	10/03/12	1750	4048036	3.015	3782157	8.750
06		INDAF	10/03/12	1808	4083237	3.015	3825703	8.750
07		INDAG	10/03/12	1826	4094375	3.015	3786416	8.750
08		WNDE	10/03/12	1919	4208844	3.015	3949210	8.750
09		WNDA	10/03/12	1937	3929689	3.015	3679733	8.750
10		WNDB	10/03/12	1955	4316718	3.015	4014283	8.750
11		WNDC	10/03/12	2012	4166737	3.015	3931640	8.750
12		WNDD	10/03/12	2030	4291231	3.015	4014232	8.750
13		WNDF	10/03/12	2048	4252342	3.015	3949109	8.750
14		WNDG	10/03/12	2106	4304026	3.015	4056513	8.750
15		DS	11/21/12	0119	4119772	3.003	3880458	8.740
16		INDAE	11/21/12	0137	4398580	3.003	4115604	8.741
17		WNDE	11/21/12	0213	4307713	3.003	4053655	8.741
18	VR38MBS1	VR38MBS1	11/21/12	0306	4041180	3.001	3990867	8.732
19	VR38LCSS1	VR38LCSS1	11/21/12	0324	4278361	3.001	4216194	8.731
20	HT-06-S-E-12	VR38J	11/21/12	0342	4395292	3.002	4011332	8.731
21	HT-07-S-E-12	VR38K	11/21/12	0400	4329370	3.001	3848662	8.731
22	SG-10-S-E-12	VR58A	11/21/12	0417	4379518	3.001	3769713	8.733
23	SG-11-S-E-12	VR58B	11/21/12	0435	4188612	3.000	3513167	8.741
24	SG-12-S-E-12	VR58C	11/21/12	0453	4041498	3.001	3320691	8.734
25	SG-13-S-E-12	VR58D	11/21/12	0511	4391869	3.001	3506059	8.737
26	SG-13-S-E-DU	VR58E	11/21/12	0529	3764319	3.002	3005279	8.738
27	SG-14-S-E-12	VR58F	11/21/12	0546	4102144	3.001	3533449	8.734
28	SG-15-S-E-12	VR58G	11/21/12	0604	4276013	3.001	3665474	8.732
29	SG-15-S-E-12	VR58GMS	11/21/12	0622	4141098	3.001	3743889	8.733
30	SG-15-S-E-12	VR58GMSD	11/21/12	0640	4111009	3.001	3674542	8.733
31		DS	11/21/12	0658	4067662	3.003	3644763	8.734
32		INDAE	11/21/12	0716	4411805	3.003	4003766	8.733
33		WNDE	11/21/12	0733	4363763	3.003	3949527	8.734

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE SEDIMENT

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 10/03/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	21032891	3.195	14864285	10.105
				UPPER LIMIT	42065782	3.245	29728570	10.155
				LOWER LIMIT	10516446	3.145	7432142	10.055

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		INDAE	10/03/12	1639	21032891	3.195	14864285	10.105
02		INDAA	10/03/12	1656	21107593	3.195	14677423	10.106
03		INDAB	10/03/12	1714	21416427	3.195	15039648	10.106
04		INDAC	10/03/12	1732	21029129	3.195	15016060	10.106
05		INDAD	10/03/12	1750	21297295	3.195	15199043	10.107
06		INDAF	10/03/12	1808	21266311	3.195	15407292	10.106
07		INDAG	10/03/12	1826	21395806	3.195	15257890	10.107
08		WNDE	10/03/12	1919	22225166	3.195	15958085	10.105
09		WNDA	10/03/12	1937	20878006	3.195	14804646	10.106
10		WNDB	10/03/12	1955	22757667	3.195	16320408	10.106
11		WNDC	10/03/12	2012	22095258	3.195	16032237	10.106
12		WNDD	10/03/12	2030	22892989	3.195	16280005	10.106
13		WNDF	10/03/12	2048	22617896	3.195	16310554	10.106
14		WNDG	10/03/12	2106	22734029	3.195	16771085	10.106
15		DS	11/21/12	0119	22796918	3.185	13115540	10.087
16		INDAE	11/21/12	0137	24031979	3.185	13942788	10.087
17		WNDE	11/21/12	0213	23669772	3.185	14076646	10.087
18	VR38MBS1	VR38MBS1	11/21/12	0306	18893460	3.183	12242758	10.083
19	VR38LCSS1	VR38LCSS1	11/21/12	0324	20484734	3.183	13140209	10.082
20	HT-06-S-E-12	VR38J	11/21/12	0342	22828780	3.184	12027139	10.082
21	HT-07-S-E-12	VR38K	11/21/12	0400	21197856	3.184	11158606	10.082
22	SG-10-S-E-12	VR58A	11/21/12	0417	20078989	3.184	9434421	10.083
23	SG-11-S-E-12	VR58B	11/21/12	0435	14658009	3.183	7905264	10.090
24	SG-12-S-E-12	VR58C	11/21/12	0453	11761598	3.183	7532577	10.084
25	SG-13-S-E-12	VR58D	11/21/12	0511	15081701	3.183	8005512	10.086
26	SG-13-S-E-DU	VR58E	11/21/12	0529	13166590	3.184	7072899*	10.087
27	SG-14-S-E-12	VR58F	11/21/12	0546	14677208	3.184	8887827	10.083
28	SG-15-S-E-12	VR58G	11/21/12	0604	17778163	3.183	9130901	10.083
29	SG-15-S-E-12	VR58GMS	11/21/12	0622	18288862	3.184	8805618	10.084
30	SG-15-S-E-12	VR58GMSD	11/21/12	0640	17980117	3.184	9058917	10.084
31		DS	11/21/12	0658	19714882	3.185	10419259	10.084
32		INDAE	11/21/12	0716	23839242	3.185	11839489	10.084
33		WNDE	11/21/12	0733	23688082	3.185	12186581	10.084

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

PCB Analysis
Report and Summary QC Forms

ARI Job ID: VR38

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-01-S-C-121106
SAMPLE

Lab Sample ID: VR38A
LIMS ID: 12-22267
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 14:39
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.68 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 20.5%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.5	18	< 18 U
53469-21-9	Aroclor 1242	6.0	18	< 18 U
12672-29-6	Aroclor 1248	6.0	18	< 18 U
11097-69-1	Aroclor 1254	6.0	18	< 18 U
11096-82-5	Aroclor 1260	6.0	18	< 18 U
11104-28-2	Aroclor 1221	6.0	18	< 18 U
11141-16-5	Aroclor 1232	6.0	18	< 18 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.8%
Tetrachlorometaxylene	82.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: HT-02-S-C-121106
SAMPLE

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 14:58
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

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

Percent Moisture: 15.6%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.9	19	< 19 U
53469-21-9	Aroclor 1242	6.5	19	< 19 U
12672-29-6	Aroclor 1248	6.5	19	< 19 U
11097-69-1	Aroclor 1254	6.5	19	< 19 U
11096-82-5	Aroclor 1260	6.5	19	< 19 U
11104-28-2	Aroclor 1221	6.5	19	< 19 U
11141-16-5	Aroclor 1232	6.5	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.2%
Tetrachlorometaxylene	81.8%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-03-S-C-121106
SAMPLE

Lab Sample ID: VR38C
LIMS ID: 12-22269
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 15:59
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.33 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 26.2%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.8	19	< 19 U
53469-21-9	Aroclor 1242	6.4	19	< 19 U
12672-29-6	Aroclor 1248	6.4	19	< 19 U
11097-69-1	Aroclor 1254	6.4	19	< 19 U
11096-82-5	Aroclor 1260	6.4	19	< 19 U
11104-28-2	Aroclor 1221	6.4	19	< 19 U
11141-16-5	Aroclor 1232	6.4	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.0%
Tetrachlorometaxylene	87.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: HT-04-S-C-121106
SAMPLE

Lab Sample ID: VR38D
LIMS ID: 12-22270
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 16:19
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.49 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 40.7%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.6	18	< 18 U
53469-21-9	Aroclor 1242	6.2	18	< 18 U
12672-29-6	Aroclor 1248	6.2	18	< 18 U
11097-69-1	**Aroclor 1254**	**6.2**	**18**	**28 P**
11096-82-5	Aroclor 1260	6.2	18	< 18 U
11104-28-2	Aroclor 1221	6.2	18	< 18 U
11141-16-5	Aroclor 1232	6.2	18	< 18 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.5%
Tetrachlorometaxylene	89.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: HT-05-S-C-121106
SAMPLE

Lab Sample ID: VR38E
LIMS ID: 12-22271
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 17:18
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.79 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 18.4%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.4	17	< 17 U
53469-21-9	Aroclor 1242	5.9	17	< 17 U
12672-29-6	Aroclor 1248	5.9	17	< 17 U
11097-69-1	Aroclor 1254	5.9	17	< 17 U
11096-82-5	Aroclor 1260	5.9	17	< 17 U
11104-28-2	Aroclor 1221	5.9	17	< 17 U
11141-16-5	Aroclor 1232	5.9	17	< 17 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	84.0%
Tetrachlorometaxylene	82.8%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-08-S-C-121106
SAMPLE

Lab Sample ID: VR38F
LIMS ID: 12-22272
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 17:37
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.86 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 17.3%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.3	17	< 17 U
53469-21-9	Aroclor 1242	5.8	17	< 17 U
12672-29-6	Aroclor 1248	5.8	17	< 17 U
11097-69-1	Aroclor 1254	5.8	17	< 17 U
11096-82-5	Aroclor 1260	5.8	17	< 17 U
11104-28-2	Aroclor 1221	5.8	17	< 17 U
11141-16-5	Aroclor 1232	5.8	17	< 17 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.5%
Tetrachlorometaxylene	80.2%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-09-S-C-121106
SAMPLE

Lab Sample ID: VR38G
LIMS ID: 12-22273
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 17:58
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.25 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 26.2%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.9	19	< 19 U
53469-21-9	Aroclor 1242	6.5	19	< 19 U
12672-29-6	Aroclor 1248	6.5	19	< 19 U
11097-69-1	Aroclor 1254	6.5	19	< 19 U
11096-82-5	Aroclor 1260	6.5	19	< 19 U
11104-28-2	Aroclor 1221	6.5	19	< 19 U
11141-16-5	Aroclor 1232	6.5	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	82.5%
Tetrachlorometaxylene	88.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: HT-10-S-LFP-121106
SAMPLE

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 18:18
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.31 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 14.3%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.8	19	< 19 U
53469-21-9	Aroclor 1242	6.4	19	< 19 U
12672-29-6	Aroclor 1248	6.4	19	< 19 U
11097-69-1	Aroclor 1254	6.4	19	< 19 U
11096-82-5	Aroclor 1260	6.4	19	< 19 U
11104-28-2	Aroclor 1221	6.4	19	< 19 U
11141-16-5	Aroclor 1232	6.4	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	82.0%
Tetrachlorometaxylene	79.0%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-11-S-LFP-121106
SAMPLE

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 18:38
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.20 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 14.7%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.9	19	< 19 U
53469-21-9	Aroclor 1242	6.5	19	< 19 U
12672-29-6	Aroclor 1248	6.5	19	< 19 U
11097-69-1	Aroclor 1254	6.5	19	< 19 U
11096-82-5	Aroclor 1260	6.5	19	< 19 U
11104-28-2	Aroclor 1221	6.5	19	< 19 U
11141-16-5	Aroclor 1232	6.5	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.8%
Tetrachlorometaxylene	85.0%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-06-S-E-121106
SAMPLE

Lab Sample ID: VR38J
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 18:58
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.79 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 20.2%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.4	17	< 17 U
53469-21-9	Aroclor 1242	5.9	17	< 17 U
12672-29-6	Aroclor 1248	5.9	17	< 17 U
11097-69-1	Aroclor 1254	5.9	17	< 17 U
11096-82-5	Aroclor 1260	5.9	17	< 17 U
11104-28-2	Aroclor 1221	5.9	17	< 17 U
11141-16-5	Aroclor 1232	5.9	17	< 17 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	86.0%
Tetrachlorometaxylene	87.0%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-07-S-E-121106
SAMPLE

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 19:18
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.05 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 16.5%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	5.0	20	< 20 U
53469-21-9	Aroclor 1242	6.7	20	< 20 U
12672-29-6	Aroclor 1248	6.7	20	< 20 U
11097-69-1	Aroclor 1254	6.7	20	< 20 U
11096-82-5	Aroclor 1260	6.7	20	< 20 U
11104-28-2	Aroclor 1221	6.7	20	< 20 U
11141-16-5	Aroclor 1232	6.7	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	84.8%
Tetrachlorometaxylene	89.0%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
HT-01-S-C-121106	83.8%	24-127	82.5%	34-109	0
MB-111612	86.2%	48-123	84.2%	43-107	0
LCS-111612	88.8%	48-123	88.0%	43-107	0
SRM PSR	85.5%	24-127	82.2%	34-109	0
HT-02-S-C-121106	80.2%	24-127	81.8%	34-109	0
HT-02-S-C-121106 MS	81.2%	24-127	83.5%	34-109	0
HT-02-S-C-121106 MSD	83.8%	24-127	85.0%	34-109	0
HT-03-S-C-121106	80.0%	24-127	87.2%	34-109	0
HT-04-S-C-121106	78.5%	24-127	89.5%	34-109	0
HT-05-S-C-121106	84.0%	24-127	82.8%	34-109	0
HT-08-S-C-121106	80.5%	24-127	80.2%	34-109	0
HT-09-S-C-121106	82.5%	24-127	88.5%	34-109	0
HT-10-S-LFP-121106	82.0%	24-127	79.0%	34-109	0
HT-11-S-LFP-121106	80.8%	24-127	85.0%	34-109	0
HT-06-S-E-121106	86.0%	24-127	87.0%	34-109	0
HT-07-S-E-121106	84.8%	24-127	89.0%	34-109	0

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 12-22267 to 12-22277

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-02-S-C-121106
MS/MSD

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted MS/MSD: 11/16/12

Date Analyzed MS: 11/19/12 15:18
MSD: 11/19/12 15:39
Instrument/Analyst MS: ECD5/JGR
MSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 5.22 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: 15.6%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 19 U	398	479	83.1%	382	479	79.7%	4.1%
Aroclor 1260	< 19 U	373	479	77.9%	381	479	79.5%	2.1%

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
Extraction Method: SW3546
Page 1 of 1

Sample ID: HT-02-S-C-121106
MATRIX SPIKE

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 15:18
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

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

Percent Moisture: 15.6%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.9	19	---
53469-21-9	Aroclor 1242	6.5	19	< 19 U
12672-29-6	Aroclor 1248	6.5	19	< 19 U
11097-69-1	Aroclor 1254	6.5	19	< 19 U
11096-82-5	Aroclor 1260	6.5	19	---
11104-28-2	Aroclor 1221	6.5	19	< 19 U
11141-16-5	Aroclor 1232	6.5	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	81.2%
Tetrachlorometaxylene	83.5%

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: HT-02-S-C-121106
MATRIX SPIKE DUP

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 15:39
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

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

Percent Moisture: 15.6%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.9	19	---
53469-21-9	Aroclor 1242	6.5	19	< 19 U
12672-29-6	Aroclor 1248	6.5	19	< 19 U
11097-69-1	Aroclor 1254	6.5	19	< 19 U
11096-82-5	Aroclor 1260	6.5	19	---
11104-28-2	Aroclor 1221	6.5	19	< 19 U
11141-16-5	Aroclor 1232	6.5	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	83.8%
Tetrachlorometaxylene	85.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: SRM PSR
STANDARD REFERENCE

Lab Sample ID: SRM PSR
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 14:19
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.00 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 0.0%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	5.1	20	< 20 U
53469-21-9	Aroclor 1242	6.8	20	< 20 U
12672-29-6	Aroclor 1248	6.8	30	< 30 Y
11097-69-1	**Aroclor 1254**	**6.8**	**20**	**110**
11096-82-5	**Aroclor 1260**	**6.8**	**20**	**150**
11104-28-2	Aroclor 1221	6.8	20	< 20 U
11141-16-5	Aroclor 1232	6.8	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	85.5%
Tetrachlorometaxylene	82.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: LCS-111612
LAB CONTROL

Lab Sample ID: LCS-111612
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 13:59
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

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

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	423	500	84.6%
Aroclor 1260	443	500	88.6%

PCB Surrogate Recovery

Decachlorobiphenyl	88.8%
Tetrachlorometaxylene	88.0%

Results reported in µg/kg (ppb)

FORM III

PCB METHOD BLANK SUMMARY

BLANK NO.

VR38MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No.: VR38

Project: CITY OF KENMORE SEDI

Lab Sample ID: VR38MBS1

Lab File ID: 1119A004

Date Extracted: 11/16/12

Matrix: SOLID

Date Analyzed: 11/19/12

Instrument ID: ECD5

Time Analyzed: 1338

GC Columns: ZB5/ZB35

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	VR38LCSS1	VR38LCSS1	11/19/12
02	NOT REQUESTED	VR38SRM1	11/19/12
03	HT-02-S-C-121106	VR38B	11/19/12
04	HT-02-S-C-12110 MS	VR38BMS	11/19/12
05	HT-02-S-C-12110 MSD	VR38BMSD	11/19/12
06	HT-03-S-C-121106	VR38C	11/19/12
07	HT-04-S-C-121106	VR38D	11/19/12
08	HT-05-S-C-121106	VR38E	11/19/12
09	HT-08-S-C-121106	VR38F	11/19/12
10	HT-09-S-C-121106	VR38G	11/19/12
11	HT-10-S-LFP-121106	VR38H	11/19/12
12	HT-11-S-LFP-121106	VR38I	11/19/12
13	HT-06-S-E-121106	VR38J	11/19/12
14	HT-07-S-E-121106	VR38K	11/19/12

ALL RUNS ARE DUAL COLUMN

FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

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

Sample ID: MB-111612
METHOD BLANK

Lab Sample ID: MB-111612
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 11/21/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 11/16/12
Date Analyzed: 11/19/12 13:38
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.00 g
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	5.1	20	< 20 U
53469-21-9	Aroclor 1242	6.8	20	< 20 U
12672-29-6	Aroclor 1248	6.8	20	< 20 U
11097-69-1	Aroclor 1254	6.8	20	< 20 U
11096-82-5	Aroclor 1260	6.8	20	< 20 U
11104-28-2	Aroclor 1221	6.8	20	< 20 U
11141-16-5	Aroclor 1232	6.8	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	86.2%
Tetrachlorometaxylene	84.2%

FORM I

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 11/02/12

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.35- 4.55	1.7463	1.7366	1.7919	1.6885	1.5990	1.4618	1.6707	7.3
DCB	12.76-12.96	1.4419	1.3542	1.3255	1.1568	1.0372	0.9164	1.2053	16.9

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	5.99- 6.19	0.0526	0.0492	0.0480	0.0431	0.0399	0.0355	0.0447	14.3
2	6.40- 6.60	0.1677	0.1545	0.1513	0.1334	0.1220	0.1073	0.1394	16.2
3	6.55- 6.75	0.0718	0.0670	0.0652	0.0578	0.0527	0.0464	0.0601	15.9
4	6.66- 6.86	0.0505	0.0471	0.0462	0.0417	0.0385	0.0340	0.0430	14.2

AROCLOR AVERAGE %RSD = 15.1

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	9.90-10.10	0.0536	0.0493	0.0479	0.0428	0.0388	0.0345	0.0445	12.5
2	10.21-10.41	0.0532	0.0494	0.0483	0.0433	0.0394	0.0351	0.0448	11.6
3	10.59-10.79	0.1298	0.1173	0.1141	0.1011	0.0918	0.0821	0.1060	13.3
4	10 98-11.18	0.0754	0.0665	0.0648	0.0581	0.0527	0.0471	0.0608	13.6
5	11.18-11.38	0.0346	0.0319	0.0317	0.0292	0.0269	0.0244	0.0298	9.5

AROCLOR AVERAGE %RSD = 12.1

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 11/02/12

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	4.36- 4.56	1.1947	1.1506	1.1889	1.1588	1.1066	1.0428	1.1404	5.0
DCB	13.15-13.35	1.2887	1.1842	1.1439	1.0432	0.9699	0.8923	1.0871	13.5

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	6.11- 6.31	0.0541	0.0496	0.0481	0.0428	0.0390	0.0352	0.0448	15.8
2	6.74- 6.94	0.1119	0.1025	0.1010	0.0916	0.0847	0.0773	0.0948	13.4
3	7 13- 7.33	0.0277	0.0264	0.0263	0.0242	0.0226	0.0209	0.0247	10.6
4	7.23- 7.43	0.0325	0.0303	0.0296	0.0268	0.0247	0.0226	0.0277	13.5

AROCLOR AVERAGE %RSD = 13.3

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	10.20-10.40	0.0510	0.0463	0.0455	0.0410	0.0379	0.0345	0.0427	14.1
2	10.65-10.85	0.0605	0.0575	0.0561	0.0509	0.0468	0.0427	0.0524	13.0
3	10.92-11.12	0.1180	0.1138	0.1111	0.1016	0.0945	0.0868	0.1043	11.6
4	11 45-11.65	0.0395	0.0332	0.0327	0.0299	0.0279	0.0254	0.0314	15.7

AROCLOR AVERAGE %RSD = 13.6

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 11/03/12

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	4.817	4.72- 4.92	0.01953
2	4.995	4.89- 5.09	0.01337
3	5.101	5.00- 5.20	0.04356

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.094	5.99- 6.19	0.01822
2	6.497	6.40- 6.60	0.05697
3	6.647	6.55- 6.75	0.02485
4	7.901	7.80- 8.00	0.03114

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.094	5.99- 6.19	0.03480
2	6.498	6.40- 6.60	0.10781
3	6.647	6.55- 6.75	0.04681
4	7.899	7.80- 8.00	0.05490

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.492	6.39- 6.59	0.07048
2	7.469	7.37- 7.57	0.07420
3	7.898	7.80- 8.00	0.09369
4	8.133	8.03- 8.23	0.07222

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Instrument ID: ECD5

Calibration Date: 11/03/12

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.222	8.12- 8.32	0.09552
2	8.594	8.49- 8.69	0.06279
3	8.728	8.63- 8.83	0.12204
4	9.078	8.98- 9.18	0.13358
5	9.439	9.34- 9.54	0.08400

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	9.996	9.90-10.10	0.06957
2	10.312	10.21-10.41	0.05282
3	10.687	10.59-10.79	0.13695
4	11.202	11.10-11.30	0.05159
5	11.275	11.18-11.38	0.05664

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.203	11.10-11.30	0.13880
2	11.275	11.17-11.37	0.13349
3	11.661	11.56-11.76	0.11731
4	12.449	12.35-12.55	0.33525

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 11/03/12

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	5.141	5.04- 5.24	0.01355
2	5.393	5.29- 5.49	0.00798
3	5.507	5.41- 5.61	0.02510
4	5.576	5.48- 5.68	0.00433

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.210	6.11- 6.31	0.01985
2	6.841	6.74- 6.94	0.03912
3	7.050	6.95- 7.15	0.01635
4	8.276	8.18- 8.38	0.01389

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.208	6.11- 6.31	0.03416
2	6.843	6.74- 6.94	0.07272
3	7.050	6.95- 7.15	0.03022
4	8.274	8.17- 8.37	0.02545

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	6.839	6.74- 6.94	0.04749
2	7.745	7.65- 7.85	0.03939
3	8.274	8.17- 8.37	0.04070
4	8.620	8.52- 8.72	0.05034

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Instrument ID: ECD5

Calibration Date: 11/03/12

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	8.341	8.24- 8.44	0.03474
2	8.515	8.41- 8.61	0.04387
3	9.037	8.94- 9.14	0.03370
4	9.187	9.09- 9.29	0.07393
5	9.970	9.87-10.07	0.04454

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	10.302	10.20-10.40	0.06977
2	10.752	10.65-10.85	0.06199
3	11.025	10.92-11.12	0.13603
4	11.547	11.45-11.65	0.05505
5	12.347	12.25-12.45	0.05291

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	11.547	11.45-11.65	0.13895
2	11.613	11.51-11.71	0.13513
3	12.011	11.91-12.11	0.11296
4	12.834	12.73-12.93	0.33487

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA

ARI Job No.: VR38

Project: CITY OF KENMORE

GC Column: ZB5

Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1254

Time Analyzed :1258

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.22	8.12	8.32	255.7	250.0	2.3
Aroclor-1254-2	8.60	8.49	8.69	231.4	250.0	-7.4
Aroclor-1254-3	8.73	8.63	8.83	256.5	250.0	2.6
Aroclor-1254-4	9.08	8.98	9.18	259.8	250.0	3.9
Aroclor-1254-5	9.44	9.34	9.54	260.1	250.0	4.0

AVERAGE %D = 4.0

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1254 Time Analyzed :1258

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.34	8.24	8.44	255.0	250.0	2.0
Aroclor-1254-2	8.51	8.41	8.61	252.6	250.0	1.0
Aroclor-1254-3	9.04	8.94	9.14	265.0	250.0	6.0
Aroclor-1254-4	9.19	9.09	9.29	247.2	250.0	-1.1
Aroclor-1254-5	9.97	9.87	10.07	251.7	250.0	0.7

AVERAGE %D = 2.2

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1318

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.09	5.99	6.19	246.8	250.0	-1.3
Aroclor-1016-2	6.50	6.40	6.60	247.7	250.0	-0.9
Aroclor-1016-3	6.65	6.55	6.75	244.4	250.0	-2.2
Aroclor-1016-4	6.76	6.66	6.86	250.2	250.0	0.1

AVERAGE %D = 1.1

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1318

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.00	9.90	10.10	235.6	250.0	-5.8
Aroclor-1260-2	10.31	10.21	10.41	238.6	250.0	-4.5
Aroclor-1260-3	10.69	10.59	10.79	236.4	250.0	-5.4
Aroclor-1260-4	11.08	10.98	11.18	236.0	250.0	-5.6
Aroclor-1260-5	11.28	11.18	11.38	244.9	250.0	-2.0

AVERAGE %D = 4.7

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1318

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.21	6.11	6.31	240.6	250.0	-3.8
Aroclor-1016-2	6.84	6.74	6.94	242.3	250.0	-3.1
Aroclor-1016-3	7.22	7.13	7.33	246.6	250.0	-1.4
Aroclor-1016-4	7.33	7.23	7.43	240.8	250.0	-3.7

AVERAGE %D = 3.0

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1318

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.30	10.20	10.40	243.8	250.0	-2.5
Aroclor-1260-2	10.75	10.65	10.85	246.9	250.0	-1.2
Aroclor-1260-3	11.02	10.92	11.12	247.5	250.0	-1.0
Aroclor-1260-4	11.55	11.45	11.65	247.3	250.0	-1.1

AVERAGE %D = 1.5

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1248 Time Analyzed :1638

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.49	6.39	6.59	237.0	250.0	-5.2
Aroclor-1248-2	7.47	7.37	7.57	237.7	250.0	-4.9
Aroclor-1248-3	7.90	7.80	8.00	236.8	250.0	-5.3
Aroclor-1248-4	8.13	8.03	8.23	238.5	250.0	-4.6

AVERAGE %D = 5.0

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1248 Time Analyzed :1638

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	6.84	6.74	6.94	240.2	250.0	-3.9
Aroclor-1248-2	7.75	7.65	7.85	253.7	250.0	1.5
Aroclor-1248-3	8.27	8.17	8.37	251.4	250.0	0.6
Aroclor-1248-4	8.62	8.52	8.72	251.8	250.0	0.7

AVERAGE %D = 1.7

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1658

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.09	5.99	6.19	229.3	250.0	-8.3
Aroclor-1016-2	6.49	6.40	6.60	232.8	250.0	-6.9
Aroclor-1016-3	6.64	6.55	6.75	227.6	250.0	-9.0
Aroclor-1016-4	6.76	6.66	6.86	235.4	250.0	-5.8

AVERAGE %D = 7.5

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1658

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	9.99	9.90	10.10	222.2	250.0	-11.1
Aroclor-1260-2	10.31	10.21	10.41	223.0	250.0	-10.8
Aroclor-1260-3	10.68	10.59	10.79	224.3	250.0	-10.3
Aroclor-1260-4	11.08	10.98	11.18	220.2	250.0	-11.9
Aroclor-1260-5	11.27	11.18	11.38	222.8	250.0	-10.9

AVERAGE %D = 11.0

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1658

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.21	6.11	6.31	240.1	250.0	-4.0
Aroclor-1016-2	6.84	6.74	6.94	243.7	250.0	-2.5
Aroclor-1016-3	7.22	7.13	7.33	247.2	250.0	-1.1
Aroclor-1016-4	7.33	7.23	7.43	241.7	250.0	-3.3

AVERAGE %D = 2.7

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1658

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.30	10.20	10.40	237.4	250.0	-5.0
Aroclor-1260-2	10.75	10.65	10.85	243.2	250.0	-2.7
Aroclor-1260-3	11.02	10.92	11.12	246.4	250.0	-1.4
Aroclor-1260-4	11.54	11.45	11.65	241.7	250.0	-3.3

AVERAGE %D = 3.1

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1242 Time Analyzed :1939

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.09	5.99	6.19	227.8	250.0	-8.9
Aroclor-1242-2	6.50	6.40	6.60	238.4	250.0	-4.6
Aroclor-1242-3	6.65	6.55	6.75	246.9	250.0	-1.2
Aroclor-1242-4	7.90	7.80	8.00	252.3	250.0	0.9

AVERAGE %D = 3.9

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1242 Time Analyzed :1939

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.21	6.11	6.31	258.8	250.0	3.5
Aroclor-1242-2	6.84	6.74	6.94	210.8	250.0	-15.7
Aroclor-1242-3	7.05	6.95	7.15	258.1	250.0	3.2
Aroclor-1242-4	8.27	8.17	8.37	268.5	250.0	7.4

AVERAGE %D = 7.4

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1959

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.09	5.99	6.19	229.4	250.0	-8.2
Aroclor-1016-2	6.50	6.40	6.60	231.3	250.0	-7.5
Aroclor-1016-3	6.65	6.55	6.75	227.2	250.0	-9.1
Aroclor-1016-4	6.76	6.66	6.86	235.9	250.0	-5.6

AVERAGE %D = 7.6

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1959

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.00	9.90	10.10	230.3	250.0	-7.9
Aroclor-1260-2	10.31	10.21	10.41	231.1	250.0	-7.5
Aroclor-1260-3	10.69	10.59	10.79	229.5	250.0	-8.2
Aroclor-1260-4	11.08	10.98	11.18	226.7	250.0	-9.3
Aroclor-1260-5	11.28	11.18	11.38	230.5	250.0	-7.8

AVERAGE %D = 8.1

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1959

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.21	6.11	6.31	239.5	250.0	-4.2
Aroclor-1016-2	6.84	6.74	6.94	242.7	250.0	-2.9
Aroclor-1016-3	7.22	7.13	7.33	246.6	250.0	-1.3
Aroclor-1016-4	7.33	7.23	7.43	240.2	250.0	-3.9

AVERAGE %D = 3.1

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :1959

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.30	10.20	10.40	240.2	250.0	-3.9
Aroclor-1260-2	10.75	10.65	10.85	245.2	250.0	-1.9
Aroclor-1260-3	11.02	10.92	11.12	247.8	250.0	-0.9
Aroclor-1260-4	11.55	11.45	11.65	243.9	250.0	-2.4

AVERAGE %D = 2.3

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1254 Time Analyzed :2120

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.22	8.12	8.32	230.6	250.0	-7.8
Aroclor-1254-2	8.59	8.49	8.69	210.0	250.0	-16.0
Aroclor-1254-3	8.73	8.63	8.83	235.7	250.0	-5.7
Aroclor-1254-4	9.08	8.98	9.18	237.3	250.0	-5.1
Aroclor-1254-5	9.44	9.34	9.54	236.1	250.0	-5.6

AVERAGE %D = 8.0

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1254 Time Analyzed :2120

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	8.34	8.24	8.44	258.1	250.0	3.2
Aroclor-1254-2	8.51	8.41	8.61	257.3	250.0	2.9
Aroclor-1254-3	9.04	8.94	9.14	275.0	250.0	10.0
Aroclor-1254-4	9.19	9.09	9.29	250.4	250.0	0.1
Aroclor-1254-5	9.97	9.87	10.07	257.0	250.0	2.8

AVERAGE %D = 3.8

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :2140

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.09	5.99	6.19	231.7	250.0	-7.3
Aroclor-1016-2	6.50	6.40	6.60	234.6	250.0	-6.2
Aroclor-1016-3	6.65	6.55	6.75	231.8	250.0	-7.3
Aroclor-1016-4	6.76	6.66	6.86	239.8	250.0	-4.1

AVERAGE %D = 6.2

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :2140

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.00	9.90	10.10	229.8	250.0	-8.1
Aroclor-1260-2	10.31	10.21	10.41	230.3	250.0	-7.9
Aroclor-1260-3	10.69	10.59	10.79	230.2	250.0	-7.9
Aroclor-1260-4	11.08	10.98	11.18	226.7	250.0	-9.3
Aroclor-1260-5	11.28	11.18	11.38	232.7	250.0	-6.9

AVERAGE %D = 8.0

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 Intrument: ECD5

Init. Calib. Date: 11/02/12

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :2140

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.21	6.11	6.31	238.7	250.0	-4.5
Aroclor-1016-2	6.84	6.74	6.94	242.7	250.0	-2.9
Aroclor-1016-3	7.23	7.13	7.33	247.3	250.0	-1.1
Aroclor-1016-4	7.33	7.23	7.43	241.5	250.0	-3.4

AVERAGE %D = 3.0

Date Analyzed :11/19/12

Lab Standard ID: AR1660 Time Analyzed :2140

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	10.30	10.20	10.40	240.8	250.0	-3.7
Aroclor-1260-2	10.75	10.65	10.85	243.8	250.0	-2.5
Aroclor-1260-3	11.02	10.92	11.12	246.8	250.0	-1.3
Aroclor-1260-4	11.55	11.45	11.65	244.2	250.0	-2.3

AVERAGE %D = 2.5

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: ANCHOR QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 11/02/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	31244918	2.274	64198300	13.214
	UPPER LIMIT	62489836	2.374	128396600	13.314
	LOWER LIMIT	15622459	2.174	32099150	13.114

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	11/02/12	2017	32121330	2.277	65627042	13.214
02		0.25PPMAR166	11/02/12	2037	31244918	2.274	64198300	13.214
03		0.02PPMAR166	11/02/12	2058	31736267	2.277	66012881	13.214
04		0.05PPMAR166	11/02/12	2118	31079093	2.275	64685135	13.214
05		1PPMAR1660	11/02/12	2138	32560778	2.275	67466235	13.214
06		0.1PPMAR1660	11/02/12	2158	31562437	2.274	66063497	13.214
07		0.5PPMAR1660	11/02/12	2218	32469455	2.273	67388285	13.214
08		AR1242	11/02/12	2238	32779971	2.273	67800793	13.214
09		AR1248	11/02/12	2259	33486089	2.279	68805737	13.214
10		AR1254	11/02/12	2319	32866846	2.276	67839772	13.214
11		AR2162	11/02/12	2340	32037907	2.280	66658077	13.215
12		AR3268	11/03/12	0000	33288564	2.280	69153536	13.215
13	ZZZZZ	ZZZZZ	11/03/12	0020	32275358	2.276	69016020	13.215
14	ZZZZZ	ZZZZZ	11/03/12	0041	34992364	2.279	71027100	13.215
15	ZZZZZ	ZZZZZ	11/03/12	0101	33719935	2.275	69100267	13.214
16	ZZZZZ	ZZZZZ	11/03/12	0121	34274216	2.277	70290566	13.215
17	ZZZZZ	ZZZZZ	11/03/12	0142	33531129	2.274	69260863	13.214
18	ZZZZZ	ZZZZZ	11/03/12	0202	33384825	2.277	69841459	13.214
19	ZZZZZ	ZZZZZ	11/19/12	1237	24701628	2.288	53346873	13.225
20		AR1254	11/19/12	1258	30109331	2.278	63917728	13.217
21		AR1660	11/19/12	1318	27014336	2.277	58829704	13.214
22	VR38MBS1	VR38MBS1	11/19/12	1338	31906289	2.276	70444174	13.215
23	VR38LCSS1	VR38LCSS1	11/19/12	1359	32232062	2.276	71232825	13.214
24	NOT REQUESTE	VR38SRM1	11/19/12	1419	31897811	2.275	67558304	13.213
25	ZZZZZ	ZZZZZ	11/19/12	1439	32921568	2.273	73501703	13.213
26	HT-02-S-C-12	VR38B	11/19/12	1458	33752660	2.273	73053260	13.212
27	HT-02-S-C-12	VR38BMS	11/19/12	1518	33423318	2.275	73946819	13.212
28	HT-02-S-C-12	VR38BMSD	11/19/12	1539	36528394	2.272	76978400	13.213
29	HT-03-S-C-12	VR38C	11/19/12	1559	33161905	2.276	68585105	13.212
30	HT-04-S-C-12	VR38D	11/19/12	1619	32239236	2.275	65220634	13.213
31		AR1248	11/19/12	1638	32151841	2.274	64264780	13.212
32		AR1660	11/19/12	1658	30114462	2.275	62505425	13.212

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 QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 11/02/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	31244918	2.274	64198300	13.214
				UPPER LIMIT	62489836	2.374	128396600	13.314
				LOWER LIMIT	15622459	2.174	32099150	13.114
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33	HT-05-S-C-12	VR38E	11/19/12	1718	33330658	2.274	72835393	13.212
34	HT-08-S-C-12	VR38F	11/19/12	1737	35205028	2.273	73941576	13.212
35	HT-09-S-C-12	VR38G	11/19/12	1758	34688867	2.275	70961268	13.213
36	HT-10-S-LFP-	VR38H	11/19/12	1818	36051694	2.275	75565093	13.213
37	HT-11-S-LFP-	VR38I	11/19/12	1838	34006172	2.276	71692760	13.213
38	HT-06-S-E-12	VR38J	11/19/12	1858	36652117	2.275	71276055	13.213
39	HT-07-S-E-12	VR38K	11/19/12	1918	34146415	2.276	70161032	13.214
40		AR1242	11/19/12	1939	31197606	2.276	63133271	13.214
41		AR1660	11/19/12	1959	32693771	2.277	64925899	13.214
42	ZZZZZ	ZZZZZ	11/19/12	2019	40837626	2.276	78760449	13.215
43	ZZZZZ	ZZZZZ	11/19/12	2039	40838377	2.277	80573497	13.214
44	ZZZZZ	ZZZZZ	11/19/12	2100	40580247	2.278	75941954	13.214
45		AR1254	11/19/12	2120	39192344	2.278	76664253	13.215
46		AR1660	11/19/12	2140	33281435	2.278	67771586	13.214
47	ZZZZZ	ZZZZZ	11/19/12	2201	40269875	2.276	78589515	13.214
48	ZZZZZ	ZZZZZ	11/19/12	2221	38363282	2.277	75564430	13.215

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 QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 11/02/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	14536489	2.761	15789428	14.115
	UPPER LIMIT	29072978	2.861	31578856	14.215
	LOWER LIMIT	7268244	2.661	7894714	14.015

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	11/02/12	2017	14713535	2.764	16088294	14.115
02		0.25PPMAR166	11/02/12	2037	14536489	2.761	15789428	14.115
03		0.02PPMAR166	11/02/12	2058	14662512	2.763	16195930	14.116
04		0.05PPMAR166	11/02/12	2118	14425871	2.761	15804667	14.115
05		1PPMAR1660	11/02/12	2138	14668819	2.761	16259905	14.115
06		0.1PPMAR1660	11/02/12	2158	14552241	2.763	15974909	14.115
07		0.5PPMAR1660	11/02/12	2218	14811515	2.761	16169446	14.114
08		AR1242	11/02/12	2238	14876946	2.761	16149950	14.115
09		AR1248	11/02/12	2259	15137931	2.765	16358718	14.115
10		AR1254	11/02/12	2319	14737446	2.762	15955858	14.116
11		AR2162	11/02/12	2340	14169986	2.766	15683025	14.116
12		AR3268	11/03/12	0000	14704019	2.765	16219252	14.116
13	ZZZZZ	ZZZZZ	11/03/12	0020	14465214	2.762	15841317	14.116
14	ZZZZZ	ZZZZZ	11/03/12	0041	15000485	2.765	16204591	14.116
15	ZZZZZ	ZZZZZ	11/03/12	0101	14278309	2.762	15675954	14.116
16	ZZZZZ	ZZZZZ	11/03/12	0121	14593306	2.764	15921593	14.117
17	ZZZZZ	ZZZZZ	11/03/12	0142	14012549	2.762	15630049	14.116
18	ZZZZZ	ZZZZZ	11/03/12	0202	13930274	2.762	15765289	14.115
19	ZZZZZ	ZZZZZ	11/19/12	1237	10994347	2.749	12139252	14.115
20		AR1254	11/19/12	1258	12989496	2.761	14161604	14.115
21		AR1660	11/19/12	1318	11539858	2.762	12840515	14.114
22	VR38MBS1	VR38MBS1	11/19/12	1338	14139327	2.762	15758348	14.114
23	VR38LCSS1	VR38LCSS1	11/19/12	1359	13847287	2.762	15466331	14.113
24	NOT REQUESTE	VR38SRM1	11/19/12	1419	13363596	2.762	15197965	14.114
25	ZZZZZ	ZZZZZ	11/19/12	1439	13859762	2.762	15684625	14.113
26	HT-02-S-C-12	VR38B	11/19/12	1458	13899116	2.762	15595798	14.114
27	HT-02-S-C-12	VR38BMS	11/19/12	1518	13943200	2.761	15433579	14.113
28	HT-02-S-C-12	VR38BMSD	11/19/12	1539	14716599	2.760	15942611	14.113
29	HT-03-S-C-12	VR38C	11/19/12	1559	13273478	2.763	14868130	14.113
30	HT-04-S-C-12	VR38D	11/19/12	1619	12818888	2.764	14370111	14.113
31		AR1248	11/19/12	1638	12390938	2.763	14081410	14.115
32		AR1660	11/19/12	1658	11682244	2.763	13325240	14.114

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 QEA

ARI Job No.: VR38 Project: CITY OF KENMORE

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD5

Init. Calib. Date: 11/02/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	14536489	2.761	15789428	14.115
				UPPER LIMIT	29072978	2.861	31578856	14.215
				LOWER LIMIT	7268244	2.661	7894714	14.015
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
33	HT-05-S-C-12	VR38E	11/19/12	1718	13411691	2.764	15360592	14.113
34	HT-08-S-C-12	VR38F	11/19/12	1737	13733637	2.763	15544013	14.114
35	HT-09-S-C-12	VR38G	11/19/12	1758	13673341	2.762	15154726	14.114
36	HT-10-S-LFP-	VR38H	11/19/12	1818	14113753	2.762	15733903	14.115
37	HT-11-S-LFP-	VR38I	11/19/12	1838	13384501	2.762	14901813	14.115
38	HT-06-S-E-12	VR38J	11/19/12	1858	13840982	2.761	15093499	14.115
39	HT-07-S-E-12	VR38K	11/19/12	1918	13681580	2.762	14633977	14.114
40		AR1242	11/19/12	1939	11523481	2.762	13088391	14.115
41		AR1660	11/19/12	1959	12038518	2.763	13437973	14.115
42	ZZZZZ	ZZZZZ	11/19/12	2019	14305378	2.761	15873172	14.114
43	ZZZZZ	ZZZZZ	11/19/12	2039	14239180	2.763	16092052	14.115
44	ZZZZZ	ZZZZZ	11/19/12	2100	13988424	2.763	15900569	14.114
45		AR1254	11/19/12	2120	14410561	2.763	16084700	14.115
46		AR1660	11/19/12	2140	12288914	2.763	13991046	14.116
47	ZZZZZ	ZZZZZ	11/19/12	2201	14324342	2.761	15931900	14.115
48	ZZZZZ	ZZZZZ	11/19/12	2221	13658705	2.763	15302143	14.115

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: VR38

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
HT-01-S-C-121106	VR38A	12-22267	
HT-01-S-C-121106D	VR38ADUP	12-22267	
HT-01-S-C-121106S	VR38ASPK	12-22267	
HT-02-S-C-121106	VR38B	12-22268	
PBS	VR38MB1	12-22268	
LCSS	VR38MB1SPK	12-22268	
HT-03-S-C-121106	VR38C	12-22269	
HT-04-S-C-121106	VR38D	12-22270	
HT-05-S-C-121106	VR38E	12-22271	
HT-08-S-C-121106	VR38F	12-22272	
HT-09-S-C-121106	VR38G	12-22273	
HT-10-S-LFP-121106	VR38H	12-22274	
HT-11-S-LFP-121106	VR38I	12-22275	
HT-06-S-E-121106	VR38J	12-22276	
HT-07-S-E-121106	VR38K	12-22277	

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: 12/7/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: HT-01-S-C-121106
SAMPLE

Lab Sample ID: VR38A
LIMS ID: 12-22267
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 78.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.40	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.57	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-43-9	Cadmium	0.14	0.2	0.2	U
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.33	0.6	**17.8**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.062	0.2	**4.3**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.16	2	**4**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0016	0.03	0.03	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.37	1	**20**	
3050B	11/13/12	6020A	11/19/12	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.037	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.15	1	**34**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: HT-02-S-C-121106
SAMPLE

Lab Sample ID: VR38B
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 77.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.41	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.59	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-43-9	Cadmium	0.14	0.3	0.3	U
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.35	0.6	**23.3**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.064	0.3	**5.6**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.17	3	**4**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0012	0.02	0.02	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.39	1	**24**	
3050B	11/13/12	6020A	11/19/12	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.039	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.15	1	**41**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: HT-03-S-C-121106**
Page 1 of 1 **SAMPLE**

Lab Sample ID: VR38C
LIMS ID: 12-22269
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 68.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.44	7	7	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.63	7	7	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.15	0.3	**0.3**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.37	0.7	**23.0**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.069	0.3	**7.6**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.18	3	**10**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0015	0.03	0.03	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.41	1	**25**	
3050B	11/13/12	6020A	11/19/12	7782-49-2	Selenium	0.14	0.7	0.7	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.041	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.16	1	**58**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: HT-04-S-C-121106
SAMPLE

Lab Sample ID: VR38D
LIMS ID: 12-22270
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 50.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.62	10	10	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.89	10	10	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.21	0.4	**0.5**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.52	1	**27**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.097	0.4	**15.2**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.25	4	**16**	
CLP	11/13/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0019	0.04	**0.23**	
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.58	2	**27**	
3050B	11/13/12	6020A	11/19/12	7782-49-2	Selenium	0.19	1	1	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.058	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.23	2	**117**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: HT-05-S-C-121106**
Page 1 of 1 **SAMPLE**

Lab Sample ID: VR38E
LIMS ID: 12-22271
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 77.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.40	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.57	6	6	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.14	0.2	**0.4**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.34	0.6	**20.3**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.062	0.2	**220**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.16	2	**3**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0012	0.02	0.02	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.37	1	**36**	
3050B	11/13/12	6020A	11/19/12	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.037	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.15	1	**69**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: HT-08-S-C-121106
SAMPLE

Lab Sample ID: VR38F
LIMS ID: 12-22272
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 76.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.41	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.60	6	6	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.14	0.3	**0.3**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.35	0.6	**29.6**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.065	0.3	**38.2**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.17	3	**7**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0011	0.02	0.02	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.39	1	**28**	
3050B	11/13/12	6020A	11/19/12	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.039	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.16	1	**54**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: HT-09-S-C-121106
SAMPLE

Lab Sample ID: VR38G
LIMS ID: 12-22273
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 67.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.46	7	7	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.66	7	7	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.16	0.3	**0.4**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.39	0.7	**28.8**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.072	0.3	**21.9**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.19	3	**11**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0016	0.03	0.03	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.43	1	**26**	
3050B	11/13/12	6020A	12/05/12	7782-49-2	Selenium	0.14	0.7	0.7	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.043	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.17	1	**64**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: HT-10-S-LFP-121106
SAMPLE

Lab Sample ID: VR38H
LIMS ID: 12-22274
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 82.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.37	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.53	6	6	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.13	0.2	**0.3**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.31	0.6	**24.3**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.058	0.2	**8.9**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.15	2	**9**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0011	0.02	0.02	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.35	1	**27**	
3050B	11/13/12	6020A	12/05/12	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.035	0.3	0.3	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.14	1	**59**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: HT-11-S-LFP-121106
SAMPLE

Lab Sample ID: VR38I
LIMS ID: 12-22275
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 78.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.39	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.57	6	6	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.14	0.2	**0.3**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.33	0.6	**22.6**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.062	0.2	**8.9**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.16	2	**7**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0013	0.02	0.02	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.37	1	**30**	
3050B	11/13/12	6020A	12/05/12	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.037	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.15	1	**55**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: HT-06-S-E-121106
SAMPLE

Lab Sample ID: VR38J
LIMS ID: 12-22276
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 73.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.42	7	7	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.61	7	7	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.15	0.3	**0.3**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.36	0.7	**25.5**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.066	0.3	**9.9**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.17	3	**6**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0012	0.02	0.02	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.40	1	**30**	
3050B	11/13/12	6020A	12/05/12	7782-49-2	Selenium	0.13	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.040	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.16	1	**53**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: HT-07-S-E-121106**
Page 1 of 1 **SAMPLE**

Lab Sample ID: VR38K
LIMS ID: 12-22277
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Percent Total Solids: 79.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.39	6	6	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.55	6	6	U
3050B	11/13/12	6010C	11/21/12	**7440-43-9**	**Cadmium**	0.13	0.2	**0.3**	
3050B	11/13/12	6010C	11/21/12	**7440-47-3**	**Chromium**	0.33	0.6	**30.1**	
3050B	11/13/12	6010C	11/21/12	**7440-50-8**	**Copper**	0.060	0.2	**11.4**	
3050B	11/13/12	6010C	11/21/12	**7439-92-1**	**Lead**	0.16	2	**10**	
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0014	0.03	0.03	U
3050B	11/13/12	6010C	11/21/12	**7440-02-0**	**Nickel**	0.36	1	**34**	
3050B	11/13/12	6020A	12/05/12	7782-49-2	Selenium	0.12	0.6	0.6	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.036	0.4	0.4	U
3050B	11/13/12	6010C	11/21/12	**7440-66-6**	**Zinc**	0.14	1	**90**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: HT-01-S-C-121106
MATRIX SPIKE

Lab Sample ID: VR38A
LIMS ID: 12-22267
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample		Spike	Spike Added	% Recovery	Q
Antimony	6010C	6	U	118	247	47.8%	N
Arsenic	6010C	6	U	235	247	95.1%	
Cadmium	6010C	0.2	U	61.4	61.8	99.4%	
Chromium	6010C	17.8		78.6	61.8	98.4%	
Copper	6010C	4.3		64.5	61.8	97.4%	
Lead	6010C	4		243	247	96.8%	
Mercury	7471A	0.03	U	0.27	0.317	85.2%	
Nickel	6010C	20		80	61.8	97.1%	
Selenium	6020A	0.6	U	88.3	95.5	92.5%	
Silver	6010C	0.4	U	60.2	61.8	97.4%	
Zinc	6010C	34		91	61.8	92.2%	

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: HT-01-S-C-121106
DUPLICATE

Lab Sample ID: VR38A
LIMS ID: 12-22267
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment
120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010C	6 U	6 U	0.0%	+/- 6	L
Arsenic	6010C	6 U	6 U	0.0%	+/- 6	L
Cadmium	6010C	0.2 U	0.2 U	0.0%	+/- 0.2	L
Chromium	6010C	17.8	25.4	35.2%	+/- 20%	*
Copper	6010C	4.3	3.8	12.3%	+/- 20%	
Lead	6010C	4	3	28.6%	+/- 2	L
Mercury	7471A	0.03 U	0.03 U	0.0%	+/- 0.03	L
Nickel	6010C	20	20	0.0%	+/- 20%	
Selenium	6020A	0.6 U	0.6 U	0.0%	+/- 0.6	L
Silver	6010C	0.4 U	0.4 U	0.0%	+/- 0.4	L
Zinc	6010C	34	32	6.1%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: VR38LCS
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	6010C	195	200	97.5%	
Arsenic	6010C	191	200	95.5%	
Cadmium	6010C	48.4	50.0	96.8%	
Chromium	6010C	50.3	50.0	101%	
Copper	6010C	47.5	50.0	95.0%	
Lead	6010C	192	200	96.0%	
Mercury	7471A	0.41	0.50	82.0%	
Nickel	6010C	50	50	100%	
Selenium	6020A	76.0	80.0	95.0%	
Silver	6010C	51.5	50.0	103%	
Zinc	6010C	50	50	100%	

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: VR38MB
LIMS ID: 12-22268
Matrix: Sediment
Data Release Authorized:
Reported: 12/06/12

QC Report No: VR38-Anchor QEA, LLC.
Project: City of Kenmore Sediment 120891-01.01
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/13/12	6010C	11/21/12	7440-36-0	Antimony	0.32	5	5	U
3050B	11/13/12	6010C	11/21/12	7440-38-2	Arsenic	0.46	5	5	U
3050B	11/13/12	6010C	11/21/12	7440-43-9	Cadmium	0.11	0.2	0.2	U
3050B	11/13/12	6010C	11/21/12	7440-47-3	Chromium	0.27	0.5	0.5	U
3050B	11/13/12	6010C	11/21/12	7440-50-8	Copper	0.050	0.2	0.2	U
3050B	11/13/12	6010C	11/21/12	7439-92-1	Lead	0.13	2	2	U
CLP	11/13/12	7471A	11/17/12	7439-97-6	Mercury	0.0013	0.02	0.02	U
3050B	11/13/12	6010C	11/21/12	7440-02-0	Nickel	0.30	1	1	U
3050B	11/13/12	6020A	11/19/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/13/12	6010C	11/21/12	7440-22-4	Silver	0.030	0.3	0.3	U
3050B	11/13/12	6010C	11/21/12	7440-66-6	Zinc	0.12	1	1	U

Reported in mg/kg (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

UNITS:ug/L

SDG: VR38

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	ICP	IP112171	2000.0	2106.24	**105.3**	2000.0	2084.19	**104.2**	2077.16	**103.9**	2100.40	**105.0**	2086.67	**104.3**	2099.32	**105.0**
Arsenic	AS	ICP	IP112171	2000.0	2007.93	**100.4**	2000.0	1986.58	**99.3**	1980.30	**99.0**	2003.13	**100.2**	1989.96	**99.5**	2011.35	**100.6**
Cadmium	CD	ICP	IP112171	1000.0	1010.62	**101.1**	1000.0	989.70	**99.0**	985.43	**98.5**	996.20	**99.6**	977.19	**97.7**	977.18	**97.7**
Chromium	CR	ICP	IP112171	1000.0	1027.94	**102.8**	1000.0	1016.55	**101.7**	1026.69	**102.7**	1033.64	**103.4**	1035.43	**103.5**	1026.41	**102.6**
Copper	CU	ICP	IP112171	1000.0	1001.60	**100.2**	1000.0	986.76	**98.7**	992.77	**99.3**	1025.74	**102.6**	994.21	**99.4**	991.28	**99.1**
Lead	PB	ICP	IP112171	2000.0	2058.33	**102.9**	2000.0	2040.70	**102.0**	2029.69	**101.5**	2053.87	**102.7**	2037.93	**101.9**	2063.28	**103.2**
Mercury	HG	CVA	HG111701	8.0	7.26	**90.8**	4.0	3.69	**92.3**	3.65	**91.3**	1.76	**44.0**	3.63	**90.8**	3.59	**89.8**
Nickel	NI	ICP	IP112171	1000.0	1010.00	**101.0**	1000.0	1002.08	**100.2**	1011.61	**101.2**	1017.76	**101.8**	1027.05	**102.7**	1017.33	**101.7**
Selenium	SE	PMS	MS111982	80.0	81.69	**102.1**	50.0	51.55	**103.1**	50.59	**101.2**	44.47	**88.9**	46.48	**93.0**	46.74	**93.5**
Silver	AG	ICP	IP112171	1000.0	1004.55	**100.5**	1000.0	997.79	**99.8**	999.83	**100.0**	1041.76	**104.2**	1011.32	**101.1**	1014.14	**101.4**
Zinc	ZN	ICP	IP112171	1000.0	1034.67	**103.5**	1000.0	1025.82	**102.6**	1032.02	**103.2**	1037.90	**103.8**	1044.05	**104.4**	1040.09	**104.0**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	ICP	IP112171	2000.0	2088.91	**104.4**	2069.99	**103.5**	2105.15	**105.3**	2069.98	**103.5**	2092.54	**104.6**		
Arsenic	AS	ICP	IP112171	2000.0	1994.70	**99.7**	1988.79	**99.4**	2011.46	**100.6**	1975.60	**98.8**	1997.15	**99.9**		
Cadmium	CD	ICP	IP112171	1000.0	972.91	**97.3**	957.24	**95.7**	969.19	**96.9**	945.95	**94.6**	953.79	**95.4**		
Chromium	CR	ICP	IP112171	1000.0	1034.04	**103.4**	1040.31	**104.0**	1039.96	**104.0**	1033.79	**103.4**	1031.62	**103.2**		
Copper	CU	ICP	IP112171	1000.0	1014.16	**101.4**	979.91	**98.0**	1014.24	**101.4**	981.75	**98.2**	1012.50	**101.3**		
Lead	PB	ICP	IP112171	2000.0	2049.25	**102.5**	2038.23	**101.9**	2071.38	**103.6**	2032.38	**101.6**	2057.61	**102.9**		
Mercury	HG	CVA	HG111701	4.0	3.60	**90.0**	3.64	**91.0**	3.61	**90.3**	3.56	**89.0**	3.71	**92.8**	3.72	**93.0**
Nickel	NI	ICP	IP112171	1000.0	1030.88	**103.1**	1038.21	**103.8**	1043.11	**104.3**	1036.31	**103.6**	1044.22	**104.4**		
Selenium	SE	PMS	MS111982	50.0	47.76	**95.5**	46.88	**93.8**								
Silver	AG	ICP	IP112171	1000.0	1045.96	**104.6**	1012.82	**101.3**	1059.85	**106.0**	1021.46	**102.1**	1063.84	**106.4**		
Zinc	ZN	ICP	IP112171	1000.0	1044.04	**104.4**	1059.58	**106.0**	1059.71	**106.0**	1045.54	**104.6**	1055.27	**105.5**		

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Antimony	SB	ICP	IP112171	2000.0												
Arsenic	AS	ICP	IP112171	2000.0												
Cadmium	CD	ICP	IP112171	1000.0												
Chromium	CR	ICP	IP112171	1000.0												
Copper	CU	ICP	IP112171	1000.0												
Lead	PB	ICP	IP112171	2000.0												
Mercury	HG	CVA	HG111701	4.0	3.66	**91.5**	3.61	**90.3**	3.55	**88.8**	3.45	**86.3**	3.54	**88.5**	3.46	**86.5**
Nickel	NI	ICP	IP112171	1000.0												
Selenium	SE	PMS	MS111982	50.0												
Silver	AG	ICP	IP112171	1000.0												
Zinc	ZN	ICP	IP112171	1000.0												

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

UNITS:ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV18	%R	CCV19	%R	CCV20	%R	CCV21	%R	CCV22	%R	CCV23	%R
Antimony	SB	ICP	IP112171	2000.0												
Arsenic	AS	ICP	IP112171	2000.0												
Cadmium	CD	ICP	IP112171	1000.0												
Chromium	CR	ICP	IP112171	1000.0												
Copper	CU	ICP	IP112171	1000.0												
Lead	PB	ICP	IP112171	2000.0												
Mercury	HG	CVA	HG111701	4.0	3.65	**91.3**	3.69	**92.3**								
Nickel	NI	ICP	IP112171	1000.0												
Selenium	SE	PMS	MS111982	50.0												
Silver	AG	ICP	IP112171	1000.0												
Zinc	ZN	ICP	IP112171	1000.0												

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Selenium	SE	PMS	MS120581	80.0	80.23	**100.3**	50.0	51.65	**103.3**	51.64	**103.3**	54.11	**108.2**				

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

UNITS:ug/L

SDG: VR38

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
Antimony	SB	ICP	IP112171	50.0	49.37	**98.7**	48.84	**97.7**								
Arsenic	AS	ICP	IP112171	50.0	49.31	**98.6**	46.72	**93.4**								
Cadmium	CD	ICP	IP112171	2.0	2.15	**107.5**	2.52	**126.0**								
Chromium	CR	ICP	IP112171	5.0	5.00	**100.0**	4.67	**93.4**								
Copper	CU	ICP	IP112171	2.0	2.29	**114.5**	3.36	**168.0**								
Lead	PB	ICP	IP112171	20.0	20.89	**104.5**	21.06	**105.3**								
Mercury	HG	CVA	HG111701	0.1	0.10	**100.0**										
Nickel	NI	ICP	IP112171	10.0	8.55	**85.5**	10.52	**105.2**								
Selenium	SE	PMS	MS111982	0.5	0.51	**102.0**										
Silver	AG	ICP	IP112171	3.0	3.08	**102.7**	3.33	**111.0**								
Zinc	ZN	ICP	IP112171	10.0	10.05	**100.5**	10.19	**101.9**								

Control Limits: no control limits have been established by the EPA at this time.

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

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
Selenium	SE	PMS	MS120581		0.5	0.58	**116.0**										

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	ICP	IP112171	60.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Arsenic	AS	ICP	IP112171	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	IP112171	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	IP112171	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	IP112171	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	IP112171	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	HG111701	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	IP112171	40.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U
Selenium	SE	PMS	MS111982	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	ICP	IP112171	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	IP112171	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	ICP	IP112171	60.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Arsenic	AS	ICP	IP112171	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Cadmium	CD	ICP	IP112171	5.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U		
Chromium	CR	ICP	IP112171	10.0	5.0	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U		
Copper	CU	ICP	IP112171	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	B	2.1	B		
Lead	PB	ICP	IP112171	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U		
Mercury	HG	CVA	HG111701	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	IP112171	40.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U		
Selenium	SE	PMS	MS111982	5.0	0.5	0.5	U	0.5	U								
Silver	AG	ICP	IP112171	10.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U		
Zinc	ZN	ICP	IP112171	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U		

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

UNITS:ug/L

SDG: VR38

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Antimony	SB	ICP	IP112171	60.0	50.0												
Arsenic	AS	ICP	IP112171	10.0	50.0												
Cadmium	CD	ICP	IP112171	5.0	2.0												
Chromium	CR	ICP	IP112171	10.0	5.0												
Copper	CU	ICP	IP112171	25.0	2.0												
Lead	PB	ICP	IP112171	3.0	20.0												
Mercury	HG	CVA	HG111701	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	IP112171	40.0	10.0												
Selenium	SE	PMS	MS111982	5.0	0.5												
Silver	AG	ICP	IP112171	10.0	3.0												
Zinc	ZN	ICP	IP112171	20.0	10.0												

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB18	C	CCB19	C	CCB20	C	CCB21	C	CCB22	C	CCB23	C
Antimony	SB	ICP	IP112171	60.0	50.0												
Arsenic	AS	ICP	IP112171	10.0	50.0												
Cadmium	CD	ICP	IP112171	5.0	2.0												
Chromium	CR	ICP	IP112171	10.0	5.0												
Copper	CU	ICP	IP112171	25.0	2.0												
Lead	PB	ICP	IP112171	3.0	20.0												
Mercury	HG	CVA	HG111701	0.2	0.1	0.1	U										
Nickel	NI	ICP	IP112171	40.0	10.0												
Selenium	SE	PMS	MS111982	5.0	0.5												
Silver	AG	ICP	IP112171	10.0	3.0												
Zinc	ZN	ICP	IP112171	20.0	10.0												

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Selenium	SE	PMS	MS120581	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U				

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ICS SOURCE: I.V.

PROJECT: City of Kenmore Sedi

RUNID: IP112171

SDG: VR38

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	197646.0	196114.6	**98.1**	196726.4	195916.7	**98.0**			
Antimony		1000	6.9	992.3	**99.2**	7.1	1018.1	**101.8**			
Arsenic		1000	15.7	983.8	**98.4**	16.5	1012.6	**101.3**			
Barium		1000	-3.7	1036.0	**103.6**	-1.4	1094.1	**109.4**			
Beryllium		1000	0.1	954.1	**95.4**	0.1	930.2	**93.0**			
Boron			-7.2	-7.1		-9.3	-8.0				
Cadmium		1000	0.3	977.8	**97.8**	0.7	964.9	**96.5**			
Calcium	100000	100000	98674.3	99131.7	**99.1**	99024.7	99220.9	**99.2**			
Chromium		1000	-1.1	1013.9	**101.4**	-2.0	1029.5	**103.0**			
Cobalt		1000	-0.3	970.5	**97.1**	-0.4	1009.8	**101.0**			
Copper		1000	0.6	1005.4	**100.5**	1.6	1045.1	**104.5**			
Iron	200000	200000	188974.8	188798.5	**94.4**	179053.2	178371.9	**89.2**			
Lead		1000	-0.9	967.1	**96.7**	-3.3	991.6	**99.2**			
Magnesium	100000	100000	102731.7	99187.8	**99.2**	105114.9	100112.2	**100.1**			
Manganese		1000	0.7	940.2	**94.0**	0.9	901.7	**90.2**			
Molybdenum			1.3	1.4		1.5	1.5				
Nickel		1000	-0.1	971.8	**97.2**	-0.6	1002.4	**100.2**			
Potassium			0.2	-38.4		11.6	-31.5				
Selenium		1000	16.4	971.9	**97.2**	28.2	994.0	**99.4**			
Silicon			-2.8	-0.1		-1.6	-2.1				
Silver		1000	-0.9	1002.3	**100.2**	-0.6	1077.2	**107.7**			
Sodium			9.2	22.5		2.8	15.1				
Strontium			3.9	3.9		3.9	3.9				
Thallium		1000	1.2	919.2	**91.9**	-2.5	956.3	**95.6**			
Tin			-13.6	-12.3		-14.3	-15.1				
Titanium			2.0	1.9		1.9	2.4				
Vanadium		1000	-1.3	956.6	**95.7**	-3.1	1010.5	**101.1**			
Zinc		1000	3.7	958.6	**95.9**	3.9	976.3	**97.6**			

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ICS SOURCE: I.V.

PROJECT: City of Kenmore Sedi

RUNID: MS111982

SDG: VR38

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.7	**98.5**						
Cadmium		20	0.1	20.5	**102.5**						
Chromium		20	0.5	21.6	**108.0**						
Cobalt		20	0.0	20.8	**104.0**						
Copper		20	0.5	20.5	**102.5**						
Manganese		20	0.4	20.9	**104.5**						
Molybdenum	400	400	359.0	356.4	**89.1**						
Nickel		20	0.5	20.0	**100.0**						
Selenium			0.0	-0.1							
Silver		20	0.0	20.6	**103.0**						
Thorium			0.1	0.1							
Vanadium			0.0	-0.3							
Zinc		20	1.1	20.9	**104.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ICS SOURCE: I.V.

PROJECT: City of Kenmore Sedi

RUNID: MS120581

SDG: VR38

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Cadmium		20	0.1	19.3	**96.5**						
Chromium		20	0.5	20.2	**101.0**						
Cobalt		20	0.0	20.3	**101.5**						
Copper		20	0.5	19.7	**98.5**						
Manganese		20	0.0	19.9	**99.5**						
Molybdenum	400	400	408.9	406.4	**101.6**						
Nickel		20	0.6	20.2	**101.0**						
Silver		20	0.0	19.2	**96.0**						
Vanadium			0.0	-0.5							
Zinc		20	1.2	19.9	**99.5**						

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

ANALYSIS METHOD: ICP

SDG: VR38

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	HT-01-S-C-121106A	VR38APOST	IP112171	4377.51		100.00	U	4000	Sediment	**109.4**

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38 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
Antimony	SB	ICP	OPTIMA ICP 2	206.84		60	50.0	4/1/2012	30000.0	7/30/2012
Arsenic	AS	ICP	OPTIMA ICP 2	197.20		10	50.0	4/1/2012	30000.0	7/30/2012
Cadmium	CD	ICP	OPTIMA ICP 2	228.80		5	2.0	4/1/2012	20000.0	7/30/2012
Chromium	CR	ICP	OPTIMA ICP 2	267.72		10	5.0	4/1/2012	100000.0	7/30/2012
Copper	CU	ICP	OPTIMA ICP 2	324.75		25	2.0	4/1/2012	40000.0	7/30/2012
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2012	300000.0	7/30/2012
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	7/30/2012
Selenium	SE	PMS	PE ELAN 6000 MS	0.00		5	0.5	4/1/2012		
Silver	AG	ICP	OPTIMA ICP 2	328.07		10	3.0	4/1/2012	5000.0	7/30/2012
Zinc	ZN	ICP	OPTIMA ICP 2	213.86		20	10.0	4/1/2012	100000.0	7/30/2012

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

IEC DATE: 11/12/2012

SDG: VR38

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	9.1050360	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0581760	0.0000000	-0.8953680	1.5607750	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1763230	0.0000000	0.0000000	0.1637240
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	6.5458340	0.0000000	0.0000000	0.0000000	0.0000000	0.1152580	0.0000000	0.0000000	0.0095100
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	0.0295099	0.0000000	0.0091790	0.0000000	-0.0348880	0.0000000	0.0000000	-0.0392710
Cobalt	228.62	0.0000000	0.0000000	0.0788170	0.0000000	0.0000000	0.0000000	0.0000000	-0.0346500	0.0000000	0.0130090
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1608400	0.0000000	0.0000000	-0.0442360
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4437390	0.0000000	0.0000000
Lead	220.35	-0.2393490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1467250	-1.7804540	1.4264890	0.0412430
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4396410	-1.1694080	0.0000000	0.5321920
Manganese	257.61	0.0046450	0.0000000	0.0000000	0.0000000	0.0019080	0.0000000	0.0000000	0.0000000	0.0000000	-0.0054280
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0108090	0.0000000	0.0000000	0.0540880	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	0.0000000	0.0000000	0.4883700	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5902270	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	0.0000000	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	5.5577350	0.3891400	0.0000000	-0.1069480
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.1236770	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0477260	0.0000000	0.0000000	0.1988470	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.2880510	0.0000000	0.0349450
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0645950	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

IEC DATE: 11/12/2012

SDG: VR38

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.2648390	0.0000000	0.0000000	0.0000000	2.1534780	0.0000000	14.6676620	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3171320	0.0000000	0.0000000	-1.6488050	0.0000000	-2.7828430	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.5824010	0.0000000	0.0000000	0.0000000	-28.6279570	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1006020	0.0000000	0.0000000	0.0000000	0.0000000	0.2160840	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0120420	0.0000000	0.1997240	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9709640	0.0000000	0.0000000	0.0000000	0.0000000	0.6837900	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	0.0863140	0.0880780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3314250	0.0362000
Cobalt	228.62	0.0000000	0.0000000	-0.1203920	0.1624660	0.0000000	0.0000000	1.9337740	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0084630	0.0000000	0.4010840	0.0000000	0.0000000	0.0000000	0.2064430	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	8.4794020	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.4099510	-0.1101090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-5.5537550	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2086980	0.0000000	0.0000000	0.0000000	-0.0242310	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	-0.5468870	0.0000000	0.4309940	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	0.5703720	0.0000000
Silicon	288.16	-0.1197150	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	-0.0400098	0.0000000	-2.8848200	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	-0.8464030	-0.9915990	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.4340400	0.0000000
Tin	189.93	0.0000000	0.0000000	0.8648230	0.0000000	-0.0322750	-0.4551870	-0.1436590	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.8648230	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1521530	0.5765370	0.0000000	0.0000000	0.0000000	0.5629710	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2677330	0.0000000	-0.0519400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/13/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
HT-01-S-C-121106	VR38A	1.036	0.0	50.0
HT-01-S-C-121106D	VR38ADUP	1.032	0.0	50.0
HT-01-S-C-121106S	VR38ASPK	1.035	0.0	50.0
HT-02-S-C-121106	VR38B	1.002	0.0	50.0
HT-03-S-C-121106	VR38C	1.065	0.0	50.0
HT-04-S-C-121106	VR38D	1.011	0.0	50.0
HT-05-S-C-121106	VR38E	1.045	0.0	50.0
HT-08-S-C-121106	VR38F	1.003	0.0	50.0
HT-09-S-C-121106	VR38G	1.027	0.0	50.0
HT-10-S-LFP-121106	VR38H	1.049	0.0	50.0
HT-11-S-LFP-121106	VR38I	1.029	0.0	50.0
HT-06-S-E-121106	VR38J	1.028	0.0	50.0
HT-07-S-E-121106	VR38K	1.038	0.0	50.0
PBS	VR38MB1	1.000	0.0	50.0
LCSS	VR38MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/13/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
HT-01-S-C-121106	VR38A	1.069	0.0	50.0
HT-01-S-C-121106D	VR38ADUP	1.067	0.0	50.0
HT-01-S-C-121106S	VR38ASPK	1.073	0.0	50.0
HT-02-S-C-121106	VR38B	1.033	0.0	50.0
HT-03-S-C-121106	VR38C	1.052	0.0	50.0
HT-04-S-C-121106	VR38D	1.005	0.0	50.0
HT-05-S-C-121106	VR38E	1.090	0.0	50.0
HT-08-S-C-121106	VR38F	1.054	0.0	50.0
HT-09-S-C-121106	VR38G	1.014	0.0	50.0
HT-10-S-LFP-121106	VR38H	1.051	0.0	50.0
HT-11-S-LFP-121106	VR38I	1.070	0.0	50.0
HT-06-S-E-121106	VR38J	1.046	0.0	50.0
HT-07-S-E-121106	VR38K	1.058	0.0	50.0
PBS	VR38MB1	1.000	0.0	50.0
LCSS	VR38MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi

SDG: VR38

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/13/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
HT-01-S-C-121106	VR38A	0.205	0.0	50.0
HT-01-S-C-121106D	VR38ADUP	0.200	0.0	50.0
HT-01-S-C-121106S	VR38ASPK	0.202	0.0	50.0
HT-02-S-C-121106	VR38B	0.288	0.0	50.0
HT-03-S-C-121106	VR38C	0.261	0.0	50.0
HT-04-S-C-121106	VR38D	0.262	0.0	50.0
HT-05-S-C-121106	VR38E	0.275	0.0	50.0
HT-08-S-C-121106	VR38F	0.296	0.0	50.0
HT-09-S-C-121106	VR38G	0.237	0.0	50.0
HT-10-S-LFP-121106	VR38H	0.290	0.0	50.0
HT-11-S-LFP-121106	VR38I	0.264	0.0	50.0
HT-06-S-E-121106	VR38J	0.288	0.0	50.0
HT-07-S-E-121106	VR38K	0.228	0.0	50.0
PBS	VR38MB1	0.200	0.0	50.0
LCSW	VR38MB1SPK	0.200	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/21/2012

SDG: VR38 | RUNID: IP112171 | METHOD: ICP | END DATE: 11/21/2012

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	09330		X		X					X		X	X								X	X	X								X
S2	S2	1.00	09371									X		X	X																		
S3	S3	1.00	09391		X		X																X	X									X
S4	S4	1.00	09413																						X								
S5	S5	1.00	09435																														
S4	S4	1.00	09593																						X								
ZZZZZZ	ZZZZZZ	1.00	10124																														
ZZZZZZ	ZZZZZZ	1.00	10163																														
ZZZZZZ	ZZZZZZ	1.00	10204																														
ZZZZZZ	ZZZZZZ	1.00	10250																														
ZZZZZZ	ZZZZZZ	1.00	10292																														
ICV	ICV	1.00	10342		X		X					X		X	X								X	X	X								X
ICB	ICB	1.00	11040		X		X					X		X	X								X	X	X								X
CRI	CRII	1.00	11081		X		X					X		X	X								X	X	X								X
ICSA	ICSAI	1.00	11123		X		X					X		X	X								X	X	X								X
ICSAB	ICSABI	1.00	11165		X		X					X		X	X								X	X	X								X
CCV	CCV1	1.00	11214		X		X					X		X	X								X	X	X								X
CCB	CCB1	1.00	11263		X		X					X		X	X								X	X	X								X
ZZZZZZ	VS28MB	2.00	11305																														
ZZZZZZ	VS17MB2	1.00	11350																														
ZZZZZZ	VS28A	2.00	11392																														
ZZZZZZ	VS17F	1.00	11432																														
ZZZZZZ	VS17G	1.00	11473																														
ZZZZZZ	VS17EDUP	1.00	11513																														
ZZZZZZ	VS17E	1.00	11554																														
ZZZZZZ	VS17ESPK	1.00	12000																														
ZZZZZZ	VS17MB2SPK	1.00	12040																														
ZZZZZZ	VS28MBSPK	2.00	12080																														
CCV	CCV2	1.00	12120		X		X					X		X	X								X	X	X								X
CCB	CCB2	1.00	12165		X		X					X		X	X								X	X	X								X
ZZZZZZ	VS17MB1	1.00	12211																														
ZZZZZZ	VS17H	1.00	12252																														
ZZZZZZ	VS17B	1.00	12294																														
ZZZZZZ	VS17C	1.00	12334																														
ZZZZZZ	VS17D	1.00	12373																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/21/2012

SDG: VR38 | RUNID: IP112171 | METHOD: ICP | END DATE: 11/21/2012

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	VS17ADUP	1.00	12415																														
ZZZZZZ	VS17A	1.00	12460																														
ZZZZZZ	VS17ASPK	1.00	12502																														
ZZZZZZ	VS17MB1SPK	1.00	12542																														
CCV	CCV3	1.00	12582		X		X					X		X	X								X	X	X								X
CCB	CCB3	1.00	13033		X		X					X		X	X								X	X	X								X
PBS	VR38MB1	2.00	13074		X		X					X		X	X								X	X	X								X
HT-02-S-C-121106	VR38B	2.00	13120		X		X					X		X	X								X	X	X								X
HT-03-S-C-121106	VR38C	2.00	13160		X		X					X		X	X								X	X	X								X
HT-04-S-C-121106	VR38D	2.00	13200		X		X					X		X	X								X	X	X								X
HT-05-S-C-121106	VR38E	2.00	13240		X		X					X		X	X								X	X	X								X
HT-01-S-C-121106D	VR38ADUP	2.00	13275		X		X					X		X	X								X	X	X								X
HT-01-S-C-121106	VR38A	2.00	13315		X		X					X		X	X								X	X	X								X
HT-01-S-C-121106S	VR38ASPK	2.00	13355		X		X					X		X	X								X	X	X								X
ZZZZZZ	ZZZZZZ	2.00	13393																														
LCSS	VR38MB1SPK	2.00	13432		X		X					X		X	X								X	X	X								X
CCV	CCV4	1.00	13472		X		X					X		X	X								X	X	X								X
CCB	CCB4	1.00	13521		X		X					X		X	X								X	X	X								X
HT-08-S-C-121106	VR38F	2.00	13563		X		X					X		X	X								X	X	X								X
HT-09-S-C-121106	VR38G	2.00	14002		X		X					X		X	X								X	X	X								X
HT-10-S-LFP-121106	VR38H	2.00	14042		X		X					X		X	X								X	X	X								X
HT-11-S-LFP-121106	VR38I	2.00	14082		X		X					X		X	X								X	X	X								X
HT-06-S-E-121106	VR38J	2.00	14120		X		X					X		X	X								X	X	X								X
HT-07-S-E-121106	VR38K	2.00	14160		X		X					X		X	X								X	X	X								X
CCV	CCV5	1.00	14200		X		X					X		X	X								X	X	X								X
CCB	CCB5	1.00	14245		X		X					X		X	X								X	X	X								X
ZZZZZZ	VS18MB1	2.00	14291																														
ZZZZZZ	VS18B	5.00	14332																														
ZZZZZZ	VS18C	5.00	14373																														
ZZZZZZ	VS18D	5.00	14413																														
ZZZZZZ	ZZZZZZ	25.00	14453																														
ZZZZZZ	VS18A	5.00	14492																														
ZZZZZZ	VS18ADUP	5.00	14534																														
ZZZZZZ	VS18ASPK	5.00	14580																														
ZZZZZZ	ZZZZZZ	5.00	15020																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/21/2012

SDG: VR38 | RUNID: IP112171 | METHOD: ICP | END DATE: 11/21/2012

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	VS18MB1SPK	2.00	15050																														
CCV	CCV6	1.00	15090		X		X					X		X	X								X	X	X								X
CCB	CCB6	1.00	15141		X		X					X		X	X								X	X	X								X
ZZZZZZ	VS18E	5.00	15184																														
ZZZZZZ	VS18F	5.00	15225																														
ZZZZZZ	VS18G	5.00	15265																														
ZZZZZZ	VS18H	5.00	15305																														
ZZZZZZ	VS18I	5.00	15345																														
ZZZZZZ	VS18J	5.00	15385																														
ZZZZZZ	VS18K	5.00	15423																														
ZZZZZZ	VS18L	5.00	15463																														
CCV	CCV7	1.00	15494		X		X					X		X	X								X	X	X								X
CCB	CCB7	1.00	15543		X		X					X		X	X								X	X	X								X
CRI	CRIF	1.00	15585		X		X					X		X	X								X	X	X								X
ICSA	ICSAF	1.00	16030		X		X					X		X	X								X	X	X								X
ICSAB	ICSABF	1.00	16072		X		X					X		X	X								X	X	X								X
CCV	CCV8	1.00	16112		X		X					X		X	X								X	X	X								X
CCB	CCB8	1.00	16163		X		X					X		X	X								X	X	X								X
ZZZZZZ	VS12MB	1.00	16204																														
ZZZZZZ	VS12B	1.00	16250																														
ZZZZZZ	VS12C	1.00	16291																														
ZZZZZZ	VS12D	1.00	16333																														
ZZZZZZ	VS12E	1.00	16374																														
ZZZZZZ	VS12F	1.00	16420																														
ZZZZZZ	VS12ADUP	1.00	16461																														
ZZZZZZ	VS12A	1.00	16503																														
ZZZZZZ	VS12ASPK	1.00	16544																														
ZZZZZZ	VS12MBSPK	1.00	16584																														
CCV	CCV9	1.00	17024		X		X					X		X	X								X	X	X								X
CCB	CCB9	1.00	17073		X		X					X		X	X								X	X	X								X
ZZZZZZ	VS37MB1	1.00	17115																														
ZZZZZZ	VS12G	1.00	17161																														
ZZZZZZ	VS12H	1.00	17202																														
ZZZZZZ	VS12J	1.00	17244																														
ZZZZZZ	VS37A	1.00	17285																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/21/2012

SDG: VR38 | RUNID: IP112171 | METHOD: ICP | END DATE: 11/21/2012

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	VS37B	1.00	17325																														
ZZZZZZ	VS28A	5.00	17370																														
HT-01-S-C-121106A	VR38APOST	2.00	17410																						X								
ZZZZZZ	VS37MB1SPK	1.00	17450																														
CCV	CCV10	1.00	17490		X		X					X		X	X								X	X	X								X
CCB	CCB10	1.00	17532		X		X					X		X	X								X	X	X								X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 11/19/2012

SDG: VR38 | RUNID: MS111982 METHOD: PMS | END DATE: 11/19/2012

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	10480																							X							
S1	S1	1.00	10540																							X							
S2	S2	1.00	11000																							X							
S3	S3	1.00	11060																							X							
S4	S4	1.00	11130																							X							
ZZZZZZ	Rinse Sampl	1.00	11190																														
ICV	MICV	1.00	11330																							X							
ICB	ICB	1.00	11400																							X							
CCV	MCCV1	1.00	11450																							X							
CCB	CCB1	1.00	11520																							X							
ZZZZZZ	ZZZZZZ	1.00	11580																														
ICSA	ICSAI	1.00	12040																							X							
ICSAB	ICSABI	1.00	12130																							X							
CRI	MCRI	1.00	12190																							X							
ZZZZZZ	LR200	1.00	12260																														
ZZZZZZ	LR300	1.00	12320																														
CCV	MCCV2	1.00	12390																							X							
CCB	CCB2	1.00	12460																							X							
ZZZZZZ	VS62MB1	2.00	12520																														
ZZZZZZ	VS62MB2	2.00	12580																														
ZZZZZZ	DI CHECK	1.00	13040																														
ZZZZZZ	ERA P197	10.00	13110																														
ZZZZZZ	VS62MB1SPK	2.00	13170																														
ZZZZZZ	VS62MB2SPK	2.00	13230																														
ZZZZZZ	VS62A	2.00	13290																														
ZZZZZZ	VS62B	2.00	13360																														
ZZZZZZ	VS62C	2.00	13420																														
ZZZZZZ	VS62D	2.00	13480																														
CCV	MCCV3	1.00	13550																							X							
CCB	CCB3	1.00	14010																							X							
ZZZZZZ	VR63MB1	1.00	14070																														
ZZZZZZ	VR63MB2	1.00	14140																														
ZZZZZZ	VS62E	2.00	14200																														
ZZZZZZ	VS62F	2.00	14260																														
ZZZZZZ	VR63MB1SPK	1.00	14320																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 11/19/2012

SDG: VR38 | RUNID: MS111982 | METHOD: PMS | END DATE: 11/19/2012

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	VR63MB2SPK	1.00	14390																														
ZZZZZZ	VR48ADUP	2.00	14450																														
ZZZZZZ	VR48A	2.00	14510																														
ZZZZZZ	VR48ASPK	2.00	14580																														
ZZZZZZ	VR63B	1.00	15040																														
CCV	MCCV4	1.00	15100																							X							
CCB	CCB4	1.00	15170																							X							
S0	S0	1.00	15240																							X							
CCV	MCCV5	1.00	15320																							X							
CCB	CCB5	1.00	15380																							X							
ZZZZZZ	VS62A	5.00	15480																														
ZZZZZZ	VS62B	5.00	15540																														
ZZZZZZ	VS62C	5.00	16000																														
ZZZZZZ	VS62D	5.00	16070																														
ZZZZZZ	VS62E	5.00	16130																														
ZZZZZZ	VS62F	5.00	16190																														
ZZZZZZ	VR48ADUP	10.00	16260																														
ZZZZZZ	VR48A	10.00	16320																														
ZZZZZZ	VR48ASPK	10.00	16380																														
ZZZZZZ	VQ67X	20.00	16440																														
CCV	MCCV6	1.00	16510																							X							
CCB	CCB6	1.00	16570																							X							
PBS	VR38MB1	20.00	17030																							X							
LCSS	VR38MB1SPK	20.00	17100																							X							
HT-01-S-C-121106D	VR38ADUP	20.00	17160																							X							
HT-01-S-C-121106	VR38A	20.00	17220																							X							
HT-01-S-C-121106S	VR38ASPK	20.00	17280																							X							
HT-02-S-C-121106	VR38B	20.00	17350																							X							
HT-03-S-C-121106	VR38C	20.00	17410																							X							
HT-04-S-C-121106	VR38D	20.00	17470																							X							
HT-05-S-C-121106	VR38E	20.00	17540																							X							
HT-08-S-C-121106	VR38F	20.00	18000																							X							
CCV	MCCV7	1.00	18060																							X							
CCB	CCB7	1.00	18130																							X							

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 12/5/2012

SDG: VR38 | RUNID: MS120581 METHOD: PMS | END DATE: 12/5/2012

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	09080																							X							
S1	S1	1.00	09140																							X							
S2	S2	1.00	09210																							X							
S3	S3	1.00	09270																							X							
S4	S4	1.00	09330																							X							
ZZZZZZ	Rinse Sampl	1.00	09400																														
ICV	MICV	1.00	09560																							X							
ICB	ICB	1.00	10030																							X							
CCV	MCCV1	1.00	10090																							X							
CCB	CCB1	1.00	10150																							X							
CRI	MCRI	1.00	10210																							X							
ICSA	ICSAI	1.00	10270																							X							
ICSAB	ICSABI	1.00	10330																							X							
ZZZZZZ	LR200	1.00	10390																														
ZZZZZZ	LR300	1.00	10460																														
ZZZZZZ	ZZZZZZ	1.00	10530																														
ZZZZZZ	ZZZZZZ	1.00	10590																														
CCV	MCCV2	1.00	11160																							X							
CCB	CCB2	1.00	11230																							X							
HT-09-S-C-121106	VR38G	20.00	11320																							X							
HT-10-S-LFP-121106	VR38H	20.00	11390																							X							
HT-11-S-LFP-121106	VR38I	20.00	11450																							X							
HT-06-S-E-121106	VR38J	20.00	11510																							X							
HT-07-S-E-121106	VR38K	20.00	11580																							X							
ZZZZZZ	VS36ADUP	2.00	12040																														
ZZZZZZ	VS36A	2.00	12100																														
ZZZZZZ	VS36ASPK	2.00	12170																														
ZZZZZZ	VU47F	2.00	12230																														
ZZZZZZ	VU47E	50.00	12290																														
CCV	MCCV3	1.00	12350																							X							
CCB	CCB3	1.00	12420																							X							

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR38 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	06462														X																
S0.1	S0.1	1.00	06475														X																
S0.5	S0.5	1.00	06493														X																
S1	S1	1.00	06511														X																
S2	S2	1.00	06524														X																
S5	S5	1.00	06542														X																
S10	S10	1.00	06560														X																
ICV	AICV	1.00	07050														X																
ICB	ICB	1.00	07063														X																
CCV	ACCV1	1.00	07081														X																
CCB	CCB1	1.00	07095														X																
CRA	CRA	1.00	07113														X																
ZZZZZZ	VS18MB1	1.00	07130																														
ZZZZZZ	VS18MB1SPK	1.00	07144																														
ZZZZZZ	VS18A	1.00	07161																														
ZZZZZZ	VS18ADUP	1.00	07175																														
ZZZZZZ	VS18ASPK	1.00	07193																														
ZZZZZZ	VS18B	1.00	07210																														
ZZZZZZ	VS18C	1.00	07224																														
ZZZZZZ	VS18D	1.00	07242																														
ZZZZZZ	VS18E	1.00	07260																														
CCV	ACCV2	1.00	07274														X																
CCB	CCB2	1.00	07292														X																
ZZZZZZ	VS18F	1.00	07310																														
ZZZZZZ	VS18G	1.00	07323																														
ZZZZZZ	VS18H	1.00	07341																														
ZZZZZZ	VS18I	1.00	07354																														
ZZZZZZ	VS18J	1.00	07372																														
ZZZZZZ	VS18K	1.00	07385																														
ZZZZZZ	VS18L	1.00	07403																														
ZZZZZZ	VR37MB1	1.00	07421																														
ZZZZZZ	VR37MB1SPK	1.00	07434																														
ZZZZZZ	VR37A	1.00	07452																														
CCV	ACCV3	1.00	07470														X																
CCV	ACCV4	1.00	07584														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR38 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	CCB3	1.00	08002														X																
ZZZZZZ	VS18F	1.00	08020																														
ZZZZZZ	VS18G	1.00	08033																														
ZZZZZZ	VS18H	1.00	08051																														
ZZZZZZ	VS18I	1.00	08064																														
ZZZZZZ	VS18J	1.00	08082																														
ZZZZZZ	VS18K	1.00	08095																														
ZZZZZZ	VS18L	1.00	08113																														
ZZZZZZ	VR37MB1	1.00	08131																														
ZZZZZZ	VR37MB1SPK	1.00	08144																														
ZZZZZZ	VR37A	1.00	08162																														
CCV	ACCV5	1.00	08180														X																
CCB	CCB4	1.00	08194														X																
ZZZZZZ	VR37ADUP	1.00	08212																														
ZZZZZZ	VR37ASPK	1.00	08230																														
ZZZZZZ	VR37B	1.00	08243																														
ZZZZZZ	VR37C	1.00	08261																														
ZZZZZZ	VR37D	1.00	08274																														
ZZZZZZ	VR37E	1.00	08292																														
ZZZZZZ	VR37F	1.00	08310																														
ZZZZZZ	VR37G	1.00	08323																														
ZZZZZZ	VR37H	1.00	08341																														
ZZZZZZ	VR37I	1.00	08355																														
CCV	ACCV6	1.00	08373														X																
CCB	CCB5	1.00	08391														X																
ZZZZZZ	VR37J	1.00	08404																														
ZZZZZZ	VR37K	1.00	08422																														
ZZZZZZ	VR37L	1.00	08440																														
ZZZZZZ	VR37M	1.00	08454																														
ZZZZZZ	VR37N	1.00	08472																														
ZZZZZZ	VR37O	1.00	08485																														
ZZZZZZ	VR58MB1	1.00	08503																														
ZZZZZZ	VR58MB1SPK	1.00	08520																														
ZZZZZZ	VR58A	1.00	08534																														
ZZZZZZ	VR58ADUP	1.00	08552																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR38 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	ACCV7	1.00	08565														X																
CCB	CCB6	1.00	08584														X																
ZZZZZZ	VR58ASPK	1.00	09001																														
ZZZZZZ	VR58B	1.00	09015																														
ZZZZZZ	VR58C	1.00	09033																														
ZZZZZZ	VR58D	1.00	09051																														
ZZZZZZ	VR58E	1.00	09065																														
ZZZZZZ	VR58F	1.00	09082																														
ZZZZZZ	VR58G	1.00	09100																														
ZZZZZZ	VR58H	1.00	09114																														
ZZZZZZ	VR58I	1.00	09131																														
ZZZZZZ	VR58J	1.00	09145																														
CCV	ACCV8	1.00	09163														X																
CCB	CCB7	1.00	09181														X																
ZZZZZZ	VR82A	1.00	09195																														
ZZZZZZ	VR82B	1.00	09213																														
ZZZZZZ	VR82C	1.00	09230																														
ZZZZZZ	VR82D	1.00	09244																														
ZZZZZZ	VR82E	1.00	09262																														
ZZZZZZ	VR82F	1.00	09280																														
ZZZZZZ	VR82G	1.00	09294																														
ZZZZZZ	VR82H	1.00	09311																														
ZZZZZZ	VR82I	1.00	09325																														
CCV	ACCV9	1.00	09343														X																
CCB	CCB8	1.00	09361														X																
ZZZZZZ	VR30MB1	1.00	09382																														
ZZZZZZ	VR30MB1SPK	1.00	09395																														
ZZZZZZ	VR30A	1.00	09413																														
ZZZZZZ	VR30ADUP	1.00	09430																														
ZZZZZZ	VR30ASPK	1.00	09444																														
ZZZZZZ	VR30B	1.00	09461																														
ZZZZZZ	VR30C	1.00	09475																														
ZZZZZZ	VR30D	1.00	09492																														
ZZZZZZ	VR30E	1.00	09510																														
ZZZZZZ	VR30F	1.00	09524																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR38 | RUNID: HG111701 METHOD: CVA | END DATE: 11/17/2012

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	ACCV10	1.00	09542														X																
CCB	CCB9	1.00	09560														X																
ZZZZZZ	VR30G	1.00	09574																														
ZZZZZZ	VR30H	1.00	09592																														
ZZZZZZ	VR30I	1.00	10005																														
ZZZZZZ	VR30J	1.00	10023																														
ZZZZZZ	VR30K	1.00	10040																														
ZZZZZZ	VR30L	1.00	10054																														
ZZZZZZ	VR36MB1	1.00	10072																														
ZZZZZZ	VR36MB1SPK	1.00	10085																														
ZZZZZZ	VR36A	1.00	10103																														
ZZZZZZ	VR36ADUP	1.00	10121																														
CCV	ACCV11	1.00	10134														X																
CCB	CCB10	1.00	10152														X																
ZZZZZZ	VR36ASPK	1.00	10170																														
ZZZZZZ	VR36B	1.00	10184																														
ZZZZZZ	VR36C	1.00	10202																														
ZZZZZZ	VR36D	1.00	10220																														
ZZZZZZ	VR36E	1.00	10234																														
ZZZZZZ	VR36F	1.00	10251																														
ZZZZZZ	VR36G	1.00	10265																														
ZZZZZZ	VR36H	1.00	10282																														
ZZZZZZ	VR36I	1.00	10300																														
ZZZZZZ	VR36J	1.00	10314																														
CCV	ACCV12	1.00	10331														X																
CCB	CCB11	1.00	10345														X																
ZZZZZZ	VR36K	1.00	10363																														
ZZZZZZ	VR36L	1.00	10381																														
ZZZZZZ	VR35MB1	1.00	10395																														
ZZZZZZ	VR35MB1SPK	1.00	10413																														
ZZZZZZ	VR35A	1.00	10431																														
ZZZZZZ	VR35ADUP	1.00	10444																														
ZZZZZZ	VR35ASPK	1.00	10462																														
ZZZZZZ	VR35B	1.00	10480																														
ZZZZZZ	VR35C	1.00	10493																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR38 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	VR35D	1.00	10511																														
CCV	ACCV13	1.00	10525														X																
CCB	CCB12	1.00	10543														X																
ZZZZZZ	VR35E	1.00	10561																														
ZZZZZZ	VR35F	1.00	10574																														
ZZZZZZ	VR35G	1.00	10592																														
ZZZZZZ	VR35H	1.00	11010																														
ZZZZZZ	VR35I	1.00	11024																														
ZZZZZZ	VR35J	1.00	11042																														
ZZZZZZ	VR35K	1.00	11060																														
ZZZZZZ	VR35L	1.00	11073																														
CCV	ACCV14	1.00	11091														X																
CCB	CCB13	1.00	11110														X																
ZZZZZZ	VR32MB1	1.00	11130																														
ZZZZZZ	VR32MB1SPK	1.00	11143																														
ZZZZZZ	VR32A	1.00	11161																														
ZZZZZZ	VR32ADUP	1.00	11174																														
ZZZZZZ	VR32ASPK	1.00	11192																														
ZZZZZZ	VR32B	1.00	11210																														
ZZZZZZ	VR32C	1.00	11223																														
ZZZZZZ	VR32D	1.00	11241																														
ZZZZZZ	VR32E	1.00	11255																														
ZZZZZZ	VR32F	1.00	11272																														
CCV	ACCV15	1.00	11290														X																
CCB	CCB14	1.00	11304														X																
ZZZZZZ	VR32G	1.00	11322																														
ZZZZZZ	VR32H	1.00	11340																														
ZZZZZZ	VR32I	1.00	11354																														
ZZZZZZ	VR32J	1.00	11371																														
ZZZZZZ	VR32K	1.00	11385																														
ZZZZZZ	VR32L	1.00	11402																														
ZZZZZZ	VR65MB1	1.00	11420																														
ZZZZZZ	VR65MB1SPK	1.00	11434																														
ZZZZZZ	VR65A	1.00	11451																														
ZZZZZZ	VR65ADUP	1.00	11465																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: City of Kenmore Sedi | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR38 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	ACCV16	1.00	11483														X																
CCB	CCB15	1.00	11501														X																
ZZZZZZ	VR65ASPK	1.00	11515																														
ZZZZZZ	VR65B	1.00	11533																														
ZZZZZZ	VR65C	1.00	11550																														
ZZZZZZ	VR65D	1.00	11564																														
ZZZZZZ	VR65E	1.00	11582																														
ZZZZZZ	VR65F	1.00	11595																														
ZZZZZZ	VR65G	1.00	12013																														
ZZZZZZ	VR65H	1.00	12031																														
ZZZZZZ	VR65I	1.00	12044																														
ZZZZZZ	VR65J	1.00	12062																														
CCV	ACCV17	1.00	12080														X																
CCB	CCB16	1.00	12094														X																
ZZZZZZ	VR65K	1.00	12112																														
ZZZZZZ	VR65L	1.00	12125																														
PBW	VR38MB1	1.00	12143														X																
LCSW	VR38MB1SPK	1.00	12161														X																
HT-01-S-C-121106	VR38A	1.00	12175														X																
HT-01-S-C-121106D	VR38ADUP	1.00	12193														X																
HT-01-S-C-121106S	VR38ASPK	1.00	12211														X																
HT-02-S-C-121106	VR38B	1.00	12224														X																
HT-03-S-C-121106	VR38C	1.00	12242														X																
HT-04-S-C-121106	VR38D	1.00	12255														X																
CCV	ACCV18	1.00	12273														X																
CCB	CCB17	1.00	12291														X																
HT-05-S-C-121106	VR38E	1.00	12305														X																
HT-08-S-C-121106	VR38F	1.00	12323														X																
HT-09-S-C-121106	VR38G	1.00	12341														X																
HT-10-S-LFP-121106	VR38H	1.00	12354														X																
HT-11-S-LFP-121106	VR38I	1.00	12372														X																
HT-06-S-E-121106	VR38J	1.00	12390														X																
HT-07-S-E-121106	VR38K	1.00	12404														X																
CCV	ACCV19	1.00	12422														X																
CCB	CCB18	1.00	12440														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: VR38

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-01-S-C-121106
ARI ID: 12-22267 VR38A

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	77.30
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	0.67
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	0.240

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-02-S-C-121106
ARI ID: 12-22268 VR38B

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	78.80
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	1.46
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	0.484

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-03-S-C-121106
ARI ID: 12-22269 VR38C

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	65.70
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	7.06
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	0.770

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-04-S-C-121106
ARI ID: 12-22270 VR38D

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	50.90
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	19.69
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	6.20

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-05-S-C-121106
ARI ID: 12-22271 VR38E

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	80.40
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	2.05
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	0.531

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-08-S-C-121106
ARI ID: 12-22272 VR38F

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	77.20
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	1.49
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	3.08

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-09-S-C-121106
ARI ID: 12-22273 VR38G

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	67.50
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	2.57
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	2.13

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-10-S-LFP-121106
ARI ID: 12-22274 VR38H

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	80.20
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	1.18
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	1.91

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-11-S-LFP-121106
ARI ID: 12-22275 VR38I

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	83.90
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	0.91
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	0.456

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-06-S-E-121106
ARI ID: 12-22276 VR38J

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	74.80
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	1.54
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	1.25

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Client ID: HT-07-S-E-121106
ARI ID: 12-22277 VR38K

Analyte	Date	Method	Units	RL	Sample
Total Solids	11/08/12 110812#1	SM2540B	Percent	0.01	80.50
Total Volatile Solids	11/08/12 110812#1	SM2540E	Percent	0.01	1.72
Total Organic Carbon	11/12/12 111212#1	Plumb,1981	Percent	0.020	1.72

RL Analytical reporting limit
U Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: VR38A Client ID: HT-01-S-C-121106						
Total Organic Carbon	11/12/12	Percent	0.240	0.892	0.535	121.9%

REPLICATE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: 11/06/12
Date Received: 11/07/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VR38A Client ID: HT-01-S-C-121106					
Total Solids	11/08/12	Percent	77.30	77.90 78.10	0.5%
Total Volatile Solids	11/08/12	Percent	0.67	0.66 0.69	2.3%
Total Organic Carbon	11/12/12	Percent	0.240	0.256 0.260	4.2%

LAB CONTROL RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb,1981	ICVL	11/12/12	Percent	0.096	0.100	96.0%

METHOD BLANK RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/08/12	Percent	< 0.01 U
Total Volatile Solids	11/08/12	Percent	< 0.01 U
Total Organic Carbon	11/12/12	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
VR38-Anchor QEA, LLC.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 11/16/12

Project: City of Kenmore Sediment
Event: 120891-01.01
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	11/12/12	Percent	2.78	2.99	93.0%

Geotechnical Analysis
Report and Summary QC Forms

ARI Job ID: VR38

Anchor QEA, LLC.
City of Kenmore Sediment
120891-01.01

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
SG-06-S-C-121108	100.0	100.0	100.0	92.6	86.0	79.8	71 1	55.2	46.6	31.0	18.9	11.2	4.8	1.6
	100.0	100.0	99.8	92.8	86.5	81.7	72.7	56.9	46.4	30.6	18.3	9.5	4.2	1.4
	100.0	100.0	100.0	92.0	85.9	80.5	71.8	56.0	45.4	30.5	18.5	9.7	4.3	1.4
HT-01-S-C-121106	100.0	92.6	87.9	84.4	78.1	54.2	9.1	3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
HT-02-S-C-121106	100.0	77.6	70.2	68.6	66.2	54.9	19.7	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
HT-03-S-C-121106	100.0	99.0	94.4	92.7	90.7	77.7	55.0	6.3	0.1	0.0	0.0	0.0	0.0	0.0
HT-04-S-C-121106	100.0	99.8	99.6	99.2	98.3	94.0	67.8	13.6	0.0	0.0	0.0	0.0	0.0	0.0
HT-05-S-C-121106	100.0	60.8	37.1	28.5	20.4	7.7	2.9	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
HT-08-S-C-121106	100.0	71.6	62.0	59.8	58.0	37.5	9.0	3.2	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2
HT-09-S-C-121106	100.0	87.7	80.9	78.8	76.9	61.8	24.5	10.8	4.8	3.5	2.4	1.4	0.7	0.3
HT-10-S-LFP-121106	100.0	81.4	66.7	55.7	33.5	7.6	1.7	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HT-11-S-LFP-121106	100.0	60.1	48.6	40.5	24.9	5.6	0.9	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
HT-06-S-E-121106	100.0	95.0	91.7	89.2	82.3	46.6	14.4	6.1	2.3	1.6	1.1	0.7	0.3	0.1
HT-07-S-E-121106	100.0	76.7	58.9	48.5	35.8	17.4	6.3	2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

VR38

Anchor QEA, LLC.
City of Kenmore Sediment
120891-01.01

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	< -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	> 10	> 4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7 8-3 9	3 9-2.0	2.0-1.0	<1 0	<230 (<62)
SG-06-S-C-121108	0.0	7.4	6.6	6.2	8.6	15.9	8.6	15.5	12.1	7.8	6.3	3.2	1.6	55.2
	0.2	6.9	6.3	4.8	9.0	15.7	10.5	15.8	12.3	8.8	5.3	2.8	1.4	56.9
	0.0	8.0	6.1	5.5	8.7	15.7	10.7	14.9	12.0	8.9	5.4	3.0	1.4	56.0
HT-01-S-C-121106	12.1	3.5	6.3	23.8	45.2	6.1	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.0
HT-02-S-C-121106	29.8	1.6	2.4	11.3	35.2	17.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0
HT-03-S-C-121106	5.6	1.6	2.0	13.0	22.6	48.7	6.3	0.0	0.0	0.0	0.0	0.0	0.0	6.3
HT-04-S-C-121106	0.4	0.5	0.8	4.3	26.2	54.2	13.6	0.0	0.0	0.0	0.0	0.0	0.0	13.6
HT-05-S-C-121106	62.9	8.6	8.1	12.7	4.8	0.9	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0
HT-08-S-C-121106	38.0	2.2	1.8	20.5	28.5	5.8	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	3.2
HT-09-S-C-121106	19.1	2.0	1.9	15.2	37.3	13.6	6.0	1.3	1.1	1.1	0.6	0.5	0.3	10.8
HT-10-S-LFP-121106	33.3	11.0	22.2	25.8	5.9	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
HT-11-S-LFP-121106	51.4	8.1	15.6	19.3	4.7	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4
HT-06-S-E-121106	8.3	2.5	6.9	35.8	32.2	8.3	3.7	0.7	0.6	0.4	0.4	0.2	0.1	6.1
HT-07-S-E-121106	41.1	10.4	12.7	18.4	11.1	3.6	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	2.7

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

VR38

QA SUMMARY

Client:	Anchor QEA, LLC	Client Project:	City of Kenmore Sediment
ARI Trip. Sample ID:	VR82 E	Client Project No..	120891-01 01
Client Trip. Sample ID:	SG-06-S-C-121108	Batch No..	VR38-1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
G-06-S-C-1211	100.0	100.0	100.0	92.6	86.0	79.8	71.1	55.2	46.6	31.0	18.9	11.2	4.8	1.6
	100.0	100 0	99 8	92.8	86.5	81 7	72 7	56.9	46 4	30 6	18.3	9.5	4.2	1.4
	100.0	100 0	100.0	92.0	85.9	80.5	71 8	56.0	45 4	30 5	18.5	9.7	4.3	1.4
AVE	NA	100.00	99.92	92.49	86.15	80 64	71.86	56 06	46.12	30.73	18 58	10 11	4 46	1.45
STDEV	NA	0.00	0 14	0 43	0 31	0.97	0 77	0.87	0.64	0.28	0.32	0.92	0.33	0 13
%RSD	NA	0.00	0 14	0.46	0.36	1.21	1.08	1.55	1.39	0.91	1.72	9.13	7 43	9.29

The Triplicate Applies To The Following Samples

Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
SG-06-S-C-121108	11/8/2012	11/16/2012	11/24/2012	97.8		6.4
	11/8/2012	11/16/2012	11/24/2012	102.4		6.6
	11/8/2012	11/16/2012	11/24/2012	101.3		6.5
HT-01-S-C-121106	11/6/2012	11/16/2012	11/24/2012	103.1	SS	3.7
HT-02-S-C-121106	11/6/2012	11/16/2012	11/24/2012	99.4	SS	2.3
HT-03-S-C-121106	11/6/2012	11/16/2012	11/24/2012	102.0	W	6 4
HT-04-S-C-121106	11/6/2012	11/16/2012	11/24/2012	103.4	W	10.5
HT-05-S-C-121106	11/6/2012	11/16/2012	11/24/2012	100.9	SS	2.6
HT-08-S-C-121106	11/6/2012	11/16/2012	11/24/2012	101.2	SS	4.0
HT-09-S-C-121106	11/6/2012	11/16/2012	11/24/2012	103.6		11 9
HT-10-S-LFP-121106	11/6/2012	11/16/2012	11/24/2012	100 1	SS	0.7
HT-11-S-LFP-121106	11/6/2012	11/16/2012	11/24/2012	100 3	SS	0.6
HT-06-S-E-121106	11/6/2012	11/16/2012	11/24/2012	101 8		6.9
HT-07-S-E-121106	11/6/2012	11/16/2012	11/24/2012	100.0	SS	3.3

* ARI Internal QA limits = 95-105%

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing

Analytical Resources, Inc.

Geotechnical Data Qualifiers
PSEP Grain Size Analysis

SM - The 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.

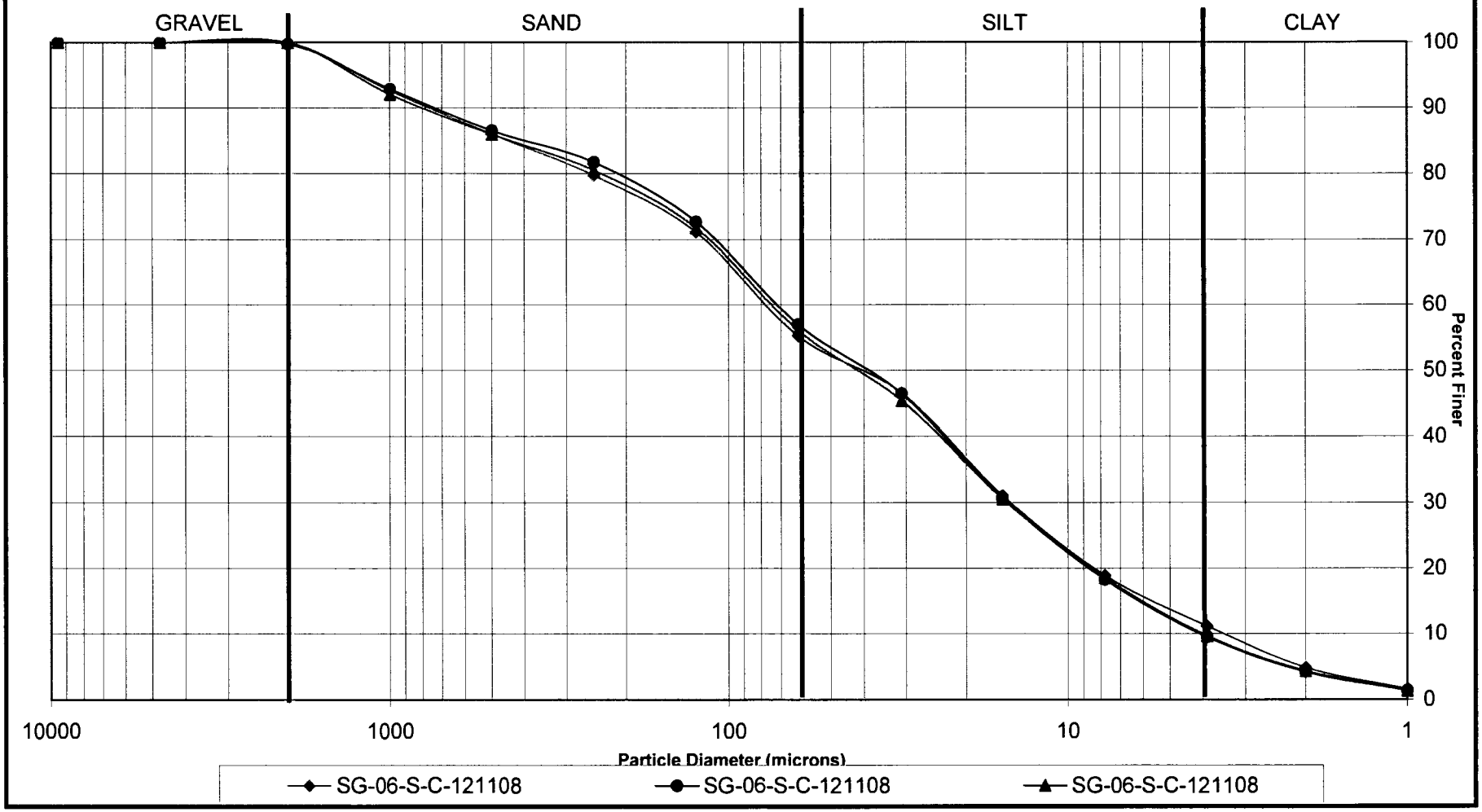
SS – The sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis.

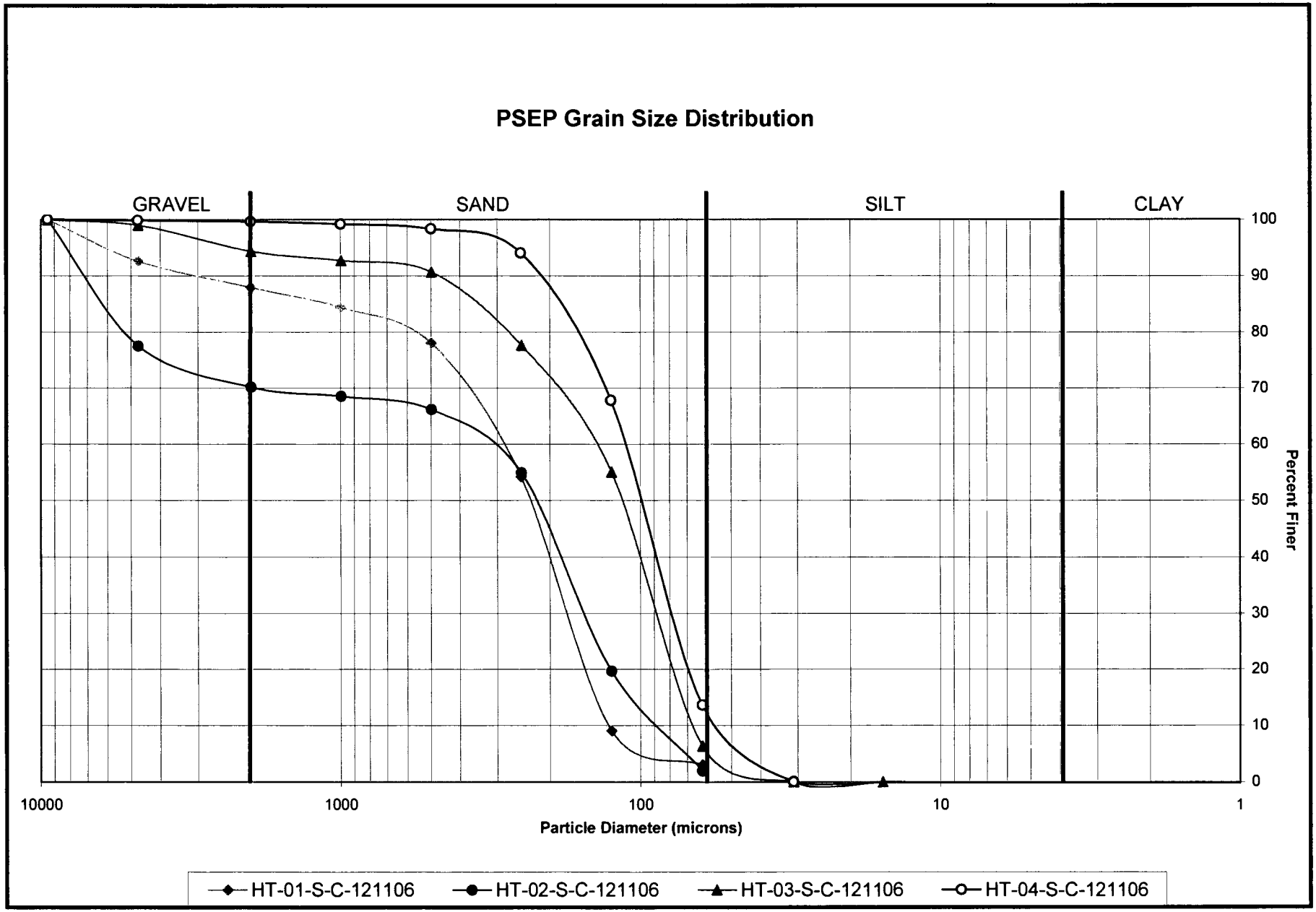
W – The weight of the sample in some pipette aliquots was below the level required for accurate weighing.

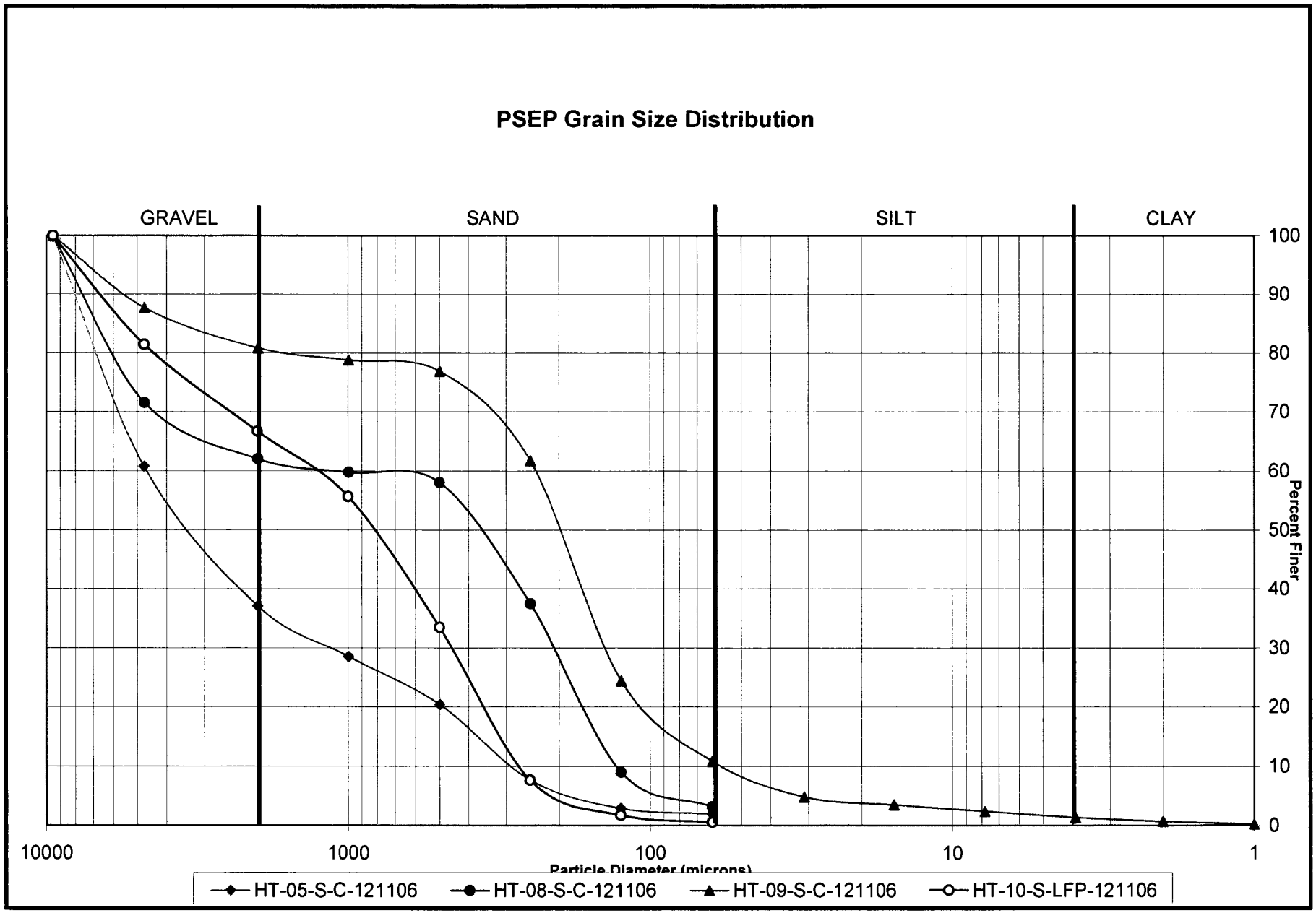
F – The samples were frozen prior to particle size determination.

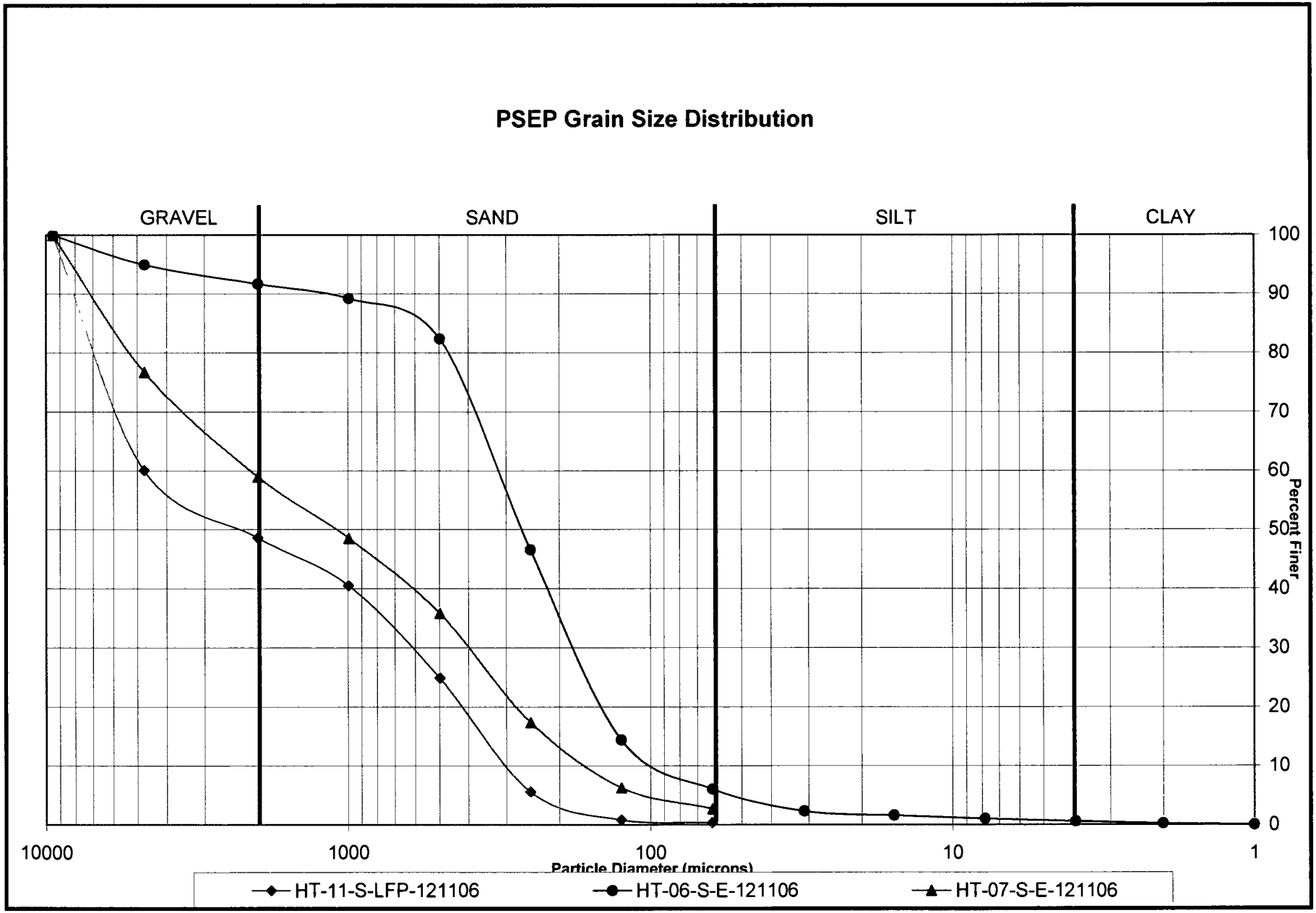
PSEP Grain Size Distribution

Triplicate Sample Plot




PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
HT-01-S-C-121106
HT-02-S-C-121106
HT-03-S-C-121106
HT-04-S-C-121106


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
HT-05-S-C-121106
HT-08-S-C-121106
HT-09-S-C-121106
HT-10-S-LFP-121106


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
HT-11-S-LFP-121106
HT-06-S-E-121106
HT-07-S-E-121106

Total Solids

ARI Job ID: VR38

Extractions Total Solids-extts
Data By: Yen Luu
Created: 11/ 7/12

Worklist: 2215
Analyst: RVR
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)	% Solids	pH
1.	VR38A 12-22267 HT-01-S-C-121106	1.16	13.47	10.95	79.5	NR
2.	VR38B 12-22268 HT-02-S-C-121106	1.17	12.48	10.71	84.4	NR
3.	VR38C 12-22269 HT-03-S-C-121106	1.14	12.11	9.24	73.8	NR
4.	VR38D 12-22270 HT-04-S-C-121106	1.16	11.67	7.39	59.3	NR
5.	VR38E 12-22271 HT-05-S-C-121106	1.17	12.70	10.58	81.6	NR
6.	VR38F 12-22272 HT-08-S-C-121106	1.17	12.18	10.27	82.7	NR
7.	VR38G 12-22273 HT-09-S-C-121106	1.17	12.00	9.16	73.8	NR
8.	VR38H 12-22274 HT-10-S-LFP-121106	1.17	12.79	11.13	85.7	NR
9.	VR38I 12-22275 HT-11-S-LFP-121106	1.17	11.88	10.31	85.3	NR
10.	VR38J 12-22276 HT-06-S-E-121106	1.17	12.93	10.55	79.8	NR
11.	VR38K 12-22277 HT-07-S-E-121106	1.15	12.44	10.58	83.5	NR

Extractions Total Solids-extts
Data By: Yen Luu
Created: 11/ 7/12

Worklist: 2215
Analyst: YL
Comments:

Oven ID: Φ15

Balance ID: B14642614

Samples In: Date: 11/07/12 Time: 17:56 Temp: 165 Analyst: YL/CT

Samples Out: Date: 11/08/12 Time: 06:25 Temp: 105° Analyst: RR

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	VR38A 12-22267 HT-01-S-C-121106	1.16	13.47	10.95		NR
2.	VR38B 12-22268 HT-02-S-C-121106	1.17	12.48	10.71		NR
3.	VR38C 12-22269 HT-03-S-C-121106	1.14	12.11	9.24		NR
4.	VR38D 12-22270 HT-04-S-C-121106	1.16	11.67	7.39		NR
5.	VR38E 12-22271 HT-05-S-C-121106	1.17	12.76	10.58		NR
6.	VR38F 12-22272 HT-08-S-C-121106	1.17	12.18	10.27		NR
7.	VR38G 12-22273 HT-09-S-C-121106	1.17	12.00	9.16		NR
8.	VR38H 12-22274 HT-10-S-LFP-121106	1.17	12.79	11.13		NR
9.	VR38I 12-22275 HT-11-S-LFP-121106	1.17	11.88	10.31		NR
10.	VR38J 12-22276 HT-06-S-E-121106	1.17	12.93	10.55		NR
11.	VR38K 12-22277 HT-07-S-E-121106	1.15	12.44	10.58		NR

Total Solids Targets-Extractions
Data By: Jim Hawk
Created: 11/12/12

Worklist: 3541
Analyst: JBH
Comments:

	ARI ID	Target Dry Wt (g)	Total Solids	Min Wet Wt (g)
1.	VR38A	10.00	79.5	12.58
2.	VR38B	10.00	84.4	11.85
3.	VR38C	10.00	73.8	13.55
4.	VR38D	10.00	59.3	16.86
5.	VR38E	10.00	81.6	12.25
6.	VR38F	10.00	82.7	12.09
7.	VR38G	10.00	73.8	13.55
8.	VR38H	10.00	85.7	11.67
9.	VR38I	10.00	85.3	11.72
10.	VR38J	10.00	79.8	12.53
11.	VR38K	10.00	83.5	11.98

Solids Data Entry Report Checked by: NB Date: 11/14/12
Date: 11/14/12 Data Analyst: DM

Solids Determination performed on 11/13/12 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
VR38	A	HT-01-S-C-121106	1.037	10.457	8.395	78.11
VR38	B	HT-02-S-C-121106	1.008	10.320	8.243	77.70
VR38	C	HT-03-S-C-121106	0.974	10.389	7.413	68.39
VR38	D	HT-04-S-C-121106	1.007	10.384	5.784	50.94
VR38	E	HT-05-S-C-121106	0.988	10.687	8.461	77.05
VR38	F	HT-08-S-C-121106	0.959	10.567	8.350	76.93
VR38	G	HT-09-S-C-121106	1.024	10.581	7.496	67.72
VR38	H	HT-10-S-LFP-121106	1.026	10.501	8.827	82.33
VR38	I	HT-11-S-LFP-121106	0.992	10.617	8.575	78.78
VR38	J	HT-06-S-E-121106	1.013	10.761	8.183	73.55
VR38	K	HT-07-S-E-121106	0.983	10.876	8.884	79.86

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 0687S5

Samples in Oven: Date: 11-13-12 Time: 1455 Temp: 101°C Analyst: DM

Removed from Oven: Date: 11-14-12 Time: 0728 Temp: 100°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
VR38 A	1.037	10.457	8.395	–	√
" B	1.008	10.320	8.243	–	√
" C	0.974	10.389	7.413	–	√
" D	1.007	10.384	5.784	–	√
" E	0.988	10.687	8.461	–	√
" F	0.959	10.567	8.350	–	√
" G	1.024	10.581	7.496	–	√
" H	1.026	10.501	8.827	–	√
" I	0.992	10.617	8.575	–	√
" J	1.013	10.761	8.183	–	√
" K	0.983	10.876	8.884	–	√
		11-13 12 DM			

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

Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8270 BAN PSDDA–Soil/Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test BAN PSDDA # 6 (BANSDMP) PSDDA (20ppb)

ARI Job No(s) VR38 Page 1 of 2 Batch set up by: JA

Bottle #	Extraction Requirements	Weight Extracted (eq. to 10g dry wt)	(Opt/REQ) GPC (1:1) (1 or 2) Y / N	Final Effective Volume	Volume to Lab	Comments	Verifty Client ID M 11/12/12 Analyst/Date
	VR38 MBS	10g	(1:1) CJZ (Y) N 11/15/12	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	Microwave M 11/12/12 Analyst/Date
	↓ SBS	10g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	
	~~SBS Dup.~~	~~10g~~	(1:1) Y / N	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	
	~~QLS~~	~~10g~~	(1:1) Y / N	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	KD 80-85°C 11/13/12 Analyst/Date
4	VR38 A	13.36	(1:1) CJZ (Y) N 11/15/12	1mL	1mL		
4	B	12.02	(1:1) CJZ (Y) N 11/15/12	1mL	1mL		
4	C	14.05	(1:1) CJZ (Y) N 11/15/12	1mL	1mL		TurboVap 1 (2) 3 CJZ 11/14/12 Analyst/Date
4	D	17.06	(1:1) (Y) N	1mL	1mL		
4	E	13.22	(1:1) (Y) N	1mL	1mL		GPC Prep Filter (1:1) CJZ 11/14/12 Analyst/Date
4	F	13.10	(1:1) (Y) N	1mL	1mL		
4	G	14.16	(1:1) (Y) N	1mL	1mL		Post GPC KD 80-85°C 11/16/12 Analyst/Date
4	H	12.08	(1:1) (Y) N	1mL	1mL		
4	I	12.05	(1:1) (Y) N	1mL	1mL		
4	↓ IMS	12.04	(1:1) (Y) N	1mL	1mL		TurboVap (1) 2 3 SP 11/16/12 Analyst/Date
Analyst/Date	NL 11/12/12		WW 11/15/12	SP 11/16/12	SP 11/16/12		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (2032-1)	100/150µg/mL	50µL	7/02/13	M	AC
Full List Spike (Freezer)	7 (2017-2)	100µg/mL	50µL	3/14/13	M	AC
Base Spike	56 (1978-2)	200µg/mL	50µL	11/17/12	M	AC
~~Benzidine Spike~~	~~39( )~~	~~500µg/mL~~	~~50µL~~			
Acid Spike	38 (2024-3)	100/200µg/mL	50µL	4/11/13	M	AC
~~QLS Spike~~ (14 in freezer)	~~14( )~~	~~10-100µg/mL~~	~~20µL~~			

Extraction Time: 12:15 Balance ID: B146 42614

SPECIAL INSTRUCTIONS: 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-re-homogenize while hot then let cool 10-15 min in cold water. 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 DCM only (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/~~large~~ drying column with pre-deactivated glasswool-Blanks=5g of sulfate)) to 5mL at 80- 85°C.
12. GPC Optional. 13. TurboVap. 14. IF NO GPC: TurboVap to 3mL add 2mL Hexane. TurboVap to Final Volume and vial in DCM. 15. (After GPC): KD at 80-85°. 16. TurboVap. 17. Vial in DCM.

A. Need Total Solids Y / (N) B. Archive/Freeze Y / (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8270 BAN PSDDA–Soil/Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test BAN PSDDA # 6 (BANSDMP) PSDDA (20ppb)

ARI Job No(s) VR38 Page 2 of 2 Batch set up by: ~~SK~~

Bottle #	Extraction Requirements	Weight Extracted (eq to 10g dry wt)	(Opt/REQ) GPC (1:1) (1 or 2) Y / N	Final Effective Volume	Volume to Lab	Comments	Verifty Client ID / Analyst/Date
	~~MBS~~	~~10g~~	(1:1) Y / N	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	Microwave
	~~SBS~~	~~10g~~	(1:1) Y / N	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	11/12/12 Analyst/Date
	~~SBS Dup.~~	~~10g~~	(1:1) Y / N	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	
	~~QLS~~	~~10g~~	(1:1) Y / N	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	KD 80-85°C
4	VR38 Insd	12.03	(1:1) Y / N	1mL	1mL		11/13/12 Analyst/Date
5	J	13.19	(1:1) Y / N	1mL	1mL		
5	K	12.08	(1:1) Y / N	1mL	1mL		TurboVap (1) 2 3 11/15/12 Analyst/Date
			(1:1) Y / N	1mL	1mL		
			(1:1) Y / N	1mL	1mL		GPC Prep Filter (1.1) COZ 11/14/12 Analyst/Date
			(1:1) Y / N	1mL	1mL		
			(1:1) Y / N	1mL	1mL		Post GPC KD 80-85°C 11/16/12 Analyst/Date
			(1:1) Y / N	1mL	1mL		
			(1:1) Y / N	1mL	1mL	SP 11/16/12	TurboVap (1) 2 3 SP 11/16/12 Analyst/Date
Analyst/Date	M	11/12/12	MW 11/15/12	SP 11/16/12	SP 11/16/12		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (2032-1)	100/150µg/mL	50µL	7/22/13	M	AC
Full List Spike (Freezer)	7 (2017-2)	100µg/mL	50µL	3/14/13	M	AC
Base Spike	56 (1978-2)	200µg/mL	50µL	11/17/13	M	AC
~~Benzidine Spike~~	~~39( )~~	~~500µg/mL~~	~~50µL~~			
Acid Spike	38 (2024-3)	100/200µg/mL	50µL	4/11/13	M	AC
~~QLS Spike~~ (14 in freezer)	~~14( )~~	~~10-100µg/mL~~	~~20µL~~			

Extraction Time: 12:50 Balance ID: B1464614

SPECIAL INSTRUCTIONS: 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-re-homogenize while hot then let cool 10-15 min in cold water. 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 DCM only (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/large drying column with pre-deactivated glasswool-Blanks=5g of sulfate)) to 5mL at 80- 85°C.
12. GPC Optional. 13. TurboVap. 14. IF NO GPC: TurboVap to 3mL add 2mL Hexane. TurboVap to Final Volume and vial in DCM. 15. (After GPC): KD at 80-85°. 16. TurboVap. 17. Vial in DCM.

A. Need Total Solids Y / N B. Archive/Freeze Y / N

Incorporated
Analytical Chemists and
Consultants

Organic Extractions Laboratory
Analyst Notes

API Job No.: VR38 Client ID: Anchor QEA, LLC

Parameter: BAN PSDDA Client Project: City of Kenmore Sediment

creens: Soil/Sediment/Solid/Other:	Analyst/Date
] No Anomalies (standard soil/wet sediment/sand/gravel)= A, B, C, D, E, F, G, H, I, J, K	YC 11/07/12
] Standing Water Decanted (Not shared)= A, B, C, D, E, F, G, H, I, J, K	YC 11/07/12
] Standing Water Homogenized (Shared samples)=	
] Clay/Clumps (Difficult to homogenize)=	
] Rocks (%+size)? E, small pebbles ~2% small pebbles F, G, H, I, J, K	YC 11/07/12
] Organics (Leaves/sticks/grass)= C.	YC 11/07/12
] Oily, obvious fuel/sulfur odors=	
] Other (Details)=	
queous:	
] No Anomalies	
] Turbid/Color=	
] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
] Emulsions (%)=	
] Other (Details)=	
] Other Notes/Comments= (Note problems, concerns, corrective actions).	
entrifuge#1 used for all Centrifugations)	

56F

Revision 009
08/14/12

VR38 : 00007

Semivolatile Raw Data
Initial Calibration

ARI Job ID: VR38

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): 11/14/12 Internal Standard ID 1998-2 Expiration 7/03/13

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
SpecCal	1950-1	10/31/12	Ultra	2001-1	01/05/13
	1986-2	01/26/13		2002-1	01/09/13
	1998-4	01/09/13		2003-1	01/10/13

Detail problems, corrective actions and/or other pertinent information below:

- Benzidine - quadratic fit.
- N-Nitroso-di-n-propylamine, Nitrobenzene, 4/Bis(2Chloroethyl) ether: minimum response factors did not meet.

Analyst: VB **Date:** 11/15/12

Reviewer: VD **Date:** 11/15/12

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20121114.b

	Time	Filename	LabID	ClientId	DF											
1	1543	df1114.d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	1558	cc1114.d	CC1114		1	9.04	119196	11.67	451611	15.52	276048	18.75	431460	23.72	491703	26.09	494041	24.76	688717
3	1637	ic1114a.d	IC1114A		1	9.04	97486	11.67	357150	15.52	217259	18.74	355415	23.72	390458	26.08	386299	24.76	532303
4	1714	ic1114b.d	IC1114B		1	9.04	87722	11.67	328999	15.51	188697	18.74	317710	23.71	326056	26.08	318758	24.75	415250
5	1751	ic1114c.d	IC1114C		1	9.04	79140	11.68	303566	15.52	186089	18.75	289972	23.72	331360	26.09	349957	24.76	501119
6	1828	ic1114d.d	IC1114D		1	9.04	102015	11.67	373305	15.51	216304	18.74	363840	23.72	389127	26.08	393004	24.76	520081
7	1904	ic1114e.d	IC1114E		1	9.04	82742	11.67	322843	15.52	201586	18.74	321240	23.72	362233	26.08	370720	24.76	519063
8	2018	ic1114g.d	IC1114G		1	9.04	77593	11.67	284495	15.51	168241	18.74	271105	23.72	284228	26.08	300672	24.76	392765
9	2131	ic1114i.d	IC1114I		1	9.04	84138	11.67	306723	15.51	182487	18.74	293531	23.71	310200	26.07	323527	24.75	415643
10	2208	icv1114.d	ICV1114		1	9.04	76115	11.67	298626	15.51	173922	18.74	276859	23.72	313315	26.08	311368	24.76	422658

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20121114.b/ABN.m
Batch File: /chem1/nt10.i/20121114.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	ic1114a	ic1114b	ic1114c	ic1114d	ic1114e	ic1114g	ic1114i
INJ.DATE:	14-NOV-2012	14-NOV-2012	14-NOV-2012	14-NOV-2012	14-NOV-2012	14-NOV-2012	14-NOV-2012
INJ.TIME:	16:37	17:14	17:51	18:28	19:04	20:18	21:31

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.713	6.713	6.713	6.713	6.713	6.705	6.705	6.713	3.713-9.713	6.711	0.004
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 NZ Date: 11/15/12
Reviewer 2 VD Date: 11/15/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20121114.b/ABN.m
Batch File: /chem1/nt10.i/20121114.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	24.761	24.754	24.761	24.761	24.761	24.761	24.754	24.761	21.761-27.761	24.759	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	+++++	+++++

Analytical Resources, Inc.
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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	+++++	+++++	16.306	+++++	0.000	+++++	+++++	16.306	13.306-19.306	8.153	11.530
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	17.048	17.048	17.056	17.040	17.048	17.040	17.040	17.048	14.048-20.048	17.046	0.006
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.576	13.576-19.576	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.525	11.525-17.525	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.852	11.852-17.852	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.661	13.661-19.661	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.870	9.870-15.870	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.691	10.691-16.691	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.691	10.691-16.691	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.093	8.093-14.093	+++++	+++++

Analytical Resources, Inc.
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Method File: /chem1/nt10.i/20121114.b/ABN.m
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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	13.436	13.428	13.436	13.428	13.436	13.428	13.428	13.436	10.436-16.436	13.432	0.004
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	8.389	8.390	8.405	8.382	8.397	8.382	8.390	8.389	5.389-11.389	8.391	0.008
3 Phenol	8.413	8.413	8.428	8.413	8.420	8.405	8.405	8.413	5.413-11.413	8.414	0.008
4 Bis(2-Chloroethyl)ethe	8.583	8.575	8.583	8.583	8.583	8.575	8.575	8.583	5.583-11.583	8.579	0.004
$ 5 2-Chlorophenol-d4	8.660	8.660	8.660	8.652	8.660	8.652	8.652	8.660	5.660-11.660	8.657	0.004

Analytical Resources, Inc.
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Method File: /chem1/nt10.i/20121114.b/ABN.m
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	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
6	2-Chlorophenol	8.691	8.683	8.691	8.683	8.691	8.683	8.683	8.691	5.691-11.691	8.686	0.004
7	1,3-Dichlorobenzene	8.969	8.970	8.970	8.970	8.970	8.969	8.970	8.969	5.969-11.969	8.970	0.000
* 8	1,4-Dichlorobenzene-d4	9.039	9.040	9.040	9.040	9.039	9.039	9.040	9.039	6.039-12.039	9.039	0.000
9	1,4-Dichlorobenzene	9.070	9.071	9.078	9.071	9.070	9.070	9.071	9.070	6.070-12.070	9.072	0.003
$ 10	1,2-Dichlorobenzene-d4	9.419	9.420	9.420	9.420	9.420	9.420	9.420	9.419	6.419-12.419	9.420	0.000
11	Benzyl alcohol	9.334	9.334	9.342	9.334	9.342	9.334	9.334	9.334	6.334-12.334	9.337	0.004
12	1,2-Dichlorobenzene	9.443	9.443	9.451	9.443	9.451	9.443	9.443	9.443	6.443-12.443	9.445	0.004
13	2-Methylphenol	9.590	9.591	9.598	9.583	9.590	9.583	9.591	9.590	6.590-12.590	9.589	0.005
14	2,2'-oxybis(1-Chloropr	10.986	10.986	11.002	10.986	10.994	10.986	10.986	10.986	7.986-13.986	10.990	0.006
15	4-Methylphenol	9.878	9.878	9.893	9.878	9.885	9.878	9.878	9.878	6.878-12.878	9.881	0.006
16	N-Nitroso-di-n-propyla	9.940	9.940	9.956	9.932	9.948	9.940	9.940	9.940	6.940-12.940	9.942	0.007
17	Hexachloroethane	10.072	10.072	10.072	10.072	10.072	10.072	10.072	10.072	7.072-13.072	10.072	0.000
$ 18	Nitrobenzene-d5	10.203	10.196	10.212	10.196	10.204	10.196	10.196	10.203	7.203-13.203	10.200	0.006
19	Nitrobenzene	10.235	10.235	10.243	10.235	10.242	10.235	10.235	10.235	7.235-13.235	10.237	0.004
20	Isophorone	10.723	10.716	10.747	10.716	10.724	10.716	10.716	10.723	7.723-13.723	10.723	0.011
21	2-Nitrophenol	10.909	10.909	10.909	10.909	10.909	10.901	10.902	10.909	7.909-13.909	10.907	0.004
22	2,4-Dimethylphenol	10.986	10.986	11.002	10.986	10.994	10.986	10.986	10.986	7.986-13.986	10.990	0.006
23	Bis(2-Chloroethoxy)met	11.194	11.194	11.202	11.194	11.202	11.194	11.194	11.194	8.194-14.194	11.196	0.004
24	Benzoic acid	11.225	11.079	11.387	11.133	11.310	11.163	11.094	11.225	8.225-14.225	11.199	0.115
25	2,4-Dichlorophenol	11.387	11.387	11.402	11.387	11.395	11.387	11.387	11.387	8.387-14.387	11.390	0.006
26	1,2,4-Trichlorobenzene	11.587	11.580	11.595	11.588	11.587	11.587	11.588	11.587	8.587-14.587	11.587	0.004
* 27	Naphthalene-d8	11.672	11.672	11.680	11.672	11.672	11.672	11.672	11.672	8.672-14.672	11.673	0.003
28	Naphthalene	11.718	11.719	11.719	11.711	11.719	11.711	11.711	11.718	8.718-14.718	11.715	0.004
29	4-Chloroaniline	11.865	11.858	11.873	11.858	11.865	11.857	11.865	11.865	8.865-14.865	11.863	0.006

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	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	30 Hexachlorobutadiene	12.112	12.113	12.113	12.113	12.113	12.105	12.113	12.112	9.112-15.112	12.112	0.003
	31 4-Chloro-3-methylpheno	12.909	12.902	12.918	12.902	12.910	12.902	12.902	12.909	9.909-15.909	12.906	0.006
	32 2-Methylnaphthalene	13.204	13.196	13.204	13.196	13.204	13.196	13.196	13.204	10.204-16.204	13.199	0.004
	33 Hexachlorocyclopentadi	13.707	13.699	13.707	13.699	13.707	13.699	13.707	13.707	10.707-16.707	13.704	0.004
	34 2,4,6-Trichlorophenol	13.869	13.862	13.877	13.862	13.869	13.869	13.862	13.869	10.869-16.869	13.867	0.006
	35 2,4,5-Trichlorophenol	13.947	13.939	13.955	13.939	13.947	13.939	13.939	13.947	10.947-16.947	13.943	0.006
$	36 2-Fluorobiphenyl	14.047	14.047	14.047	14.040	14.047	14.039	14.047	14.047	11.047-17.047	14.045	0.004
	37 2-Chloronaphthalene	14.256	14.249	14.256	14.249	14.256	14.248	14.249	14.256	11.256-17.256	14.252	0.004
	38 2-Nitroaniline	14.542	14.535	14.558	14.535	14.550	14.535	14.535	14.542	11.542-17.542	14.542	0.009
	39 Dimethylphthalate	15.022	15.023	15.038	15.023	15.030	15.015	15.023	15.022	12.022-18.022	15.025	0.007
	40 Acenaphthylene	15.177	15.170	15.178	15.170	15.177	15.169	15.178	15.177	12.177-18.177	15.174	0.004
	41 2,6-Dinitrotoluene	15.162	15.154	15.178	15.154	15.170	15.154	15.154	15.162	12.162-18.162	15.161	0.009
*	42 Acenaphthene-d10	15.518	15.510	15.518	15.510	15.518	15.510	15.510	15.518	12.518-18.517	15.513	0.004
	43 3-Nitroaniline	15.456	15.448	15.479	15.448	15.463	15.448	15.441	15.456	12.456-18.456	15.455	0.013
	44 Acenaphthene	15.587	15.580	15.595	15.580	15.587	15.579	15.580	15.587	12.587-18.587	15.584	0.006
	45 2,4-Dinitrophenol	15.680	15.672	15.703	15.672	15.688	15.672	15.672	15.680	12.680-18.680	15.680	0.012
	46 Dibenzofuran	15.935	15.935	15.943	15.928	15.943	15.935	15.935	15.935	12.935-18.935	15.936	0.005
	47 4-Nitrophenol	15.819	15.804	15.842	15.812	15.827	15.811	15.804	15.819	12.819-18.819	15.817	0.014
	48 2,4-Dinitrotoluene	16.020	16.013	16.036	16.013	16.020	16.012	16.013	16.020	13.020-19.020	16.018	0.009
	49 Fluorene	16.693	16.685	16.701	16.693	16.693	16.693	16.693	16.693	13.693-19.693	16.693	0.004
	50 Diethylphthalate	16.584	16.577	16.608	16.577	16.592	16.577	16.577	16.584	13.584-19.584	16.585	0.012
	51 4-Chlorophenyl-phenyle	16.700	16.708	16.708	16.701	16.701	16.700	16.701	16.700	13.700-19.700	16.703	0.004
	52 4-Nitroaniline	16.808	16.793	16.847	16.793	16.824	16.801	16.793	16.808	13.809-19.808	16.809	0.020
	53 4,6-Dinitro-2-methylph	16.909	16.901	16.940	16.901	16.924	16.901	16.901	16.909	13.909-19.909	16.911	0.015

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Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	16.970	16.971	16.986	16.971	16.978	16.971	16.971	16.970	13.970-19.970	16.974	0.006
$	55 2,4,6-Tribromophenol	17.263	17.256	17.271	17.256	17.264	17.264	17.256	17.263	14.263-20.263	17.261	0.006
	56 4-Bromophenyl-phenylet	17.772	17.765	17.773	17.773	17.772	17.765	17.765	17.772	14.772-20.772	17.769	0.004
	57 Hexachlorobenzene	18.089	18.090	18.097	18.090	18.097	18.089	18.090	18.089	15.089-21.089	18.092	0.004
	58 Pentachlorophenol	18.477	18.477	18.485	18.477	18.477	18.469	18.469	18.477	15.476-21.477	18.476	0.005
*	59 Phenanthrene-d10	18.740	18.740	18.748	18.740	18.740	18.740	18.740	18.740	15.740-21.740	18.741	0.003
	60 Phenanthrene	18.794	18.786	18.802	18.794	18.794	18.786	18.786	18.794	15.794-21.794	18.792	0.006
	61 Anthracene	18.887	18.879	18.895	18.879	18.887	18.887	18.887	18.887	15.887-21.887	18.886	0.005
	62 Carbazole	19.235	19.227	19.235	19.227	19.235	19.227	19.227	19.235	16.235-22.235	19.231	0.004
	63 Di-n-butylphthalate	20.070	20.063	20.071	20.063	20.070	20.063	20.063	20.070	17.070-23.070	20.066	0.004
	64 Fluoranthene	21.161	21.162	21.169	21.154	21.161	21.154	21.154	21.161	18.161-24.161	21.159	0.006
	65 Pyrene	21.571	21.572	21.579	21.572	21.571	21.571	21.572	21.571	18.571-24.571	21.573	0.003
$	66 Terphenyl-d14	21.881	21.873	21.881	21.874	21.873	21.873	21.873	21.881	18.881-24.881	21.876	0.004
	67 Butylbenzylphthalate	22.794	22.795	22.795	22.795	22.795	22.787	22.787	22.794	19.794-25.794	22.792	0.004
	68 Benzo(a)anthracene	23.693	23.685	23.693	23.685	23.693	23.685	23.685	23.693	20.693-26.693	23.688	0.004
*	69 Chrysene-d12	23.716	23.709	23.724	23.716	23.716	23.716	23.709	23.716	20.716-26.716	23.715	0.005
	70 3,3'-Dichlorobenzidine	23.662	23.654	23.670	23.654	23.662	23.654	23.654	23.662	20.662-26.662	23.659	0.006
	71 Chrysene	23.762	23.755	23.770	23.755	23.762	23.755	23.755	23.762	20.762-26.762	23.759	0.006
	72 bis(2-Ethylhexyl)phtha	23.809	23.801	23.809	23.801	23.809	23.801	23.801	23.809	20.809-26.809	23.805	0.004
	73 Di-n-octylphthalate	24.769	24.769	24.769	24.769	24.769	24.769	24.761	24.769	21.769-27.769	24.768	0.003
	74 Benzo(b)fluoranthene	25.427	25.419	25.435	25.427	25.435	25.419	25.419	25.427	22.427-28.427	25.426	0.007
	75 Benzo(k)fluoranthene	25.465	25.466	25.481	25.458	25.466	25.458	25.458	25.465	22.465-28.465	25.465	0.008
	187 Total Benzofluoranthen	25.465	25.419	25.481	25.458	25.466	25.458	25.419	25.465	22.465-28.465	25.452	0.024
	76 Benzo(a)pyrene	25.977	25.977	25.992	25.977	25.984	25.977	25.969	25.977	22.977-28.977	25.979	0.007

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20121114.b/ABN.m
Batch File: /chem1/nt10.i/20121114.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	77 Perylene-d12	26.077	26.078	26.085	26.078	26.077	26.077	26.070	26.077	23.077-29.077	26.077	0.004
	78 Indeno(1,2,3-cd)pyrene	28.308	28.293	28.332	28.293	28.316	28.301	28.285	28.308	25.308-31.308	28.304	0.016
	79 Dibenzo(a,h)anthracene	28.316	28.309	28.348	28.309	28.324	28.316	28.309	28.316	25.316-31.316	28.319	0.014
	80 Benzo(g,h,i)perylene	28.961	28.946	28.985	28.953	28.969	28.953	28.946	28.961	25.961-31.961	28.959	0.014
$	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	4.489	4.489	4.489	4.489	4.497	4.473	4.481	4.489	1.489-7.489	4.487	0.007
	91 Aniline	8.474	8.467	8.482	8.467	8.475	8.467	8.467	8.474	5.474-11.474	8.471	0.006
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
	93 Benzidine	21.409	21.401	21.417	21.409	21.409	21.401	21.401	21.409	18.409-24.409	21.407	0.006
$	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	+++++	+++++	21.889	+++++	0.000	+++++	+++++	21.889	18.889-24.889	10.944	15.478
	99 Perylene	26.124	26.124	26.140	26.124	26.132	26.124	26.116	26.124	23.124-29.124	26.126	0.007
	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	4.504	4.528	4.489	4.512	4.504	4.496	4.512	4.504	1.504-7.504	4.507	0.012

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 yev
Curve Type : Average

Averaged

Calibration File Names:
Level 1: /chem1/nt10.i/20121114.b/ic1114b.d
Level 2: /chem1/nt10.i/20121114.b/ic1114i.d
Level 3: /chem1/nt10.i/20121114.b/ic1114d.d
Level 4: /chem1/nt10.i/20121114.b/ic1114g.d
Level 5: /chem1/nt10.i/20121114.b/ic1114a.d
Level 6: /chem1/nt10.i/20121114.b/ic1114e.d
Level 7: /chem1/nt10.i/20121114.b/ic1114c.d

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD	
	20.000 Level 7								
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	___ RRF	% RSD	
111 Azobenzene (1,2-DP-Hydrazine)	0.85439	0.74206	0.79011	0.79097	0.75942	0.78470	0.79425	0.78799	4.456	
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
181 3,4,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD	
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105 1-methylnaphthalene	0.66863	0.60915	0.60694	0.60207	0.62624	0.69157	0.68421	0.64126	6.072	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD	
	20.000 Level 7								
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
3 Phenol	1.26331	1.10371	1.12560	1.03234	1.10210	1.21970			
	1.17899						1.14654	6.880	
4 Bis(2-Chloroethyl)ether	0.79843	0.63800	0.61587	0.61127	0.63336	0.67839			
	0.63828						0.65909	9.888	<-
6 2-Chlorophenol	1.76125	1.55145	1.62807	1.56078	1.55761	1.72008			
	1.68954						1.63840	5.262	
7 1,3-Dichlorobenzene	1.66617	1.58768	1.53534	1.42394	1.49708	1.59344			
	1.52412						1.54682	5.029	
9 1,4-Dichlorobenzene	1.63631	1.40788	1.43191	1.35532	1.41499	1.52493			
	1.49371						1.46643	6.387	
11 Benzyl alcohol	0.70678	0.58580	0.55619	0.56815	0.58402	0.65260			
	0.61477						0.60976	8.758	
12 1,2-Dichlorobenzene	1.69148	1.41425	1.38250	1.37699	1.36697	1.49972			
	1.44561						1.45393	7.880	
13 2-Methylphenol	1.24325	1.13775	1.03581	1.03822	1.05447	1.16934			
	1.16620						1.12072	7.114	

Analytical Resources, Inc.

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Cal Date : 15-Nov-2012 09:52 yev
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	___ RRF	% RSD	
14 2,2'-oxybis(1-Chloropropane)	1.59686	1.35587	1.35047	1.37375	1.41821	1.55606	1.62223	1.46763	8.153	
15 4-Methylphenol	1.23800	1.08118	1.08690	1.06614	1.12587	1.24446	1.22755	1.15287	6.989	
16 N-Nitroso-di-n-propylamine	0.47445	0.30464	0.39386	0.36308	0.36678	0.40800	0.39904	0.38712	13.358	<-
17 Hexachloroethane	0.60532	0.49794	0.48918	0.49683	0.48824	0.55538	0.54374	0.52523	8.474	
19 Nitrobenzene	0.21739	0.19045	0.19074	0.18396	0.19217	0.19588	0.19827	0.19555	5.441	<-
20 Isophorone	0.37313	0.31682	0.30984	0.32402	0.33351	0.35318	0.38976	0.34289	8.776	
21 2-Nitrophenol	0.27575	0.21100	0.23000	0.23089	0.23654	0.24609	0.24429	0.23922	8.299	
22 2,4-Dimethylphenol	0.34347	0.31836	0.32010	0.31469	0.32450	0.34944	0.36086	0.33306	5.406	
23 Bis(2-Chloroethoxy)methane	0.19307	0.19752	0.18622	0.18794	0.19465	0.20501	0.20606	0.19578	3.931	

Analytical Resources, Inc.

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Cal Date : 15-Nov-2012 09:52 yev
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	___ RRF	% RSD
24 Benzoic acid	+++++	0.18069	0.22622	0.22881	0.24640	0.26822	0.26817	0.23642	13.883
25 2,4-Dichlorophenol	0.37924	0.35378	0.34770	0.35496	0.37003	0.39708	0.41164	0.37349	6.423
26 1,2,4-Trichlorobenzene	0.34730	0.30576	0.34058	0.32318	0.32565	0.34183	0.33874	0.33186	4.360
28 Naphthalene	1.09022	0.96280	0.98232	0.97010	1.02663	1.08418	1.11516	1.03306	6.140
29 4-Chloroaniline	0.45110	0.39749	0.39036	0.38971	0.41678	0.45709	0.46918	0.42453	8.006
30 Hexachlorobutadiene	0.18985	0.18761	0.18041	0.18977	0.19337	0.20476	0.20450	0.19289	4.630
31 4-Chloro-3-methylphenol	0.25492	0.22380	0.23642	0.23680	0.25559	0.28629	0.30229	0.25659	11.078
32 2-Methylnaphthalene	0.65952	0.66619	0.64999	0.63083	0.67572	0.72943	0.74421	0.67941	6.160
33 Hexachlorocyclopentadiene	+++++	0.38887	0.43521	0.40277	0.43010	0.46271	0.49160	0.43521	8.696

Analytical Resources, Inc.

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Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD
34 2,4,6-Trichlorophenol	0.48178	0.42986	0.47861	0.44479	0.46493	0.50170	0.53440	0.47658	7.336
35 2,4,5-Trichlorophenol	0.56705	0.47414	0.52322	0.51290	0.52621	0.55041	0.58924	0.53474	7.086
37 2-Chloronaphthalene	1.28248	1.00443	1.05870	1.02957	1.06969	1.09442	1.14036	1.09709	8.454
38 2-Nitroaniline	0.15077	0.11975	0.13417	0.12324	0.13383	0.13897	0.14443	0.13502	8.149
39 Dimethylphthalate	1.40108	1.10719	1.18256	1.15414	1.13699	1.13730	1.15344	1.18181	8.406
40 Acenaphthylene	2.16983	1.79761	1.89239	1.79207	1.83905	1.89650	2.03911	1.91808	7.243
41 2,6-Dinitrotoluene	0.31696	0.29751	0.29743	0.27062	0.27205	0.28994	0.31278	0.29390	6.132
43 3-Nitroaniline	0.34966	0.29183	0.29608	0.26249	0.26138	0.29578	0.30137	0.29408	10.031
44 Acenaphthene	1.20383	1.09281	1.13912	1.09676	1.09502	1.17268	1.25294	1.15045	5.411

Analytical Resources, Inc.

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Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 yev
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD
45 2,4-Dinitrophenol	+++++	0.19881	0.24999	0.25399	0.28403	0.30087	0.31567	0.26723	15.801
46 Dibenzofuran	1.60151	1.45444	1.49345	1.41559	1.45371	1.52745	1.55163	1.49968	4.314
47 4-Nitrophenol	0.23058	0.20032	0.22871	0.23057	0.21594	0.23398	0.23790	0.22543	5.763
48 2,4-Dinitrotoluene	0.42947	0.34633	0.36728	0.33567	0.35078	0.36546	0.37420	0.36703	8.345
49 Fluorene	1.44380	1.23125	1.26722	1.23112	1.26334	1.35988	1.45421	1.32155	7.355
50 Diethylphthalate	1.36600	1.10610	1.14030	1.10239	1.06187	1.10022	1.08367	1.13722	9.113
51 4-Chlorophenyl-phenylether	0.66890	0.59174	0.58083	0.58657	0.69034	0.72825	0.77024	0.65955	11.435
52 4-Nitroaniline	0.39932	0.31029	0.27106	0.24361	0.26596	0.29334	0.30135	0.29785	16.876
53 4,6-Dinitro-2-methylphenol	+++++	0.19695	0.19828	0.19912	0.20622	0.22457	0.23663	0.21029	7.845

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Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD
	20.000 Level 7							
54 N-Nitrosodiphenylamine	0.52891	0.48777	0.49991	0.47675	0.45273	0.46624		
	0.48137						0.48481	5.075
56 4-Bromophenyl-phenylether	0.21000	0.19462	0.19464	0.19212	0.20192	0.20787		
	0.22404						0.20360	5.573
57 Hexachlorobenzene	0.23279	0.19798	0.21115	0.19777	0.19863	0.20896		
	0.21923						0.20950	6.250
58 Pentachlorophenol	+++++	0.15401	0.17100	0.17380	0.18613	0.19584		
	0.21458						0.18256	11.592
60 Phenanthrene	1.20695	1.01114	1.03881	0.99601	0.99041	1.05470		
	1.15233						1.06433	7.841
61 Anthracene	1.25712	1.11282	1.08011	1.09837	1.11949	1.19386		
	1.27744						1.16274	6.877
62 Carbazole	1.11353	0.92073	0.86305	0.68723	0.62561	0.75431		
	0.89788						0.83748	19.609
63 Di-n-butylphthalate	1.49470	1.14765	1.15987	1.17863	1.18296	1.30767		
	1.40745						1.26842	10.858
64 Fluoranthene	1.49816	1.18393	1.21763	1.26553	1.28146	1.43403		
	1.55193						1.34752	10.783

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 yev
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD
	20.000 Level 7							
65 Pyrene	1.45656	1.20008	1.20072	1.24636	1.20441	1.32009		
	1.42871						1.29385	8.529
67 Butylbenzylphthalate	0.69209	0.46876	0.48834	0.46127	0.43912	0.47626		
	0.48731						0.50188	17.047
68 Benzo(a)anthracene	1.50937	1.18801	1.14420	1.18038	1.13293	1.21600		
	1.25524						1.23231	10.469
70 3,3'-Dichlorobenzidine	+++++	0.56304	0.47227	0.37932	0.35342	0.40745		
	0.50876						0.44738	18.109
71 Chrysene	1.21022	1.03807	1.00073	1.02044	1.00104	1.09957		
	1.18139						1.07878	8.066
72 bis(2-Ethylhexyl)phthalate	0.67954	0.51246	0.48731	0.50465	0.47543	0.50119		
	0.50216						0.52325	13.378
73 Di-n-octylphthalate	1.28650	0.95032	0.93736	0.89949	0.86664	0.89208		
	0.91009						0.96321	15.082
74 Benzo(b)fluoranthene	1.60046	1.09896	1.19479	1.15970	1.23415	1.25859		
	1.30476						1.26449	12.861
75 Benzo(k)fluoranthene	1.40395	1.26038	1.18542	1.11819	1.11998	1.20073		
	1.24536						1.21915	8.067

Analytical Resources, Inc.

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Integrator : HP RTE
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Cal Date : 15-Nov-2012 09:52 yev
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD	
	20.000 Level 7								
187 Total Benzofluoranthenes	1.45885	1.13867	1.12354	1.08564	1.10940	1.16417			
	1.20900						1.18418	10.765	
76 Benzo(a)pyrene	1.34114	1.05710	1.06171	1.02861	1.02942	1.09002			
	1.14359						1.10737	9.971	
78 Indeno(1,2,3-cd)pyrene	1.69941	1.42477	1.35724	1.29137	1.31704	1.36674			
	1.45346						1.41572	9.694	
79 Dibenzo(a,h)anthracene	1.39385	1.10851	1.07734	1.03480	1.04286	1.09906			
	1.18762						1.13486	11.007	
80 Benzo(g,h,i)perylene	1.45571	1.17584	1.11950	1.09823	1.10896	1.14090			
	1.19847						1.18537	10.508	
90 N-Nitrosodimethylamine	0.34701	0.34615	0.37179	0.34618	0.37393	0.41625			
	0.41527						0.37379	8.297	
91 Aniline	2.51317	2.11985	2.08373	2.00090	2.14231	2.39707			
	2.33853						2.22794	8.468	
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
93 Benzidine	0.64535	0.48886	0.37349	0.28154	0.24557	0.37567			
	0.50951						0.41714	33.505	<-

Analytical Resources, Inc.

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Cal Date : 15-Nov-2012 09:52 yev
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	20.000 Level 7	RRF	% RSD	
96 p-Cymene	*****	*****	*****	*****	*****	*****	*****	*****	*****	
97 Caffeine	*****	*****	*****	*****	*****	*****	*****	*****	*****	
98 Retene	*****	*****	*****	*****	*****	*****	0.00005	0.00005	0.000	<-
99 Perylene	1.34378	1.21694	1.15899	1.14536	1.12536	1.19727	1.29119	1.21127	6.624	
100 3-beta-Coprostanol	*****	*****	*****	*****	*****	*****	*****	*****	*****	<-
101 Cholesterol	*****	*****	*****	*****	*****	*****	*****	*****	*****	<-
102 beta-Sitosterol	*****	*****	*****	*****	*****	*****	*****	*****	*****	
103 Pyridine	0.38177	0.33155	0.31746	0.32077	0.33577	0.37705	0.38559	0.35000	8.622	
$ 1 2-Fluorophenol	1.04580	1.03088	1.03906	1.00597	1.05247	1.14321	1.09975	1.05959	4.387	

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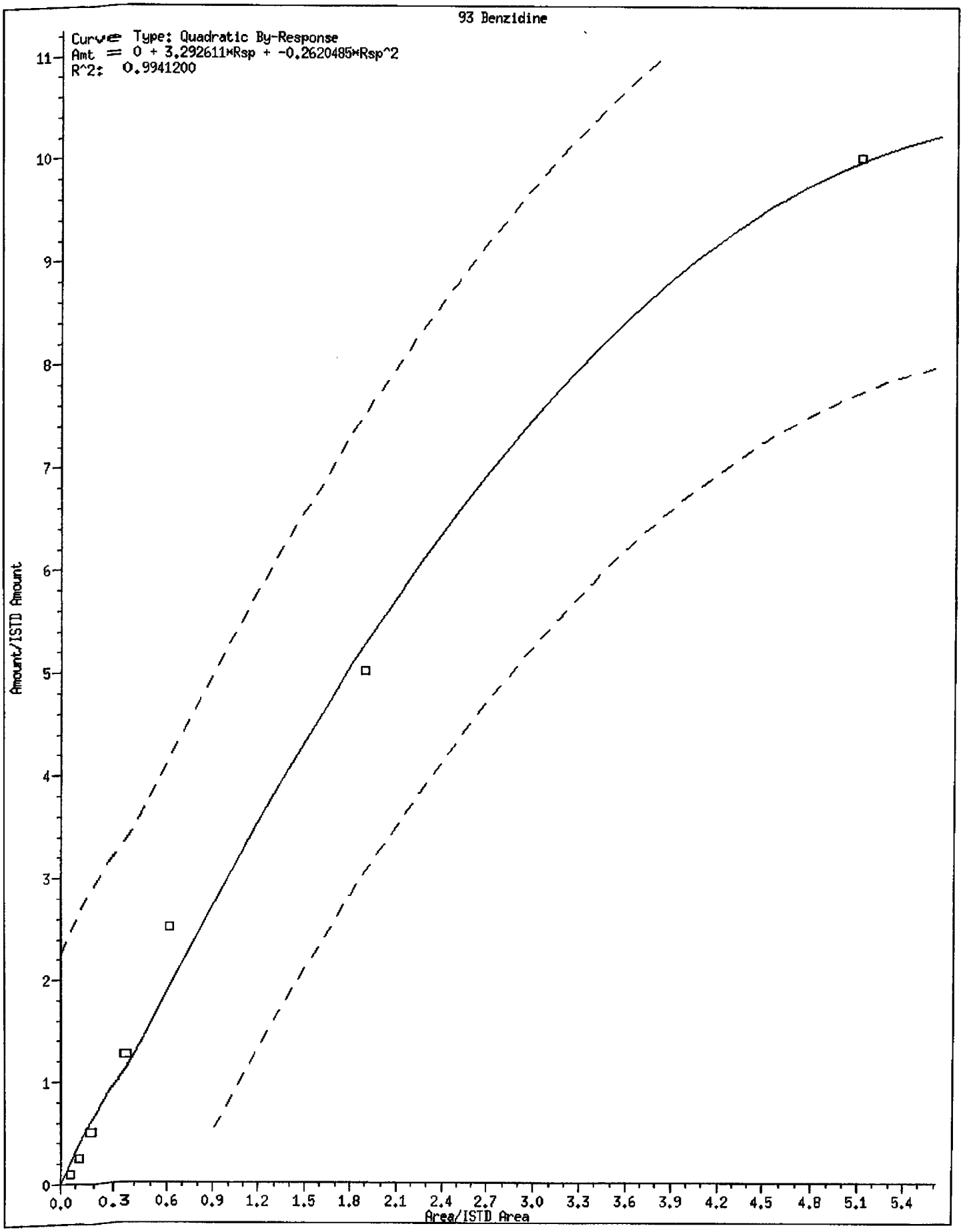
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD	
	20.000 Level 7								
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
$ 2 Phenol-d5	1.17781	0.97554	1.04910	0.97650	1.05257	1.17262			
	1.13339						1.07679	7.976	
$ 5 2-Chlorophenol-d4	1.60553	1.48775	1.38438	1.35808	1.41342	1.54836			
	1.52368						1.47446	6.230	
$ 10 1,2-Dichlorobenzene-d4	1.08297	1.03620	0.99758	0.90315	0.93791	1.04475			
	1.03569						1.00546	6.356	
$ 18 Nitrobenzene-d5	0.28170	0.21523	0.22744	0.21879	0.23172	0.23917			
	0.23365						0.23539	9.373	
$ 36 2-Fluorobiphenyl	1.53103	1.33300	1.38568	1.36776	1.39600	1.44548			
	1.48781						1.42097	4.944	
$ 55 2,4,6-Tribromophenol	0.15718	0.12875	0.17096	0.15094	0.15907	0.16198			
	0.17199						0.15727	9.298	
$ 66 Terphenyl-d14	0.91027	0.79394	0.77095	0.79128	0.78135	0.80925			
	0.85533						0.81605	6.088	
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	


93 Benzidine
Curve Type: Quadratic By-Response
Amt = 0 + 3.292611*Rsp + -0.2620485*Rsp^2
R^2: 0.9941200
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
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

Analytical Resources, Inc.

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Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 yev

Calibration File Names:
Level 1: /chem1/nt10.i/20121114.b/ic1114b.d
Level 2: /chem1/nt10.i/20121114.b/ic1114i.d
Level 3: /chem1/nt10.i/20121114.b/ic1114d.d
Level 4: /chem1/nt10.i/20121114.b/ic1114g.d
Level 5: /chem1/nt10.i/20121114.b/ic1114a.d
Level 6: /chem1/nt10.i/20121114.b/ic1114e.d
Level 7: /chem1/nt10.i/20121114.b/ic1114c.d

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											
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	

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Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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)	0.85439	0.74206	0.79011	0.79097	0.75942	0.78470						
	0.79425						AVRG		0.78799		4.45606	
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

Analytical Resources, Inc.

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Start Cal Date : 14-NOV-2012 16:37
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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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											
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
105 1-methylnaphthalene	0.66863	0.60915	0.60694	0.60207	0.62624	0.69157						
	0.68421						AVRG		0.64126		6.07174	
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	

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Cal Date : 15-Nov-2012 09:52 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	1.26331	1.10371	1.12560	1.03234	1.10210	1.21970						
	1.17899						AVRG		1.14654		6.87967	
4 Bis(2-Chloroethyl)ether	0.79843	0.63800	0.61587	0.61127	0.63336	0.67839						
	0.63828						AVRG		0.65909		9.88794	<-

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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
6 2-Chlorophenol	1.76125	1.55145	1.62807	1.56078	1.55761	1.72008	1.68954	AVRG		1.63840		5.26213
7 1,3-Dichlorobenzene	1.66617	1.58768	1.53534	1.42394	1.49708	1.59344	1.52412	AVRG		1.54682		5.02901
9 1,4-Dichlorobenzene	1.63631	1.40788	1.43191	1.35532	1.41499	1.52493	1.49371	AVRG		1.46643		6.38710
11 Benzyl alcohol	0.70678	0.58580	0.55619	0.56815	0.58402	0.65260	0.61477	AVRG		0.60976		8.75770
12 1,2-Dichlorobenzene	1.69148	1.41425	1.38250	1.37699	1.36697	1.49972	1.44561	AVRG		1.45393		7.87981
13 2-Methylphenol	1.24325	1.13775	1.03581	1.03822	1.05447	1.16934	1.16620	AVRG		1.12072		7.11414
14 2,2'-oxybis(1-Chloropropane)	1.59686	1.35587	1.35047	1.37375	1.41821	1.55606	1.62223	AVRG		1.46763		8.15251

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Cal Date : 15-Nov-2012 09:52 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	
15 4-Methylphenol	1.23800	1.08118	1.08690	1.06614	1.12587	1.24446	1.22755	AVRG		1.15287		6.98922	
16 N-Nitroso-di-n-propylamine	0.47445	0.30464	0.39386	0.36308	0.36678	0.40800	0.39904	AVRG		0.38712		13.35791	<-
17 Hexachloroethane	0.60532	0.49794	0.48918	0.49683	0.48824	0.55538	0.54374	AVRG		0.52523		8.47365	
19 Nitrobenzene	0.21739	0.19045	0.19074	0.18396	0.19217	0.19588	0.19827	AVRG		0.19555		5.44078	<-
20 Isophorone	0.37313	0.31682	0.30984	0.32402	0.33351	0.35318	0.38976	AVRG		0.34289		8.77623	
21 2-Nitrophenol	0.27575	0.21100	0.23000	0.23089	0.23654	0.24609	0.24429	AVRG		0.23922		8.29852	
22 2,4-Dimethylphenol	0.34347	0.31836	0.32010	0.31469	0.32450	0.34944	0.36086	AVRG		0.33306		5.40567	

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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										
23 Bis(2-Chloroethoxy)methane	0.19307	0.19752	0.18622	0.18794	0.19465	0.20501					
	0.20606						AVRG		0.19578		3.93138
24 Benzoic acid	+++++	0.18069	0.22622	0.22881	0.24640	0.26822					
	0.26817						AVRG		0.23642		13.88332
25 2,4-Dichlorophenol	0.37924	0.35378	0.34770	0.35496	0.37003	0.39708					
	0.41164						AVRG		0.37349		6.42324
26 1,2,4-Trichlorobenzene	0.34730	0.30576	0.34058	0.32318	0.32565	0.34183					
	0.33874						AVRG		0.33186		4.35982
28 Naphthalene	1.09022	0.96280	0.98232	0.97010	1.02663	1.08418					
	1.11516						AVRG		1.03306		6.13964
29 4-Chloroaniline	0.45110	0.39749	0.39036	0.38971	0.41678	0.45709					
	0.46918						AVRG		0.42453		8.00611
30 Hexachlorobutadiene	0.18985	0.18761	0.18041	0.18977	0.19337	0.20476					
	0.20450						AVRG		0.19289		4.63017

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Analytical Resources, Inc.

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Cal Date : 15-Nov-2012 09:52 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										
31 4-Chloro-3-methylphenol	0.25492	0.22380	0.23642	0.23680	0.25559	0.28629					
	0.30229						AVRG		0.25659		11.07812
32 2-Methylnaphthalene	0.65952	0.66619	0.64999	0.63083	0.67572	0.72943					
	0.74421						AVRG		0.67941		6.16040
33 Hexachlorocyclopentadiene	+++++	0.38887	0.43521	0.40277	0.43010	0.46271					
	0.49160						AVRG		0.43521		8.69642
34 2,4,6-Trichlorophenol	0.48178	0.42986	0.47861	0.44479	0.46493	0.50170					
	0.53440						AVRG		0.47658		7.33629
35 2,4,5-Trichlorophenol	0.56705	0.47414	0.52322	0.51290	0.52621	0.55041					
	0.58924						AVRG		0.53474		7.08582
37 2-Chloronaphthalene	1.28248	1.00443	1.05870	1.02957	1.06969	1.09442					
	1.14036						AVRG		1.09709		8.45433
38 2-Nitroaniline	0.15077	0.11975	0.13417	0.12324	0.13383	0.13897					
	0.14443						AVRG		0.13502		8.14916

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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
39 Dimethylphthalate	1.40108	1.10719	1.18256	1.15414	1.13699	1.13730	1.15344	AVRG		1.18181		8.40561
40 Acenaphthylene	2.16983	1.79761	1.89239	1.79207	1.83905	1.89650	2.03911	AVRG		1.91808		7.24259
41 2,6-Dinitrotoluene	0.31696	0.29751	0.29743	0.27062	0.27205	0.28994	0.31278	AVRG		0.29390		6.13216
43 3-Nitroaniline	0.34966	0.29183	0.29608	0.26249	0.26138	0.29578	0.30137	AVRG		0.29408		10.03136
44 Acenaphthene	1.20383	1.09281	1.13912	1.09676	1.09502	1.17268	1.25294	AVRG		1.15045		5.41145
45 2,4-Dinitrophenol	+++++	0.19881	0.24999	0.25399	0.28403	0.30087	0.31567	AVRG		0.26723		15.80064
46 Dibenzofuran	1.60151	1.45444	1.49345	1.41559	1.45371	1.52745	1.55163	AVRG		1.49968		4.31363

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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										
47 4-Nitrophenol	0.23058	0.20032	0.22871	0.23057	0.21594	0.23398					
	0.23790						AVRG		0.22543		5.76349
48 2,4-Dinitrotoluene	0.42947	0.34633	0.36728	0.33567	0.35078	0.36546					
	0.37420						AVRG		0.36703		8.34543
49 Fluorene	1.44380	1.23125	1.26722	1.23112	1.26334	1.35988					
	1.45421						AVRG		1.32155		7.35478
50 Diethylphthalate	1.36600	1.10610	1.14030	1.10239	1.06187	1.10022					
	1.08367						AVRG		1.13722		9.11332
51 4-Chlorophenyl-phenylether	0.66890	0.59174	0.58083	0.58657	0.69034	0.72825					
	0.77024						AVRG		0.65955		11.43500
52 4-Nitroaniline	0.39932	0.31029	0.27106	0.24361	0.26596	0.29334					
	0.30135						AVRG		0.29785		16.87618
53 4,6-Dinitro-2-methylphenol	+++++	0.19695	0.19828	0.19912	0.20622	0.22457					
	0.23663						AVRG		0.21029		7.84539

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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	0.52891	0.48777	0.49991	0.47675	0.45273	0.46624					
	0.48137						AVRG		0.48481		5.07519
56 4-Bromophenyl-phenylether	0.21000	0.19462	0.19464	0.19212	0.20192	0.20787					
	0.22404						AVRG		0.20360		5.57277
57 Hexachlorobenzene	0.23279	0.19798	0.21115	0.19777	0.19863	0.20896					
	0.21923						AVRG		0.20950		6.25027
58 Pentachlorophenol	+++++	0.15401	0.17100	0.17380	0.18613	0.19584					
	0.21458						AVRG		0.18256		11.59161
60 Phenanthrene	1.20695	1.01114	1.03881	0.99601	0.99041	1.05470					
	1.15233						AVRG		1.06433		7.84115
61 Anthracene	1.25712	1.11282	1.08011	1.09837	1.11949	1.19386					
	1.27744						AVRG		1.16274		6.87706
62 Carbazole	1.11353	0.92073	0.86305	0.68723	0.62561	0.75431					
	0.89788						AVRG		0.83748		19.60943

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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										
63 Di-n-butylphthalate	1.49470	1.14765	1.15987	1.17863	1.18296	1.30767					
	1.40745						AVRG		1.26842		10.85783
64 Fluoranthene	1.49816	1.18393	1.21763	1.26553	1.28146	1.43403					
	1.55193						AVRG		1.34752		10.78303
65 Pyrene	1.45656	1.20008	1.20072	1.24636	1.20441	1.32009					
	1.42871						AVRG		1.29385		8.52931
67 Butylbenzylphthalate	0.69209	0.46876	0.48834	0.46127	0.43912	0.47626					
	0.48731						AVRG		0.50188		17.04676
68 Benzo(a)anthracene	1.50937	1.18801	1.14420	1.18038	1.13293	1.21600					
	1.25524						AVRG		1.23231		10.46859
70 3,3'-Dichlorobenzidine	+++++	0.56304	0.47227	0.37932	0.35342	0.40745					
	0.50876						AVRG		0.44738		18.10948
71 Chrysene	1.21022	1.03807	1.00073	1.02044	1.00104	1.09957					
	1.18139						AVRG		1.07878		8.06639

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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	0.67954	0.51246	0.48731	0.50465	0.47543	0.50119	0.50216					
								AVRG		0.52325		13.37789
73 Di-n-octylphthalate	1.28650	0.95032	0.93736	0.89949	0.86664	0.89208	0.91009					
								AVRG		0.96321		15.08184
74 Benzo(b)fluoranthene	1.60046	1.09896	1.19479	1.15970	1.23415	1.25859	1.30476					
								AVRG		1.26449		12.86143
75 Benzo(k)fluoranthene	1.40395	1.26038	1.18542	1.11819	1.11998	1.20073	1.24536					
								AVRG		1.21915		8.06744
187 Total Benzofluoranthenes	1.45885	1.13867	1.12354	1.08564	1.10940	1.16417	1.20900					
								AVRG		1.18418		10.76544
76 Benzo(a)pyrene	1.34114	1.05710	1.06171	1.02861	1.02942	1.09002	1.14359					
								AVRG		1.10737		9.97125
78 Indeno(1,2,3-cd)pyrene	1.69941	1.42477	1.35724	1.29137	1.31704	1.36674	1.45346					
								AVRG		1.41572		9.69386

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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										
79 Dibenzo(a,h)anthracene	1.39385	1.10851	1.07734	1.03480	1.04286	1.09906					
	1.18762						AVRG		1.13486		11.00682
80 Benzo(g,h,i)perylene	1.45571	1.17584	1.11950	1.09823	1.10896	1.14090					
	1.19847						AVRG		1.18537		10.50832
90 N-Nitrosodimethylamine	0.34701	0.34615	0.37179	0.34618	0.37393	0.41625					
	0.41527						AVRG		0.37379		8.29714
91 Aniline	2.51317	2.11985	2.08373	2.00090	2.14231	2.39707					
	2.33853						AVRG		2.22794		8.46770
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
93 Benzidine	21042	37911	72668	100027	239710	680397					
	1688306						QUAD	0.000e+00	3.29261	-0.26205	0.99412
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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											
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++						
	0.00005						AVRG		0.00005		0.000e+00	<-
99 Perylene	1.34378	1.21694	1.15899	1.14536	1.12536	1.19727						
	1.29119						AVRG		1.21127		6.62449	
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	0.38177	0.33155	0.31746	0.32077	0.33577	0.37705						
	0.38559						AVRG		0.35000		8.62231	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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	
$ 1 2-Fluorophenol	1.04580	1.03088	1.03906	1.00597	1.05247	1.14321	1.09975	AVRG		1.05959		4.38737	
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
$ 2 Phenol-d5	1.17781	0.97554	1.04910	0.97650	1.05257	1.17262	1.13339	AVRG		1.07679		7.97584	
$ 5 2-Chlorophenol-d4	1.60553	1.48775	1.38438	1.35808	1.41342	1.54836	1.52368	AVRG		1.47446		6.22967	
$ 10 1,2-Dichlorobenzene-d4	1.08297	1.03620	0.99758	0.90315	0.93791	1.04475	1.03569	AVRG		1.00546		6.35566	
$ 18 Nitrobenzene-d5	0.28170	0.21523	0.22744	0.21879	0.23172	0.23917	0.23365	AVRG		0.23539		9.37349	
$ 36 2-Fluorobiphenyl	1.53103	1.33300	1.38568	1.36776	1.39600	1.44548	1.48781	AVRG		1.42097		4.94445	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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										
$ 55 2,4,6-Tribromophenol	0.15718	0.12875	0.17096	0.15094	0.15907	0.16198					
	0.17199						AVRG		0.15727		9.29757
$ 66 Terphenyl-d14	0.91027	0.79394	0.77095	0.79128	0.78135	0.80925					
	0.85533						AVRG		0.81605		6.08780
$ 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
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 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										
$ 95 D10-1-methylnaphthalene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2012 16:37
End Cal Date : 14-NOV-2012 21:31
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20121114.b/ABN.m
Cal Date : 15-Nov-2012 09:52 yev

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

Analytical Resources, Inc.

YZ 11/15/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121114.b/ic1114a.d
Lab Smp Id: IC1114A
Inj Date : 14-NOV-2012 16:37
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC1114A
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121114.b/ABN.m
Meth Date : 15-Nov-2012 10:17 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 16:37 Cal File: ic1114a.d
Als bottle: 1 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)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.713	6.705	(0.743)	128251	5.00000	4.966
$	2 Phenol-d5	99	8.389	8.390	(0.928)	128264	5.00000	4.888
	3 Phenol	94	8.413	8.405	(0.931)	134299	5.00000	4.806
$	5 2-Chlorophenol-d4	132	8.660	8.652	(0.958)	172236	5.00000	4.793
	4 Bis(2-Chloroethyl)ether	93	8.583	8.575	(0.949)	77180	5.00000	4.805
	6 2-Chlorophenol	128	8.691	8.683	(0.961)	189806	5.00000	4.753
	7 1,3-Dichlorobenzene	146	8.969	8.970	(0.992)	182430	5.00000	4.839
*	8 1,4-Dichlorobenzene-d4	152	9.039	9.040	(1.000)	97486	4.00000	
	9 1,4-Dichlorobenzene	146	9.070	9.071	(1.003)	172427	5.00000	4.825
$	10 1,2-Dichlorobenzene-d4	152	9.419	9.420	(1.042)	114291	5.00000	4.664
	12 1,2-Dichlorobenzene	146	9.443	9.443	(1.045)	166576	5.00000	4.701
	11 Benzyl alcohol	108	9.334	9.334	(1.033)	71167	5.00000	4.789
	14 2,2'-oxybis(1-Chloropropane)	121	10.986	10.986	(1.215)	172819	5.00000	4.832
	13 2-Methylphenol	108	9.590	9.591	(1.061)	128495	5.00000	4.704
	17 Hexachloroethane	117	10.072	10.072	(1.114)	59496	5.00000	4.648
	16 N-Nitroso-di-n-propylamine	70	9.940	9.940	(1.100)	44695	5.00000	4.737
	15 4-Methylphenol	108	9.878	9.878	(1.093)	137196	5.00000	4.883
$	18 Nitrobenzene-d5	82	10.203	10.196	(0.874)	103448	5.00000	4.922
	19 Nitrobenzene	77	10.235	10.235	(0.877)	85792	5.00000	4.914
	20 Isophorone	82	10.723	10.716	(0.919)	148891	5.00000	4.863
	21 2-Nitrophenol	139	10.909	10.902	(0.935)	105599	5.00000	4.944
	22 2,4-Dimethylphenol	107	10.986	10.986	(0.941)	289734	10.0000	9.743
	23 Bis(2-Chloroethoxy)methane	93	11.194	11.194	(0.959)	86900	5.00000	4.971
	24 Benzoic acid	105	11.225	11.094	(0.962)	440013	20.0000	19.17
	25 2,4-Dichlorophenol	162	11.387	11.387	(0.976)	330393	10.0000	9.907
	26 1,2,4-Trichlorobenzene	180	11.587	11.588	(0.993)	145381	5.00000	4.906
*	27 Naphthalene-d8	136	11.672	11.672	(1.000)	357150	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	11.718	11.711	(1.004)	458324	5.00000	4.969
	29 4-Chloroaniline	127	11.865	11.865	(1.017)	372133	10.0000	9.817
	30 Hexachlorobutadiene	225	12.112	12.113	(1.038)	86327	5.00000	5.012
	31 4-Chloro-3-methylphenol	107	12.909	12.902	(1.106)	228206	10.0000	9.961
	32 2-Methylnaphthalene	142	13.204	13.196	(1.131)	301666	5.00000	4.973
	33 Hexachlorocyclopentadiene	237	13.707	13.707	(0.883)	233607	10.0000	9.883
	34 2,4,6-Trichlorophenol	196	13.869	13.862	(0.894)	252526	10.0000	9.756
	35 2,4,5-Trichlorophenol	196	13.947	13.939	(0.899)	285812	10.0000	9.841
$	36 2-Fluorobiphenyl	172	14.047	14.047	(0.905)	379118	5.00000	4.912
	37 2-Chloronaphthalene	162	14.256	14.249	(0.919)	290501	5.00000	4.875
	38 2-Nitroaniline	65	14.542	14.535	(0.937)	72690	10.0000	9.912
	39 Dimethylphthalate	163	15.022	15.023	(0.968)	308776	5.00000	4.810
	40 Acenaphthylene	152	15.177	15.178	(0.978)	499437	5.00000	4.794
	41 2,6-Dinitrotoluene	165	15.162	15.154	(0.977)	147762	10.0000	9.256
*	42 Acenaphthene-d10	164	15.518	15.510	(1.000)	217259	4.00000	
	43 3-Nitroaniline	138	15.456	15.441	(0.996)	141966	10.0000	8.888
	44 Acenaphthene	153	15.587	15.580	(1.004)	297378	5.00000	4.759
	45 2,4-Dinitrophenol	184	15.680	15.672	(1.010)	308545	20.0000	19.77
	46 Dibenzofuran	168	15.935	15.935	(1.027)	394790	5.00000	4.847
	47 4-Nitrophenol	109	15.819	15.804	(1.019)	117287	10.0000	9.579
	48 2,4-Dinitrotoluene	165	16.020	16.013	(1.032)	190527	10.0000	9.557
	50 Diethylphthalate	149	16.584	16.577	(1.069)	288376	5.00000	4.669
	49 Fluorene	166	16.693	16.693	(1.076)	343091	5.00000	4.780
	51 4-Chlorophenyl-phenylether	204	16.700	16.701	(1.076)	187477	5.00000	5.233
	52 4-Nitroaniline	138	16.808	16.793	(1.083)	144453	10.0000	8.929
	53 4,6-Dinitro-2-methylphenol	198	16.909	16.901	(0.902)	366462	20.0000	19.61
	54 N-Nitrosodiphenylamine	169	16.970	16.971	(0.906)	201132	5.00000	4.669
$	55 2,4,6-Tribromophenol	330	17.263	17.256	(1.113)	43200	5.00000	5.057
	56 4-Bromophenyl-phenylether	248	17.772	17.765	(0.948)	89708	5.00000	4.959
	57 Hexachlorobenzene	284	18.089	18.090	(0.965)	88246	5.00000	4.741
	58 Pentachlorophenol	266	18.477	18.469	(0.986)	165383	10.0000	10.20
*	59 Phenanthrene-d10	188	18.740	18.740	(1.000)	355415	4.00000	
	60 Phenanthrene	178	18.794	18.786	(1.003)	440008	5.00000	4.653
	61 Anthracene	178	18.887	18.887	(1.008)	497354	5.00000	4.814
	62 Carbazole	167	19.235	19.227	(1.026)	277939	5.00000	3.735
	63 Di-n-butylphthalate	149	20.070	20.063	(1.071)	525551	5.00000	4.663
	64 Fluoranthene	202	21.161	21.154	(1.129)	569311	5.00000	4.755
	65 Pyrene	202	21.571	21.572	(0.910)	587841	5.00000	4.654
$	66 Terphenyl-d14	244	21.881	21.873	(0.923)	381354	5.00000	4.787
	67 Butylbenzylphthalate	149	22.794	22.787	(0.961)	214322	5.00000	4.375
	68 Benzo(a)anthracene	228	23.693	23.685	(0.999)	552953	5.00000	4.597
*	69 Chrysene-d12	240	23.716	23.709	(1.000)	390458	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.662	23.654	(0.998)	344993	10.0000	7.900
	71 Chrysene	228	23.762	23.755	(1.002)	488582	5.00000	4.640
	72 bis(2-Ethylhexyl)phthalate	149	23.809	23.801	(0.962)	316339	5.00000	4.543
*	134 Di-n-octylphthalate-d4	153	24.761	24.754	(1.000)	532303	4.00000	
	73 Di-n-octylphthalate	149	24.769	24.761	(1.000)	576643	5.00000	4.499

	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	25.427	25.419	(0.975)	595940	5.00000	4.880
75	Benzo(k)fluoranthene	252	25.465	25.458	(0.977)	540810	5.00000	4.593
76	Benzo(a)pyrene	252	25.977	25.969	(0.996)	497082	5.00000	4.648
* 77	Perylene-d12	264	26.077	26.070	(1.000)	386299	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.308	28.285	(1.086)	635963	5.00000	4.651
79	Dibenzo(a,h)anthracene	278	28.316	28.309	(1.086)	503572	5.00000	4.595
80	Benzo(g,h,i)perylene	276	28.961	28.946	(1.111)	535490	5.00000	4.678
90	N-Nitrosodimethylamine	74	4.489	4.481	(0.497)	91133	10.0000	10.00
91	Aniline	93	8.474	8.467	(0.938)	261057	5.00000	4.808
93	Benzidine	184	21.409	21.401	(0.903)	239710	10.0000	7.691
103	Pyridine	79	4.504	4.512	(0.498)	81831	10.0000	9.593
105	1-methylnaphthalene	142	13.436	13.428	(1.151)	279577	5.00000	4.883
111	Azobenzene (1,2-DP-Hydrazine)	77	17.048	17.040	(1.099)	206239	5.00000	4.819
187	Total Benzofluoranthenes	252	25.465	25.419	(0.977)	1071400	10.0000	9.368
99	Perylene	252	26.124	26.116	(1.002)	543407	5.00000	4.645
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1114a.d
Lab Smp Id: IC1114A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121114.b/ABN.m
Misc Info:

Calibration Date: 14-NOV-2012
Calibration Time: 16:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

	COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8	1,4-Dichlorobenze	97486	48743	194972	97486	0.00
27	Naphthalene-d8	357150	178575	714300	357150	0.00
42	Acenaphthene-d10	217259	108630	434518	217259	0.00
59	Phenanthrene-d10	355415	177708	710830	355415	0.00
69	Chrysene-d12	390458	195229	780916	390458	0.00
134	Di-n-octylphthala	532303	266152	1064606	532303	0.00
77	Perylene-d12	386299	193150	772598	386299	0.00

	COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8	1,4-Dichlorobenze	9.04	8.54	9.54	9.04	0.00
27	Naphthalene-d8	11.67	11.17	12.17	11.67	0.00
42	Acenaphthene-d10	15.52	15.02	16.02	15.52	0.00
59	Phenanthrene-d10	18.74	18.24	19.24	18.74	0.00
69	Chrysene-d12	23.72	23.22	24.22	23.72	0.00
134	Di-n-octylphthala	24.76	24.26	25.26	24.76	0.00
77	Perylene-d12	26.08	25.58	26.58	26.08	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.

CO-ELUTION SUMMARY FOR FILE - ic1114a.d

Lab ID: IC1114A, Method: ABN.m, Instrument: nt10.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 11/15/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121114.b/ic1114b.d
Lab Smp Id: IC1114B
Inj Date : 14-NOV-2012 17:14
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC1114B
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121114.b/ABN.m
Meth Date : 15-Nov-2012 10:17 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 17:14 Cal File: ic1114b.d
Als bottle: 2 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	6.713	6.705	(0.743)	4587	0.20000	0.1974
$	2 Phenol-d5	99	8.390	8.390	(0.928)	5166	0.20000	0.2188
	3 Phenol	94	8.413	8.405	(0.931)	5541	0.20000	0.2204
$	5 2-Chlorophenol-d4	132	8.660	8.652	(0.958)	7042	0.20000	0.2178
	4 Bis(2-Chloroethyl)ether	93	8.575	8.575	(0.949)	3502	0.20000	0.2423
	6 2-Chlorophenol	128	8.683	8.683	(0.961)	7725	0.20000	0.2150
	7 1,3-Dichlorobenzene	146	8.970	8.970	(0.992)	7308	0.20000	0.2154
*	8 1,4-Dichlorobenzene-d4	152	9.040	9.040	(1.000)	87722	4.00000	
	9 1,4-Dichlorobenzene	146	9.071	9.071	(1.003)	7177	0.20000	0.2232
$	10 1,2-Dichlorobenzene-d4	152	9.420	9.420	(1.042)	4750	0.20000	0.2154
	12 1,2-Dichlorobenzene	146	9.443	9.443	(1.045)	7419	0.20000	0.2327
	11 Benzyl alcohol	108	9.334	9.334	(1.033)	3100	0.20000	0.2318
	14 2,2'-oxybis(1-Chloropropane)	121	10.986	10.986	(1.215)	7004	0.20000	0.2176(M)
	13 2-Methylphenol	108	9.591	9.591	(1.061)	5453	0.20000	0.2219
	17 Hexachloroethane	117	10.072	10.072	(1.114)	2655	0.20000	0.2305
	16 N-Nitroso-di-n-propylamine	70	9.940	9.940	(1.100)	2081	0.20000	0.2451
	15 4-Methylphenol	108	9.878	9.878	(1.093)	5430	0.20000	0.2148
$	18 Nitrobenzene-d5	82	10.196	10.196	(0.874)	4634	0.20000	0.2394
	19 Nitrobenzene	77	10.235	10.235	(0.877)	3576	0.20000	0.2223
	20 Isophorone	82	10.716	10.716	(0.918)	6138	0.20000	0.2176
	21 2-Nitrophenol	139	10.909	10.902	(0.935)	4536	0.20000	0.2305
	22 2,4-Dimethylphenol	107	10.986	10.986	(0.941)	11300	0.40000	0.4125
	23 Bis(2-Chloroethoxy)methane	93	11.194	11.194	(0.959)	3176	0.20000	0.1972
	24 Benzoic acid	105	11.079	11.094	(0.949)	10395	0.80000	0.4979
	25 2,4-Dichlorophenol	162	11.387	11.387	(0.976)	12477	0.40000	0.4062
	26 1,2,4-Trichlorobenzene	180	11.580	11.588	(0.992)	5713	0.20000	0.2093
*	27 Naphthalene-d8	136	11.672	11.672	(1.000)	328999	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	11.719	11.711	(1.004)	17934	0.20000	0.2111
	29 4-Chloroaniline	127	11.858	11.865	(1.016)	14841	0.40000	0.4250
	30 Hexachlorobutadiene	225	12.113	12.113	(1.038)	3123	0.20000	0.1968
	31 4-Chloro-3-methylphenol	107	12.902	12.902	(1.105)	8387	0.40000	0.3974
	32 2-Methylnaphthalene	142	13.196	13.196	(1.131)	10849	0.20000	0.1941
	33 Hexachlorocyclopentadiene	237	13.699	13.707	(0.883)	8974	0.40000	0.4371
	34 2,4,6-Trichlorophenol	196	13.862	13.862	(0.894)	9091	0.40000	0.4044
	35 2,4,5-Trichlorophenol	196	13.939	13.939	(0.899)	10700	0.40000	0.4242
$	36 2-Fluorobiphenyl	172	14.047	14.047	(0.906)	14445	0.20000	0.2155
	37 2-Chloronaphthalene	162	14.249	14.249	(0.919)	12100	0.20000	0.2338
	38 2-Nitroaniline	65	14.535	14.535	(0.937)	2845	0.40000	0.4467
	39 Dimethylphthalate	163	15.023	15.023	(0.969)	13219	0.20000	0.2371
	40 Acenaphthylene	152	15.170	15.178	(0.978)	20472	0.20000	0.2263
	41 2,6-Dinitrotoluene	165	15.154	15.154	(0.977)	5981	0.40000	0.4314
*	42 Acenaphthene-d10	164	15.510	15.510	(1.000)	188697	4.00000	
	43 3-Nitroaniline	138	15.448	15.441	(0.996)	6598	0.40000	0.4756
	44 Acenaphthene	153	15.580	15.580	(1.004)	11358	0.20000	0.2093
	45 2,4-Dinitrophenol	184	15.672	15.672	(1.010)	6660	0.80000	0.5039
	46 Dibenzofuran	168	15.935	15.935	(1.027)	15110	0.20000	0.2136
	47 4-Nitrophenol	109	15.804	15.804	(1.019)	4351	0.40000	0.4091
	48 2,4-Dinitrotoluene	165	16.013	16.013	(1.032)	8104	0.40000	0.4681
	50 Diethylphthalate	149	16.577	16.577	(1.069)	12888	0.20000	0.2402
	49 Fluorene	166	16.685	16.693	(1.076)	13622	0.20000	0.2185
	51 4-Chlorophenyl-phenylether	204	16.708	16.701	(1.077)	6311	0.20000	0.2028
	52 4-Nitroaniline	138	16.793	16.793	(1.083)	7535	0.40000	0.5363
	53 4,6-Dinitro-2-methylphenol	198	16.901	16.901	(0.902)	13397	0.80000	0.8021
	54 N-Nitrosodiphenylamine	169	16.971	16.971	(0.906)	8402	0.20000	0.2182
$	55 2,4,6-Tribromophenol	330	17.256	17.256	(1.113)	1483	0.20000	0.1999
	56 4-Bromophenyl-phenylether	248	17.765	17.765	(0.948)	3336	0.20000	0.2063
	57 Hexachlorobenzene	284	18.090	18.090	(0.965)	3698	0.20000	0.2222
	58 Pentachlorophenol	266	18.477	18.469	(0.986)	6445	0.40000	0.4445
*	59 Phenanthrene-d10	188	18.740	18.740	(1.000)	317710	4.00000	
	60 Phenanthrene	178	18.786	18.786	(1.002)	19173	0.20000	0.2268
	61 Anthracene	178	18.879	18.887	(1.007)	19970	0.20000	0.2162
	62 Carbazole	167	19.227	19.227	(1.026)	17689	0.20000	0.2659
	63 Di-n-butylphthalate	149	20.063	20.063	(1.071)	23744	0.20000	0.2357
	64 Fluoranthene	202	21.162	21.154	(1.129)	23799	0.20000	0.2224
	65 Pyrene	202	21.572	21.572	(0.910)	23746	0.20000	0.2252
$	66 Terphenyl-d14	244	21.873	21.873	(0.923)	14840	0.20000	0.2231
	67 Butylbenzylphthalate	149	22.795	22.787	(0.961)	11283	0.20000	0.2758
	68 Benzo(a)anthracene	228	23.685	23.685	(0.999)	24607	0.20000	0.2450
*	69 Chrysene-d12	240	23.709	23.709	(1.000)	326056	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.654	23.654	(0.998)	23174	0.40000	0.6355
	71 Chrysene	228	23.755	23.755	(1.002)	19730	0.20000	0.2244
	72 bis(2-Ethylhexyl)phthalate	149	23.801	23.801	(0.962)	14109	0.20000	0.2597
*	134 Di-n-octylphthalate-d4	153	24.754	24.754	(1.000)	415250	4.00000	
	73 Di-n-octylphthalate	149	24.769	24.761	(1.001)	26711	0.20000	0.2671

	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	25.419	25.419	(0.975)	25508	0.20000	0.2531
75	Benzo(k)fluoranthene	252	25.466	25.458	(0.977)	22376	0.20000	0.2303
76	Benzo(a)pyrene	252	25.977	25.969	(0.996)	21375	0.20000	0.2422
* 77	Perylene-d12	264	26.078	26.070	(1.000)	318758	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.293	28.285	(1.085)	27085	0.20000	0.2401
79	Dibenzo(a,h)anthracene	278	28.309	28.309	(1.086)	22215	0.20000	0.2456
80	Benzo(g,h,i)perylene	276	28.946	28.946	(1.110)	23201	0.20000	0.2456
90	N-Nitrosodimethylamine	74	4.489	4.481	(0.497)	3044	0.40000	0.3713
91	Aniline	93	8.467	8.467	(0.937)	11023	0.20000	0.2256
93	Benzidine	184	21.401	21.401	(0.903)	21042	0.40000	0.8456
103	Pyridine	79	4.528	4.512	(0.501)	3349	0.40000	0.4363
105	1-methylnaphthalene	142	13.428	13.428	(1.150)	10999	0.20000	0.2085
111	Azobenzene (1,2-DP-Hydrazine)	77	17.048	17.040	(1.099)	8061	0.20000	0.2169
187	Total Benzofluoranthenes	252	25.419	25.419	(0.975)	46502	0.40000	0.4928
99	Perylene	252	26.124	26.116	(1.002)	21417	0.20000	0.2219
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

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: ic1114b.d
Lab Smp Id: IC1114B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121114.b/ABN.m
Misc Info:

Calibration Date: 14-NOV-2012
Calibration Time: 16:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	87722	-10.02
27 Naphthalene-d8	357150	178575	714300	328999	-7.88
42 Acenaphthene-d10	217259	108630	434518	188697	-13.15
59 Phenanthrene-d10	355415	177708	710830	317710	-10.61
69 Chrysene-d12	390458	195229	780916	326056	-16.49
134 Di-n-octylphthala	532303	266152	1064606	415250	-21.99
77 Perylene-d12	386299	193150	772598	318758	-17.48

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.04	8.54	9.54	9.04	0.00
27 Naphthalene-d8	11.67	11.17	12.17	11.67	0.00
42 Acenaphthene-d10	15.52	15.02	16.02	15.51	-0.05
59 Phenanthrene-d10	18.74	18.24	19.24	18.74	0.00
69 Chrysene-d12	23.72	23.22	24.22	23.71	-0.03
134 Di-n-octylphthala	24.76	24.26	25.26	24.75	-0.03
77 Perylene-d12	26.08	25.58	26.58	26.08	0.00

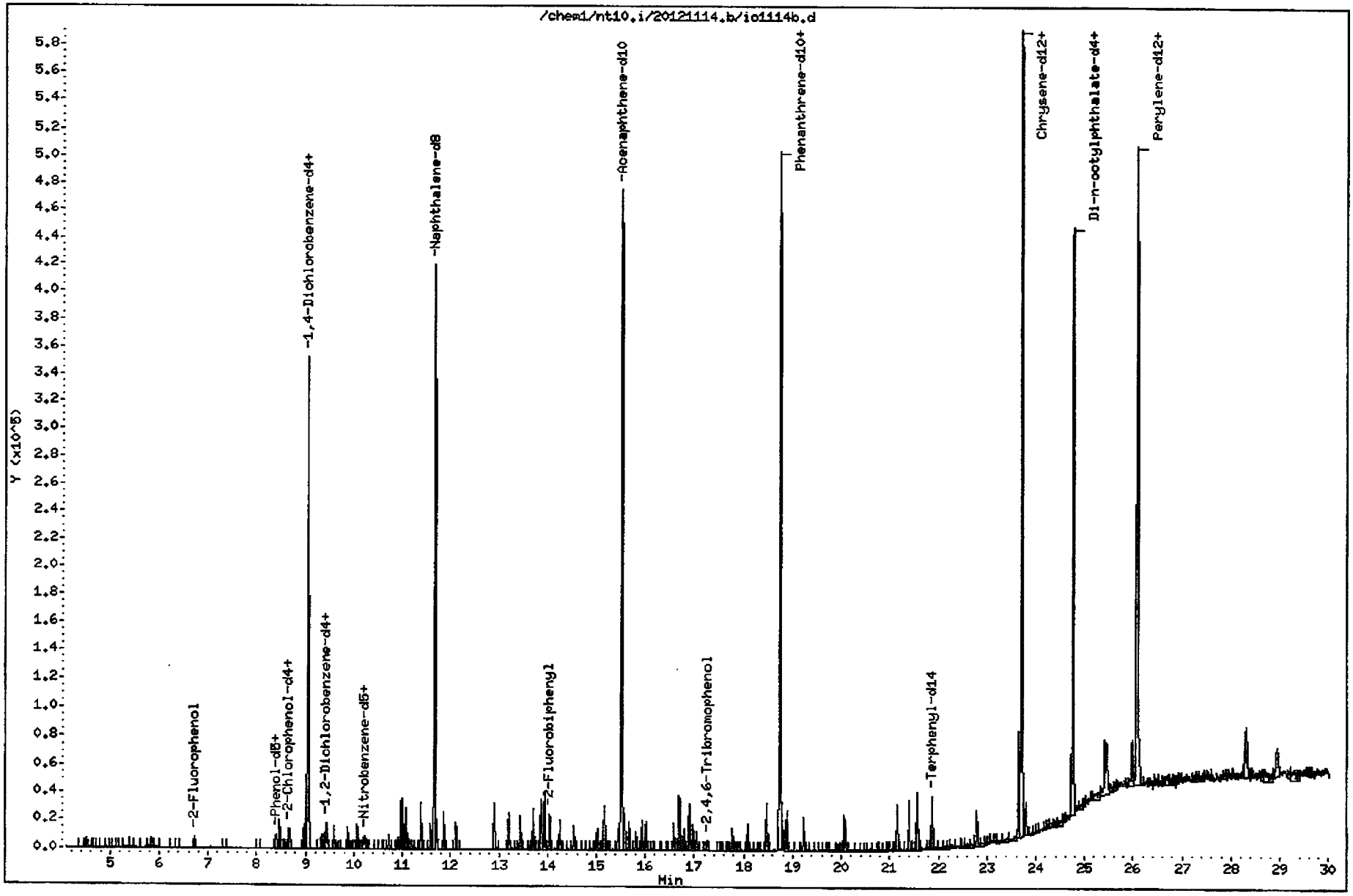
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20121114.b/ic1114b.d
Date : 14-NOV-2012 17:14
Client ID:
Instrument: nt10.i

Sample Info: IC1114B

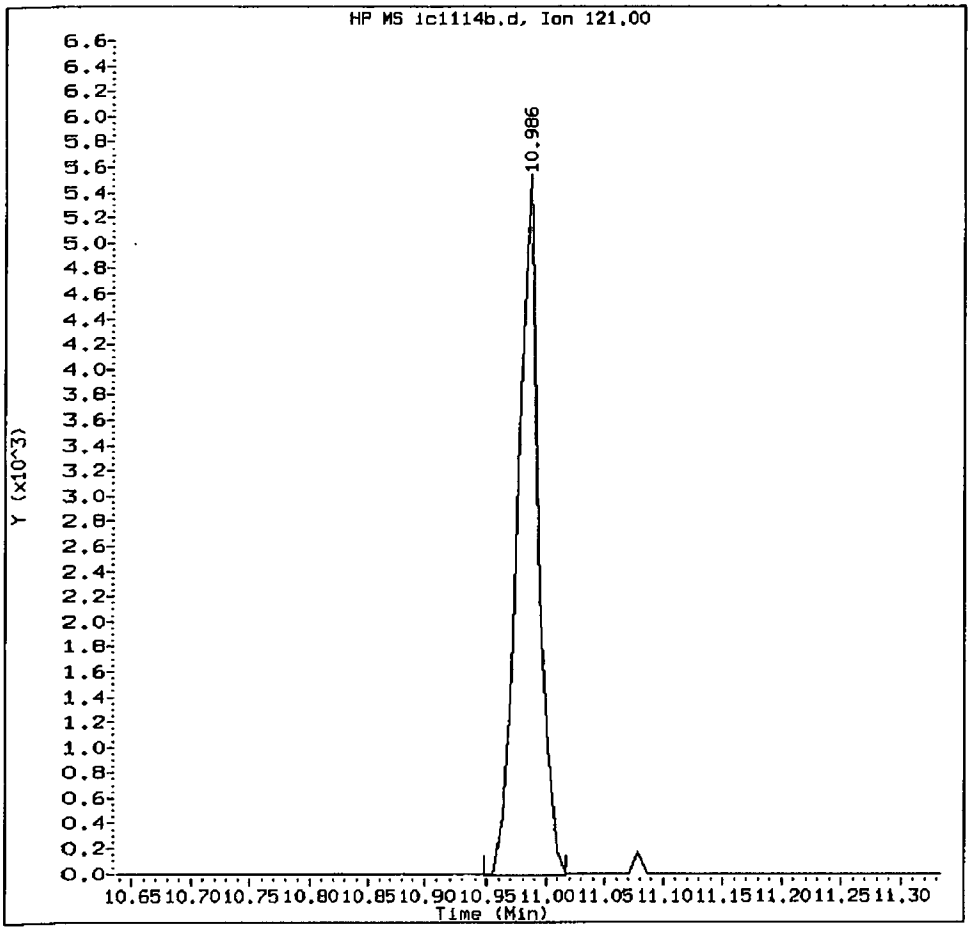
Operator: VTS/YZ

Column phase: ZB-5msi
Column diameter: 0.25



IC1114B, /chem1/nt10.i/20121114.b/ic1114b.d

2,2'-oxybis(1-Chloropropane) Amount: 0.22 Area: 7004



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: 11/15/12

CO-ELUTION SUMMARY FOR FILE - ic1114b.d

Lab ID: IC1114B, Method: ABN.m, Instrument: nt10.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 11/15/12

Data file : /chem1/nt10.i/20121114.b/ic1114c.d
Lab Smp Id: IC1114C
Inj Date : 14-NOV-2012 17:51
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC1114C
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121114.b/ABN.m
Meth Date : 15-Nov-2012 10:17 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 17:51 Cal File: ic1114c.d
Als bottle: 3 Calibration Sample, Level: 7
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	6.713	6.705	(0.743)	435173	20.0000	20.76
$	2	Phenol-d5	99	8.405	8.390	(0.930)	448482	20.0000	21.05
	3	Phenol	94	8.428	8.405	(0.932)	466525	20.0000	20.57
$	5	2-Chlorophenol-d4	132	8.660	8.652	(0.958)	602920	20.0000	20.67
	4	Bis(2-Chloroethyl)ether	93	8.583	8.575	(0.949)	252567	20.0000	19.37
	6	2-Chlorophenol	128	8.691	8.683	(0.961)	668550	20.0000	20.62
	7	1,3-Dichlorobenzene	146	8.970	8.970	(0.992)	603094	20.0000	19.71
*	8	1,4-Dichlorobenzene-d4	152	9.040	9.040	(1.000)	79140	4.00000	
	9	1,4-Dichlorobenzene	146	9.078	9.071	(1.004)	591060	20.0000	20.37
$	10	1,2-Dichlorobenzene-d4	152	9.420	9.420	(1.042)	409823	20.0000	20.60
	12	1,2-Dichlorobenzene	146	9.451	9.443	(1.046)	572029	20.0000	19.89
	11	Benzyl alcohol	108	9.342	9.334	(1.033)	243266	20.0000	20.16
	14	2,2'-oxybis(1-Chloropropane)	121	11.002	10.986	(1.217)	641917	20.0000	22.11
	13	2-Methylphenol	108	9.598	9.591	(1.062)	461465	20.0000	20.81
	17	Hexachloroethane	117	10.072	10.072	(1.114)	215159	20.0000	20.70
	16	N-Nitroso-di-n-propylamine	70	9.956	9.940	(1.101)	157902	20.0000	20.62
	15	4-Methylphenol	108	9.893	9.878	(1.094)	485740	20.0000	21.30
$	18	Nitrobenzene-d5	82	10.212	10.196	(0.874)	354642	20.0000	19.85
	19	Nitrobenzene	77	10.243	10.235	(0.877)	300937	20.0000	20.28
	20	Isophorone	82	10.747	10.716	(0.920)	591588	20.0000	22.73
	21	2-Nitrophenol	139	10.909	10.902	(0.934)	370784	20.0000	20.42
	22	2,4-Dimethylphenol	107	11.002	10.986	(0.942)	1095457	40.0000	43.34
	23	Bis(2-Chloroethoxy)methane	93	11.202	11.194	(0.959)	312762	20.0000	21.05
	24	Benzoic acid	105	11.387	11.094	(0.975)	1628170	80.0000	79.78(M)
	25	2,4-Dichlorophenol	162	11.402	11.387	(0.976)	1249584	40.0000	44.09
	26	1,2,4-Trichlorobenzene	180	11.595	11.588	(0.993)	514143	20.0000	20.41
*	27	Naphthalene-d8	136	11.680	11.672	(1.000)	303566	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	11.719	11.711	(1.003)	1692620	20.0000	21.59
	29 4-Chloroaniline	127	11.873	11.865	(1.017)	1424285	40.0000	44.21
	30 Hexachlorobutadiene	225	12.113	12.113	(1.037)	310394	20.0000	21.20
	31 4-Chloro-3-methylphenol	107	12.918	12.902	(1.106)	917642	40.0000	47.12
	32 2-Methylnaphthalene	142	13.204	13.196	(1.130)	1129585	20.0000	21.91
	33 Hexachlorocyclopentadiene	237	13.707	13.707	(0.883)	914817	40.0000	45.18
	34 2,4,6-Trichlorophenol	196	13.877	13.862	(0.894)	994464	40.0000	44.85
	35 2,4,5-Trichlorophenol	196	13.955	13.939	(0.899)	1096502	40.0000	44.08
$	36 2-Fluorobiphenyl	172	14.047	14.047	(0.905)	1384321	20.0000	20.94
	37 2-Chloronaphthalene	162	14.256	14.249	(0.919)	1061042	20.0000	20.79
	38 2-Nitroaniline	65	14.558	14.535	(0.938)	268772	40.0000	42.79
	39 Dimethylphthalate	163	15.038	15.023	(0.969)	1073212	20.0000	19.52
	40 Acenaphthylene	152	15.178	15.178	(0.978)	1897281	20.0000	21.26
	41 2,6-Dinitrotoluene	165	15.178	15.154	(0.978)	582043	40.0000	42.57
*	42 Acenaphthene-d10	164	15.518	15.510	(1.000)	186089	4.00000	
	43 3-Nitroaniline	138	15.479	15.441	(0.998)	560810	40.0000	40.99
	44 Acenaphthene	153	15.595	15.580	(1.005)	1165795	20.0000	21.78
	45 2,4-Dinitrophenol	184	15.703	15.672	(1.012)	1174839	80.0000	79.88
	46 Dibenzofuran	168	15.943	15.935	(1.027)	1443706	20.0000	20.69
	47 4-Nitrophenol	109	15.842	15.804	(1.021)	442706	40.0000	42.21
	48 2,4-Dinitrotoluene	165	16.036	16.013	(1.033)	696337	40.0000	40.78
	50 Diethylphthalate	149	16.608	16.577	(1.070)	1008292	20.0000	19.06
	49 Fluorene	166	16.701	16.693	(1.076)	1353063	20.0000	22.01
	51 4-Chlorophenyl-phenylether	204	16.708	16.701	(1.077)	716664	20.0000	23.36
	52 4-Nitroaniline	138	16.847	16.793	(1.086)	560775	40.0000	40.47
	53 4,6-Dinitro-2-methylphenol	198	16.940	16.901	(0.904)	1372310	80.0000	90.02
	54 N-Nitrosodiphenylamine	169	16.986	16.971	(0.906)	697922	20.0000	19.86
$	55 2,4,6-Tribromophenol	330	17.271	17.256	(1.113)	160025	20.0000	21.87
	56 4-Bromophenyl-phenylether	248	17.773	17.765	(0.948)	324822	20.0000	22.01
	57 Hexachlorobenzene	284	18.097	18.090	(0.965)	317859	20.0000	20.93
	58 Pentachlorophenol	266	18.485	18.469	(0.986)	622210	40.0000	47.01
*	59 Phenanthrene-d10	188	18.748	18.740	(1.000)	289972	4.00000	
	60 Phenanthrene	178	18.802	18.786	(1.003)	1670710	20.0000	21.65
	61 Anthracene	178	18.895	18.887	(1.008)	1852104	20.0000	21.97
	62 Carbazole	167	19.235	19.227	(1.026)	1301801	20.0000	21.44
	63 Di-n-butylphthalate	149	20.071	20.063	(1.071)	2040608	20.0000	22.19
	64 Fluoranthene	202	21.169	21.154	(1.129)	2250082	20.0000	23.03
	65 Pyrene	202	21.579	21.572	(0.910)	2367087	20.0000	22.08
$	66 Terphenyl-d14	244	21.881	21.873	(0.922)	1417114	20.0000	20.96
	67 Butylbenzylphthalate	149	22.795	22.787	(0.961)	807377	20.0000	19.42
	68 Benzo(a)anthracene	228	23.693	23.685	(0.999)	2079686	20.0000	20.37
*	69 Chrysene-d12	240	23.724	23.709	(1.000)	331360	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.670	23.654	(0.998)	1685813	40.0000	45.49
	71 Chrysene	228	23.770	23.755	(1.002)	1957330	20.0000	21.90
	72 bis(2-Ethylhexyl)phthalate	149	23.809	23.801	(0.962)	1258209	20.0000	19.19
*	134 Di-n-octylphthalate-d4	153	24.761	24.754	(1.000)	501119	4.00000	
	73 Di-n-octylphthalate	149	24.769	24.761	(1.000)	2280320	20.0000	18.90

	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	25.435	25.419	(0.975)	2283042	20.0000	20.64
75	Benzo(k)fluoranthene	252	25.481	25.458	(0.977)	2179113	20.0000	20.43
76	Benzo(a)pyrene	252	25.992	25.969	(0.996)	2001028	20.0000	20.65
* 77	Perylene-d12	264	26.085	26.070	(1.000)	349957	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.332	28.285	(1.086)	2543242	20.0000	20.53
79	Dibenzo(a,h)anthracene	278	28.348	28.309	(1.087)	2078081	20.0000	20.93
80	Benzo(g,h,i)perylene	276	28.985	28.946	(1.111)	2097072	20.0000	20.22
90	N-Nitrosodimethylamine	74	4.489	4.481	(0.497)	328641	40.0000	44.44
91	Aniline	93	8.482	8.467	(0.938)	925355	20.0000	20.99
93	Benzidine	184	21.417	21.401	(0.903)	1688306	40.0000	39.89
103	Pyridine	79	4.489	4.512	(0.497)	305156	40.0000	44.07
105	1-methylnaphthalene	142	13.436	13.428	(1.150)	1038515	20.0000	21.34
111	Azobenzene (1,2-DP-Hydrazine)	77	17.056	17.040	(1.099)	739004	20.0000	20.16
187	Total Benzofluoranthenes	252	25.481	25.419	(0.977)	4230976	40.0000	40.84
99	Perylene	252	26.140	26.116	(1.002)	2259303	20.0000	21.32
98	Retene	219	21.889	21.889	(0.923)	88	20.0000	20.00
120	2,3,4,6-Tetrachlorophenol	232	16.306	16.306	(1.051)	1608	20.0000	20.00

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: ic1114c.d
Lab Smp Id: IC1114C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121114.b/ABN.m
Misc Info:

Calibration Date: 14-NOV-2012
Calibration Time: 16:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	79140	-18.82
27 Naphthalene-d8	357150	178575	714300	303566	-15.00
42 Acenaphthene-d10	217259	108630	434518	186089	-14.35
59 Phenanthrene-d10	355415	177708	710830	289972	-18.41
69 Chrysene-d12	390458	195229	780916	331360	-15.14
134 Di-n-octylphthala	532303	266152	1064606	501119	-5.86
77 Perylene-d12	386299	193150	772598	349957	-9.41

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.04	8.54	9.54	9.04	0.00
27 Naphthalene-d8	11.67	11.17	12.17	11.68	0.07
42 Acenaphthene-d10	15.52	15.02	16.02	15.52	0.00
59 Phenanthrene-d10	18.74	18.24	19.24	18.75	0.04
69 Chrysene-d12	23.72	23.22	24.22	23.72	0.03
134 Di-n-octylphthala	24.76	24.26	25.26	24.76	0.00
77 Perylene-d12	26.08	25.58	26.58	26.09	0.03

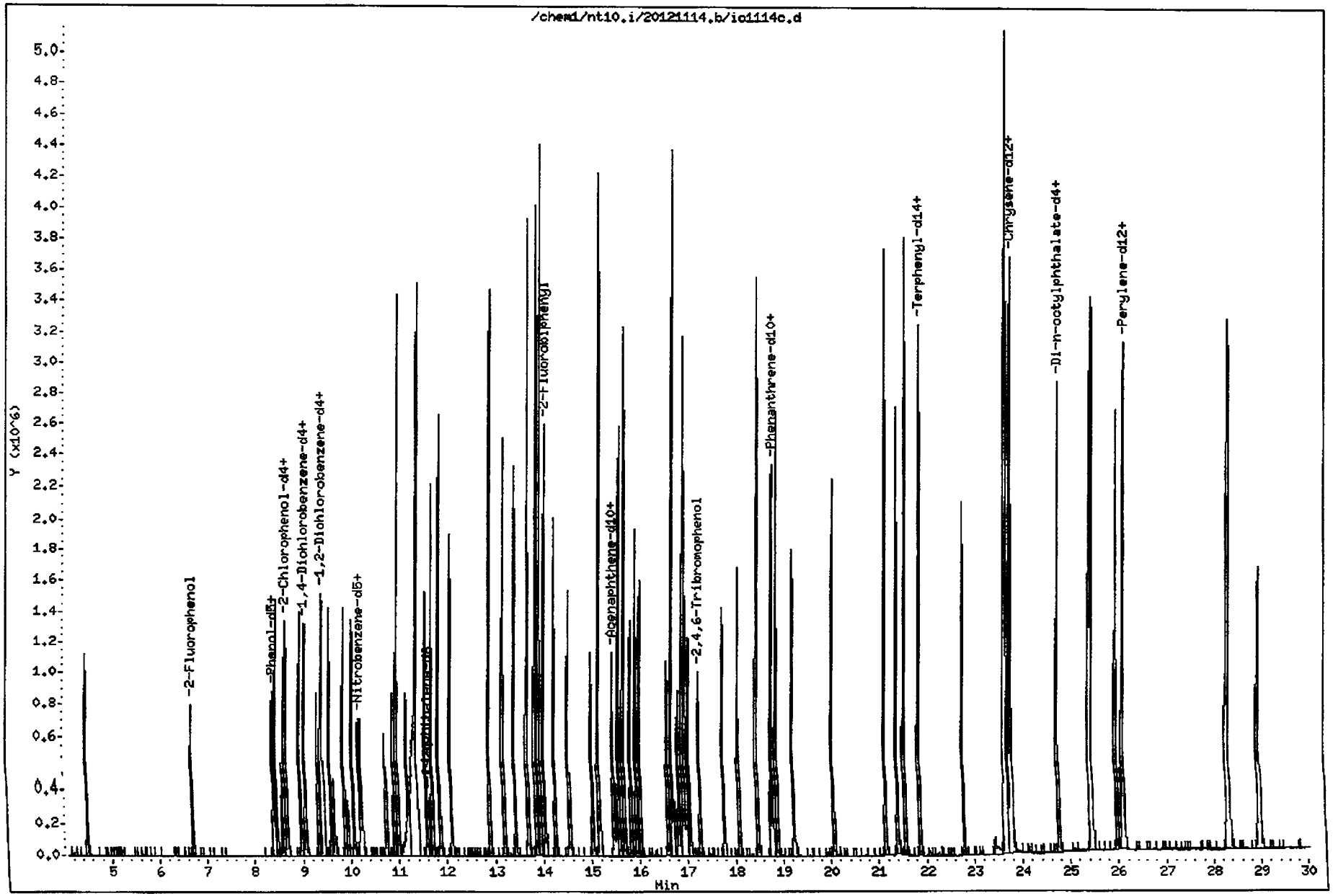
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20121114.b/ic1114c.d
Date : 14-NOV-2012 17:51
Client ID:
Sample Info: IC1114C

Instrument: nt10.i

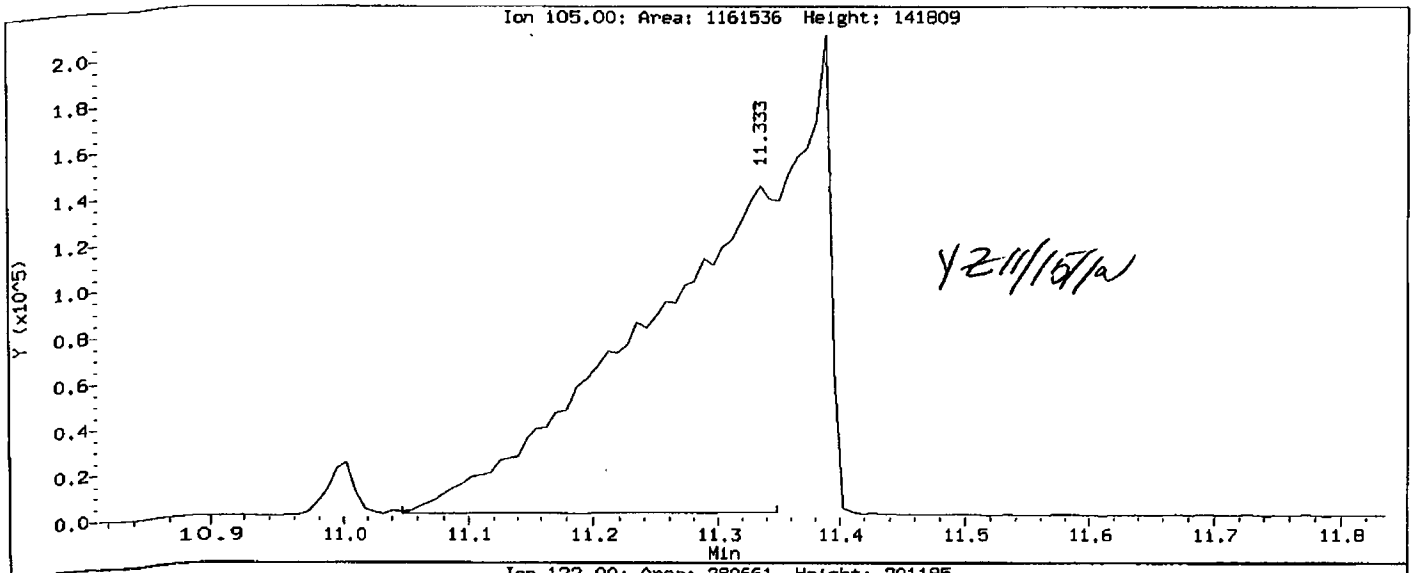
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi

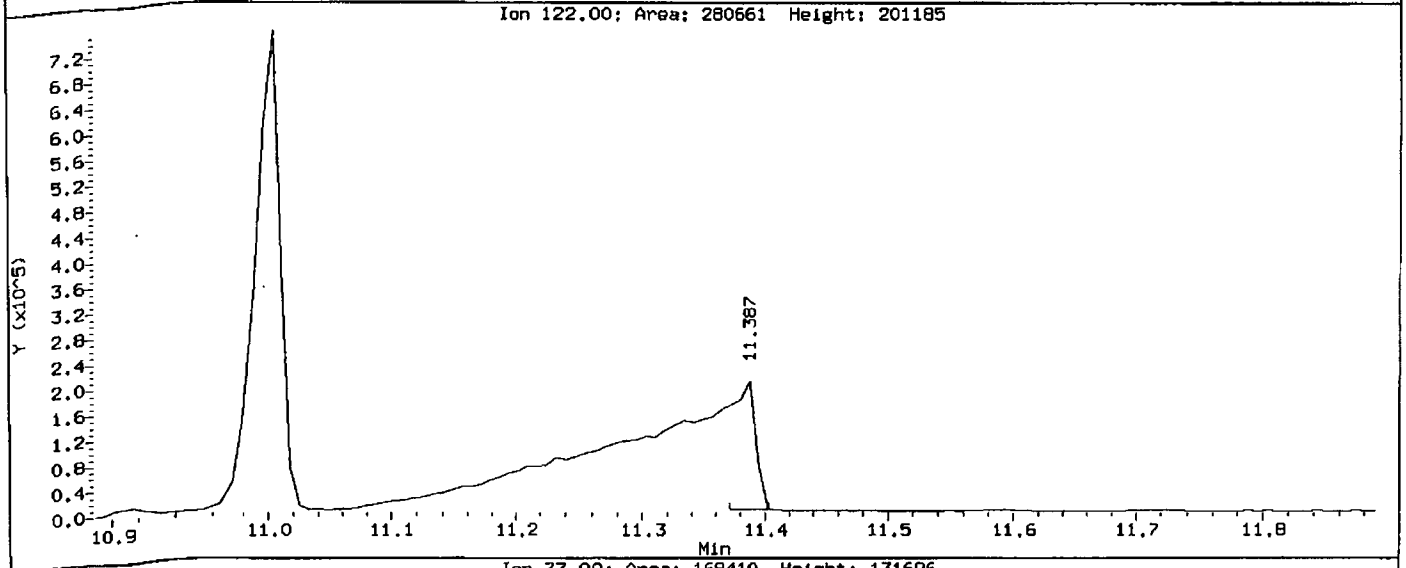


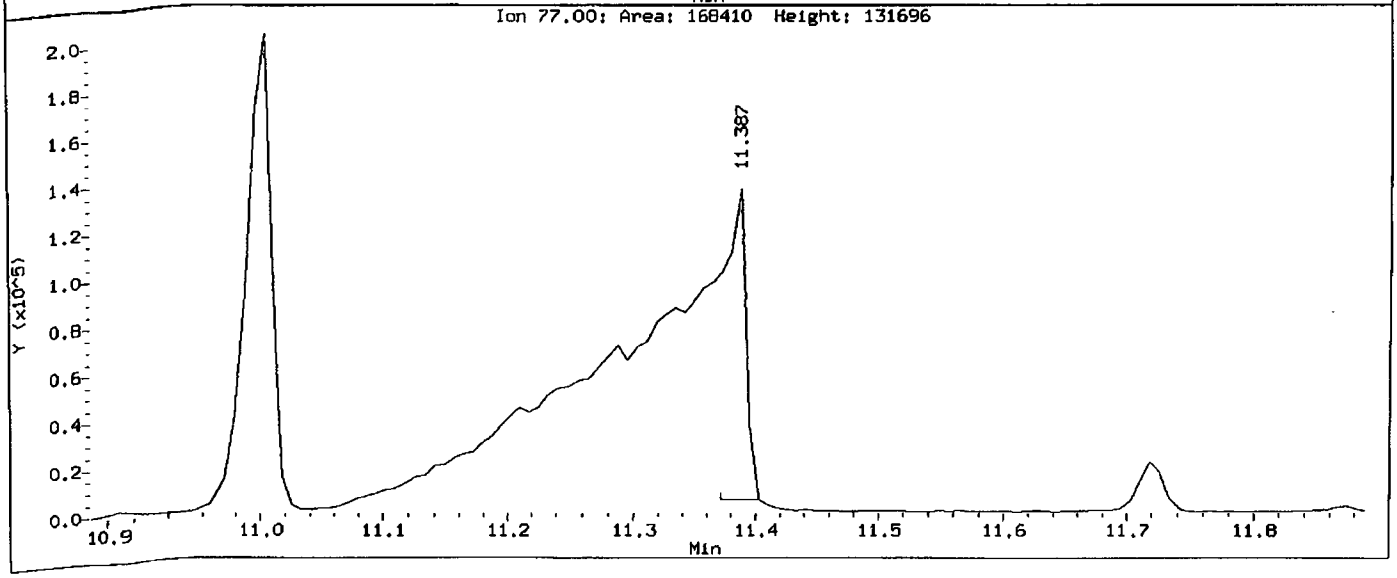
Data File: /chem1/nt10.i/20121114.b/ic1114c.d
Injection Date: 14-NOV-2012 17:51
Instrument: nt10.i
Client Sample ID:

Compound: Benzoic acid
CAS Number: 65-85-0



Y 2111/16/12

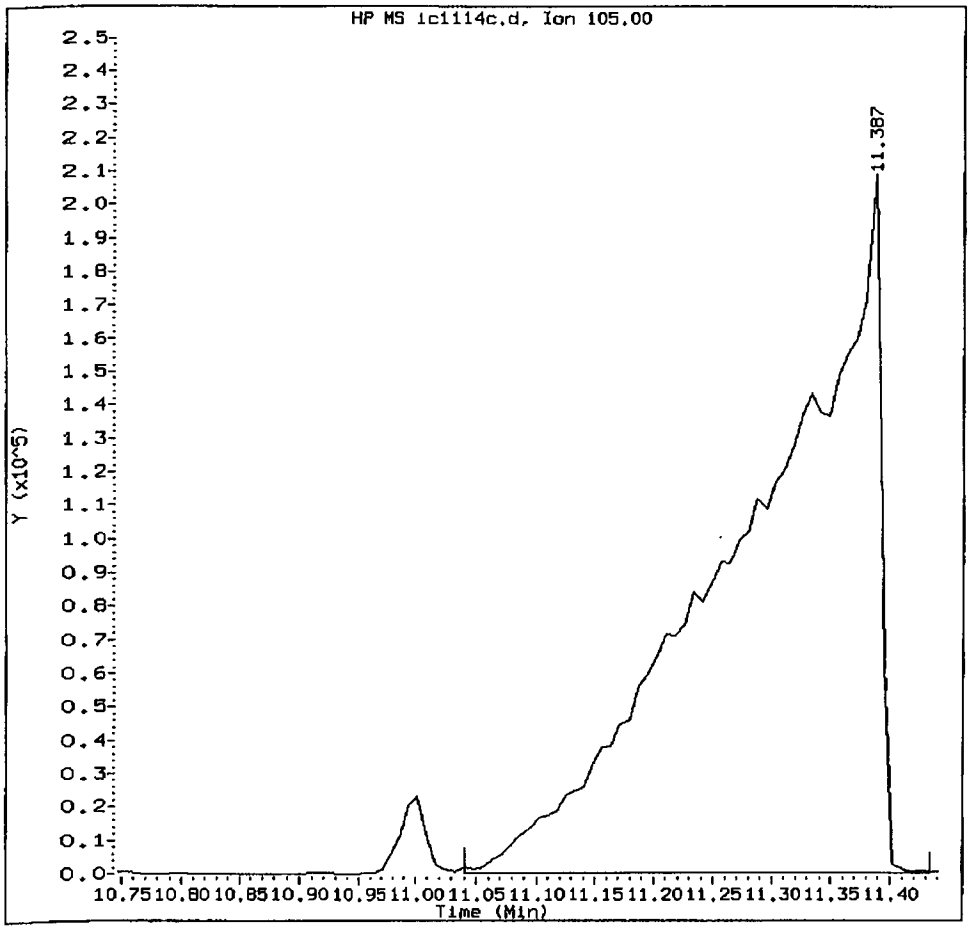




VD38 : 00369

IC1114C, /chem1/nt10.i/20121114.b/ic1114c.d

Benzoic acid Amount: 79.78 Area: 1628170



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 11/13/12

CO-ELUTION SUMMARY FOR FILE - ic1114c.d

Lab ID: IC1114C, Method: ABN.m, Instrument: nt10.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS
15.178	Acenaphthylene and 2,6-Dinitrotoluene

Analytical Resources, Inc. KZ 11/5/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121114.b/ic1114d.d
Lab Smp Id: IC1114D
Inj Date : 14-NOV-2012 18:28
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC1114D
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121114.b/ABN.m
Meth Date : 15-Nov-2012 10:17 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 18:28 Cal File: ic1114d.d
Als bottle: 4 Calibration Sample, Level: 3
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	6.713	6.705	(0.743)	26500	1.00000	0.9806
$	2 Phenol-d5	99	8.382	8.390	(0.927)	26756	1.00000	0.9743
	3 Phenol	94	8.413	8.405	(0.931)	28707	1.00000	0.9817
$	5 2-Chlorophenol-d4	132	8.652	8.652	(0.957)	35307	1.00000	0.9389
	4 Bis(2-Chloroethyl)ether	93	8.583	8.575	(0.949)	15707	1.00000	0.9344
	6 2-Chlorophenol	128	8.683	8.683	(0.961)	41522	1.00000	0.9937
	7 1,3-Dichlorobenzene	146	8.970	8.970	(0.992)	39157	1.00000	0.9926
*	8 1,4-Dichlorobenzene-d4	152	9.040	9.040	(1.000)	102015	4.00000	
	9 1,4-Dichlorobenzene	146	9.071	9.071	(1.003)	36519	1.00000	0.9765
$	10 1,2-Dichlorobenzene-d4	152	9.420	9.420	(1.042)	25442	1.00000	0.9922
	12 1,2-Dichlorobenzene	146	9.443	9.443	(1.045)	35259	1.00000	0.9509
	11 Benzyl alcohol	108	9.334	9.334	(1.033)	14185	1.00000	0.9122
	14 2,2'-oxybis(1-Chloropropane)	121	10.986	10.986	(1.215)	34442	1.00000	0.9202
	13 2-Methylphenol	108	9.583	9.591	(1.060)	26417	1.00000	0.9242
	17 Hexachloroethane	117	10.072	10.072	(1.114)	12476	1.00000	0.9314
	16 N-Nitroso-di-n-propylamine	70	9.932	9.940	(1.099)	10045	1.00000	1.017
	15 4-Methylphenol	108	9.878	9.878	(1.093)	27720	1.00000	0.9428
$	18 Nitrobenzene-d5	82	10.196	10.196	(0.874)	21226	1.00000	0.9662
	19 Nitrobenzene	77	10.235	10.235	(0.877)	17801	1.00000	0.9754
	20 Isophorone	82	10.716	10.716	(0.918)	28916	1.00000	0.9036
	21 2-Nitrophenol	139	10.909	10.902	(0.935)	21465	1.00000	0.9614
	22 2,4-Dimethylphenol	107	10.986	10.986	(0.941)	59747	2.00000	1.922
	23 Bis(2-Chloroethoxy)methane	93	11.194	11.194	(0.959)	17379	1.00000	0.9512
	24 Benzoic acid	105	11.133	11.094	(0.954)	84449	4.00000	3.558
	25 2,4-Dichlorophenol	162	11.387	11.387	(0.976)	64900	2.00000	1.862
	26 1,2,4-Trichlorobenzene	180	11.588	11.588	(0.993)	31785	1.00000	1.026
*	27 Naphthalene-d8	136	11.672	11.672	(1.000)	373305	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	11.711	11.711	(1.003)	91676	1.00000	0.9509
	29 4-Chloroaniline	127	11.858	11.865	(1.016)	72861	2.00000	1.839
	30 Hexachlorobutadiene	225	12.113	12.113	(1.038)	16837	1.00000	0.9353
	31 4-Chloro-3-methylphenol	107	12.902	12.902	(1.105)	44129	2.00000	1.843
	32 2-Methylnaphthalene	142	13.196	13.196	(1.131)	60661	1.00000	0.9567
	33 Hexachlorocyclopentadiene	237	13.699	13.707	(0.883)	47069	2.00000	2.000
	34 2,4,6-Trichlorophenol	196	13.862	13.862	(0.894)	51763	2.00000	2.009
	35 2,4,5-Trichlorophenol	196	13.939	13.939	(0.899)	56587	2.00000	1.957
$	36 2-Fluorobiphenyl	172	14.040	14.047	(0.905)	74932	1.00000	0.9752
	37 2-Chloronaphthalene	162	14.249	14.249	(0.919)	57250	1.00000	0.9650
	38 2-Nitroaniline	65	14.535	14.535	(0.937)	14511	2.00000	1.987
	39 Dimethylphthalate	163	15.023	15.023	(0.969)	63948	1.00000	1.001
	40 Acenaphthylene	152	15.170	15.178	(0.978)	102333	1.00000	0.9866
	41 2,6-Dinitrotoluene	165	15.154	15.154	(0.977)	32168	2.00000	2.024
*	42 Acenaphthene-d10	164	15.510	15.510	(1.000)	216304	4.00000	
	43 3-Nitroaniline	138	15.448	15.441	(0.996)	32022	2.00000	2.014
	44 Acenaphthene	153	15.580	15.580	(1.004)	61599	1.00000	0.9901
	45 2,4-Dinitrophenol	184	15.672	15.672	(1.010)	54074	4.00000	3.555
	46 Dibenzofuran	168	15.928	15.935	(1.027)	80760	1.00000	0.9958
	47 4-Nitrophenol	109	15.812	15.804	(1.019)	24735	2.00000	2.029
	48 2,4-Dinitrotoluene	165	16.013	16.013	(1.032)	39722	2.00000	2.001
	50 Diethylphthalate	149	16.577	16.577	(1.069)	61663	1.00000	1.003
	49 Fluorene	166	16.693	16.693	(1.076)	68526	1.00000	0.9589
	51 4-Chlorophenyl-phenylether	204	16.701	16.701	(1.077)	31409	1.00000	0.8806
	52 4-Nitroaniline	138	16.793	16.793	(1.083)	29316	2.00000	1.820
	53 4,6-Dinitro-2-methylphenol	198	16.901	16.901	(0.902)	72143	4.00000	3.772
	54 N-Nitrosodiphenylamine	169	16.971	16.971	(0.906)	45472	1.00000	1.031
$	55 2,4,6-Tribromophenol	330	17.256	17.256	(1.113)	9245	1.00000	1.087
	56 4-Bromophenyl-phenylether	248	17.773	17.765	(0.948)	17704	1.00000	0.9560
	57 Hexachlorobenzene	284	18.090	18.090	(0.965)	19206	1.00000	1.008
	58 Pentachlorophenol	266	18.477	18.469	(0.986)	31109	2.00000	1.873
*	59 Phenanthrene-d10	188	18.740	18.740	(1.000)	363840	4.00000	
	60 Phenanthrene	178	18.794	18.786	(1.003)	94490	1.00000	0.9760
	61 Anthracene	178	18.879	18.887	(1.007)	98247	1.00000	0.9289
	62 Carbazole	167	19.227	19.227	(1.026)	78503	1.00000	1.031
	63 Di-n-butylphthalate	149	20.063	20.063	(1.071)	105502	1.00000	0.9144
	64 Fluoranthene	202	21.154	21.154	(1.129)	110756	1.00000	0.9036
	65 Pyrene	202	21.572	21.572	(0.910)	116808	1.00000	0.9280
$	66 Terphenyl-d14	244	21.874	21.873	(0.922)	74999	1.00000	0.9447
	67 Butylbenzylphthalate	149	22.795	22.787	(0.961)	47507	1.00000	0.9730
	68 Benzo(a)anthracene	228	23.685	23.685	(0.999)	111310	1.00000	0.9285
*	69 Chrysene-d12	240	23.716	23.709	(1.000)	389127	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.654	23.654	(0.997)	91886	2.00000	2.111
	71 Chrysene	228	23.755	23.755	(1.002)	97353	1.00000	0.9277
	72 bis(2-Ethylhexyl)phthalate	149	23.801	23.801	(0.961)	63360	1.00000	0.9313
*	134 Di-n-octylphthalate-d4	153	24.761	24.754	(1.000)	520081	4.00000	
	73 Di-n-octylphthalate	149	24.769	24.761	(1.000)	121876	1.00000	0.9732

	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	25.427	25.419	(0.975)	117389	1.00000	0.9449
75	Benzo(k)fluoranthene	252	25.458	25.458	(0.976)	116469	1.00000	0.9723
76	Benzo(a)pyrene	252	25.977	25.969	(0.996)	104314	1.00000	0.9588
* 77	Perylene-d12	264	26.078	26.070	(1.000)	393004	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.293	28.285	(1.085)	133350	1.00000	0.9587
79	Dibenzo(a,h)anthracene	278	28.309	28.309	(1.086)	105850	1.00000	0.9493
80	Benzo(g,h,i)perylene	276	28.953	28.946	(1.110)	109992	1.00000	0.9444
90	N-Nitrosodimethylamine	74	4.489	4.481	(0.497)	18964	2.00000	1.989
91	Aniline	93	8.467	8.467	(0.937)	53143	1.00000	0.9353
93	Benzidine	184	21.409	21.401	(0.903)	72668	2.00000	2.423
103	Pyridine	79	4.512	4.512	(0.499)	16193	2.00000	1.814
105	1-methylnaphthalene	142	13.428	13.428	(1.150)	56643	1.00000	0.9465
111	Azobenzene (1,2-DP-Hydrazine)	77	17.040	17.040	(1.099)	42726	1.00000	1.003
187	Total Benzofluoranthenes	252	25.458	25.419	(0.976)	220778	2.00000	1.898
99	Perylene	252	26.124	26.116	(1.002)	113872	1.00000	0.9568
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1114d.d
Lab Smp Id: IC1114D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121114.b/ABN.m
Misc Info:

Calibration Date: 14-NOV-2012
Calibration Time: 16:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	102015	4.65
27 Naphthalene-d8	357150	178575	714300	373305	4.52
42 Acenaphthene-d10	217259	108630	434518	216304	-0.44
59 Phenanthrene-d10	355415	177708	710830	363840	2.37
69 Chrysene-d12	390458	195229	780916	389127	-0.34
134 Di-n-octylphthala	532303	266152	1064606	520081	-2.30
77 Perylene-d12	386299	193150	772598	393004	1.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.04	8.54	9.54	9.04	0.00
27 Naphthalene-d8	11.67	11.17	12.17	11.67	0.00
42 Acenaphthene-d10	15.52	15.02	16.02	15.51	-0.05
59 Phenanthrene-d10	18.74	18.24	19.24	18.74	0.00
69 Chrysene-d12	23.72	23.22	24.22	23.72	0.00
134 Di-n-octylphthala	24.76	24.26	25.26	24.76	0.00
77 Perylene-d12	26.08	25.58	26.58	26.08	0.00

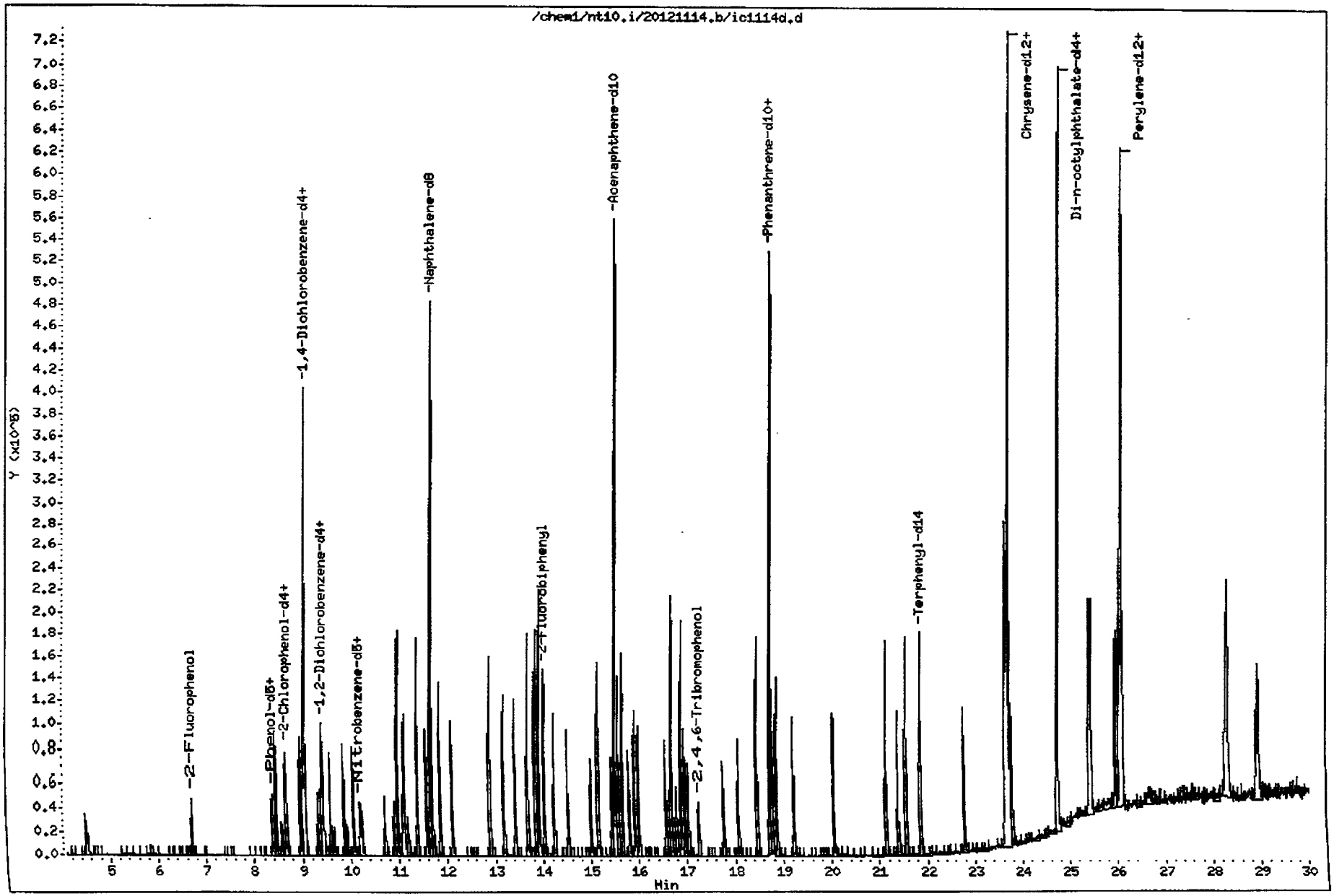
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20121114.b/ic1114d.d
Date : 14-NOV-2012 18:28
Client ID:
Sample Info: IC1114B

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic1114d.d

Lab ID: IC1114D, Method: ABN.m, Instrument: nt10.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 11/15/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121114.b/ic1114e.d
Lab Smp Id: IC1114E
Inj Date : 14-NOV-2012 19:04
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC1114E
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121114.b/ABN.m
Meth Date : 15-Nov-2012 10:17 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 19:04 Cal File: ic1114e.d
Als bottle: 5 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	6.713	6.705	(0.743)	236478	10.0000	10.79
$	2	Phenol-d5	99	8.397	8.390	(0.929)	242563	10.0000	10.89
	3	Phenol	94	8.420	8.405	(0.932)	252302	10.0000	10.64
$	5	2-Chlorophenol-d4	132	8.660	8.652	(0.958)	320287	10.0000	10.50
	4	Bis(2-Chloroethyl)ether	93	8.583	8.575	(0.949)	140328	10.0000	10.29
	6	2-Chlorophenol	128	8.691	8.683	(0.961)	355808	10.0000	10.50
	7	1,3-Dichlorobenzene	146	8.970	8.970	(0.992)	329610	10.0000	10.30
*	8	1,4-Dichlorobenzene-d4	152	9.039	9.040	(1.000)	82742	4.00000	
	9	1,4-Dichlorobenzene	146	9.070	9.071	(1.003)	315439	10.0000	10.40
$	10	1,2-Dichlorobenzene-d4	152	9.420	9.420	(1.042)	216112	10.0000	10.39
	12	1,2-Dichlorobenzene	146	9.451	9.443	(1.046)	310225	10.0000	10.31
	11	Benzyl alcohol	108	9.342	9.334	(1.033)	134993	10.0000	10.70
	14	2,2'-oxybis(1-Chloropropane)	121	10.994	10.986	(1.216)	321878	10.0000	10.60
	13	2-Methylphenol	108	9.590	9.591	(1.061)	241884	10.0000	10.43
	17	Hexachloroethane	117	10.072	10.072	(1.114)	114883	10.0000	10.57
	16	N-Nitroso-di-n-propylamine	70	9.948	9.940	(1.100)	84396	10.0000	10.54
	15	4-Methylphenol	108	9.885	9.878	(1.094)	257422	10.0000	10.79
$	18	Nitrobenzene-d5	82	10.204	10.196	(0.874)	193039	10.0000	10.16
	19	Nitrobenzene	77	10.242	10.235	(0.878)	158098	10.0000	10.02
	20	Isophorone	82	10.724	10.716	(0.919)	285058	10.0000	10.30
	21	2-Nitrophenol	139	10.909	10.902	(0.935)	198619	10.0000	10.29
	22	2,4-Dimethylphenol	107	10.994	10.986	(0.942)	564079	20.0000	20.98
	23	Bis(2-Chloroethoxy)methane	93	11.202	11.194	(0.960)	165466	10.0000	10.47
	24	Benzoic acid	105	11.310	11.094	(0.969)	865917	40.0000	41.09(M)
	25	2,4-Dichlorophenol	162	11.395	11.387	(0.976)	640965	20.0000	21.26
	26	1,2,4-Trichlorobenzene	180	11.587	11.588	(0.993)	275895	10.0000	10.30
*	27	Naphthalene-d8	136	11.672	11.672	(1.000)	322843	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	11.719	11.711	(1.004)	875050	10.0000	10.49
	29 4-Chloroaniline	127	11.865	11.865	(1.017)	737834	20.0000	21.53
	30 Hexachlorobutadiene	225	12.113	12.113	(1.038)	165266	10.0000	10.62
	31 4-Chloro-3-methylphenol	107	12.910	12.902	(1.106)	462131	20.0000	22.32
	32 2-Methylnaphthalene	142	13.204	13.196	(1.131)	588730	10.0000	10.74
	33 Hexachlorocyclopentadiene	237	13.707	13.707	(0.883)	466377	20.0000	21.26
	34 2,4,6-Trichlorophenol	196	13.869	13.862	(0.894)	505681	20.0000	21.05
	35 2,4,5-Trichlorophenol	196	13.947	13.939	(0.899)	554774	20.0000	20.59
$	36 2-Fluorobiphenyl	172	14.047	14.047	(0.905)	728473	10.0000	10.17
	37 2-Chloronaphthalene	162	14.256	14.249	(0.919)	551547	10.0000	9.976
	38 2-Nitroaniline	65	14.550	14.535	(0.938)	140072	20.0000	20.58
	39 Dimethylphthalate	163	15.030	15.023	(0.969)	573160	10.0000	9.623
	40 Acenaphthylene	152	15.177	15.178	(0.978)	955768	10.0000	9.887
	41 2,6-Dinitrotoluene	165	15.170	15.154	(0.978)	292243	20.0000	19.73
*	42 Acenaphthene-d10	164	15.518	15.510	(1.000)	201586	4.00000	
	43 3-Nitroaniline	138	15.463	15.441	(0.996)	298124	20.0000	20.12
	44 Acenaphthene	153	15.587	15.580	(1.004)	590990	10.0000	10.19
	45 2,4-Dinitrophenol	184	15.688	15.672	(1.011)	606509	40.0000	40.64
	46 Dibenzofuran	168	15.943	15.935	(1.027)	769783	10.0000	10.19
	47 4-Nitrophenol	109	15.827	15.804	(1.020)	235837	20.0000	20.76
	48 2,4-Dinitrotoluene	165	16.020	16.013	(1.032)	368356	20.0000	19.91
	50 Diethylphthalate	149	16.592	16.577	(1.069)	554474	10.0000	9.675
	49 Fluorene	166	16.693	16.693	(1.076)	685334	10.0000	10.29
	51 4-Chlorophenyl-phenylether	204	16.701	16.701	(1.076)	367013	10.0000	11.04
	52 4-Nitroaniline	138	16.824	16.793	(1.084)	295666	20.0000	19.70
	53 4,6-Dinitro-2-methylphenol	198	16.924	16.901	(0.903)	721397	40.0000	42.71
	54 N-Nitrosodiphenylamine	169	16.978	16.971	(0.906)	374441	10.0000	9.617
$	55 2,4,6-Tribromophenol	330	17.264	17.256	(1.113)	81634	10.0000	10.30
	56 4-Bromophenyl-phenylether	248	17.772	17.765	(0.948)	166939	10.0000	10.21
	57 Hexachlorobenzene	284	18.097	18.090	(0.966)	167817	10.0000	9.974
	58 Pentachlorophenol	266	18.477	18.469	(0.986)	314553	20.0000	21.45
*	59 Phenanthrene-d10	188	18.740	18.740	(1.000)	321240	4.00000	
	60 Phenanthrene	178	18.794	18.786	(1.003)	847031	10.0000	9.910
	61 Anthracene	178	18.887	18.887	(1.008)	958785	10.0000	10.27
	62 Carbazole	167	19.235	19.227	(1.026)	605785	10.0000	9.007
	63 Di-n-butylphthalate	149	20.070	20.063	(1.071)	1050186	10.0000	10.31
	64 Fluoranthene	202	21.161	21.154	(1.129)	1151672	10.0000	10.64
	65 Pyrene	202	21.571	21.572	(0.910)	1195450	10.0000	10.20
$	66 Terphenyl-d14	244	21.873	21.873	(0.922)	732841	10.0000	9.917
	67 Butylbenzylphthalate	149	22.795	22.787	(0.961)	431293	10.0000	9.490
	68 Benzo(a)anthracene	228	23.693	23.685	(0.999)	1101188	10.0000	9.868
*	69 Chrysene-d12	240	23.716	23.709	(1.000)	362233	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.662	23.654	(0.998)	737954	20.0000	18.21
	71 Chrysene	228	23.762	23.755	(1.002)	995752	10.0000	10.19
	72 bis(2-Ethylhexyl)phthalate	149	23.809	23.801	(0.962)	650379	10.0000	9.579
*	134 Di-n-octylphthalate-d4	153	24.761	24.754	(1.000)	519063	4.00000	
	73 Di-n-octylphthalate	149	24.769	24.761	(1.000)	1157610	10.0000	9.261

	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	25.435	25.419	(0.975)	1166464	10.0000	9.953
75	Benzo(k)fluoranthene	252	25.466	25.458	(0.977)	1112838	10.0000	9.849
76	Benzo(a)pyrene	252	25.984	25.969	(0.996)	1010226	10.0000	9.843
* 77	Perylene-d12	264	26.077	26.070	(1.000)	370720	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.316	28.285	(1.086)	1266690	10.0000	9.654
79	Dibenzo(a,h)anthracene	278	28.324	28.309	(1.086)	1018607	10.0000	9.685
80	Benzo(g,h,i)perylene	276	28.969	28.946	(1.111)	1057386	10.0000	9.625
90	N-Nitrosodimethylamine	74	4.497	4.481	(0.497)	172207	20.0000	22.27
91	Aniline	93	8.475	8.467	(0.938)	495845	10.0000	10.76
93	Benzidine	184	21.409	21.401	(0.903)	680397	20.0000	21.04
103	Pyridine	79	4.504	4.512	(0.498)	155991	20.0000	21.55
105	1-methylnaphthalene	142	13.436	13.428	(1.151)	558168	10.0000	10.78
111	Azobenzene (1,2-DP-Hydrazine)	77	17.048	17.040	(1.099)	395463	10.0000	9.958
187	Total Benzofluoranthenes	252	25.466	25.419	(0.977)	2157903	20.0000	19.66
99	Perylene	252	26.132	26.116	(1.002)	1109633	10.0000	9.884
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

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: ic1114e.d
Lab Smp Id: IC1114E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121114.b/ABN.m
Misc Info:

Calibration Date: 14-NOV-2012
Calibration Time: 16:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	82742	-15.12
27 Naphthalene-d8	357150	178575	714300	322843	-9.61
42 Acenaphthene-d10	217259	108630	434518	201586	-7.21
59 Phenanthrene-d10	355415	177708	710830	321240	-9.62
69 Chrysene-d12	390458	195229	780916	362233	-7.23
134 Di-n-octylphthala	532303	266152	1064606	519063	-2.49
77 Perylene-d12	386299	193150	772598	370720	-4.03

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.04	8.54	9.54	9.04	0.00
27 Naphthalene-d8	11.67	11.17	12.17	11.67	0.00
42 Acenaphthene-d10	15.52	15.02	16.02	15.52	0.00
59 Phenanthrene-d10	18.74	18.24	19.24	18.74	0.00
69 Chrysene-d12	23.72	23.22	24.22	23.72	0.00
134 Di-n-octylphthala	24.76	24.26	25.26	24.76	0.00
77 Perylene-d12	26.08	25.58	26.58	26.08	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/20121114.b/ic1114e.d

Date : 14-NOV-2012 19:04

Client ID:

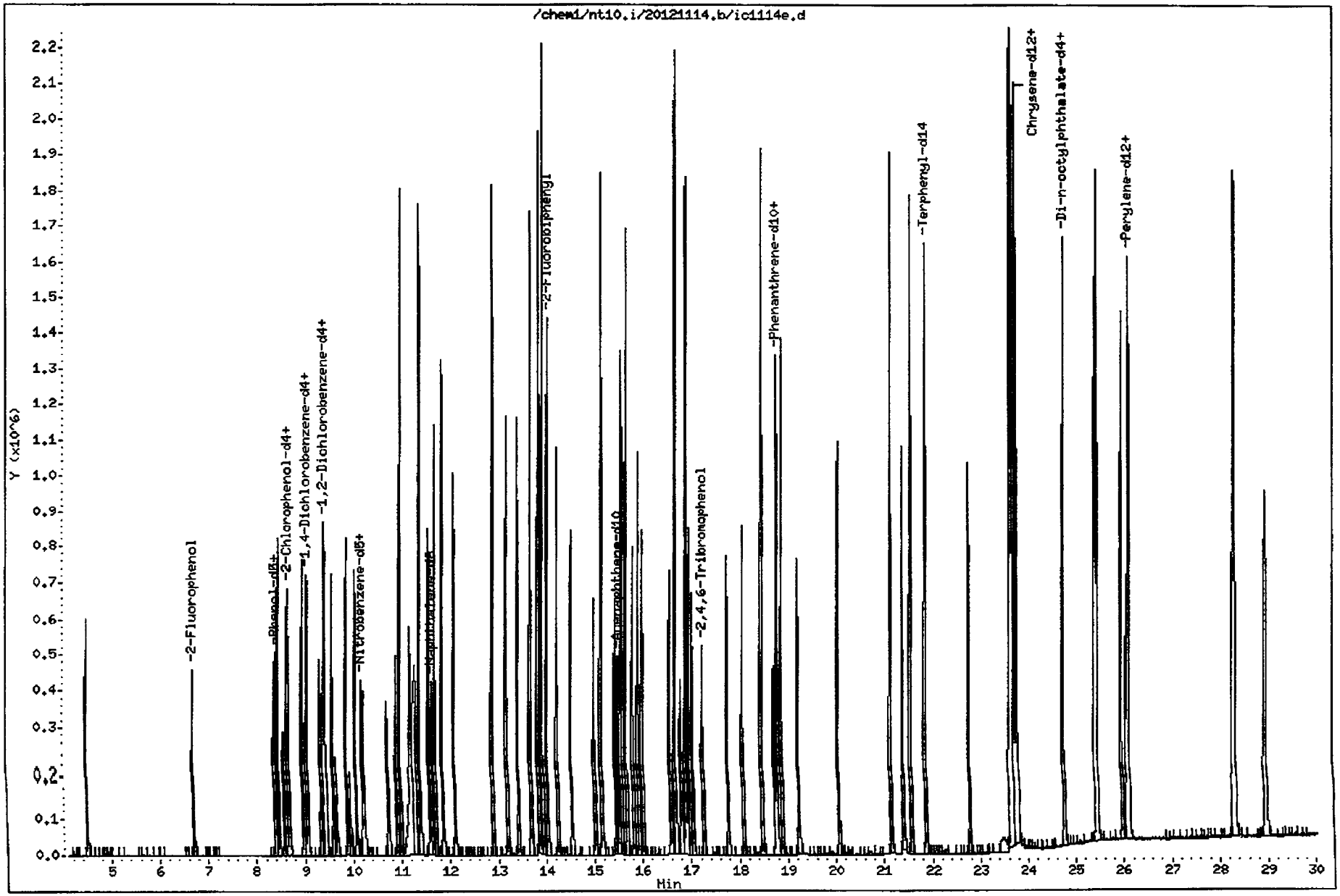
Sample Info: IC1114E

Column phase: ZB-5msi

Instrument: nt10.i

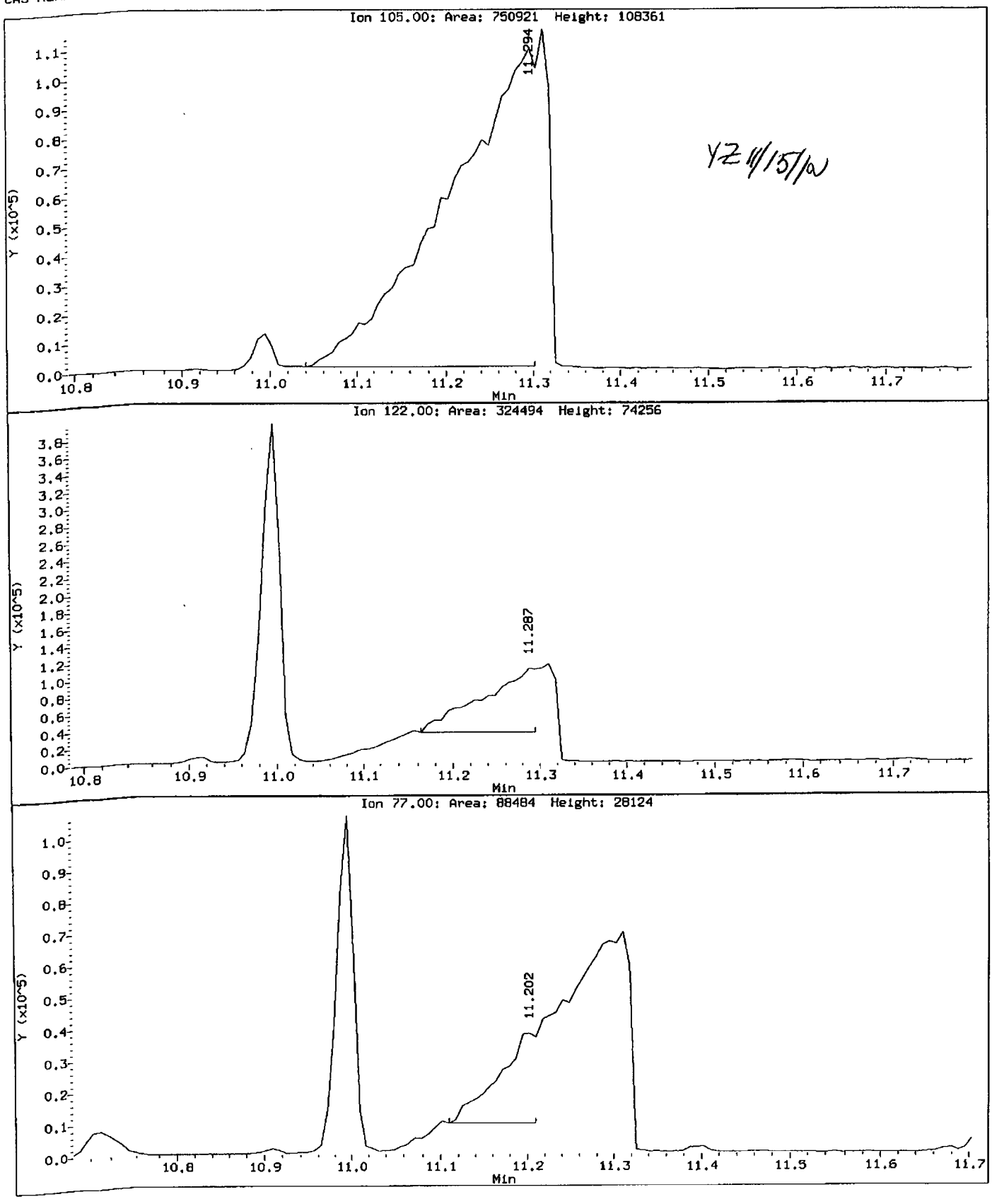
Operator: VTS/YZ

Column diameter: 0.25



Data File: /chem1/nt10.i/20121114.b/ic1114e.d
Injection Date: 14-NOV-2012 19:04
Instrument: nt10.i
Client Sample ID:

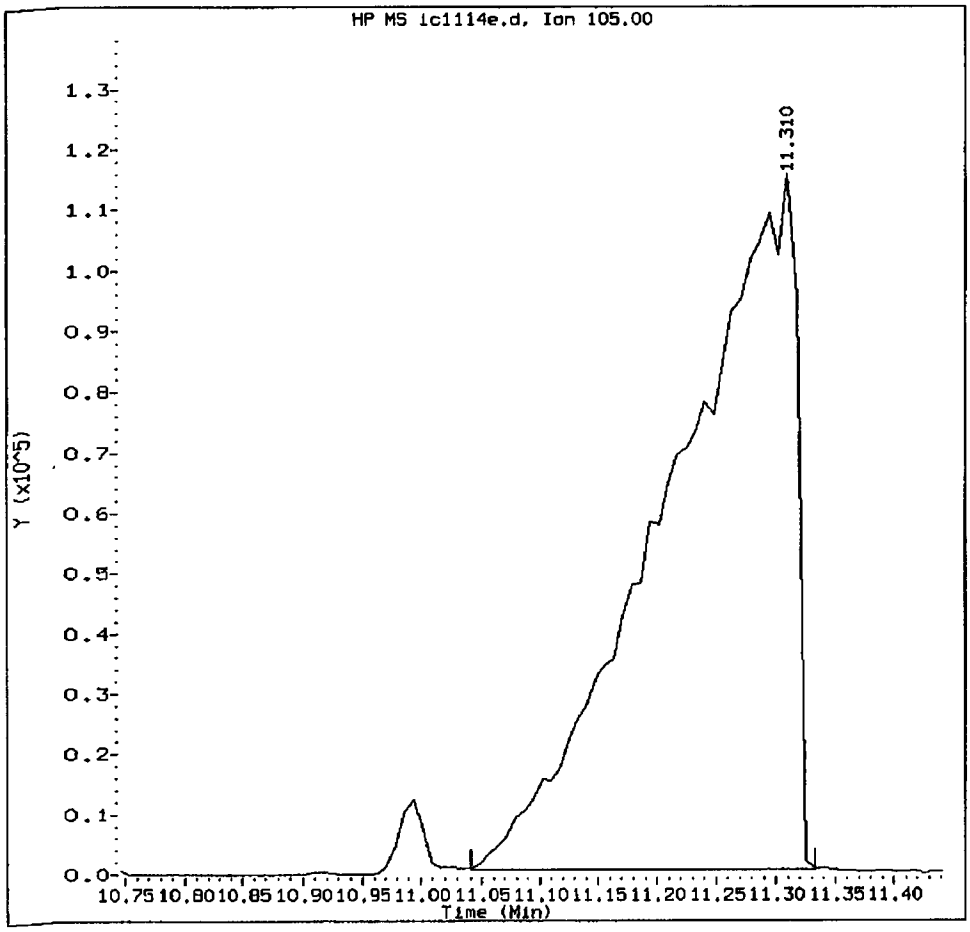
Compound: Benzoic acid
CAS Number: 65-85-0



YZ 11/15/12

IC1114E, /chem1/nt10.i/20121114.b/ic1114e.d

Benzoic acid Amount: 41.09 Area: 865917



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other _____

Analyst: YZ Date: 11/15/12

CO-ELUTION SUMMARY FOR FILE - ic1114e.d

Lab ID: IC1114E, Method: ABN.m, Instrument: nt10.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 11/15/12

Data file : /chem1/nt10.i/20121114.b/ic1114g.d
Lab Smp Id: IC1114G
Inj Date : 14-NOV-2012 20:18
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC1114G
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121114.b/ABN.m
Meth Date : 15-Nov-2012 10:17 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 20:18 Cal File: ic1114g.d
Als bottle: 7 Calibration Sample, Level: 4
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	6.705	6.705	(0.742)	48785	2.50000	2.373
$	2	Phenol-d5	99	8.382	8.390	(0.927)	47356	2.50000	2.267
	3	Phenol	94	8.405	8.405	(0.930)	50064	2.50000	2.251
$	5	2-Chlorophenol-d4	132	8.652	8.652	(0.957)	65861	2.50000	2.303
	4	Bis(2-Chloroethyl)ether	93	8.575	8.575	(0.949)	29644	2.50000	2.319
	6	2-Chlorophenol	128	8.683	8.683	(0.961)	75691	2.50000	2.382
	7	1,3-Dichlorobenzene	146	8.969	8.970	(0.992)	69055	2.50000	2.301
*	8	1,4-Dichlorobenzene-d4	152	9.039	9.040	(1.000)	77593	4.00000	
	9	1,4-Dichlorobenzene	146	9.070	9.071	(1.003)	65727	2.50000	2.311
$	10	1,2-Dichlorobenzene-d4	152	9.420	9.420	(1.042)	43799	2.50000	2.246
	12	1,2-Dichlorobenzene	146	9.443	9.443	(1.045)	66778	2.50000	2.368
	11	Benzyl alcohol	108	9.334	9.334	(1.033)	27553	2.50000	2.329
	14	2,2'-oxybis(1-Chloropropane)	121	10.986	10.986	(1.215)	66621	2.50000	2.340
	13	2-Methylphenol	108	9.583	9.591	(1.060)	50349	2.50000	2.316
	17	Hexachloroethane	117	10.072	10.072	(1.114)	24094	2.50000	2.365
	16	N-Nitroso-di-n-propylamine	70	9.940	9.940	(1.100)	17608	2.50000	2.345
	15	4-Methylphenol	108	9.878	9.878	(1.093)	51703	2.50000	2.312
$	18	Nitrobenzene-d5	82	10.196	10.196	(0.874)	38903	2.50000	2.324
	19	Nitrobenzene	77	10.235	10.235	(0.877)	32710	2.50000	2.352
	20	Isophorone	82	10.716	10.716	(0.918)	57613	2.50000	2.362
	21	2-Nitrophenol	139	10.901	10.902	(0.934)	41055	2.50000	2.413
	22	2,4-Dimethylphenol	107	10.986	10.986	(0.941)	111908	5.00000	4.724
	23	Bis(2-Chloroethoxy)methane	93	11.194	11.194	(0.959)	33417	2.50000	2.400
	24	Benzoic acid	105	11.163	11.094	(0.956)	162738	10.0000	8.964
	25	2,4-Dichlorophenol	162	11.387	11.387	(0.976)	126230	5.00000	4.752
	26	1,2,4-Trichlorobenzene	180	11.587	11.588	(0.993)	57465	2.50000	2.435
*	27	Naphthalene-d8	136	11.672	11.672	(1.000)	284495	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	11.711	11.711	(1.003)	172493	2.50000	2.348
	29 4-Chloroaniline	127	11.857	11.865	(1.016)	138587	5.00000	4.590
	30 Hexachlorobutadiene	225	12.105	12.113	(1.037)	33742	2.50000	2.459
	31 4-Chloro-3-methylphenol	107	12.902	12.902	(1.105)	84209	5.00000	4.614
	32 2-Methylnaphthalene	142	13.196	13.196	(1.131)	112168	2.50000	2.321
	33 Hexachlorocyclopentadiene	237	13.699	13.707	(0.883)	84702	5.00000	4.627
	34 2,4,6-Trichlorophenol	196	13.869	13.862	(0.894)	93540	5.00000	4.666
	35 2,4,5-Trichlorophenol	196	13.939	13.939	(0.899)	107863	5.00000	4.796
$	36 2-Fluorobiphenyl	172	14.039	14.047	(0.905)	143821	2.50000	2.406
	37 2-Chloronaphthalene	162	14.248	14.249	(0.919)	108260	2.50000	2.346
	38 2-Nitroaniline	65	14.535	14.535	(0.937)	25918	5.00000	4.564
	39 Dimethylphthalate	163	15.015	15.023	(0.968)	121359	2.50000	2.441
	40 Acenaphthylene	152	15.169	15.178	(0.978)	188437	2.50000	2.336
	41 2,6-Dinitrotoluene	165	15.154	15.154	(0.977)	56912	5.00000	4.604
*	42 Acenaphthene-d10	164	15.510	15.510	(1.000)	168241	4.00000	
	43 3-Nitroaniline	138	15.448	15.441	(0.996)	55202	5.00000	4.463
	44 Acenaphthene	153	15.579	15.580	(1.004)	115325	2.50000	2.383
	45 2,4-Dinitrophenol	184	15.672	15.672	(1.010)	106827	10.0000	8.967
	46 Dibenzofuran	168	15.935	15.935	(1.027)	148850	2.50000	2.360
	47 4-Nitrophenol	109	15.811	15.804	(1.019)	48489	5.00000	5.114
	48 2,4-Dinitrotoluene	165	16.012	16.013	(1.032)	70591	5.00000	4.573
	50 Diethylphthalate	149	16.577	16.577	(1.069)	115917	2.50000	2.423
	49 Fluorene	166	16.693	16.693	(1.076)	129453	2.50000	2.329
	51 4-Chlorophenyl-phenylether	204	16.700	16.701	(1.077)	61678	2.50000	2.223
	52 4-Nitroaniline	138	16.801	16.793	(1.083)	51232	5.00000	4.090
	53 4,6-Dinitro-2-methylphenol	198	16.901	16.901	(0.902)	134954	10.0000	9.469
	54 N-Nitrosodiphenylamine	169	16.971	16.971	(0.906)	80781	2.50000	2.458
$	55 2,4,6-Tribromophenol	330	17.264	17.256	(1.113)	15871	2.50000	2.399
	56 4-Bromophenyl-phenylether	248	17.765	17.765	(0.948)	32553	2.50000	2.359
	57 Hexachlorobenzene	284	18.089	18.090	(0.965)	33510	2.50000	2.360
	58 Pentachlorophenol	266	18.469	18.469	(0.986)	58899	5.00000	4.760
*	59 Phenanthrene-d10	188	18.740	18.740	(1.000)	271105	4.00000	
	60 Phenanthrene	178	18.786	18.786	(1.002)	168764	2.50000	2.340
	61 Anthracene	178	18.887	18.887	(1.008)	186109	2.50000	2.362
	62 Carbazole	167	19.227	19.227	(1.026)	116445	2.50000	2.051
	63 Di-n-butylphthalate	149	20.063	20.063	(1.071)	199707	2.50000	2.323
	64 Fluoranthene	202	21.154	21.154	(1.129)	214432	2.50000	2.348
	65 Pyrene	202	21.571	21.572	(0.910)	221407	2.50000	2.408
$	66 Terphenyl-d14	244	21.873	21.873	(0.922)	140565	2.50000	2.424
	67 Butylbenzylphthalate	149	22.787	22.787	(0.961)	81941	2.50000	2.298
	68 Benzo(a)anthracene	228	23.685	23.685	(0.999)	209686	2.50000	2.395
*	69 Chrysene-d12	240	23.716	23.709	(1.000)	284228	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.654	23.654	(0.997)	134766	5.00000	4.239
	71 Chrysene	228	23.755	23.755	(1.002)	181274	2.50000	2.365
	72 bis(2-Ethylhexyl)phthalate	149	23.801	23.801	(0.961)	123881	2.50000	2.411
*	134 Di-n-octylphthalate-d4	153	24.761	24.754	(1.000)	392765	4.00000	
	73 Di-n-octylphthalate	149	24.769	24.761	(1.000)	220805	2.50000	2.335

	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	25.419	25.419	(0.975)	217930	2.50000	2.293
75	Benzo(k)fluoranthene	252	25.458	25.458	(0.976)	210131	2.50000	2.293
76	Benzo(a)pyrene	252	25.977	25.969	(0.996)	193296	2.50000	2.322
* 77	Perylene-d12	264	26.077	26.070	(1.000)	300672	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.301	28.285	(1.085)	242675	2.50000	2.280
79	Dibenzo(a,h)anthracene	278	28.316	28.309	(1.086)	194459	2.50000	2.280
80	Benzo(g,h,i)perylene	276	28.953	28.946	(1.110)	206379	2.50000	2.316
90	N-Nitrosodimethylamine	74	4.473	4.481	(0.495)	33576	5.00000	4.631
91	Aniline	93	8.467	8.467	(0.937)	97035	2.50000	2.245
93	Benzidine	184	21.401	21.401	(0.902)	100027	5.00000	4.505
103	Pyridine	79	4.496	4.512	(0.497)	31112	5.00000	4.583
105	1-methylnaphthalene	142	13.428	13.428	(1.150)	107053	2.50000	2.347
111	Azobenzene (1,2-DP-Hydrazine)	77	17.040	17.040	(1.099)	83171	2.50000	2.509
187	Total Benzofluoranthenes	252	25.458	25.419	(0.976)	408026	5.00000	4.584
99	Perylene	252	26.124	26.116	(1.002)	215236	2.50000	2.364
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1114g.d
Lab Smp Id: IC1114G
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121114.b/ABN.m
Misc Info:

Calibration Date: 14-NOV-2012
Calibration Time: 16:37
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	77593	-20.41
27 Naphthalene-d8	357150	178575	714300	284495	-20.34
42 Acenaphthene-d10	217259	108630	434518	168241	-22.56
59 Phenanthrene-d10	355415	177708	710830	271105	-23.72
69 Chrysene-d12	390458	195229	780916	284228	-27.21
134 Di-n-octylphthala	532303	266152	1064606	392765	-26.21
77 Perylene-d12	386299	193150	772598	300672	-22.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.04	8.54	9.54	9.04	0.00
27 Naphthalene-d8	11.67	11.17	12.17	11.67	0.00
42 Acenaphthene-d10	15.52	15.02	16.02	15.51	-0.05
59 Phenanthrene-d10	18.74	18.24	19.24	18.74	0.00
69 Chrysene-d12	23.72	23.22	24.22	23.72	0.00
134 Di-n-octylphthala	24.76	24.26	25.26	24.76	0.00
77 Perylene-d12	26.08	25.58	26.58	26.08	0.00

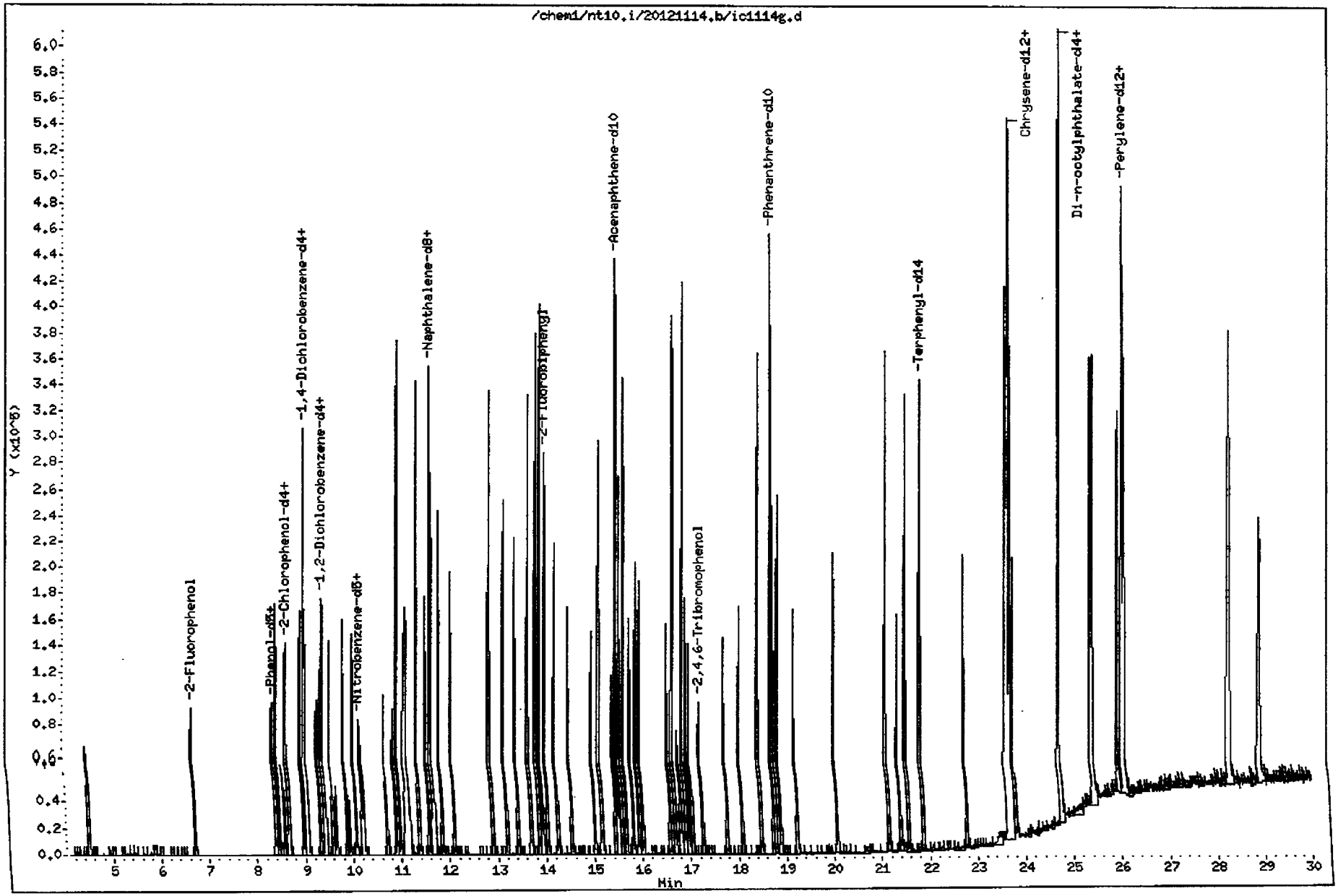
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20121114.b/ic1114g.d
Date : 14-NOV-2012 20:18
Client ID:
Sample Info: IC1114C

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic1114g.d

Lab ID: IC1114G, Method: ABN.m, Instrument: nt10.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121114.b/ic1114i.d
Lab Smp Id: IC1114I
Inj Date : 14-NOV-2012 21:31
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC1114I
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121114.b/ABN.m
Meth Date : 15-Nov-2012 10:17 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

YZ 11/15/12

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.705	6.705	(0.742)	10842	0.50000	0.4865
$	2	Phenol-d5	99	8.390	8.390	(0.928)	10260	0.50000	0.4530
	3	Phenol	94	8.405	8.405	(0.930)	11608	0.50000	0.4813
$	5	2-Chlorophenol-d4	132	8.652	8.652	(0.957)	15647	0.50000	0.5045
	4	Bis(2-Chloroethyl)ether	93	8.575	8.575	(0.949)	6710	0.50000	0.4840
	6	2-Chlorophenol	128	8.683	8.683	(0.961)	16317	0.50000	0.4735
	7	1,3-Dichlorobenzene	146	8.970	8.970	(0.992)	16698	0.50000	0.5132
*	8	1,4-Dichlorobenzene-d4	152	9.040	9.040	(1.000)	84138	4.00000	
	9	1,4-Dichlorobenzene	146	9.071	9.071	(1.003)	14807	0.50000	0.4800
$	10	1,2-Dichlorobenzene-d4	152	9.420	9.420	(1.042)	10898	0.50000	0.5153
	12	1,2-Dichlorobenzene	146	9.443	9.443	(1.045)	14874	0.50000	0.4864
	11	Benzyl alcohol	108	9.334	9.334	(1.033)	6161	0.50000	0.4804
	14	2,2'-oxybis(1-Chloropropane)	121	10.986	10.986	(1.215)	14260	0.50000	0.4619
	13	2-Methylphenol	108	9.591	9.591	(1.061)	11966	0.50000	0.5076
	17	Hexachloroethane	117	10.072	10.072	(1.114)	5237	0.50000	0.4740
	16	N-Nitroso-di-n-propylamine	70	9.940	9.940	(1.100)	3204	0.50000	0.3935
	15	4-Methylphenol	108	9.878	9.878	(1.093)	11371	0.50000	0.4689
$	18	Nitrobenzene-d5	82	10.196	10.196	(0.874)	8252	0.50000	0.4572
	19	Nitrobenzene	77	10.235	10.235	(0.877)	7302	0.50000	0.4870
	20	Isophorone	82	10.716	10.716	(0.918)	12147	0.50000	0.4620
	21	2-Nitrophenol	139	10.902	10.902	(0.934)	8090	0.50000	0.4410
	22	2,4-Dimethylphenol	107	10.986	10.986	(0.941)	24412	1.00000	0.9559
	23	Bis(2-Chloroethoxy)methane	93	11.194	11.194	(0.959)	7573	0.50000	0.5044
	24	Benzoic acid	105	11.094	11.094	(0.950)	27711	2.00000	1.423
	25	2,4-Dichlorophenol	162	11.387	11.387	(0.976)	27128	1.00000	0.9472
	26	1,2,4-Trichlorobenzene	180	11.588	11.588	(0.993)	11723	0.50000	0.4607
*	27	Naphthalene-d8	136	11.672	11.672	(1.000)	306723	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	11.711	11.711	(1.003)	36914	0.50000	0.4660
29	4-Chloroaniline	127	11.865	11.865	(1.017)	30480	1.00000	0.9363
30	Hexachlorobutadiene	225	12.113	12.113	(1.038)	7193	0.50000	0.4863
31	4-Chloro-3-methylphenol	107	12.902	12.902	(1.105)	17161	1.00000	0.8722
32	2-Methylnaphthalene	142	13.196	13.196	(1.131)	25542	0.50000	0.4903
33	Hexachlorocyclopentadiene	237	13.707	13.707	(0.884)	17741	1.00000	0.8935
34	2,4,6-Trichlorophenol	196	13.862	13.862	(0.894)	19611	1.00000	0.9020
35	2,4,5-Trichlorophenol	196	13.939	13.939	(0.899)	21631	1.00000	0.8867
$ 36	2-Fluorobiphenyl	172	14.047	14.047	(0.906)	30407	0.50000	0.4690
37	2-Chloronaphthalene	162	14.249	14.249	(0.919)	22912	0.50000	0.4578
38	2-Nitroaniline	65	14.535	14.535	(0.937)	5463	1.00000	0.8869
39	Dimethylphthalate	163	15.023	15.023	(0.969)	25256	0.50000	0.4684
40	Acenaphthylene	152	15.178	15.178	(0.979)	41005	0.50000	0.4686
41	2,6-Dinitrotoluene	165	15.154	15.154	(0.977)	13573	1.00000	1.012
* 42	Acenaphthene-d10	164	15.510	15.510	(1.000)	182487	4.00000	
43	3-Nitroaniline	138	15.441	15.441	(0.996)	13314	1.00000	0.9923
44	Acenaphthene	153	15.580	15.580	(1.004)	24928	0.50000	0.4749
45	2,4-Dinitrophenol	184	15.672	15.672	(1.010)	18140	2.00000	1.418
46	Dibenzofuran	168	15.935	15.935	(1.027)	33177	0.50000	0.4849
47	4-Nitrophenol	109	15.804	15.804	(1.019)	9139	1.00000	0.8886
48	2,4-Dinitrotoluene	165	16.013	16.013	(1.032)	15800	1.00000	0.9436
50	Diethylphthalate	149	16.577	16.577	(1.069)	25231	0.50000	0.4863
49	Fluorene	166	16.693	16.693	(1.076)	28086	0.50000	0.4658
51	4-Chlorophenyl-phenylether	204	16.701	16.701	(1.077)	13498	0.50000	0.4486
52	4-Nitroaniline	138	16.793	16.793	(1.083)	14156	1.00000	1.042
53	4,6-Dinitro-2-methylphenol	198	16.901	16.901	(0.902)	28906	2.00000	1.873
54	N-Nitrosodiphenylamine	169	16.971	16.971	(0.906)	17897	0.50000	0.5031
$ 55	2,4,6-Tribromophenol	330	17.256	17.256	(1.113)	2937	0.50000	0.4093
56	4-Bromophenyl-phenylether	248	17.765	17.765	(0.948)	7141	0.50000	0.4780
57	Hexachlorobenzene	284	18.090	18.090	(0.965)	7264	0.50000	0.4725
58	Pentachlorophenol	266	18.469	18.469	(0.986)	11302	1.00000	0.8436
* 59	Phenanthrene-d10	188	18.740	18.740	(1.000)	293531	4.00000	
60	Phenanthrene	178	18.786	18.786	(1.002)	37100	0.50000	0.4750
61	Anthracene	178	18.887	18.887	(1.008)	40831	0.50000	0.4785
62	Carbazole	167	19.227	19.227	(1.026)	33783	0.50000	0.5497
63	Di-n-butylphthalate	149	20.063	20.063	(1.071)	42109	0.50000	0.4524
64	Fluoranthene	202	21.154	21.154	(1.129)	43440	0.50000	0.4393
65	Pyrene	202	21.572	21.572	(0.910)	46533	0.50000	0.4638
$ 66	Terphenyl-d14	244	21.873	21.873	(0.923)	30785	0.50000	0.4865
67	Butylbenzylphthalate	149	22.787	22.787	(0.961)	18176	0.50000	0.4670
68	Benzo(a)anthracene	228	23.685	23.685	(0.999)	46065	0.50000	0.4820
* 69	Chrysene-d12	240	23.709	23.709	(1.000)	310200	4.00000	
70	3,3'-Dichlorobenzidine	252	23.654	23.654	(0.998)	43664	1.00000	1.259
71	Chrysene	228	23.755	23.755	(1.002)	40251	0.50000	0.4811
72	bis(2-Ethylhexyl)phthalate	149	23.801	23.801	(0.962)	26625	0.50000	0.4897
* 134	Di-n-octylphthalate-d4	153	24.754	24.754	(1.000)	415643	4.00000	
73	Di-n-octylphthalate	149	24.761	24.761	(1.000)	49374	0.50000	0.4933

	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	25.419	25.419	(0.975)	44443	0.50000	0.4345
75	Benzo(k)fluoranthene	252	25.458	25.458	(0.977)	50971	0.50000	0.5169
76	Benzo(a)pyrene	252	25.969	25.969	(0.996)	42750	0.50000	0.4773
* 77	Perylene-d12	264	26.070	26.070	(1.000)	323527	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.285	28.285	(1.085)	57619	0.50000	0.5032
79	Dibenzo(a,h)anthracene	278	28.309	28.309	(1.086)	44829	0.50000	0.4884
80	Benzo(g,h,i)perylene	276	28.946	28.946	(1.110)	47552	0.50000	0.4960
90	N-Nitrosodimethylamine	74	4.481	4.481	(0.496)	7281	1.00000	0.9260
91	Aniline	93	8.467	8.467	(0.937)	22295	0.50000	0.4757
93	Benzidine	184	21.401	21.401	(0.903)	37911	1.00000	1.594
103	Pyridine	79	4.512	4.512	(0.499)	6974	1.00000	0.9473
105	1-methylnaphthalene	142	13.428	13.428	(1.150)	23355	0.50000	0.4750
111	Azobenzene (1,2-DP-Hydrazine)	77	17.040	17.040	(1.099)	16927	0.50000	0.4709
187	Total Benzofluoranthenes	252	25.419	25.419	(0.975)	92098	1.00000	0.9616
99	Perylene	252	26.116	26.116	(1.002)	49214	0.50000	0.5023
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic1114i.d
Lab Smp Id: IC1114I
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121114.b/ABN.m
Misc Info:

Calibration Date: 14-NOV-2012
Calibration Time: 16:37

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	84138	-13.69
27 Naphthalene-d8	357150	178575	714300	306723	-14.12
42 Acenaphthene-d10	217259	108630	434518	182487	-16.00
59 Phenanthrene-d10	355415	177708	710830	293531	-17.41
69 Chrysene-d12	390458	195229	780916	310200	-20.55
134 Di-n-octylphthala	532303	266152	1064606	415643	-21.92
77 Perylene-d12	386299	193150	772598	323527	-16.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.04	8.54	9.54	9.04	0.00
27 Naphthalene-d8	11.67	11.17	12.17	11.67	0.00
42 Acenaphthene-d10	15.52	15.02	16.02	15.51	-0.05
59 Phenanthrene-d10	18.74	18.24	19.24	18.74	0.00
69 Chrysene-d12	23.72	23.22	24.22	23.71	-0.03
134 Di-n-octylphthala	24.76	24.26	25.26	24.75	-0.03
77 Perylene-d12	26.08	25.58	26.58	26.07	-0.03

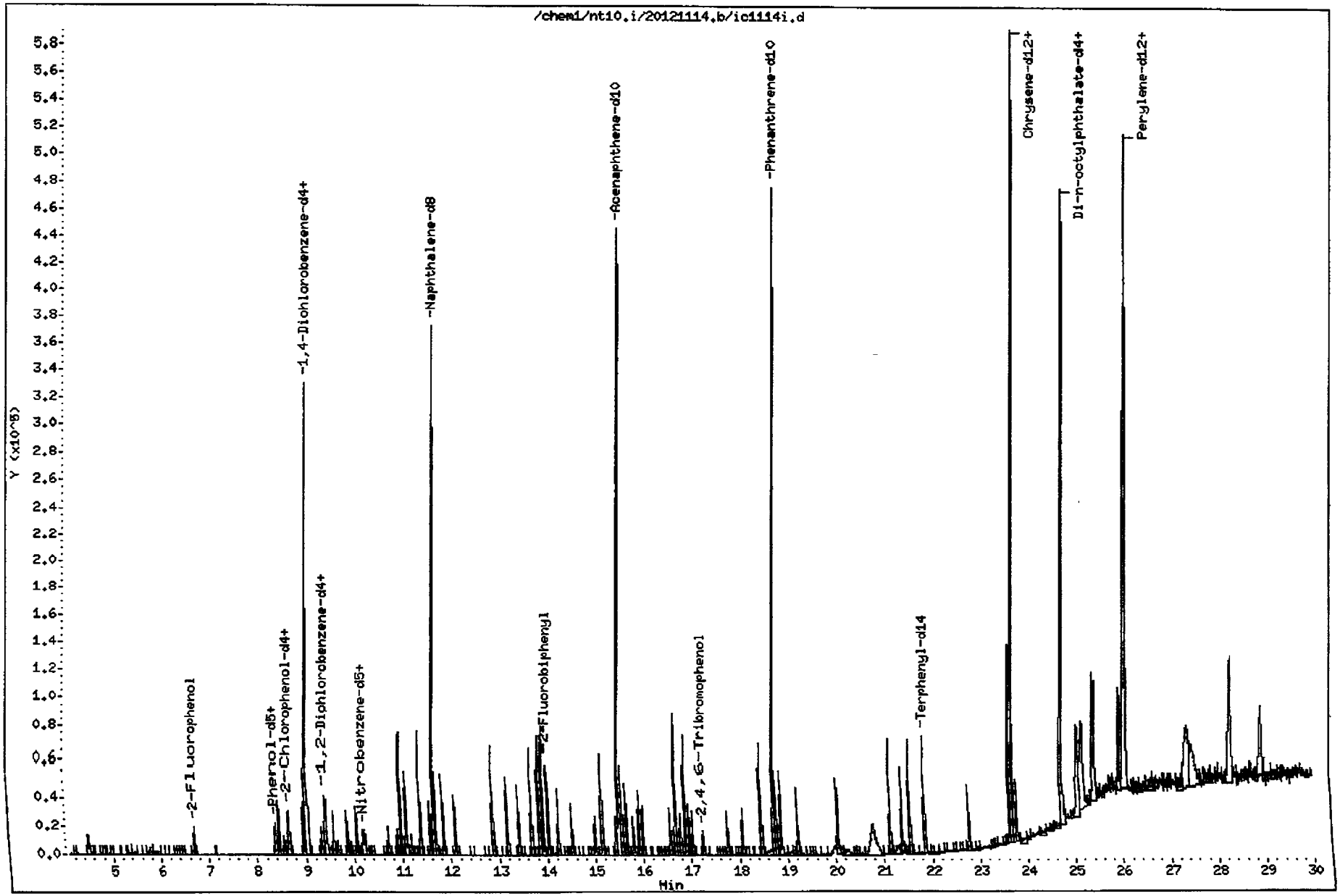
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20121114.b/ic1114i.d
Date : 14-NOV-2012 21:31
Client ID:
Sample Info: IC1114I

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic1114i.d

Lab ID: IC1114I, Method: ABN.m, Instrument: nt10.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 11/15/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121114.b/icv1114.d
Lab Smp Id: ICV1114
Inj Date : 14-NOV-2012 22:08
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ICV1114
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121114.b/ABN.m
Meth Date : 15-Nov-2012 10:17 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 10 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)	CONCENTRATIONS FINAL (ug/mL)
$	1 2-Fluorophenol	112	Compound Not Detected.					
$	2 Phenol-d5	99	8.683	8.390	(0.961)	7993	0.39009	0.3901(R)
	3 Phenol	94	8.405	8.405	(0.930)	95037	4.35607	4.356
$	5 2-Chlorophenol-d4	132	Compound Not Detected.					
	4 Bis(2-Chloroethyl)ether	93	8.575	8.575	(0.949)	66348	5.29024	5.290
	6 2-Chlorophenol	128	8.683	8.683	(0.961)	145809	4.67687	4.677
	7 1,3-Dichlorobenzene	146	8.969	8.970	(0.992)	156993	5.33371	5.334
*	8 1,4-Dichlorobenzene-d4	152	9.039	9.040	(1.000)	76115	4.00000	
	9 1,4-Dichlorobenzene	146	9.070	9.071	(1.003)	152405	5.46169	5.462
$	10 1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
	12 1,2-Dichlorobenzene	146	9.443	9.443	(1.045)	152864	5.52523	5.525
	11 Benzyl alcohol	108	9.334	9.334	(1.033)	81016	6.98236	6.982(R)
	14 2,2'-oxybis(1-Chloropropane)	121	10.986	10.986	(1.215)	64134	2.29647	2.296(R)
	13 2-Methylphenol	108	9.590	9.591	(1.061)	86385	4.05071	4.051
	17 Hexachloroethane	117	10.072	10.072	(1.114)	53812	5.38413	5.384
	16 N-Nitroso-di-n-propylamine	70	9.932	9.940	(1.099)	40117	5.44589	5.446
	15 4-Methylphenol	108	9.877	9.878	(1.093)	96227	4.38638	4.386
$	18 Nitrobenzene-d5	82	Compound Not Detected.					
	19 Nitrobenzene	77	10.234	10.235	(0.877)	75008	5.13782	5.138
	20 Isophorone	82	10.716	10.716	(0.918)	116173	4.53814	4.538
	21 2-Nitrophenol	139	10.909	10.902	(0.935)	78132	4.37482	4.375
	22 2,4-Dimethylphenol	107	10.986	10.986	(0.941)	105177	4.22992	4.230
	23 Bis(2-Chloroethoxy)methane	93	11.194	11.194	(0.959)	79073	5.40991	5.410
	24 Benzoic acid	105	11.163	11.094	(0.956)	146365	8.29254	8.293
	25 2,4-Dichlorophenol	162	11.387	11.387	(0.976)	122077	4.37812	4.378
	26 1,2,4-Trichlorobenzene	180	11.587	11.588	(0.993)	135422	5.46593	5.466
*	27 Naphthalene-d8	136	11.672	11.672	(1.000)	298626	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
28	Naphthalene	128	11.711	11.711	(1.003)	444005	5.75700	5.757
29	4-Chloroaniline	127	11.857	11.865	(1.016)	206795	6.52477	6.525(R)
30	Hexachlorobutadiene	225	12.112	12.113	(1.038)	77155	5.35767	5.358
31	4-Chloro-3-methylphenol	107	12.902	12.902	(1.105)	80410	4.19768	4.198
32	2-Methylnaphthalene	142	13.196	13.196	(1.131)	352107	6.94182	6.942(R)
33	Hexachlorocyclopentadiene	237	13.699	13.707	(0.883)	100788	5.32618	5.326
34	2,4,6-Trichlorophenol	196	13.861	13.862	(0.894)	92303	4.45434	4.454
35	2,4,5-Trichlorophenol	196	13.939	13.939	(0.899)	101397	4.36104	4.361
$ 36	2-Fluorobiphenyl	172	Compound Not Detected.					
37	2-Chloronaphthalene	162	14.248	14.249	(0.919)	272912	5.72117	5.721
38	2-Nitroaniline	65	14.535	14.535	(0.937)	40106	6.83134	6.831(R)
39	Dimethylphthalate	163	15.022	15.023	(0.969)	286517	5.57579	5.576
40	Acenaphthylene	152	15.169	15.178	(0.978)	456960	5.47920	5.479
41	2,6-Dinitrotoluene	165	15.154	15.154	(0.977)	67380	5.27275	5.273
* 42	Acenaphthene-d10	164	15.510	15.510	(1.000)	173922	4.00000	
43	3-Nitroaniline	138	15.448	15.441	(0.996)	86349	6.75291	6.753(R)
44	Acenaphthene	153	15.579	15.580	(1.004)	296875	5.93486	5.935
45	2,4-Dinitrophenol	184	15.672	15.672	(1.010)	97152	8.36140	8.361
46	Dibenzofuran	168	15.935	15.935	(1.027)	461263	7.07383	7.074(R)
47	4-Nitrophenol	109	15.811	15.804	(1.019)	44420	4.53185	4.532
48	2,4-Dinitrotoluene	165	16.012	16.013	(1.032)	88596	5.55166	5.552
50	Diethylphthalate	149	16.577	16.577	(1.069)	270120	5.46283	5.463
49	Fluorene	166	16.693	16.693	(1.076)	329275	5.73036	5.730
51	4-Chlorophenyl-phenylether	204	16.700	16.701	(1.077)	155830	5.43385	5.434
52	4-Nitroaniline	138	16.801	16.793	(1.083)	75912	5.86170	5.862
53	4,6-Dinitro-2-methylphenol	198	16.901	16.901	(0.902)	129246	8.87957	8.880
54	N-Nitrosodiphenylamine	169	16.970	16.971	(0.906)	201402	6.00194	6.002
$ 55	2,4,6-Tribromophenol	330	Compound Not Detected.					
56	4-Bromophenyl-phenylether	248	17.772	17.765	(0.948)	80882	5.73948	5.739
57	Hexachlorobenzene	284	18.089	18.090	(0.965)	78323	5.40136	5.401
58	Pentachlorophenol	266	18.476	18.469	(0.986)	56140	4.44290	4.443
* 59	Phenanthrene-d10	188	18.739	18.740	(1.000)	276859	4.00000	
60	Phenanthrene	178	18.794	18.786	(1.003)	440401	5.97822	5.978
61	Anthracene	178	18.886	18.887	(1.008)	474087	5.89081	5.891
62	Carbazole	167	19.227	19.227	(1.026)	323491	5.58072	5.581
63	Di-n-butylphthalate	149	20.062	20.063	(1.071)	497115	5.66234	5.662
64	Fluoranthene	202	21.161	21.154	(1.129)	543993	5.83254	5.833
65	Pyrene	202	21.571	21.572	(0.910)	565943	5.58430	5.584
$ 66	Terphenyl-d14	244	Compound Not Detected.					
67	Butylbenzylphthalate	149	22.794	22.787	(0.961)	212098	5.39531	5.395
68	Benzo(a)anthracene	228	23.685	23.685	(0.999)	517693	5.36331	5.363
* 69	Chrysene-d12	240	23.716	23.709	(1.000)	313315	4.00000	
70	3,3'-Dichlorobenzidine	252	23.654	23.654	(0.997)	100812	2.87686	2.877(R)
71	Chrysene	228	23.755	23.755	(1.002)	464317	5.49490	5.495
72	bis(2-Ethylhexyl)phthalate	149	23.801	23.801	(0.961)	298084	5.39139	5.391
* 134	Di-n-octylphthalate-d4	153	24.761	24.754	(1.000)	422658	4.00000	
73	Di-n-octylphthalate	149	24.769	24.761	(1.000)	577310	5.67229	5.672

SPIKE	COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
43	3-Nitroaniline	5.000	6.753	135.06*	
44	Acenaphthene	5.000	5.935	118.70	
45	2,4-Dinitrophenol	10.00	8.361	83.61	
46	Dibenzofuran	5.000	7.074	141.48*	
47	4-Nitrophenol	5.000	4.532	90.64	
48	2,4-Dinitrotoluene	5.000	5.552	111.03	
49	Fluorene	5.000	5.730	114.61	
50	Diethylphthalate	5.000	5.463	109.26	
51	4-Chlorophenyl-phe	5.000	5.434	108.68	
52	4-Nitroaniline	5.000	5.862	117.23	
53	4,6-Dinitro-2-meth	10.00	8.880	88.80	
54	N-Nitrosodiphenyla	5.000	6.002	120.04	
56	4-Bromophenyl-phen	5.000	5.739	114.79	
57	Hexachlorobenzene	5.000	5.401	108.03	
58	Pentachlorophenol	5.000	4.443	88.86	
60	Phenanthrene	5.000	5.978	119.56	
61	Anthracene	5.000	5.891	117.82	
62	Carbazole	5.000	5.581	111.61	
63	Di-n-butylphthalat	5.000	5.662	113.25	
64	Fluoranthene	5.000	5.833	116.65	
65	Pyrene	5.000	5.584	111.69	
67	Butylbenzylphthala	5.000	5.395	107.91	
68	Benzo(a)anthracene	5.000	5.363	107.27	
70	3,3'-Dichlorobenzi	5.000	2.877	57.54*	
71	Chrysene	5.000	5.495	109.90	
72	bis(2-Ethylhexyl)p	5.000	5.391	107.83	
73	Di-n-octylphthalat	5.000	5.672	113.45	
74	Benzo(b)fluoranthe	5.000	5.471	109.42	
75	Benzo(k)fluoranthe	5.000	6.120	122.40	
187	Total Benzofluoran	10.00	11.58	115.79	
76	Benzo(a)pyrene	5.000	5.650	112.99	
78	Indeno(1,2,3-cd)py	5.000	5.686	113.72	
79	Dibenzo(a,h)anthra	5.000	5.733	114.66	
80	Benzo(g,h,i)peryle	5.000	5.789	115.77	
90	N-Nitrosodimethyla	5.000	5.069	101.38	
103	Pyridine	10.00	10.03	100.28	
91	Aniline	5.000	3.010	60.19*	
105	1-methylnaphthalen	5.000	4.817	96.34	
93	Benzidine	5.000	3.008	60.16*	
111	Azobenzene (1,2-DP	5.000	5.558	111.17	
143	1,4-Dioxane	5.000	0.000	*	
144	alpha-Terpineol	5.000	0.000	*	
177	p-Benzoquinone	5.000	0.000	*	
98	Retene	5.000	0.000	*	
133	Butylatedhydroxyt	5.000	0.000	*	
115	Tributyl Phosphate	5.000	0.000	*	
116	Dibutyl Phenyl Ph	5.000	0.000	*	

SPIKE	COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
117	Butyl Diphenyl Ph	5.000	0.000	*	
118	Triphenyl Phospha	5.000	0.000	*	
123	Acetophenone	5.000	0.000	*	
179	n-Decane	5.000	0.000	*	
180	n-Octadecane	5.000	0.000	*	
168	Pentachlorobenzene	5.000	0.000	*	
113	Diphenyl Oxide	5.000	0.000	*	
112	Biphenyl	5.000	0.000	*	
120	2,3,4,6-Tetrachlor	5.000	975.7	19515.00*	
151	1,2,4,5-Tetrachlo	5.000	0.000	*	
110	Tetrachloroguaiac	5.000	0.000	*	
109	3,4,5-Trichlorogu	5.000	0.000	*	
181	3,4,6-Trichlorogu	5.000	0.000	*	
108	4,5,6-Trichlorogu	5.000	0.000	*	
184	3,4-Dichloroguaia	5.000	0.000	*	
107	4,5-Dichloroguaia	5.000	0.000	*	
182	4,6-Dichloroguaia	5.000	0.000	*	
185	4-Chloroguaiacol	5.000	0.000	*	
106	Guaiacol	5.000	0.000	*	
186	Carbaryl	5.000	0.000	*	
178	2-Benzyl-4-Chloro	5.000	0.000	*	
99	Perylene	5.000	5.165	103.30	
100	3-beta-Coprostanol	5.000	0.000	*	
101	Cholesterol	5.000	0.000	*	

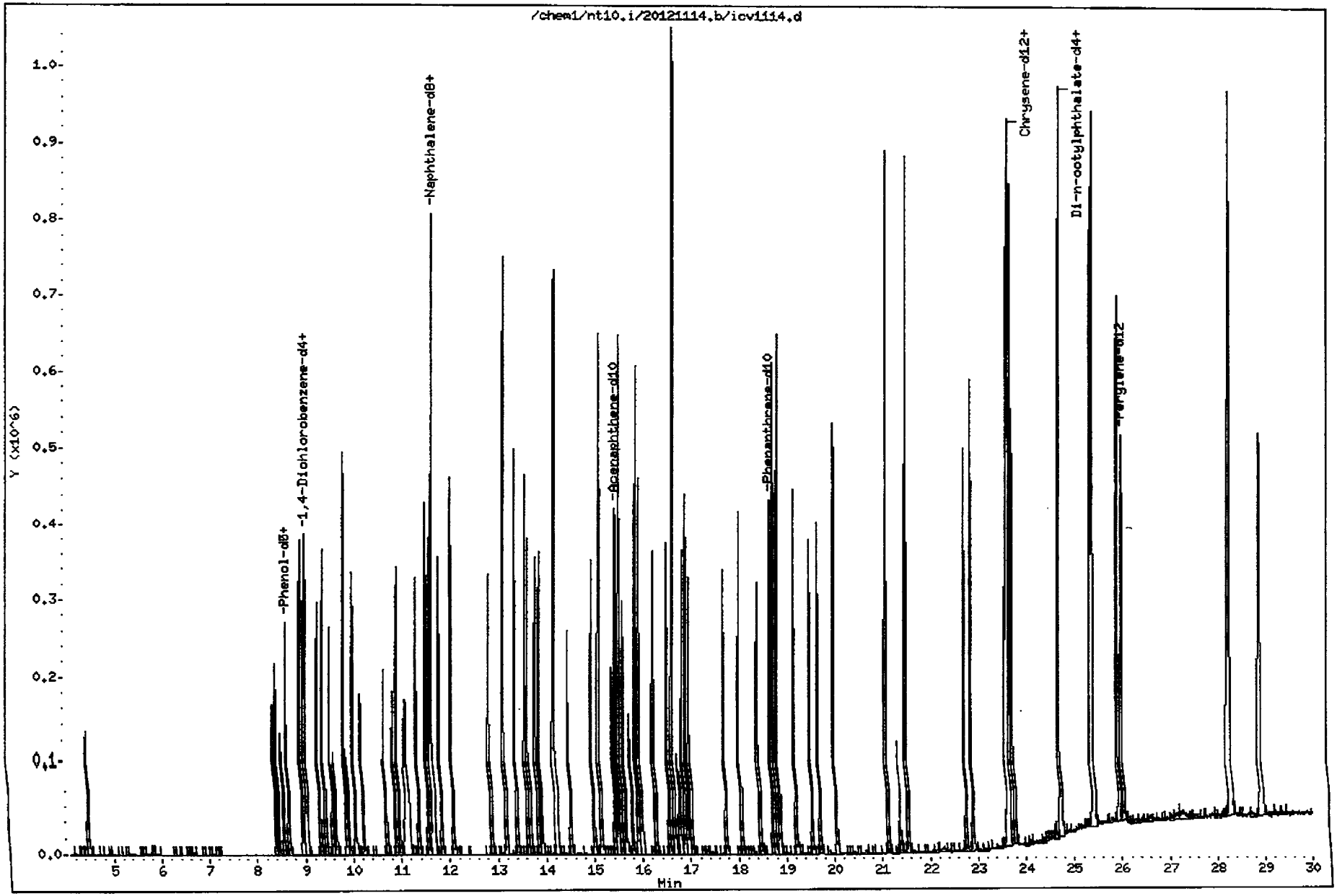
SURROGATE COMPOUND		AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	7.500	0.000	*	
$ 2	Phenol-d5	7.500	0.3901	5.20	
$ 5	2-Chlorophenol-d4	7.500	0.000	*	
$ 10	1,2-Dichlorobenze	5.000	0.000	*	
$ 18	Nitrobenzene-d5	5.000	0.000	*	
$ 36	2-Fluorobiphenyl	5.000	0.000	*	
$ 55	2,4,6-Tribromophe	7.500	0.000	*	
$ 66	Terphenyl-d14	5.000	0.000	*	

Data File: /chem1/nt10.i/20121114.b/icv1114.d
Date : 14-NOV-2012 22:08
Client ID:
Sample Info: ICV1114

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - icv1114.d

Lab ID: ICV1114, Method: ABN.m, Instrument: nt10.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS
25.976	~~Perylene~~ and Benzo(a)pyrene

Data File: /ohem1/nt10.i/20121114.b/df1114.d

Date : 14-NOV-2012 15:43

Client ID: DFTPP

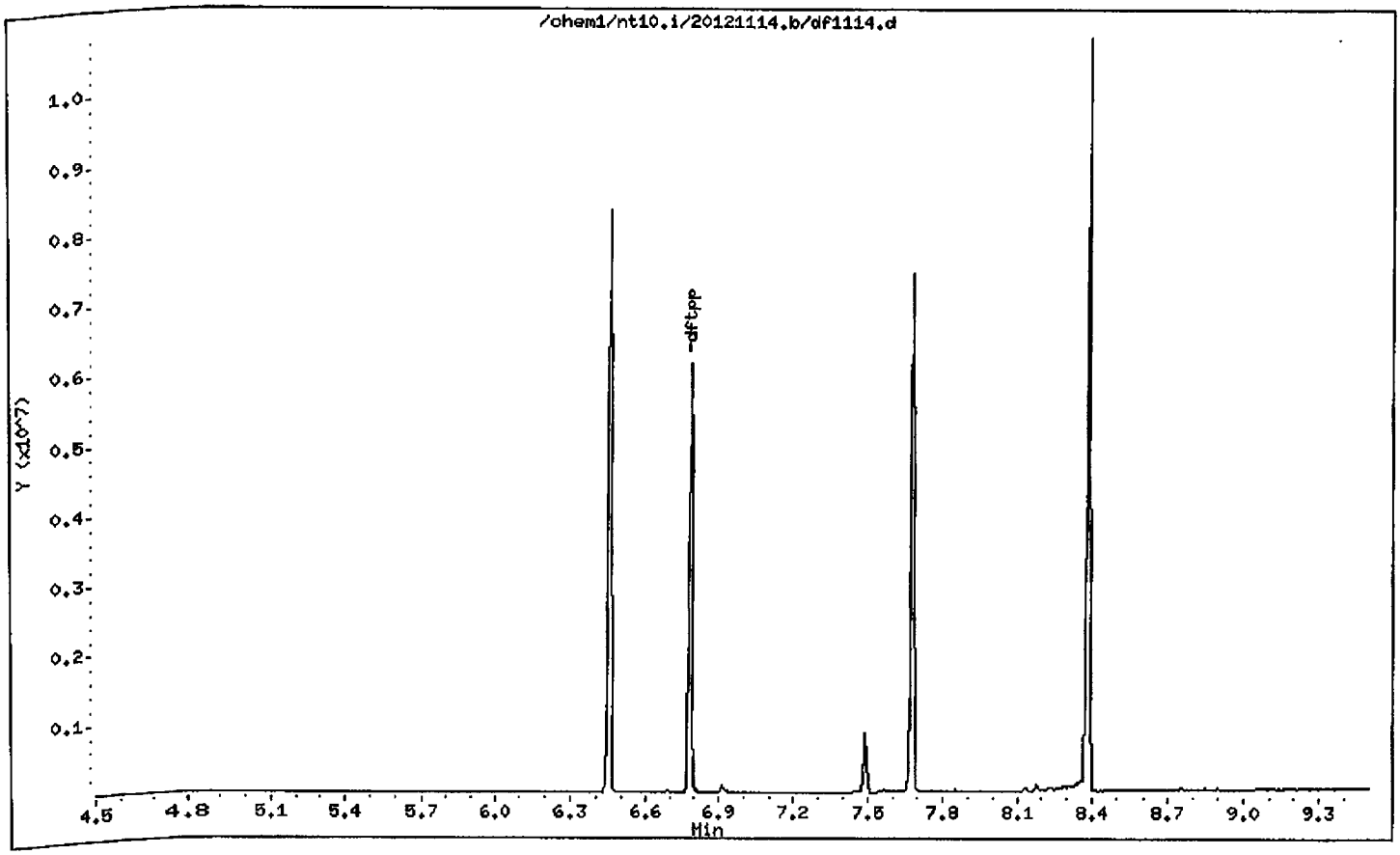
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20121114.b/df1114.d

Date : 14-NOV-2012 15:43

Client ID: DFTPP

Instrument: nt10.i

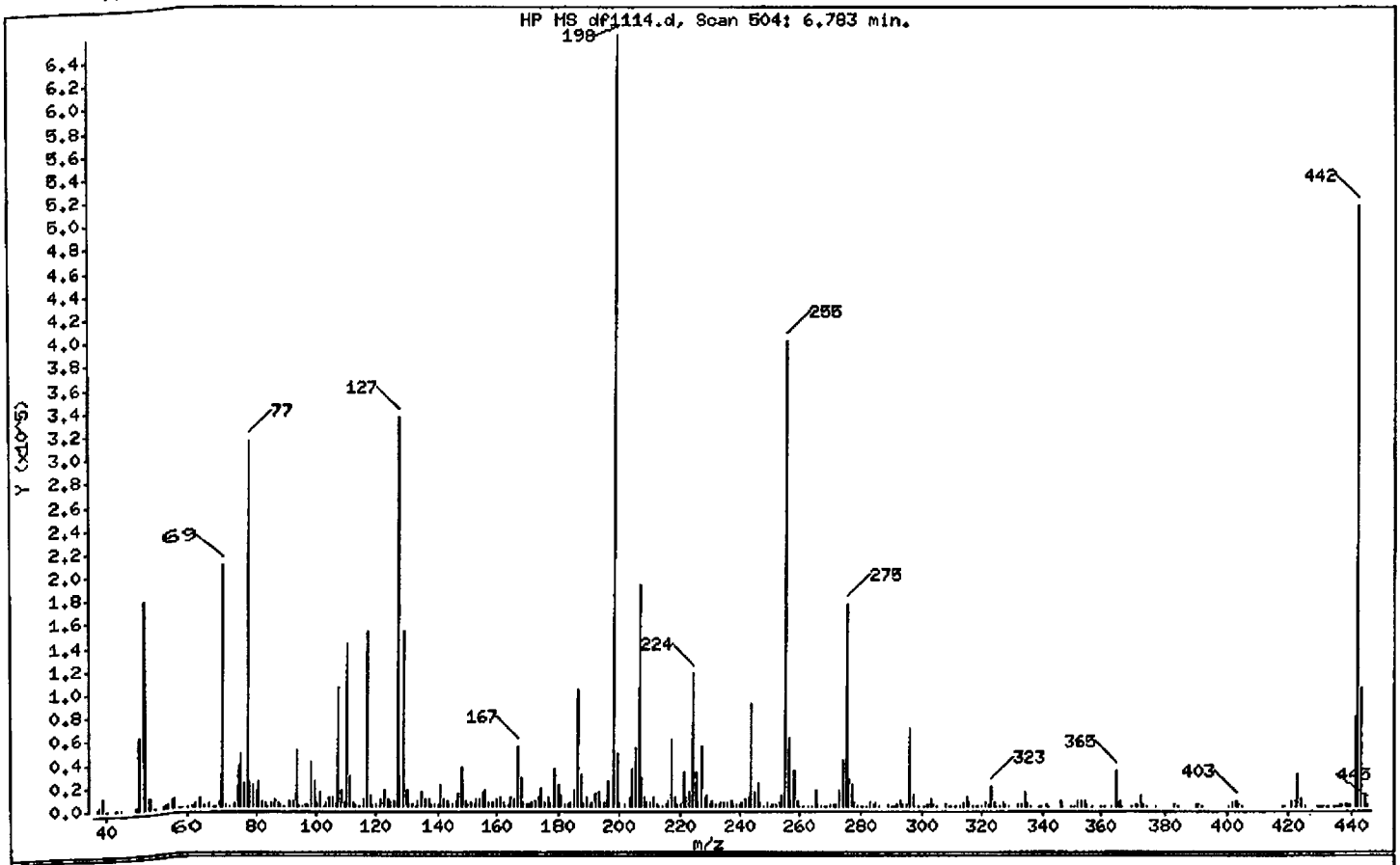
Sample Info: DFTPP

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	26.87
68	Less than 2.00% of mass 69	0.61 (1.95)
69	Mass 69 relative abundance	31.33
70	Less than 2.00% of mass 69	0.21 (0.67)
127	10.00 - 80.00% of mass 198	50.33
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.98
275	10.00 - 60.00% of mass 198	26.29
365	Greater than 1.00% of mass 198	4.62
441	0.01 - 24.00% of mass 442	11.78 (15.13)
442	50.00 - 200.00% of mass 198	77.83
443	15.00 - 24.00% of mass 442	15.31 (19.67)

Data File: /chem1/nt10.i/20121114.b/df1114.d

Date : 14-NOV-2012 15:43

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1114.d
Spectrum: HP MS df1114.d, Scan 504: 6.783 min.
Location of Maximum: 197.90
Number of points: 350

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.10	1092	130.90	2163	219.90	1862	310.80	163
38.10	3253	132.00	941	221.00	28712	311.40	224
39.00	10581	133.10	715	221.90	8314	312.80	724
40.00	478	133.90	4023	222.90	12727	314.00	3321
41.10	495	134.90	11439	224.00	114320	314.90	7506
43.00	235	136.00	6653	225.00	28872	316.90	3699
43.90	401	137.00	6249	225.90	3402	317.00	696
44.90	401	137.90	1271	226.90	62256	317.90	198
49.20	2008	138.90	976	228.00	7751	318.70	168
50.00	61872	140.00	1917	228.90	9004	319.70	294
51.00	177280	140.90	17832	229.90	1394	321.00	2302
52.00	9666	141.90	6397	230.90	3818	322.10	1279
53.10	414	142.90	4940	231.90	799	323.00	16856
54.90	1068	144.00	1624	233.00	1224	323.90	2683
56.00	3326	144.90	1334	233.90	3180	324.90	376
57.00	7143	146.00	4236	235.00	3477	325.80	482
57.90	559	146.90	10178	236.00	2643	326.90	3059
58.90	157	148.00	33400	236.90	3876	327.80	1913
59.80	285	149.00	5208	237.80	883	328.90	441
60.90	1526	149.90	1396	238.90	2204	332.00	1518
61.90	3514	151.10	2335	239.90	1819	333.00	1971
63.00	7477	152.00	1339	241.00	2705	334.00	11586
64.10	1216	152.90	6444	242.00	6327	334.90	2677
65.00	2550	154.00	5430	243.00	7877	336.10	323
66.30	229	154.90	11629	244.00	87256	338.80	247
67.00	392	155.90	13681	245.00	12110	339.80	161
68.00	4027	157.10	2864	245.90	19312	341.00	2057
69.00	206656	157.90	3478	246.90	3015	341.90	722
70.00	1385	158.90	3241	247.70	618	345.90	4686
71.10	304	160.00	6334	248.10	607	346.80	548
73.00	2877	161.00	8006	248.90	3144	349.80	289
74.00	35472	162.00	2407	250.10	505	350.90	427
75.00	46504	162.80	721	251.00	1262	351.90	5280
76.00	19848	164.00	806	251.90	1482	353.00	4095
77.00	312448	164.90	7996	253.00	3683	354.10	4526

Data File: /chem1/nt10.i/20121114.b/df1114.d

Date : 14-NOV-2012 15:43

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1114.d
Spectrum: HP MS df1114.d, Scan 504: 6.783 min.
Location of Maximum: 197.90
Number of points: 350

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	20584	165.90	6581	264.10	9252	355.00	1052
79.00	18520	167.00	51744	264.90	396736	356.70	252
80.00	13370	168.00	24776	266.00	59168	360.00	314
80.90	20784	168.90	3262	267.00	6059	360.90	206
81.90	4850	169.90	1651	267.90	30216	363.10	414
83.00	3281	170.70	1362	268.90	4537	363.60	363
83.80	411	171.00	1510	269.90	665	364.90	30472
84.90	2922	171.90	3624	270.90	646	366.00	4362
86.00	6437	173.00	4581	272.80	338	367.10	461
87.00	2732	173.90	8256	273.70	690	369.90	688
88.00	1035	175.00	15882	274.90	12949	371.00	1207
88.90	668	176.10	3348	275.90	1673	372.00	8907
90.90	4417	176.90	6960	276.80	256	372.90	1773
91.90	6140	177.90	2911	277.20	284	373.90	321
93.00	47816	178.90	31400	278.20	244	376.80	264
94.00	2256	179.90	18896	278.80	301	383.00	1848
94.90	395	180.90	9296	280.10	869	384.10	405
96.10	1851	181.90	1382	280.90	1128	389.90	1423
97.00	1074	182.80	1069	281.90	1243	390.90	1058
98.00	38264	183.90	2443	282.90	13768	392.00	435
98.90	21064	185.00	14022	284.00	38720	400.80	279
100.00	2383	186.00	100248	285.00	173440	402.00	3546
100.90	12173	187.00	27720	285.90	22496	403.00	3975
101.90	594	188.00	3729	286.90	18424	403.80	1391
102.20	611	188.90	7136	287.80	2650	404.90	320
102.90	2937	189.90	1109	288.90	712	418.20	255
104.00	7389	190.90	3685	290.00	220	418.90	206
105.00	7860	191.90	10315	290.90	539	420.90	4344
106.10	2989	193.00	12371	292.00	442	422.00	3985
107.00	102144	194.00	3080	293.00	2673	423.00	26640
108.00	14120	195.10	2364	293.90	1262	424.00	6809
109.10	3088	196.00	21144	295.00	3016	424.90	712
110.00	139776	197.90	669712	295.90	697	429.10	324
110.90	25152	198.90	46056	299.00	1062	429.80	169
112.00	3244	199.90	3452	290.00	608	430.50	203

Data File: /chem1/nt10.i/20121114.b/df1114.d

Date : 14-NOV-2012 15:43

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

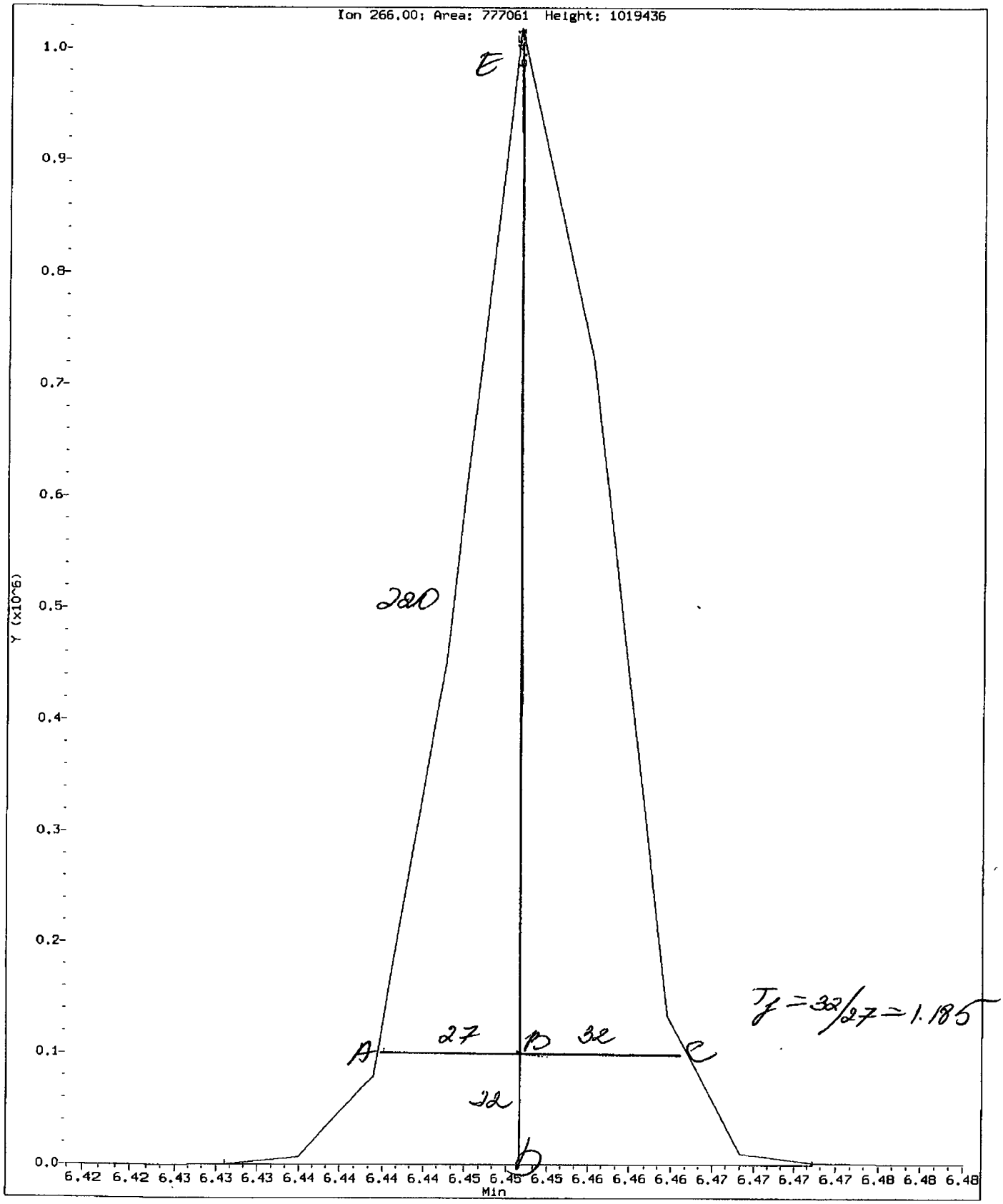
Column diameter: 0.25

Data File: df1114.d
Spectrum: HP MS df1114.d, Scan 504: 6.783 min.
Location of Maximum: 197.90
Number of points: 350

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	1177	201.30	2270	290.80	396	431.10	242
114.10	374	203.00	6879	291.10	365	432.10	267
114.90	563	204.00	31136	291.80	1239	433.10	217
116.00	5748	205.00	50288	293.00	4481	434.60	511
117.00	149504	206.00	189952	293.80	1069	435.30	510
118.00	9733	207.00	24736	295.10	2273	436.00	745
118.90	802	207.90	8196	295.90	66856	436.70	885
119.90	1671	208.90	2907	297.00	8961	437.30	1234
121.00	597	210.00	3150	297.90	618	438.30	1405
122.00	6742	211.00	7973	298.80	262	438.90	1103
122.90	13244	211.90	1767	301.00	683	439.60	1769
123.90	5711	212.90	495	302.00	1121	441.00	77704
125.00	5262	214.00	304	303.00	6162	442.00	513472
126.10	4428	215.00	2071	303.90	1064	443.00	100992
127.00	332032	215.90	4752	305.00	267	444.00	8887
128.00	26192	216.90	58376	307.90	869	445.00	843
128.90	149504	217.90	7221	308.90	400		
129.90	14302	218.80	1094	309.90	650		

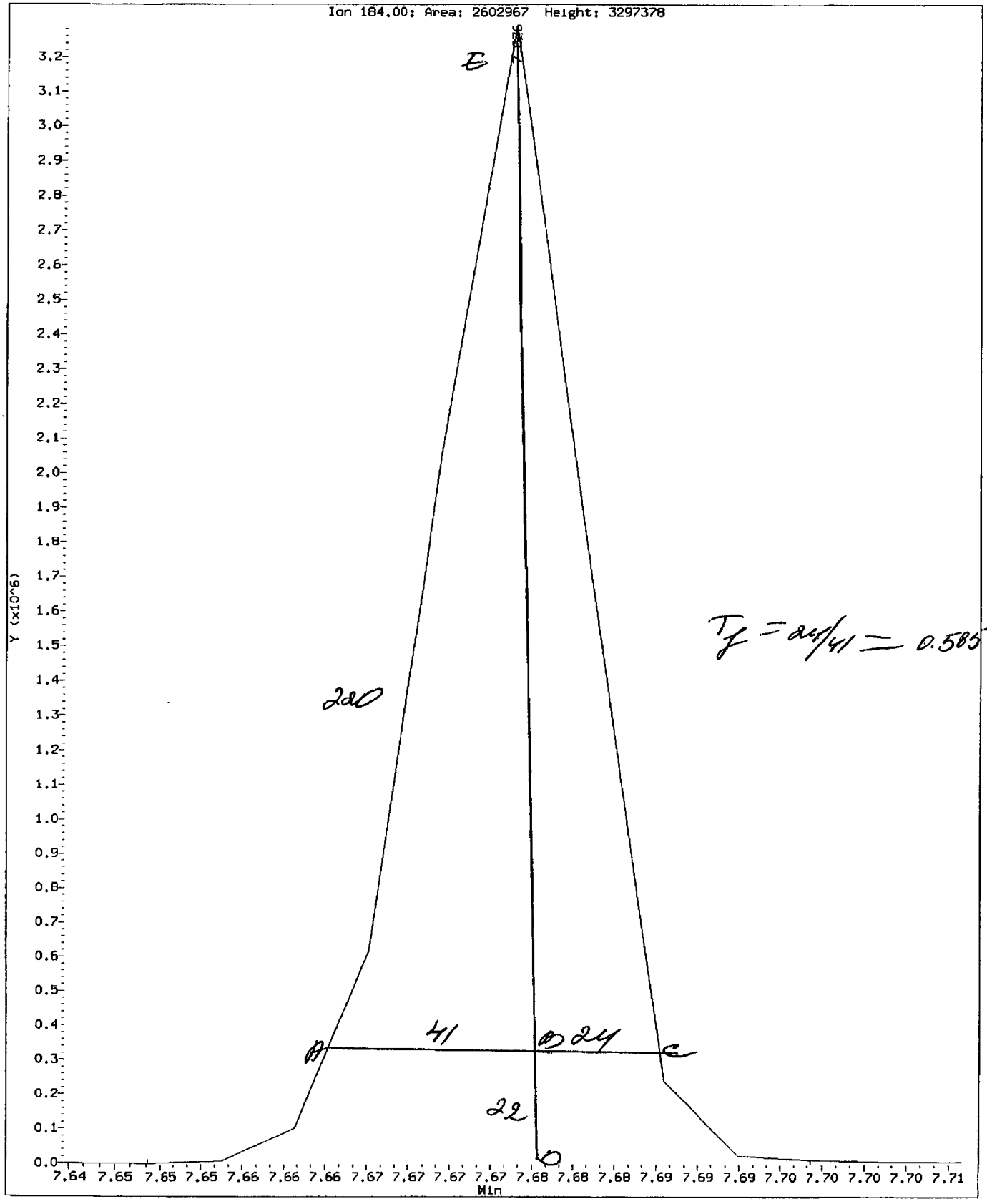
Data File: /chem1/nt10.i/20121114.b/ddt.b/df1114.d
Injection Date: 14-NOV-2012 15:43
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20121114.b/ddt.b/df1114.d
Injection Date: 14-NOV-2012 15:43
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20121114.b/ddt.b/df1114.d ARI ID: DFTPP
Method: /chem1/nt10.i/20121114.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 14-NOV-2012 15:43 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.451	777061
Benzidine	7.676	2602966
4,4'-DDE	7.852	2946
4,4'-DDD	8.179	9894
4,4'-DDT	8.382	1479766

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(2946 + 9894) * 100}{(2946 + 9894 + 1479766)}$$

DDT Percent Breakdown = 0.9 %

Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: VR38 Client ID: Anchor QEA

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): LVOA Pedda

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 11/4/12 Analysis Start Date: 11/9/12

DFTPP Tune Meets Criteria?	YES / NO	Internal Standard Meets Criteria?	YES / NO
DDT Breakdown <20%?	YES / NO / NA	Method Blank In Control?	YES / NO
Peak Tailing Factor ≤2?	YES / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
ICal acceptable?	YES / NO	CCal acceptable?	YES / NO
Q flag applied?	YES / NO	Q flag applied?	YES / NO
Surrogate Recovery in Control?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes / NO

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: YZ **Date:** 11/20/12

Reviewer: MW **Date:** 11/20

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 11/19/12 Analysis: ABN Analyst: YB

GC Program: ABN Column No: 247357 Column Type: ZB5 - ms

Instrument Tune (.U or .CT.): 11216U EM Voltage: 2053

Calibration File: DF1119 Curve Date: 11/14/12 Injection Vol.: 1 ul

IS/SS	Ical/Ccal	LCS/ICV
1998 -2	1950 -1	
	1986 -2	
	1998 -4	
	2026 -2	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20121119.b

	Time	Filename	LabID	ClientId	DF													
1	1203	df1119 d	DFTPP	DFTPP	1	NO ISTDS FOUND												
2	1219	cc1119 d	CC1119		1	8.91	121480	11.53	434031	15.39	243381	18.62	379666	23.62	472209	24.68	695596	25.97	523210
3	1256	vq56sb.d	VQ56LCSS1	VQ56LCSS1	1	8.91	96580	11.53	344162	15.39	194518	18.62	305234	23.62	375134	25.96	399285	24.68	530395
4	1333	vr45b.d	VR45B	LTCM-SED-20(	1	8.90	132967	11.53	461836	15.39	239029	18.62	377310	23.64	475093	25.97	568903	24.69	684311
5	1410	vr38mb.d	VR38MBS1	VR38MBS1	1	8.91	102604	11.53	370330	15.38	208035	18.62	355379	23.61	424771	25.95	454680	24.68	607744
6	1447	vr38sb d	VR38LCSS1	VR38LCSS1	1	8.90	103589	11.53	362820	15.39	198188	18.62	317959	23.62	385025	25.96	434441	24.68	571831
7	1524	vr38a d	VR38A	HT-01-S-C-12	1	8.91	100349	11.53	363652	15.38	200462	18.62	323447	23.61	362099	25.95	395240	24.68	525462
8	1602	vr38b.d	VR38B	HT-02-S-C-12	1	8.91	96548	11.53	347999	15.38	195430	18.62	319067	23.61	370468	25.95	414791	24 68	533850
9	1639	vr38c.d	VR38C	HT-03-S-C-12	1	8.90	104944	11.53	377456	15.38	215809	18.62	342351	23.62	444081	25.99	495162	24.71	622594
10	1716	vr38d.d	VR38D	HT-04-S-C-12	1	8 91	96129	11.53	358266	15 39	208114	18.62	362154	23.65	504464	26.09	569610	24.76	700060
11	1753	vr38e.d	VR38E	HT-05-S-C-12	1	8.91	118759	11.53	435116	15.39	259137	18.62	449432	23.62	554267	25.98	579715	24.69	746139
12	1830	vr38f.d	VR38F	HT-08-S-C-12	1	8 91	125049	11.53	449837	15.39	255416	18.62	429894	23 62	522882	25.98	561457	24.68	733295
13	1907	vr38g.d	VR38G	HT-09-S-C-12	1	8.91	122994	11.53	435383	15.39	245794	18.62	401439	23.63	517768	25.98	553437	24.70	729080
14	1944	vr38h.d	VR38H	HT-10-S-LFP-	1	8.91	119268	11.53	414777	15.39	241118	18.62	406539	23.62	486491	25.97	522251	24.68	681171
15	2021	vr38i.d	VR38I	HT-11-S-LFP-	1	8.91	108845	11 53	393621	15.39	225275	18.62	368492	23.62	453213	25.96	489636	24.68	630799
16	2058	vr38ims.d	VR38IMS	HT-11-S-LFP-	1	8.91	102836	11.53	365601	15.39	212557	18.62	346314	23.62	439589	25.96	480563	24.68	632853
17	2135	vr38imsd.d	VR38IMSD	HT-11-S-LFP-	1	8.91	103116	11.53	367518	15.39	208334	18.62	338497	23.62	440197	25.97	490278	24.68	639617
18	2212	vr38j.d	VR38J	HT-06-S-E-12	1	8.91	104263	11.53	369346	15.39	212199	18.62	365006	23.62	444484	25.97	478887	24.68	616192
19	2249	vr38k.d	VR38K	HT-07-S-E-12	1	8.91	101999	11.53	364758	15.39	214360	18.62	362879	23.62	444880	25.96	469551	24.68	620661

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 StarLIMS

YB 11/20/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20121119.b

ARI Job No.: VR38 Method: ABN.m Instrument: nt10.i Date: 19-NOV-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1410	vr38mb.d	VR38MBS1	VR38MBS1	1	NO MANUAL INTEGRATION
1447	vr38sb.d	VR38LCSS1	VR38LCSS1	1	NO MANUAL INTEGRATION
1524	vr38a.d	VR38A	HT-01-S-C-	1	NO MANUAL INTEGRATION
1602	vr38b.d	VR38B	HT-02-S-C-	1	NO MANUAL INTEGRATION
1639	vr38c.d	VR38C	HT-03-S-C-	1	Benzoic acid, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene,
1716	vr38d.d	VR38D	HT-04-S-C-	1	Acenaphthylene, Perylene-d12,
1753	vr38e.d	VR38E	HT-05-S-C-	1	Chrysene, Total Benzofluoranthenes,
1830	vr38f.d	VR38F	HT-08-S-C-	1	Total Benzofluoranthenes,
1907	vr38g.d	VR38G	HT-09-S-C-	1	NO MANUAL INTEGRATION
1944	vr38h.d	VR38H	HT-10-S-LF	1	NO MANUAL INTEGRATION
2021	vr38i.d	VR38I	HT-11-S-LF	1	NO MANUAL INTEGRATION
2058	vr38ims.d	VR38IMS	HT-11-S-LF	1	NO MANUAL INTEGRATION
2135	vr38imsd.d	VR38IMSD	HT-11-S-LF	1	NO MANUAL INTEGRATION
2212	vr38j.d	VR38J	HT-06-S-E-	1	NO MANUAL INTEGRATION
2249	vr38k.d	VR38K	HT-07-S-E-	1	NO MANUAL INTEGRATION

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20121119.b

Instrument: nt10.i Date: 19-NOV-2012 Method: ABN.m

INITIAL CAL: 14-NOV-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 19-NOV-2012

Compound	%D
Retene	478.1

Data File: /chem1/nt10.i/20121119.b/df1119.d

Date : 19-NOV-2012 12:03

Client ID: DFTPP

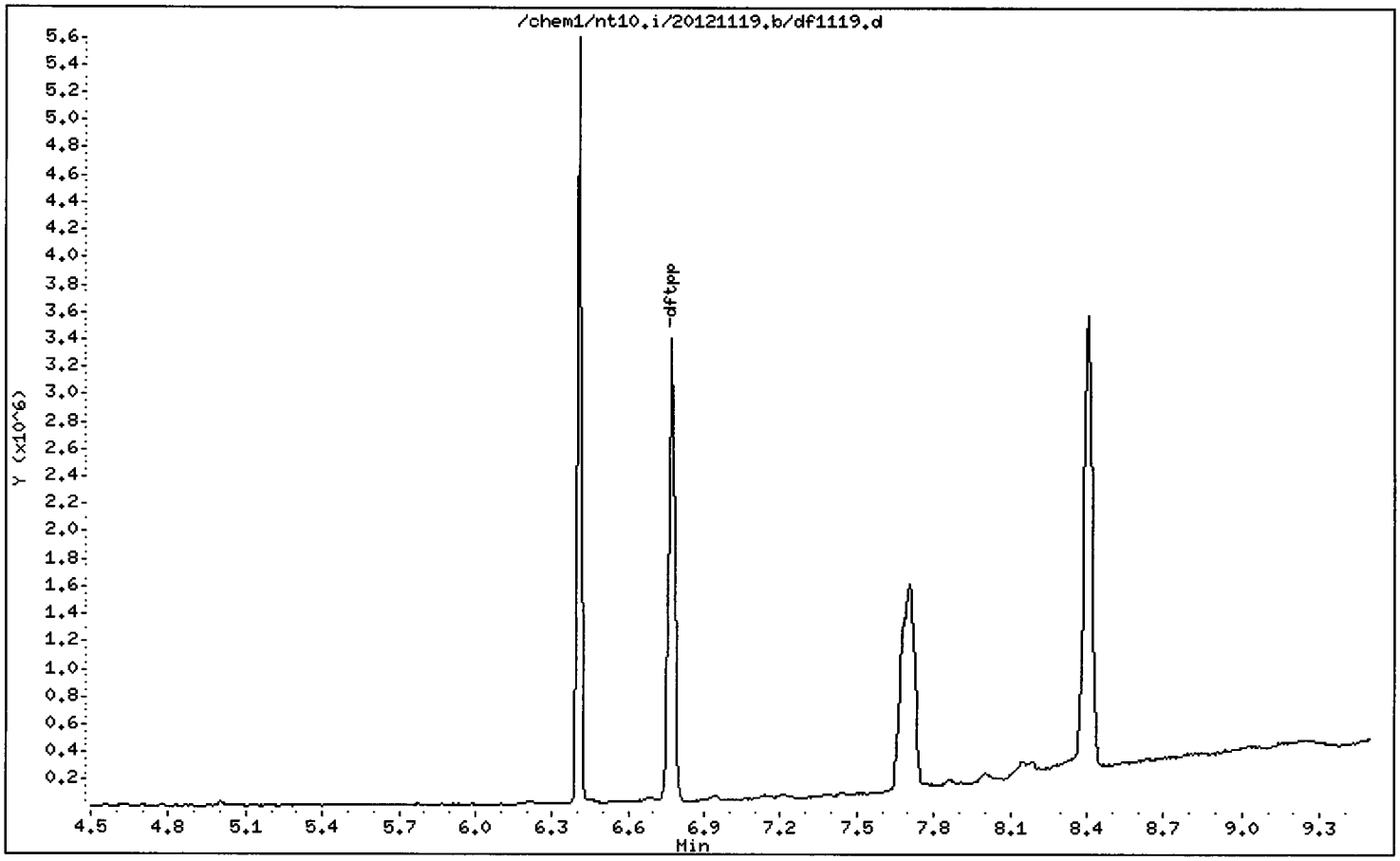
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/df1119.d

Date : 19-NOV-2012 12:03

Client ID: DFTPP

Instrument: nt10.i

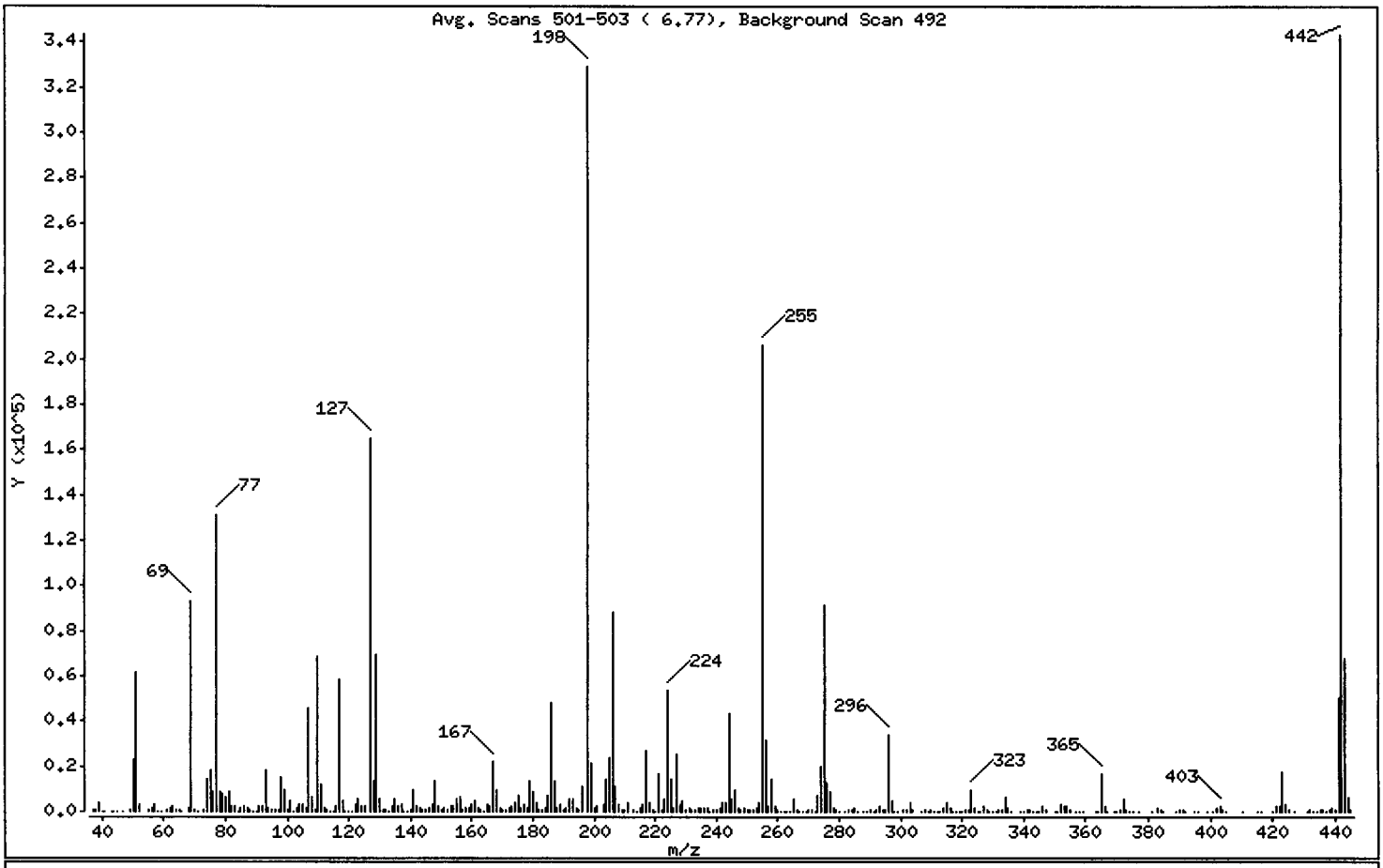
Sample Info: DFTPP

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	18.81
68	Less than 2.00% of mass 69	0.52 (1.83)
69	Mass 69 relative abundance	28.31
70	Less than 2.00% of mass 69	0.18 (0.65)
127	10.00 - 80.00% of mass 198	50.11
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.51
275	10.00 - 60.00% of mass 198	27.78
365	Greater than 1.00% of mass 198	5.05
441	0.01 - 24.00% of mass 442	15.33 (14.70)
442	50.00 - 200.00% of mass 198	104.31
443	15.00 - 24.00% of mass 442	20.72 (19.86)

Data File: /chem1/nt10.i/20121119.b/df1119.d

Date : 19-NOV-2012 12:03

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1119.d
Spectrum: Avg. Scans 501-503 (6.77), Background Scan 492
Location of Maximum: 442.00
Number of points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	421	135.00	5392	228.00	3417	323.00	9199
38.00	1164	136.00	2115	229.00	4888	324.00	1858
39.00	3658	137.00	2957	230.00	524	325.00	148
40.00	143	138.00	388	231.00	1965	326.00	340
41.00	183	139.00	265	232.00	405	327.00	2048
42.00	13	140.00	629	233.00	588	328.00	959
43.00	146	141.00	9126	234.00	1576	329.00	322
44.00	61	142.00	2626	235.00	1860	330.00	176
45.00	258	143.00	1972	236.00	1319	331.00	217
47.00	64	144.00	620	237.00	1438	332.00	729
49.00	767	145.00	487	238.00	342	333.00	1109
50.00	22744	146.00	1833	239.00	947	334.00	6325
51.00	61944	147.00	3408	240.00	942	335.00	1432
52.00	2846	148.00	13630	241.00	1446	336.00	227
55.00	399	149.00	2131	242.00	3594	339.00	195
56.00	1691	150.00	902	243.00	3621	340.00	42
57.00	3186	151.00	1279	244.00	43304	341.00	907
58.00	175	152.00	846	245.00	5590	342.00	497
59.00	136	153.00	2728	246.00	9187	343.00	147
61.00	980	154.00	2027	247.00	1960	344.00	56
62.00	1349	155.00	5314	248.00	530	345.00	59
63.00	2463	156.00	6521	249.00	1528	346.00	2306
64.00	467	157.00	1177	250.00	427	347.00	476
65.00	1111	158.00	1789	251.00	768	350.00	136
66.00	174	159.00	1334	252.00	1010	351.00	278
68.00	1708	160.00	2971	253.00	1895	352.00	2947
69.00	93224	161.00	4665	254.00	4277	353.00	2025
70.00	606	162.00	1455	255.00	206400	354.00	2629
71.00	167	163.00	472	256.00	31488	355.00	541
73.00	613	164.00	329	257.00	2449	357.00	23
74.00	14237	165.00	3097	258.00	14097	358.00	56
75.00	17936	166.00	2657	259.00	2342	359.00	292
76.00	8338	167.00	21880	260.00	424	363.00	117
77.00	130768	168.00	9783	261.00	364	364.00	175
78.00	9048	169.00	1553	262.00	74	365.00	16632

Date : 19-NOV-2012 12:03

Client ID: DFTPP Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: df1119.d
Spectrum: Avg. Scans 501-503 (6.77), Background Scan 492
Location of Maximum: 442.00
Number of points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7556	170.00	614	263.00	132	366.00	2320
80.00	6239	171.00	743	264.00	379	367.00	113
81.00	8848	172.00	1620	265.00	5359	369.00	119
82.00	2345	173.00	2439	266.00	766	370.00	360
83.00	2028	174.00	3707	267.00	8	371.00	846
84.00	280	175.00	6940	268.00	187	372.00	5138
85.00	1493	176.00	1818	269.00	241	373.00	1155
86.00	2437	177.00	2915	270.00	522	374.00	87
87.00	1268	178.00	1293	271.00	717	375.00	69
88.00	430	179.00	13761	272.00	320	377.00	53
89.00	199	180.00	8993	273.00	7253	381.00	135
90.00	68	181.00	4115	274.00	19504	383.00	1353
91.00	2021	182.00	566	275.00	91472	384.00	498
92.00	2387	183.00	653	276.00	12591	385.00	62
93.00	18112	184.00	1387	277.00	8616	389.00	324
94.00	1229	185.00	7259	278.00	1413	390.00	732
95.00	411	186.00	48176	279.00	471	391.00	541
96.00	461	187.00	13385	280.00	149	392.00	314
97.00	926	188.00	1493	282.00	181	395.00	112
98.00	15331	189.00	3265	283.00	965	396.00	140
99.00	9617	190.00	747	284.00	770	399.00	71
100.00	881	191.00	1756	285.00	1795	401.00	127
101.00	5123	192.00	5225	286.00	287	402.00	1858
102.00	316	193.00	5274	288.00	73	403.00	2632
103.00	1443	194.00	1287	289.00	355	404.00	997
104.00	3275	195.00	865	290.00	530	405.00	238
105.00	3298	196.00	11241	291.00	225	410.00	50
106.00	1375	198.00	329280	292.00	449	415.00	232
107.00	45912	199.00	21424	293.00	2154	416.00	51
108.00	6512	200.00	1956	294.00	684	420.00	85
109.00	632	201.00	2016	295.00	576	421.00	2242
110.00	68368	203.00	3095	296.00	34224	422.00	2443
111.00	11576	204.00	14107	297.00	4783	423.00	17304
112.00	1670	205.00	23424	298.00	364	424.00	3300
113.00	548	206.00	88800	299.00	217	425.00	476

Data File: /chem1/nt10.i/20121119.b/df1119.d

Date : 19-NOV-2012 12:03

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1119.d
Spectrum: Avg. Scans 501-503 (6.77), Background Scan 492
Location of Maximum: 442.00
Number of points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	125	207.00	11350	301.00	459	427.00	115
115.00	341	208.00	2915	302.00	668	431.00	35
116.00	2576	209.00	1097	303.00	3740	432.00	411
117.00	58720	210.00	1159	304.00	992	433.00	369
118.00	4360	211.00	3972	307.00	61	434.00	260
119.00	326	213.00	400	308.00	482	435.00	448
120.00	210	214.00	125	309.00	306	436.00	652
121.00	278	215.00	1377	310.00	428	437.00	364
122.00	3468	216.00	2948	311.00	242	438.00	1157
123.00	5554	217.00	27208	312.00	165	439.00	1232
124.00	2407	218.00	3614	313.00	313	440.00	595
125.00	2199	219.00	604	314.00	1430	441.00	50480
127.00	164992	220.00	294	315.00	3574	442.00	343488
128.00	13512	221.00	16824	316.00	1914	443.00	68216
129.00	69384	222.00	921	317.00	214	444.00	6176
130.00	5667	223.00	5885	318.00	66	445.00	506
131.00	675	224.00	53824	319.00	58		
132.00	696	225.00	13821	320.00	142		
133.00	370	226.00	1658	321.00	1069		
134.00	2000	227.00	25344	322.00	701		

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20121119.b/ddt.b/df1119.d
Method: /chem1/nt10.i/20121119.b/ddt.b/sw846ddt.m
Analysis Date: 19-NOV-2012 12:03

ARI ID: DFTPP
Misc: 11-
Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.403	792719
Benzidine	7.703	2331179
4,4'-DDE	7.868	80059
4,4'-DDD	8.147	43476
4,4'-DDT	8.409	1375864

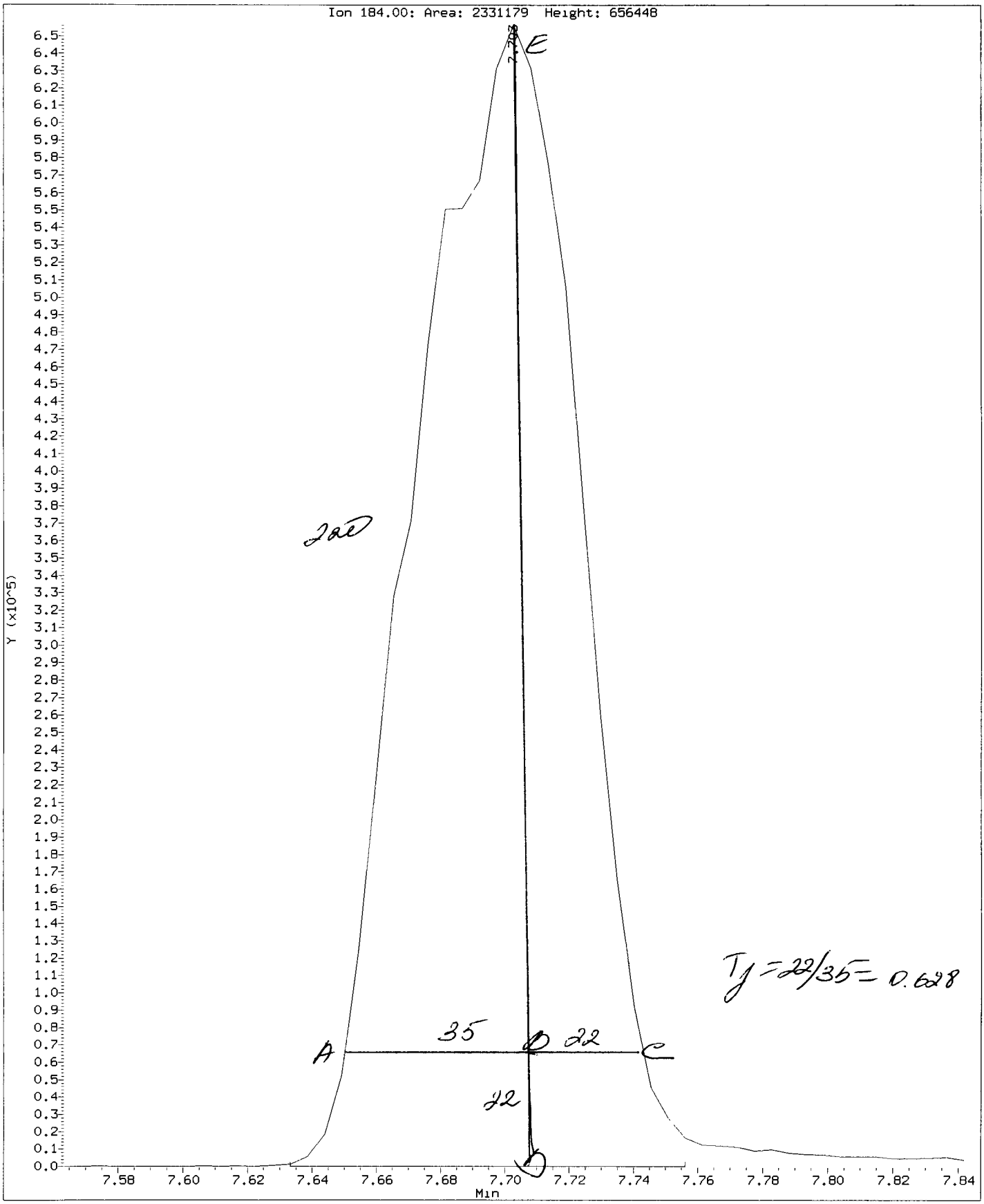
$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 80059 + 43476) * 100}{(\ 80059 + 43476 + 1375864)}$$

DDT Percent Breakdown = 8.2 %

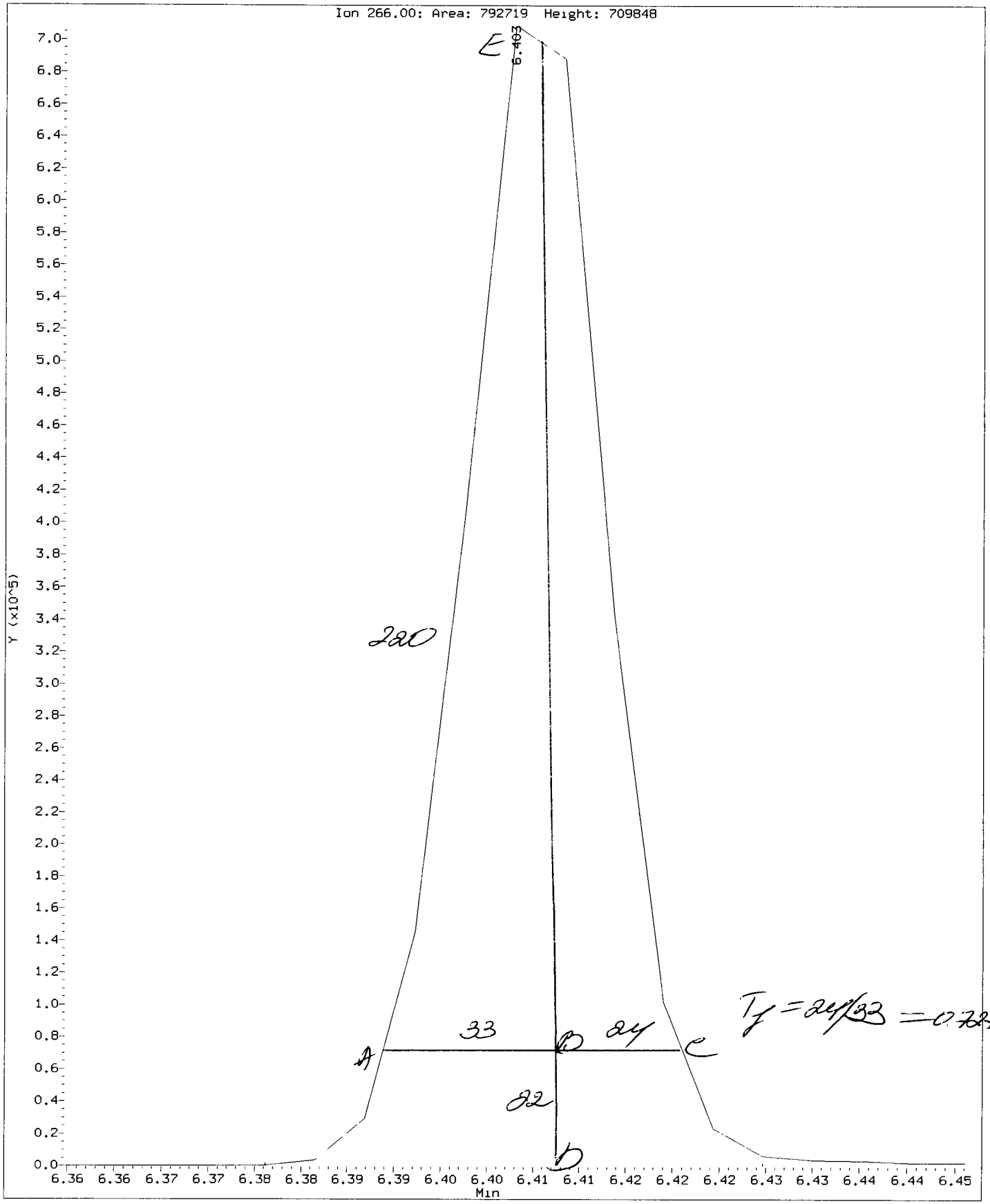
Data File: /chem1/nt10.1/20121119.b/ddt.b/df1119.d
Injection Date: 19-NOV-2012 12:03
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Data File: /chem1/nt10.i/20121119.b/ddt.b/df1119.d
Injection Date: 19-NOV-2012 12:03
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



VP38 : 8811 2U

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 19-NOV-2012 12:19
Lab File ID: cc1119.d Init. Cal. Date(s): 14-NOV-2012 14-NOV-2012
Analysis Type: Init. Cal. Times: 16:37 21:31
Lab Sample ID: CC1119 Quant Type: ISTD
Method: /chem1/nt10.i/20121119.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 2-Fluorophenol	1.05959	1.21872	1.21872	0.010	15.01752	20.00000	Averaged
$ 2 Phenol-d5	1.07679	1.20454	1.20454	0.010	11.86420	20.00000	Averaged
3 Phenol	1.14654	1.27088	1.27088	0.100	10.84515	20.00000	Averaged
$ 5 2-Chlorophenol-d4	1.47446	1.48080	1.48080	0.010	0.42992	20.00000	Averaged
7 1,3-Dichlorobenzene	1.54682	1.47906	1.47906	0.010	-4.38095	20.00000	Averaged
9 1,4-Dichlorobenzene	1.46643	1.42264	1.42264	0.010	-2.98633	20.00000	Averaged
$ 10 1,2-Dichlorobenzene-d4	1.00546	0.94981	0.94981	0.010	-5.53562	20.00000	Averaged
12 1,2-Dichlorobenzene	1.45393	1.40103	1.40103	0.010	-3.63833	20.00000	Averaged
11 Benzyl alcohol	0.60976	0.62400	0.62400	0.010	2.33506	20.00000	Averaged
13 2-Methylphenol	1.12072	1.11463	1.11463	0.700	-0.54362	20.00000	Averaged
17 Hexachloroethane	0.52523	0.46573	0.46573	0.300	-11.32924	20.00000	Averaged
15 4-Methylphenol	1.15287	1.21135	1.21135	0.600	5.07228	20.00000	Averaged
$ 18 Nitrobenzene-d5	0.23539	0.21883	0.21883	0.010	-7.03356	20.00000	Averaged
22 2,4-Dimethylphenol	0.33306	0.28158	0.28158	0.200	-15.45500	20.00000	Averaged
24 Benzoic acid	0.23642	0.24611	0.24611	0.010	4.10057	20.00000	Averaged
26 1,2,4-Trichlorobenzene	0.33186	0.31794	0.31794	0.010	-4.19610	20.00000	Averaged
28 Naphthalene	1.03306	0.97694	0.97694	0.100	-5.43168	20.00000	Averaged
30 Hexachlorobutadiene	0.19289	0.17945	0.17945	0.010	-6.97150	20.00000	Averaged
32 2-Methylnaphthalene	0.67941	0.65301	0.65301	0.300	-3.88616	20.00000	Averaged
$ 36 2-Fluorobiphenyl	1.42097	1.40680	1.40680	0.010	-0.99706	20.00000	Averaged
39 Dimethylphthalate	1.18181	1.15260	1.15260	0.010	-2.47236	20.00000	Averaged
40 Acenaphthylene	1.91808	1.83727	1.83727	0.900	-4.21279	20.00000	Averaged
44 Acenaphthene	1.15045	1.08309	1.08309	0.100	-5.85571	20.00000	Averaged
46 Dibenzofuran	1.49968	1.43997	1.43997	0.800	-3.98166	20.00000	Averaged
50 Diethylphthalate	1.13722	1.06019	1.06019	0.010	-6.77380	20.00000	Averaged
49 Fluorene	1.32155	1.23897	1.23897	0.100	-6.24853	20.00000	Averaged
54 N-Nitrosodiphenylamine	0.48481	0.47599	0.47599	0.010	-1.82042	20.00000	Averaged
$ 55 2,4,6-Tribromophenol	0.15727	0.16334	0.16334	0.010	3.85985	20.00000	Averaged
57 Hexachlorobenzene	0.20950	0.20769	0.20769	0.100	-0.86270	20.00000	Averaged
58 Pentachlorophenol	0.18256	0.17811	0.17811	0.010	-2.43609	20.00000	Averaged
60 Phenanthrene	1.06433	1.01594	1.01594	0.700	-4.54695	20.00000	Averaged
61 Anthracene	1.16274	1.10104	1.10104	0.700	-5.30647	20.00000	Averaged
63 Di-n-butylphthalate	1.26842	1.21649	1.21649	0.010	-4.09419	20.00000	Averaged
64 Fluoranthene	1.34752	1.32648	1.32648	0.600	-1.56206	20.00000	Averaged
65 Pyrene	1.29385	1.12168	1.12168	0.600	-13.30652	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 19-NOV-2012 12:19
Lab File ID: cc1119.d Init. Cal. Date(s): 14-NOV-2012 14-NOV-2012
Analysis Type: Init. Cal. Times: 16:37 21:31
Lab Sample ID: CC1119 Quant Type: ISTD
Method: /chem1/nt10.i/20121119.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 66 Terphenyl-d14	0.81605	0.71034	0.71034	0.010	-12.95373	20.00000	Averaged	
67 Butylbenzylphthalate	0.50188	0.43436	0.43436	0.010	-13.45311	20.00000	Averaged	
68 Benzo(a)anthracene	1.23231	1.14256	1.14256	0.700	-7.28258	20.00000	Averaged	
71 Chrysene	1.07878	0.98626	0.98626	0.700	-8.57632	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.52325	0.44993	0.44993	0.010	-14.01180	20.00000	Averaged	
73 Di-n-octylphthalate	0.96321	0.86160	0.86160	0.010	-10.54892	20.00000	Averaged	
76 Benzo(a)pyrene	1.10737	1.02315	1.02315	0.700	-7.60504	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.41572	1.32914	1.32914	0.500	-6.11559	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	1.13486	1.07397	1.07397	0.400	-5.36520	20.00000	Averaged	
80 Benzo(g,h,i)perylene	1.18537	1.14615	1.14615	0.500	-3.30933	20.00000	Averaged	
105 1-methylnaphthalene	0.64126	0.58795	0.58795	0.010	-8.31283	20.00000	Averaged	
187 Total Benzofluoranthenes	1.18418	1.09827	1.09827	0.010	-7.25528	20.00000	Averaged	
98 Retene	0.00005	++++	++++	0.010	++++	20.00000	Averaged	<-
120 2,3,4,6-Tetrachlorophenol	0.00173	0.00160	0.00160	0.010	-7.18294	20.00000	Averaged	<-

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/cc1119.d
Lab Smp Id: CC1119
Inj Date : 19-NOV-2012 12:19
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC1119
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 15:27 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.sub
Target Version: 3.50
Processing Host: cserv3

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.597	6.597	(0.741)	185062	5.00000	5.751
$	2	Phenol-d5	99	8.282	8.282	(0.930)	182910	5.00000	5.593
	3	Phenol	94	8.305	8.305	(0.932)	192983	5.00000	5.542
$	5	2-Chlorophenol-d4	132	8.529	8.529	(0.957)	224859	5.00000	5.021
	7	1,3-Dichlorobenzene	146	8.838	8.838	(0.992)	224595	5.00000	4.781
*	8	1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	121480	4.00000	
	9	1,4-Dichlorobenzene	146	8.939	8.939	(1.003)	216028	5.00000	4.851
$	10	1,2-Dichlorobenzene-d4	152	9.281	9.281	(1.042)	144228	5.00000	4.723
	12	1,2-Dichlorobenzene	146	9.312	9.312	(1.045)	212747	5.00000	4.818
	11	Benzyl alcohol	108	9.211	9.211	(1.034)	94754	5.00000	5.117
	13	2-Methylphenol	108	9.467	9.467	(1.063)	169256	5.00000	4.973
	17	Hexachloroethane	117	9.933	9.933	(1.115)	70721	5.00000	4.434
	15	4-Methylphenol	108	9.762	9.762	(1.096)	183943	5.00000	5.254
$	18	Nitrobenzene-d5	82	10.065	10.065	(0.873)	118724	5.00000	4.648
	22	2,4-Dimethylphenol	107	10.863	10.863	(0.942)	305541	10.0000	8.454
	24	Benzoic acid	105	11.132	11.132	(0.965)	534104	20.0000	20.82
	26	1,2,4-Trichlorobenzene	180	11.448	11.448	(0.993)	172493	5.00000	4.790
*	27	Naphthalene-d8	136	11.533	11.533	(1.000)	434031	4.00000	
	28	Naphthalene	128	11.572	11.572	(1.003)	530030	5.00000	4.728
	30	Hexachlorobutadiene	225	11.974	11.974	(1.038)	97357	5.00000	4.651
	32	2-Methylnaphthalene	142	13.065	13.065	(1.133)	354283	5.00000	4.806
$	36	2-Fluorobiphenyl	172	13.916	13.916	(0.904)	427985	5.00000	4.950
	39	Dimethylphthalate	163	14.907	14.907	(0.969)	350650	5.00000	4.876
	40	Acenaphthylene	152	15.046	15.046	(0.978)	558947	5.00000	4.789
*	42	Acenaphthene-d10	164	15.386	15.386	(1.000)	243381	4.00000	
	44	Acenaphthene	153	15.456	15.456	(1.005)	329503	5.00000	4.707

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	46 Dibenzofuran	168	15.804	15.804	(1.027)	438077	5.00000	4.801
	50 Diethylphthalate	149	16.477	16.477	(1.071)	322537	5.00000	4.661
	49 Fluorene	166	16.569	16.569	(1.077)	376927	5.00000	4.688
	54 N-Nitrosodiphenylamine	169	16.855	16.855	(0.905)	225895	5.00000	4.909
$	55 2,4,6-Tribromophenol	330	17.140	17.140	(1.114)	49692	5.00000	5.193
	57 Hexachlorobenzene	284	17.966	17.966	(0.965)	98568	5.00000	4.957
	58 Pentachlorophenol	266	18.369	18.369	(0.986)	169059	10.0000	9.756
*	59 Phenanthrene-d10	188	18.624	18.624	(1.000)	379666	4.00000	
	60 Phenanthrene	178	18.670	18.670	(1.002)	482147	5.00000	4.773
	61 Anthracene	178	18.763	18.763	(1.007)	522536	5.00000	4.735
	63 Di-n-butylphthalate	149	19.970	19.970	(1.072)	577323	5.00000	4.795
	64 Fluoranthene	202	21.053	21.053	(1.130)	629522	5.00000	4.922
	65 Pyrene	202	21.463	21.463	(0.909)	662085	5.00000	4.335
$	66 Terphenyl-d14	244	21.781	21.781	(0.922)	419288	5.00000	4.352
	67 Butylbenzylphthalate	149	22.710	22.710	(0.962)	256386	5.00000	4.327
	68 Benzo(a)anthracene	228	23.592	23.592	(0.999)	674410	5.00000	4.636
*	69 Chrysene-d12	240	23.616	23.616	(1.000)	472209	4.00000	
	71 Chrysene	228	23.662	23.662	(1.002)	582152	5.00000	4.571
	72 bis(2-Ethylhexyl)phthalate	149	23.724	23.724	(0.961)	391214	5.00000	4.299
*	134 Di-n-octylphthalate-d4	153	24.684	24.684	(1.000)	695596	4.00000	
	73 Di-n-octylphthalate	149	24.692	24.692	(1.000)	749159	5.00000	4.473
	76 Benzo(a)pyrene	252	25.869	25.869	(0.996)	669155	5.00000	4.620
*	77 Perylene-d12	264	25.969	25.969	(1.000)	523210	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.155	28.155	(1.084)	869273	5.00000	4.694
	79 Dibenzo(a,h)anthracene	278	28.170	28.170	(1.085)	702393	5.00000	4.732
	80 Benzo(g,h,i)perylene	276	28.799	28.799	(1.109)	749594	5.00000	4.835
	105 1-methylnaphthalene	142	13.297	13.297	(1.153)	318986	5.00000	4.584
	187 Total Benzofluoranthenes	252	25.365	25.365	(0.977)	1436559	10.0000	9.274
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	16.183	16.183	(1.052)	488	5.00000	4.641

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc1119.d
Lab Smp Id: CC1119
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info:

Calibration Date: 19-NOV-2012
Calibration Time: 11:02

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	121480	24.61
27 Naphthalene-d8	357150	178575	714300	434031	21.53
42 Acenaphthene-d10	217259	108630	434518	243381	12.02
59 Phenanthrene-d10	355415	177708	710830	379666	6.82
69 Chrysene-d12	390458	195229	780916	472209	20.94
134 Di-n-octylphthala	532303	266152	1064606	695596	30.68
77 Perylene-d12	386299	193150	772598	523210	35.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	0.00
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	0.00
77 Perylene-d12	25.97	25.47	26.47	25.97	0.00

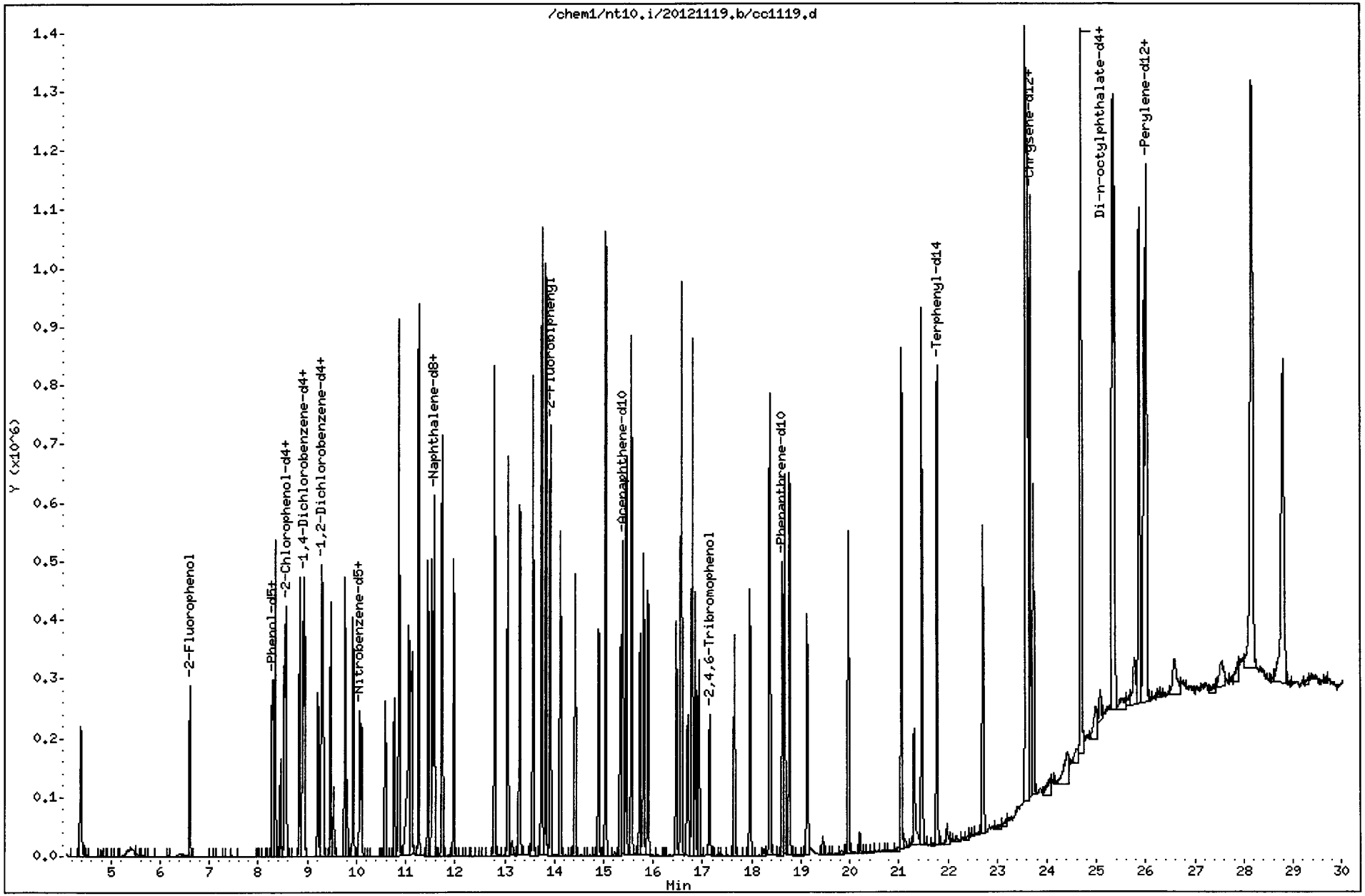
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20121119.b/cc1119.d
Date : 19-NOV-2012 12:19
Client ID:
Sample Info: CC1119

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



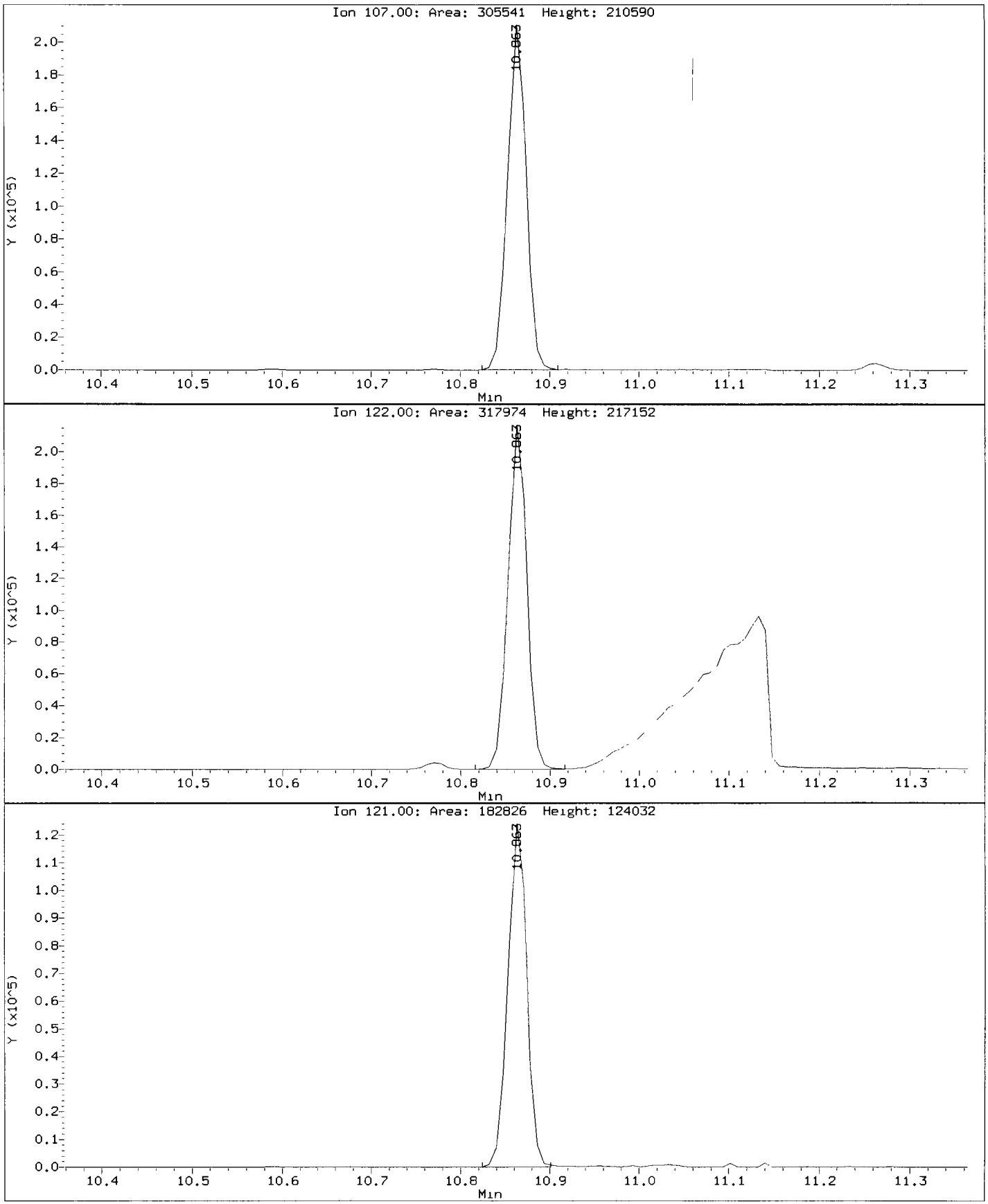
CO-ELUTION SUMMARY FOR FILE - cc1119.d

Lab ID: CC1119, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

Data File: /chem1/nt10.1/20121119.b/cc1119.d
Injection Date: 19-NOV-2012 12:19
Instrument: nt10.1
Client Sample ID:

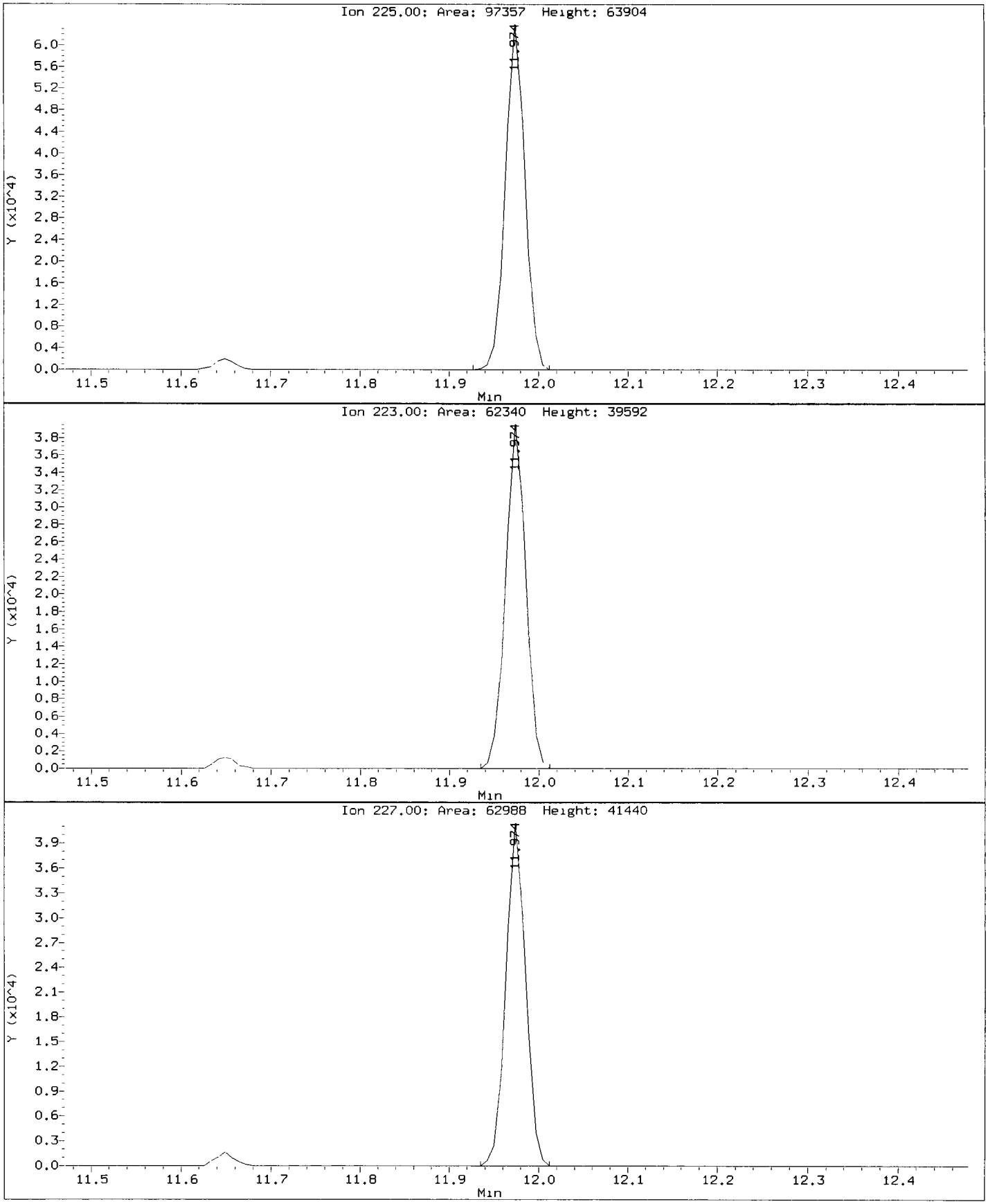
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



VP3R : 00U32

Data File: /chem1/nt10.1/20121119.b/cc1119.d
Injection Date: 19-NOV-2012 12:19
Instrument: nt10.1
Client Sample ID:

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc. YZ 11/26/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38mb.d
Lab Smp Id: VR38MBS1 Client Smp ID: VR38MBS1
Inj Date : 19-NOV-2012 14:10
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38MBS1
Misc Info : 12-22275
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	6.612	6.597	(0.742)	172922	6.36220	636.2
$	2 Phenol-d5	99	8.274	8.282	(0.929)	175804	6.36492	636.5
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.529	8.529	(0.957)	218895	5.78761	578.8
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	102604	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.280	9.281	(1.042)	95706	3.71081	371.1
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	10.064	10.065	(0.873)	78205	3.58859	358.9
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

VR38 : 20U31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.525	11.533	(1.000)	370330	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.905)	281640	3.81096	381.1
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.379	15.386	(1.000)	208035	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.132	17.140	(1.114)	51939	6.35002	635.0
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.616	18.624	(1.000)	355379	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	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	21.773	21.781	(0.922)	345864	3.99110	399.1
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	23.608	23.616	(1.000)	424771	4.00000	
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	23.716	23.724	(0.961)	11074	0.13929	13.93(R)
*	134 Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	607744	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	25.954	25.969	(1.000)	454680	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.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	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: vr38mb.d
Lab Smp Id: VR38MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: VR38MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	102604	5.25
27 Naphthalene-d8	357150	178575	714300	370330	3.69
42 Acenaphthene-d10	217259	108630	434518	208035	-4.25
59 Phenanthrene-d10	355415	177708	710830	355379	-0.01
69 Chrysene-d12	390458	195229	780916	424771	8.79
134 Di-n-octylphthala	532303	266152	1064606	607744	14.17
77 Perylene-d12	386299	193150	772598	454680	17.70

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	-0.07
42 Acenaphthene-d10	15.39	14.89	15.89	15.38	-0.05
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	-0.04
69 Chrysene-d12	23.62	23.12	24.12	23.61	-0.03
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.95	-0.06

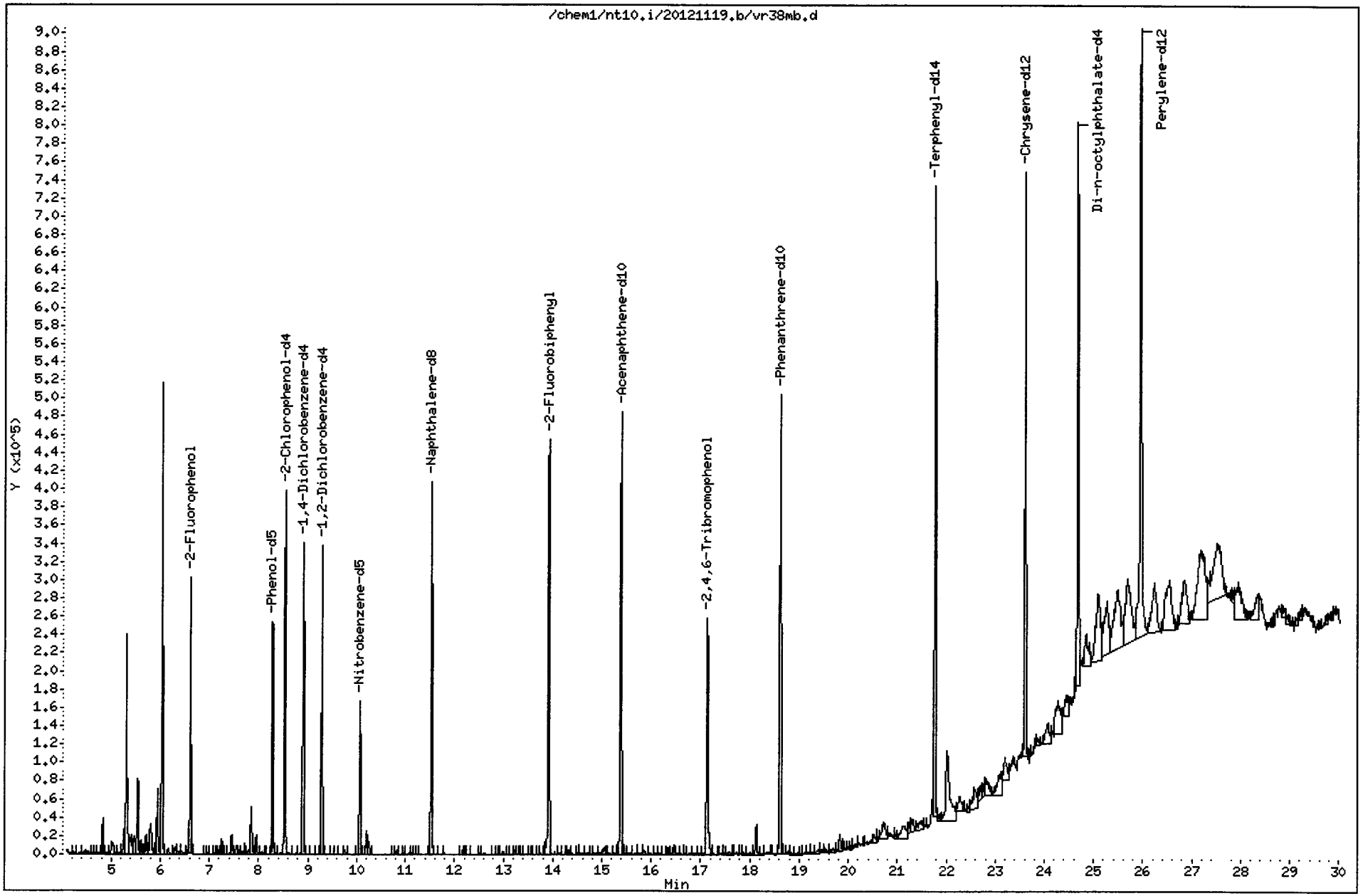
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	500.0	0.000	*	30-160
78 Indeno(1,2,3-cd)p	500.0	0.000	*	30-160
79 Dibenzo(a,h)anthr	500.0	0.000	*	30-160
80 Benzo(g,h,i)peryl	500.0	0.000	*	30-160
105 1-methylnaphthale	500.0	0.000	*	30-160
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	636.2	84.83	30-160
$ 2 Phenol-d5	750.0	636.5	84.87	30-160
$ 5 2-Chlorophenol-d4	750.0	578.8	77.17	30-160
$ 10 1,2-Dichlorobenzen	500.0	371.1	74.22	30-160
$ 18 Nitrobenzene-d5	500.0	358.9	71.77	30-160
$ 36 2-Fluorobiphenyl	500.0	381.1	76.22	30-160
$ 55 2,4,6-Tribromophen	750.0	635.0	84.67	30-160
$ 66 Terphenyl-d14	500.0	399.1	79.82	30-160

Data File: /chem1/nt10.i/20121119.b/vr38mb.d
Date : 19-NOV-2012 14:10
Client ID: VR38MBS1
Sample Info: VR38MBS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38mb.d

Date : 19-NOV-2012 14:10

Client ID: VR38MBS1

Instrument: nt10.i

Sample Info: VR38MBS1

Volume Injected (uL): 1.0

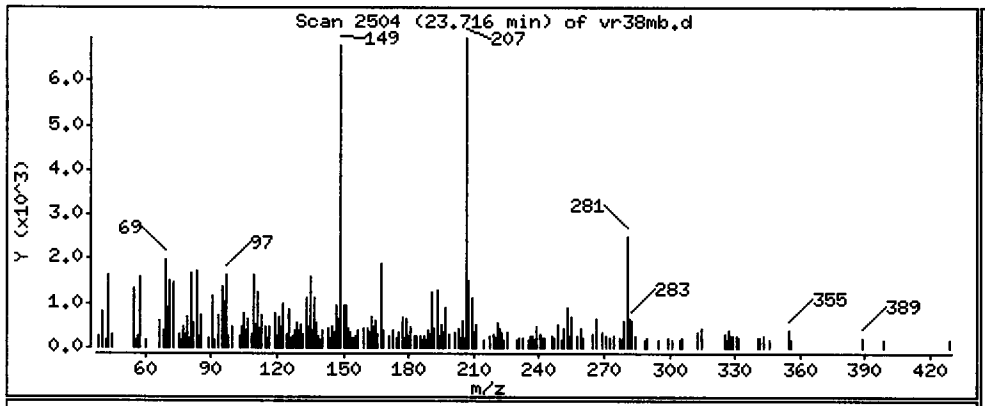
Operator: VTS/YZ

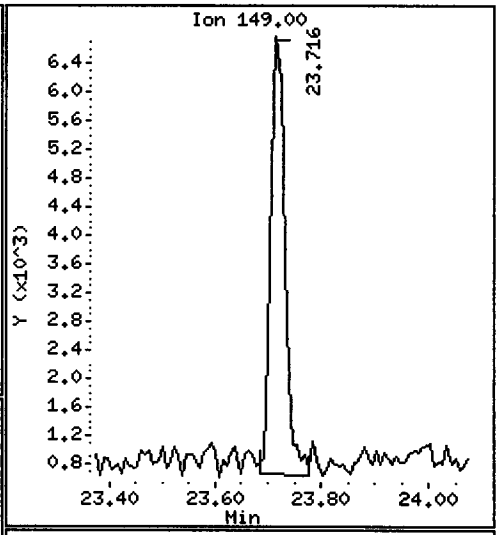
Column phase: ZB-5msi

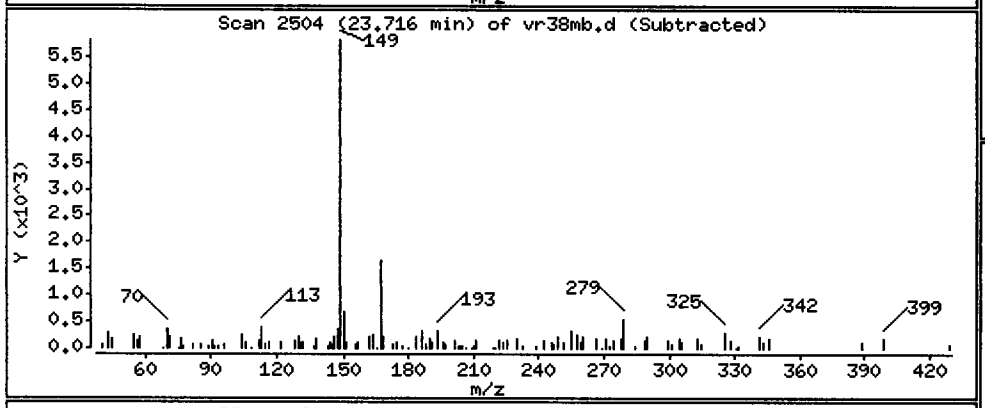
Column diameter: 0.25

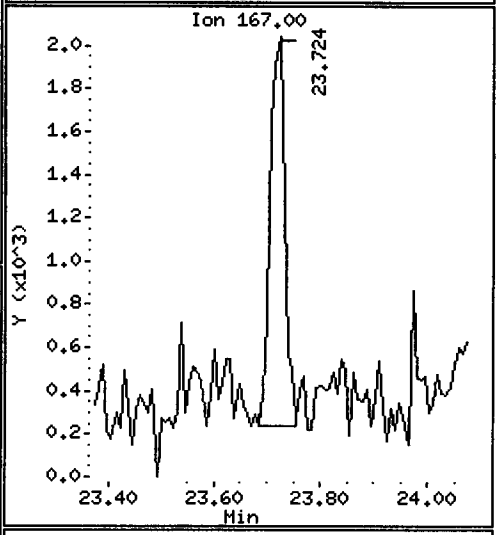
72 bis(2-Ethylhexyl)phthalate

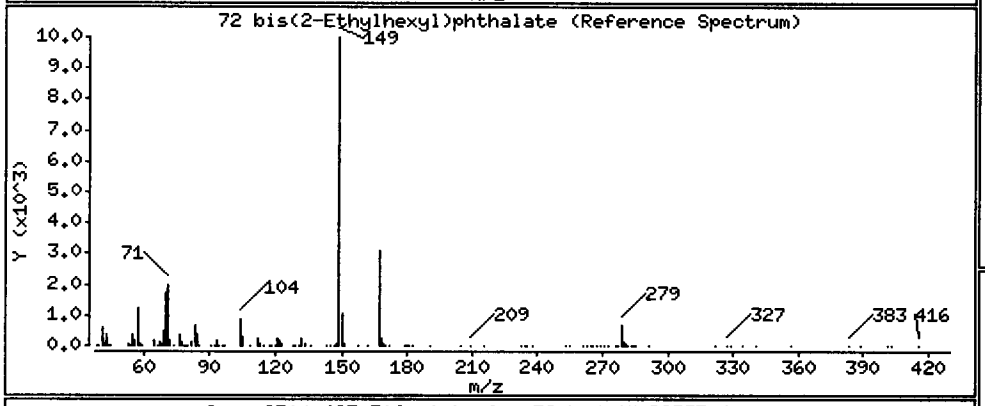
Concentration: 13.93 ug/kg

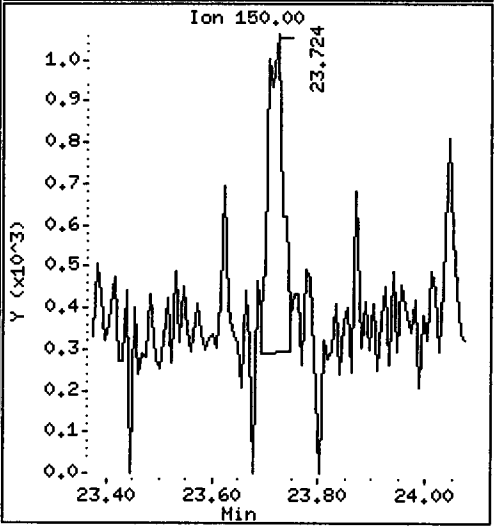


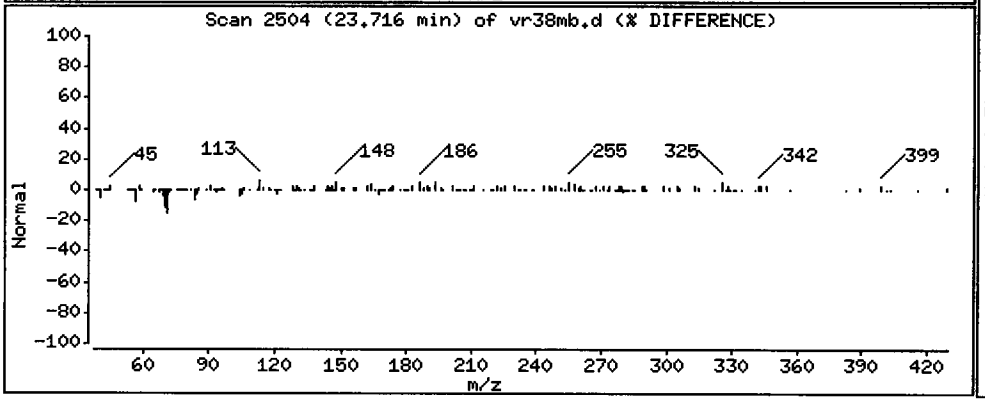












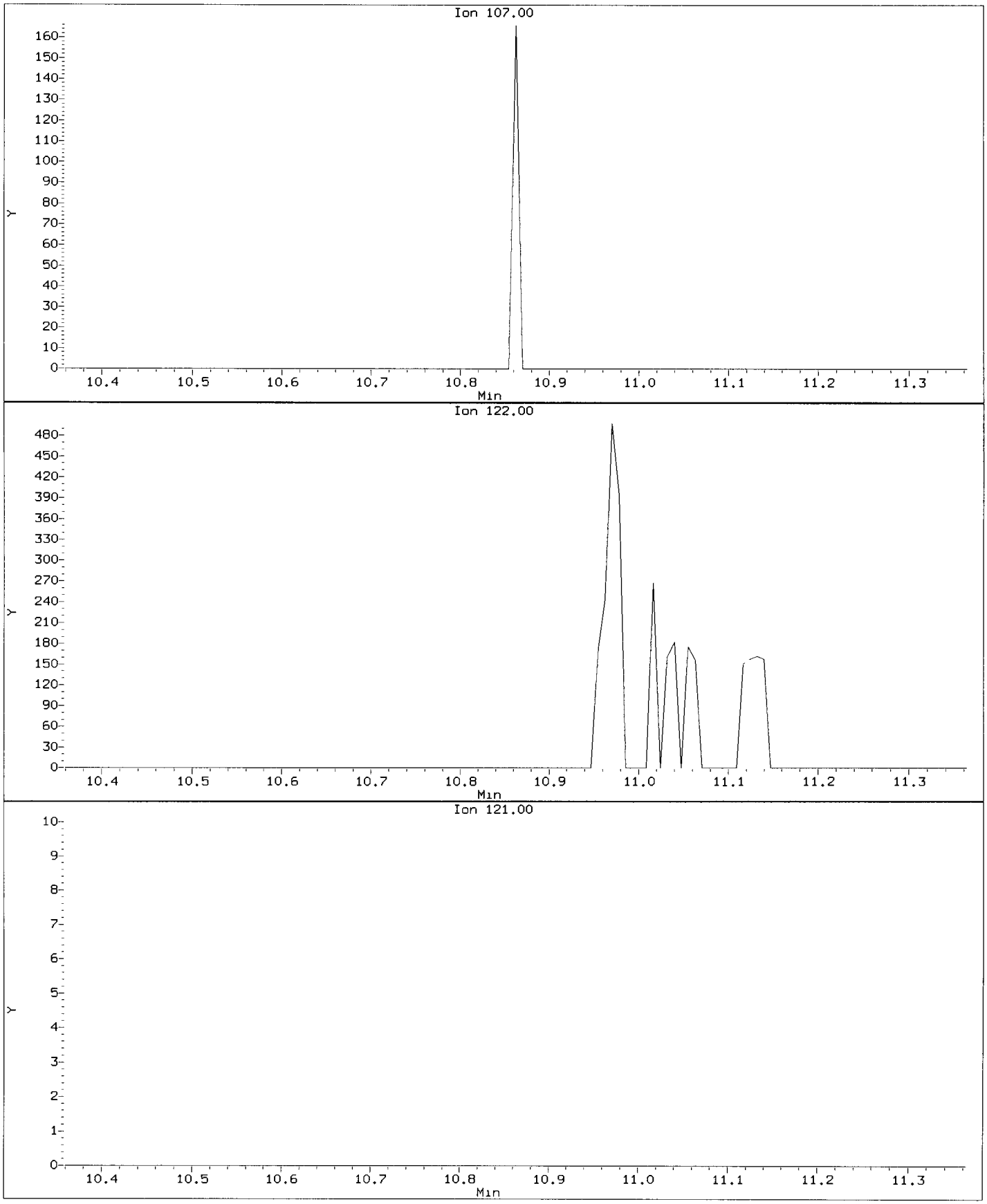
CO-ELUTION SUMMARY FOR FILE - vr38mb.d

Lab ID: VR38MBS1, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

Data File: /chem1/nt10.i/20121119.b/vr38mb.d
Injection Date: 19-NOV-2012 14:10
Instrument: nt10.i
Client Sample ID: VR38MBS1

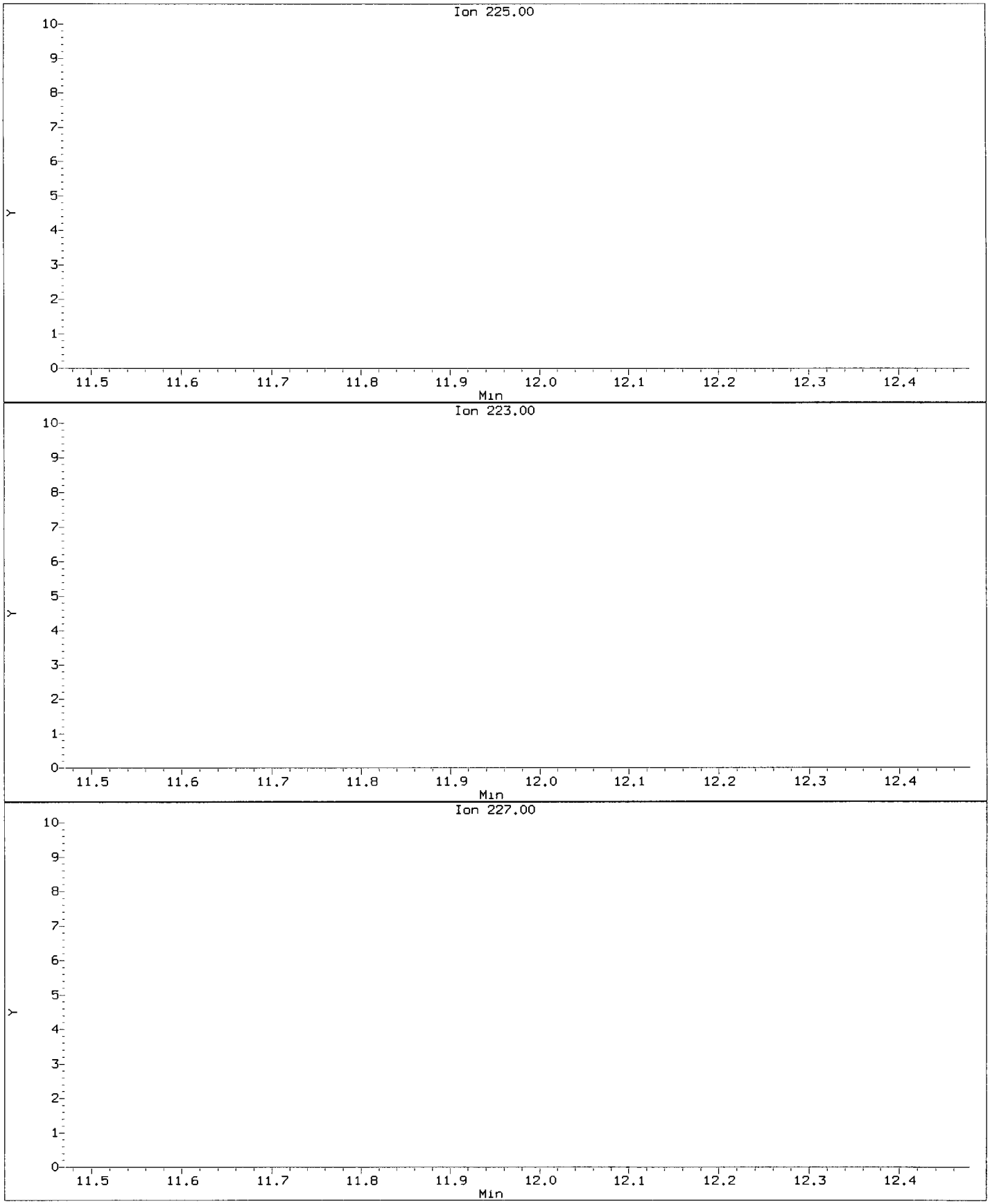
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



VR38 : 9811 1

Data File: /chem1/nt10.1/20121119.b/vr38mb.d
Injection Date: 19-NOV-2012 14:10
Instrument: nt10.1
Client Sample ID: VR38MBS1

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 11/20/12

Data file : /chem1/nt10.i/20121119.b/vr38sb.d
Lab Smp Id: VR38LCSS1 Client Smp ID: VR38LCSS1
Inj Date : 19-NOV-2012 14:47
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38LCSS1
Misc Info : 12-22275
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 15:22 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	6.613	6.597	(0.743)	180412	6.57466	657.5
$	2 Phenol-d5	99	8.282	8.282	(0.930)	184439	6.61405	661.4
	3 Phenol	94	8.305	8.305	(0.933)	129344	4.35617	435.6
$	5 2-Chlorophenol-d4	132	8.529	8.529	(0.958)	223464	5.85223	585.2
	7 1,3-Dichlorobenzene	146	8.831	8.838	(0.992)	143537	3.58319	358.3
*	8 1,4-Dichlorobenzene-d4	152	8.900	8.908	(1.000)	103589	4.00000	
	9 1,4-Dichlorobenzene	146	8.939	8.939	(1.004)	147498	3.88392	388.4
$	10 1,2-Dichlorobenzene-d4	152	9.281	9.281	(1.043)	96614	3.71039	371.0
	12 1,2-Dichlorobenzene	146	9.312	9.312	(1.046)	140149	3.72213	372.2
	11 Benzyl alcohol	108	9.211	9.211	(1.035)	64394	4.07787	407.8
	13 2-Methylphenol	108	9.467	9.467	(1.064)	88587	3.05225	305.2
	17 Hexachloroethane	117	9.933	9.933	(1.116)	47437	3.48747	348.7
	15 4-Methylphenol	108	9.770	9.762	(1.098)	191807	6.42437	642.4
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	80518	3.77121	377.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	22 2,4-Dimethylphenol	107	10.863	10.863	(0.942)	238417	7.89197	789.2
	24 Benzoic acid	105	11.109	11.132	(0.963)	379483	17.6962	1770
	26 1,2,4-Trichlorobenzene	180	11.448	11.448	(0.993)	117993	3.91983	392.0
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	362820	4.00000	
	28 Naphthalene	128	11.572	11.572	(1.003)	347213	3.70545	370.5
	30 Hexachlorobutadiene	225	11.974	11.974	(1.038)	65795	3.76046	376.0
	32 2-Methylnaphthalene	142	13.065	13.065	(1.133)	241712	3.92223	392.2
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.904)	291167	4.13562	413.6
	39 Dimethylphthalate	163	14.899	14.907	(0.968)	273584	4.67223	467.2
	40 Acenaphthylene	152	15.038	15.046	(0.977)	363895	3.82906	382.9
*	42 Acenaphthene-d10	164	15.386	15.386	(1.000)	198188	4.00000	
	44 Acenaphthene	153	15.448	15.456	(1.004)	221273	3.88188	388.2
	46 Dibenzofuran	168	15.804	15.804	(1.027)	305756	4.11489	411.5
	50 Diethylphthalate	149	16.469	16.477	(1.070)	266492	4.72957	473.0
	49 Fluorene	166	16.562	16.569	(1.076)	251705	3.84408	384.4
	54 N-Nitrosodiphenylamine	169	16.855	16.855	(0.905)	179590	4.66012	466.0
$	55 2,4,6-Tribromophenol	330	17.140	17.140	(1.114)	52097	6.68580	668.6
	57 Hexachlorobenzene	284	17.966	17.966	(0.965)	72207	4.33592	433.6
	58 Pentachlorophenol	266	18.361	18.369	(0.986)	158287	10.9075	1091
*	59 Phenanthrene-d10	188	18.616	18.624	(1.000)	317959	4.00000	
	60 Phenanthrene	178	18.663	18.670	(1.002)	363303	4.29418	429.4
	61 Anthracene	178	18.763	18.763	(1.008)	365860	3.95840	395.8
	63 Di-n-butylphthalate	149	19.962	19.970	(1.072)	483279	4.79319	479.3
	64 Fluoranthene	202	21.053	21.053	(1.131)	475631	4.44040	444.0
	65 Pyrene	202	21.463	21.463	(0.909)	489849	3.93324	393.3
$	66 Terphenyl-d14	244	21.773	21.781	(0.922)	336555	4.28459	428.5
	67 Butylbenzylphthalate	149	22.702	22.710	(0.961)	216138	4.47408	447.4
	68 Benzo(a)anthracene	228	23.585	23.592	(0.999)	495527	4.17753	417.8
*	69 Chrysene-d12	240	23.616	23.616	(1.000)	385025	4.00000	
	71 Chrysene	228	23.654	23.662	(1.002)	436241	4.20111	420.1
	72 bis(2-Ethylhexyl)phthalate	149	23.716	23.724	(0.961)	316308	4.22857	422.9
*	134 Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	571831	4.00000	
	73 Di-n-octylphthalate	149	24.684	24.692	(1.000)	584974	4.24823	424.8
	76 Benzo(a)pyrene	252	25.853	25.869	(0.996)	459335	3.81915	381.9
*	77 Perylene-d12	264	25.962	25.969	(1.000)	434441	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.139	28.155	(1.084)	635836	4.13521	413.5
	79 Dibenzo(a,h)anthracene	278	28.155	28.170	(1.084)	526643	4.27270	427.3
	80 Benzo(g,h,i)perylene	276	28.776	28.799	(1.108)	566980	4.40394	440.4
	105 1-methylnaphthalene	142	13.297	13.297	(1.153)	226288	3.89043	389.0
	187 Total Benzofluoranthenes	252	25.358	25.365	(0.977)	1042596	8.10638	810.6
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38sb.d
Lab Smp Id: VR38LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: VR38LCSS1
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	97486	48743	194972	103589	6.26
27 Naphthalene-d8	357150	178575	714300	362820	1.59
42 Acenaphthene-d10	217259	108630	434518	198188	-8.78
59 Phenanthrene-d10	355415	177708	710830	317959	-10.54
69 Chrysene-d12	390458	195229	780916	385025	-1.39
134 Di-n-octylphthala	532303	266152	1064606	571831	7.43
77 Perylene-d12	386299	193150	772598	434441	12.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.90	-0.09
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	-0.04
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.96	-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: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38LCSS1 Client Smp ID: VR38LCSS1
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

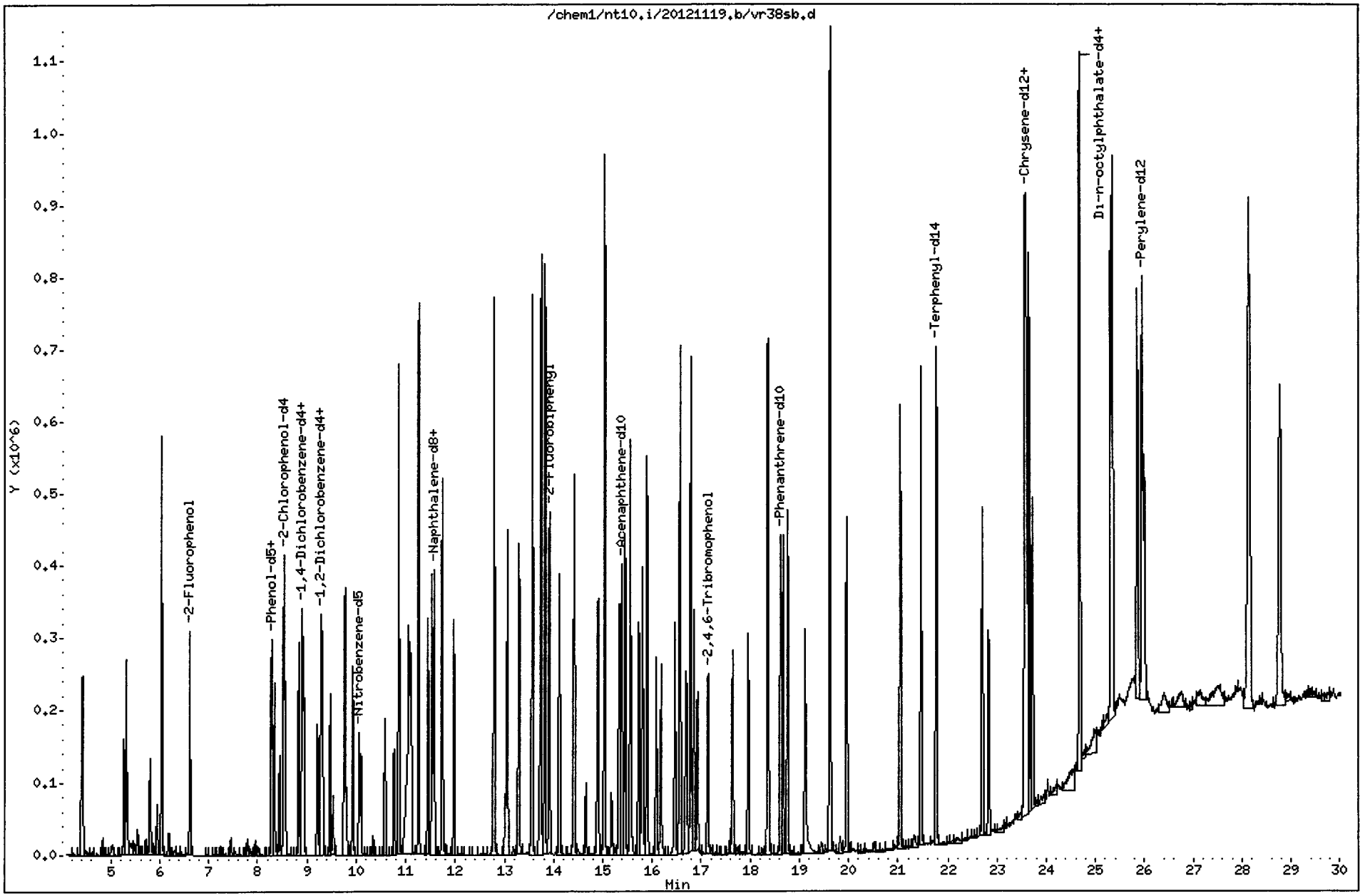
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	435.6	87.12	30-160
7	1,3-Dichlorobenzen	500.0	358.3	71.66	30-160
9	1,4-Dichlorobenzen	500.0	388.4	77.68	30-160
11	Benzyl alcohol	500.0	407.8	81.56	30-160
12	1,2-Dichlorobenzen	500.0	372.2	74.44	30-160
13	2-Methylphenol	500.0	305.2	61.04	30-160
15	4-Methylphenol	1000	642.4	64.24	30-160
17	Hexachloroethane	500.0	348.7	69.75	30-160
22	2,4-Dimethylphenol	1500	789.2	52.61	30-160
24	Benzoic acid	2750	1770	64.35	30-160
26	1,2,4-Trichloroben	500.0	392.0	78.40	30-160
28	Naphthalene	500.0	370.5	74.11	30-160
30	Hexachlorobutadien	500.0	376.0	75.21	30-160
32	2-Methylnaphthalen	500.0	392.2	78.44	30-160
39	Dimethylphthalate	500.0	467.2	93.44	30-160
40	Acenaphthylene	500.0	382.9	76.58	30-160
44	Acenaphthene	500.0	388.2	77.64	30-160
46	Dibenzofuran	500.0	411.5	82.30	30-160
49	Fluorene	500.0	384.4	76.88	30-160
50	Diethylphthalate	500.0	473.0	94.59	30-160
54	N-Nitrosodiphenyla	500.0	466.0	93.20	30-160
57	Hexachlorobenzene	500.0	433.6	86.72	30-160
58	Pentachlorophenol	1500	1091	72.72	30-160
60	Phenanthrene	500.0	429.4	85.88	30-160
61	Anthracene	500.0	395.8	79.17	30-160
63	Di-n-butylphthalat	500.0	479.3	95.86	30-160
64	Fluoranthene	500.0	444.0	88.81	30-160
65	Pyrene	500.0	393.3	78.66	30-160
67	Butylbenzylphthala	500.0	447.4	89.48	30-160
68	Benzo(a)anthracene	500.0	417.8	83.55	30-160
71	Chrysene	500.0	420.1	84.02	30-160
72	bis(2-Ethylhexyl)p	500.0	422.9	84.57	30-160
73	Di-n-octylphthalat	500.0	424.8	84.96	30-160

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	500.0	381.9	76.38	30-160
78 Indeno(1,2,3-cd)py	500.0	413.5	82.70	30-160
79 Dibenzo(a,h)anthra	500.0	427.3	85.45	30-160
80 Benzo(g,h,i)peryle	500.0	440.4	88.08	30-160
105 1-methylnaphthalen	500.0	389.0	77.81	30-160
187 Total Benzofluoran	1000	810.6	81.06	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	657.5	87.66	30-160
$ 2 Phenol-d5	750.0	661.4	88.19	30-160
$ 5 2-Chlorophenol-d4	750.0	585.2	78.03	30-160
$ 10 1,2-Dichlorobenzen	500.0	371.0	74.21	30-160
$ 18 Nitrobenzene-d5	500.0	377.1	75.42	30-160
$ 36 2-Fluorobiphenyl	500.0	413.6	82.71	30-160
$ 55 2,4,6-Tribromophen	750.0	668.6	89.14	30-160
$ 66 Terphenyl-d14	500.0	428.5	85.69	30-160

Data File: /chem1/nt10.i/20121119.b/vr38sb.d
Date : 19-NOV-2012 14:47
Client ID: VR38LCSS1
Sample Info: VR38LCSS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - vr38sb.d

Lab ID: VR38LCSS1, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38a.d
Lab Smp Id: VR38A Client Smp ID: HT-01-S-C-121106
Inj Date : 19-NOV-2012 15:24
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38A
Misc Info : 12-22267
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	13.40000	Weight of sample extracted (g)
M	20.50000	% 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	6.612	6.597	(0.742)	161553	6.07748	570.5
$	2 Phenol-d5	99	8.281	8.282	(0.930)	157518	5.83103	547.4
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.529	8.529	(0.957)	202163	5.46533	513.0
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	100349	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.280	9.281	(1.042)	86998	3.44897	323.8
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	10.064	10.065	(0.873)	71896	3.35967	315.4
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.525	11.533	(1.000)	363652	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.905)	263886	3.70562	347.8
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.378	15.386	(1.000)	200462	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	16.453	16.477	(1.070)	40344	0.70788	66.45
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.132	17.140	(1.114)	48507	6.15446	577.7
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.616	18.624	(1.000)	323447	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	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	21.773	21.781	(0.922)	282533	3.82458	359.0
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	23.608	23.616	(1.000)	362099	4.00000	
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	23.716	23.724	(0.961)	11670	0.16978	15.94
*	134 Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	525462	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	25.953	25.969	(1.000)	395240	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.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38a.d
Lab Smp Id: VR38A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22267

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-01-S-C-121106
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	97486	48743	194972	100349	2.94
27 Naphthalene-d8	357150	178575	714300	363652	1.82
42 Acenaphthene-d10	217259	108630	434518	200462	-7.73
59 Phenanthrene-d10	355415	177708	710830	323447	-8.99
69 Chrysene-d12	390458	195229	780916	362099	-7.26
134 Di-n-octylphthala	532303	266152	1064606	525462	-1.29
77 Perylene-d12	386299	193150	772598	395240	2.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	-0.07
42 Acenaphthene-d10	15.39	14.89	15.89	15.38	-0.05
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	-0.04
69 Chrysene-d12	23.62	23.12	24.12	23.61	-0.03
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.95	-0.06

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.

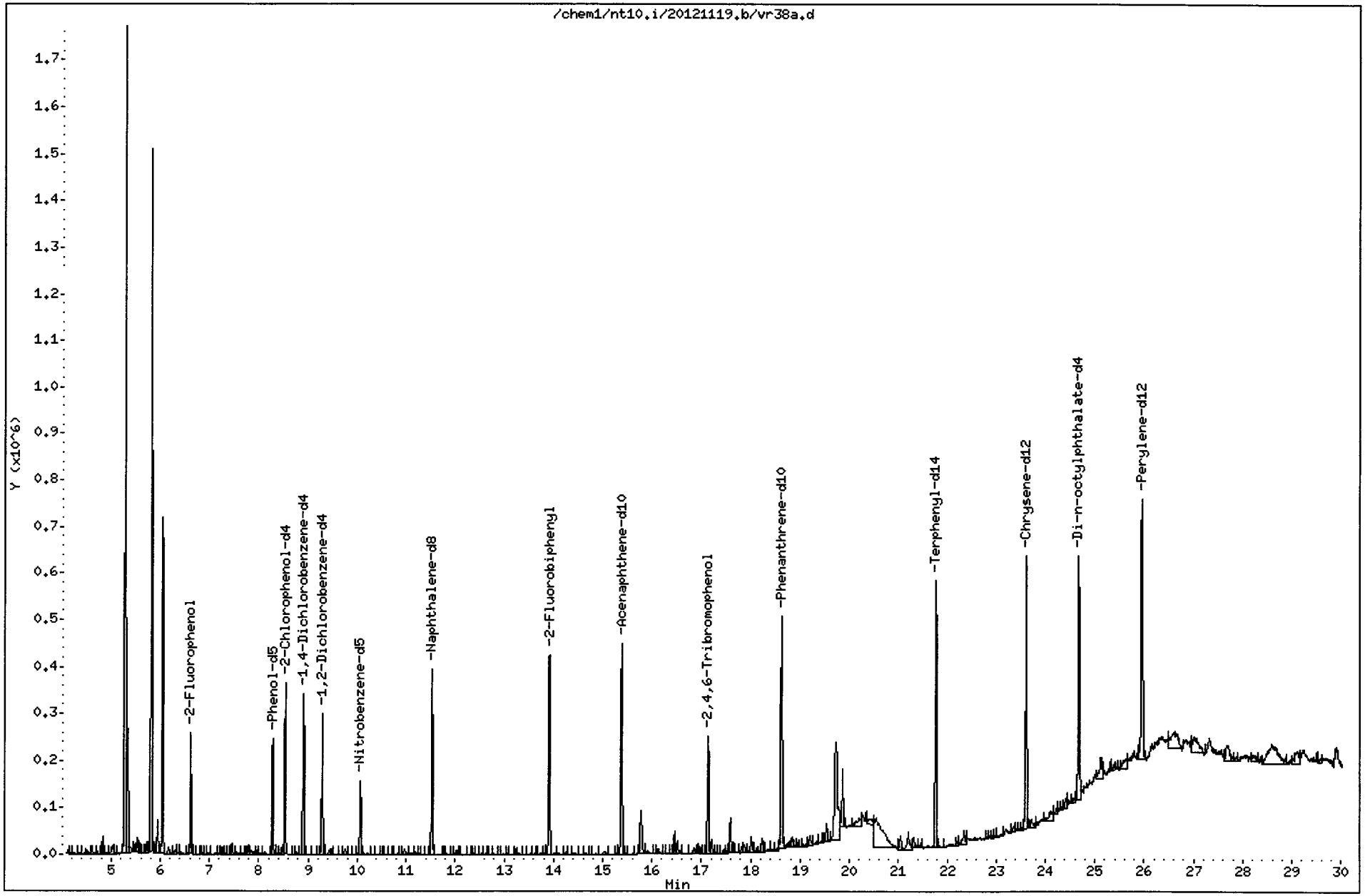
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38A Client Smp ID: HT-01-S-C-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22267

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	704.0	570.5	81.03	30-160
$ 2 Phenol-d5	704.0	547.4	77.75	30-160
$ 5 2-Chlorophenol-d4	704.0	513.0	72.87	30-160
$ 10 1,2-Dichlorobenzen	469.4	323.8	68.98	30-160
$ 18 Nitrobenzene-d5	469.4	315.4	67.19	30-160
$ 36 2-Fluorobiphenyl	469.4	347.8	74.11	30-160
$ 55 2,4,6-Tribromophen	704.0	577.7	82.06	30-160
$ 66 Terphenyl-d14	469.4	359.0	76.49	30-160

Data File: /chem1/nt10.i/20121119.b/vr38a.d
Date : 19-NOV-2012 15:24
Client ID: HT-01-S-C-121106
Sample Info: VR38A
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38a.d

Date : 19-NOV-2012 15:24

Client ID: HT-01-S-C-121106

Instrument: nt10.i

Sample Info: VR38A

Volume Injected (uL): 1.0

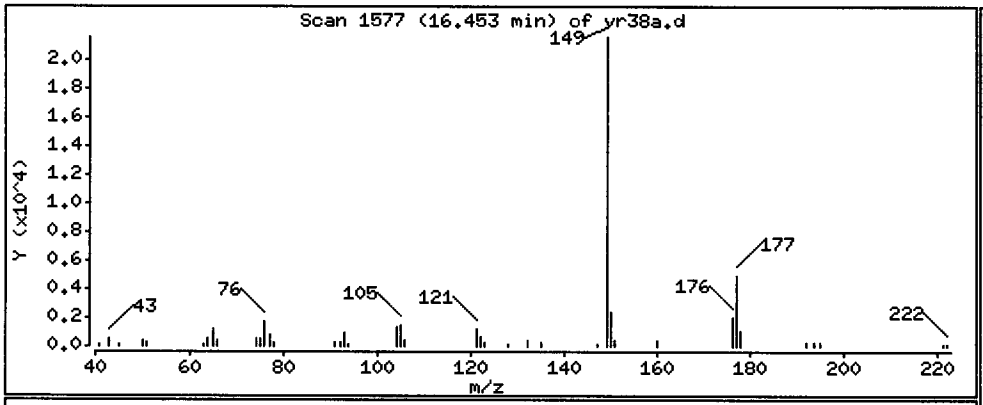
Operator: VTS/YZ

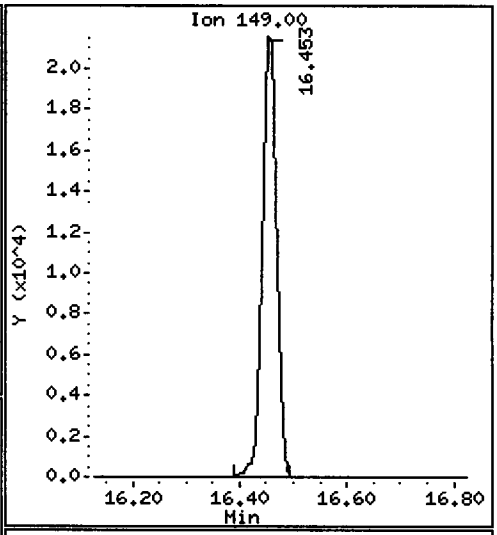
Column phase: ZB-5msi

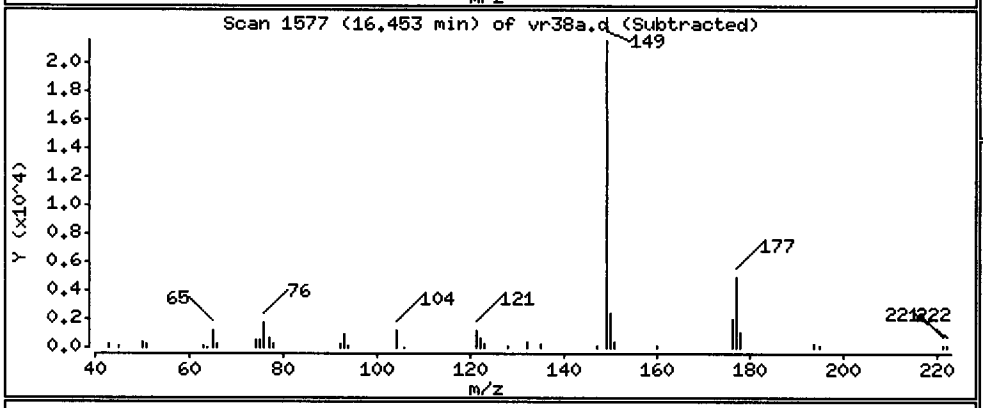
Column diameter: 0.25

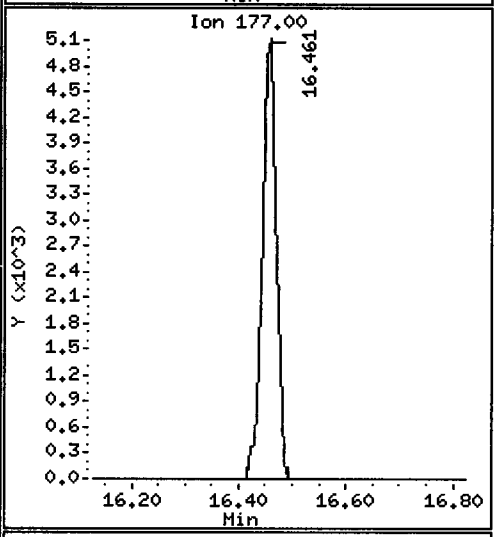
50 Diethylphthalate

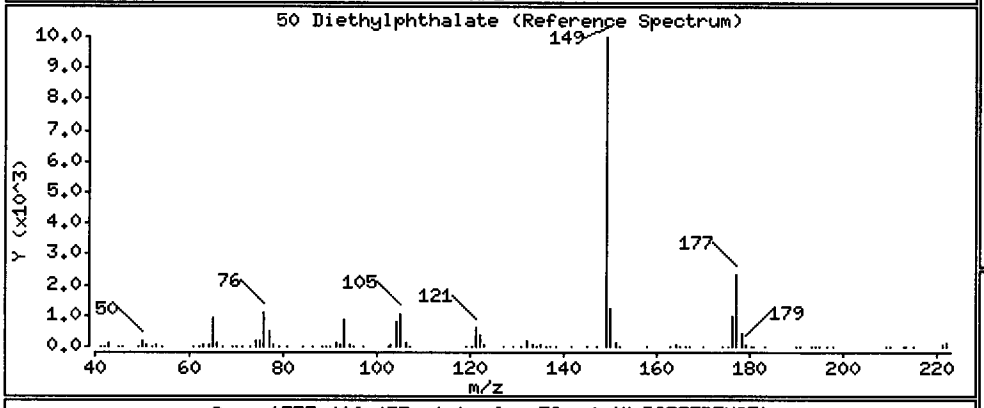
Concentration: 66.45 ug/kg

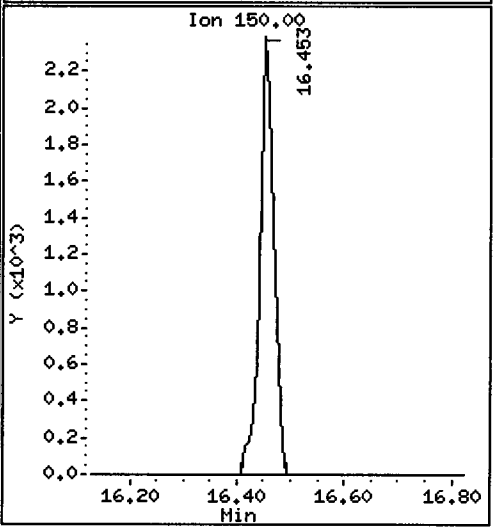


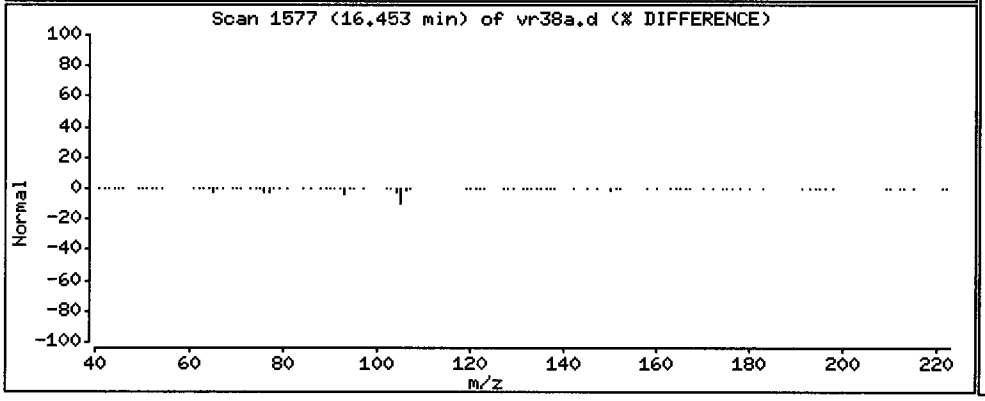












Data File: /chem1/nt10.i/20121119.b/vr38a.d

Date : 19-NOV-2012 15:24

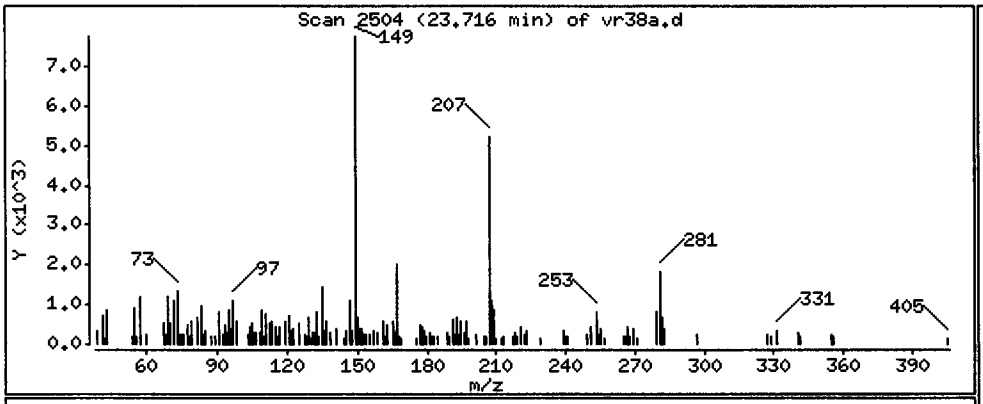
Client ID: HT-01-S-C-121106 Instrument: nt10.i

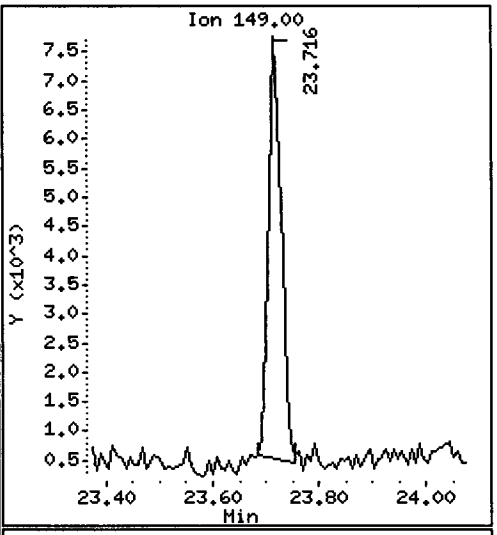
Sample Info: VR38A

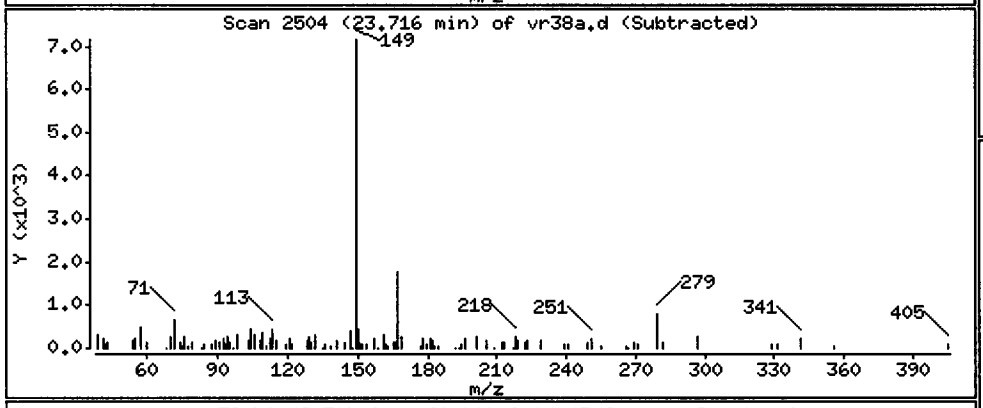
Volume Injected (uL): 1.0 Operator: VTS/YZ

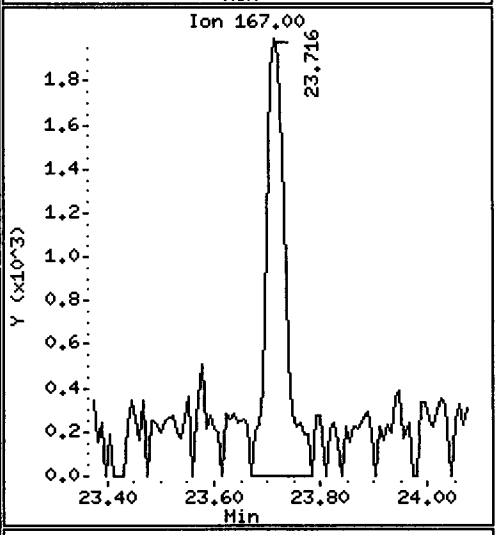
Column phase: ZB-5msi Column diameter: 0.25

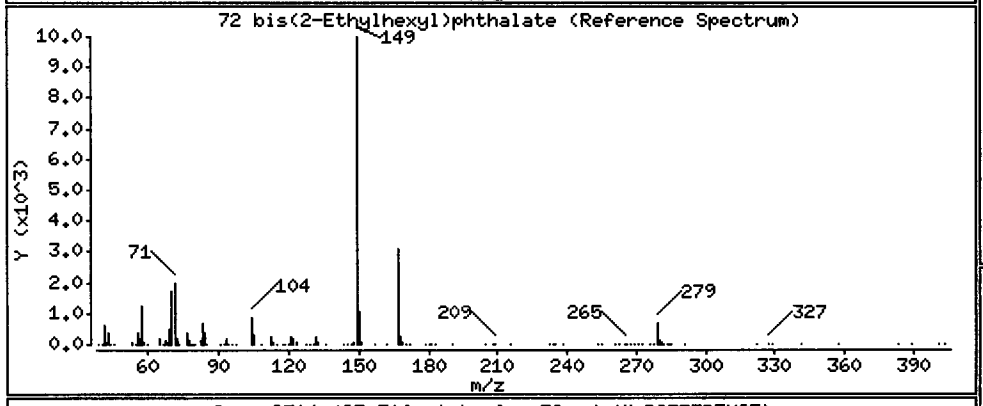
72 bis(2-Ethylhexyl)phthalate Concentration: 15.94 ug/kg

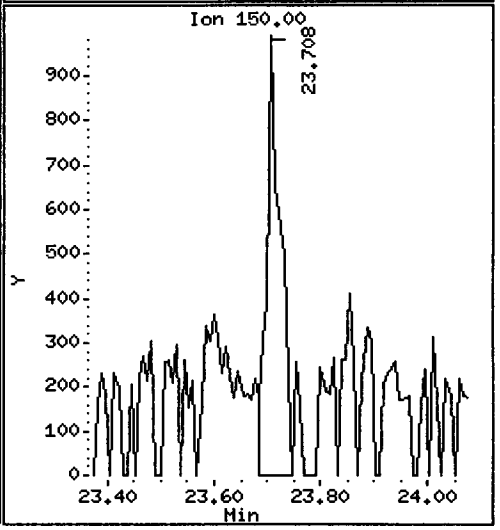


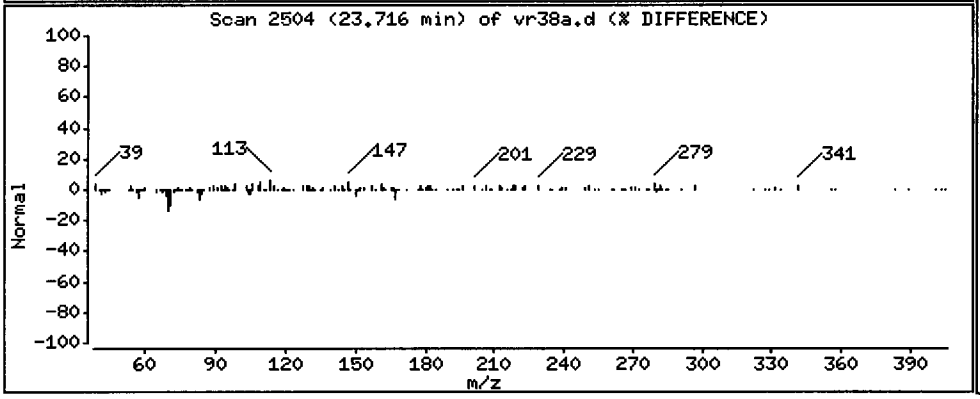












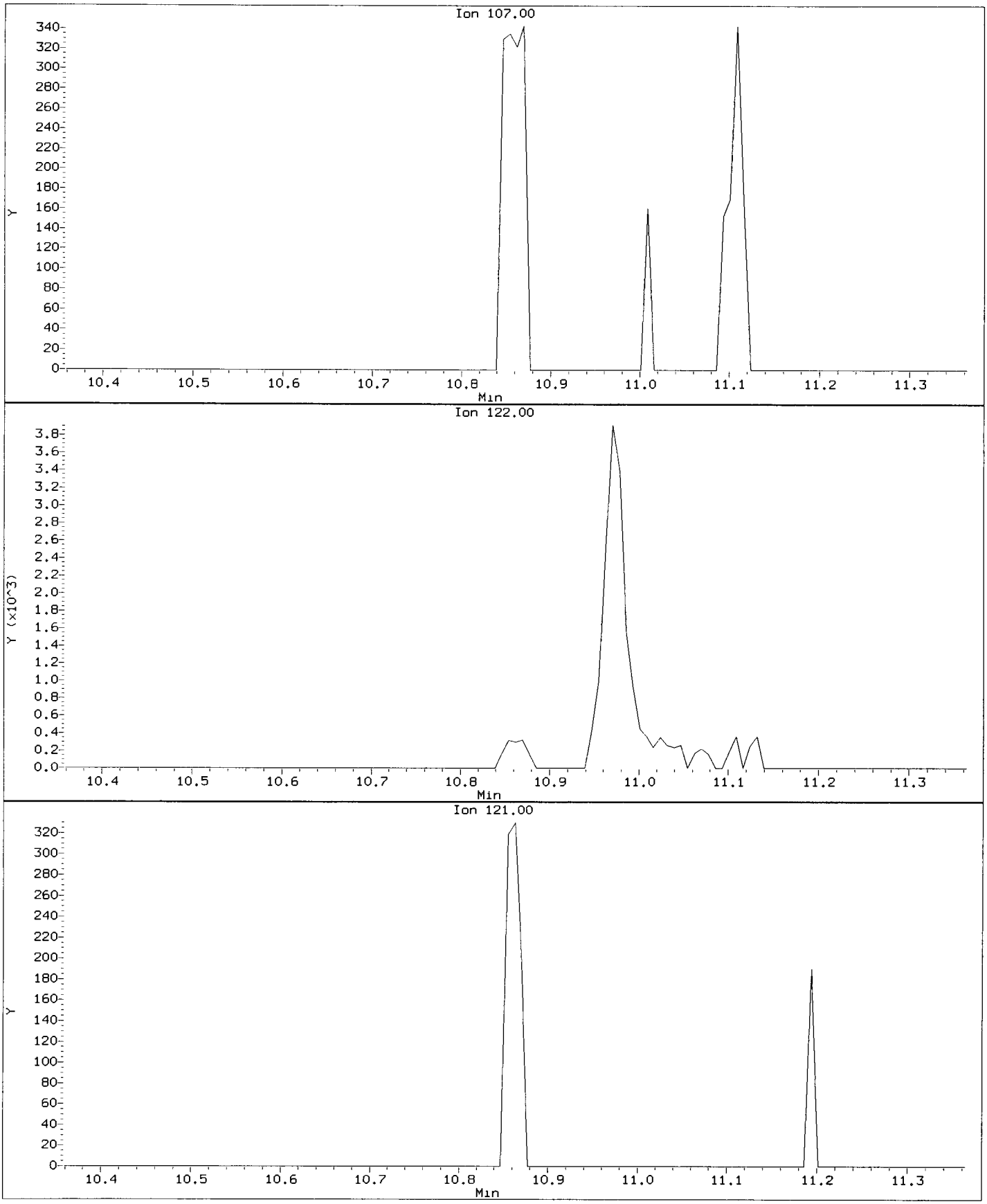
CO-ELUTION SUMMARY FOR FILE - vr38a.d

Lab ID: VR38A, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

Data File: /chem1/nt10.1/20121119.b/vr38a.d
Injection Date: 19-NOV-2012 15:24
Instrument: nt10.1
Client Sample ID: HT-01-S-C-121106

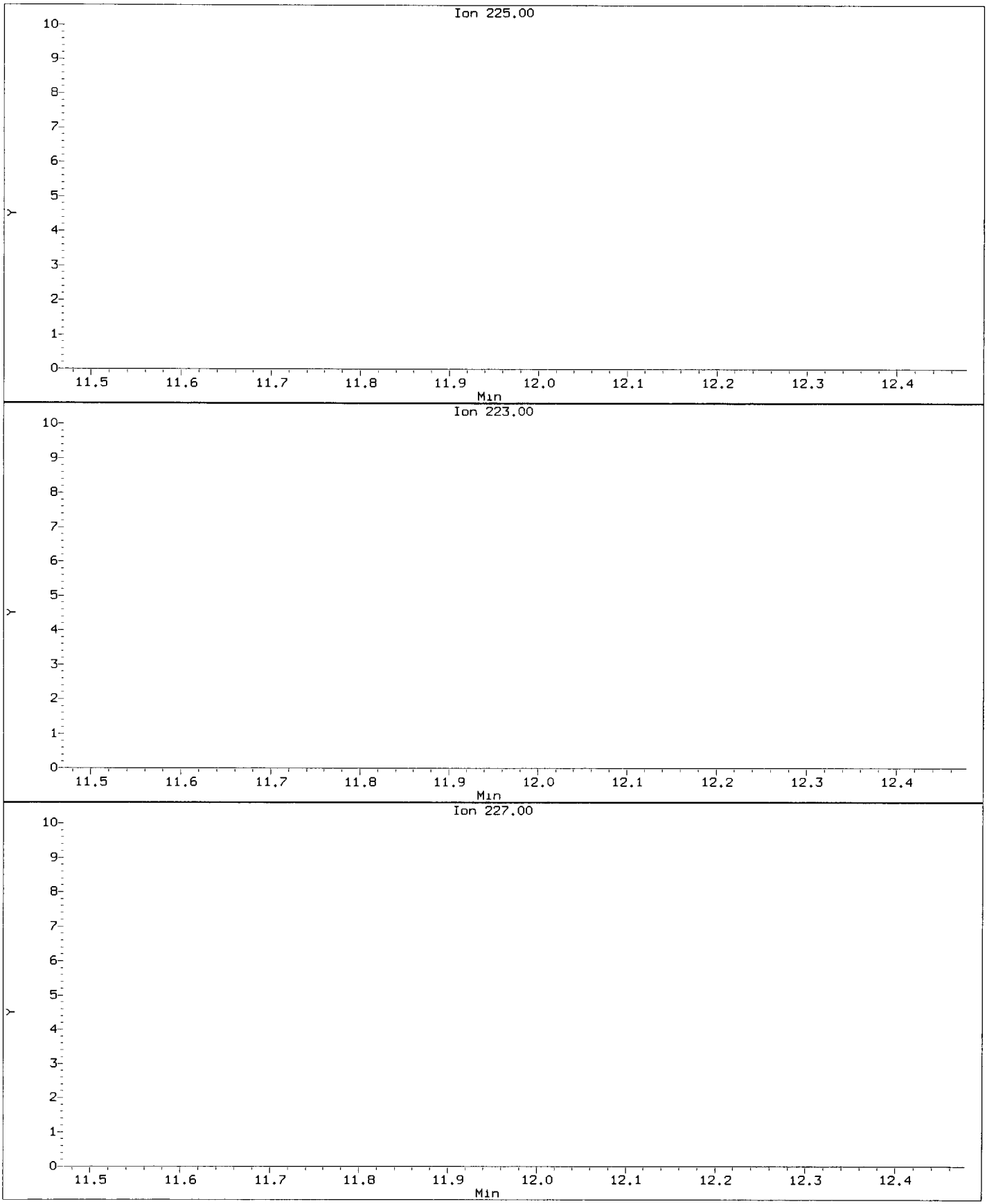
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



VR38A : 20115A

Data File: /chem1/nt10.1/20121119.b/vr38a.d
Injection Date: 19-NOV-2012 15:24
Instrument: nt10.1
Client Sample ID: HT-01-S-C-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 11/20/12

Data file : /chem1/nt10.i/20121119.b/vr38b.d
Lab Smp Id: VR38B Client Smp ID: HT-02-S-C-121106
Inj Date : 19-NOV-2012 16:02
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38B
Misc Info : 12-22268
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	12.00000	Weight of sample extracted (g)
M	15.60000	% 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	6.612	6.597	(0.742)	145510	5.68946	561.8
$	2	Phenol-d5	99	8.274	8.282	(0.929)	143372	5.51632	544.7
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.529	8.529	(0.957)	188677	5.30156	523.5
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	96548	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.281	9.281	(1.042)	80291	3.30839	326.7
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	10.065	10.065	(0.873)	65333	3.19031	315.0
	22	2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.525	11.533	(1.000)	347999	4.00000	
	28 Naphthalene	128	11.572	11.572	(1.004)	10595	0.11789 J	11.64
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.905)	256684	3.69729	365.1
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.379	15.386	(1.000)	195430	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.132	17.140	(1.114)	44882	5.84116	576.7
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.616	18.624	(1.000)	319067	4.00000	
	60 Phenanthrene	178	18.663	18.670	(1.002)	16709	0.19681 J	19.43
	61 Anthracene	178	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	21.053	21.053	(1.131)	24507	0.22800	22.51
	65 Pyrene	202	21.463	21.463	(0.909)	19338	0.16138 J	15.93
$	66 Terphenyl-d14	244	21.773	21.781	(0.922)	275403	3.64385	359.8
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	23.608	23.616	(1.000)	370468	4.00000	
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	23.716	23.724	(0.961)	12364	0.17705 J	17.48
*	134 Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	533850	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	25.954	25.969	(1.000)	414791	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.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38b.d
Lab Smp Id: VR38B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22268

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-02-S-C-121106
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	97486	48743	194972	96548	-0.96
27 Naphthalene-d8	357150	178575	714300	347999	-2.56
42 Acenaphthene-d10	217259	108630	434518	195430	-10.05
59 Phenanthrene-d10	355415	177708	710830	319067	-10.23
69 Chrysene-d12	390458	195229	780916	370468	-5.12
134 Di-n-octylphthala	532303	266152	1064606	533850	0.29
77 Perylene-d12	386299	193150	772598	414791	7.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	-0.07
42 Acenaphthene-d10	15.39	14.89	15.89	15.38	-0.05
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	-0.04
69 Chrysene-d12	23.62	23.12	24.12	23.61	-0.03
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.95	-0.06

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.

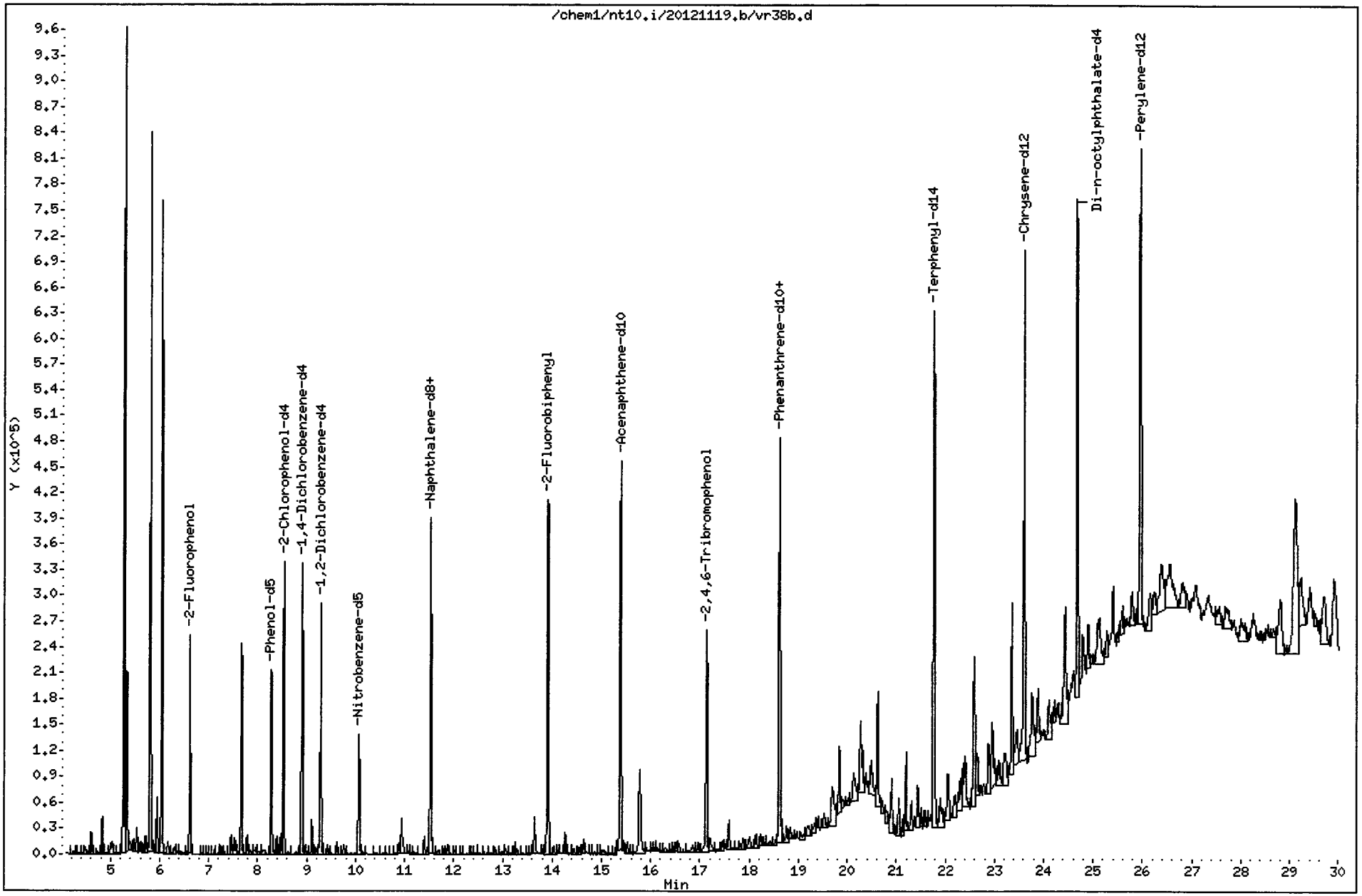
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38B Client Smp ID: HT-02-S-C-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22268

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	740.5	561.8	75.86	30-160
$ 2 Phenol-d5	740.5	544.7	73.55	30-160
$ 5 2-Chlorophenol-d4	740.5	523.5	70.69	30-160
$ 10 1,2-Dichlorobenzen	493.7	326.7	66.17	30-160
$ 18 Nitrobenzene-d5	493.7	315.0	63.81	30-160
$ 36 2-Fluorobiphenyl	493.7	365.1	73.95	30-160
$ 55 2,4,6-Tribromophen	740.5	576.7	77.88	30-160
$ 66 Terphenyl-d14	493.7	359.8	72.88	30-160

Data File: /chem1/nt10.i/20121119.b/vr38b.d
Date : 19-NOV-2012 16:02
Client ID: HT-02-S-C-121106
Sample Info: VR38B
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38b.d

Date : 19-NOV-2012 16:02

Client ID: HT-02-S-C-121106

Instrument: nt10.i

Sample Info: VR38B

Volume Injected (uL): 1.0

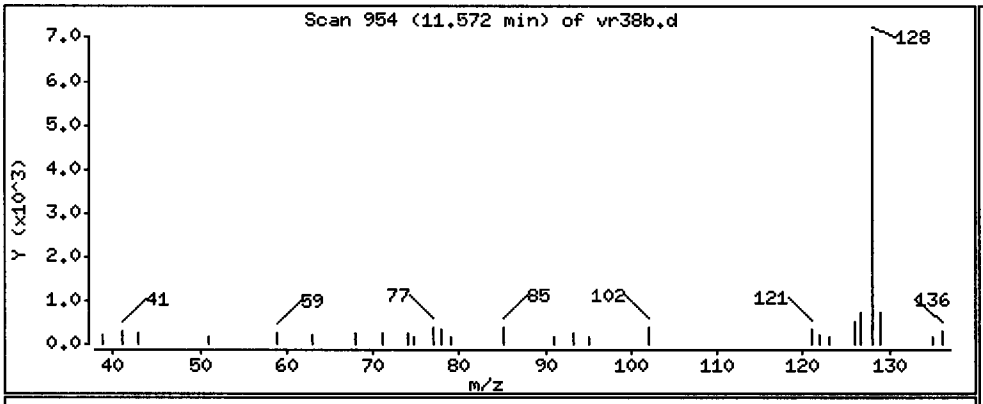
Operator: VTS/YZ

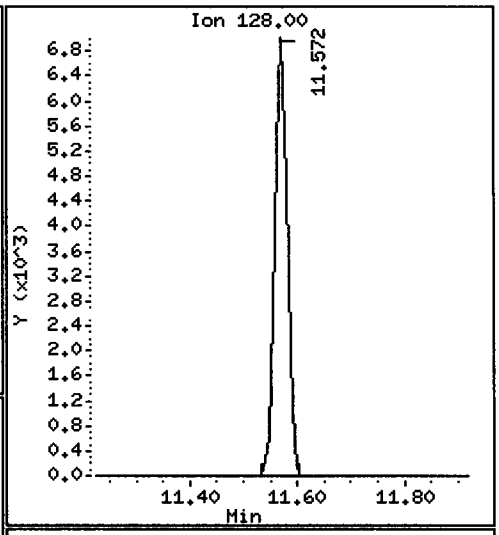
Column phase: ZB-5msi

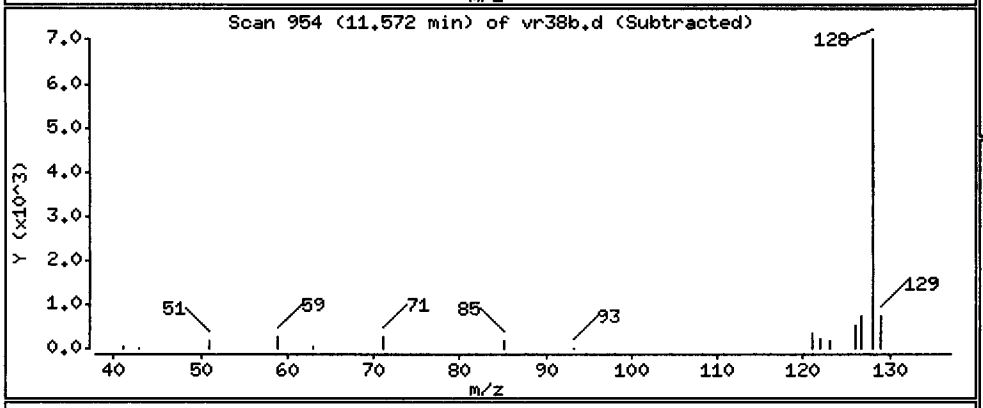
Column diameter: 0.25

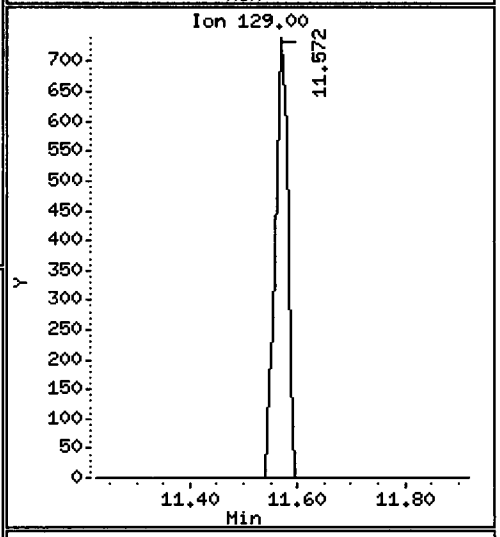
28 Naphthalene

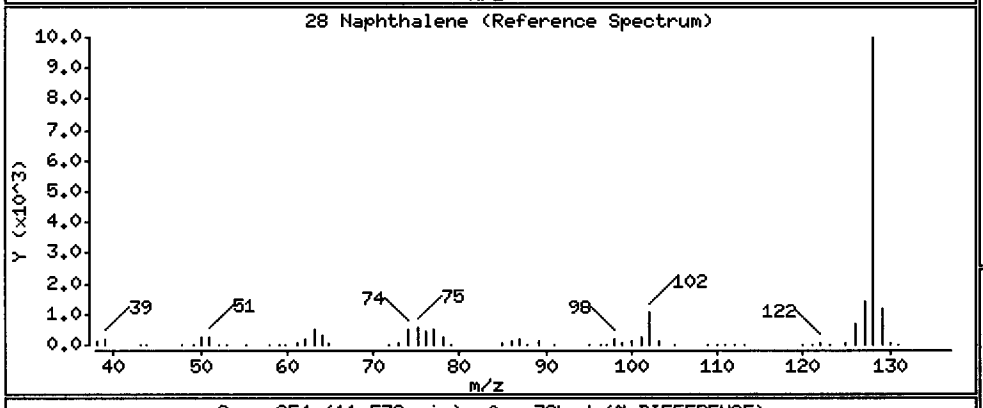
Concentration: 11.64 ug/kg

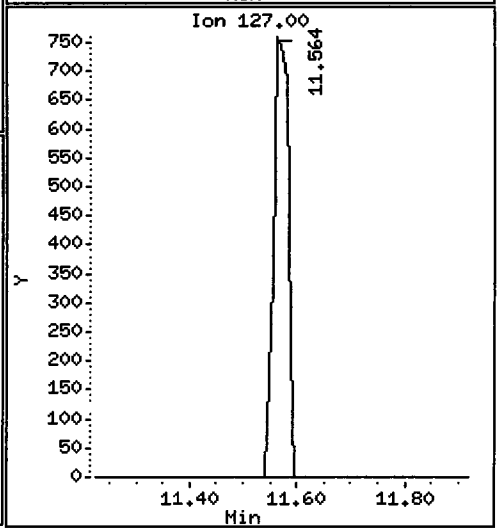


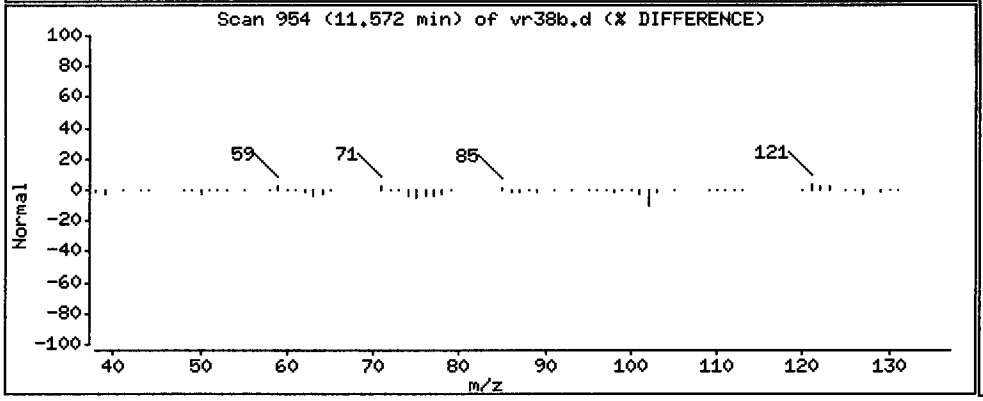












Data File: /chem1/nt10.i/20121119.b/vr38b.d

Date : 19-NOV-2012 16:02

Client ID: HT-02-S-C-121106

Instrument: nt10.i

Sample Info: VR38B

Volume Injected (uL): 1.0

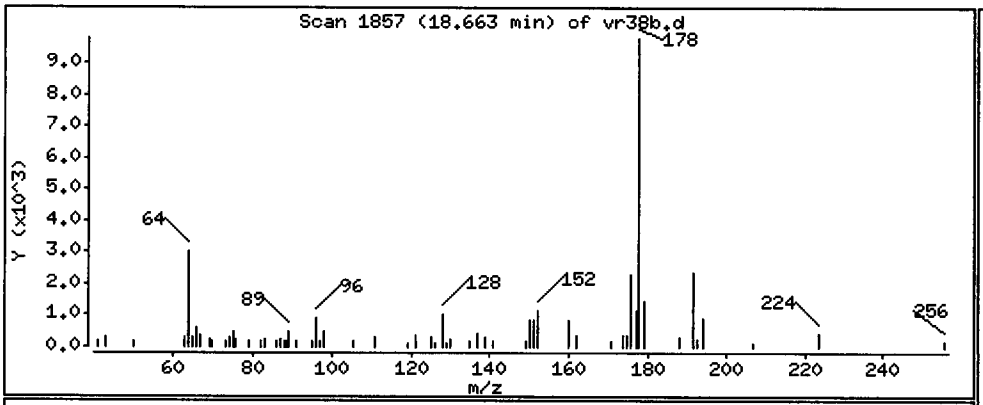
Operator: VTS/YZ

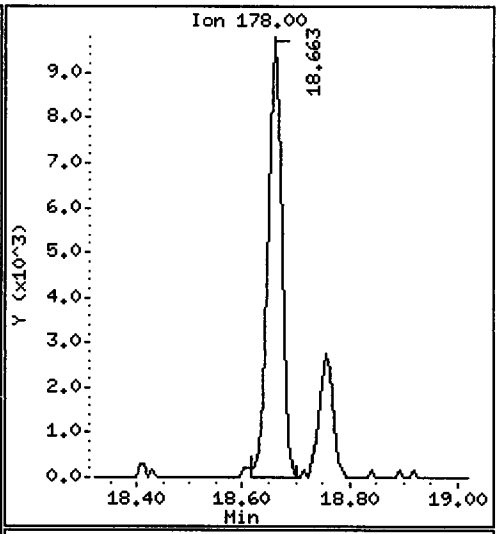
Column phase: ZB-5msi

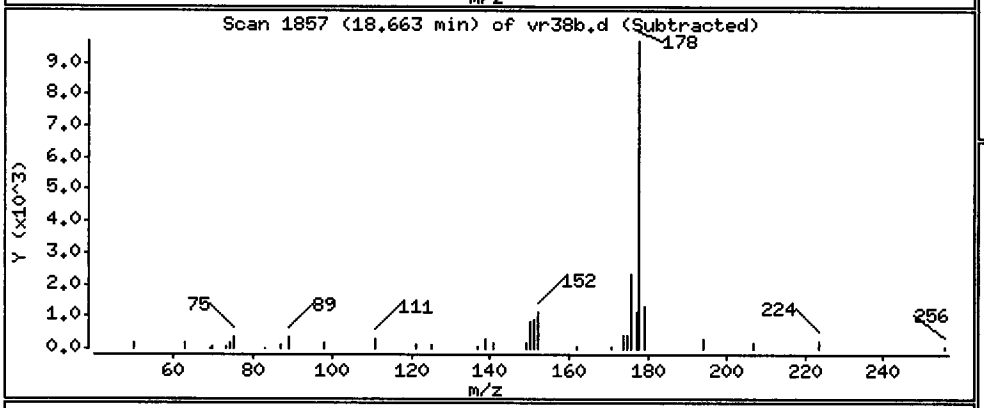
Column diameter: 0.25

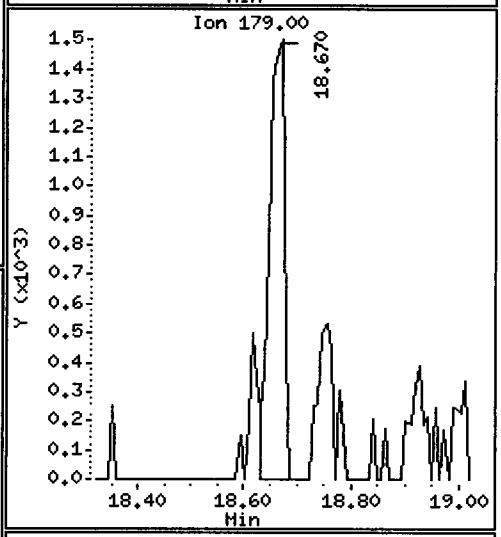
60 Phenanthrene

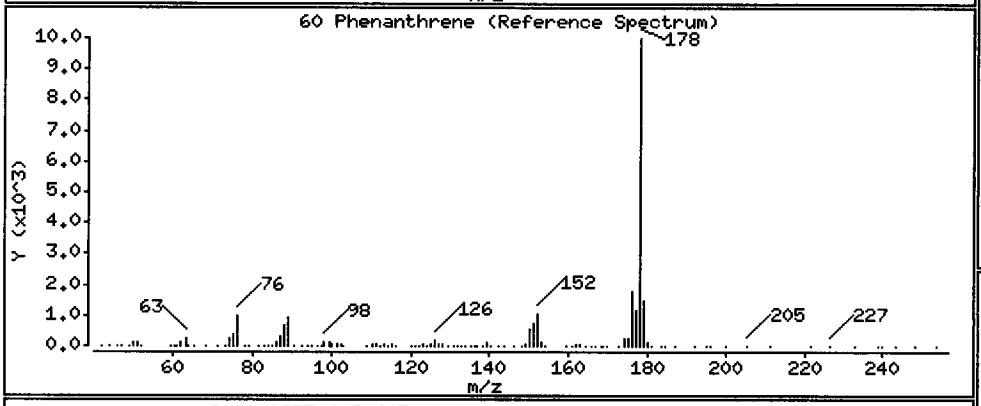
Concentration: 19.43 ug/kg

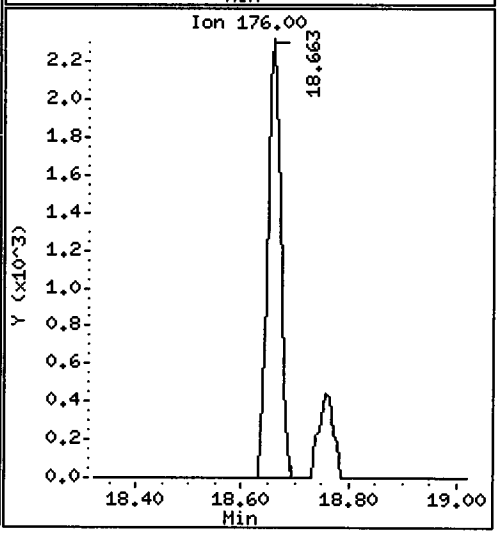


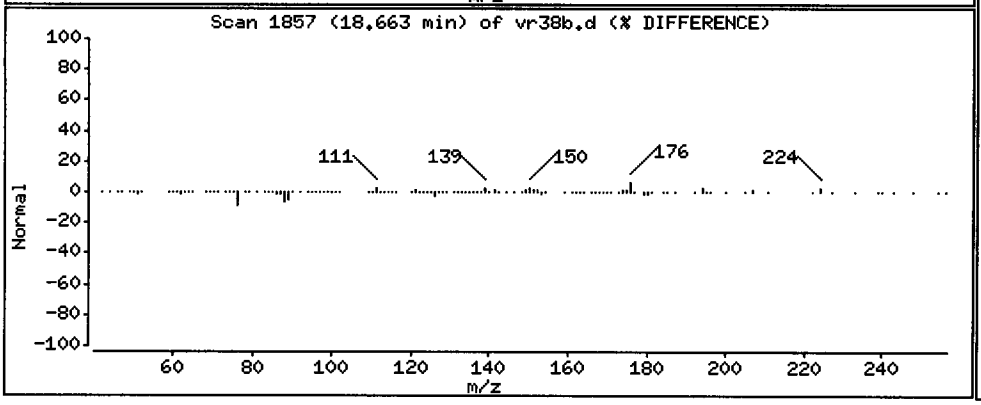












Data File: /chem1/nt10.i/20121119.b/vr38b.d

Date : 19-NOV-2012 16:02

Client ID: HT-02-S-C-121106

Instrument: nt10.i

Sample Info: VR38B

Volume Injected (uL): 1.0

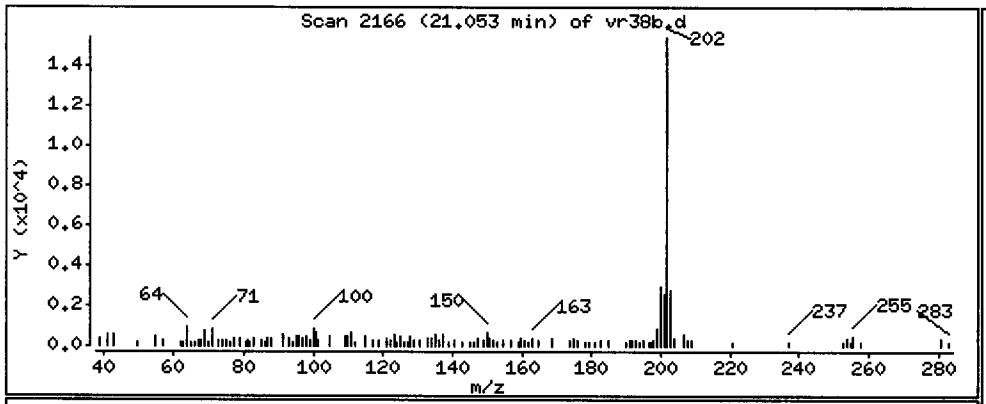
Operator: VTS/YZ

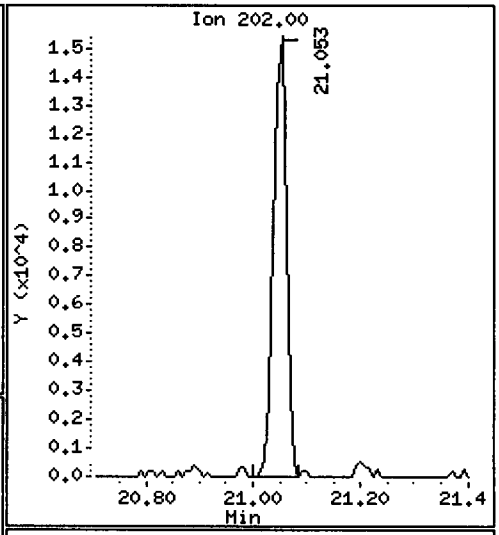
Column phase: ZB-5msi

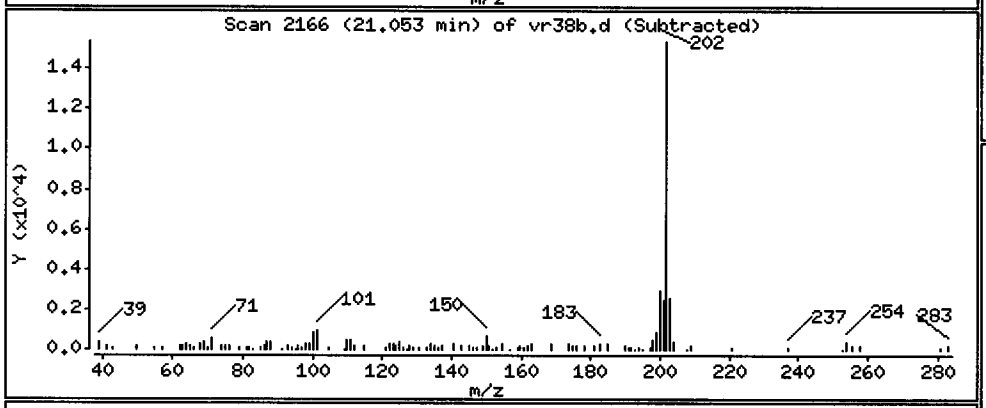
Column diameter: 0.25

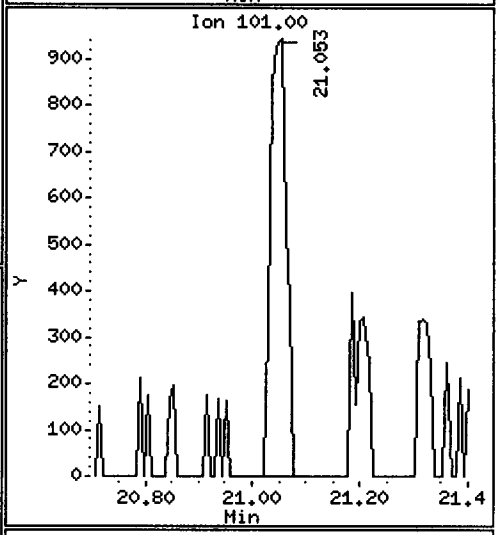
64 Fluoranthene

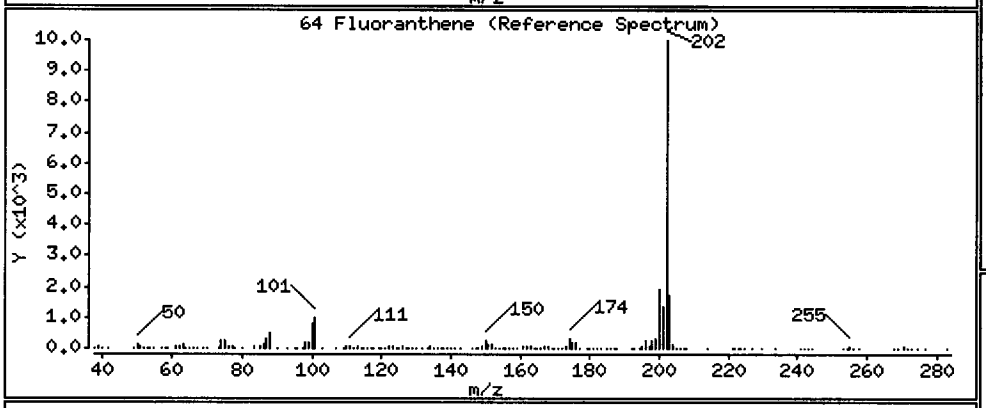
Concentration: 22.51 ug/kg

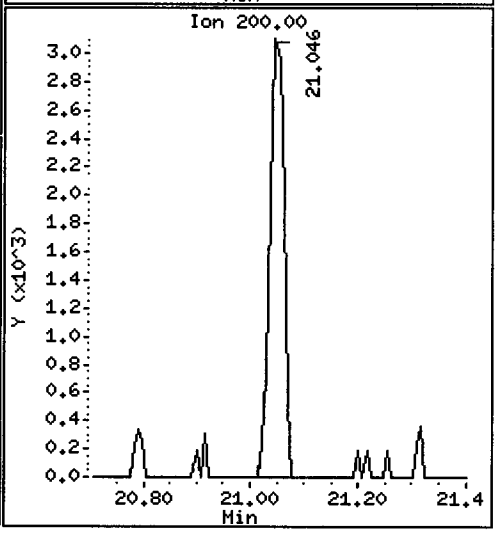


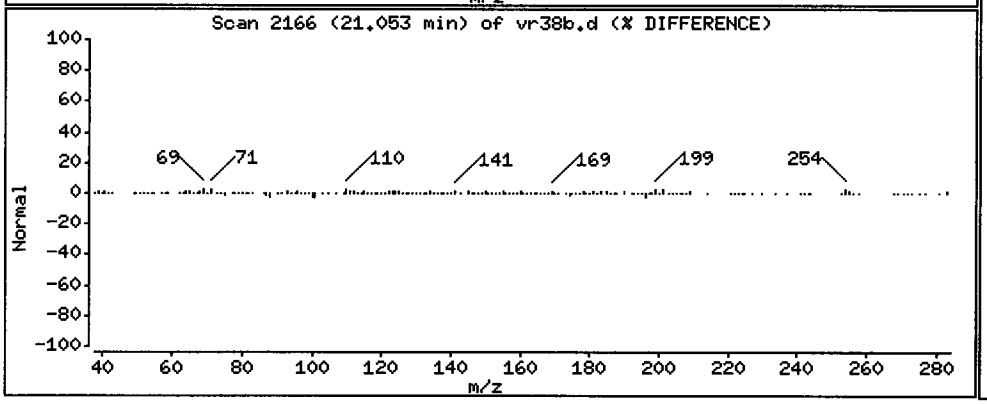












Data File: /chem1/nt10.i/20121119.b/vr38b.d

Date : 19-NOV-2012 16:02

Client ID: HT-02-S-C-121106

Instrument: nt10.i

Sample Info: VR38B

Volume Injected (uL): 1.0

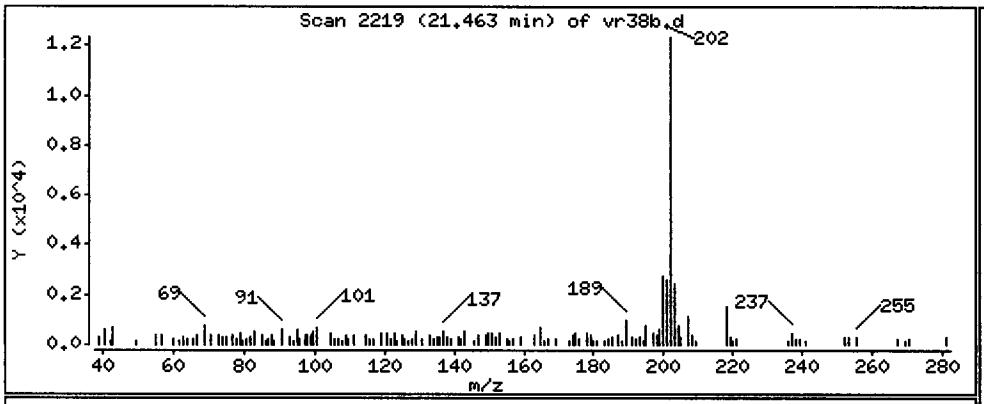
Operator: VTS/YZ

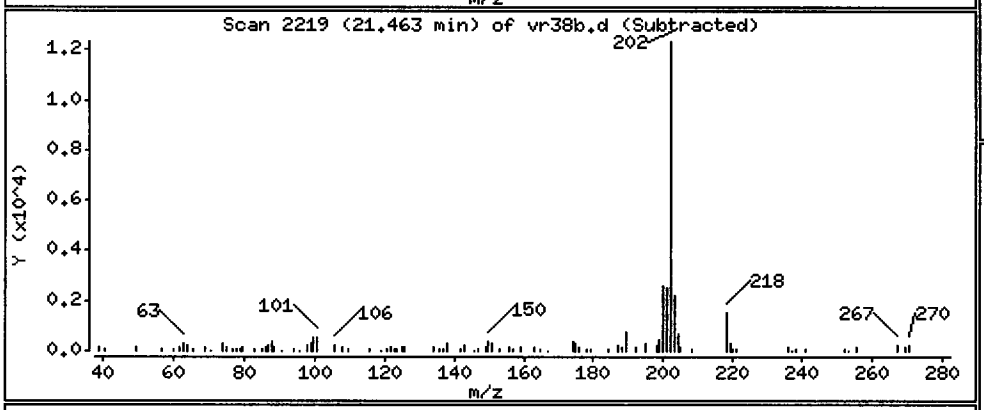
Column phase: ZB-5msi

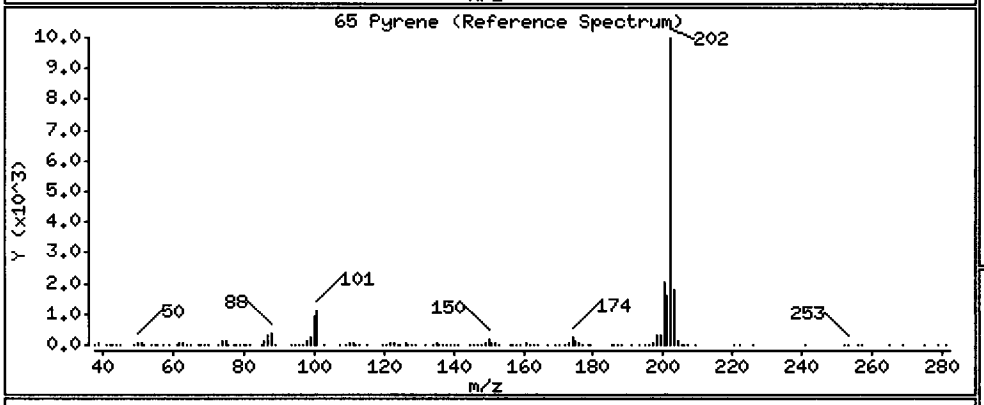
Column diameter: 0.25

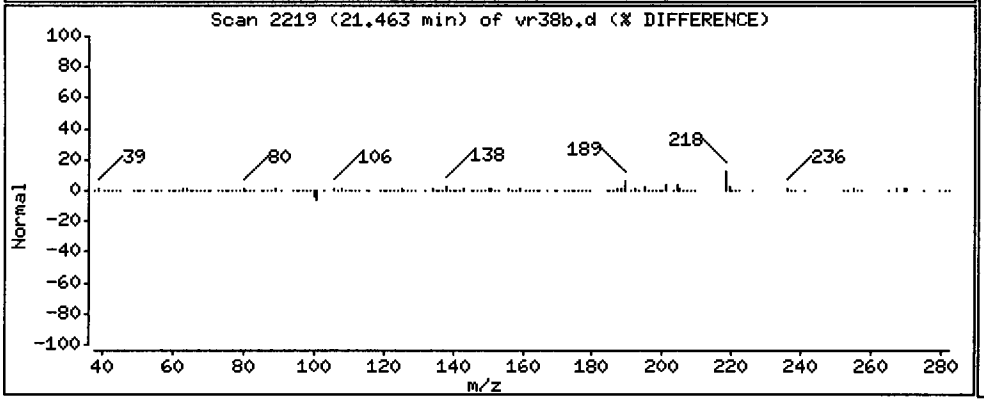
65 Pyrene

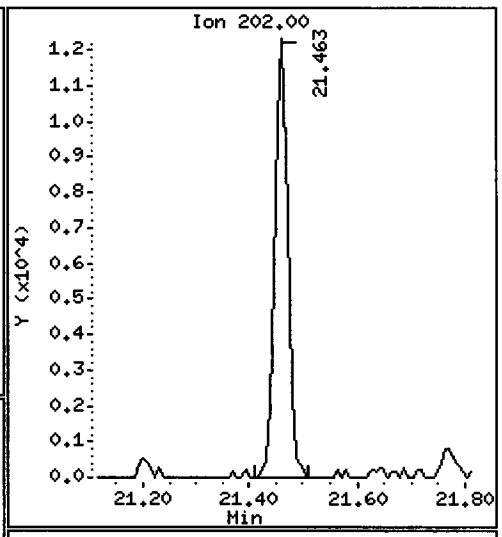
Concentration: 15.93 ug/kg

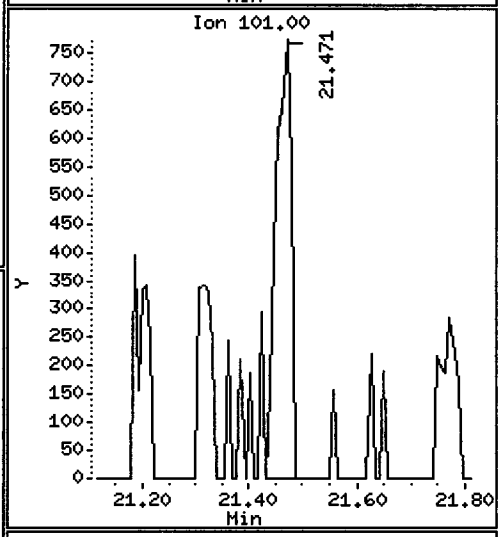


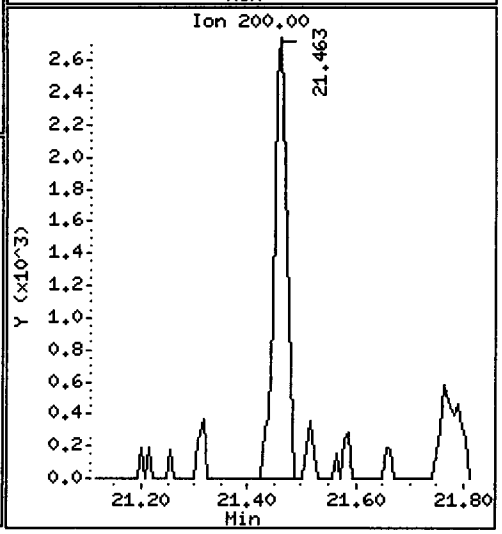












Data File: /chem1/nt10.i/20121119.b/vr38b.d

Date : 19-NOV-2012 16:02

Client ID: HT-02-S-C-121106

Instrument: nt10.i

Sample Info: VR38B

Volume Injected (uL): 1.0

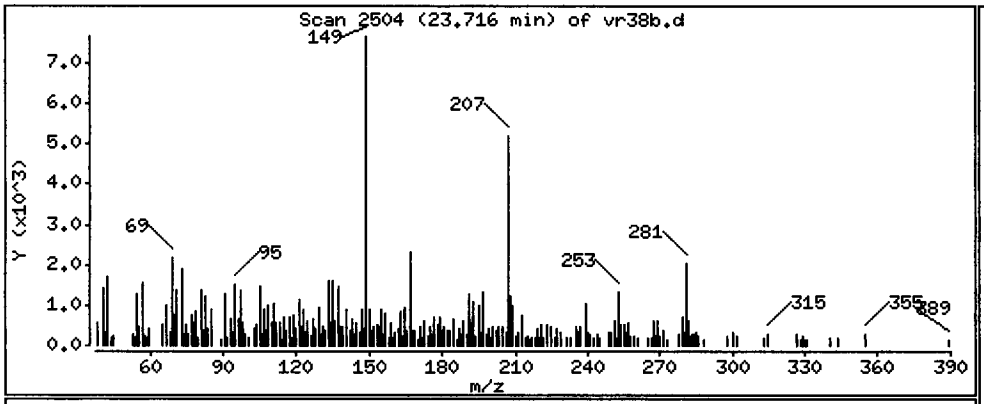
Operator: VTS/YZ

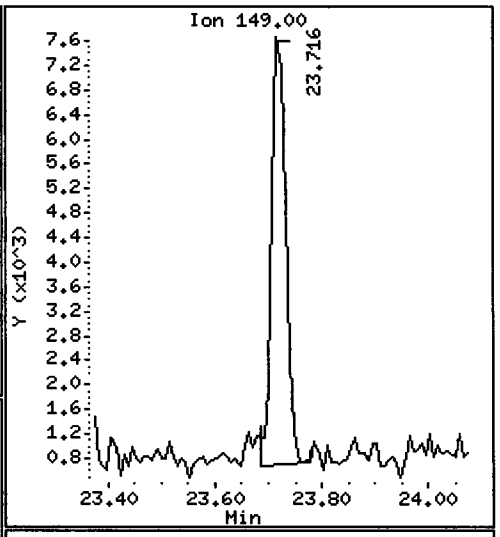
Column phase: ZB-5msi

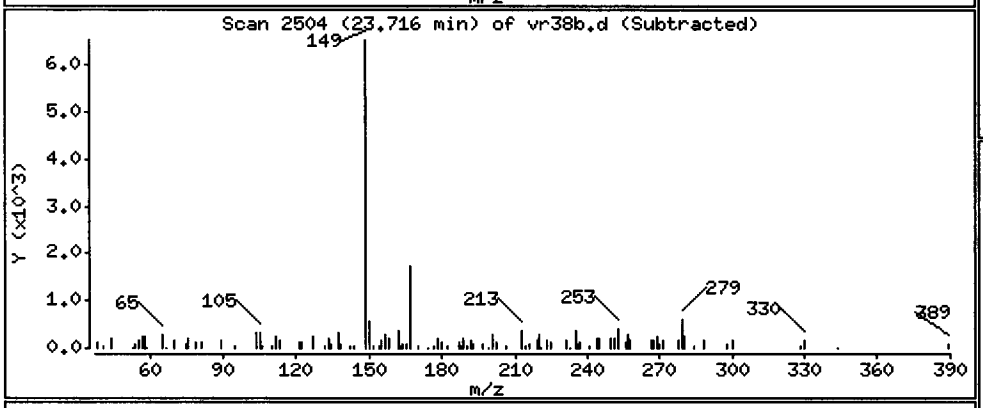
Column diameter: 0.25

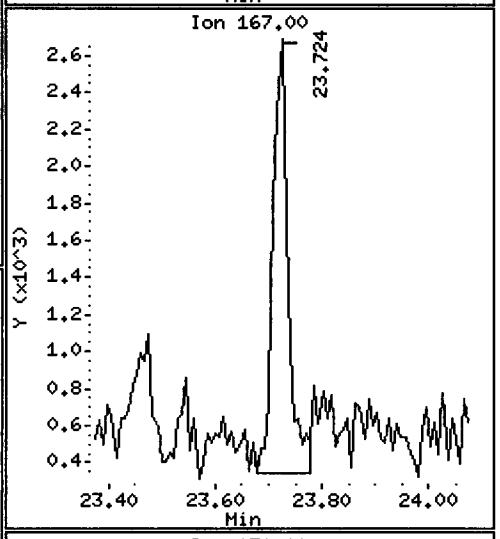
72 bis(2-Ethylhexyl)phthalate

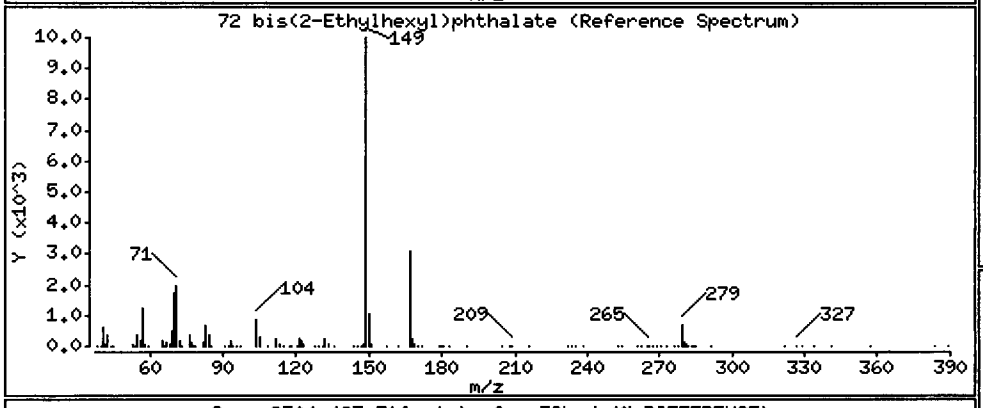
Concentration: 17.48 ug/kg

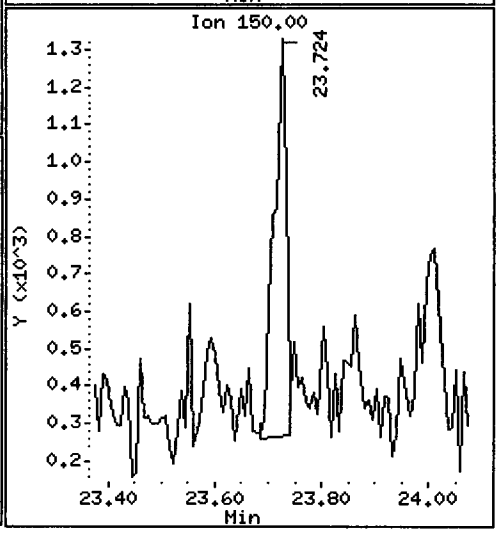


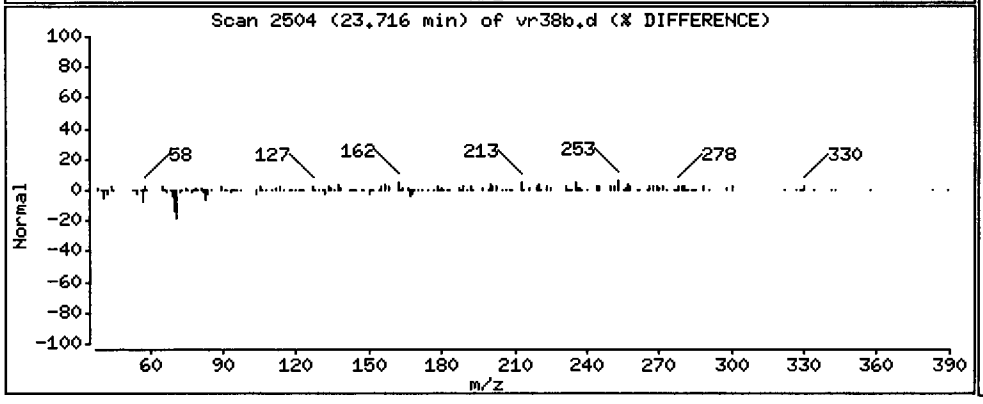












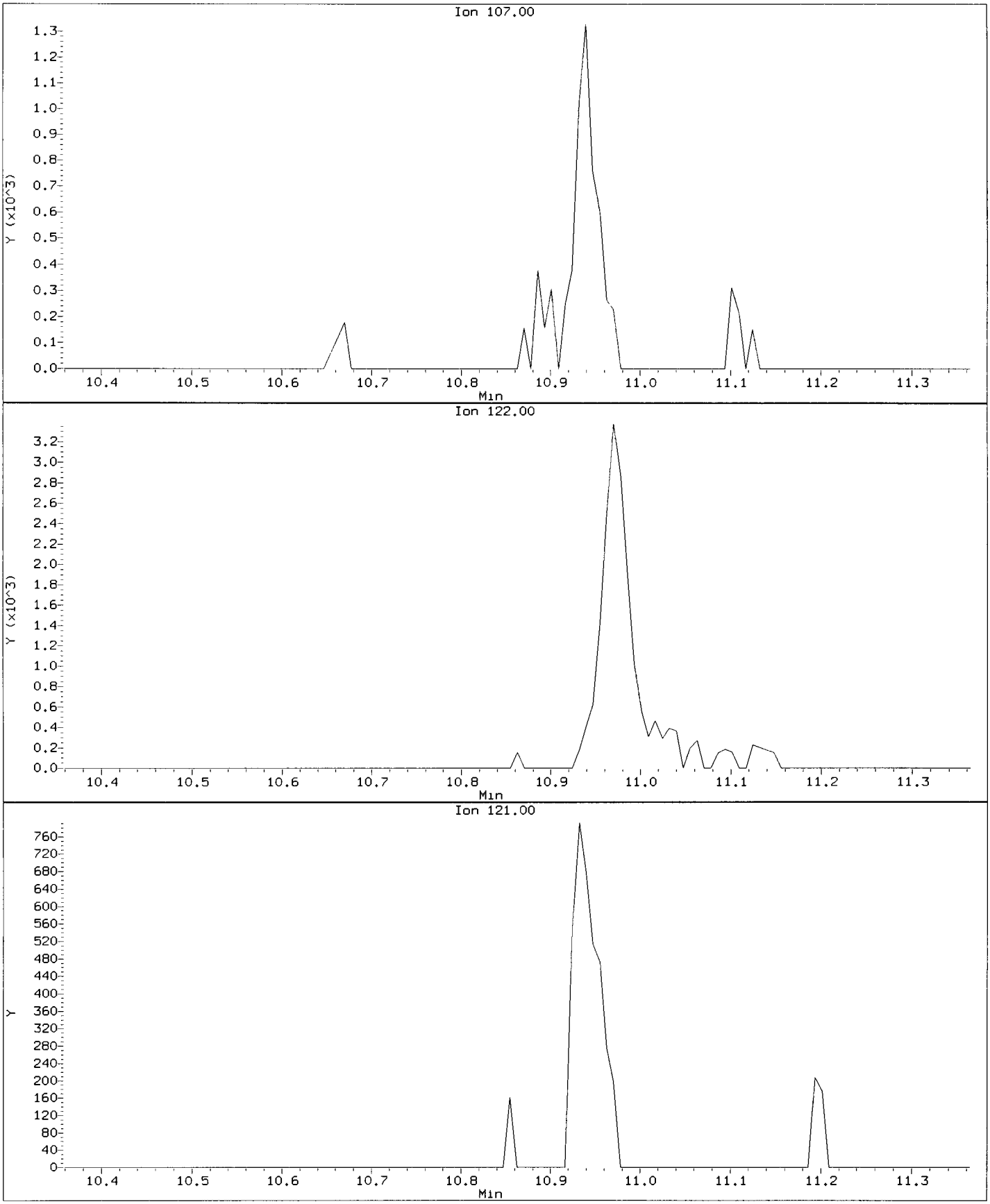
CO-ELUTION SUMMARY FOR FILE - vr38b.d

Lab ID: VR38B, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

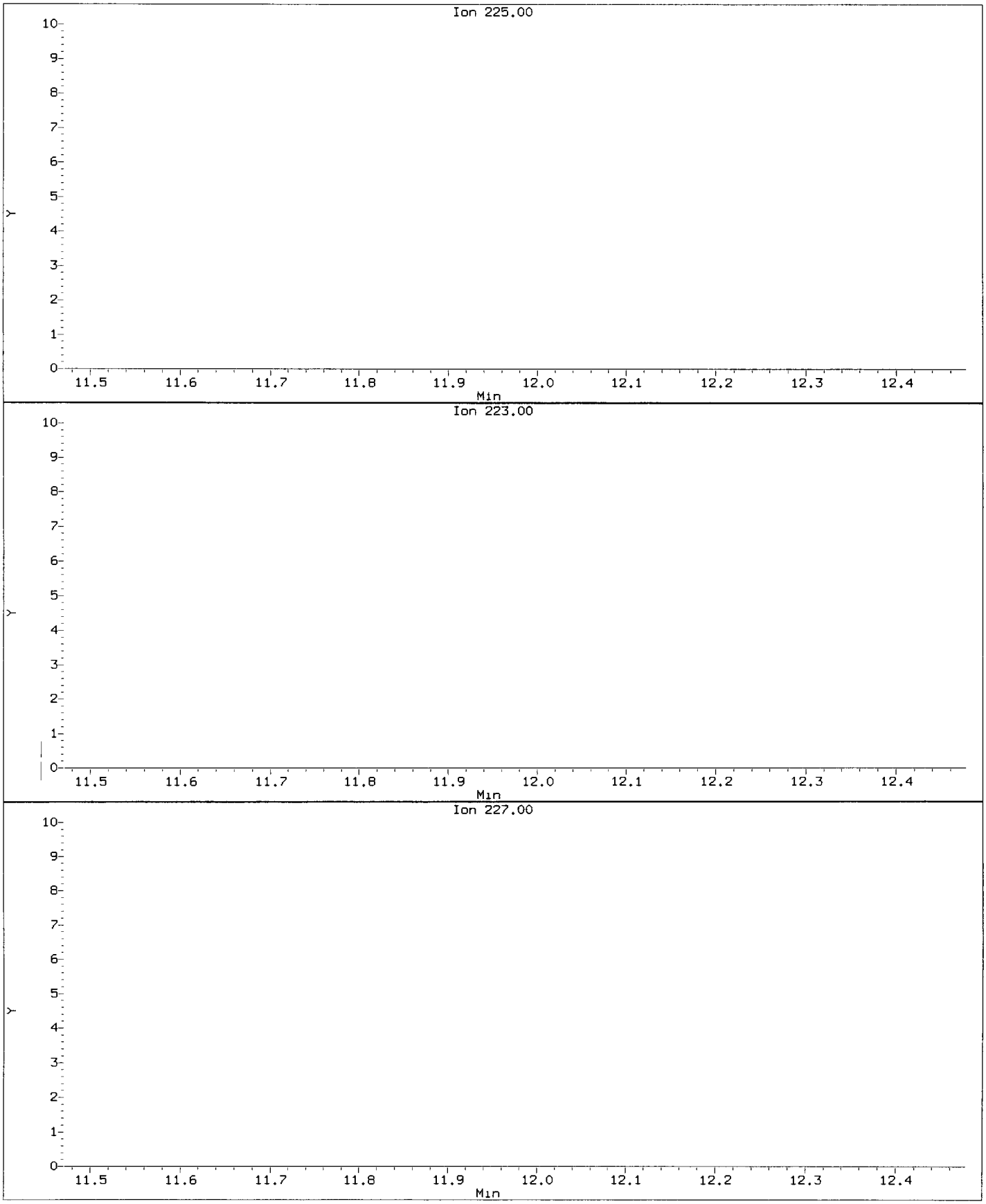
Data File: /chem1/nt10.1/20121119.b/vr38b.d
Injection Date: 19-NOV-2012 16:02
Instrument: nt10.1
Client Sample ID: HT-02-S-C-121106

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.1/20121119.b/vr38b.d
Injection Date: 19-NOV-2012 16:02
Instrument: nt10.1
Client Sample ID: HT-02-S-C-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38c.d
Lab Smp Id: VR38C Client Smp ID: HT-03-S-C-121106
Inj Date : 19-NOV-2012 16:39
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38C
Misc Info : 12-22269
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	14.10000	Weight of sample extracted (g)
M	26.20000	% 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	6.612	6.597	(0.743)	148685	5.34849	514.0
$	2 Phenol-d5	99	8.282	8.282	(0.930)	150981	5.34433	513.6
	3 Phenol	94	8.297	8.305	(0.932)	5729	0.19046 J	18.30
$	5 2-Chlorophenol-d4	132	8.529	8.529	(0.958)	191934	4.96160	476.8
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.900	8.908	(1.000)	104944	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.281	9.281	(1.043)	79303	3.00625	288.9
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.218	9.211	(1.036)	3302	0.20641 J	19.84
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	9.762	9.762	(1.097)	11190	0.36996	35.55
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	66777	3.00635	288.9
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	11.009	11.132	(0.955)	22599	1.01298	97.35(M)
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	377456	4.00000	
	28 Naphthalene	128	11.572	11.572	(1.003)	98352	1.00891	96.96
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.057	13.065	(1.132)	33838	0.52779	50.72
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.905)	273362	3.56570	342.7
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.379	15.386	(1.000)	215809	4.00000	
	44 Acenaphthene	153	15.448	15.456	(1.005)	35265	0.56815	54.60
	46 Dibenzofuran	168	15.796	15.804	(1.027)	65539	0.81001	77.84
	50 Diethylphthalate	149	16.453	16.477	(1.070)	8492	0.13841 J	13.30
	49 Fluorene	166	16.561	16.569	(1.077)	53696	0.75310	72.37
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.140	17.140	(1.115)	49719	5.85964	563.1
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.616	18.624	(1.000)	342351	4.00000	
	60 Phenanthrene	178	18.662	18.670	(1.002)	246388	2.70477	259.9
	61 Anthracene	178	18.763	18.763	(1.008)	54389	0.54653	52.52
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	21.061	21.053	(1.131)	307493	2.66616	256.2
	65 Pyrene	202	21.471	21.463	(0.909)	255362	1.77775	170.8
$	66 Terphenyl-d14	244	21.781	21.781	(0.922)	277894	3.06732	294.8
	67 Butylbenzylphthalate	149	22.710	22.710	(0.962)	9682	0.17377 J	16.70
	68 Benzo(a)anthracene	228	23.592	23.592	(0.999)	107176	0.78339	75.28
*	69 Chrysene-d12	240	23.616	23.616	(1.000)	444081	4.00000	
	71 Chrysene	228	23.662	23.662	(1.002)	132009	1.10222	105.9
	72 bis(2-Ethylhexyl)phthalate	149	23.739	23.724	(0.961)	55550	0.68207	65.55
*	134 Di-n-octylphthalate-d4	153	24.707	24.684	(1.000)	622594	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	25.884	25.869	(0.996)	80780	0.58928	56.63
*	77 Perylene-d12	264	25.992	25.969	(1.000)	495162	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.302	28.155	(1.089)	46010	0.26254	25.23(M)
	79 Dibenzo(a,h)anthracene	278	28.310	28.170	(1.089)	20018	0.14249	13.69(M)
	80 Benzo(g,h,i)perylene	276	28.947	28.799	(1.114)	50893	0.34683	33.33(M)
	105 1-methylnaphthalene	142	13.297	13.297	(1.153)	16869	0.27877	26.79
	187 Total Benzofluoranthenes	252	25.342	25.365	(0.975)	181096	1.23539	118.7
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

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: vr38c.d
Lab Smp Id: VR38C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22269

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-03-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	97486	48743	194972	104944	7.65
27 Naphthalene-d8	357150	178575	714300	377456	5.69
42 Acenaphthene-d10	217259	108630	434518	215809	-0.67
59 Phenanthrene-d10	355415	177708	710830	342351	-3.68
69 Chrysene-d12	390458	195229	780916	444081	13.73
134 Di-n-octylphthala	532303	266152	1064606	622594	16.96
77 Perylene-d12	386299	193150	772598	495162	28.18

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.90	-0.09
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.38	-0.05
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	-0.04
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.71	0.09
77 Perylene-d12	25.97	25.47	26.47	25.99	0.09

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.

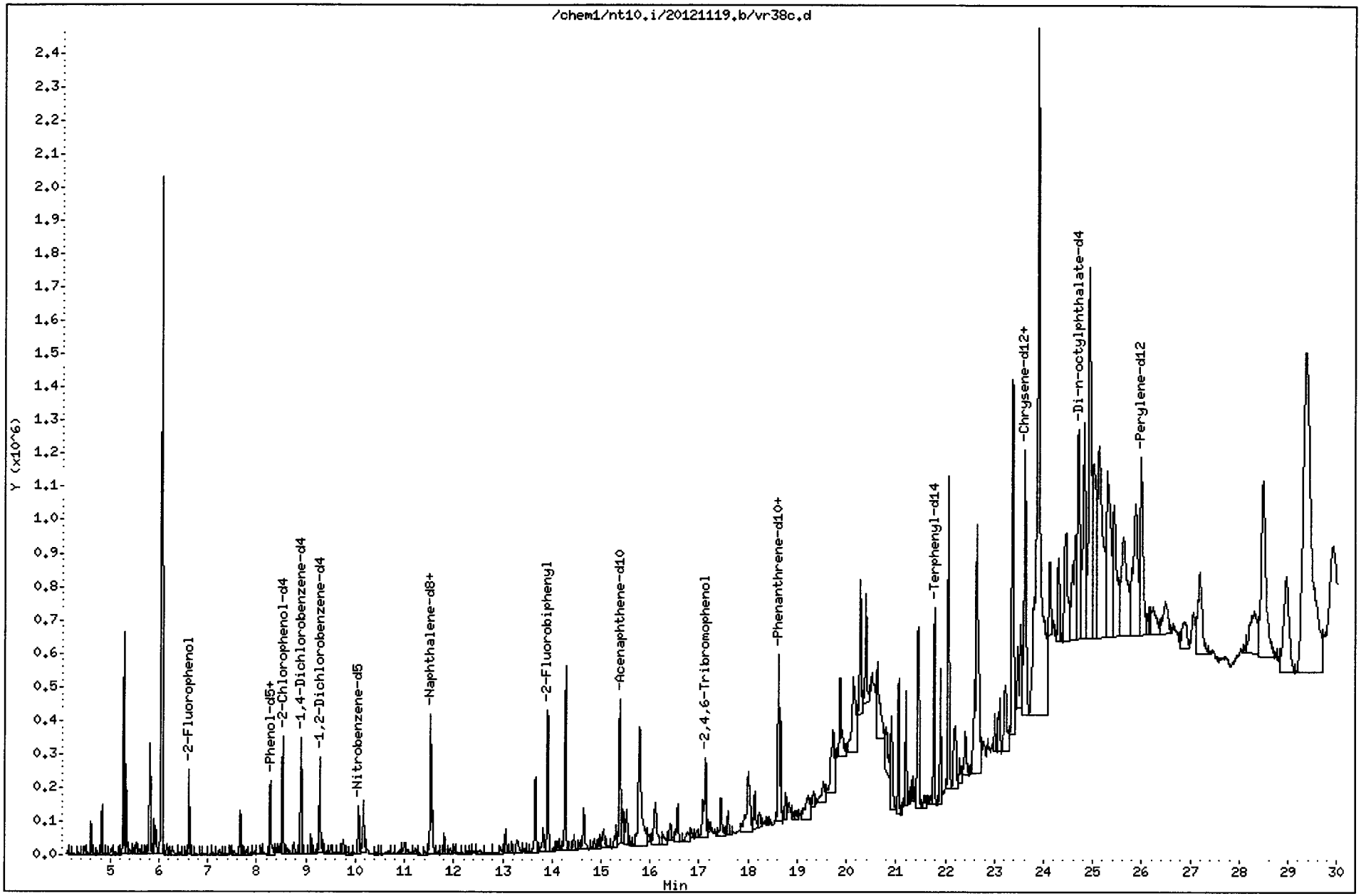
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38C Client Smp ID: HT-03-S-C-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22269

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	720.8	514.0	71.31	30-160
$ 2 Phenol-d5	720.8	513.6	71.26	30-160
$ 5 2-Chlorophenol-d4	720.8	476.8	66.15	30-160
$ 10 1,2-Dichlorobenzen	480.5	288.9	60.13	30-160
$ 18 Nitrobenzene-d5	480.5	288.9	60.13	30-160
$ 36 2-Fluorobiphenyl	480.5	342.7	71.31	30-160
$ 55 2,4,6-Tribromophen	720.8	563.1	78.13	30-160
$ 66 Terphenyl-d14	480.5	294.8	61.35	30-160

Data File: /chem1/nt10.i/20121119.b/vr38c.d
Date : 19-NOV-2012 16:39
Client ID: HT-03-S-C-121106
Sample Info: VR38C
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

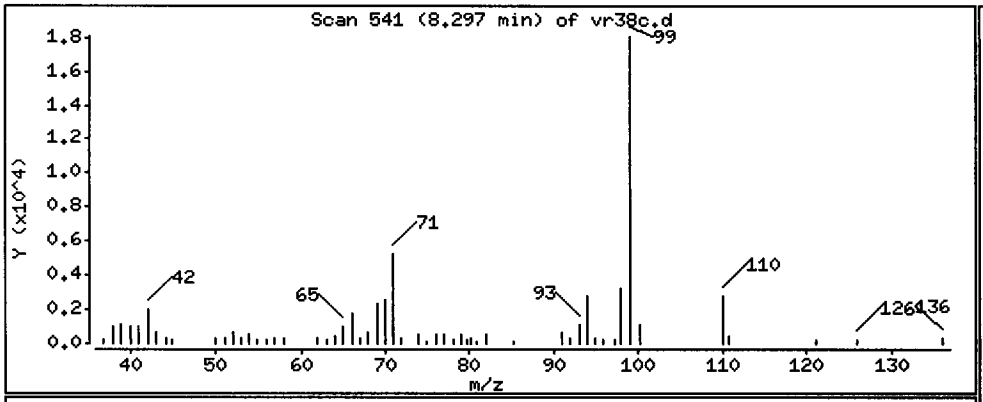
Operator: VTS/YZ

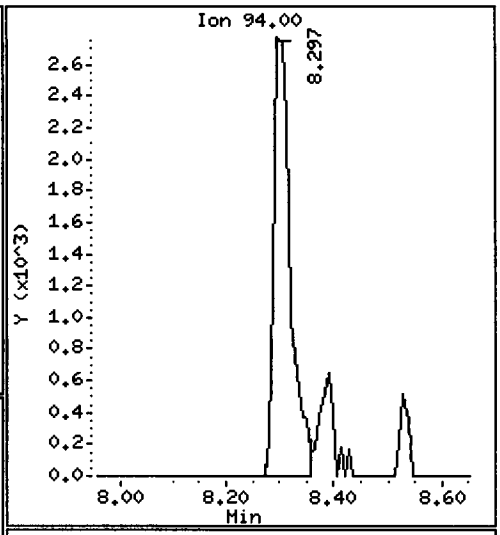
Column phase: ZB-5msi

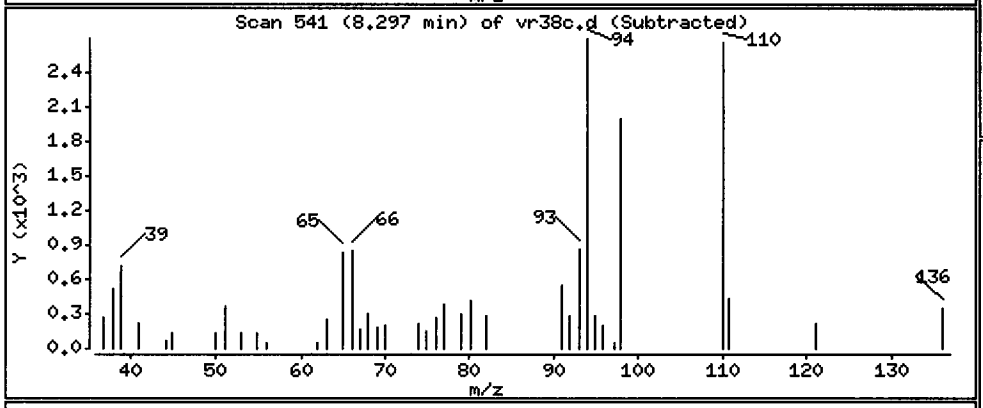
Column diameter: 0.25

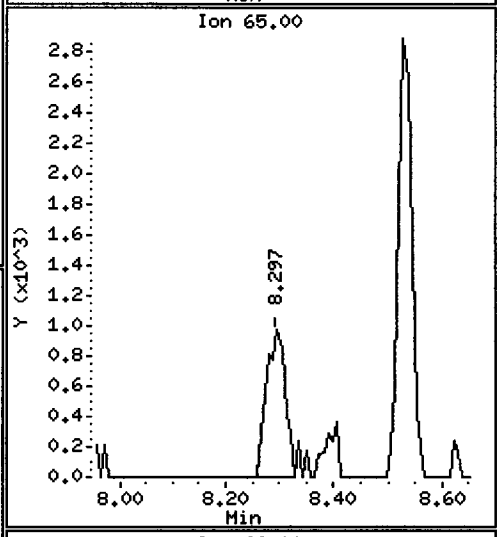
3 Phenol

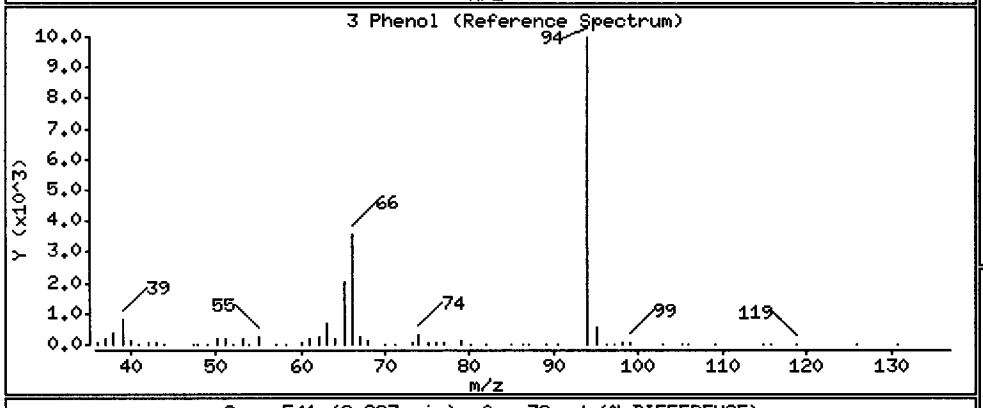
Concentration: 18.30 ug/kg

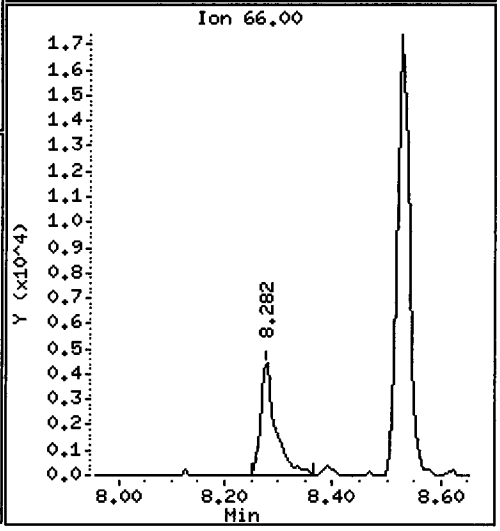


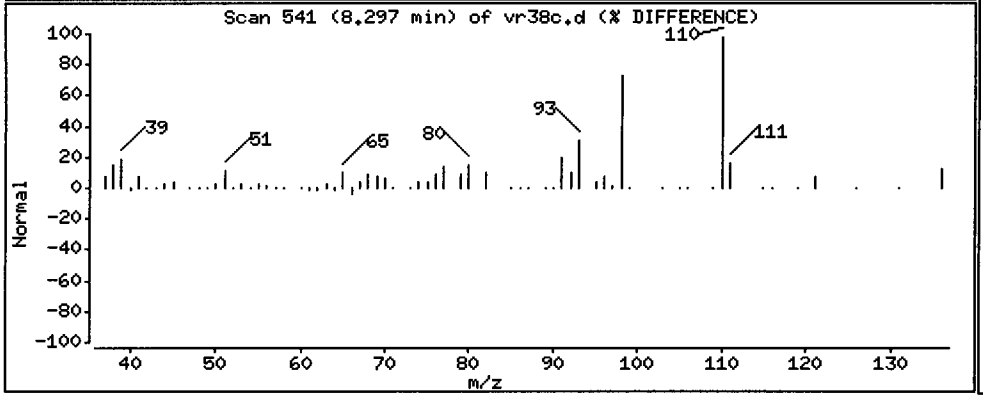












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

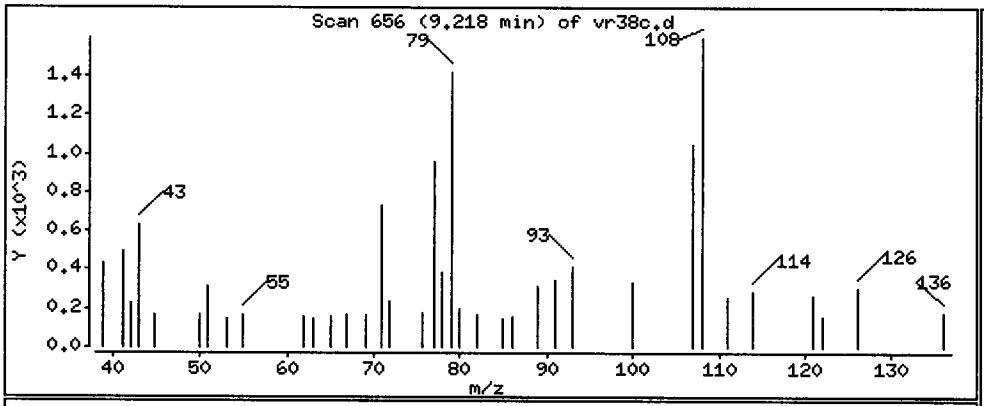
Operator: VTS/YZ

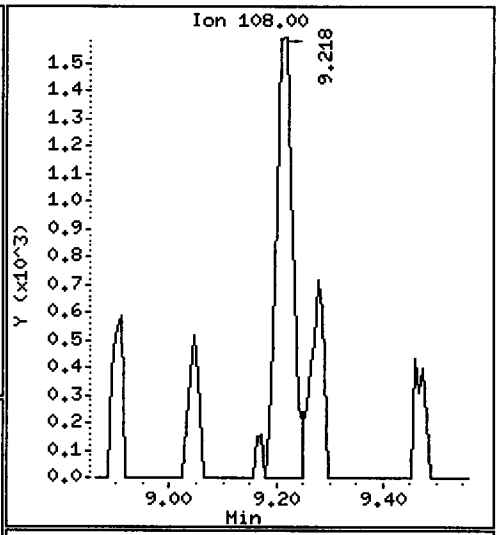
Column phase: ZB-5msi

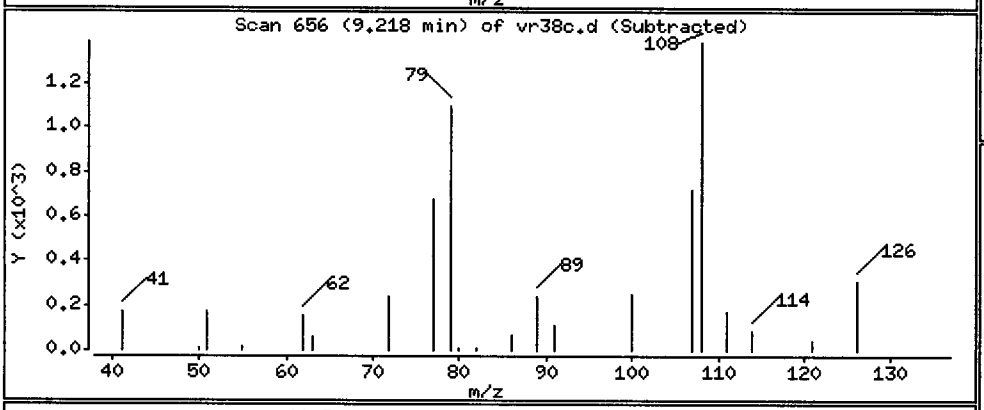
Column diameter: 0.25

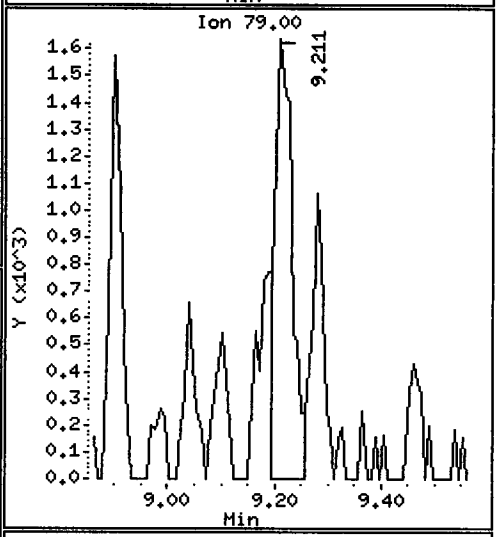
11 Benzyl alcohol

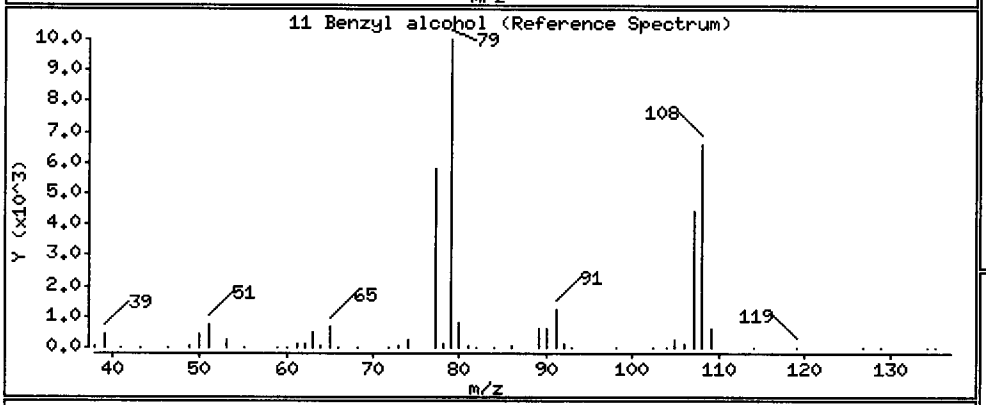
Concentration: 19.84 ug/kg

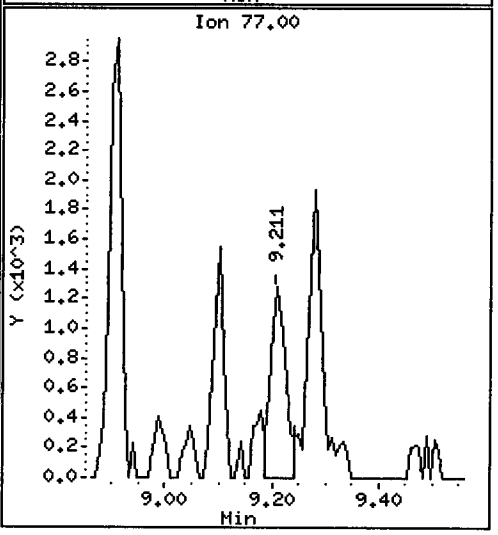


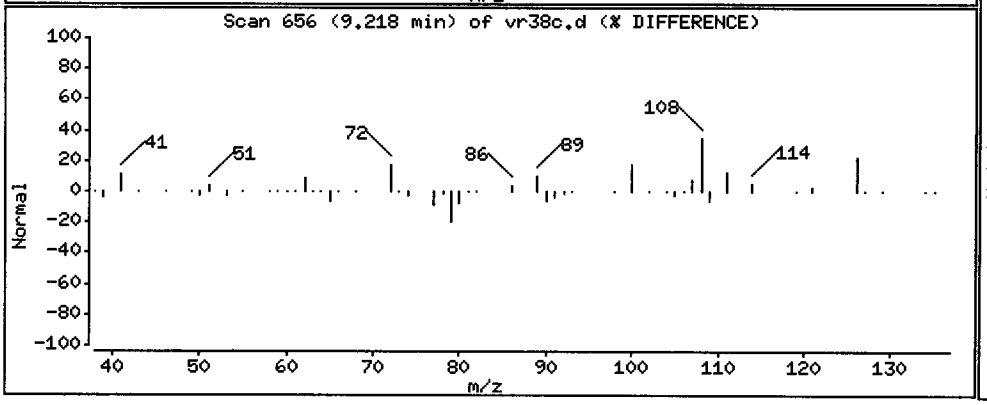












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

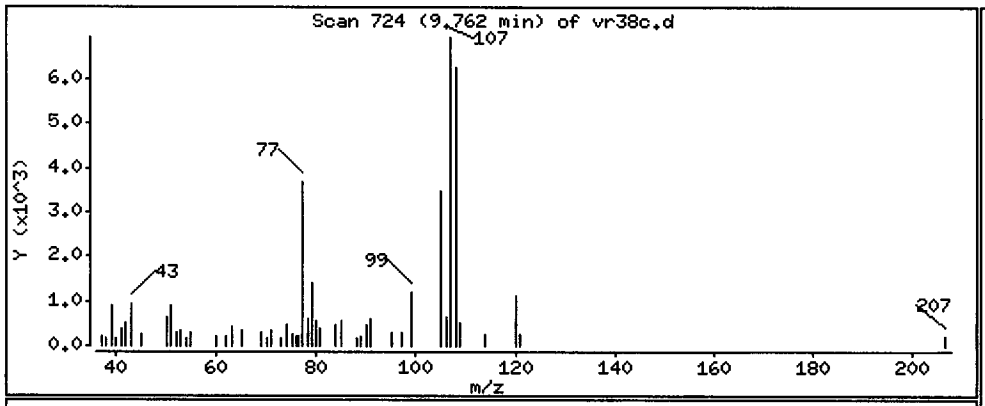
Operator: VTS/YZ

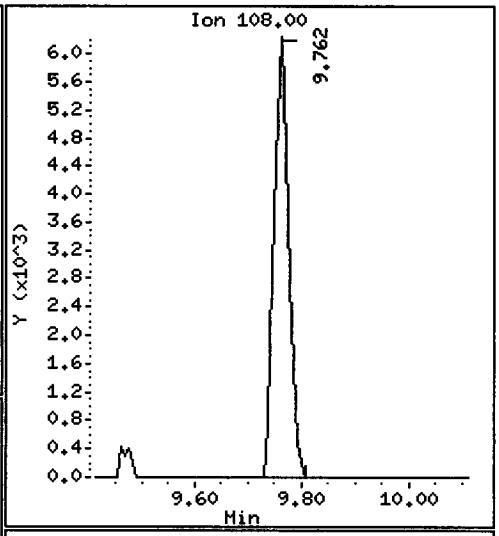
Column phase: ZB-5msi

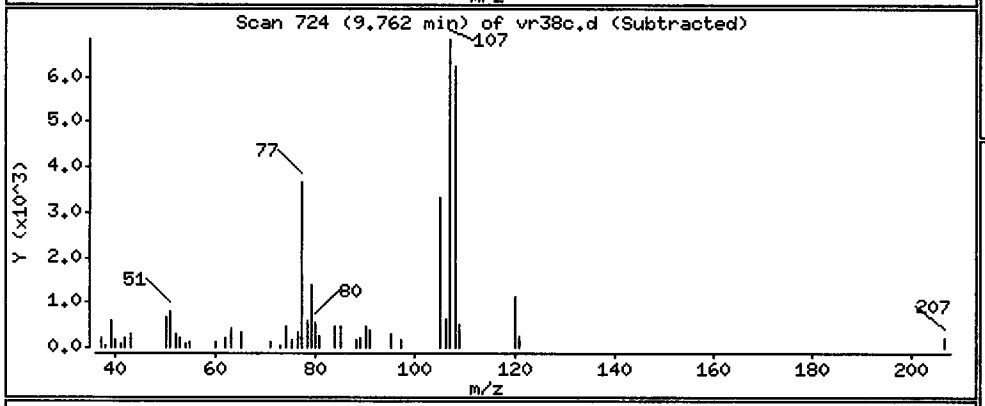
Column diameter: 0.25

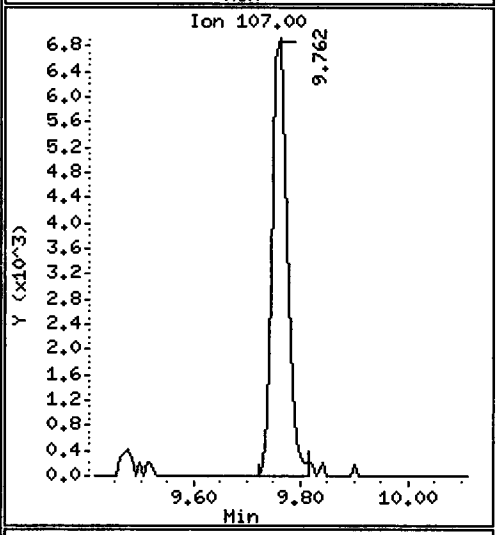
15 4-Methylphenol

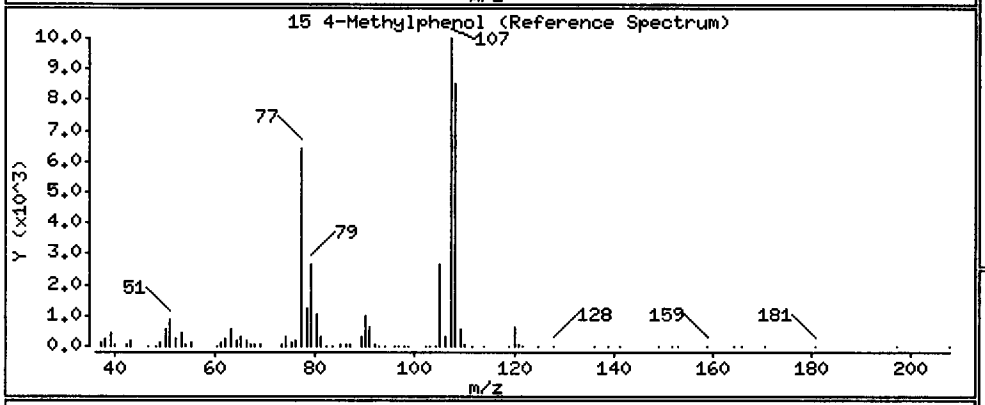
Concentration: 35.55 ug/kg

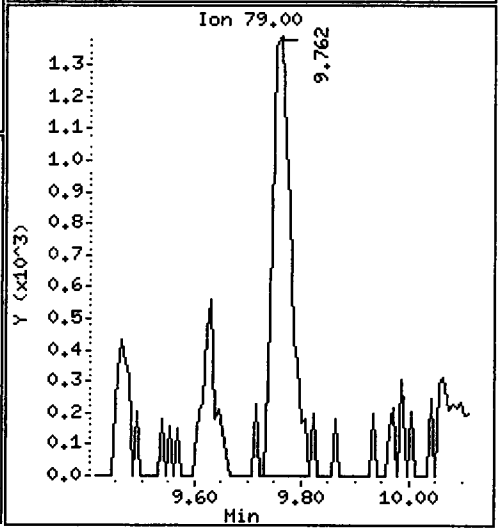


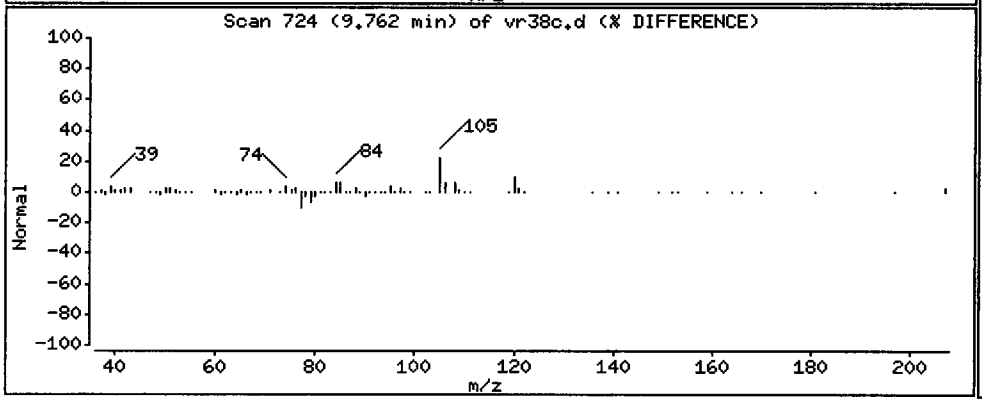












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

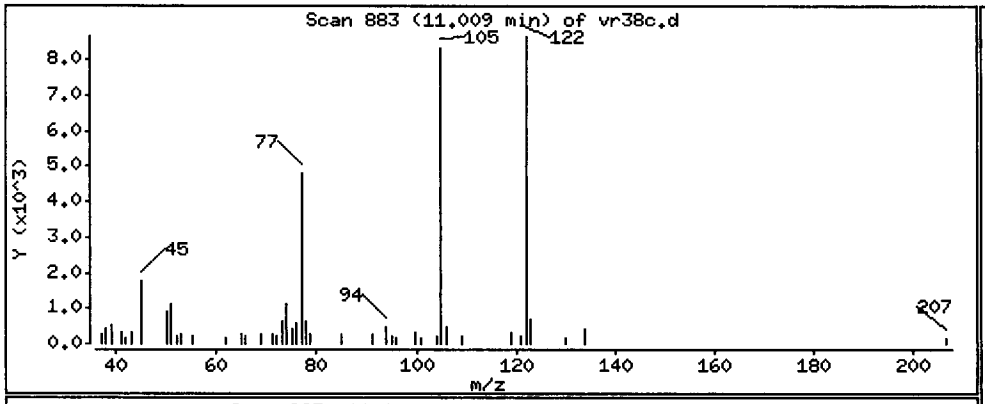
Operator: VTS/YZ

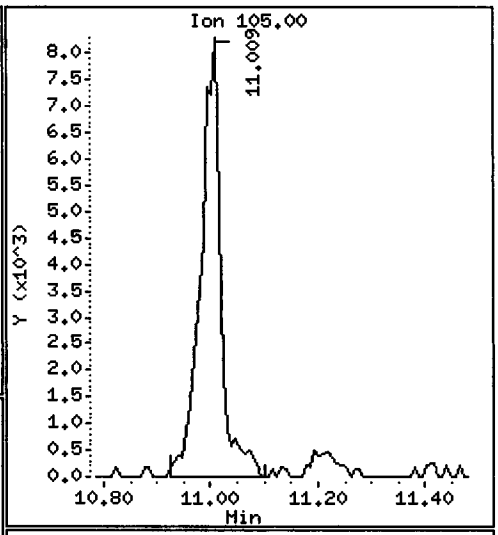
Column phase: ZB-5msi

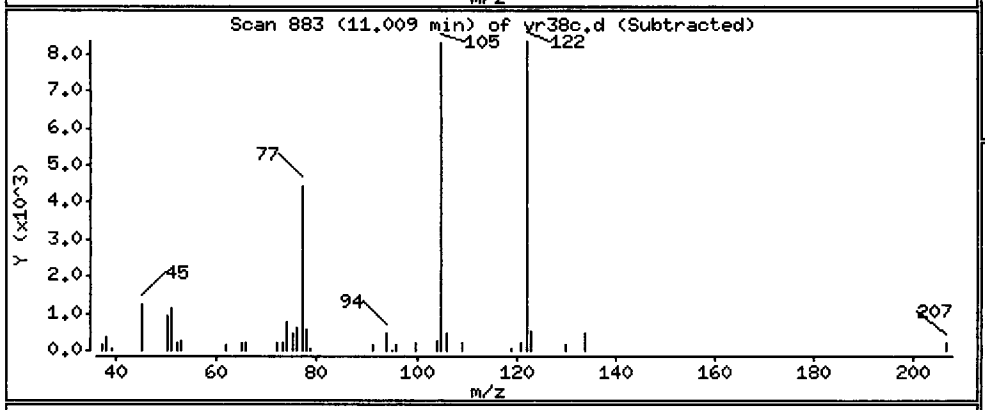
Column diameter: 0.25

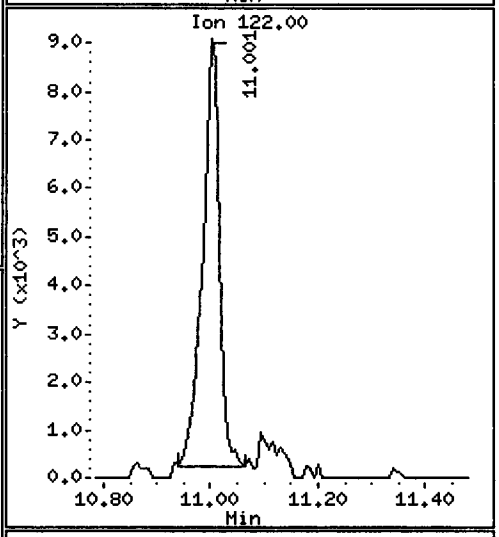
24 Benzoic acid

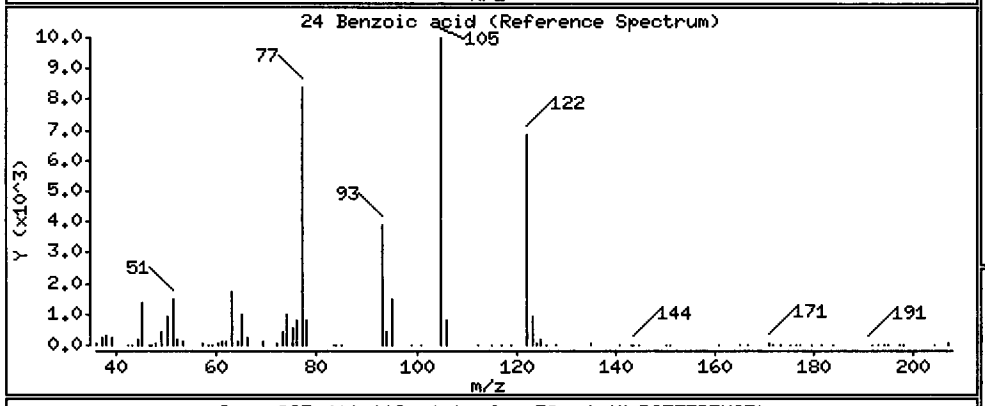
Concentration: 97.35 ug/kg

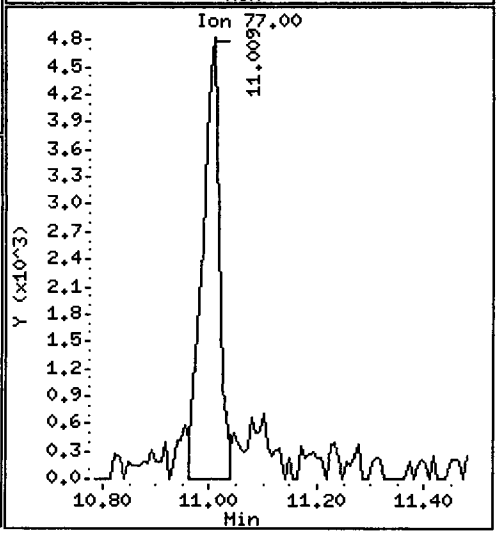


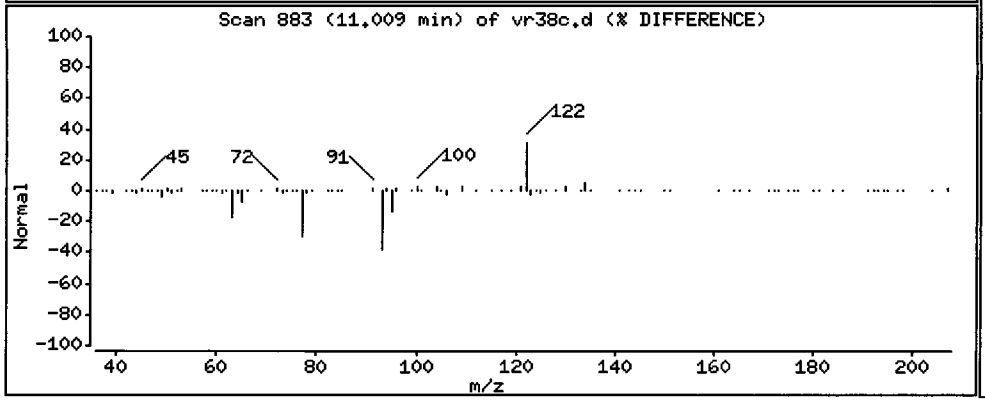












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

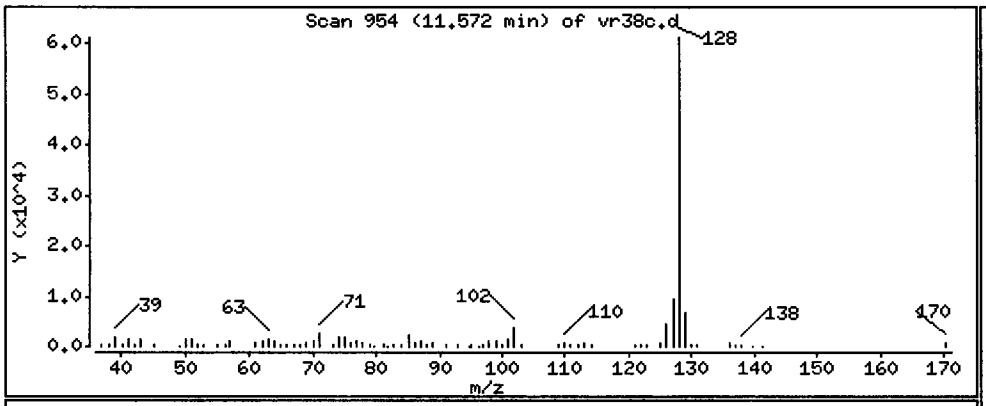
Operator: VTS/YZ

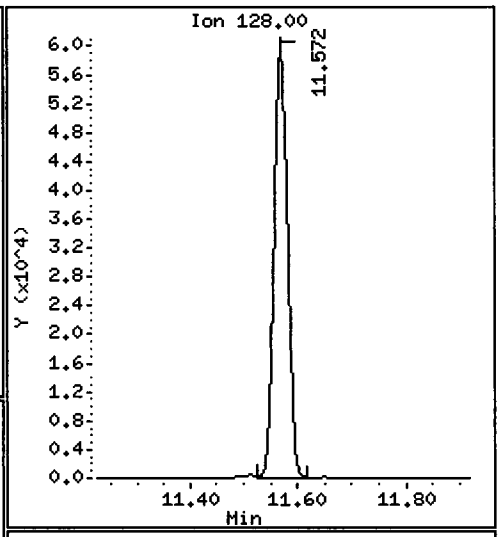
Column phase: ZB-5msi

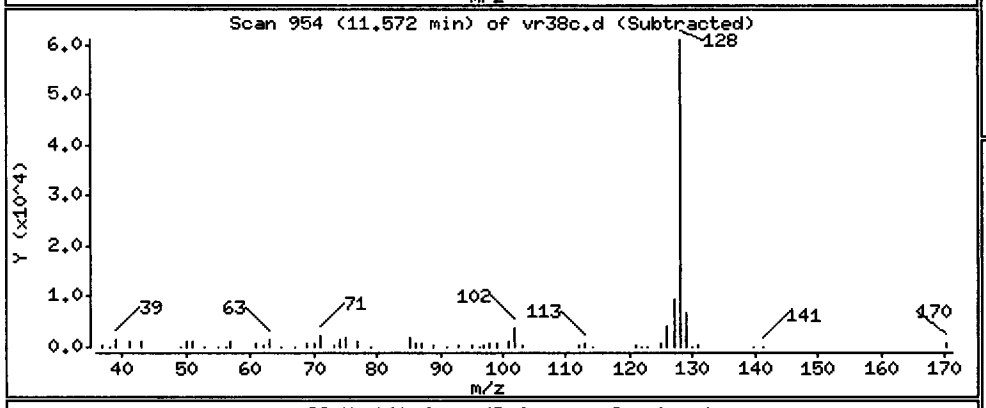
Column diameter: 0.25

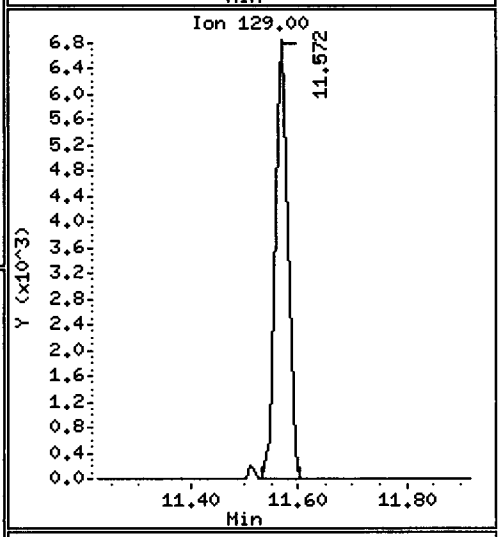
28 Naphthalene

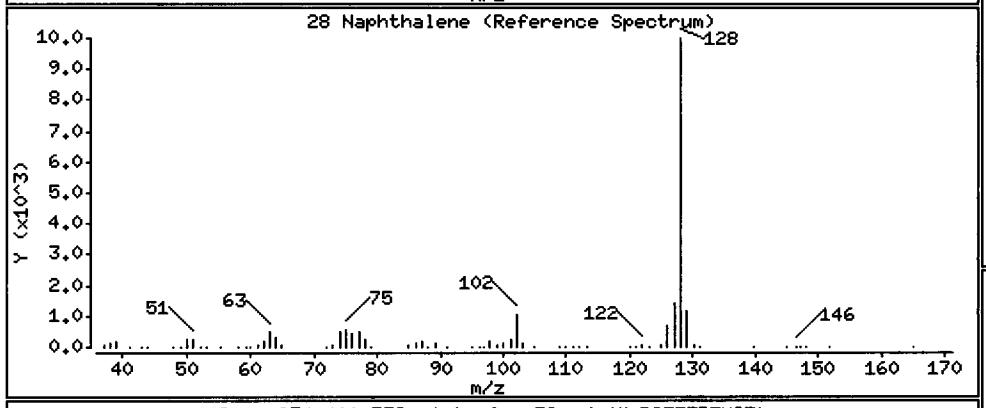
Concentration: 96.96 ug/kg

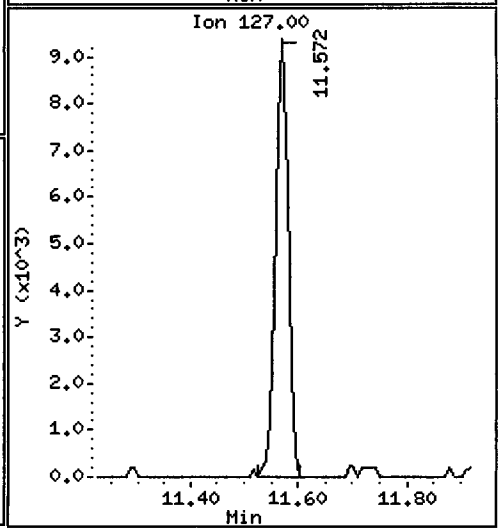


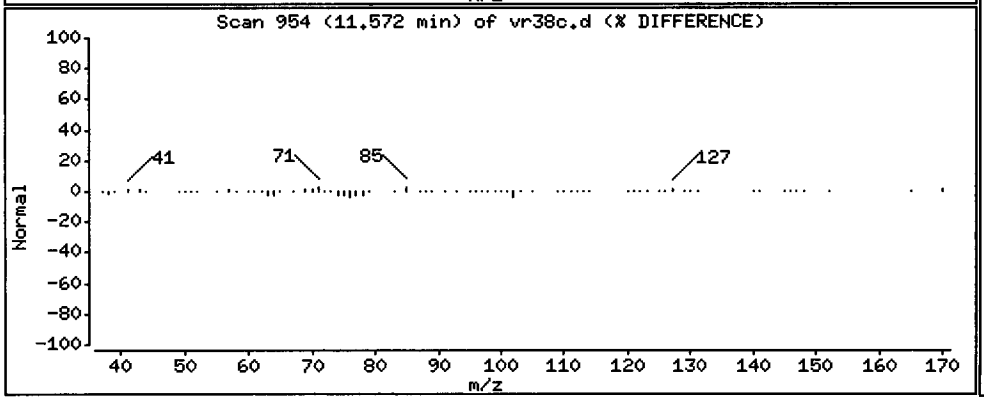












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

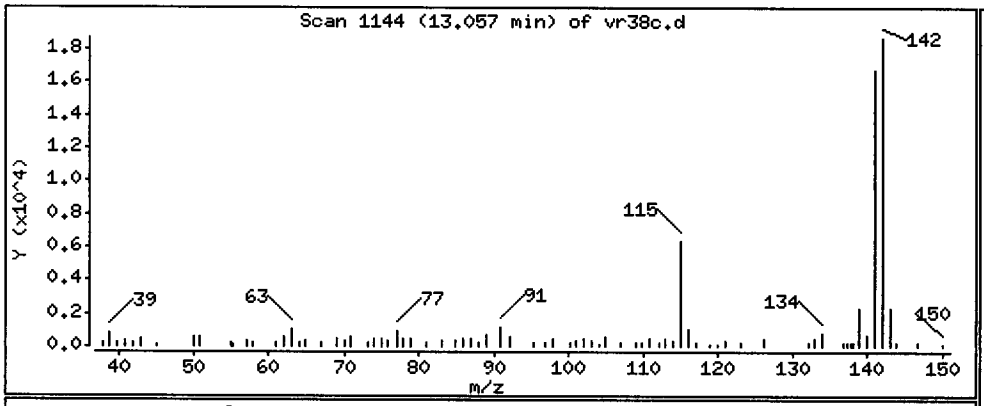
Operator: VTS/YZ

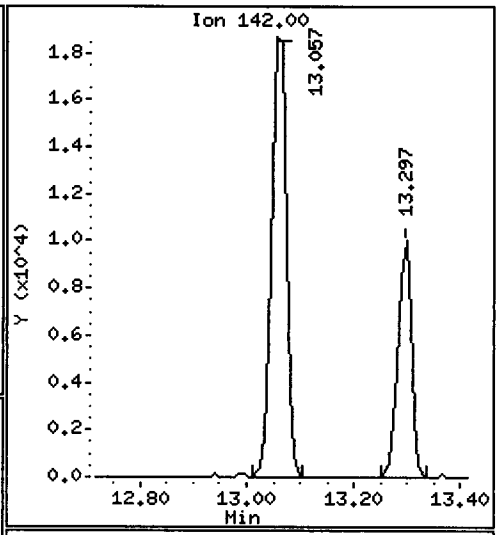
Column phase: ZB-5msi

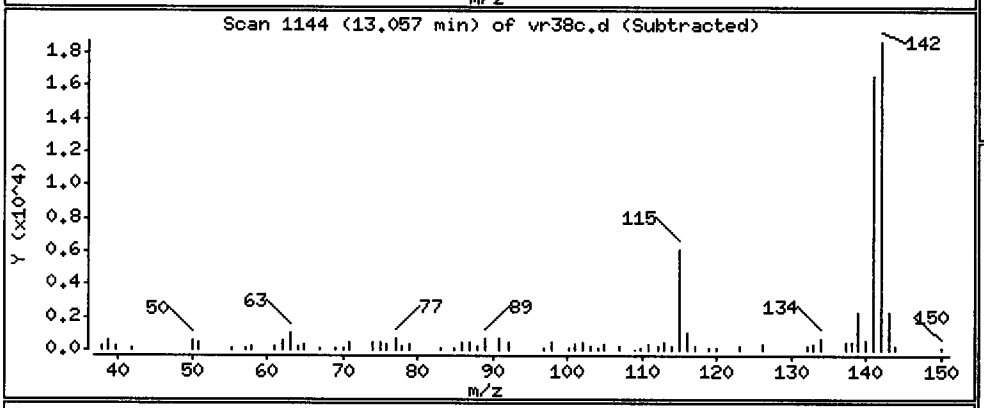
Column diameter: 0.25

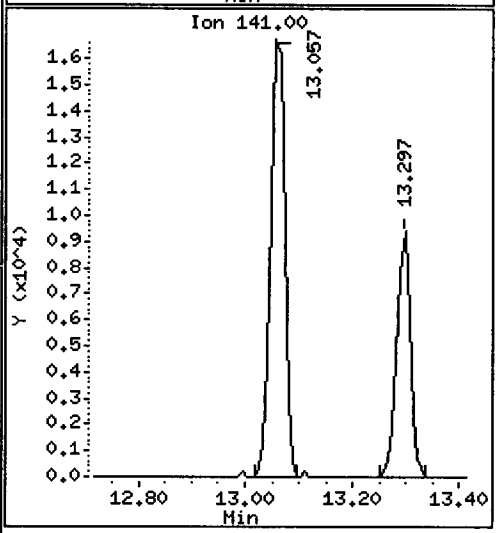
32 2-Methylnaphthalene

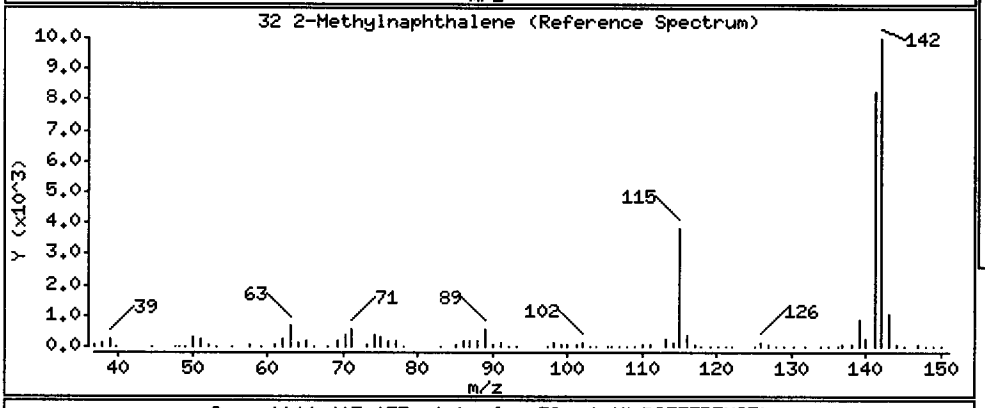
Concentration: 50.72 ug/kg

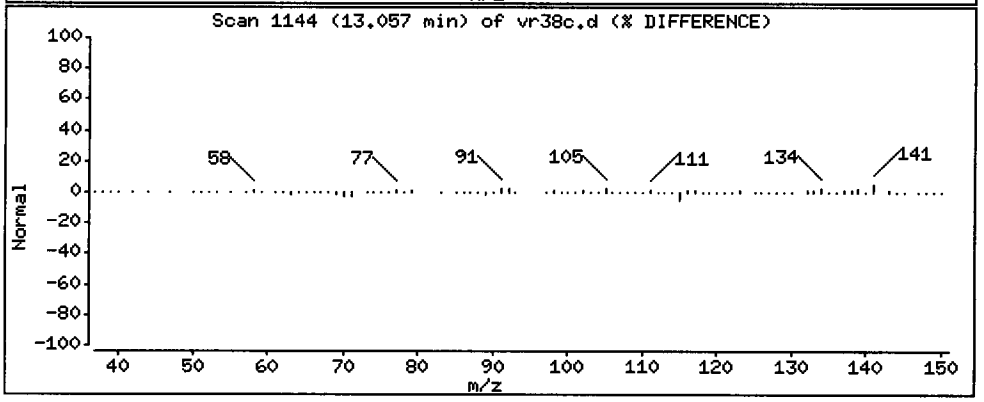












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

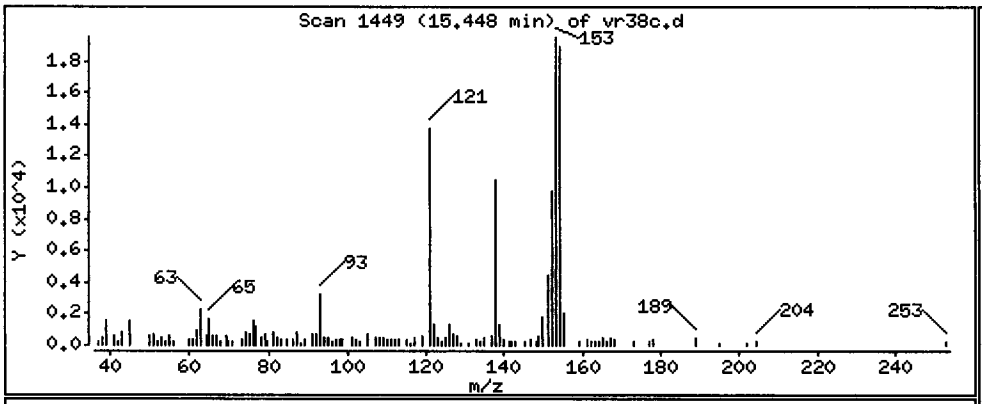
Operator: VTS/YZ

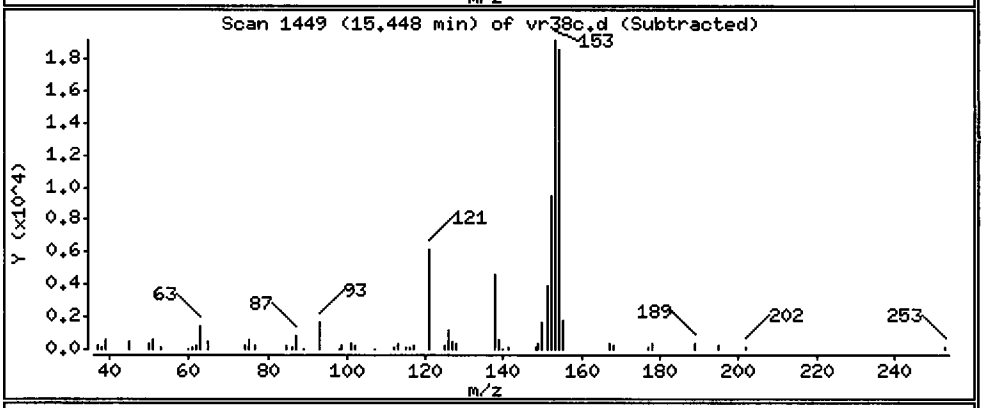
Column phase: ZB-5msi

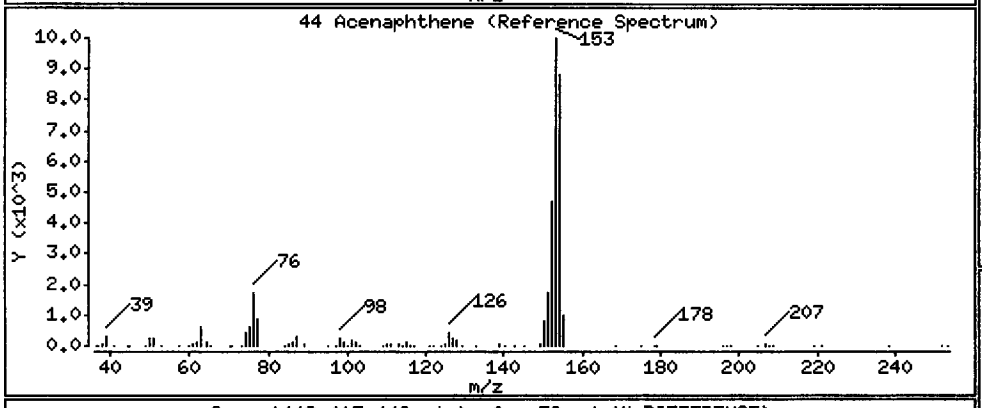
Column diameter: 0.25

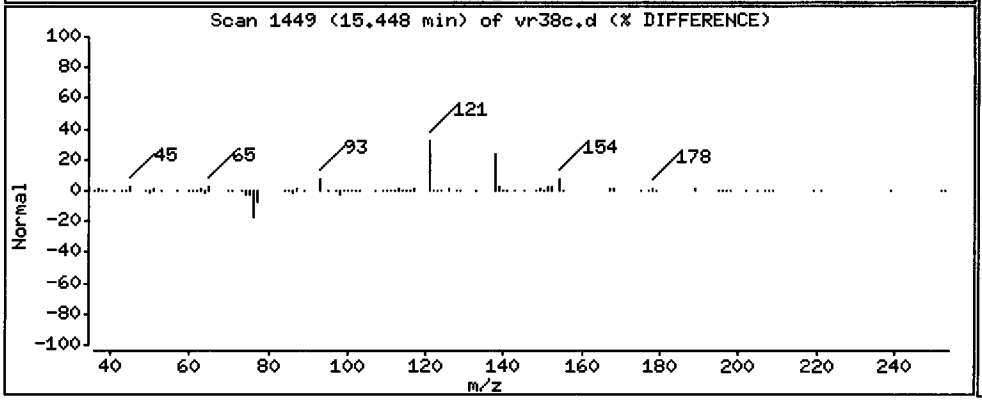
44 Acenaphthene

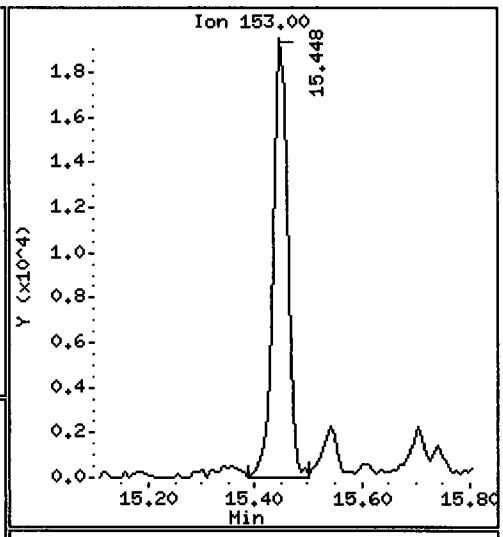
Concentration: 54.60 ug/kg

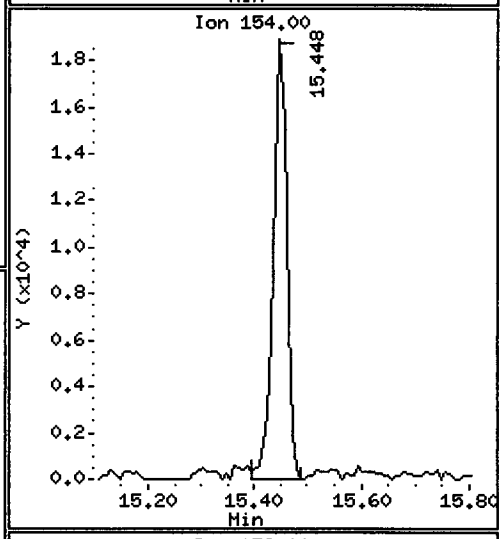


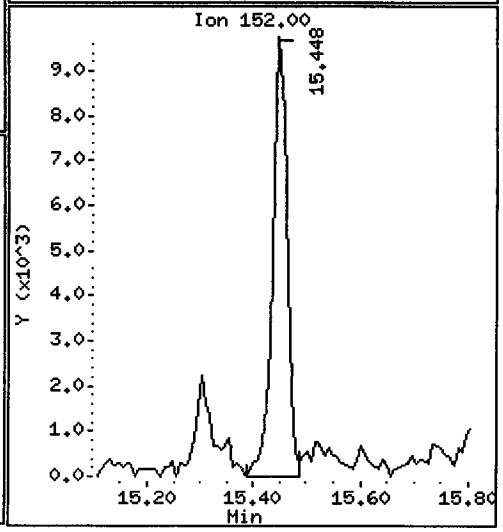












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

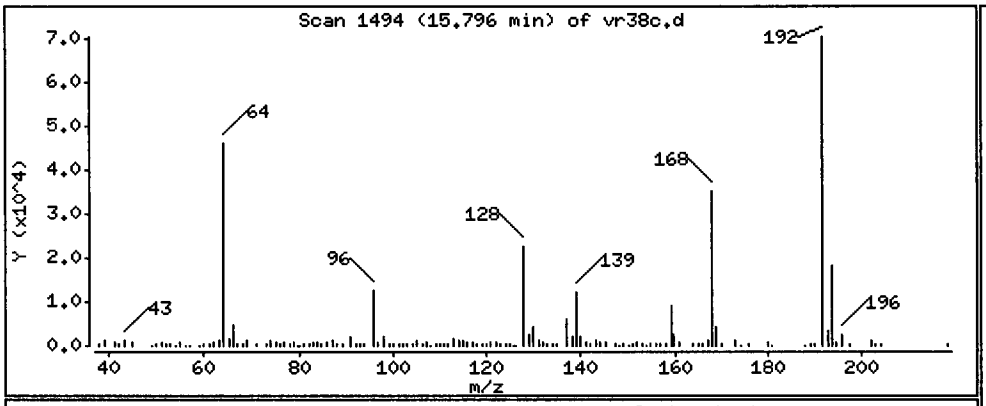
Operator: VTS/YZ

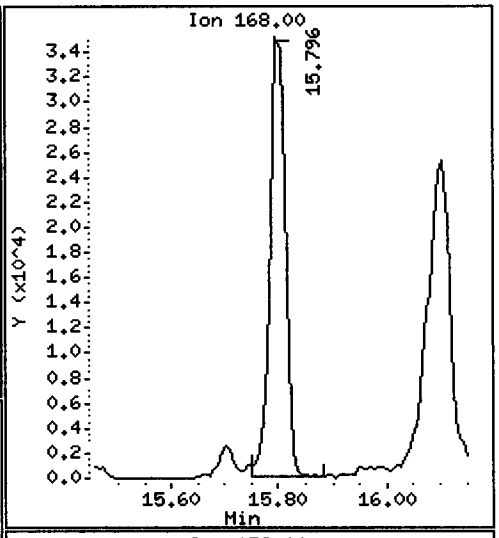
Column phase: ZB-5msi

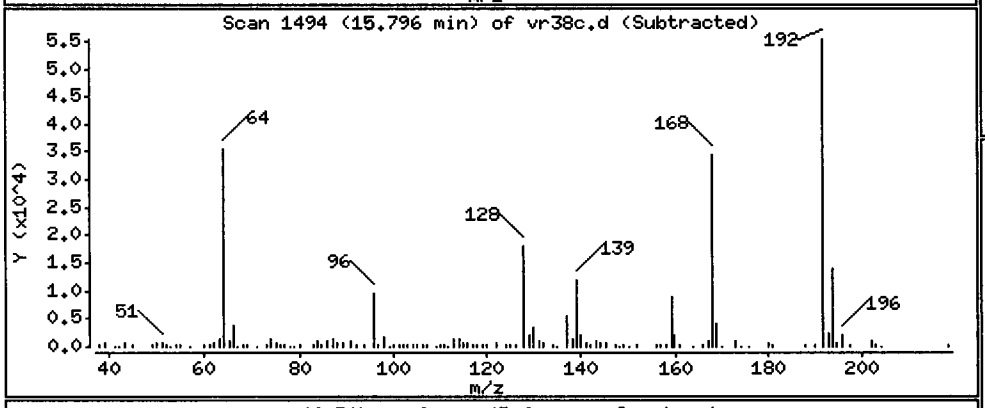
Column diameter: 0.25

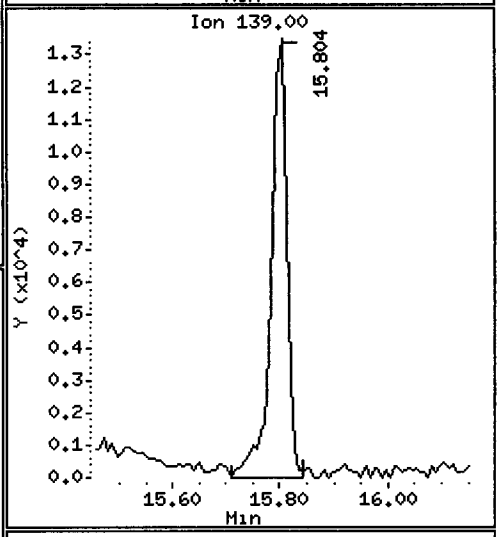
46 Dibenzofuran

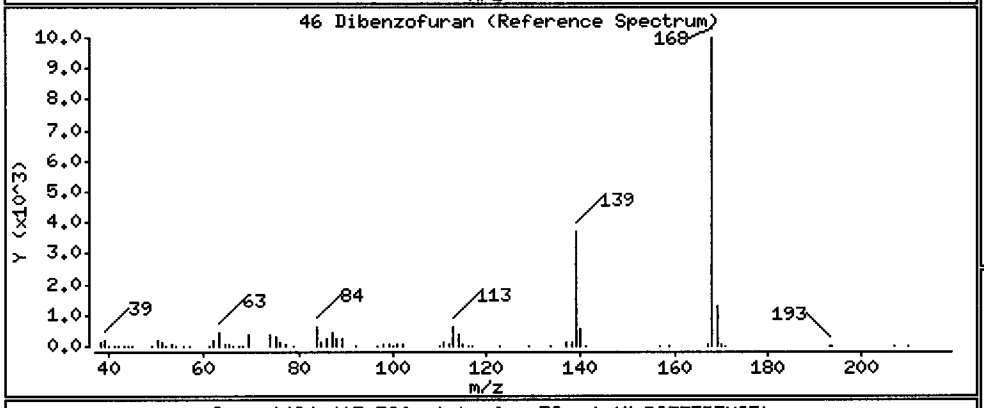
Concentration: 77.84 ug/kg

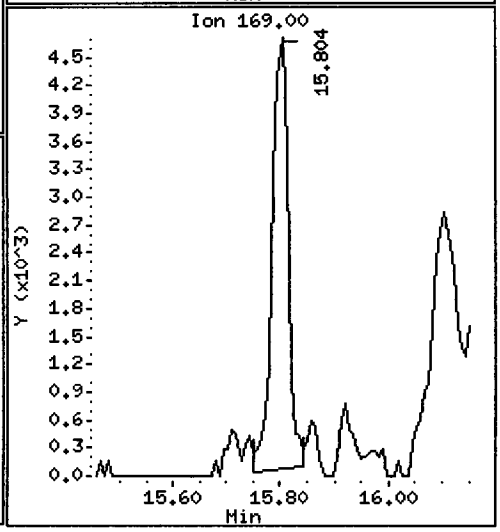


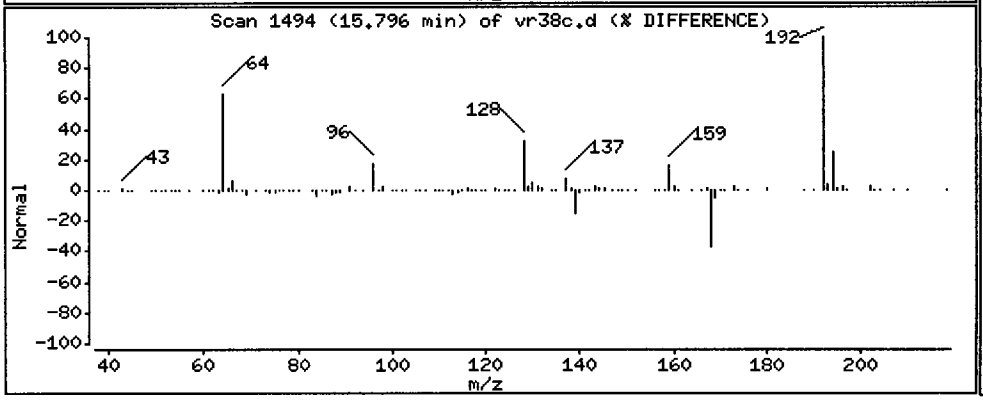












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

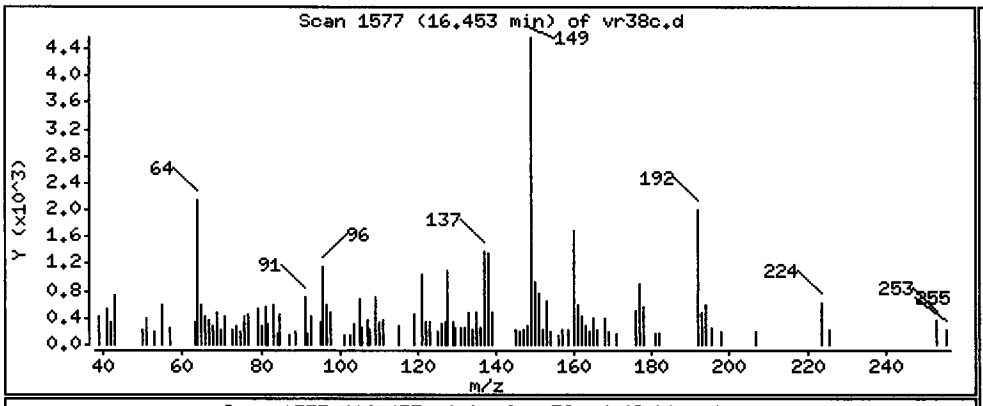
Operator: VTS/YZ

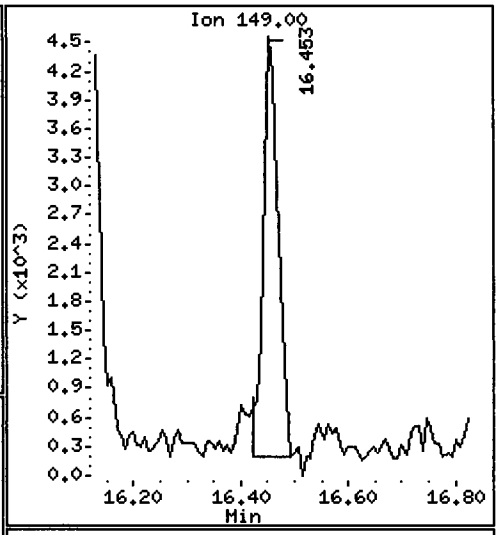
Column phase: ZB-5msi

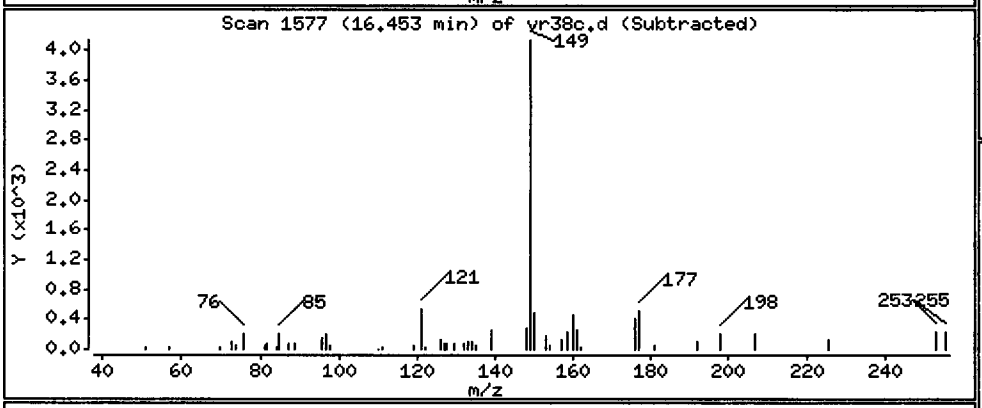
Column diameter: 0.25

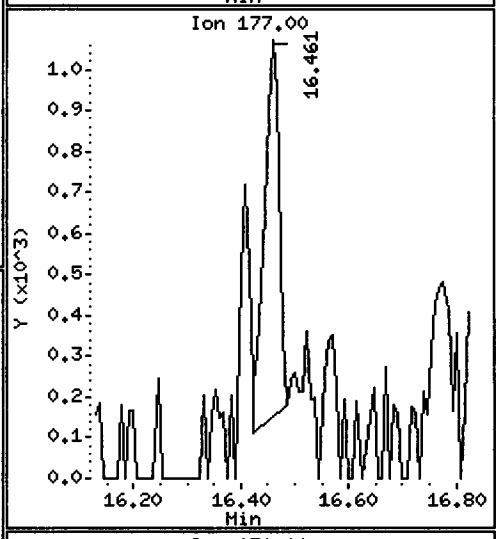
50 Diethylphthalate

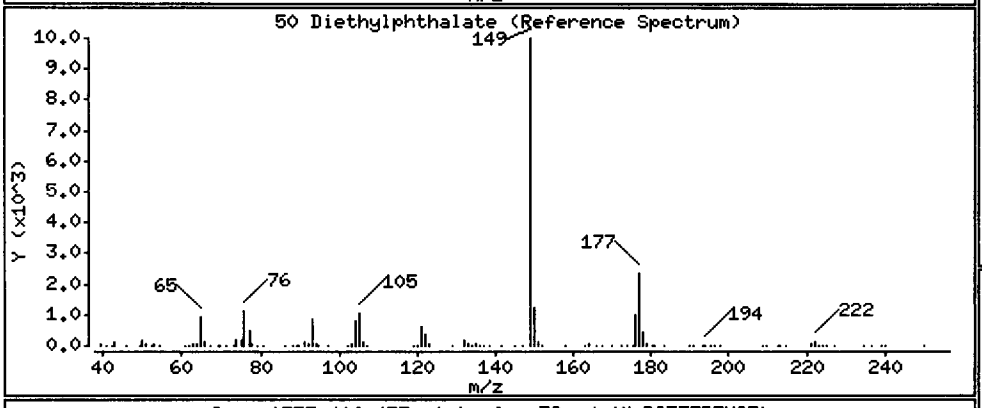
Concentration: 13.30 ug/kg

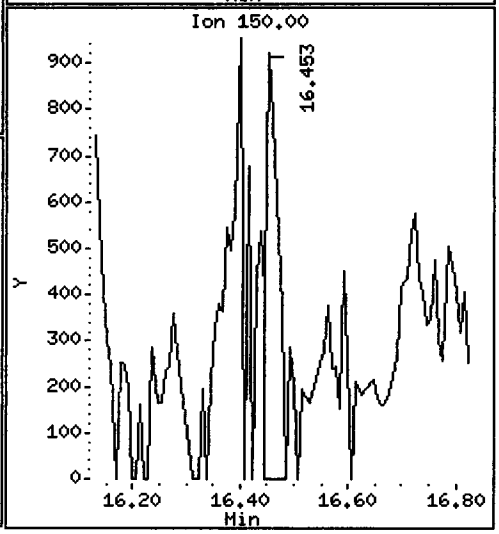


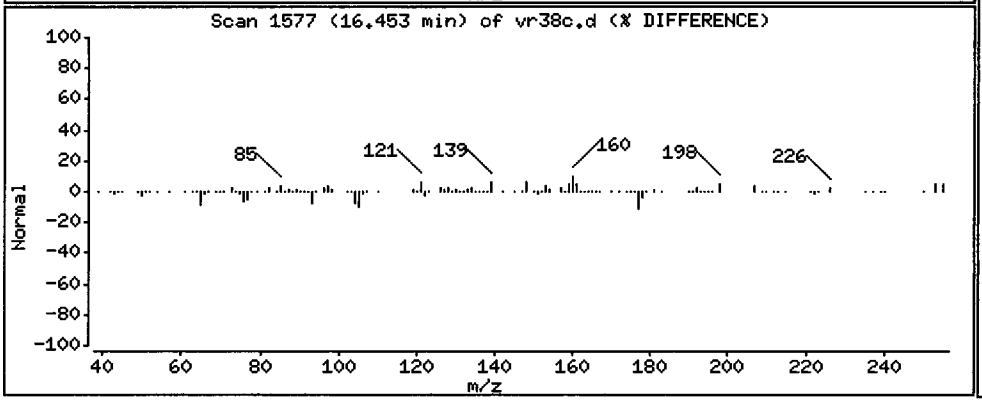












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

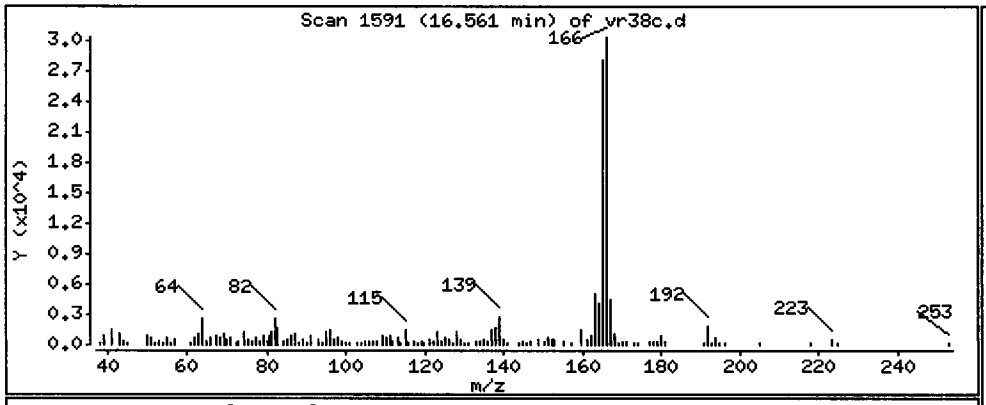
Operator: VTS/YZ

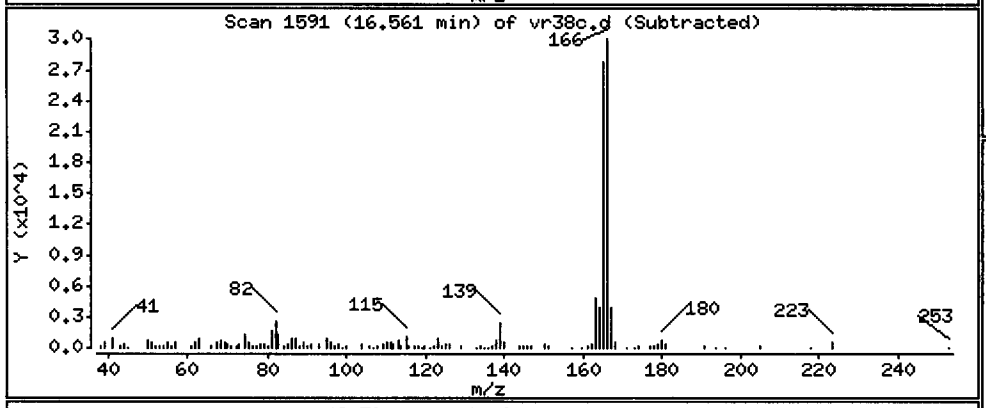
Column phase: ZB-5msi

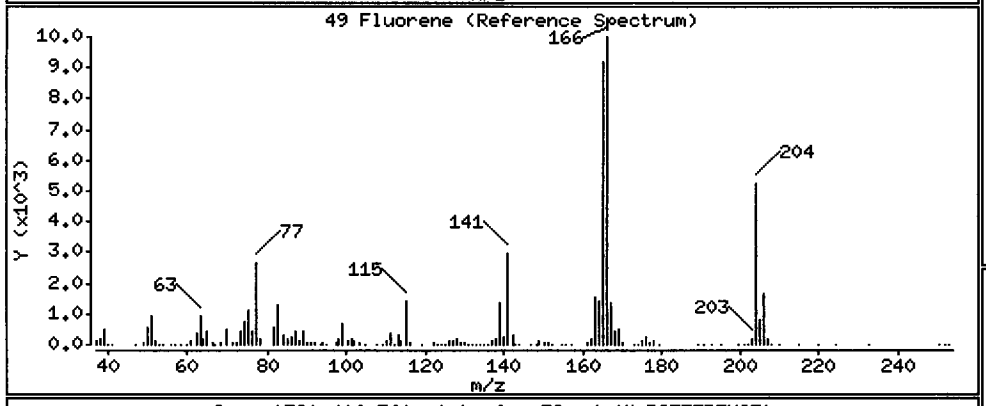
Column diameter: 0.25

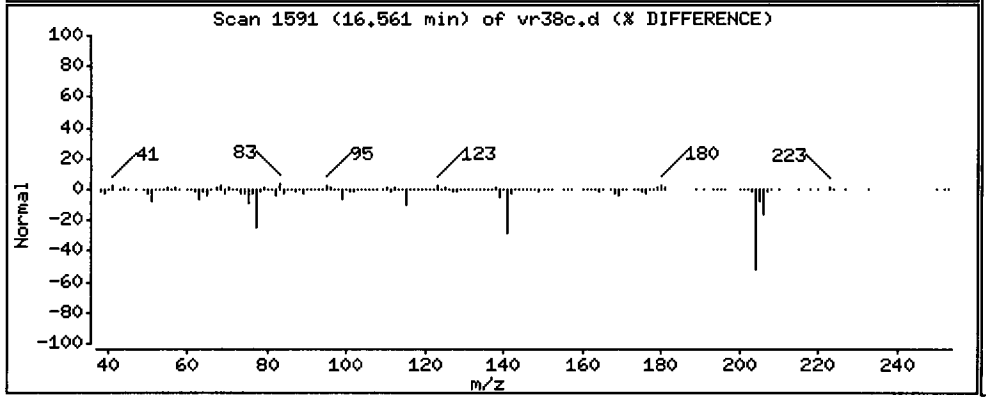
49 Fluorene

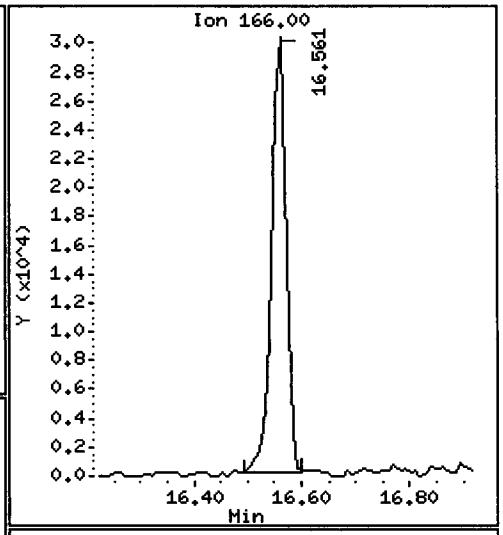
Concentration: 72.37 ug/kg

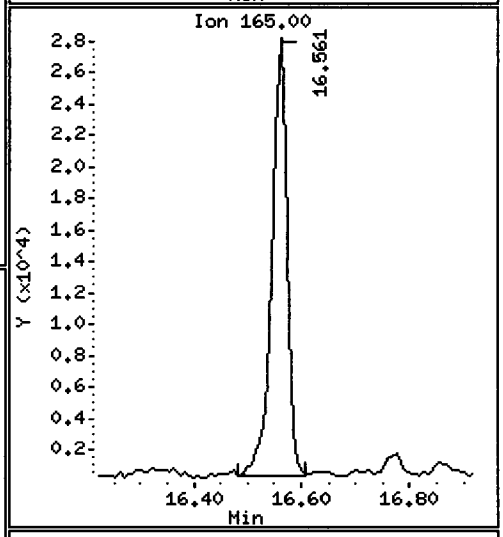


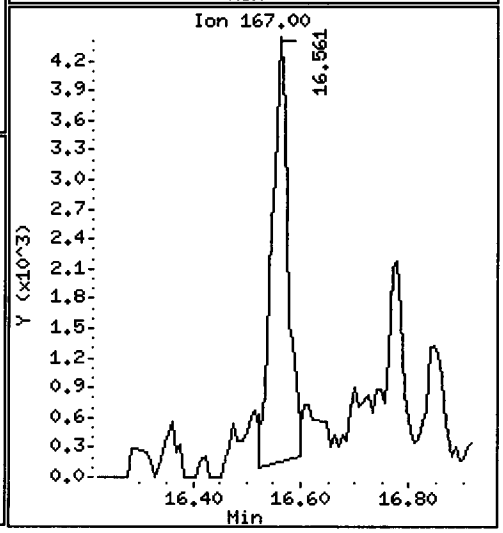












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

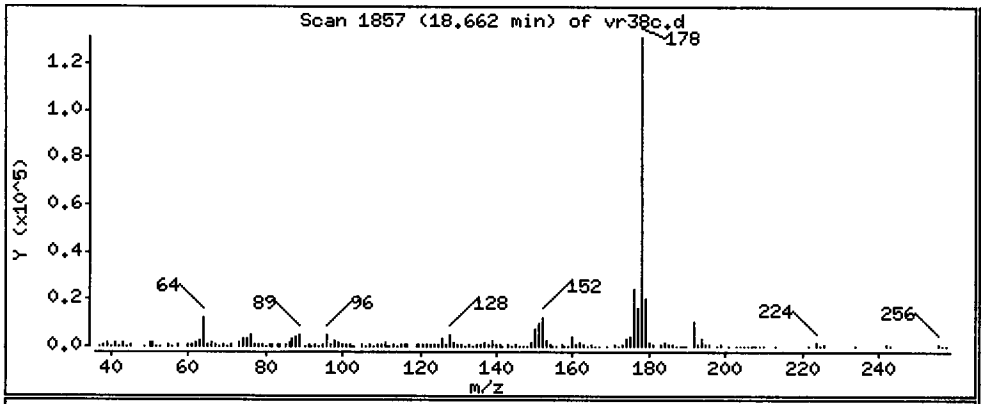
Operator: VTS/YZ

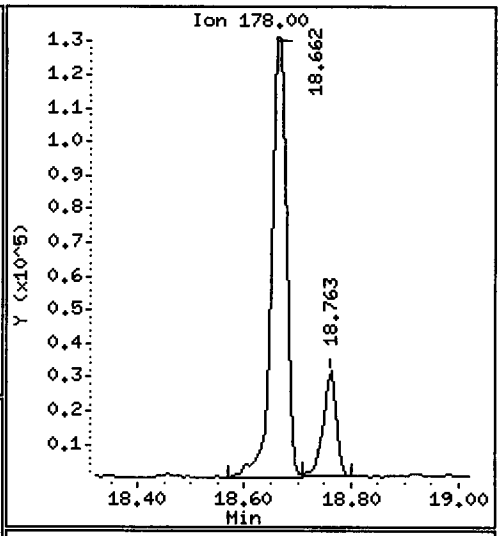
Column phase: ZB-5msi

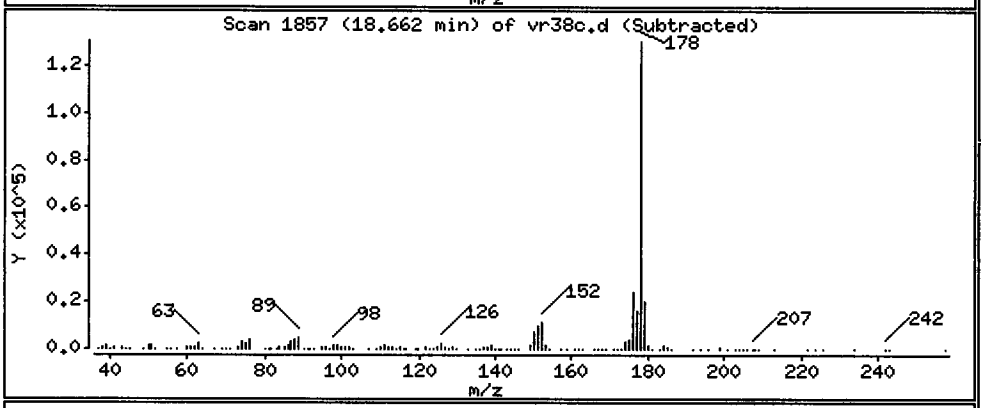
Column diameter: 0.25

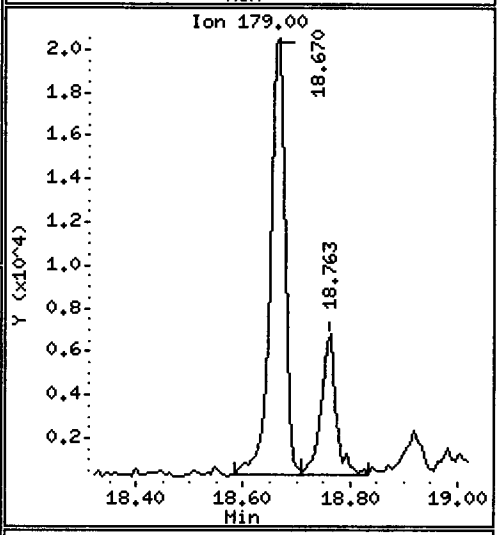
60 Phenanthrene

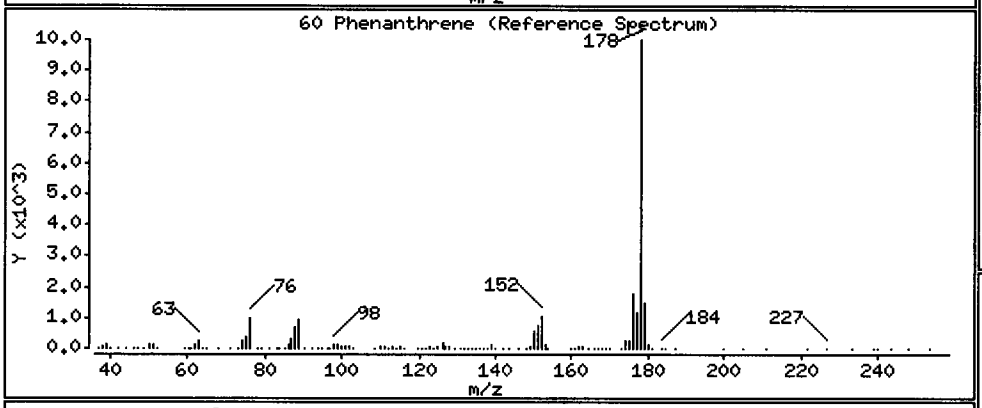
Concentration: 259.9 ug/kg

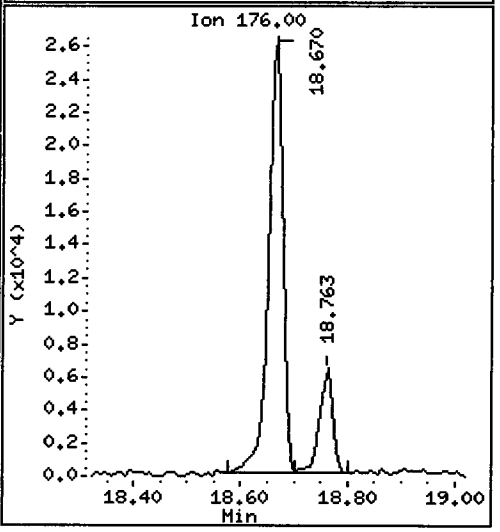


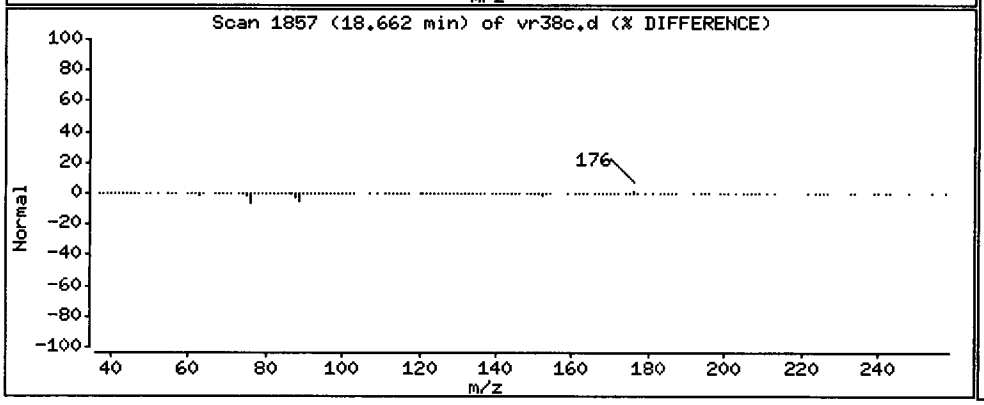












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

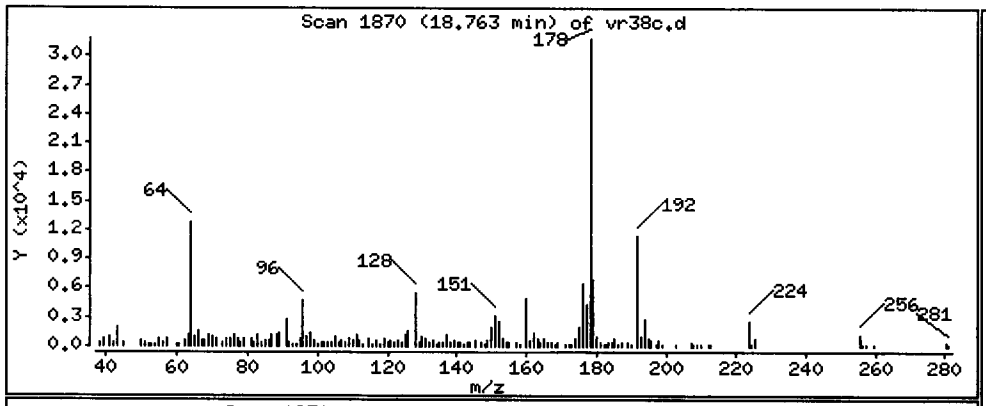
Operator: VTS/YZ

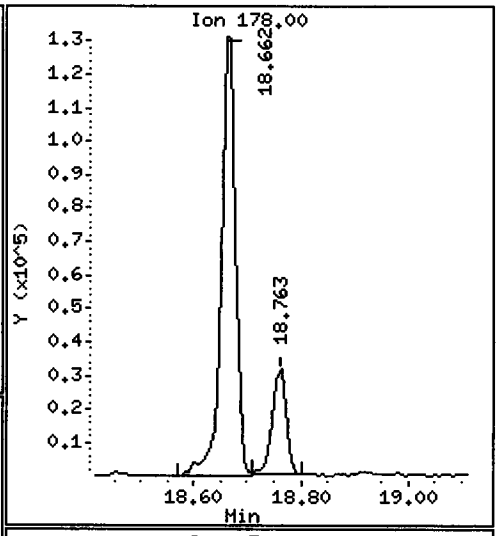
Column phase: ZB-5msi

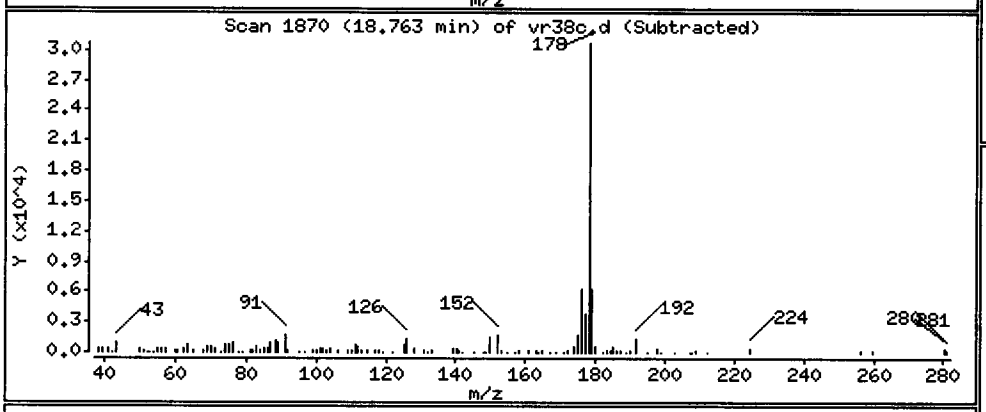
Column diameter: 0.25

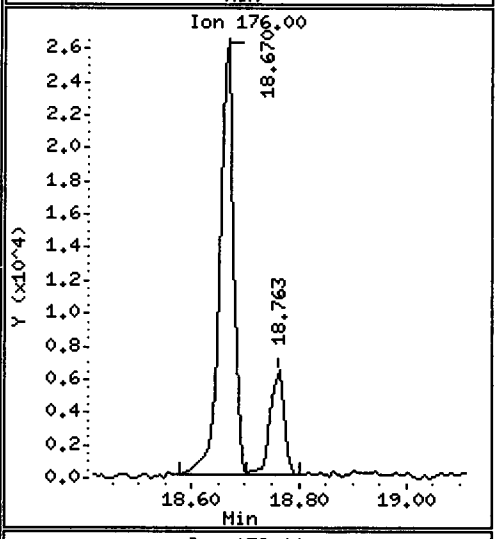
61 Anthracene

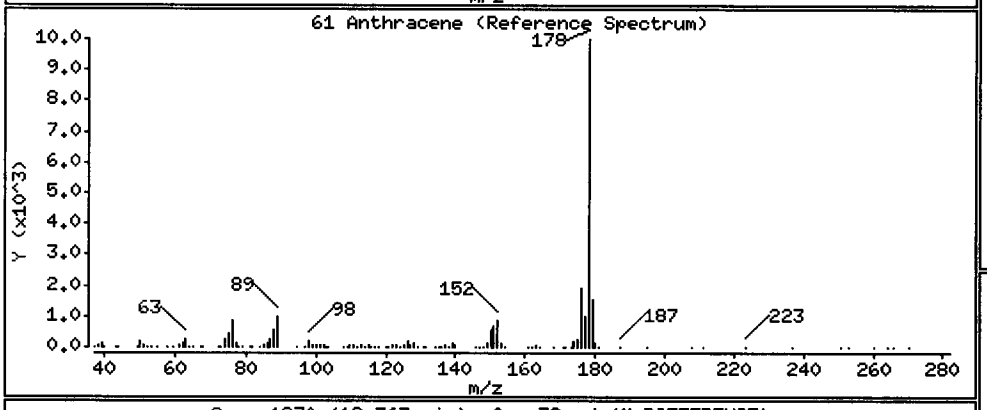
Concentration: 52.52 ug/kg

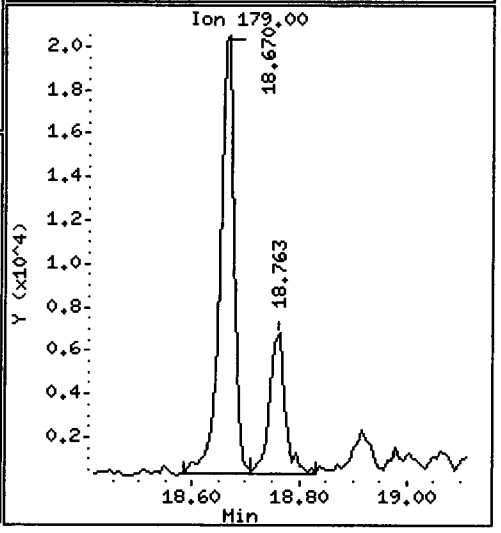


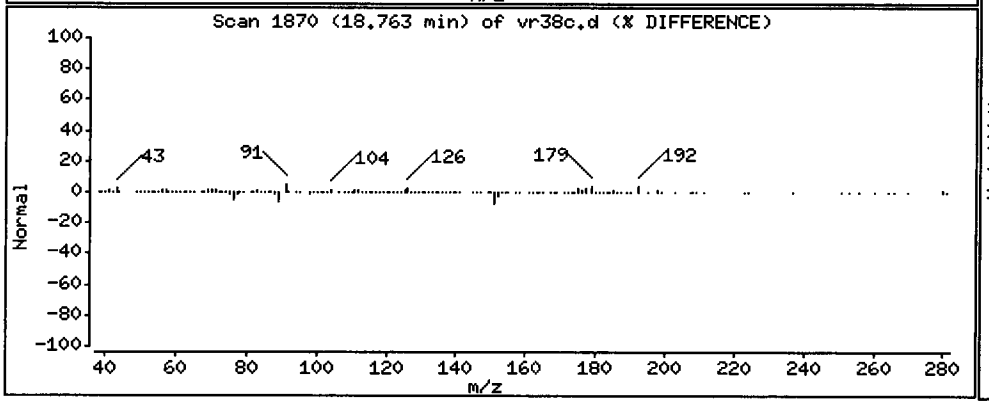












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

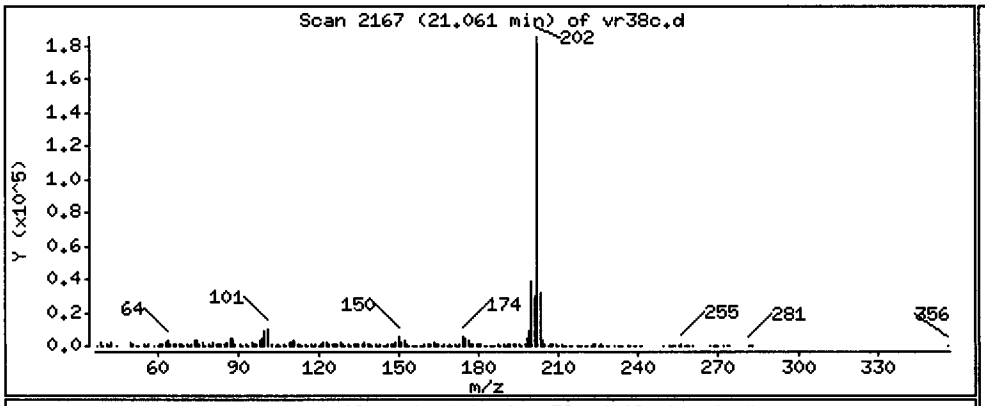
Client ID: HT-03-S-C-121106 Instrument: nt10.i

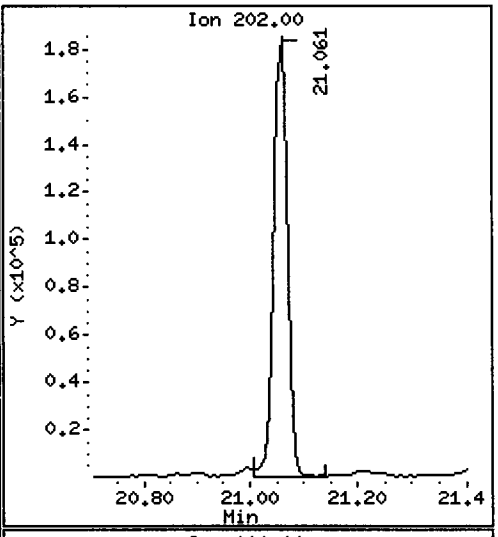
Sample Info: VR38C

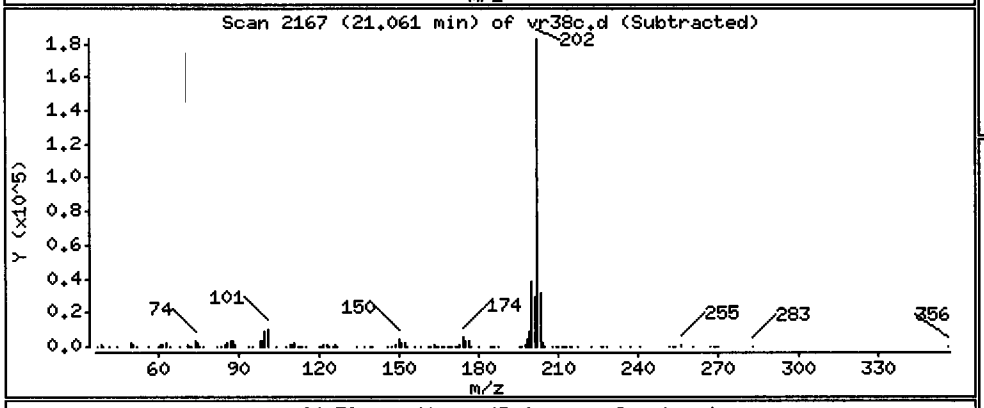
Volume Injected (uL): 1.0 Operator: VTS/YZ

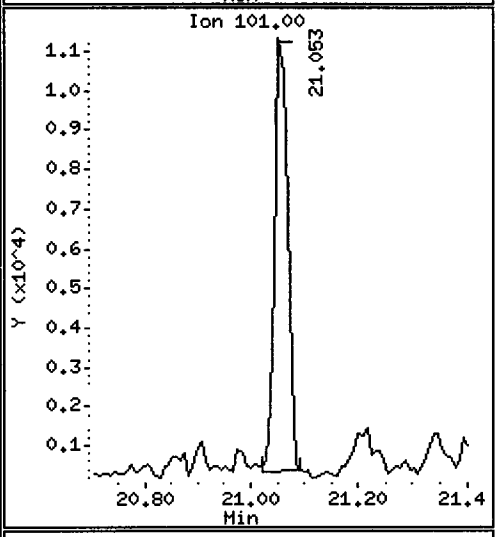
Column phase: ZB-5msi Column diameter: 0.25

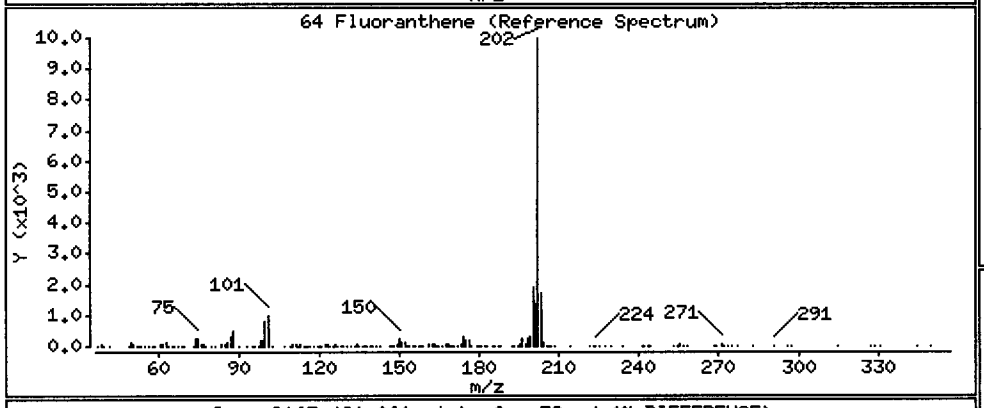
64 Fluoranthene Concentration: 256.2 ug/kg

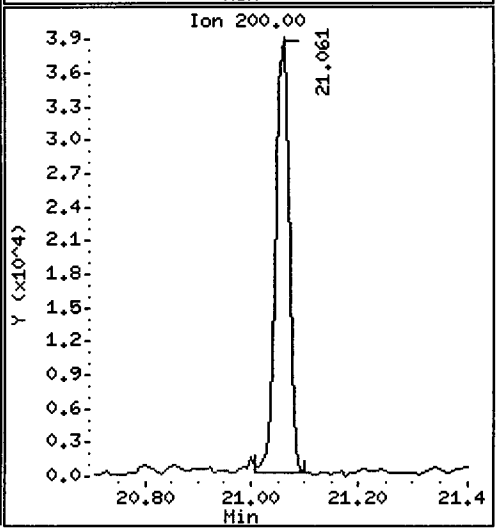


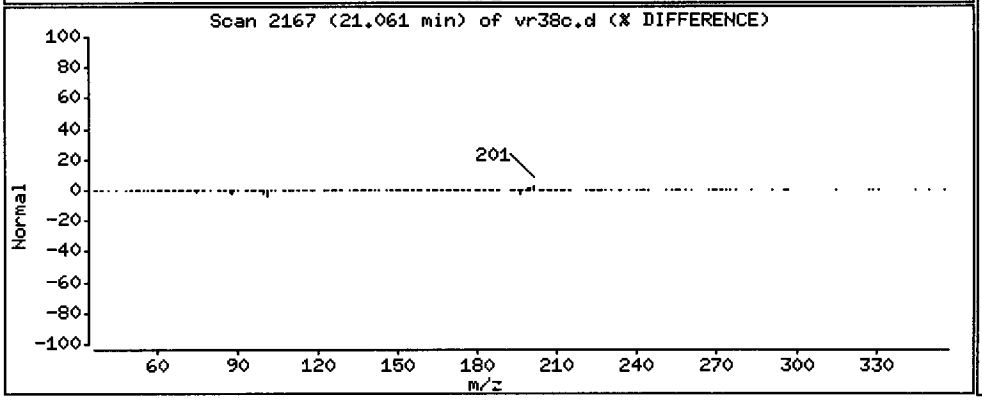












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

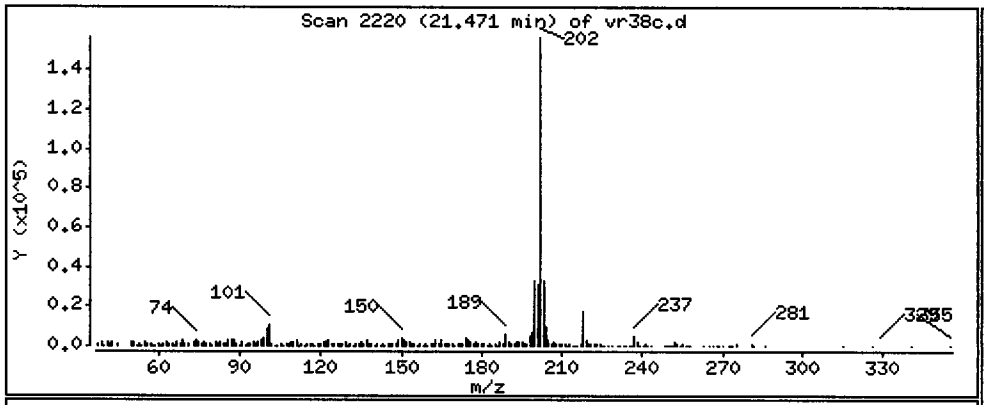
Operator: VTS/YZ

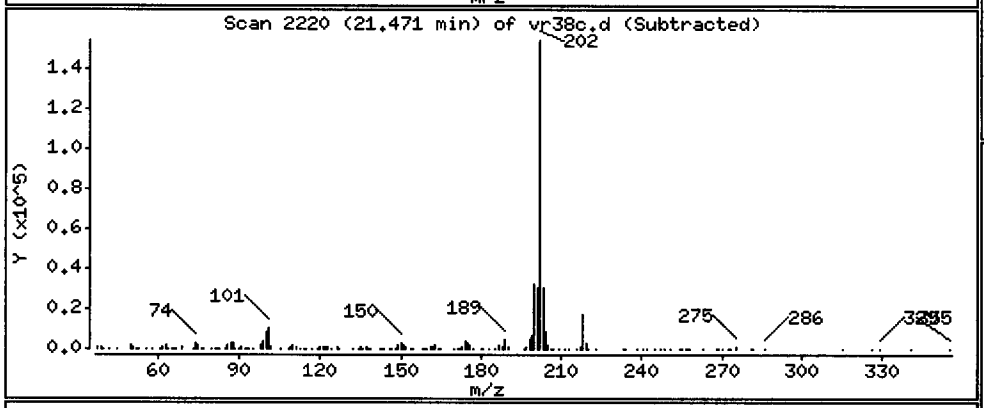
Column phase: ZB-5msi

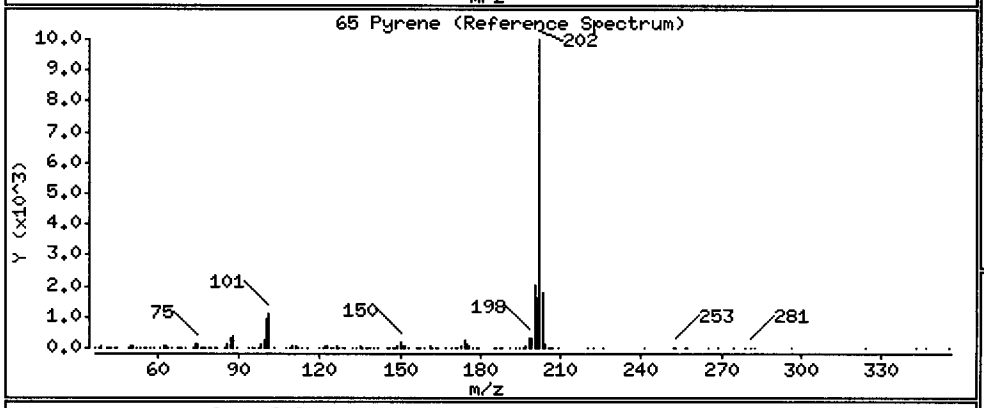
Column diameter: 0.25

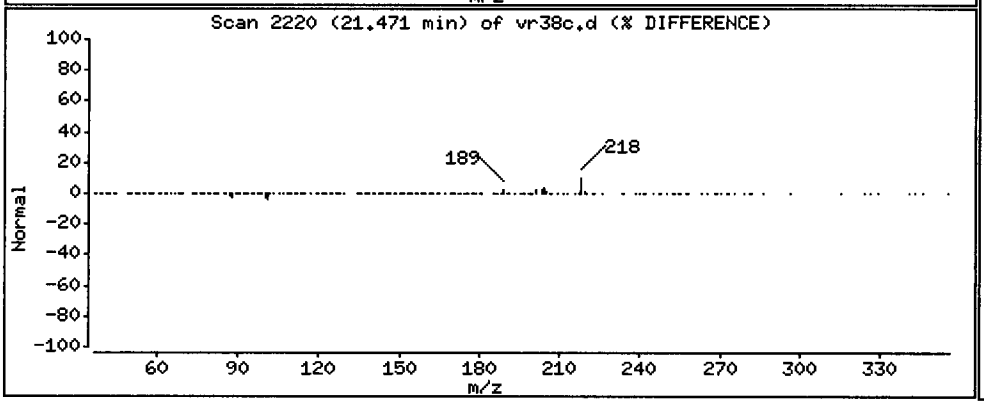
65 Pyrene

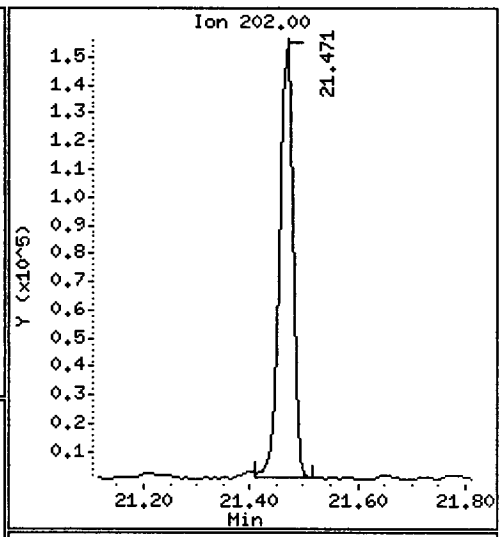
Concentration: 170.8 ug/kg

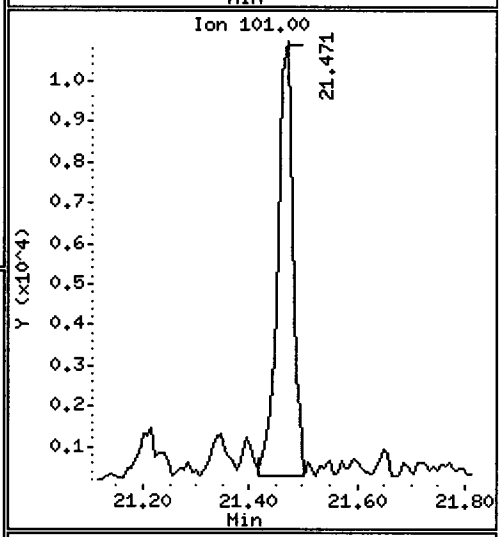


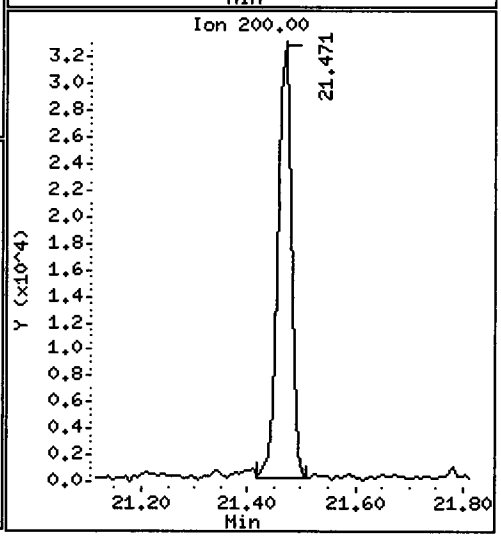












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

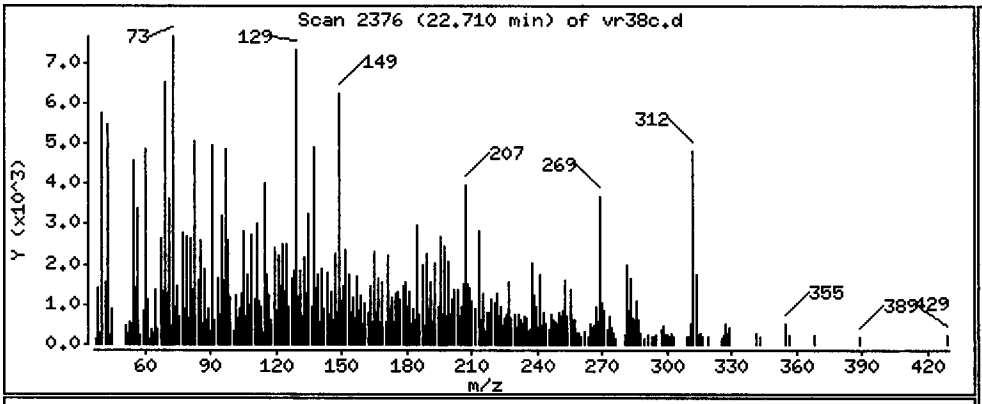
Operator: VTS/YZ

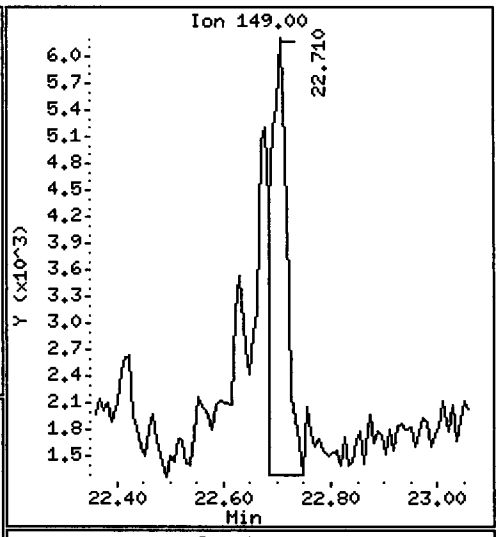
Column phase: ZB-5msi

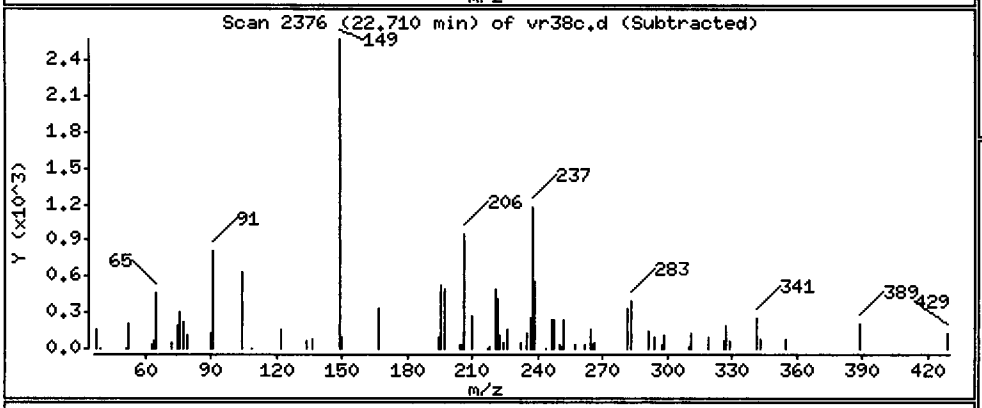
Column diameter: 0.25

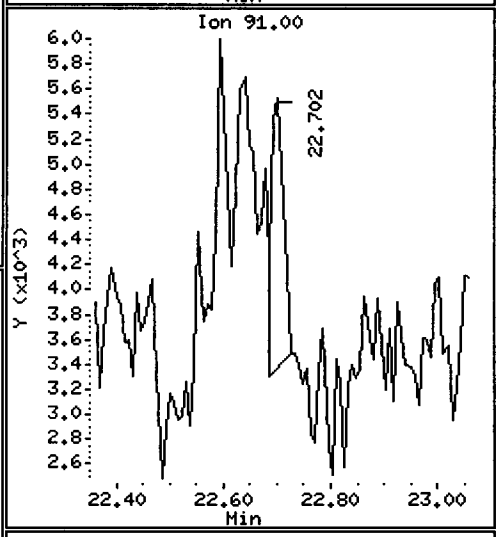
67 Butylbenzylphthalate

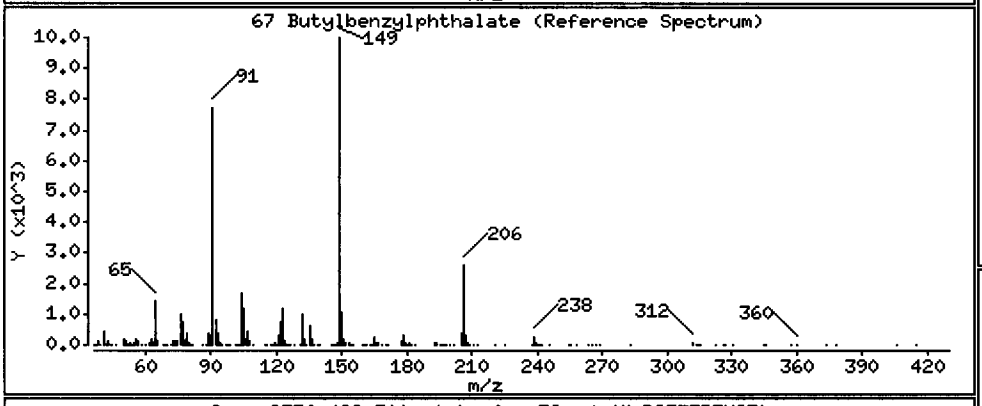
Concentration: 16.70 ug/kg

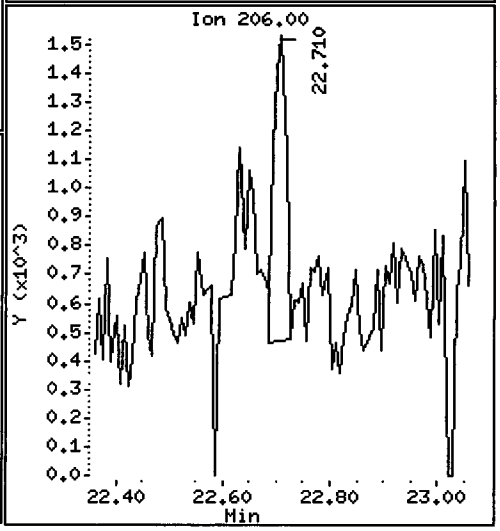


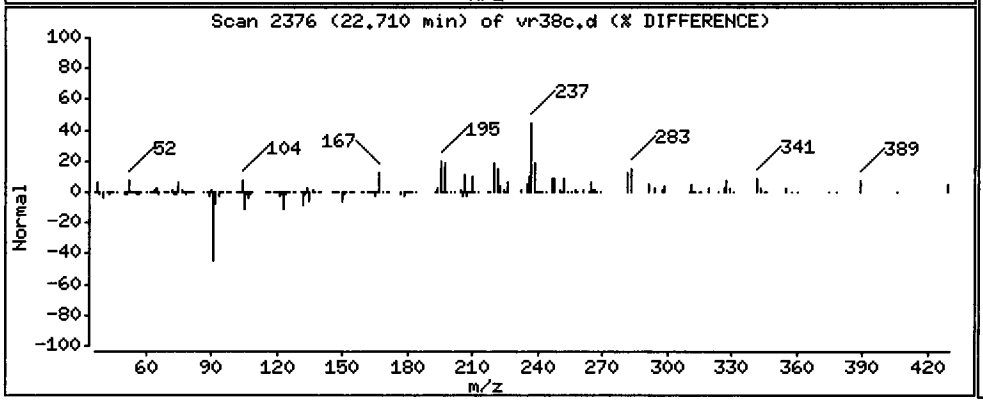












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

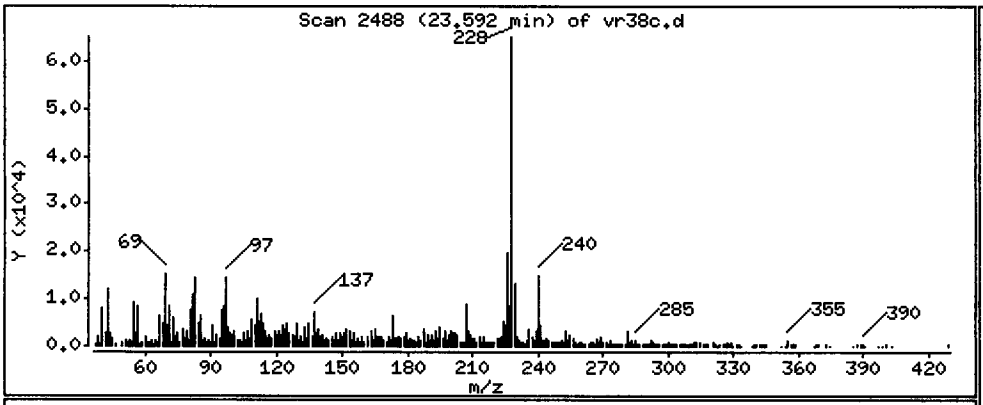
Operator: VTS/YZ

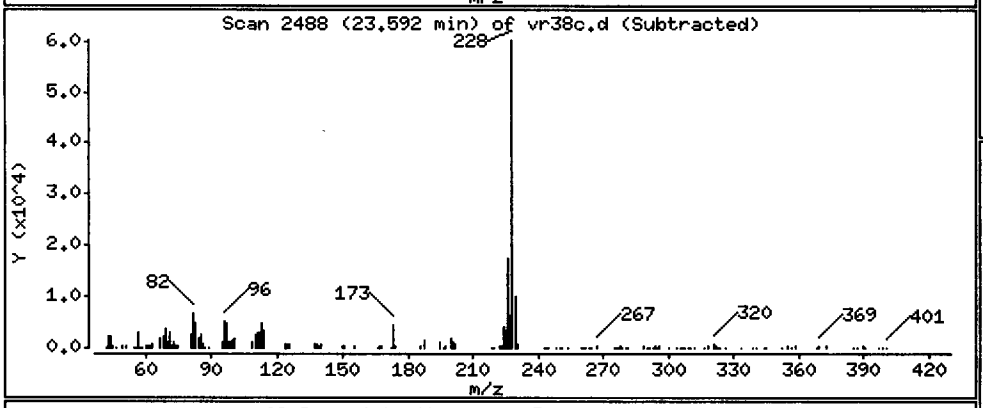
Column phase: ZB-5msi

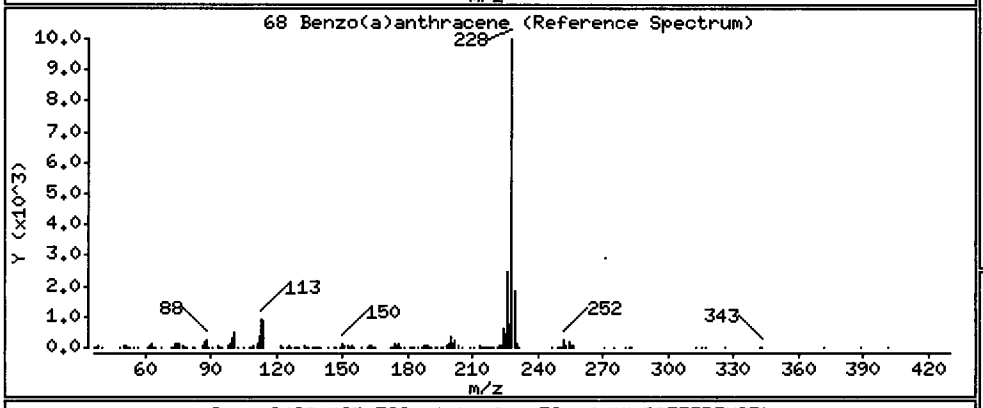
Column diameter: 0.25

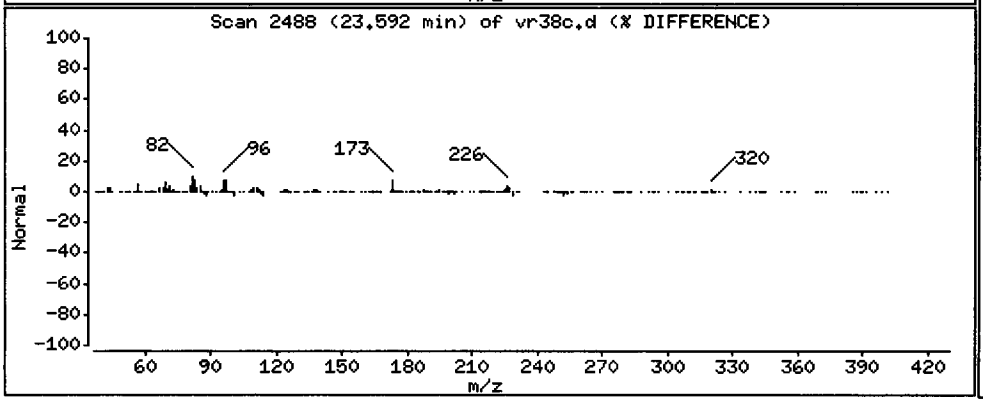
68 Benzo(a)anthracene

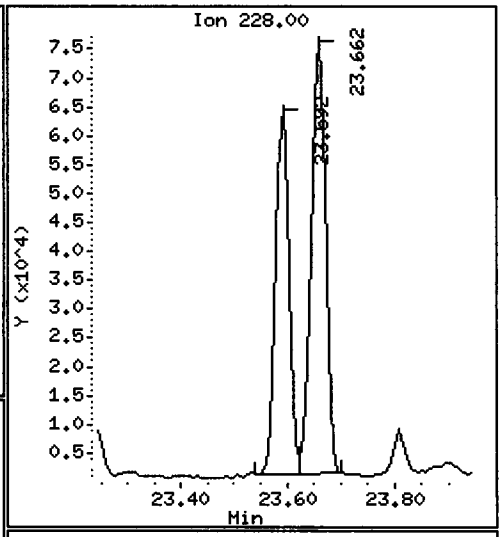
Concentration: 75.28 ug/kg

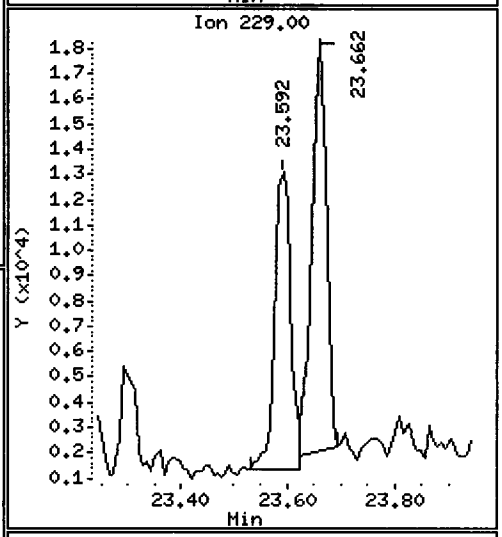


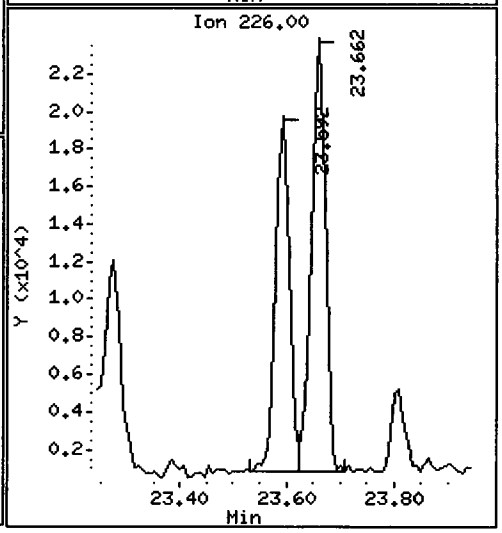












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

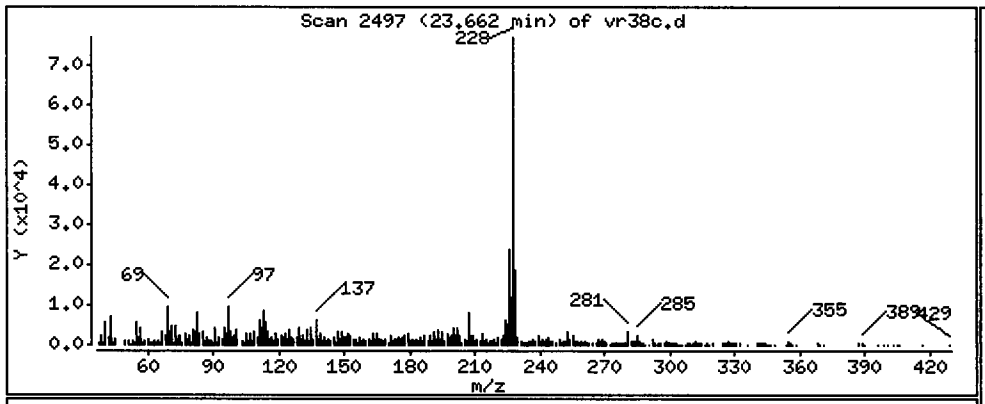
Operator: VTS/YZ

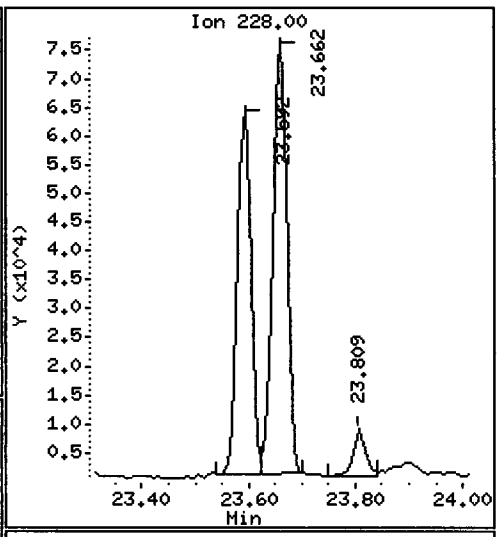
Column phase: ZB-5msi

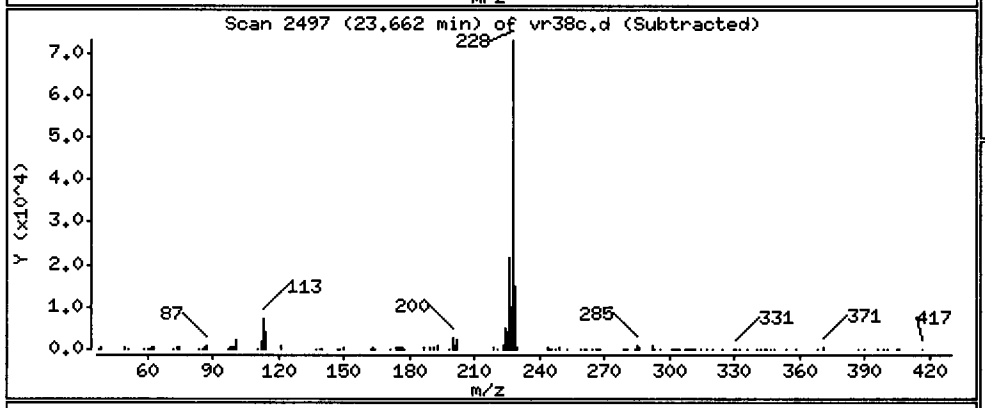
Column diameter: 0.25

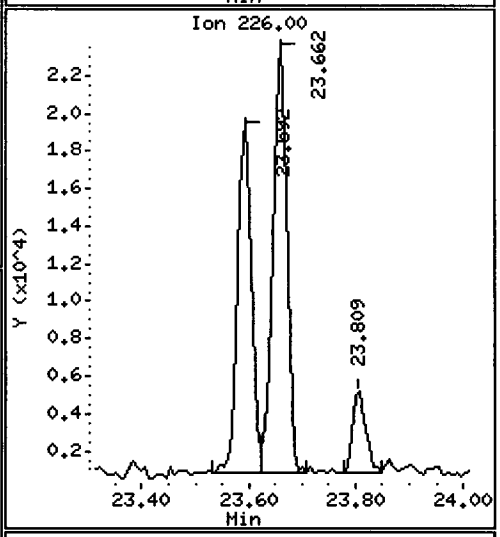
71 Chrysene

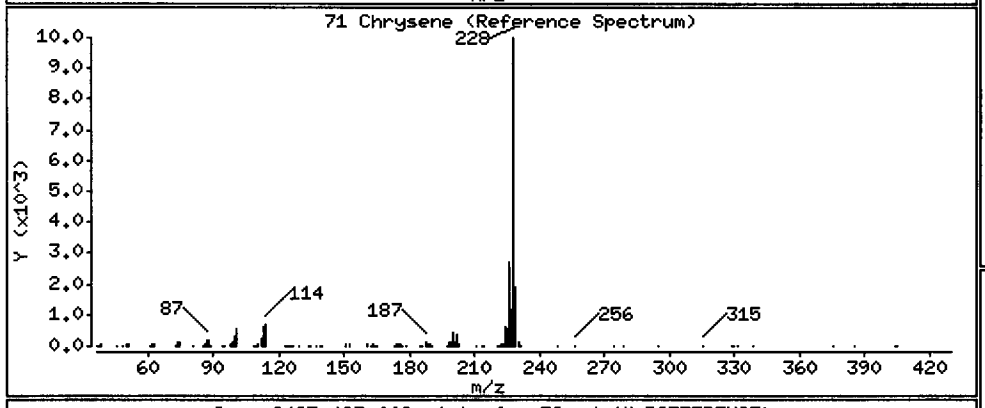
Concentration: 105.9 ug/kg

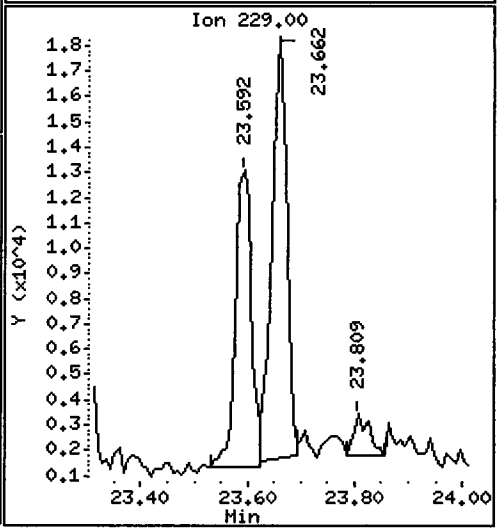


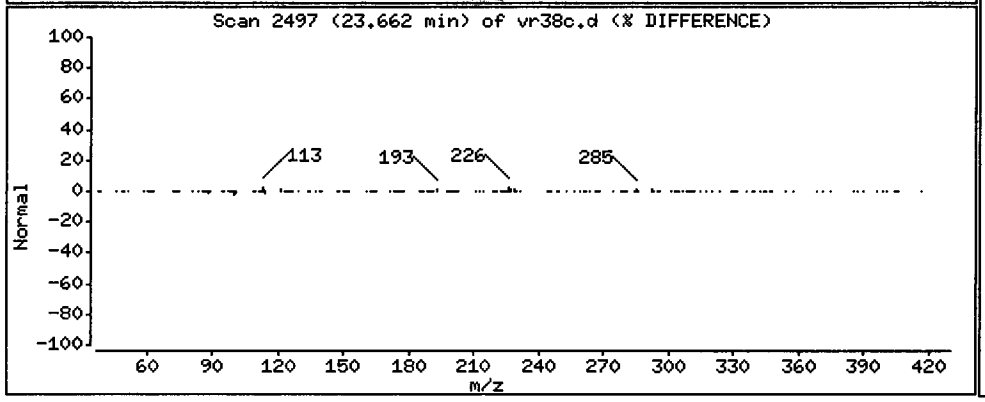












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

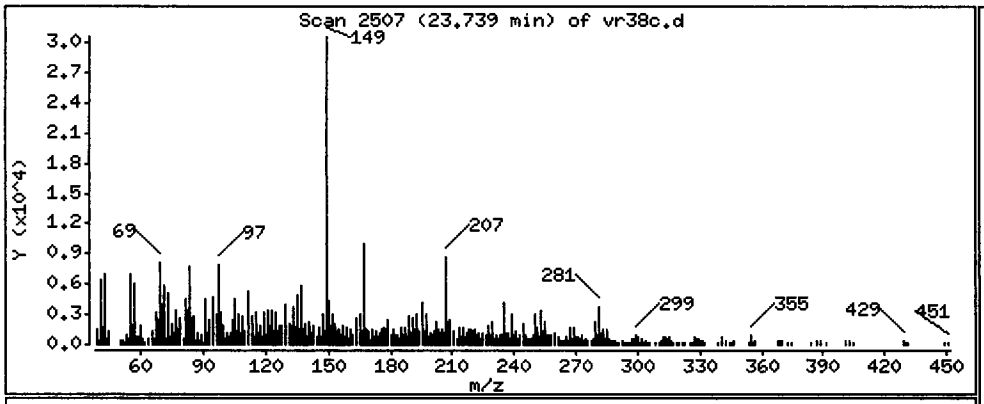
Operator: VTS/YZ

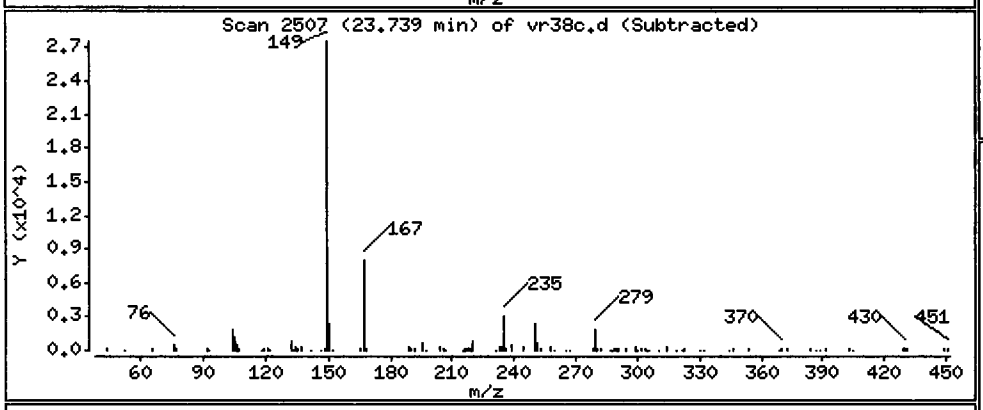
Column phase: ZB-5msi

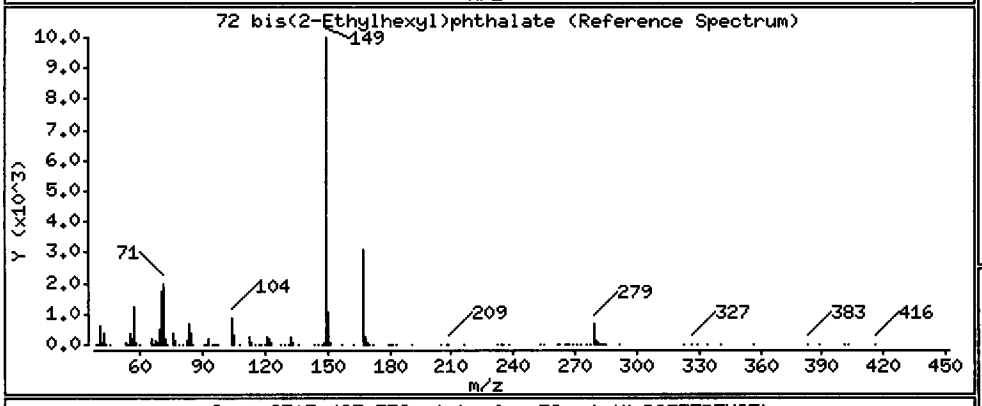
Column diameter: 0.25

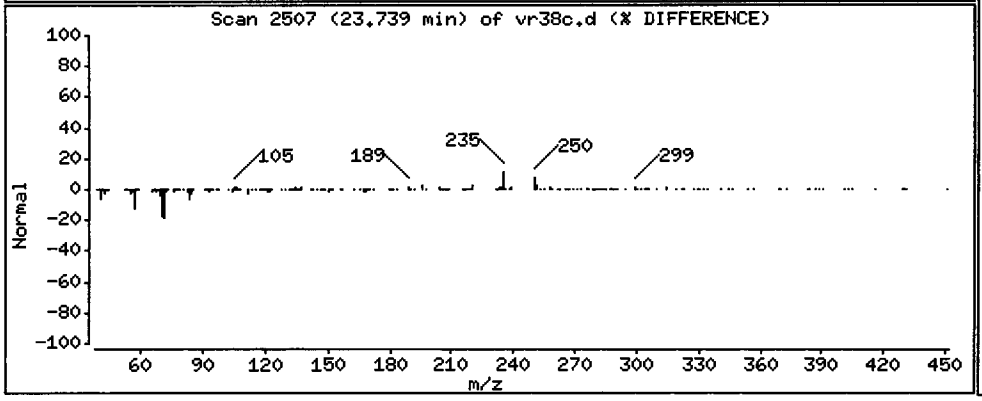
72 bis(2-Ethylhexyl)phthalate

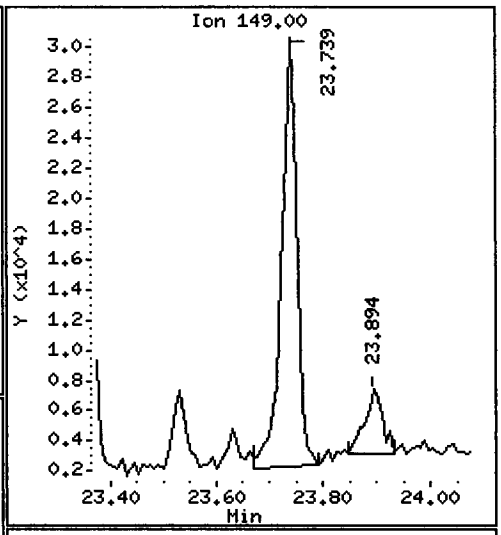
Concentration: 65.55 ug/kg

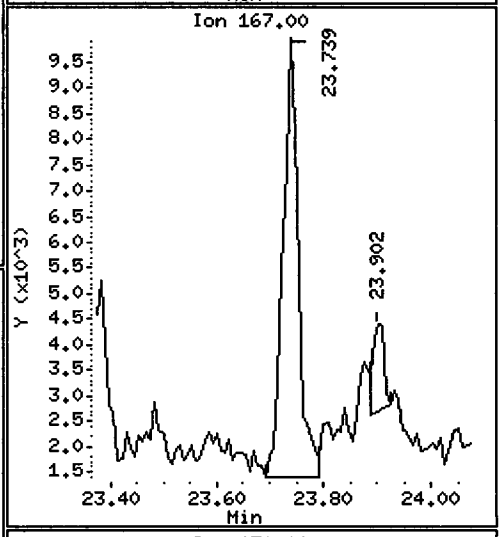


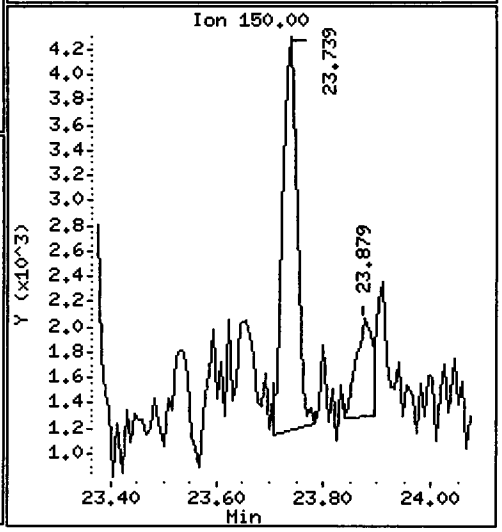












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

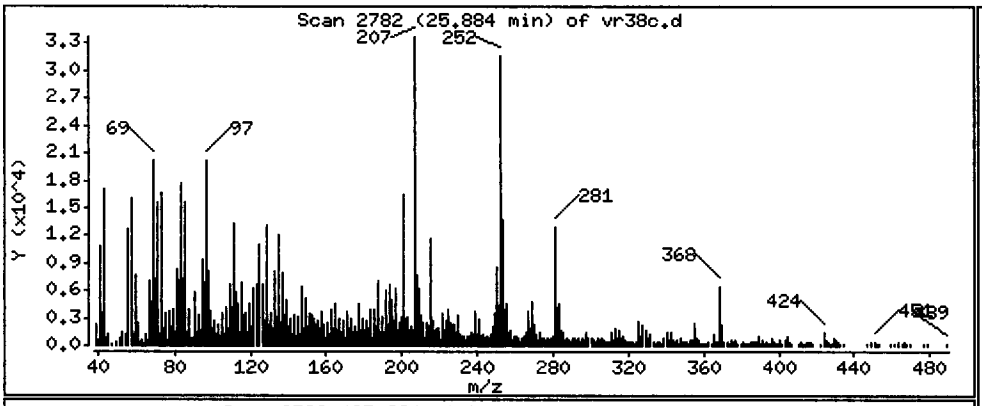
Operator: VTS/YZ

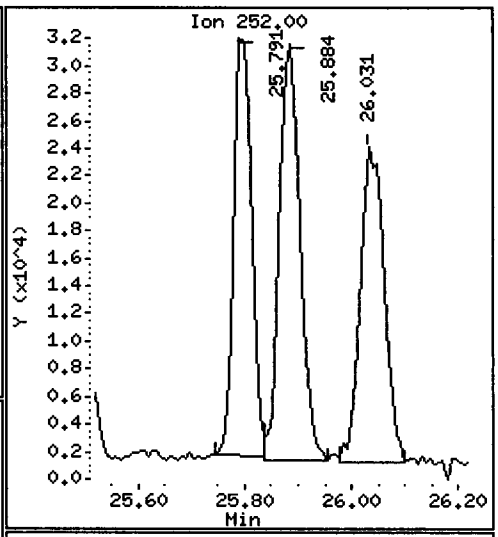
Column phase: ZB-5msi

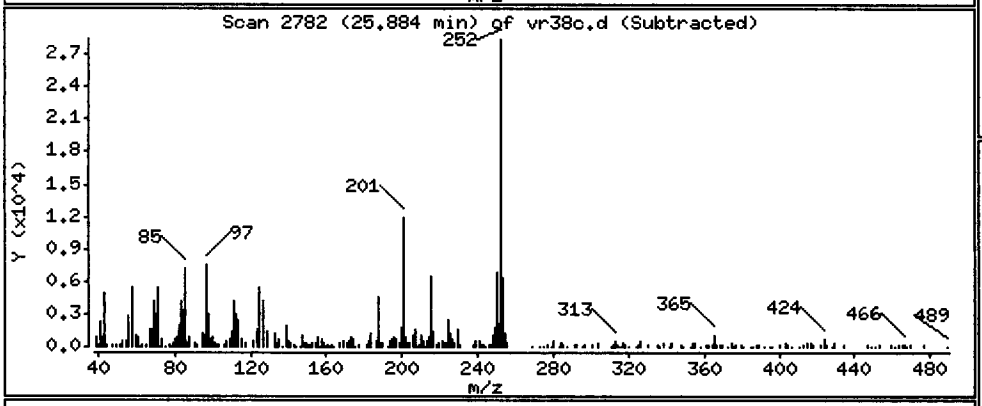
Column diameter: 0.25

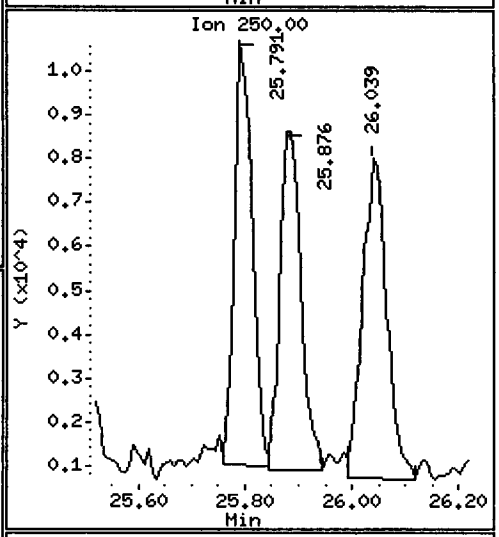
76 Benzo(a)pyrene

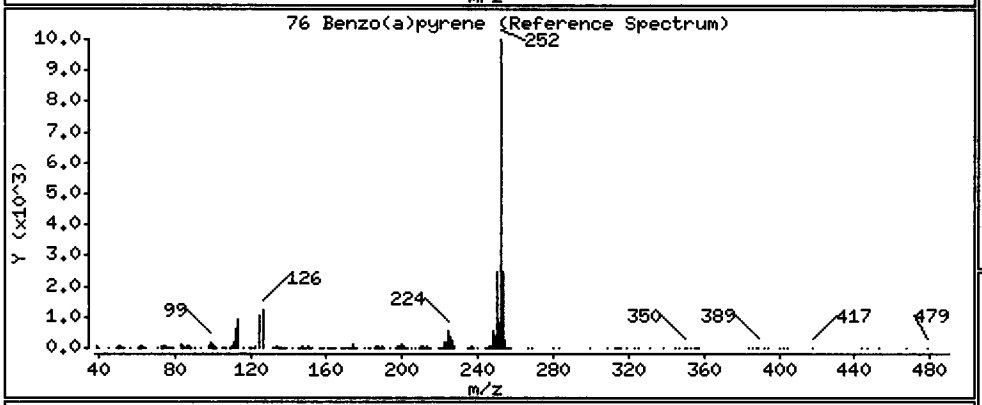
Concentration: 56.63 ug/kg

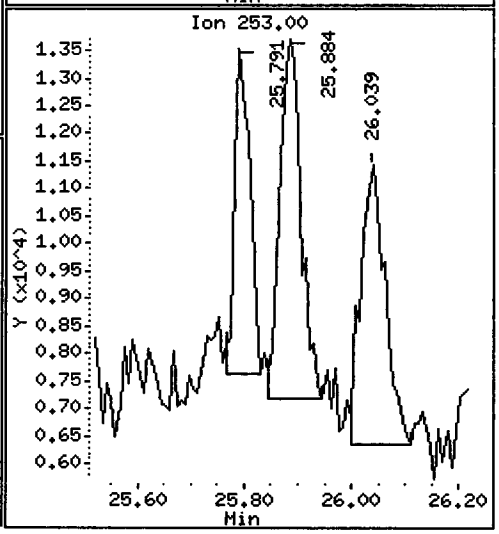


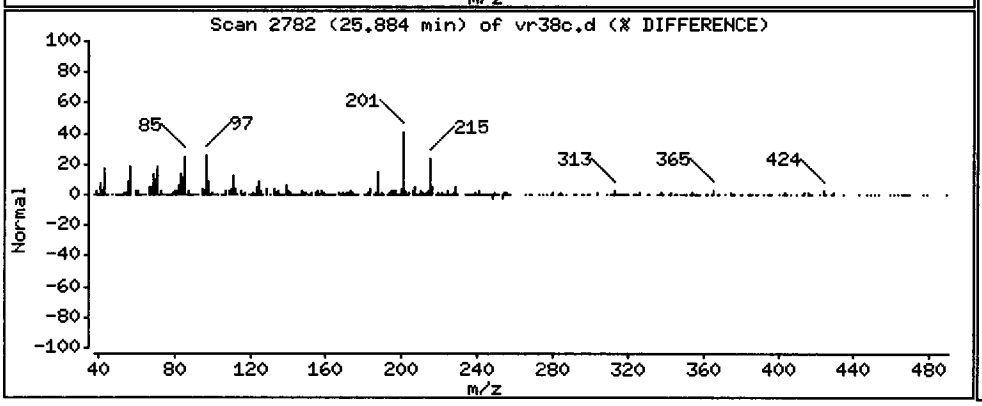












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

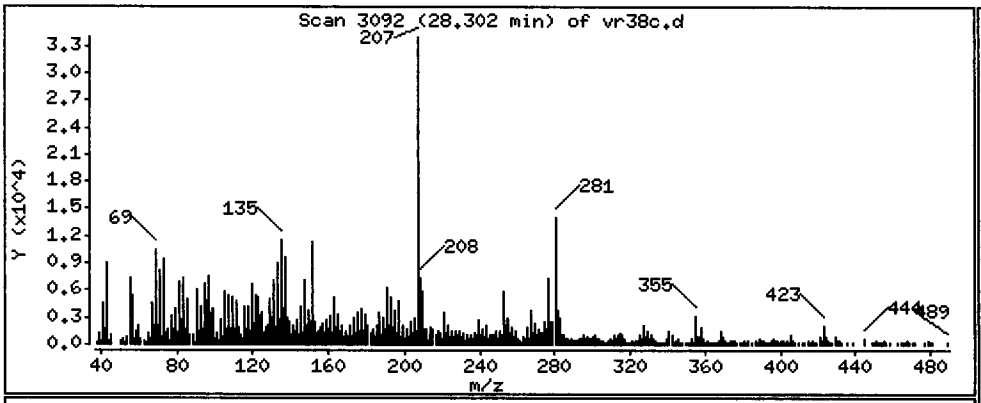
Operator: VTS/YZ

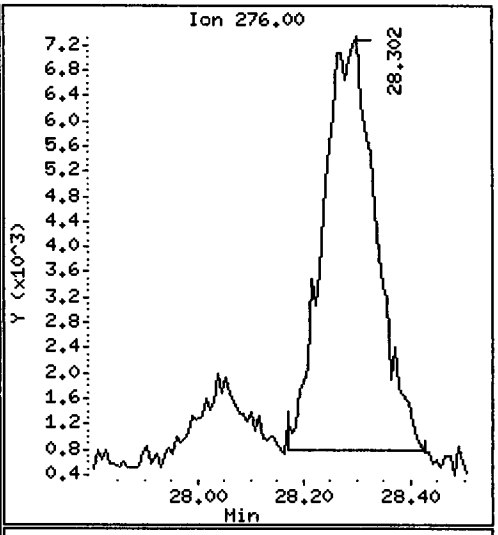
Column phase: ZB-5msi

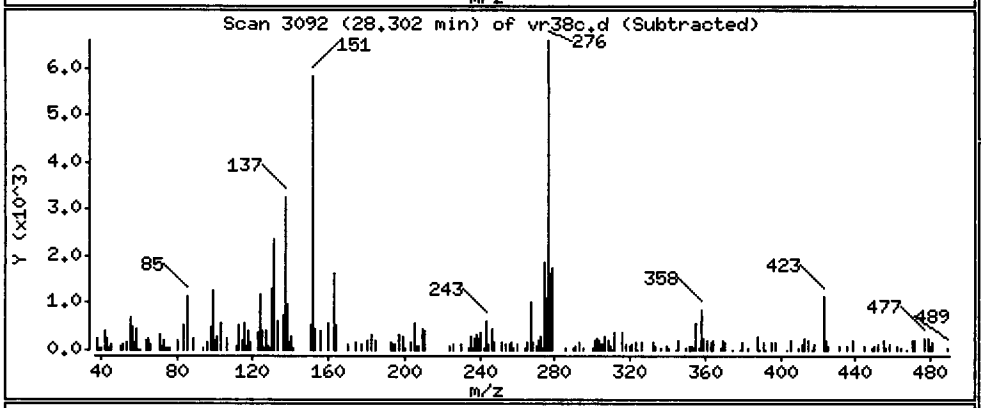
Column diameter: 0.25

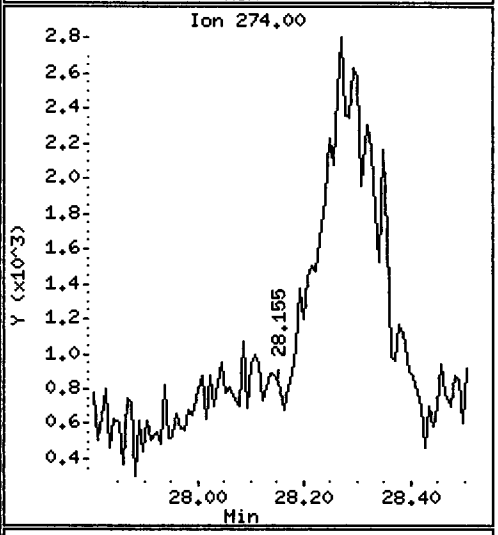
78 Indeno(1,2,3-cd)pyrene

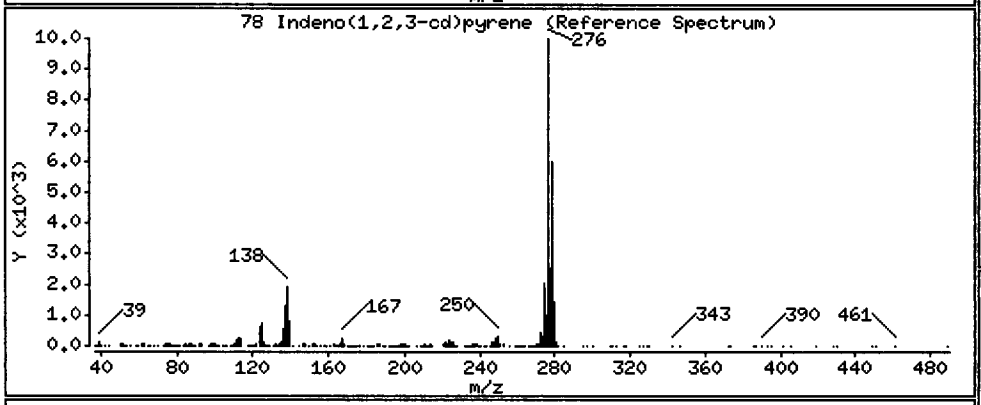
Concentration: 25.23 ug/kg

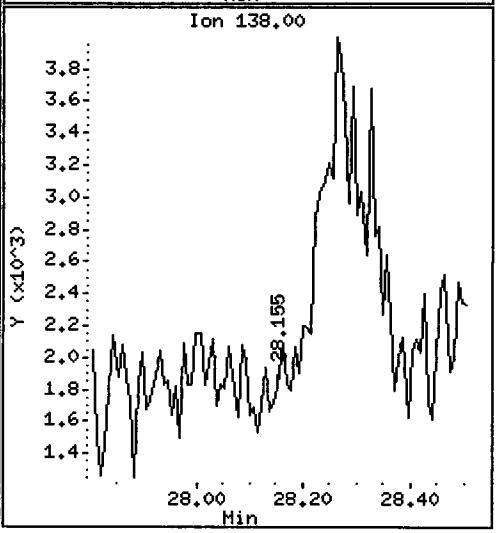


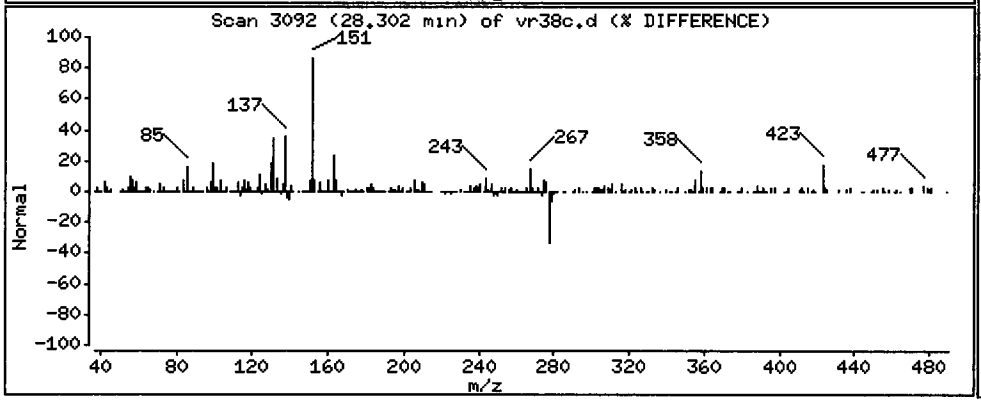












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

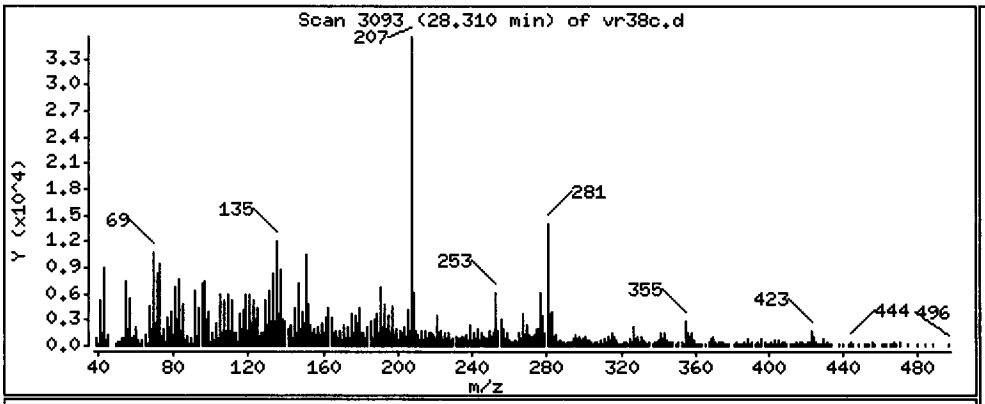
Operator: VTS/YZ

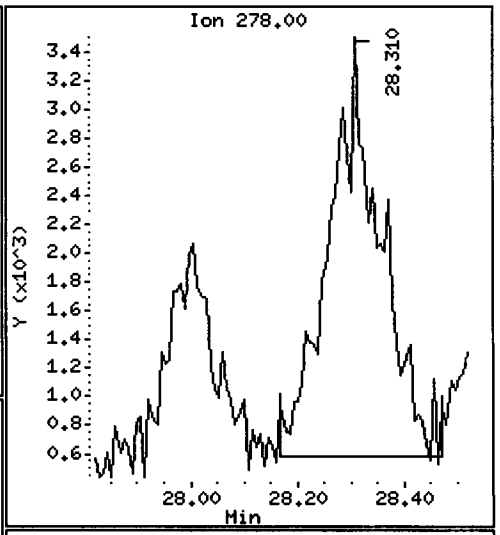
Column phase: ZB-5msi

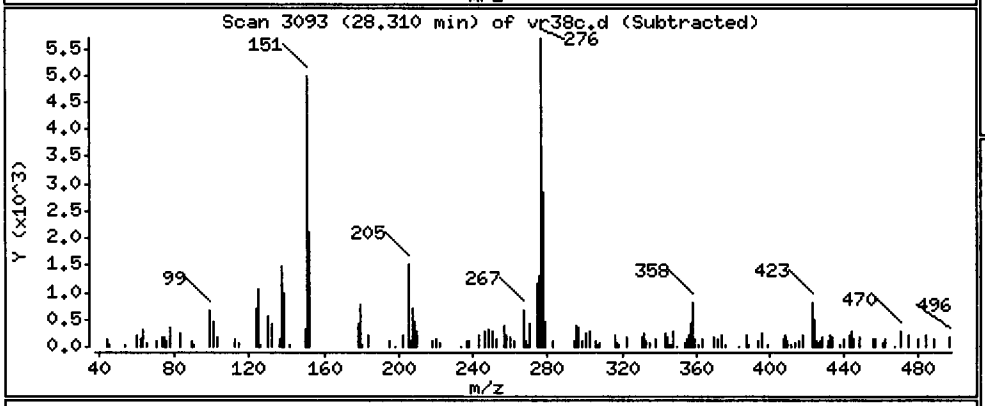
Column diameter: 0.25

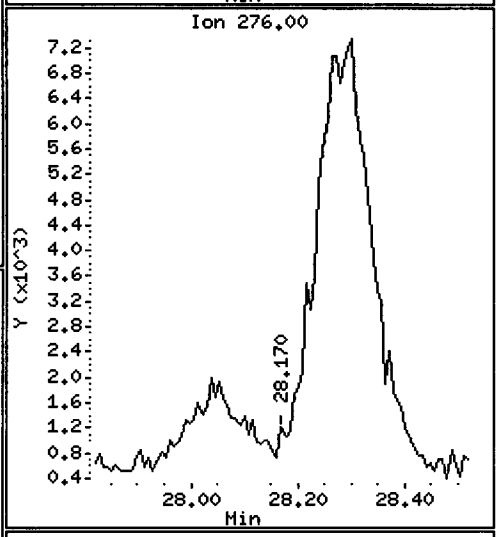
79 Dibenzo(a,h)anthracene

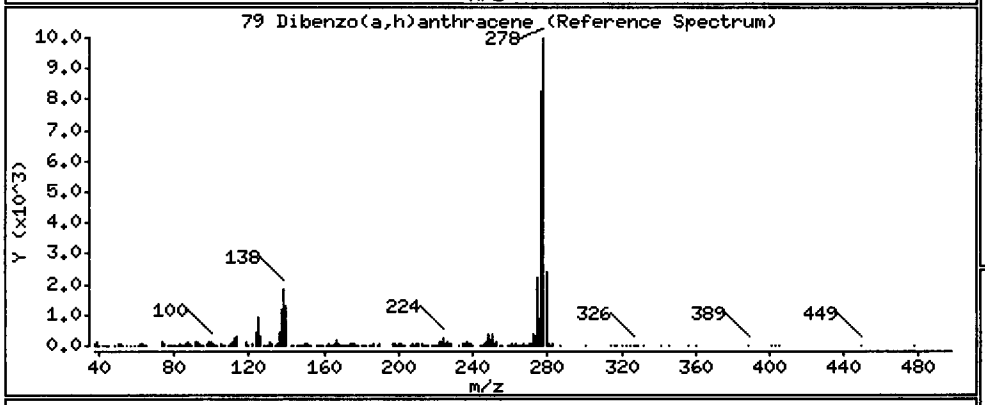
Concentration: 13.69 ug/kg

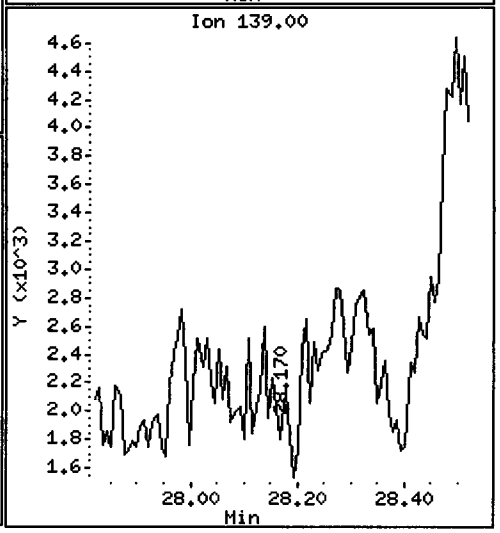


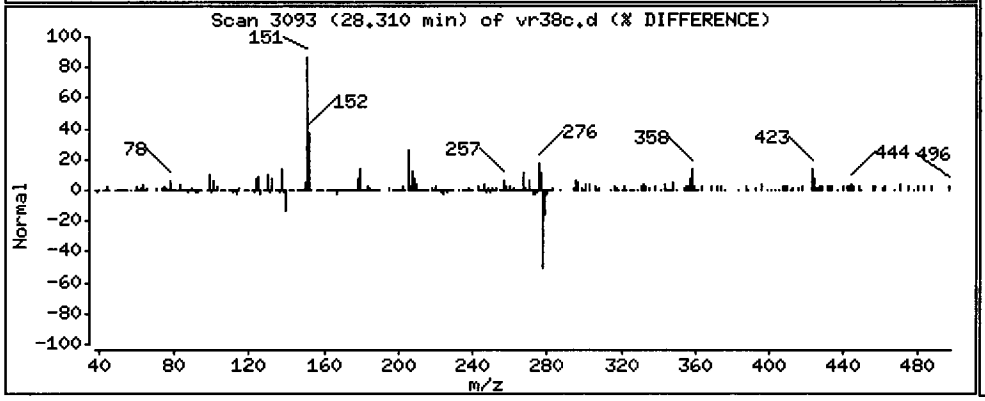












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

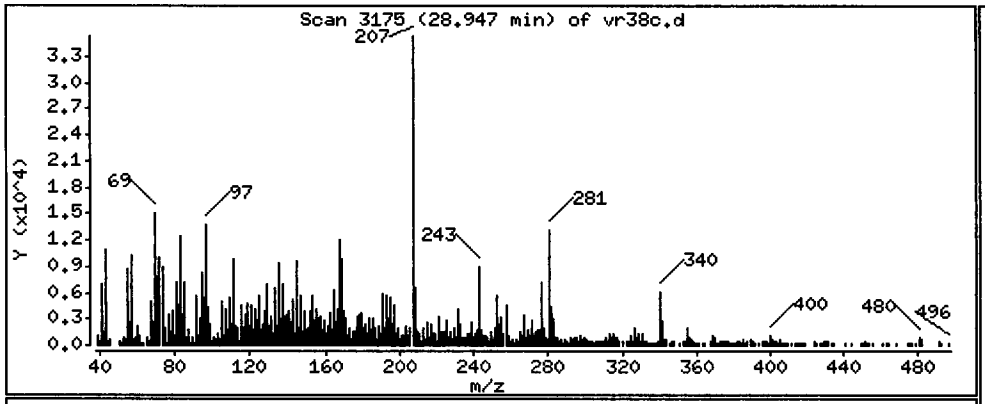
Operator: VTS/YZ

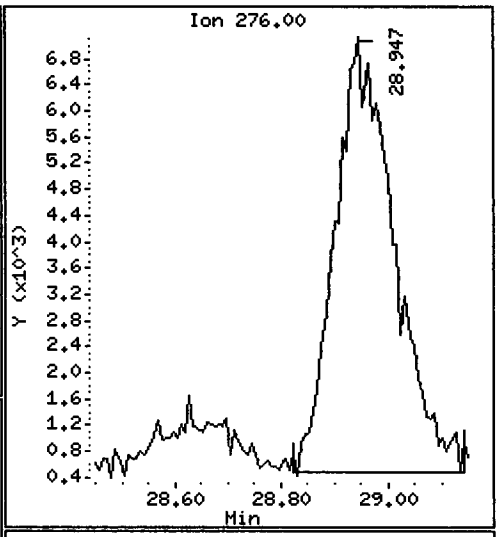
Column phase: ZB-5msi

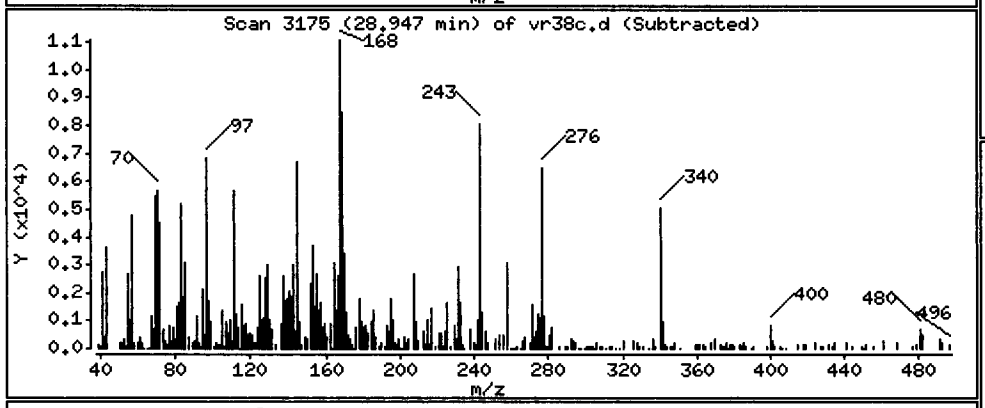
Column diameter: 0.25

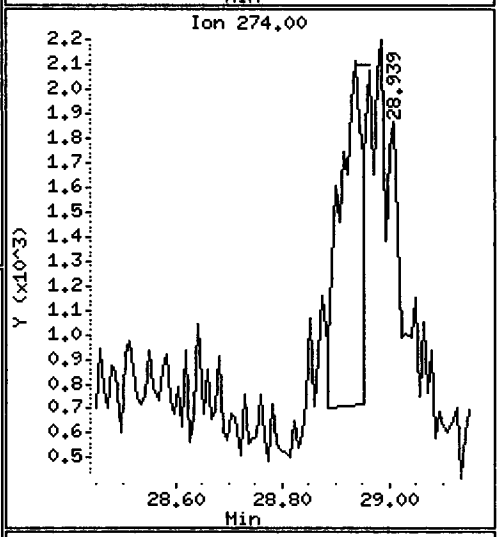
80 Benzo(g,h,i)perylene

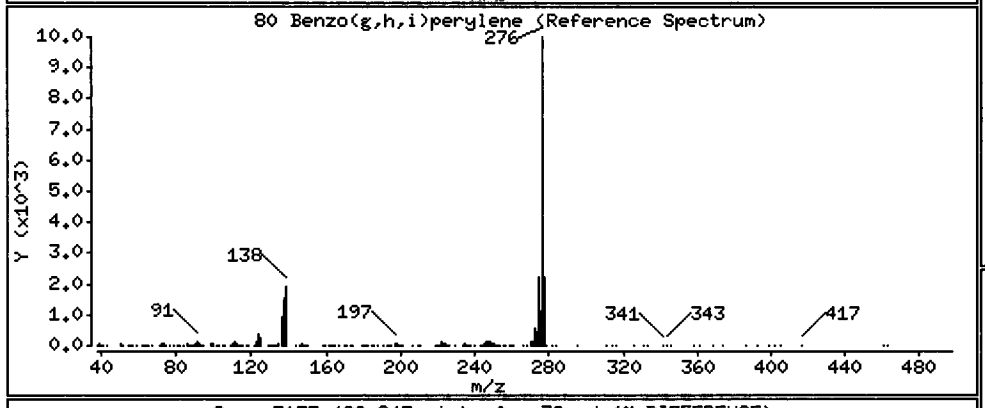
Concentration: 33.33 ug/kg

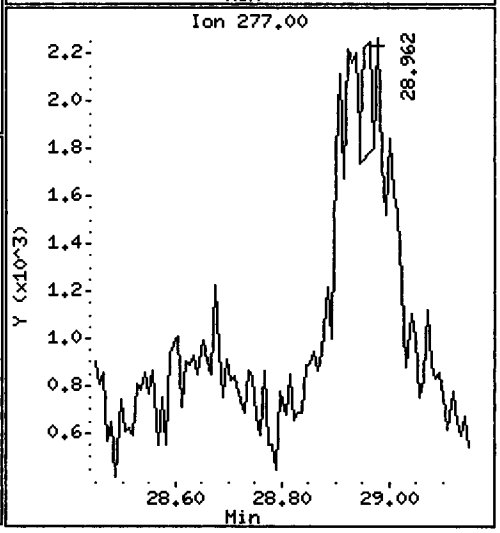


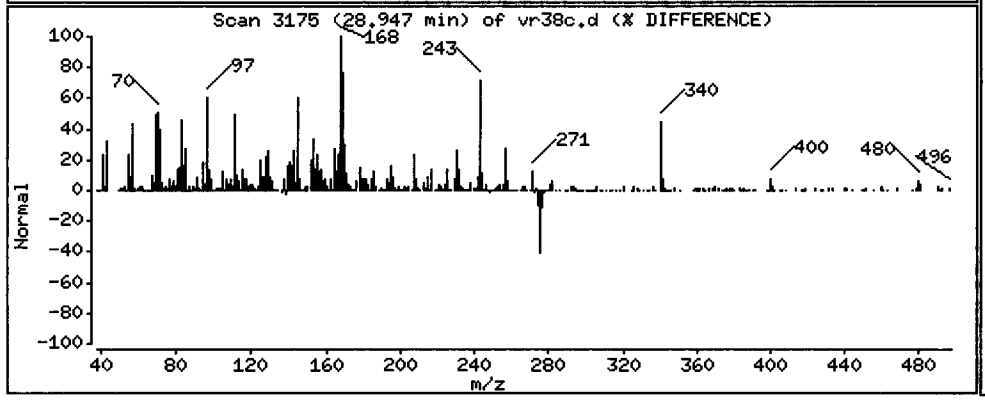












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

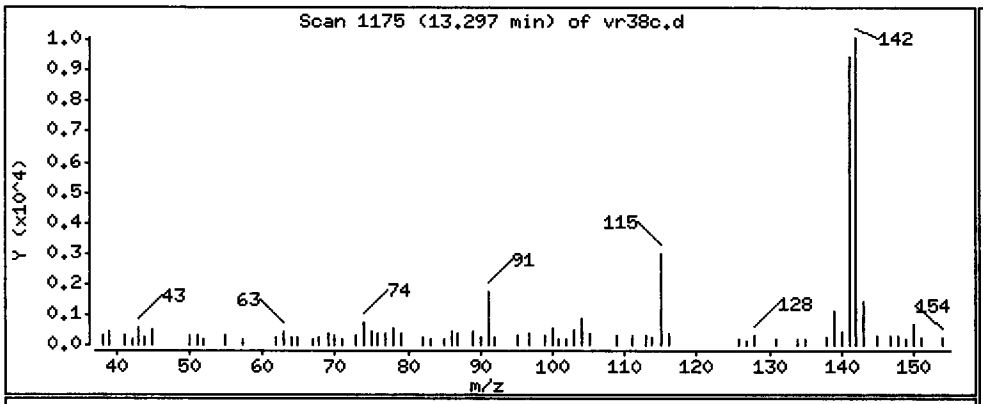
Operator: VTS/YZ

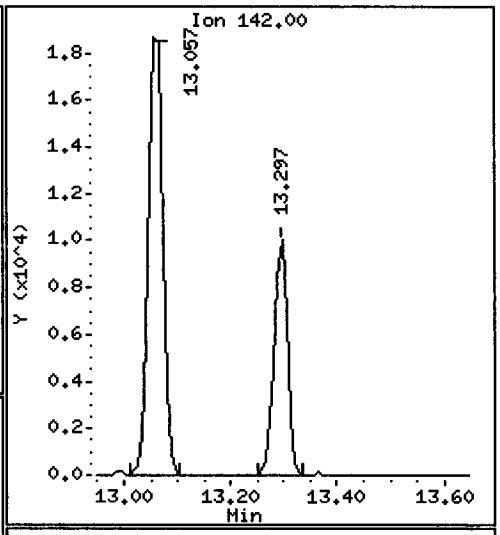
Column phase: ZB-5msi

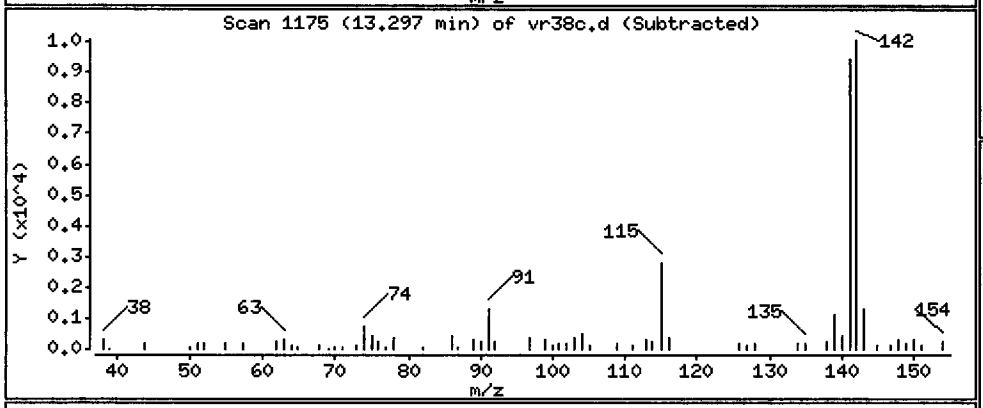
Column diameter: 0.25

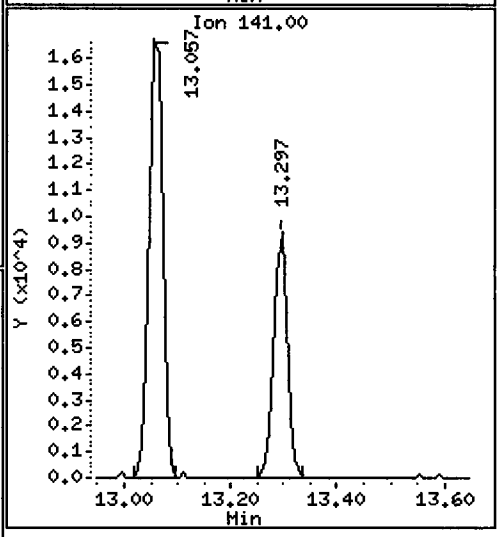
105 1-methylnaphthalene

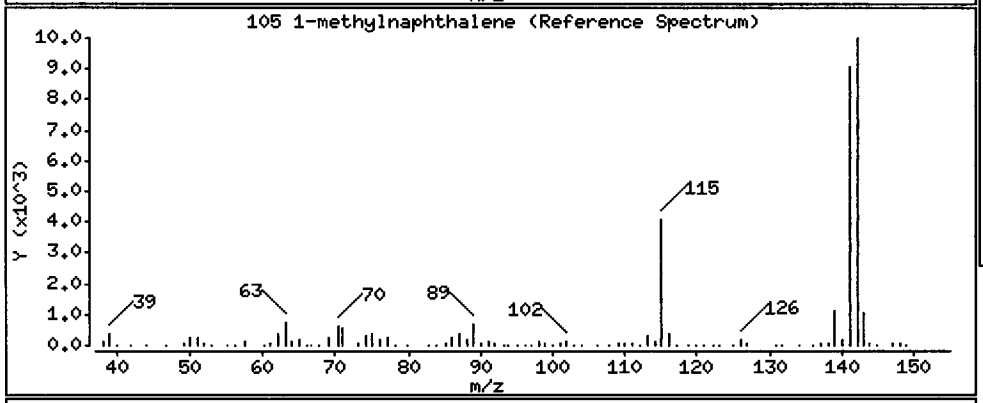
Concentration: 26.79 ug/kg

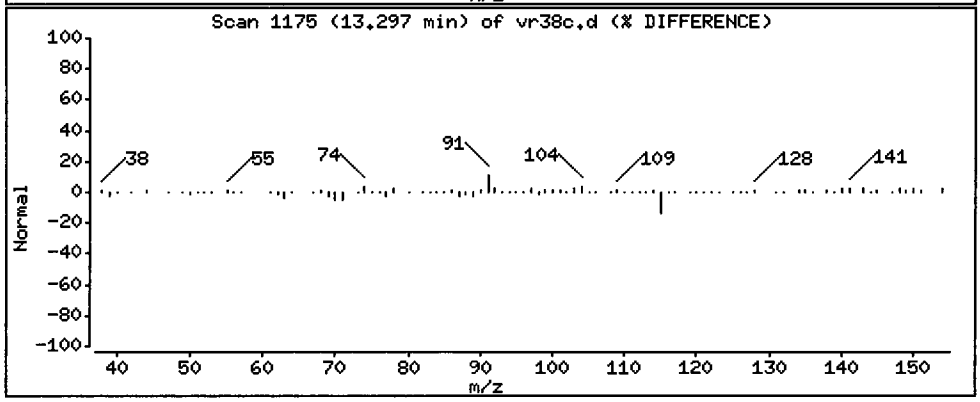












Data File: /chem1/nt10.i/20121119.b/vr38c.d

Date : 19-NOV-2012 16:39

Client ID: HT-03-S-C-121106

Instrument: nt10.i

Sample Info: VR38C

Volume Injected (uL): 1.0

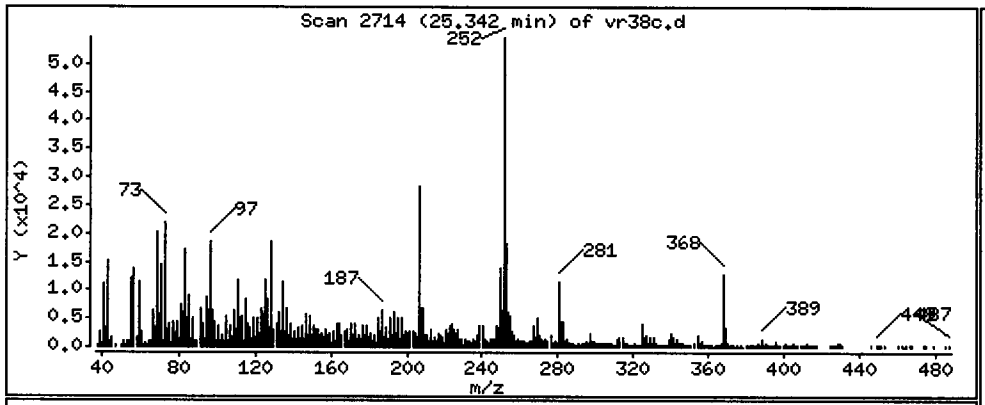
Operator: VTS/YZ

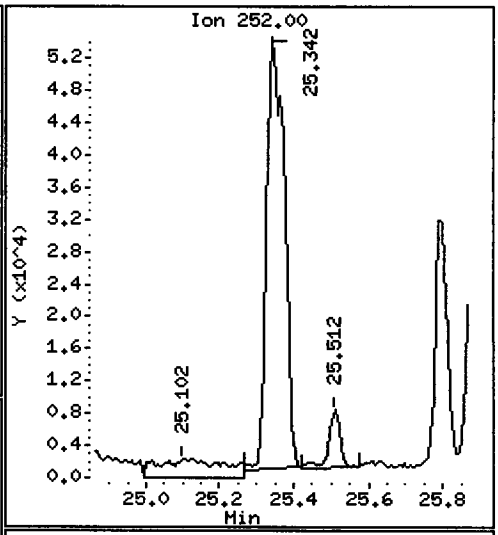
Column phase: ZB-5msi

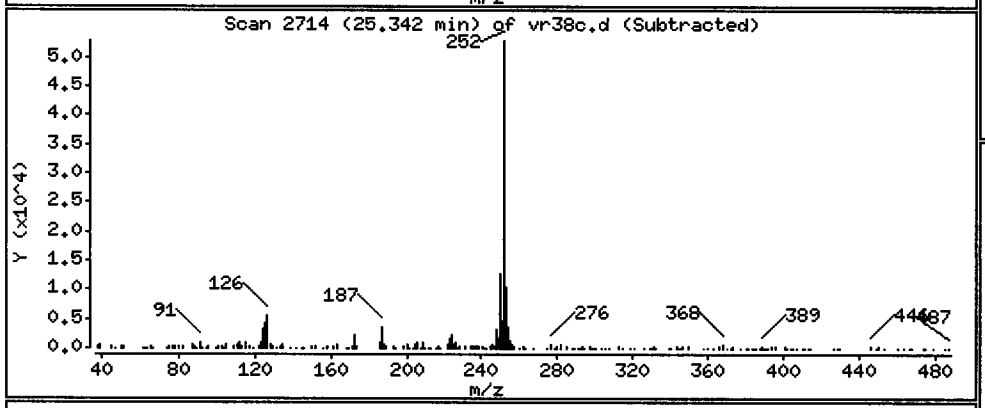
Column diameter: 0.25

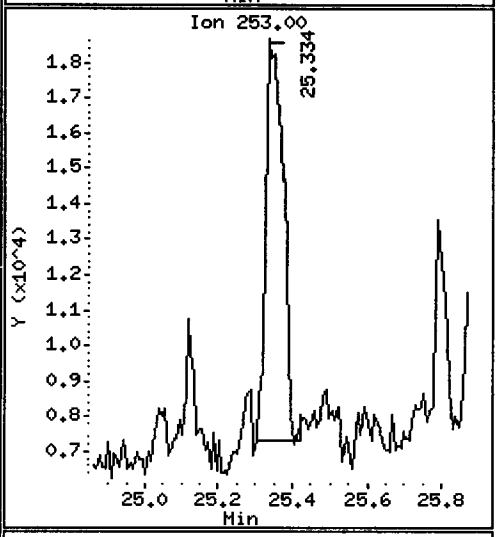
187 Total Benzofluoranthenes

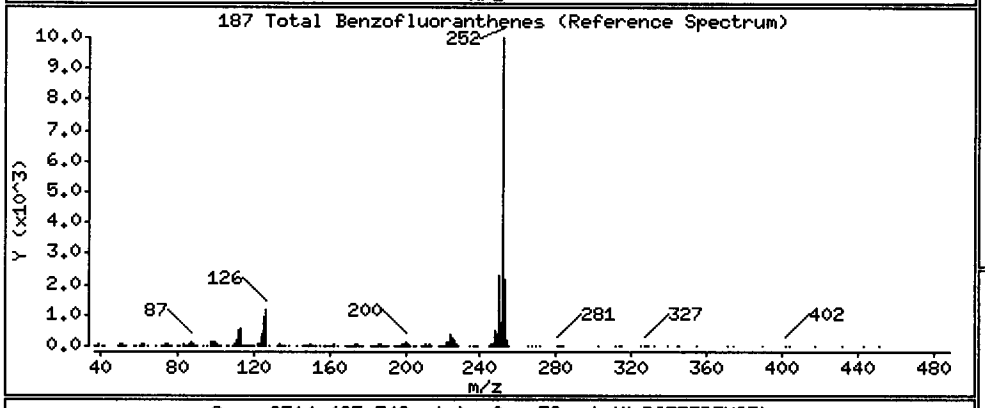
Concentration: 118.7 ug/kg

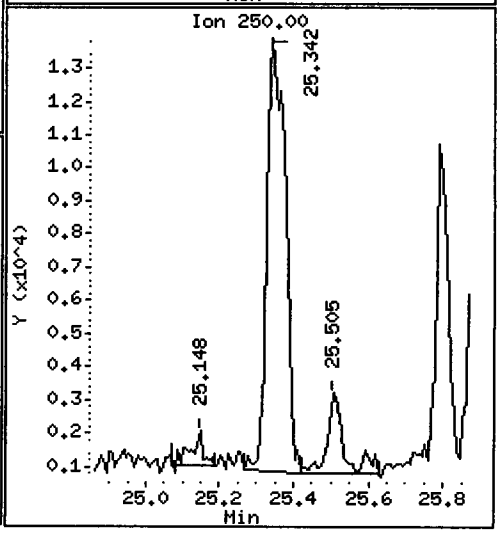


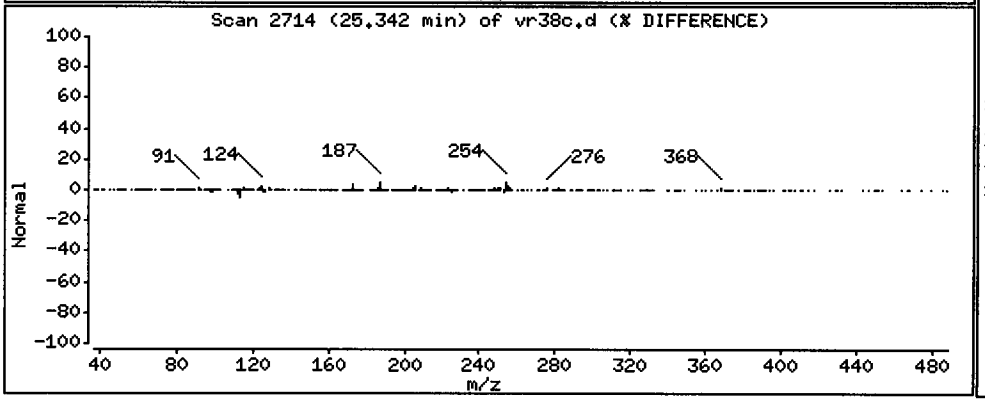






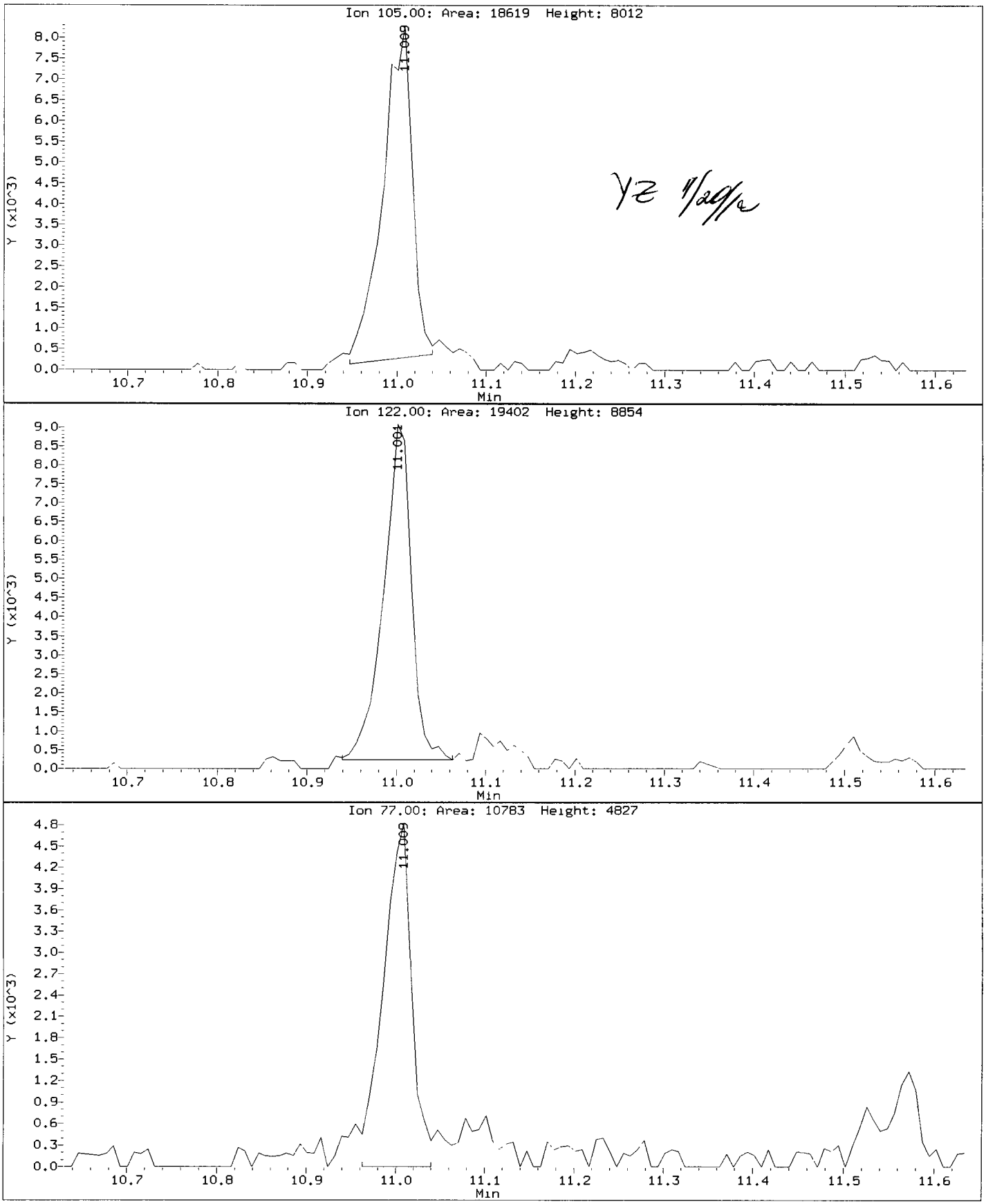






Data File: /chem1/nt10.1/20121119.b/vr38c.d
Injection Date: 19-NOV-2012 16:39
Instrument: nt10.1
Client Sample ID: HT-03-S-C-121106

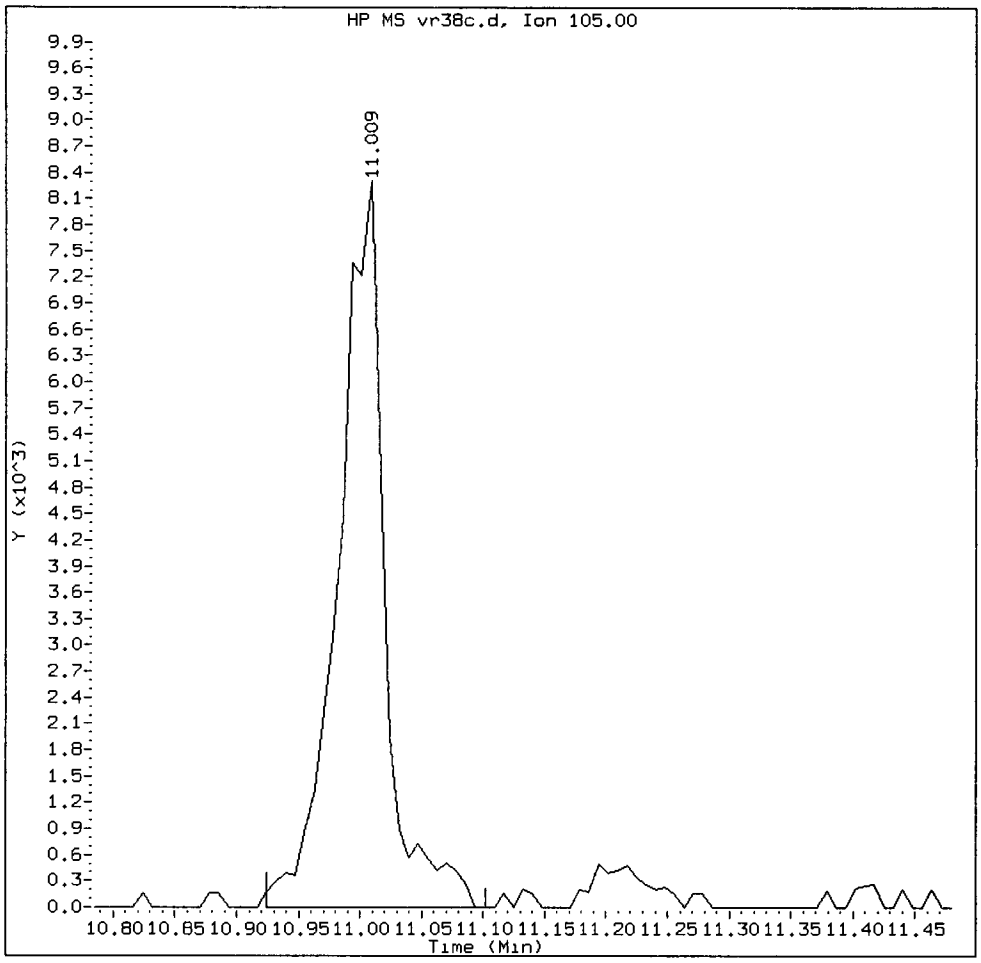
Compound: Benzoic acid
CAS Number: 65-85-0



YZ 1/29/12

VR38C, /chem1/nt10.i/20121119.b/vr38c.d

Benzoic acid Amount: 1.01 Area: 22599



MANUAL INTEGRATION for Benzoic acid

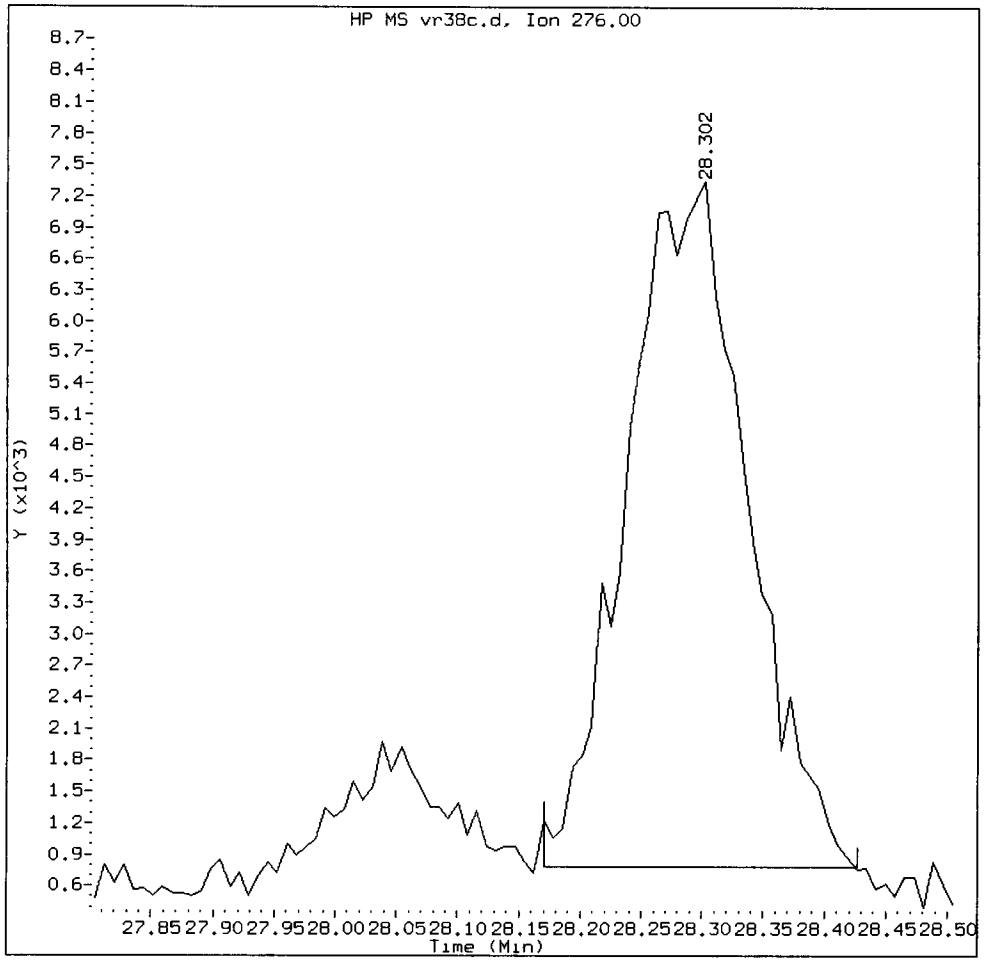
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 11/20/12

VR38C, /chem1/nt10.i/20121119.b/vr38c.d

Indeno(1,2,3-cd)pyrene Amount: 0.26 Area: 46010



MANUAL INTEGRATION for Indeno(1,2,3-cd)pyrene

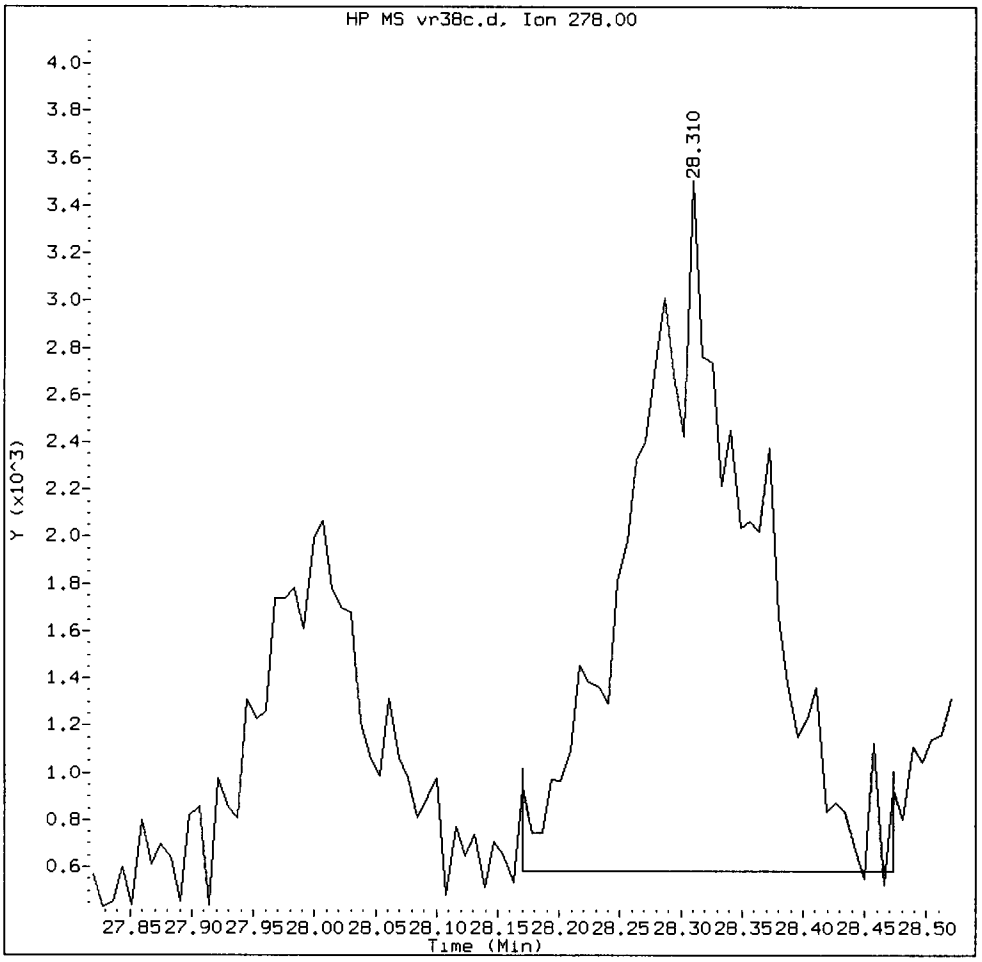
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 11/20/12

VR38C, /chem1/nt10.i/20121119.b/vr38c.d

Dibenzo(a,h)anthracene Amount: 0.14 Area: 20018



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

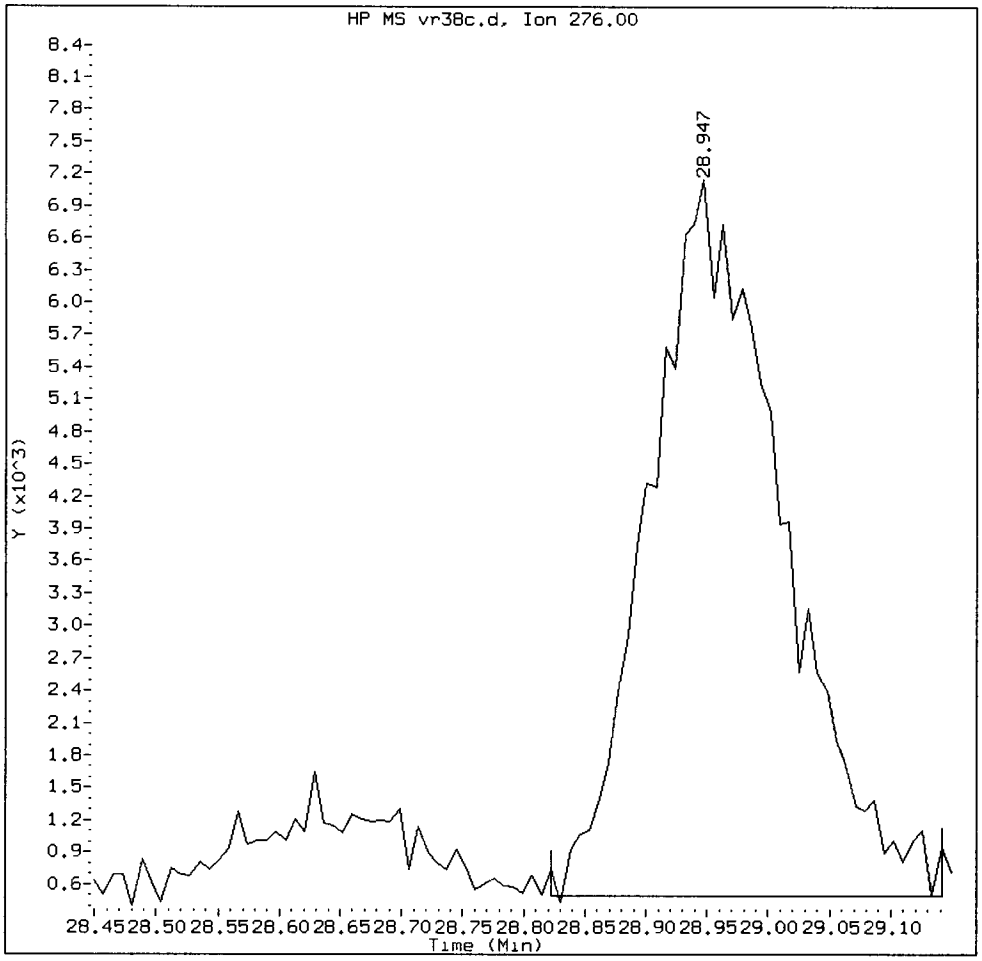
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 11/20/12

VR38C, /chem1/nt10.i/20121119.b/vr38c.d

Benzo(g,h,i)perylene Amount: 0.35 Area: 50893



MANUAL INTEGRATION for Benzo(g,h,i)perylene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 11/26/12

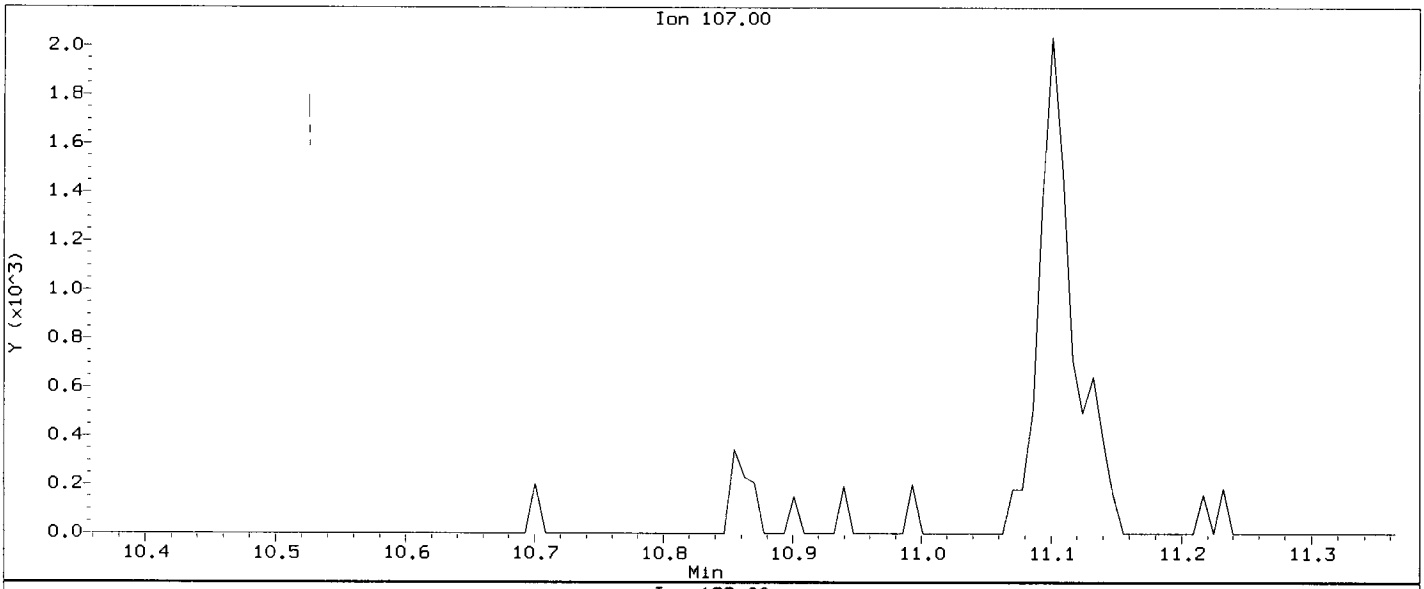
CO-ELUTION SUMMARY FOR FILE - vr38c.d

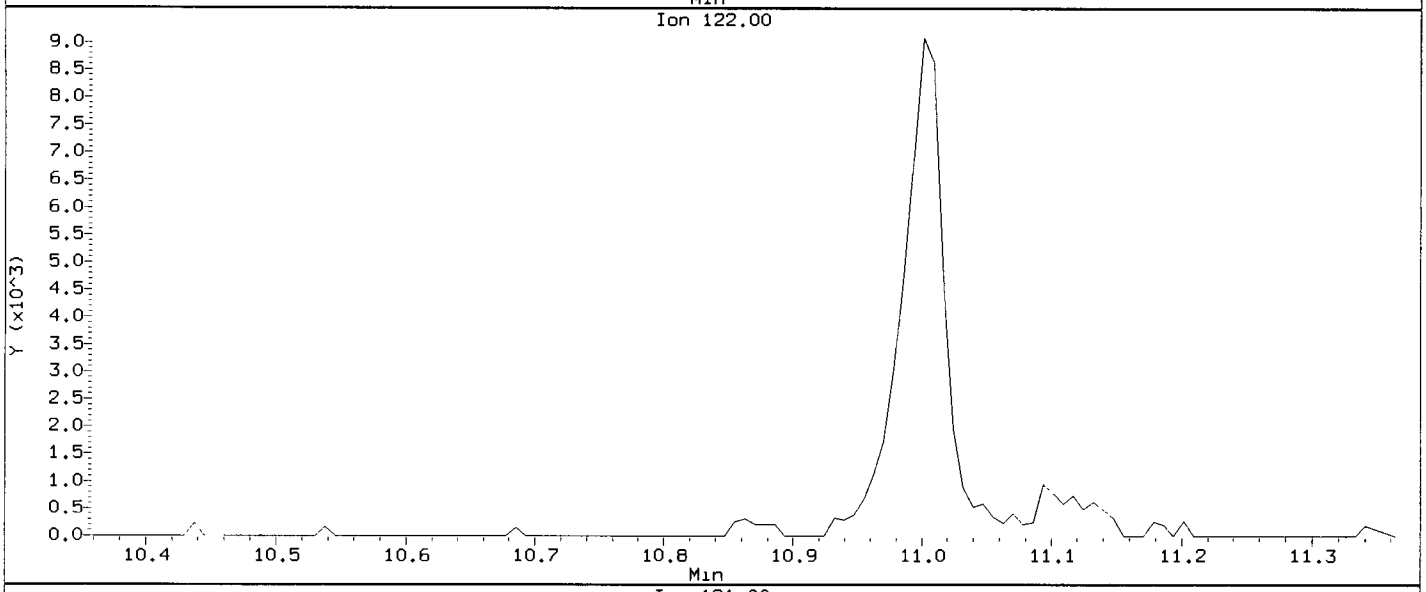
Lab ID: VR38C, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

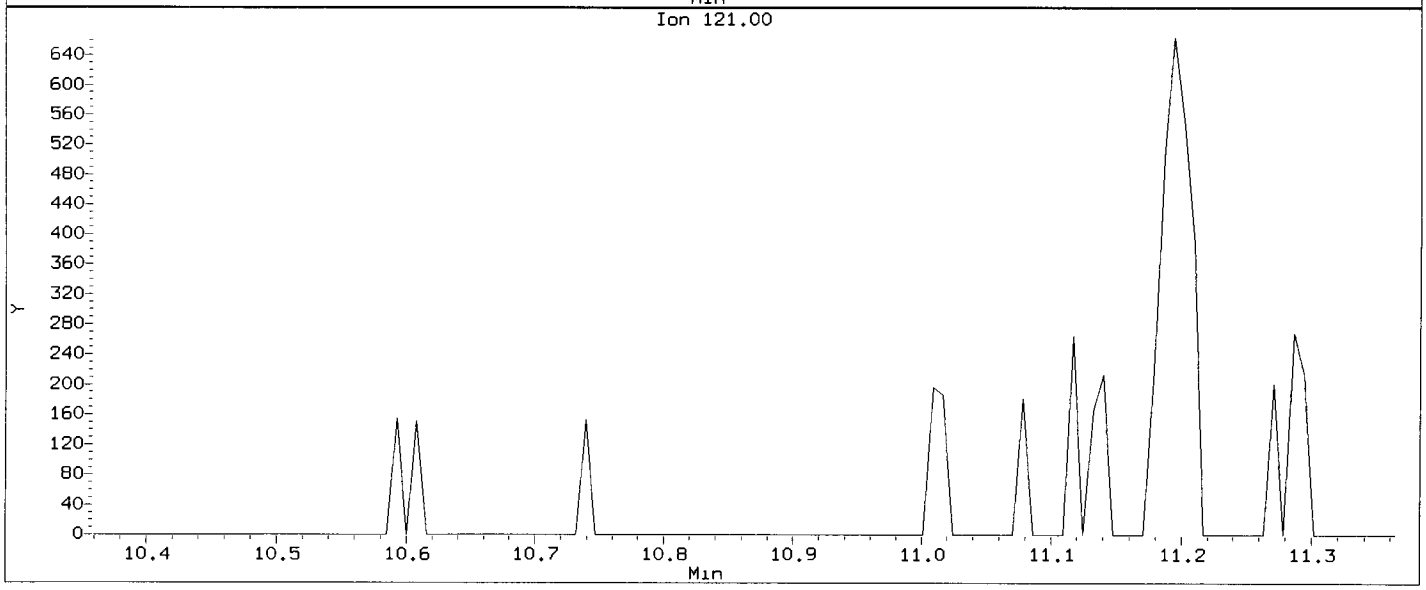
RT	CO-ELUTION COMPOUNDS

Data File: /chem1/nt10.1/20121119.b/vr38c.d
Injection Date: 19-NOV-2012 16:39
Instrument: nt10.1
Client Sample ID: HT-03-S-C-121106

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

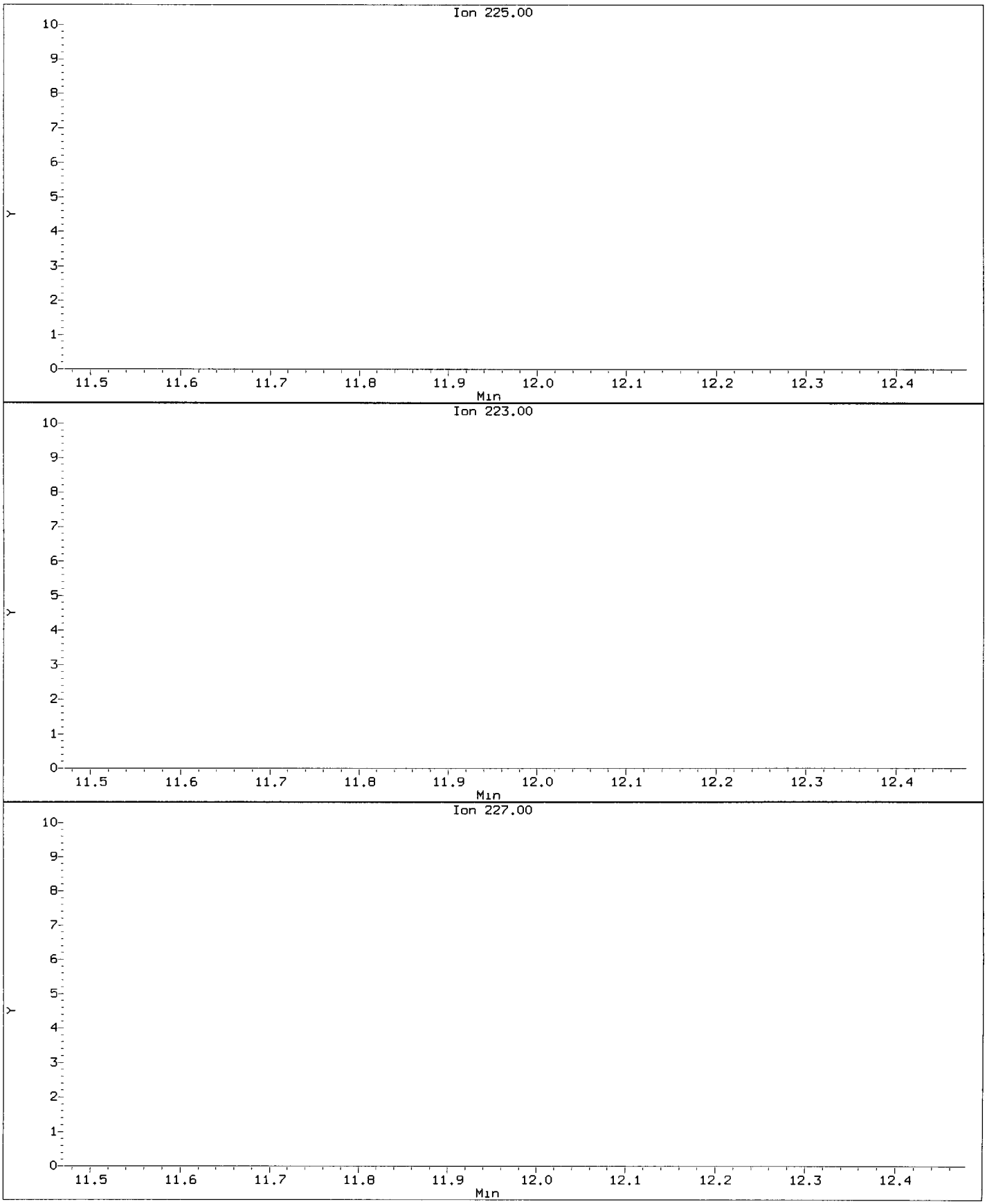






Data File: /chem1/nt10.1/20121119.b/vr38c.d
Injection Date: 19-NOV-2012 16:39
Instrument: nt10.1
Client Sample ID: HT-03-S-C-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

YZ 11/20/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38d.d
Lab Smp Id: VR38D Client Smp ID: HT-04-S-C-121106
Inj Date : 19-NOV-2012 17:16
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38D
Misc Info : 12-22270
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	17.10000	Weight of sample extracted (g)
M	40.70000	% 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	6.620	6.597	(0.743)	156472	6.14474	606.0
$	2 Phenol-d5	99	8.289	8.282	(0.931)	169844	6.56333	647.3
	3 Phenol	94	8.313	8.305	(0.933)	50237	1.82323	179.8
$	5 2-Chlorophenol-d4	132	8.537	8.529	(0.958)	212341	5.99249	591.0
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	96129	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.288	9.281	(1.043)	89272	3.69449	364.3
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.219	9.211	(1.035)	31475	2.14789	211.8
	13 2-Methylphenol	108	9.483	9.467	(1.064)	4237	0.15731	15.51
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	9.770	9.762	(1.097)	41246	1.48870	146.8
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	40062	1.90023	187.4
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)	
	24 Benzoic acid	105	11.094	11.132	(0.962)	83164	3.92742	387.3	
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	358266	4.00000		
	28 Naphthalene	128	11.572	11.572	(1.003)	354067	3.82662	377.4	
	30 Hexachlorobutadiene	225	Compound Not Detected.						
	32 2-Methylnaphthalene	142	13.065	13.065	(1.133)	115982	1.90595	188.0	
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.904)	316840	4.28563	422.6	
	39 Dimethylphthalate	163	Compound Not Detected.						
	40 Acenaphthylene	152	15.046	15.046	(0.978)	16722	0.16756 J	16.52	(MH)
*	42 Acenaphthene-d10	164	15.386	15.386	(1.000)	208114	4.00000		
	44 Acenaphthene	153	15.456	15.456	(1.005)	73965	1.23571	121.9	
	46 Dibenzofuran	168	15.804	15.804	(1.027)	216814	2.77873	274.0	
	50 Diethylphthalate	149	16.469	16.477	(1.070)	14194	0.23989	23.66	
	49 Fluorene	166	16.569	16.569	(1.077)	158970	2.31202	228.0	
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.						
$	55 2,4,6-Tribromophenol	330	17.148	17.140	(1.114)	52440	6.40884	632.0	
	57 Hexachlorobenzene	284	17.966	17.966	(0.965)	4323	0.22791	22.48	
	58 Pentachlorophenol	266	18.376	18.369	(0.987)	4079	0.24678	24.34	
*	59 Phenanthrene-d10	188	18.624	18.624	(1.000)	362154	4.00000		
	60 Phenanthrene	178	18.678	18.670	(1.003)	841307	8.73058	861.0	
	61 Anthracene	178	18.771	18.763	(1.008)	191965	1.82349	179.8	
	63 Di-n-butylphthalate	149	Compound Not Detected.						
	64 Fluoranthene	202	21.076	21.053	(1.132)	1319283	10.8135	1066	
	65 Pyrene	202	21.494	21.463	(0.909)	1014677	6.21834	613.2	
$	66 Terphenyl-d14	244	21.796	21.781	(0.921)	364300	3.53974	349.1	
	67 Butylbenzylphthalate	149	22.741	22.710	(0.961)	41548	0.65642	64.73	
	68 Benzo(a)anthracene	228	23.623	23.592	(0.999)	385464	2.48025	244.6	
*	69 Chrysene-d12	240	23.654	23.616	(1.000)	504464	4.00000		
	71 Chrysene	228	23.693	23.662	(1.002)	501360	3.68507	363.4	
	72 bis(2-Ethylhexyl)phthalate	149	23.778	23.724	(0.960)	428529	4.67947	461.5	
*	134 Di-n-octylphthalate-d4	153	24.761	24.684	(1.000)	700060	4.00000		
	73 Di-n-octylphthalate	149	Compound Not Detected.						
	76 Benzo(a)pyrene	252	25.969	25.869	(0.996)	228186	1.44703	142.7	
*	77 Perylene-d12	264	26.085	25.969	(1.000)	569610	4.00000		(M)
	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.						
	105 1-methylnaphthalene	142	13.297	13.297	(1.153)	48134	0.83806	82.65	
	187 Total Benzofluoranthenes	252	25.427	25.365	(0.975)	713499	4.23114	417.3	
	98 Retene	219	Compound Not Detected.						
	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: vr38d.d
Lab Smp Id: VR38D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22270

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-04-S-C-121106
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	97486	48743	194972	96129	-1.39
27 Naphthalene-d8	357150	178575	714300	358266	0.31
42 Acenaphthene-d10	217259	108630	434518	208114	-4.21
59 Phenanthrene-d10	355415	177708	710830	362154	1.90
69 Chrysene-d12	390458	195229	780916	504464	29.20
134 Di-n-octylphthala	532303	266152	1064606	700060	31.52
77 Perylene-d12	386299	193150	772598	569610	47.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	0.00
69 Chrysene-d12	23.62	23.12	24.12	23.65	0.16
134 Di-n-octylphthala	24.68	24.18	25.18	24.76	0.31
77 Perylene-d12	25.97	25.47	26.47	26.09	0.45

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.

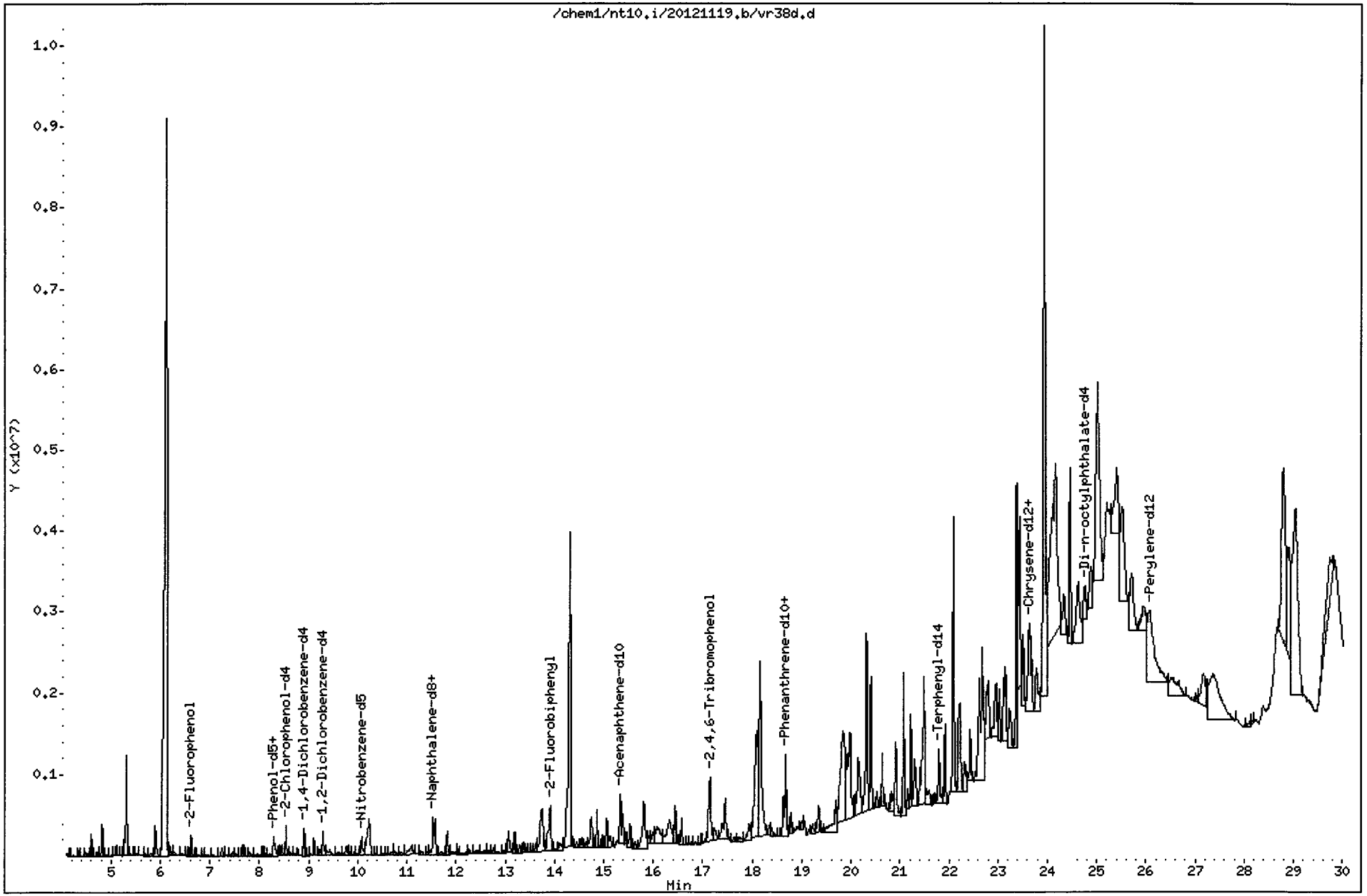
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38D Client Smp ID: HT-04-S-C-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22270

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	739.6	606.0	81.93	30-160
$ 2 Phenol-d5	739.6	647.3	87.51	30-160
$ 5 2-Chlorophenol-d4	739.6	591.0	79.90	30-160
$ 10 1,2-Dichlorobenzen	493.1	364.3	73.89	30-160
$ 18 Nitrobenzene-d5	493.1	187.4	38.00	30-160
$ 36 2-Fluorobiphenyl	493.1	422.6	85.71	30-160
$ 55 2,4,6-Tribromophen	739.6	632.0	85.45	30-160
$ 66 Terphenyl-d14	493.1	349.1	70.79	30-160

Data File: /chem1/nt10.i/20121119.b/vr38d.d
Date : 19-NOV-2012 17:16
Client ID: HT-04-S-C-121106
Sample Info: VR38D
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

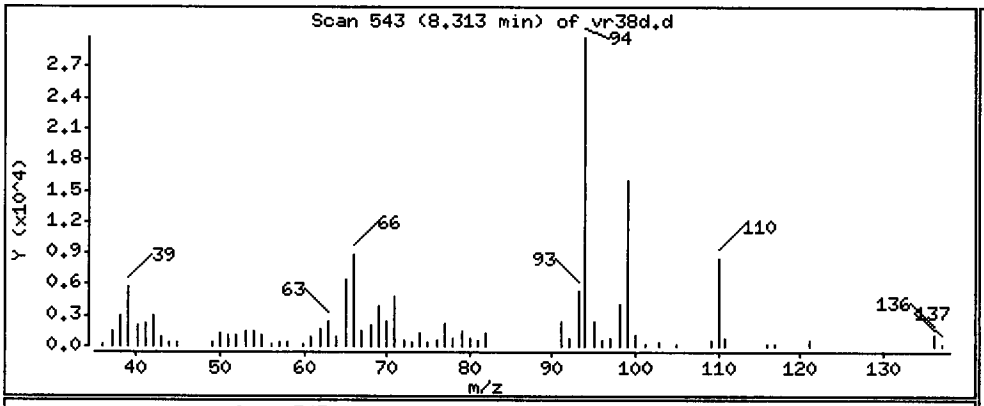
Operator: VTS/YZ

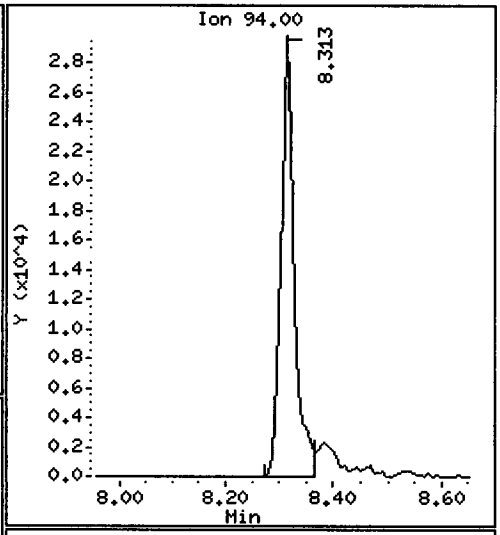
Column phase: ZB-5msi

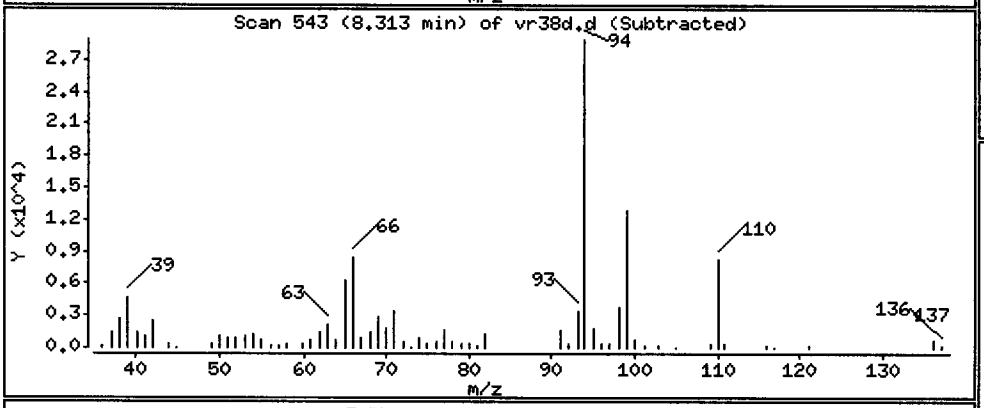
Column diameter: 0.25

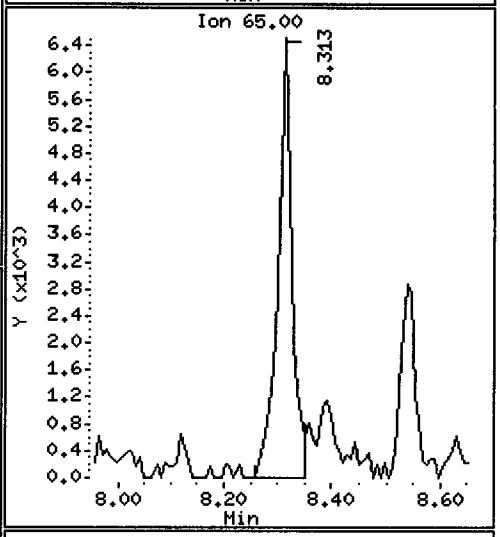
3 Phenol

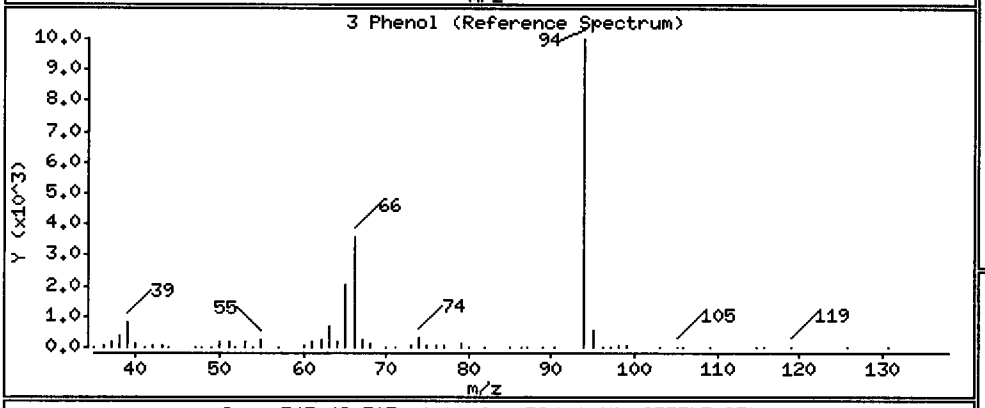
Concentration: 179.8 ug/kg

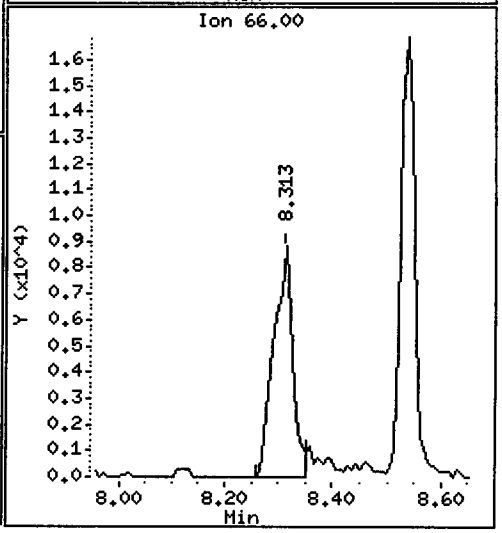


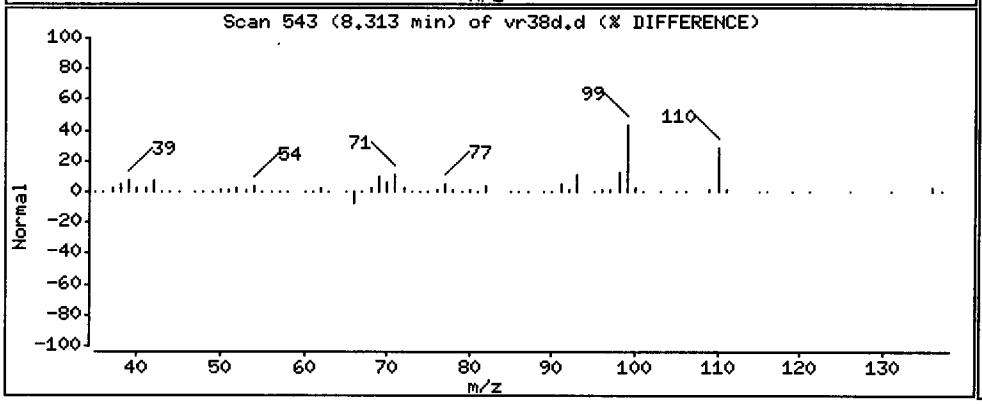












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

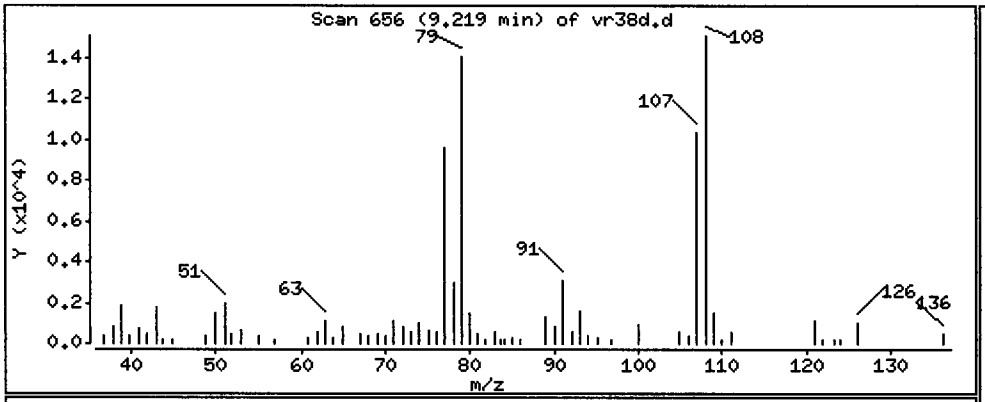
Operator: VTS/YZ

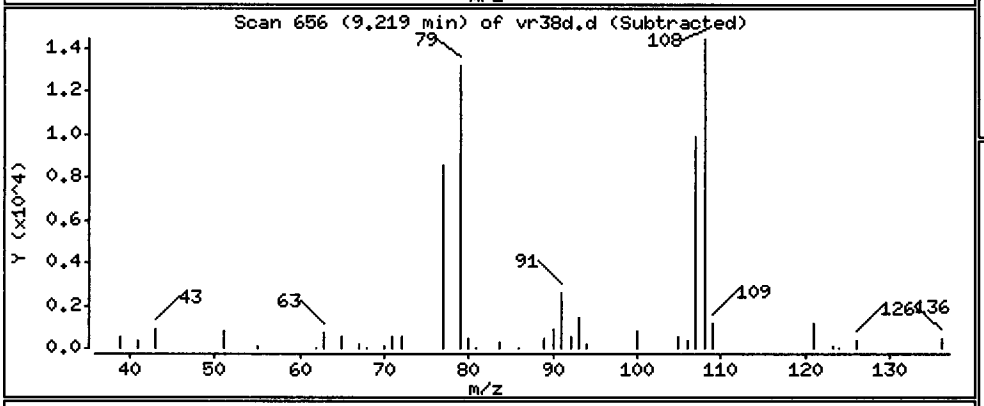
Column phase: ZB-5msi

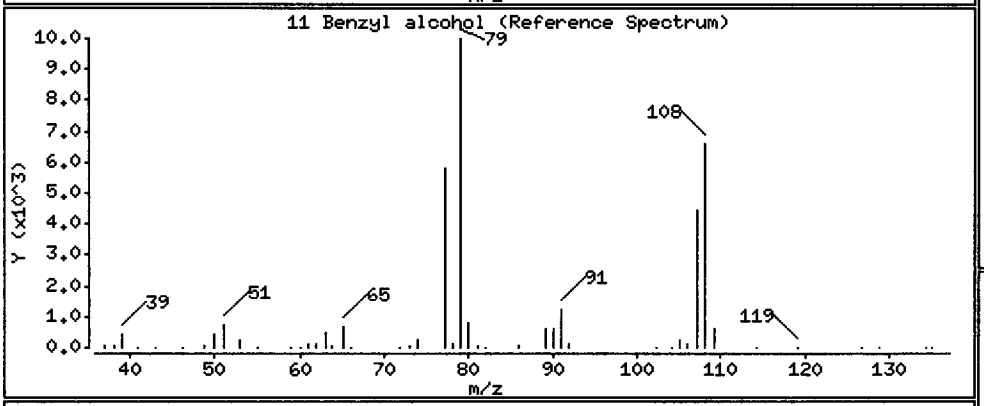
Column diameter: 0.25

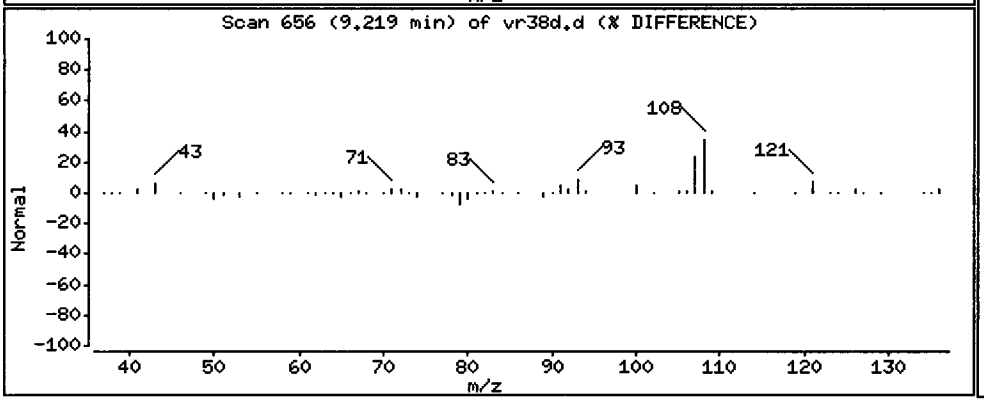
11 Benzyl alcohol

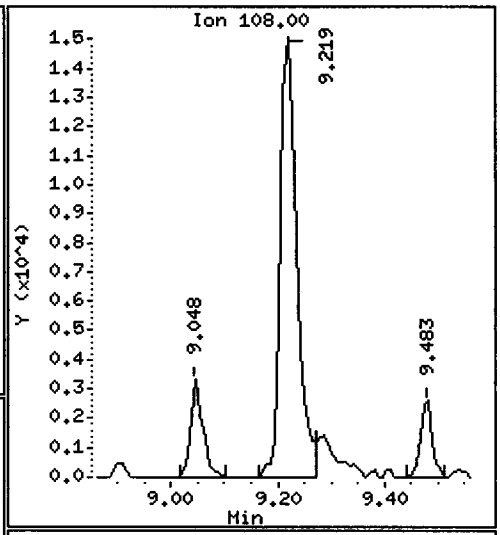
Concentration: 211.8 ug/kg

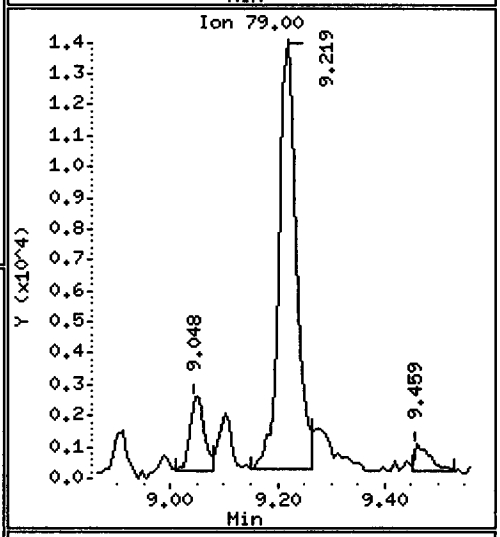


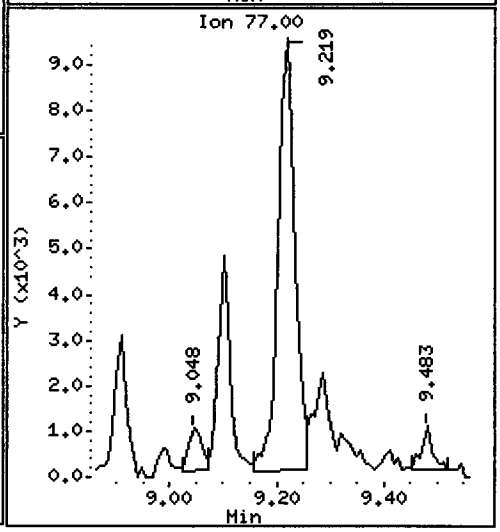












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

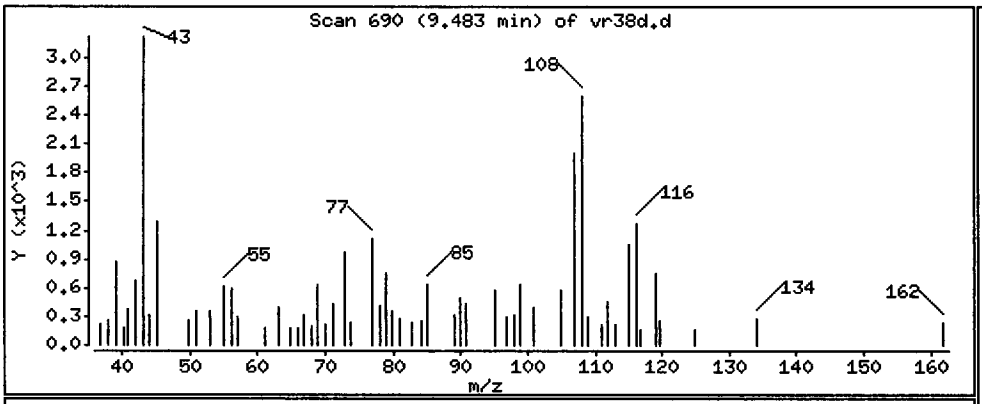
Client ID: HT-04-S-C-121106 Instrument: nt10.i

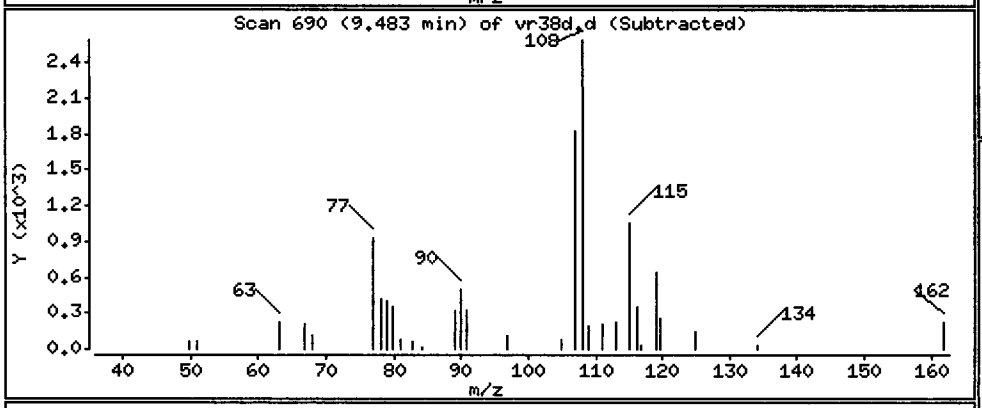
Sample Info: VR38D

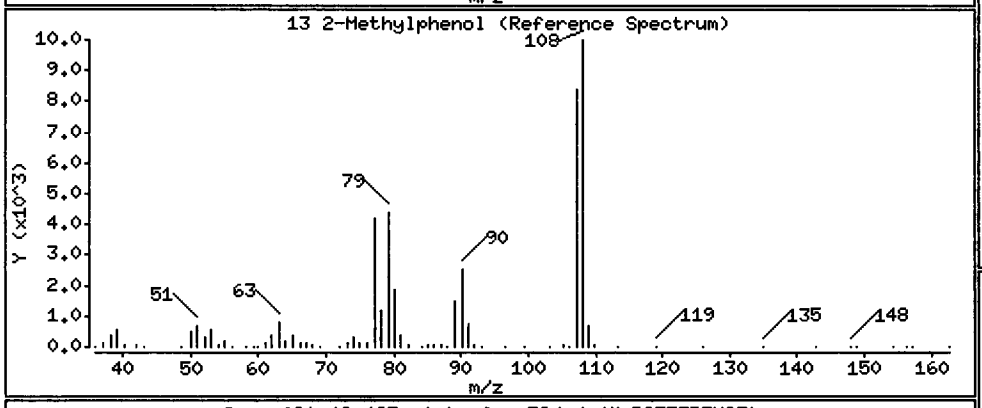
Volume Injected (uL): 1.0 Operator: VTS/YZ

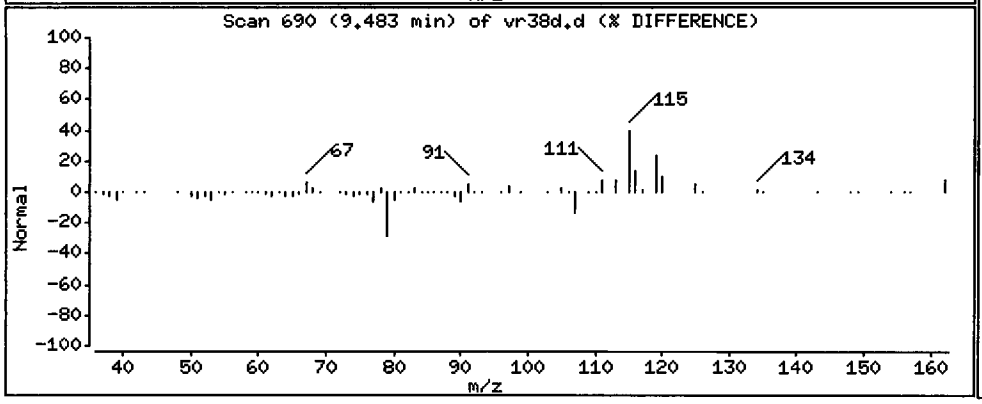
Column phase: ZB-5msi Column diameter: 0.25

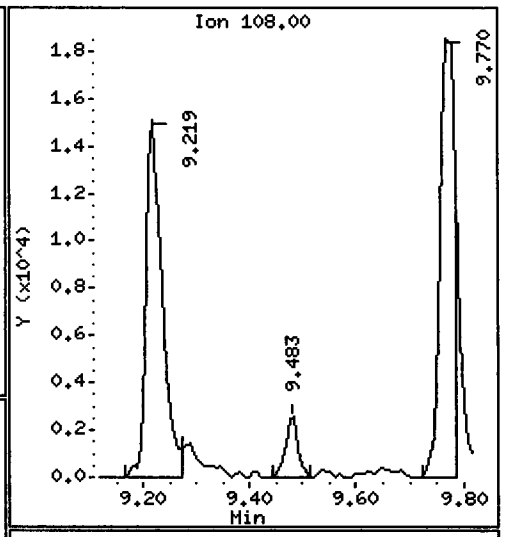
13 2-Methylphenol Concentration: 15.51 ug/kg

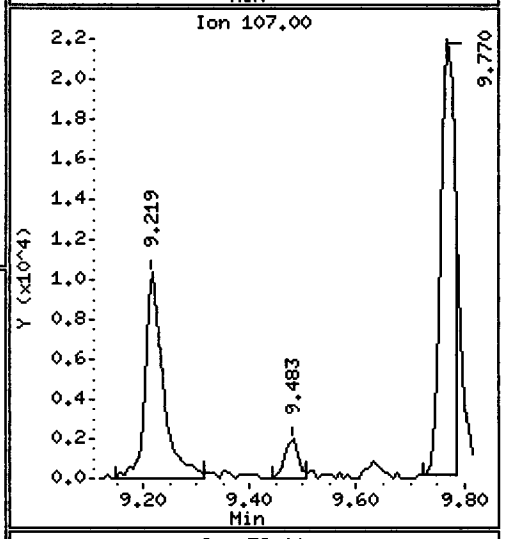


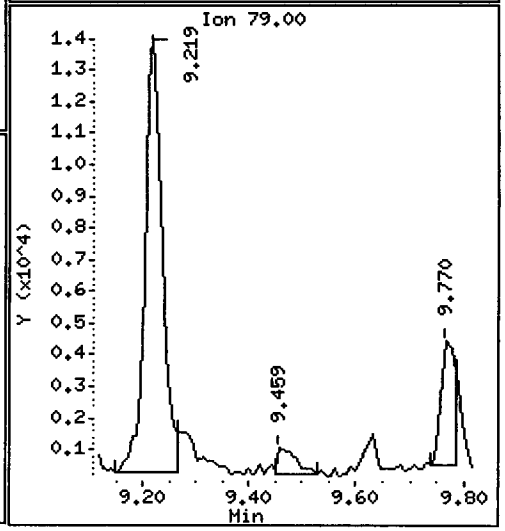












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

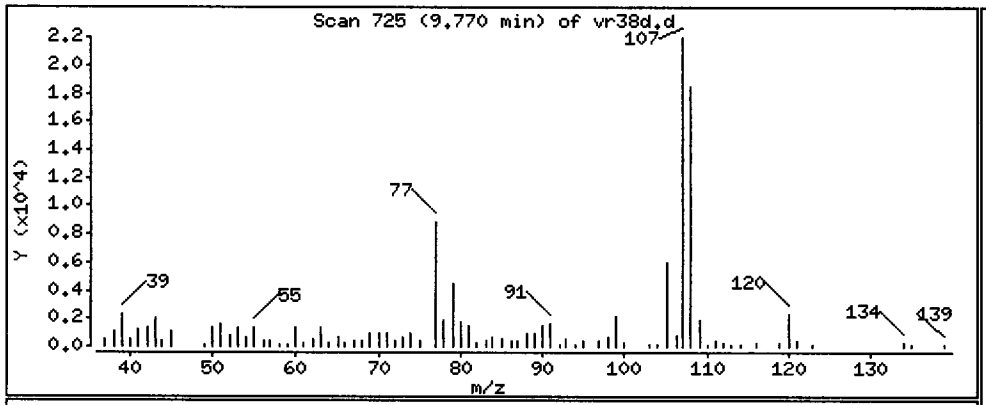
Operator: VTS/YZ

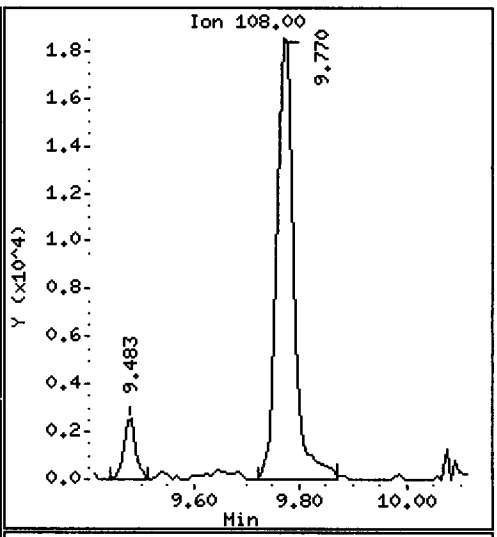
Column phase: ZB-5msi

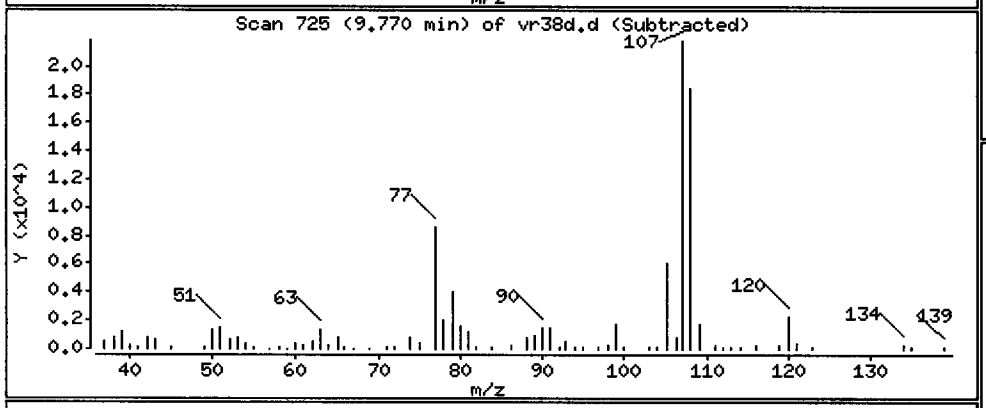
Column diameter: 0.25

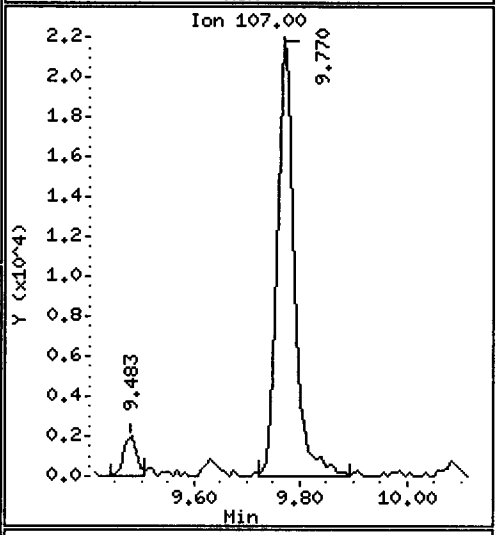
15 4-Methylphenol

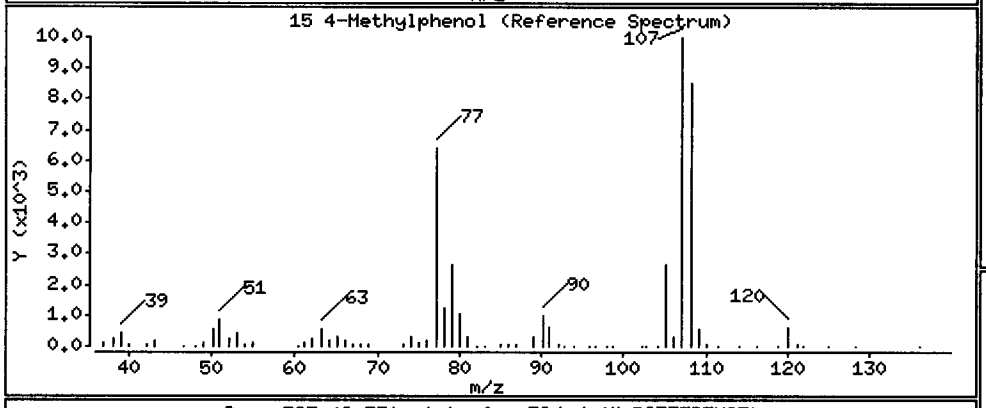
Concentration: 146.8 ug/kg

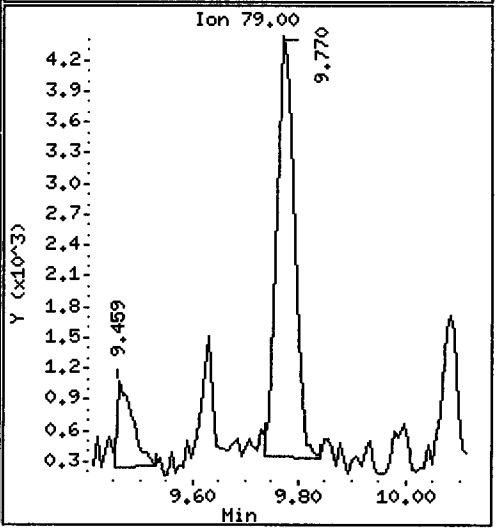


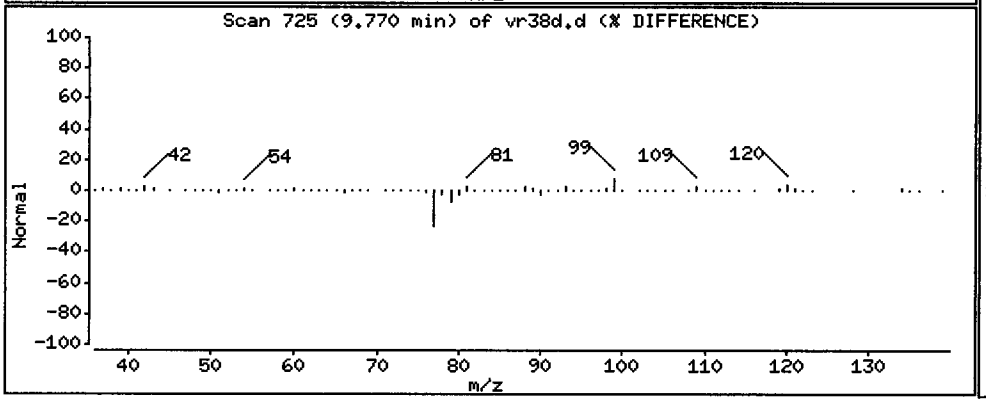












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

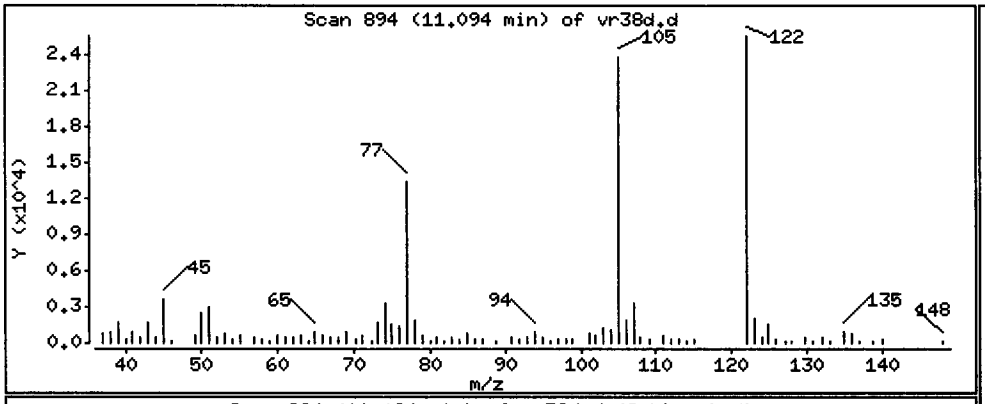
Operator: VTS/YZ

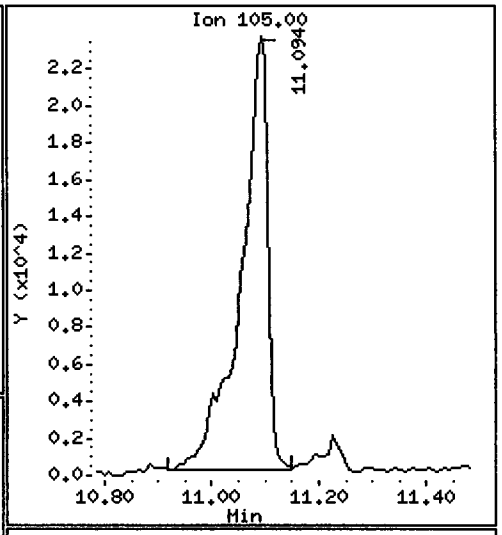
Column phase: ZB-5msi

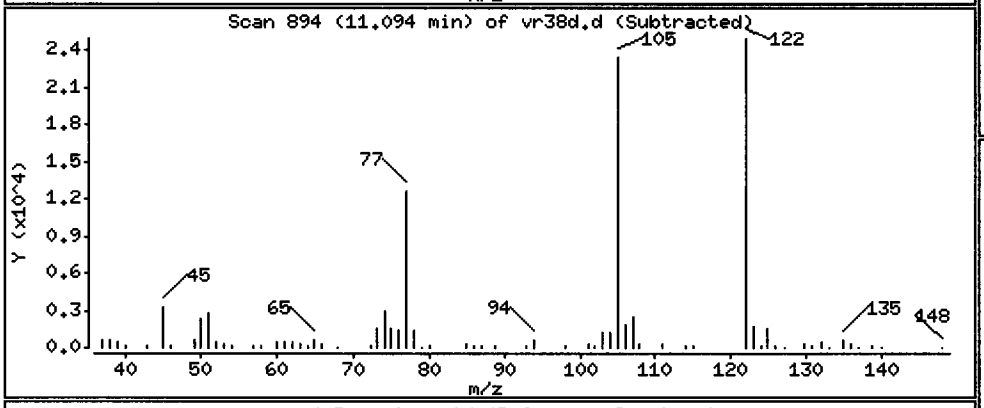
Column diameter: 0.25

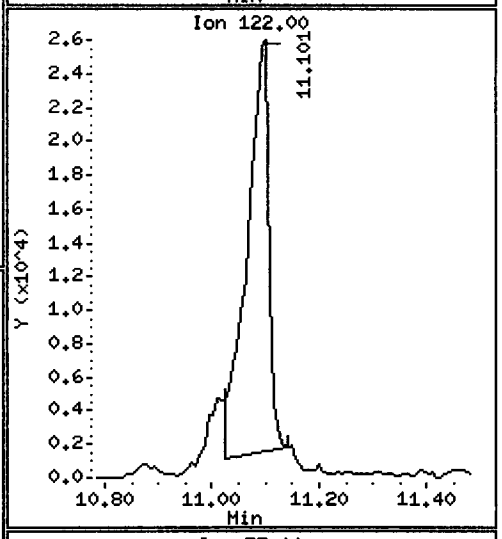
24 Benzoic acid

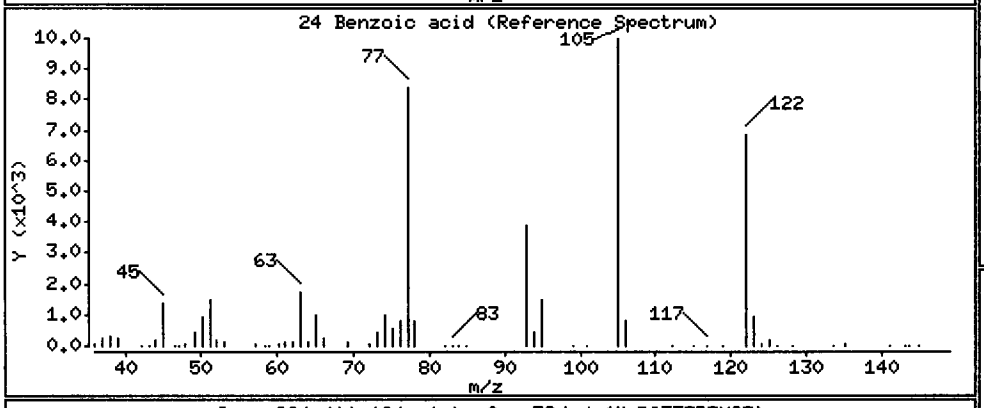
Concentration: 387.3 ug/kg

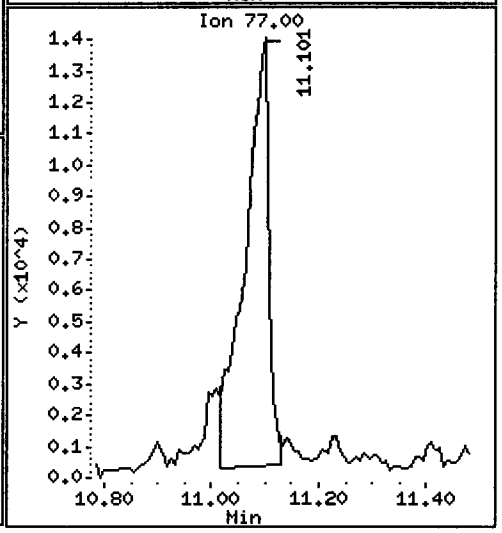


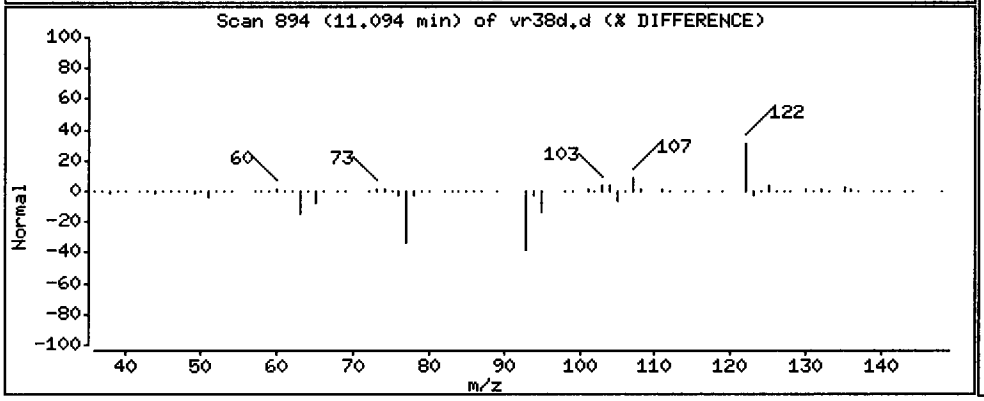












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

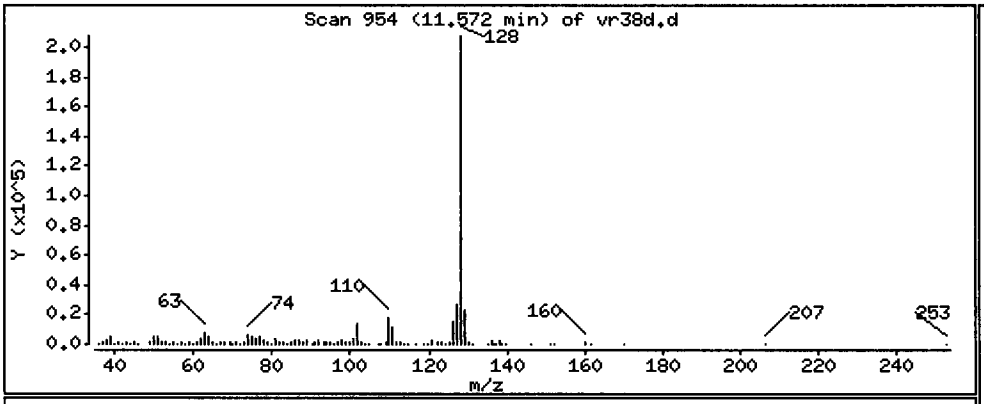
Client ID: HT-04-S-C-121106 Instrument: nt10.i

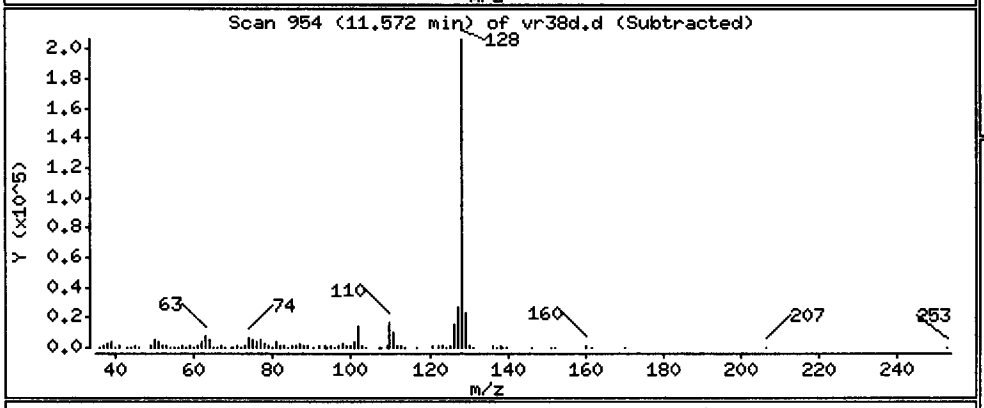
Sample Info: VR38D

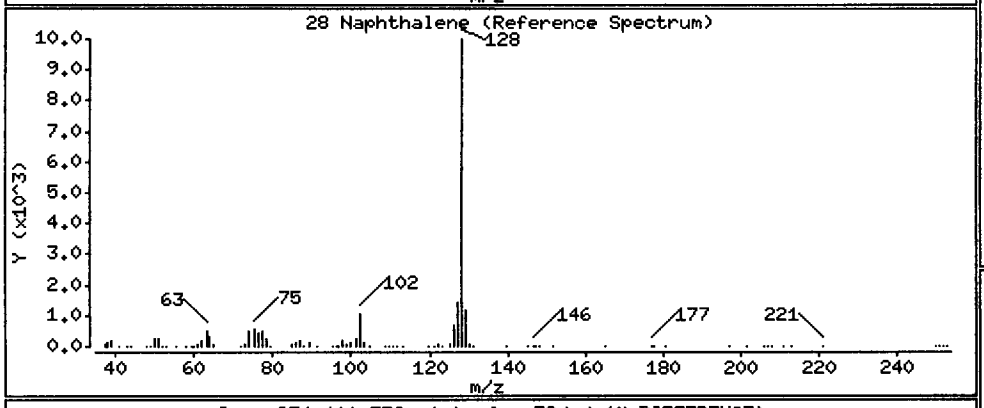
Volume Injected (uL): 1.0 Operator: VTS/YZ

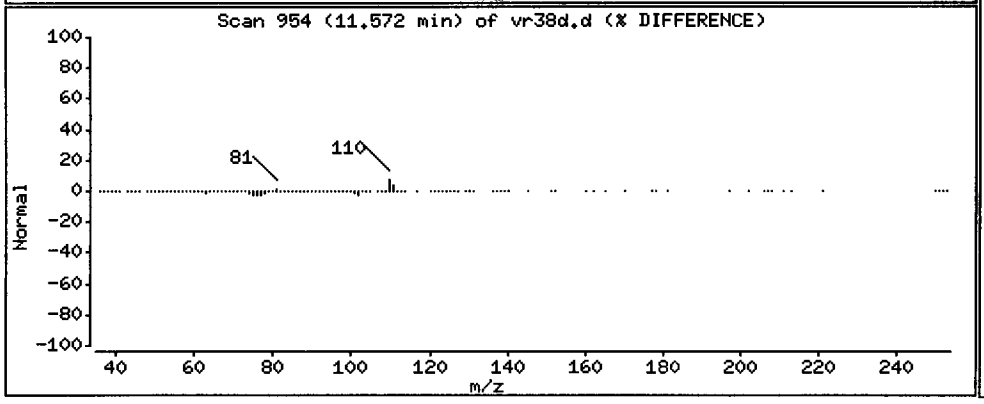
Column phase: ZB-5msi Column diameter: 0.25

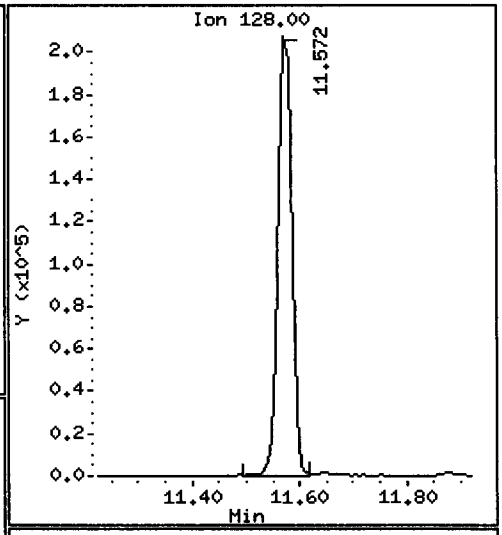
28 Naphthalene Concentration: 377.4 ug/kg

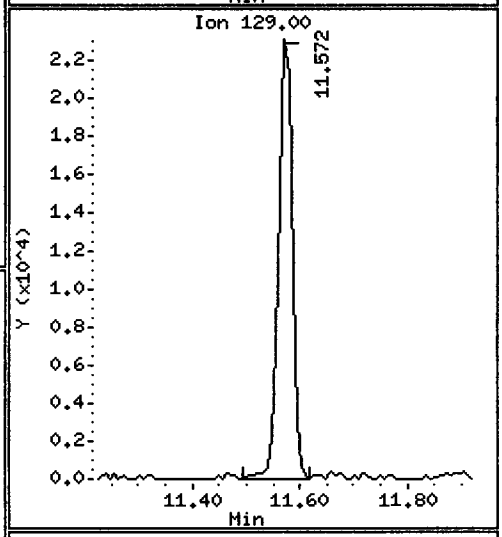


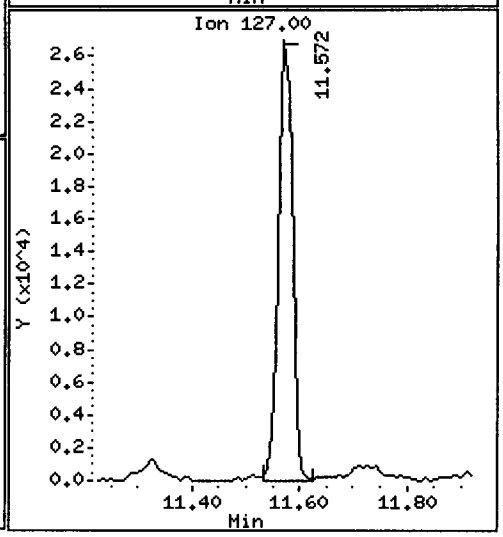












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

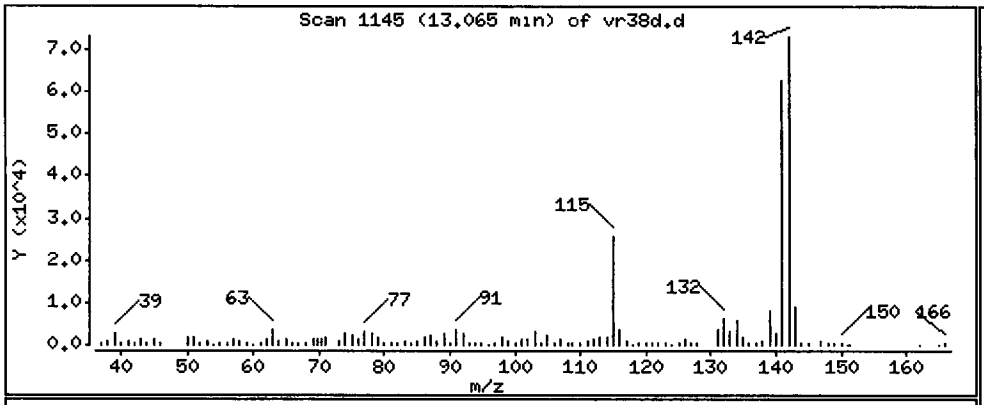
Operator: VTS/YZ

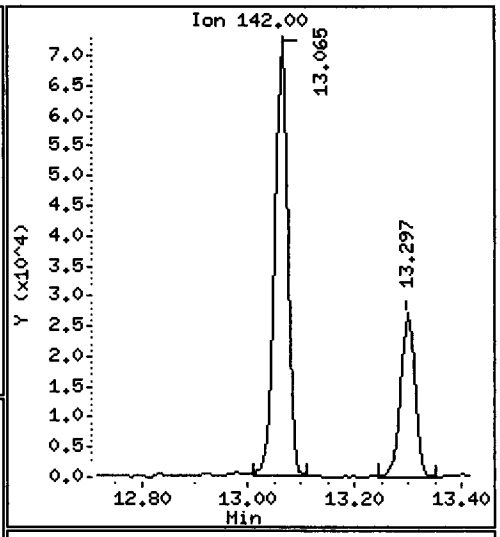
Column phase: ZB-5msi

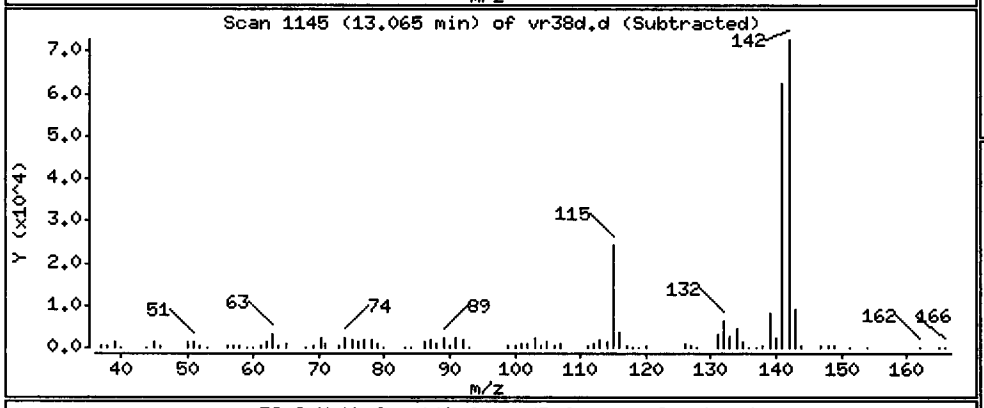
Column diameter: 0.25

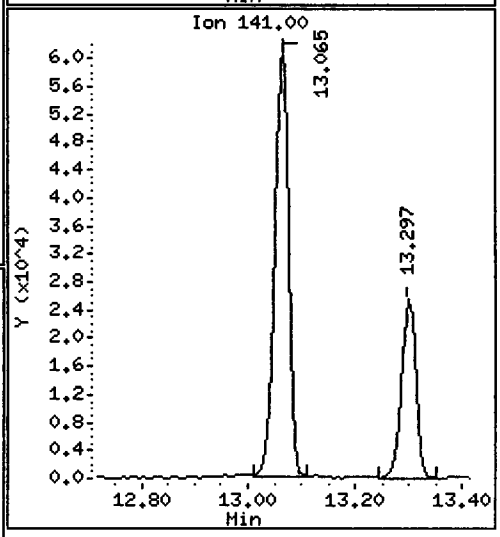
32 2-Methylnaphthalene

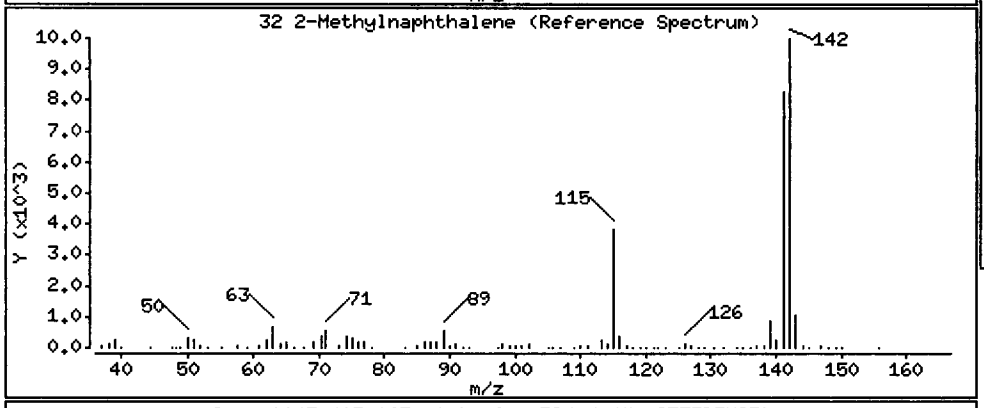
Concentration: 188.0 ug/kg

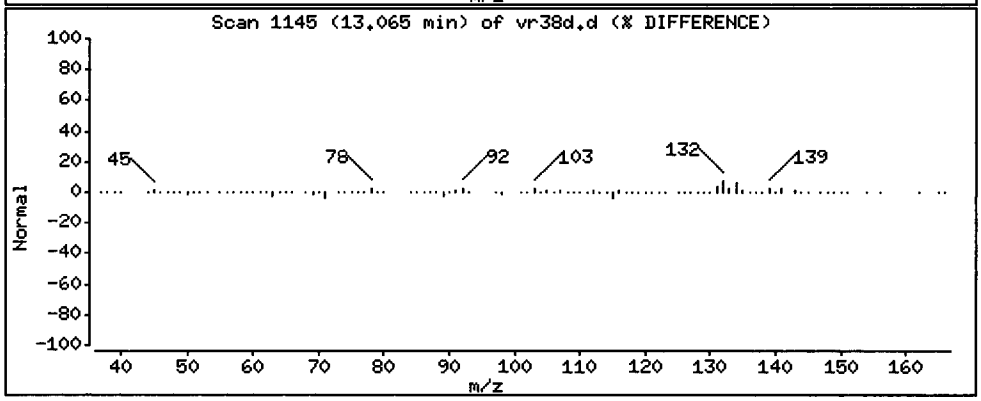












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

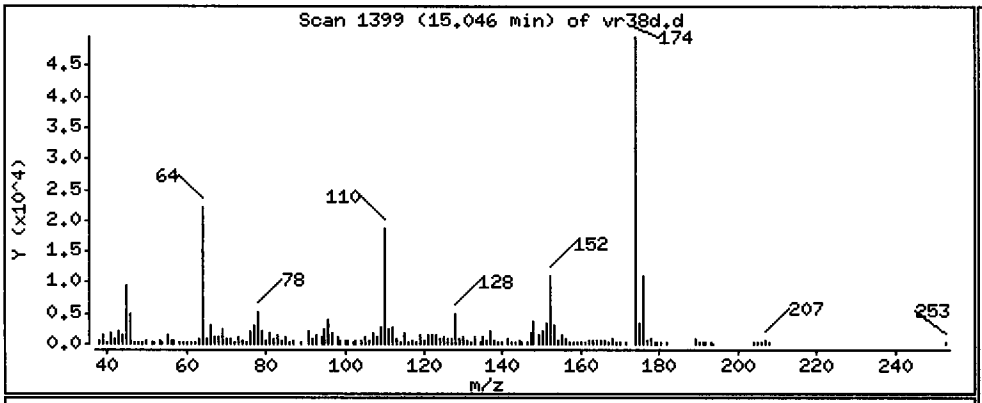
Operator: VTS/YZ

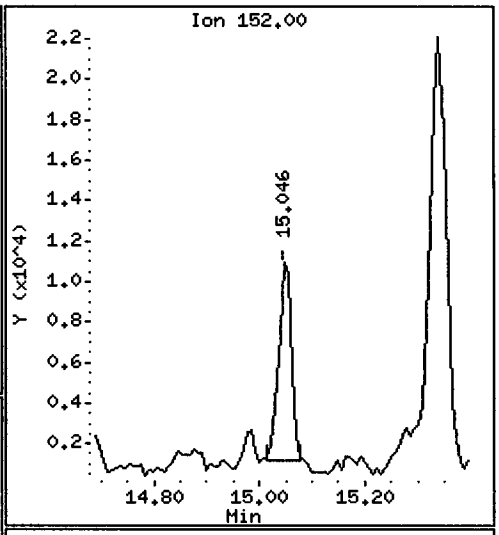
Column phase: ZB-5msi

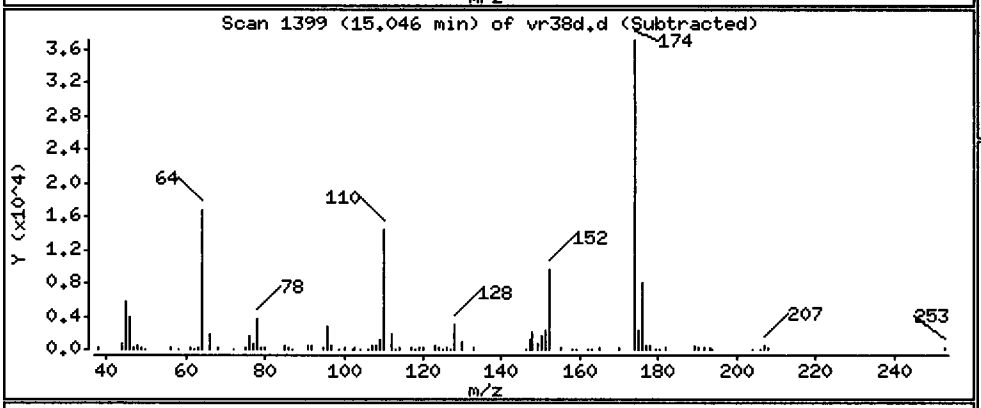
Column diameter: 0.25

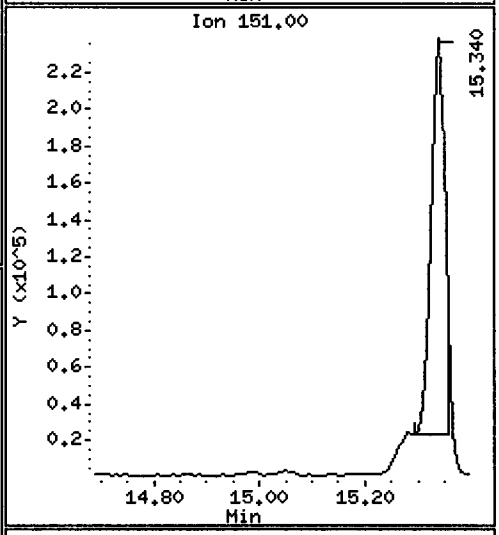
40 Acenaphthylene

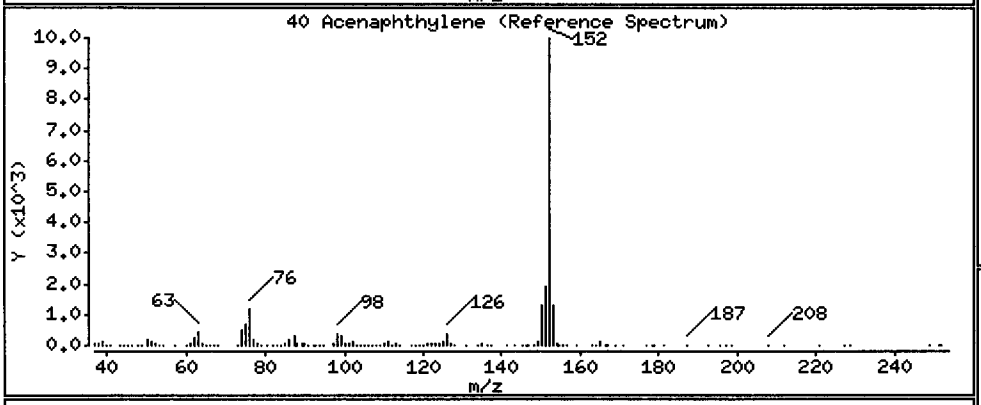
Concentration: 16.52 ug/kg

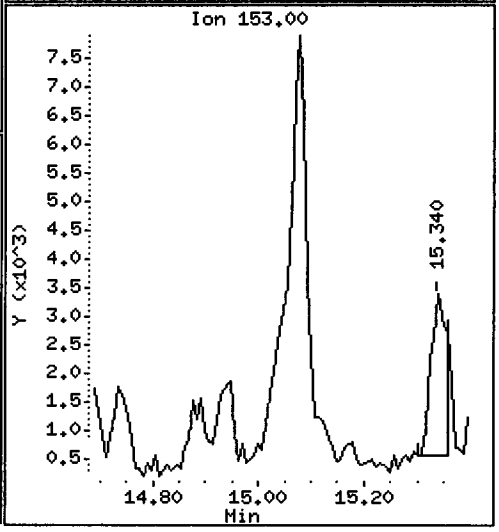


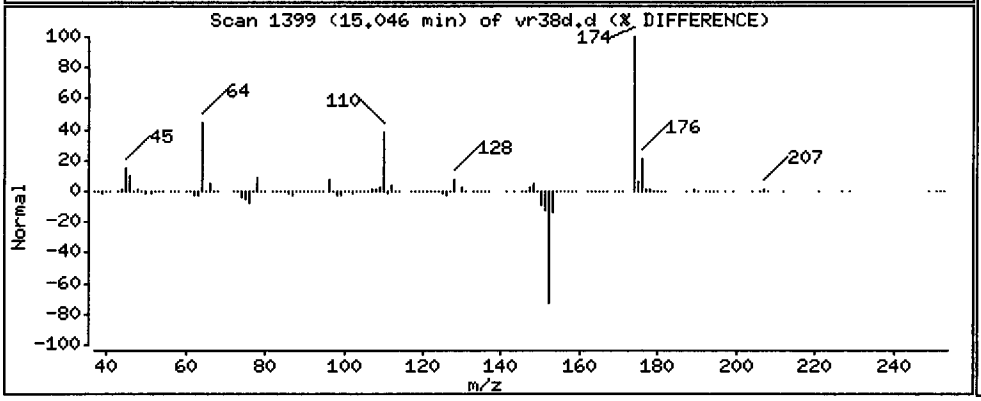












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

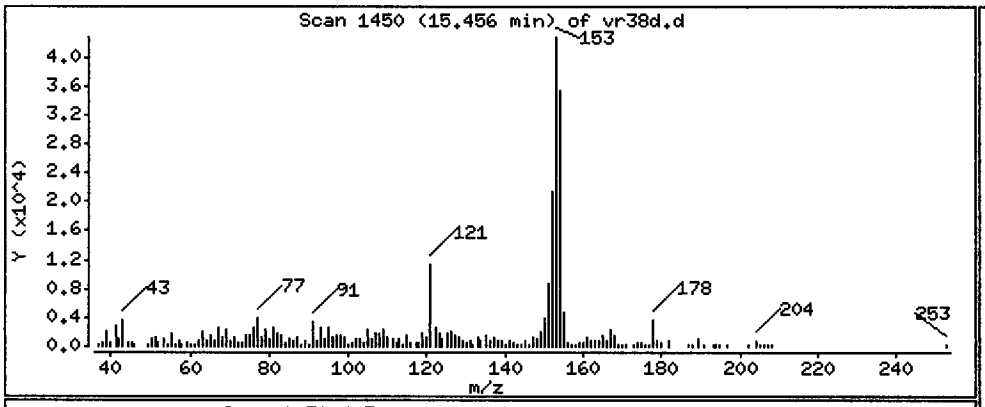
Operator: VTS/YZ

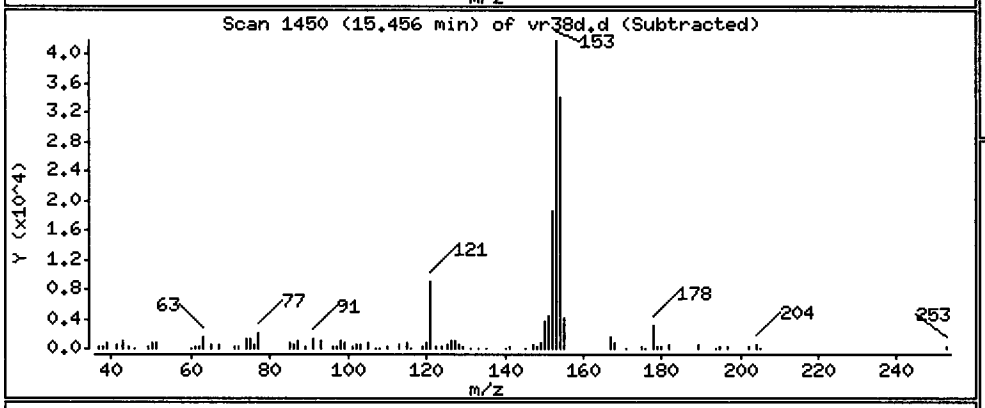
Column phase: ZB-5msi

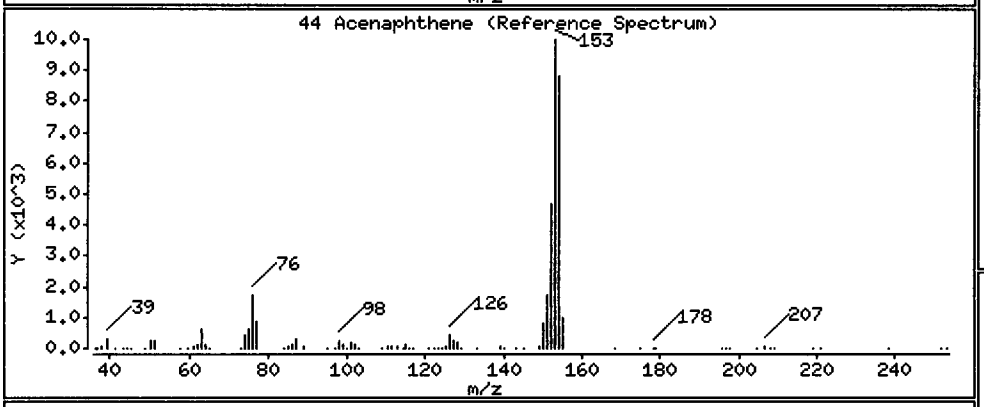
Column diameter: 0.25

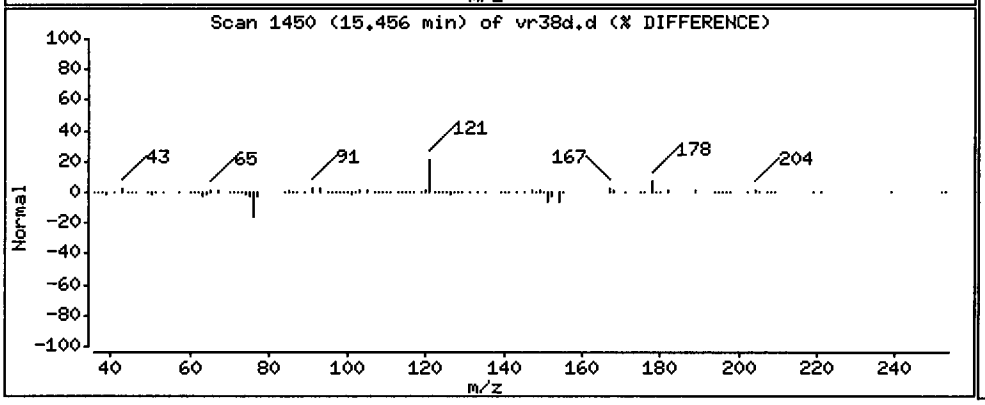
44 Acenaphthene

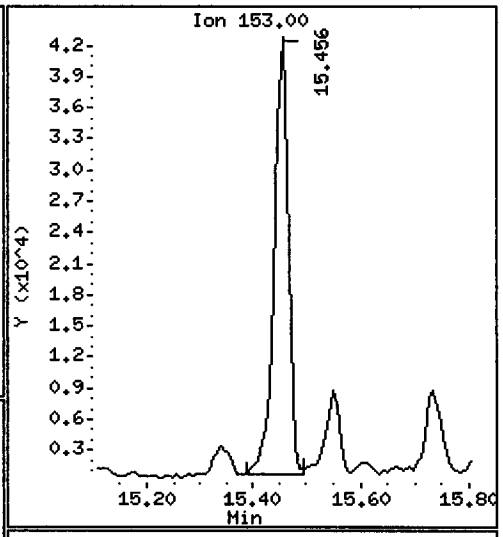
Concentration: 121.9 ug/kg

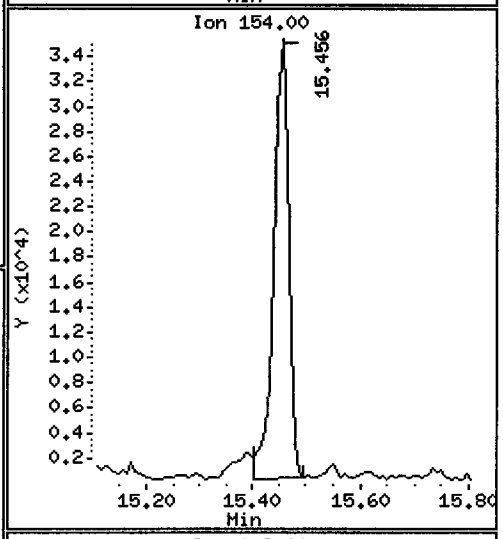


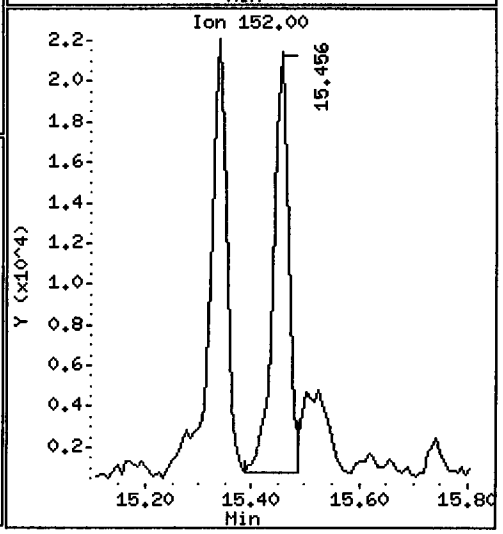












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

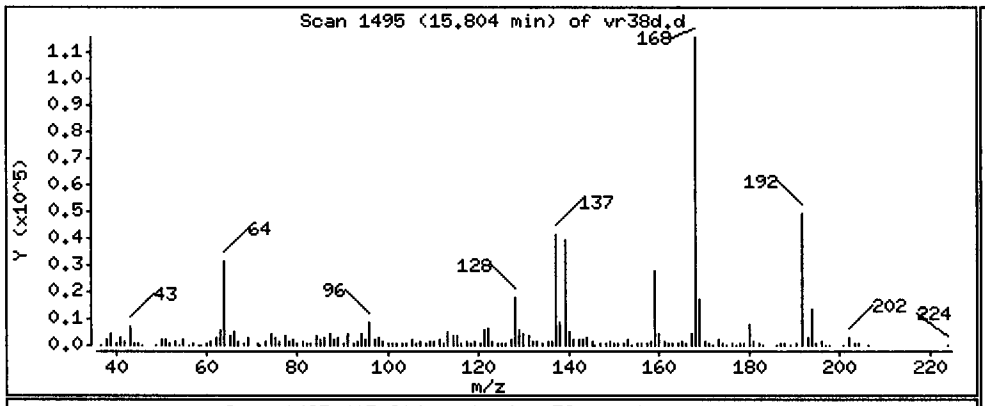
Operator: VTS/YZ

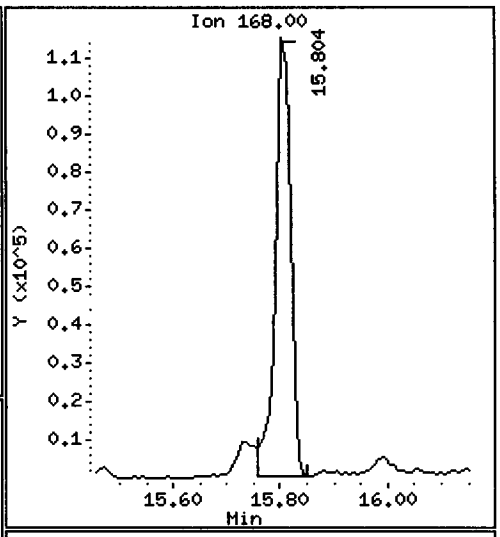
Column phase: ZB-5msi

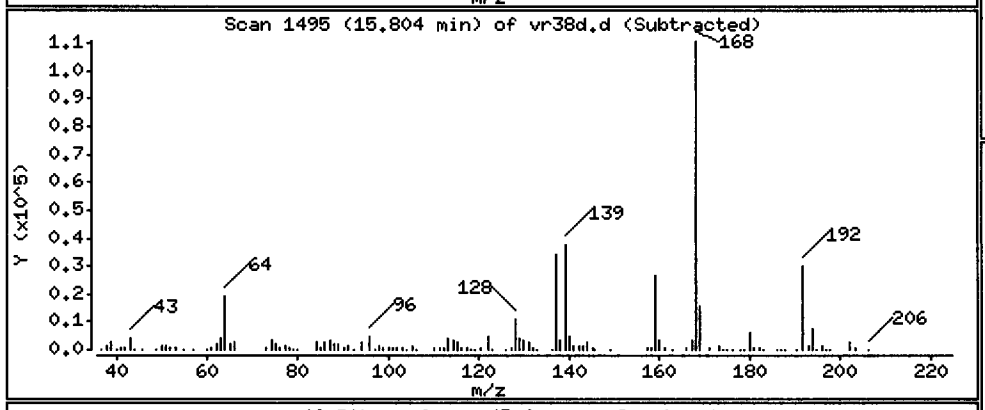
Column diameter: 0.25

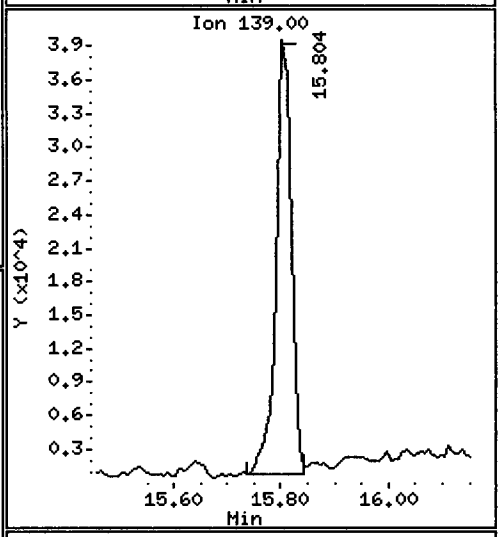
46 Dibenzofuran

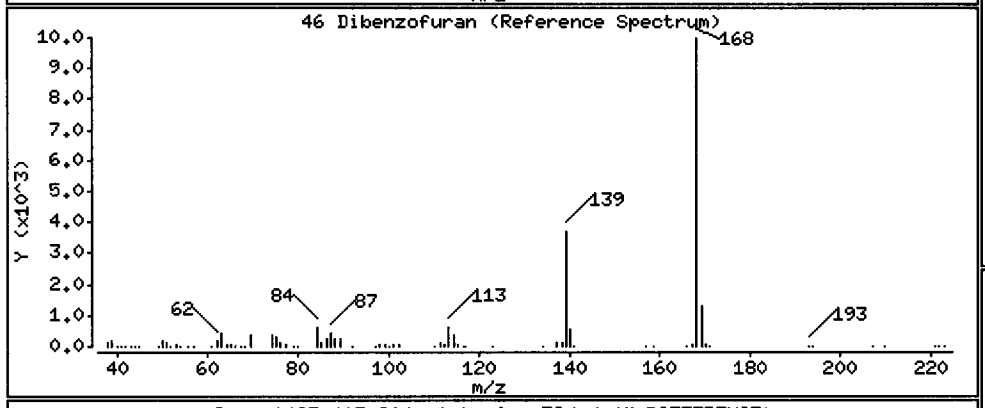
Concentration: 274.0 ug/kg

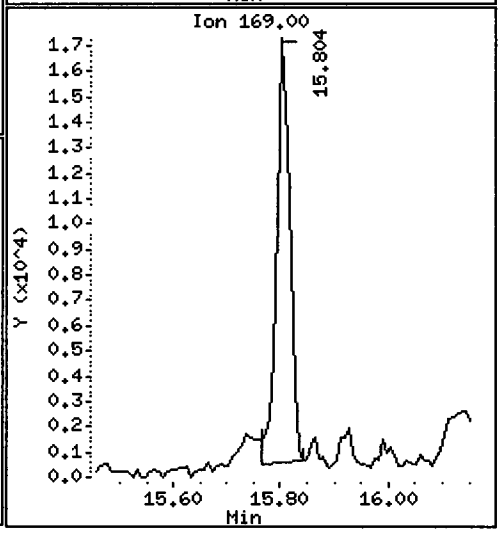


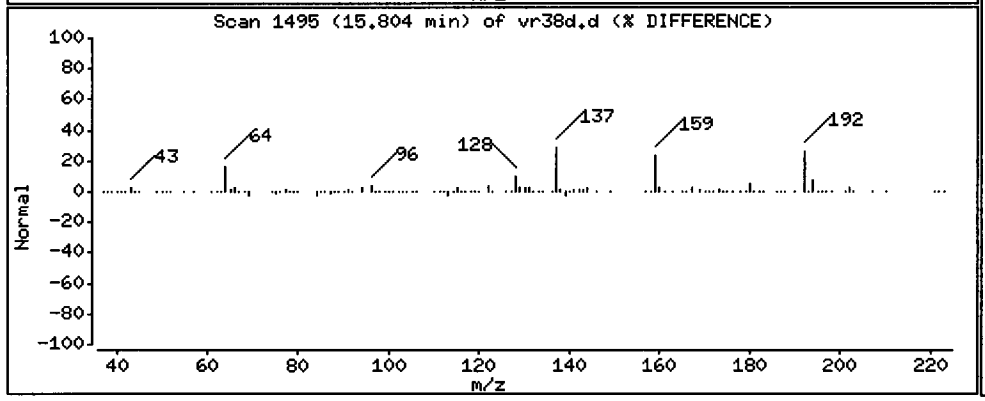












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

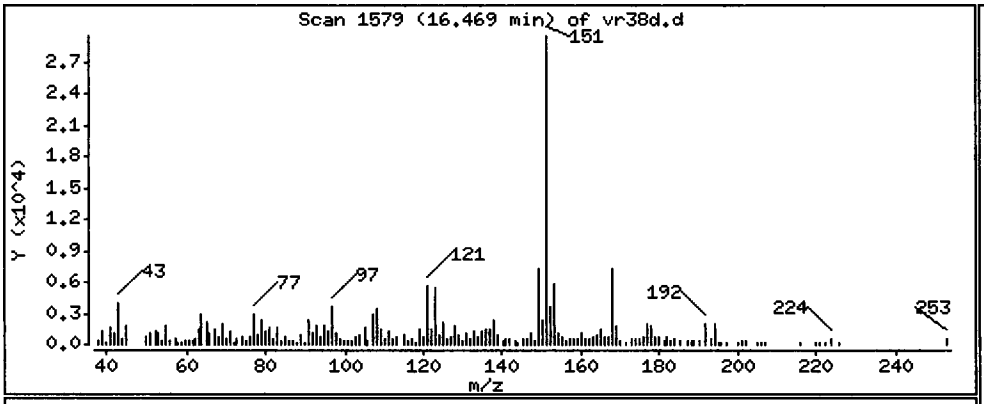
Operator: VTS/YZ

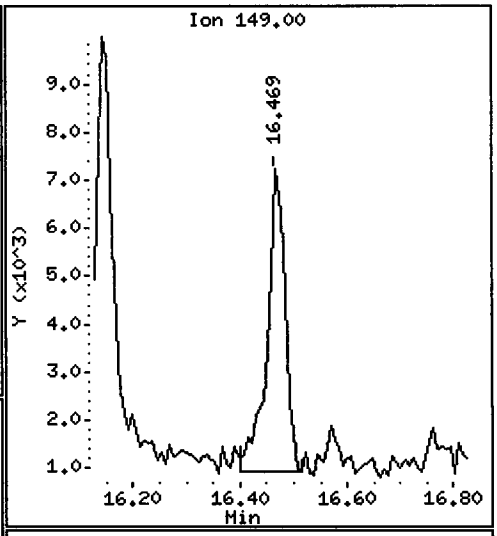
Column phase: ZB-5msi

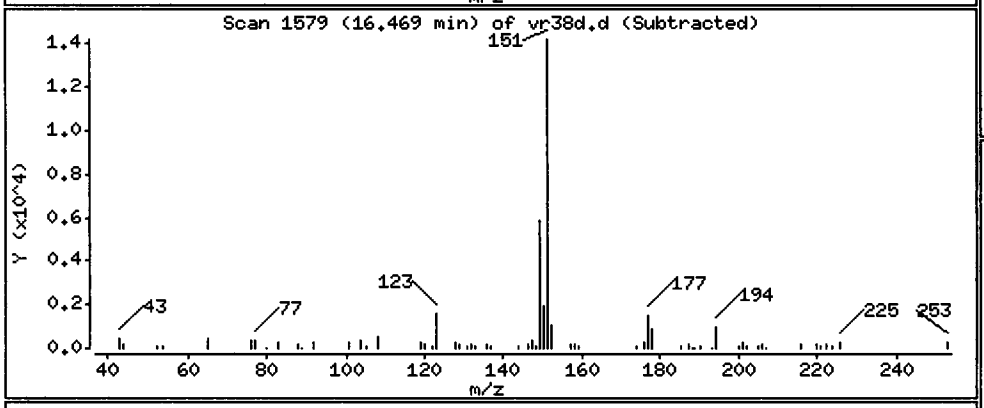
Column diameter: 0.25

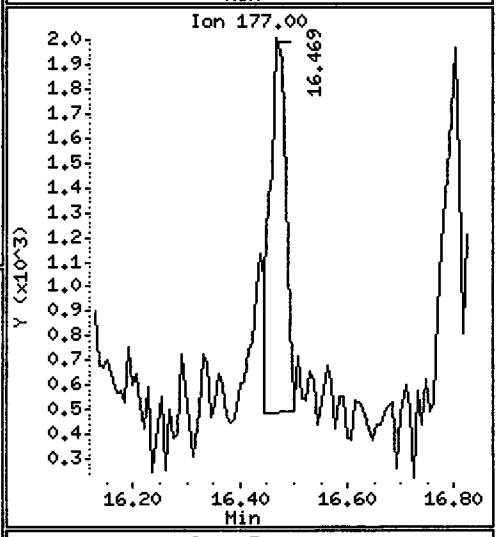
50 Diethylphthalate

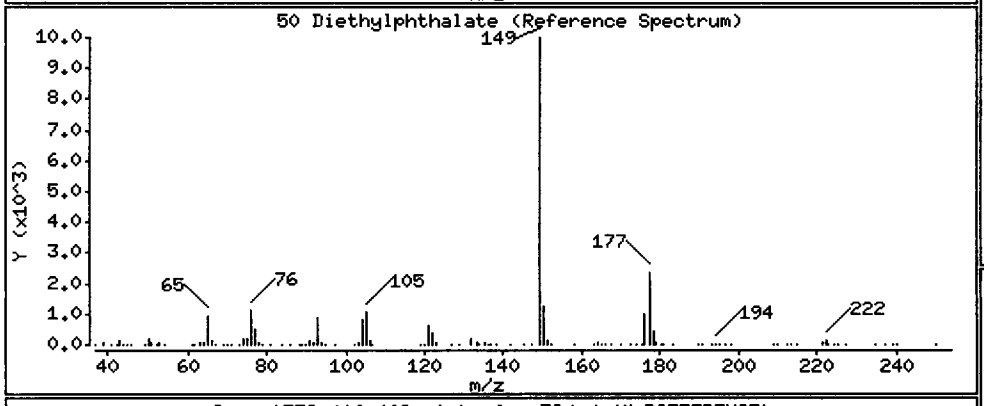
Concentration: 23.66 ug/kg

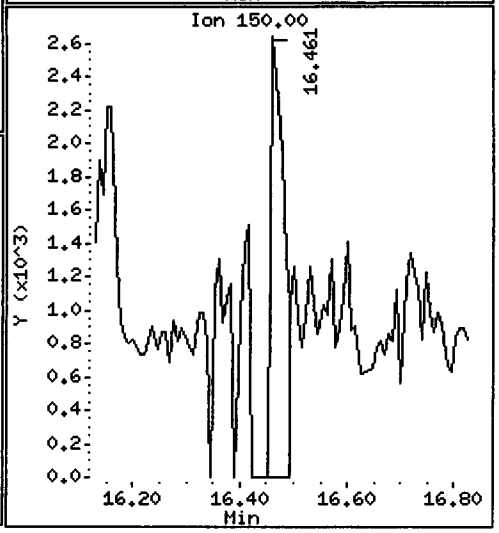


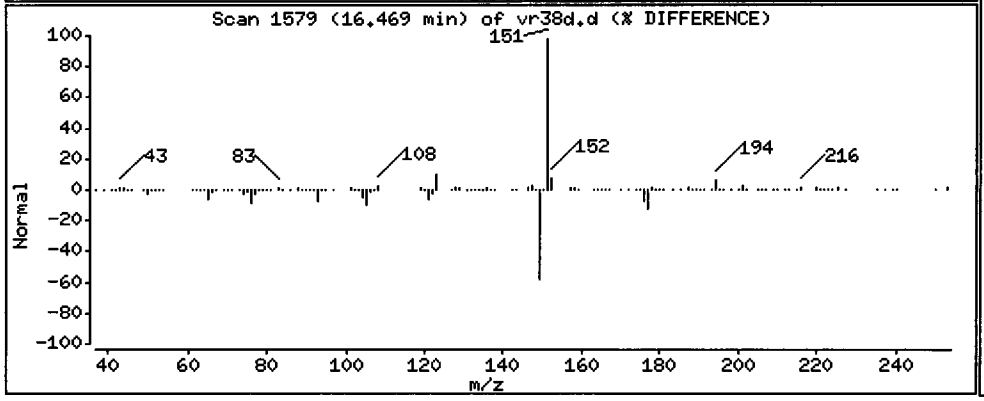












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

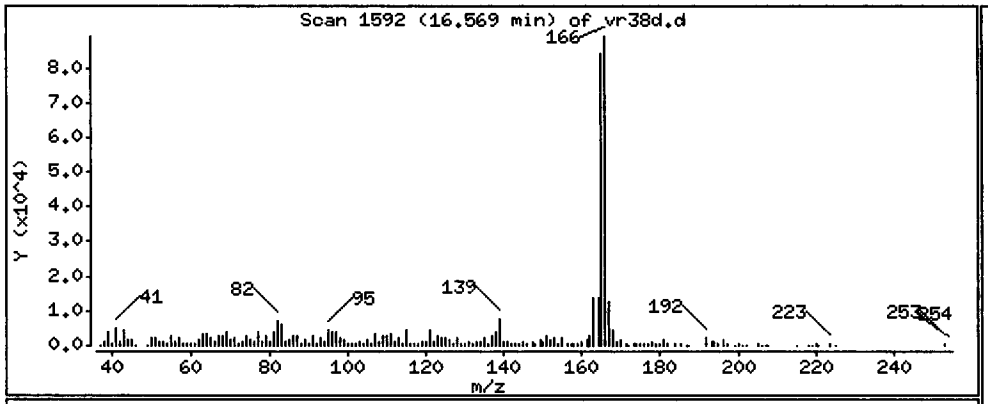
Operator: VTS/YZ

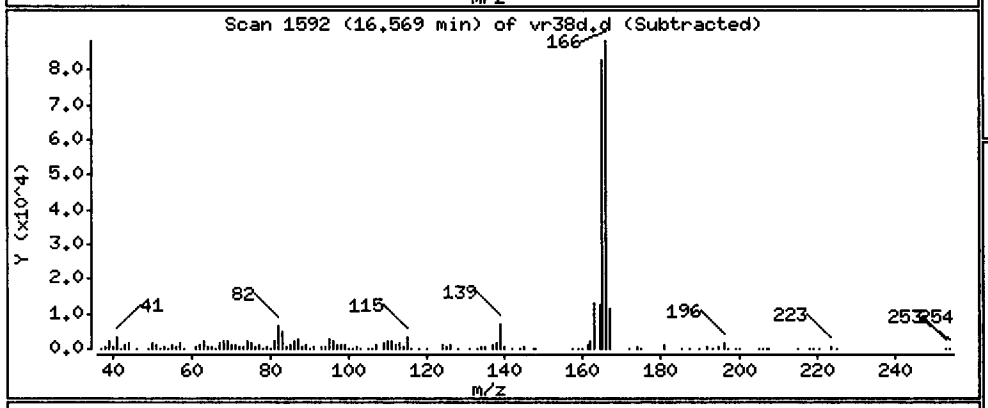
Column phase: ZB-5msi

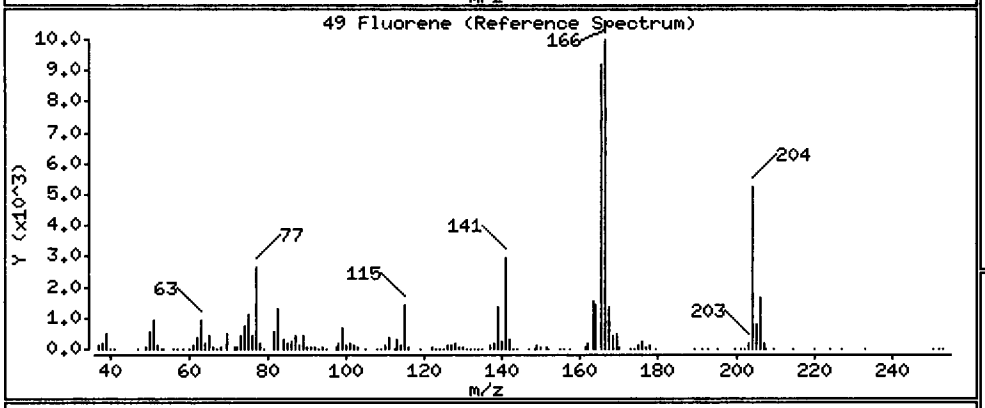
Column diameter: 0.25

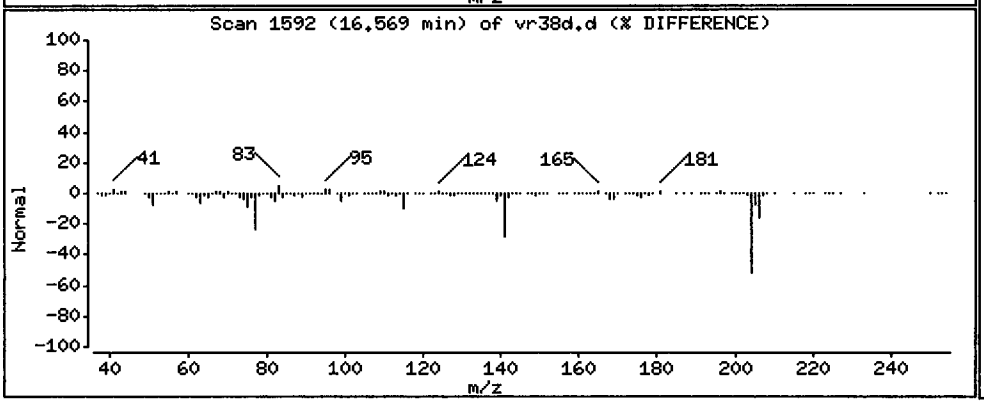
49 Fluorene

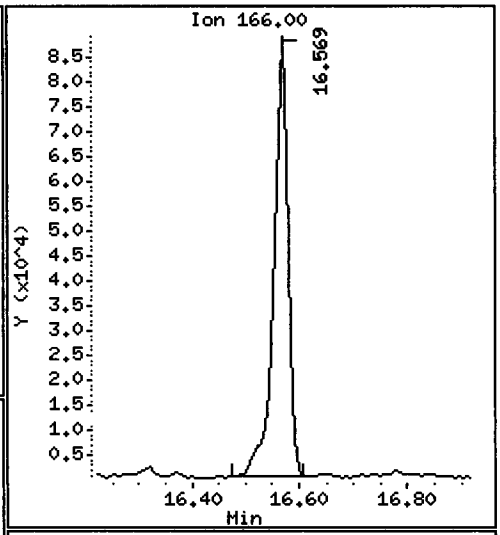
Concentration: 228.0 ug/kg

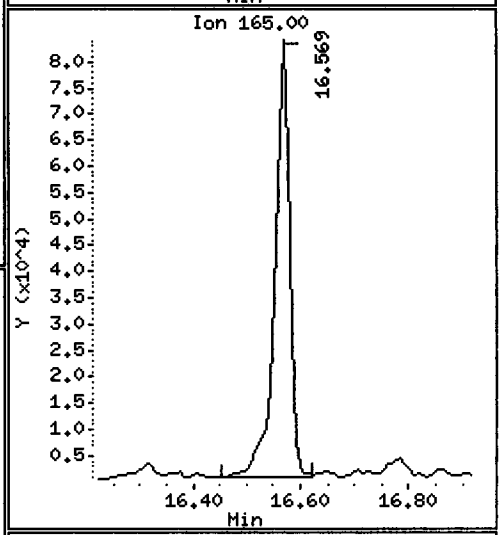


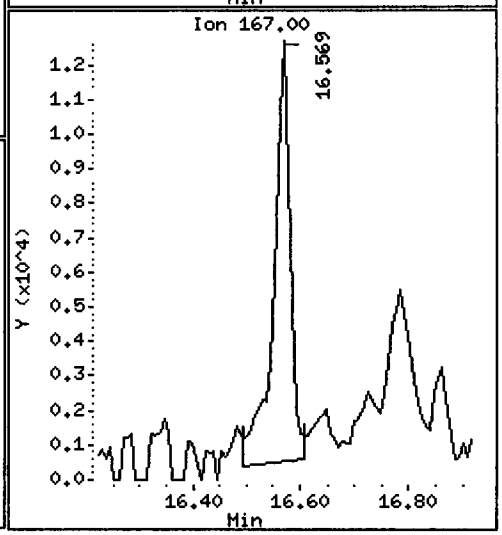












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

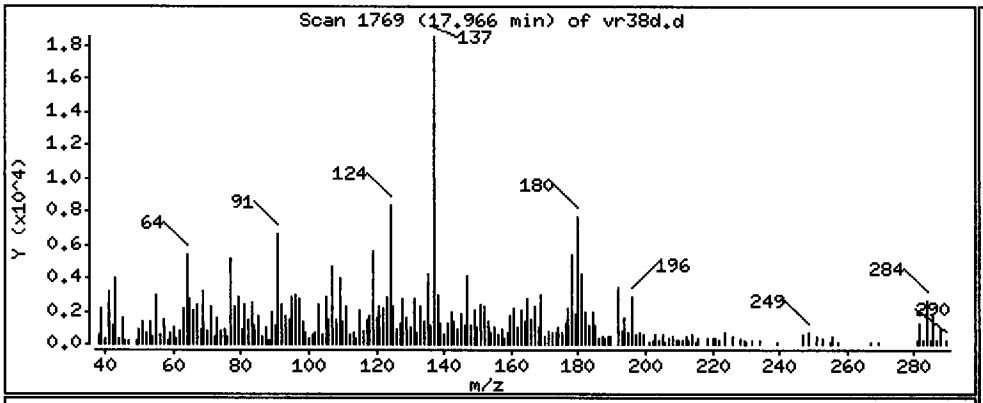
Operator: VTS/YZ

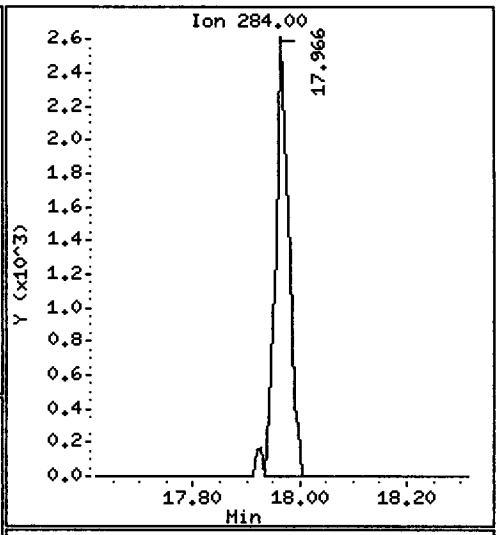
Column phase: ZB-5msi

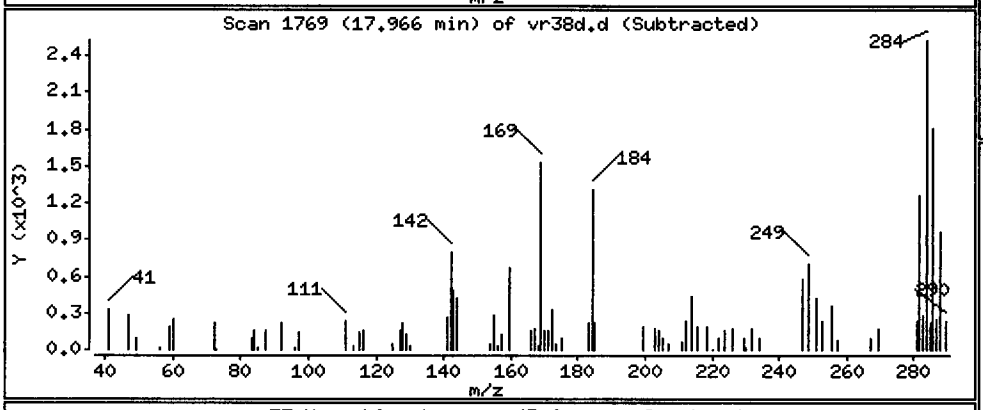
Column diameter: 0.25

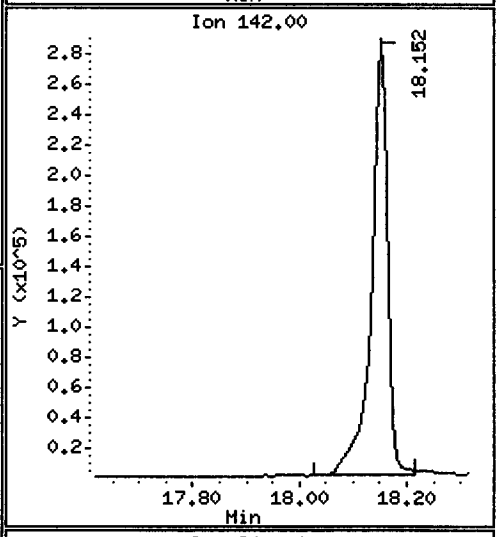
57 Hexachlorobenzene

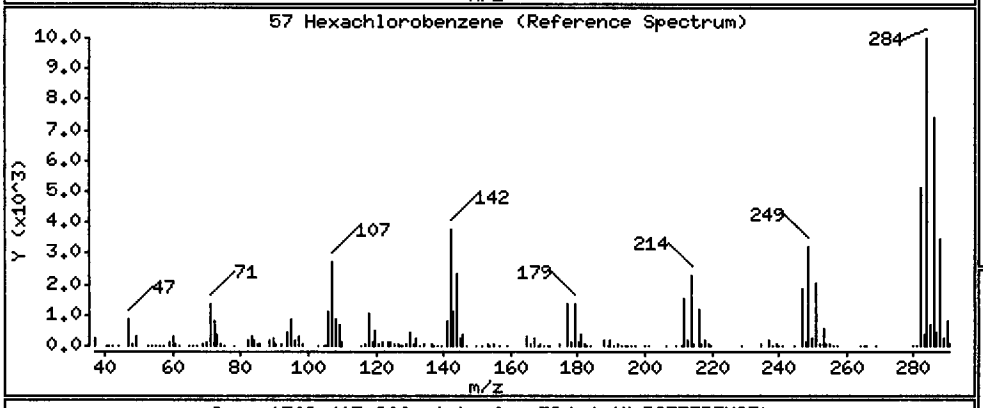
Concentration: 22.48 ug/kg

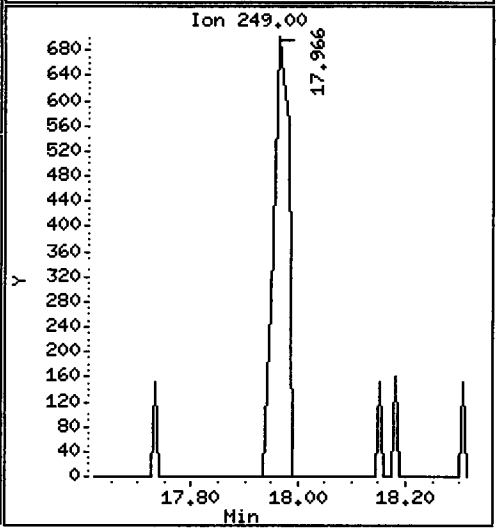


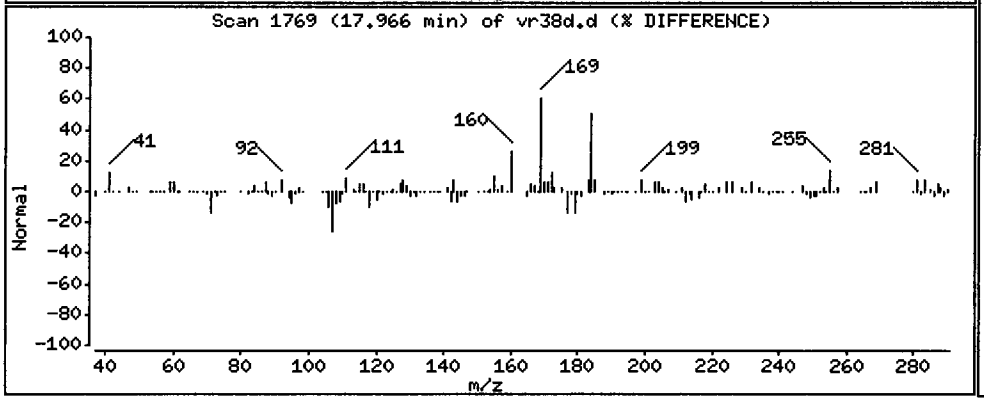












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

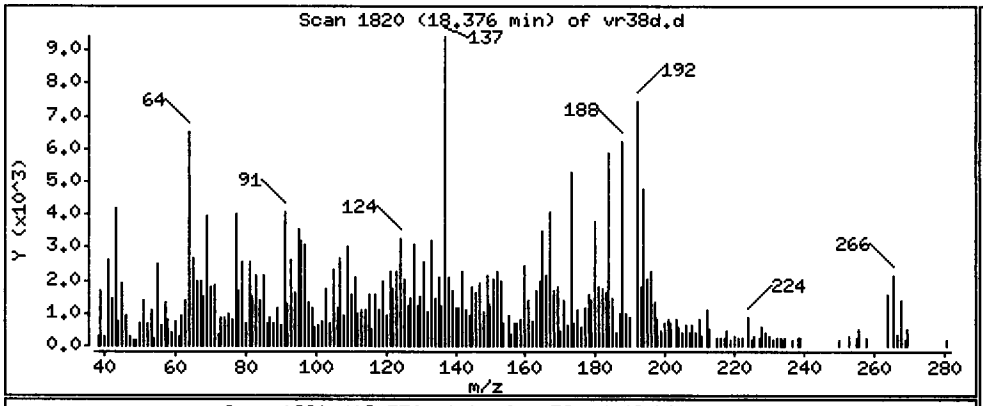
Operator: VTS/YZ

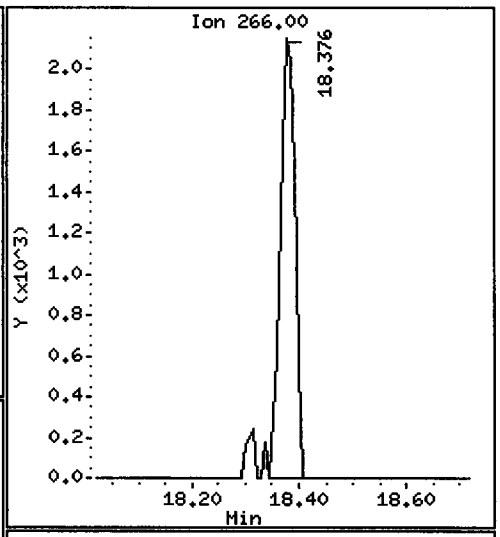
Column phase: ZB-5msi

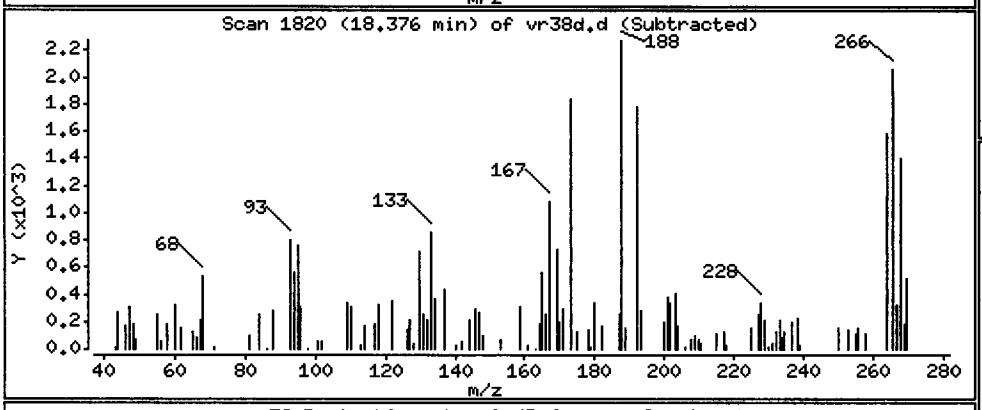
Column diameter: 0.25

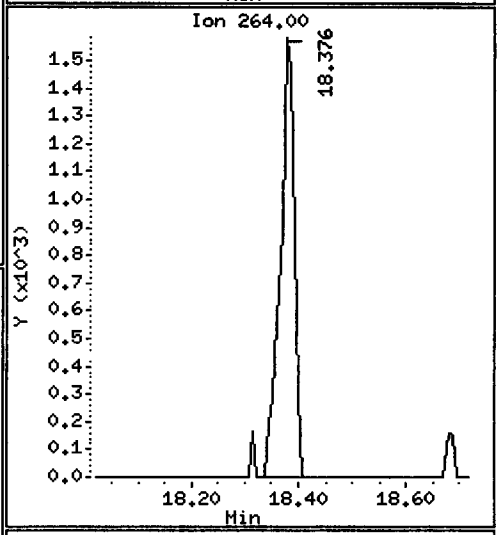
58 Pentachlorophenol

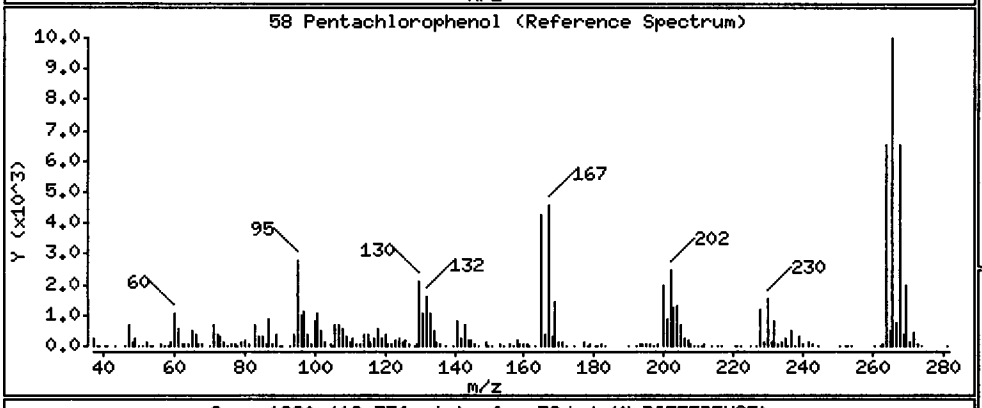
Concentration: 24.34 ug/kg

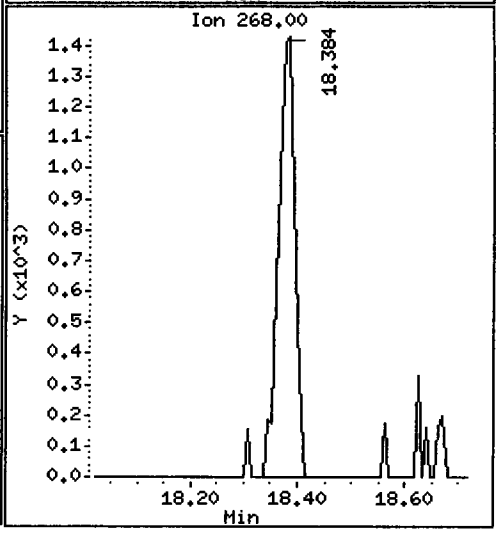


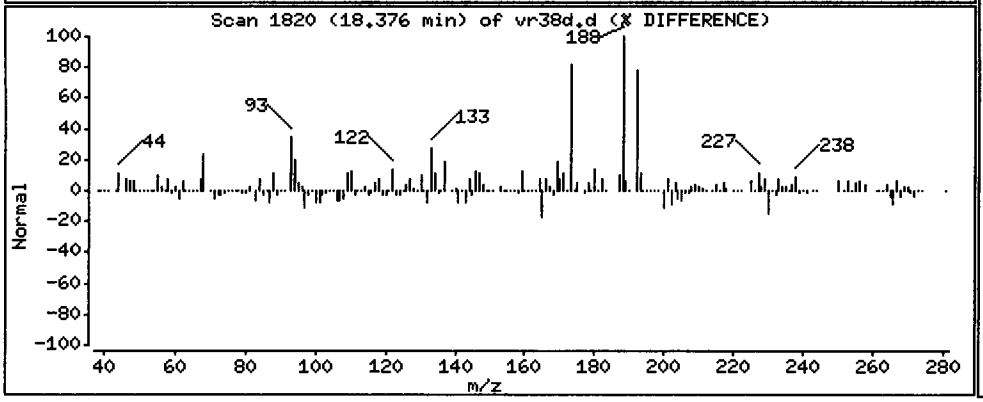












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

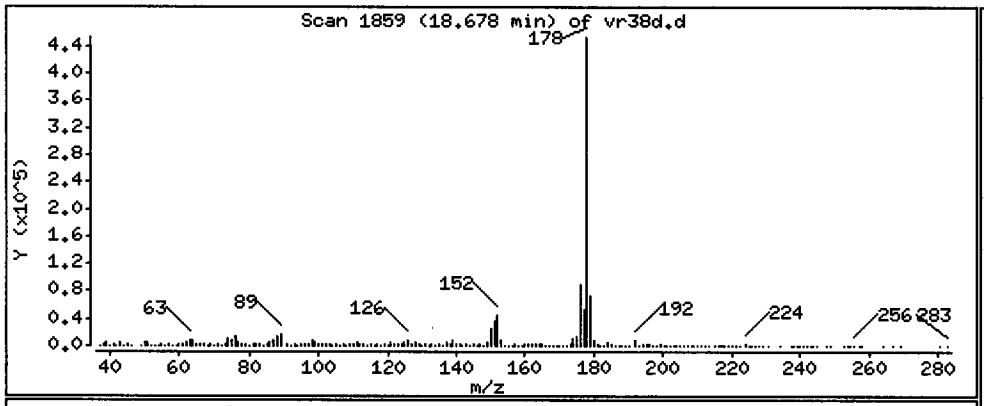
Operator: VTS/YZ

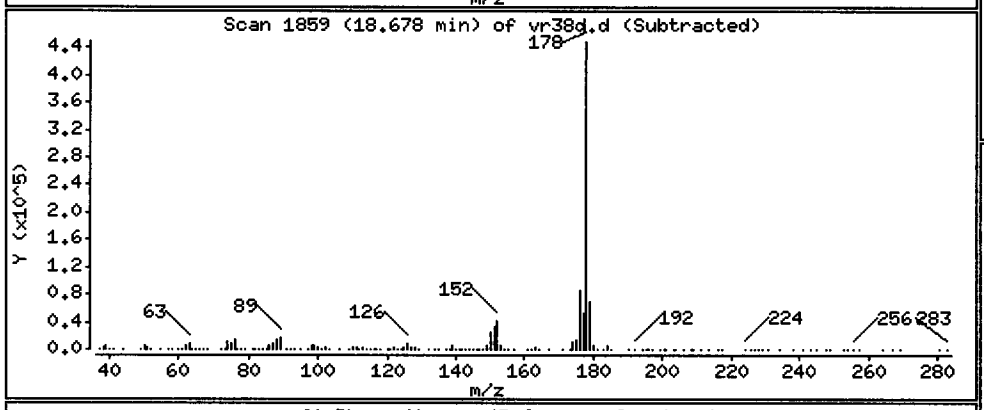
Column phase: ZB-5msi

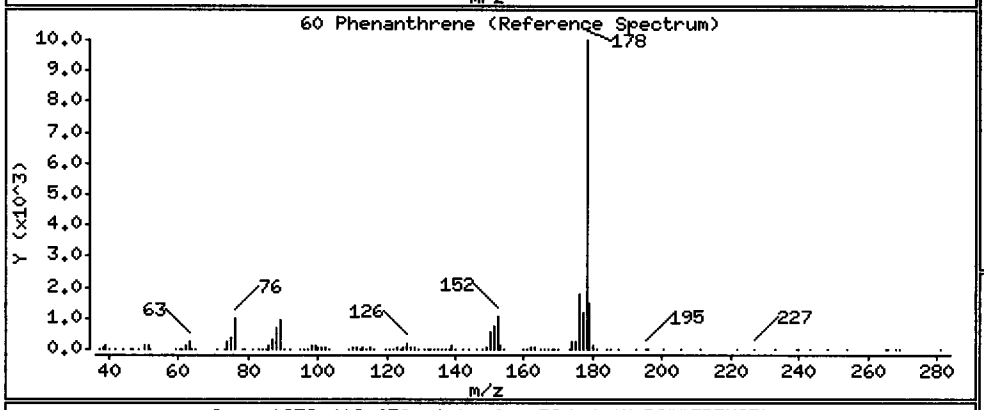
Column diameter: 0.25

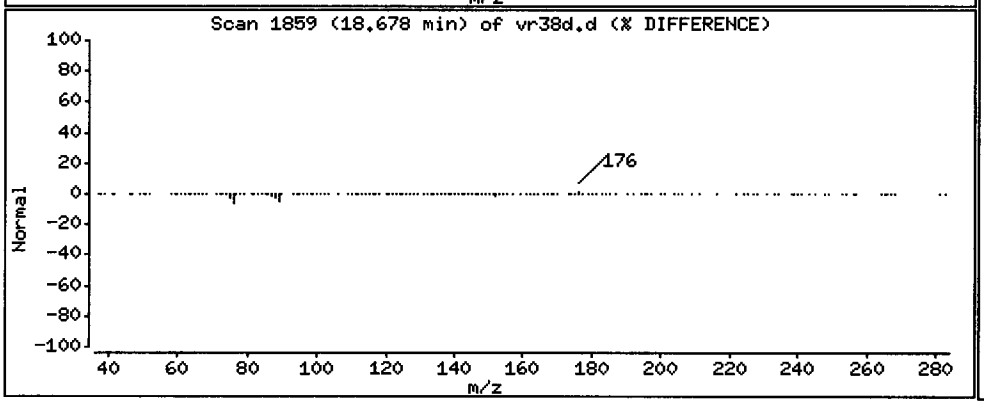
60 Phenanthrene

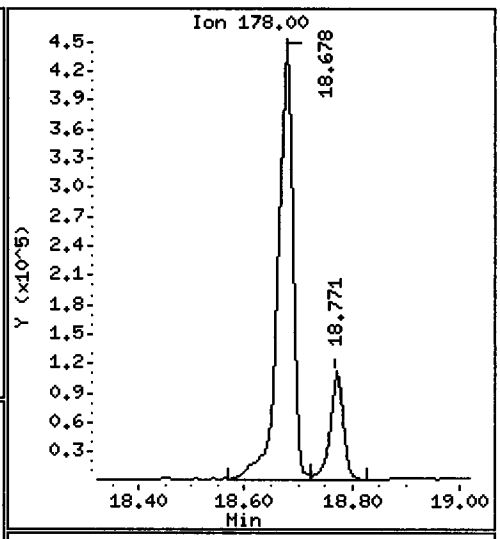
Concentration: 861.0 ug/kg

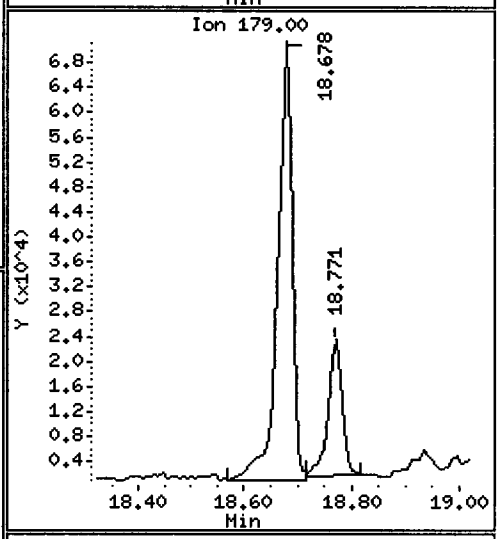


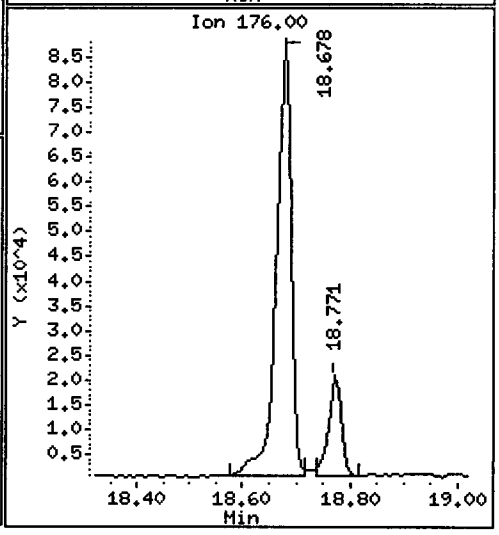












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

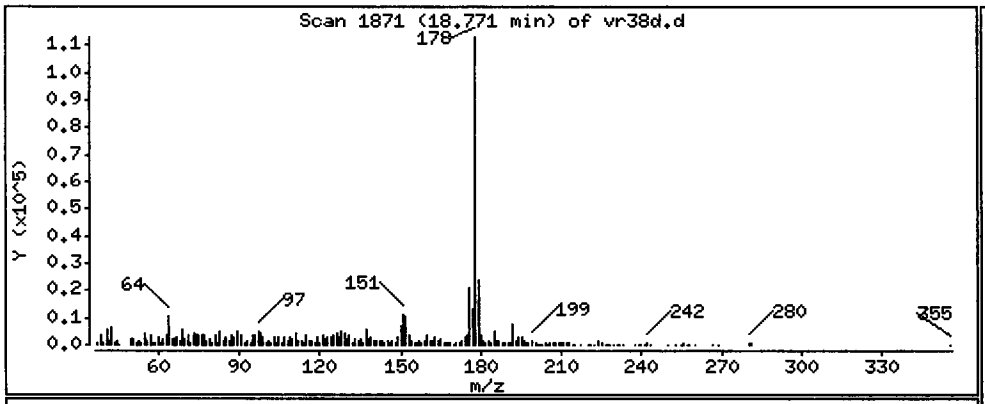
Operator: VTS/YZ

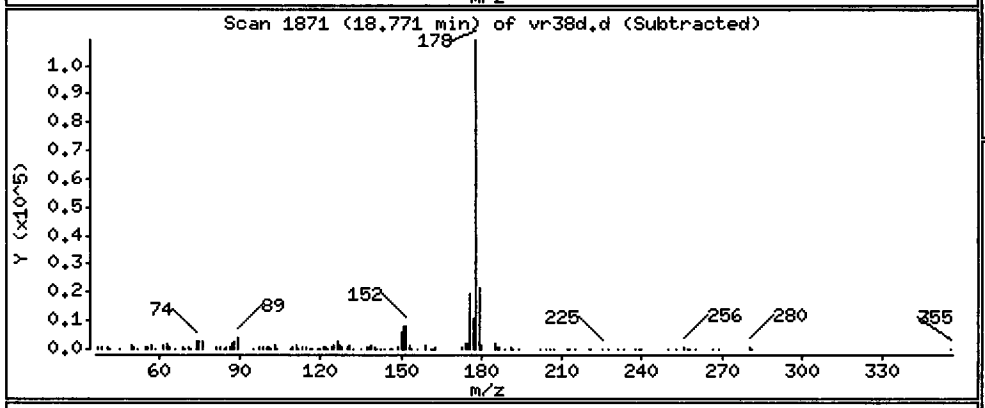
Column phase: ZB-5msi

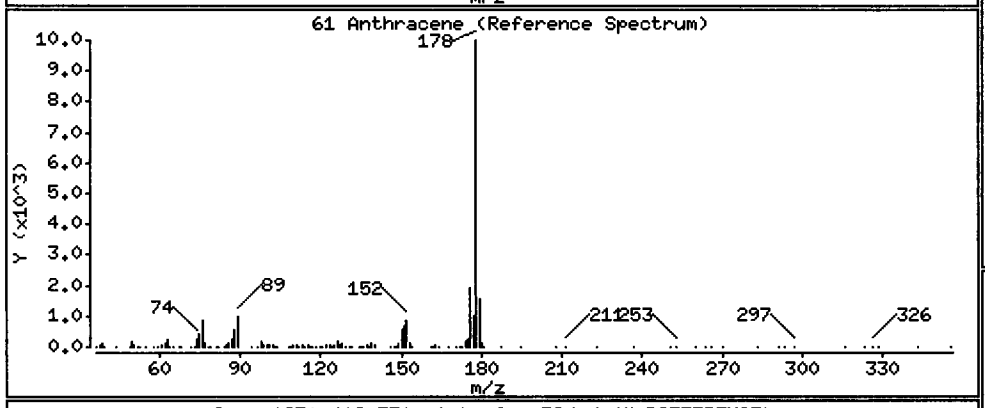
Column diameter: 0.25

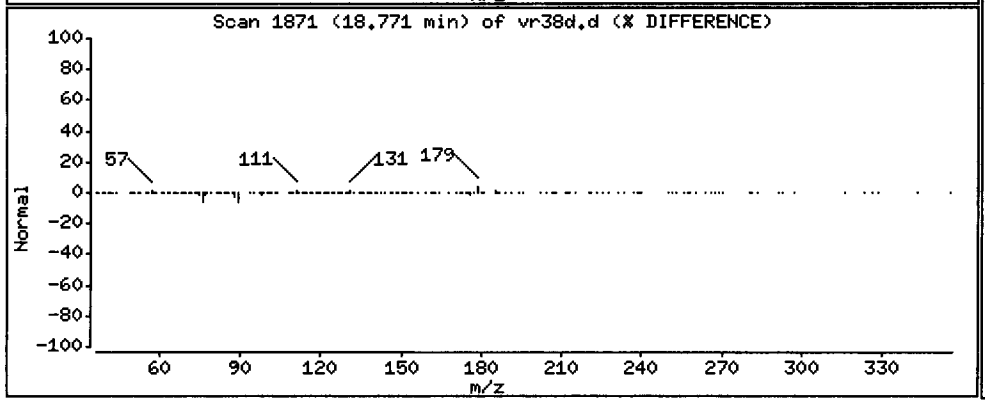
61 Anthracene

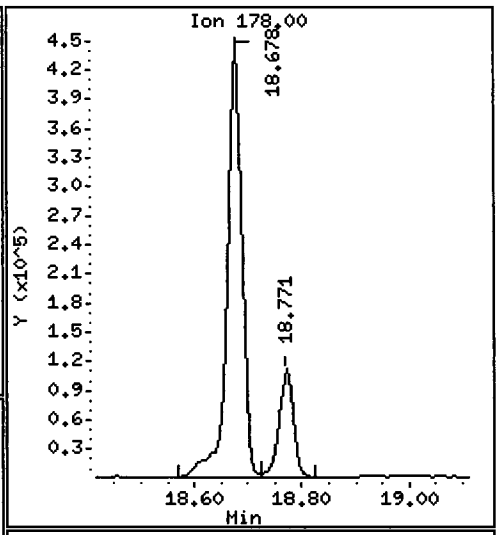
Concentration: 179.8 ug/kg

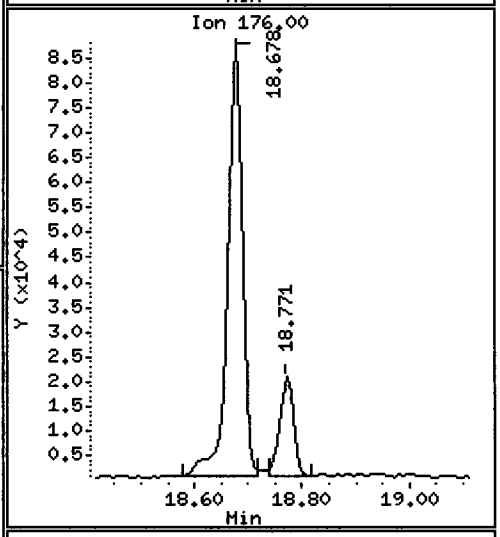


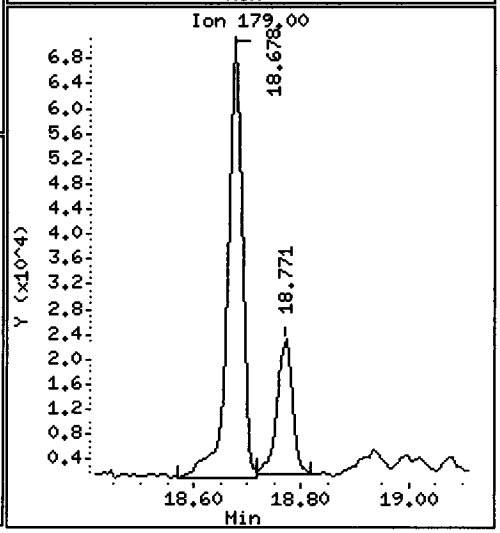












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

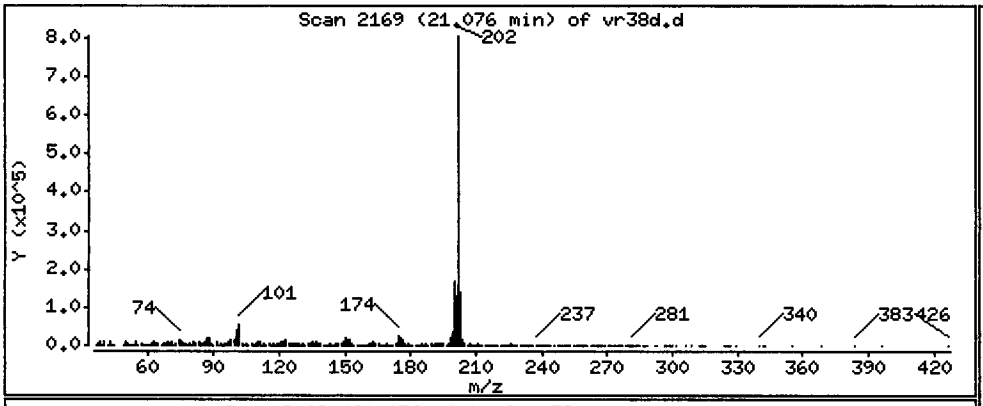
Operator: VTS/YZ

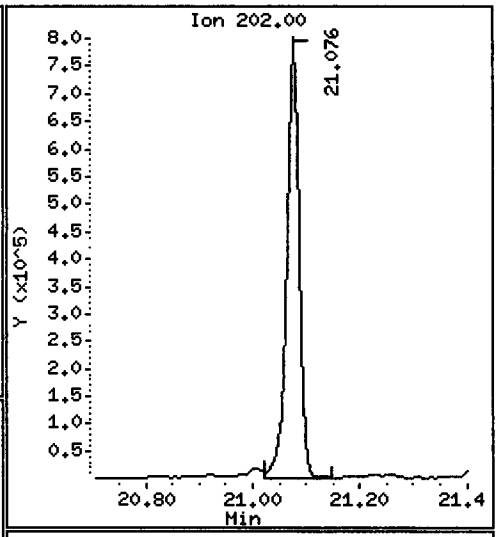
Column phase: ZB-5msi

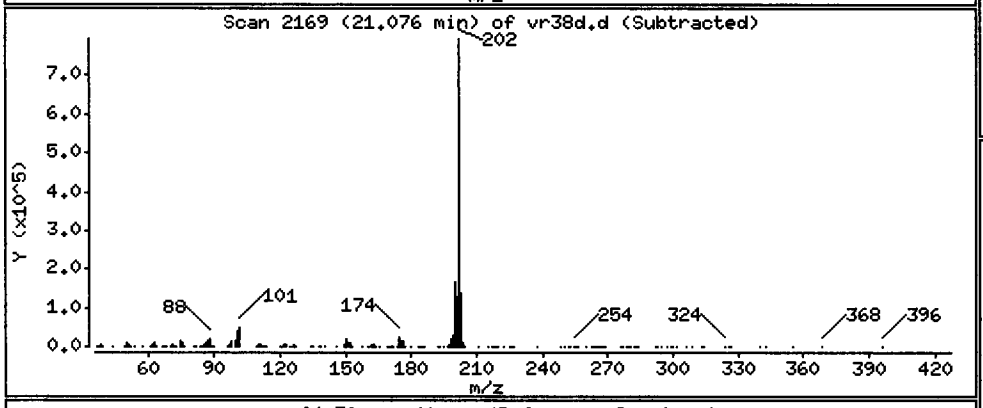
Column diameter: 0.25

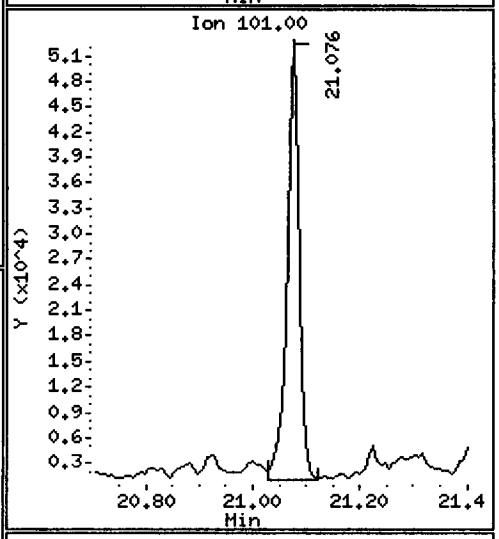
64 Fluoranthene

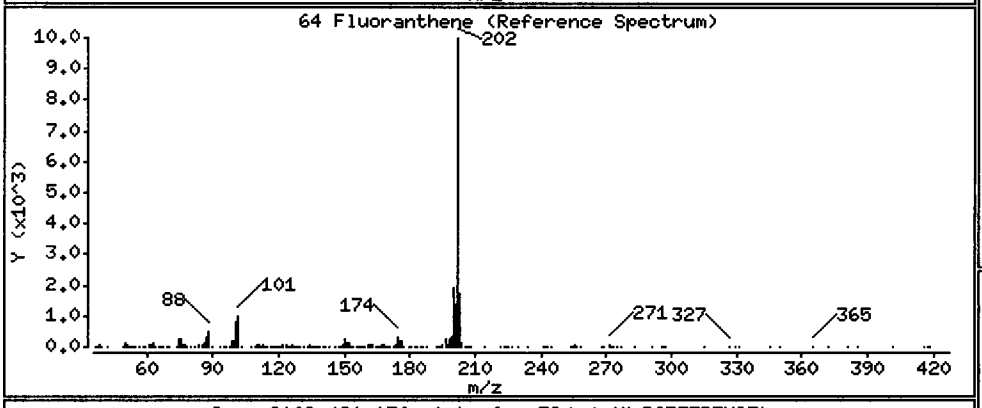
Concentration: 1066 ug/kg

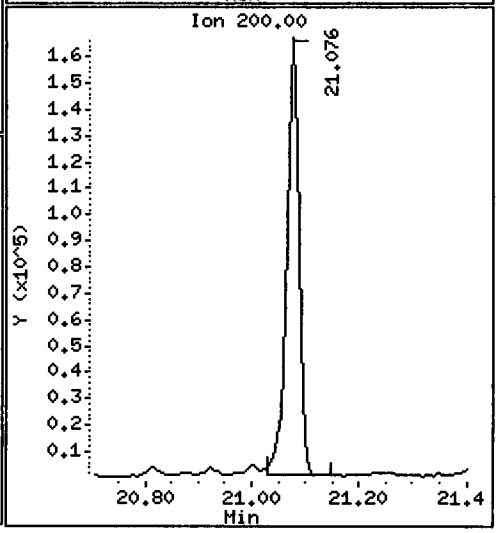


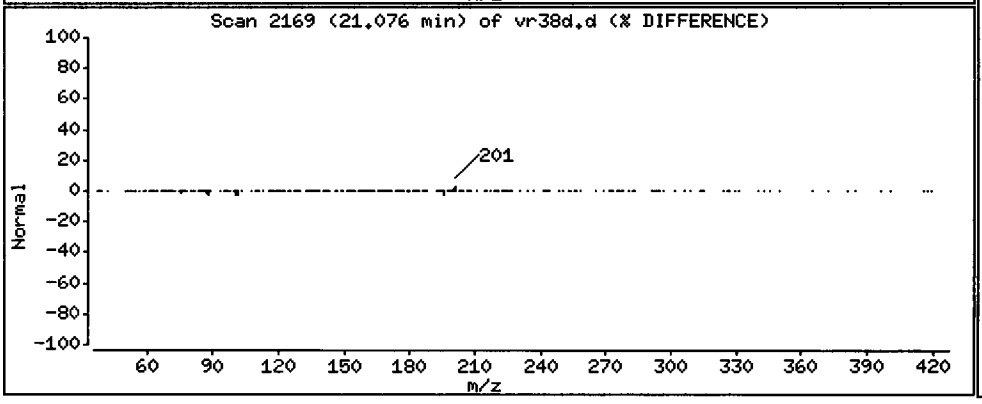












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

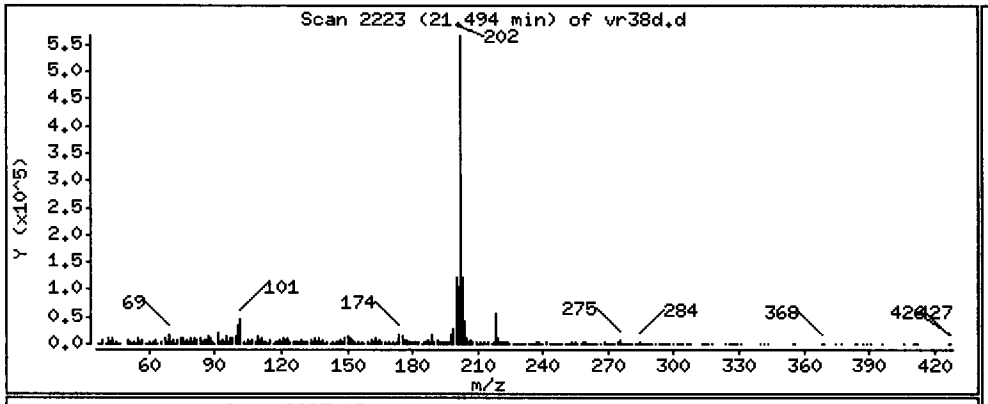
Operator: VTS/YZ

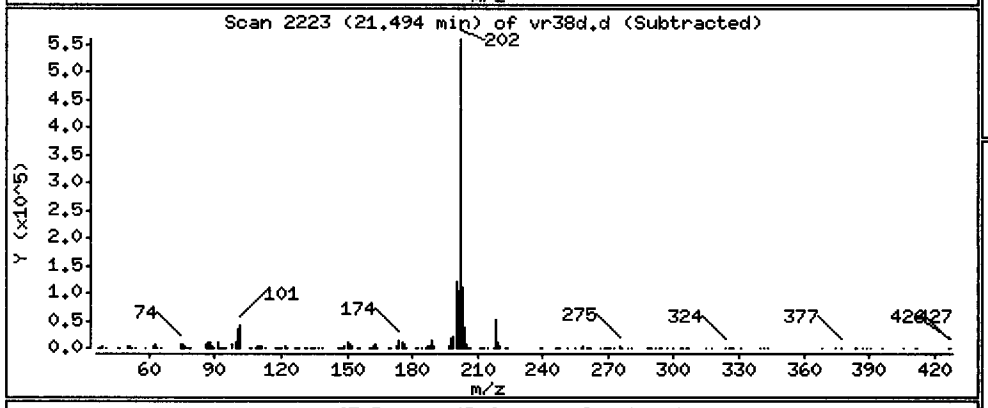
Column phase: ZB-5msi

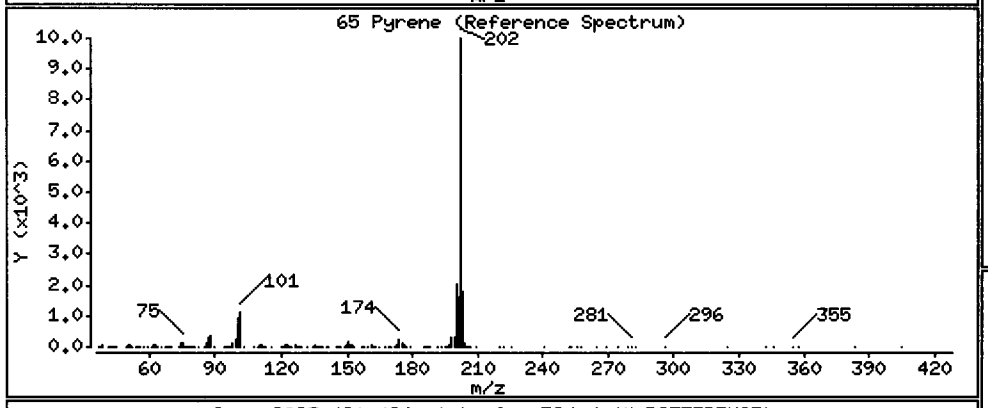
Column diameter: 0.25

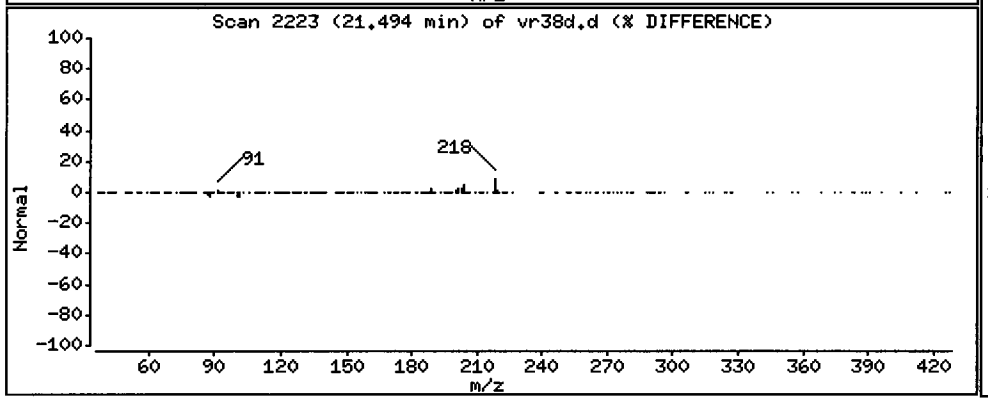
65 Pyrene

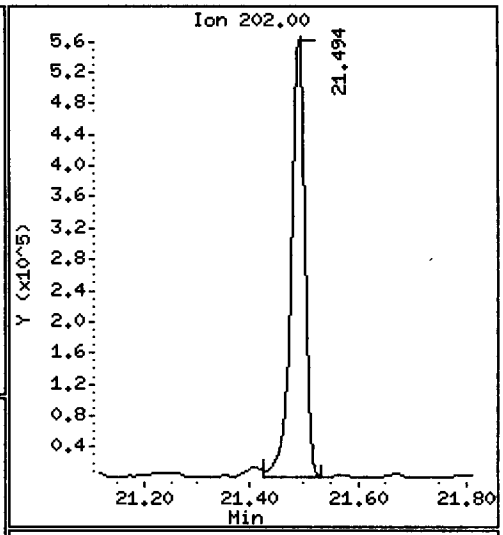
Concentration: 613.2 ug/kg

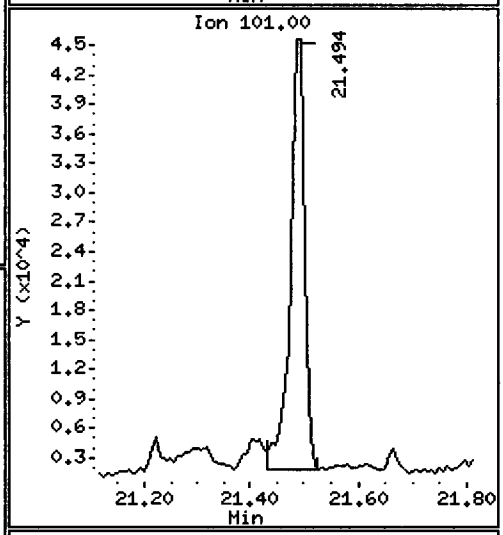


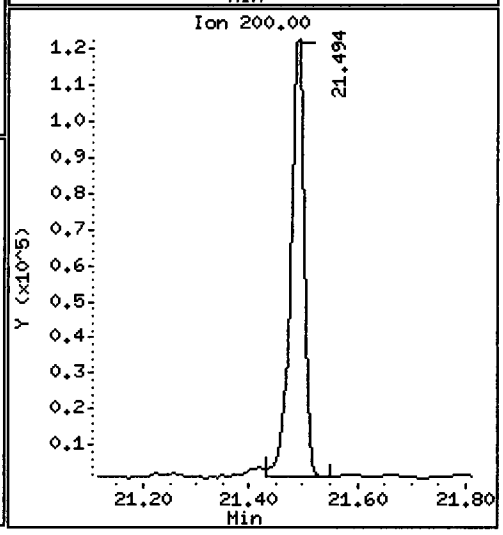












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

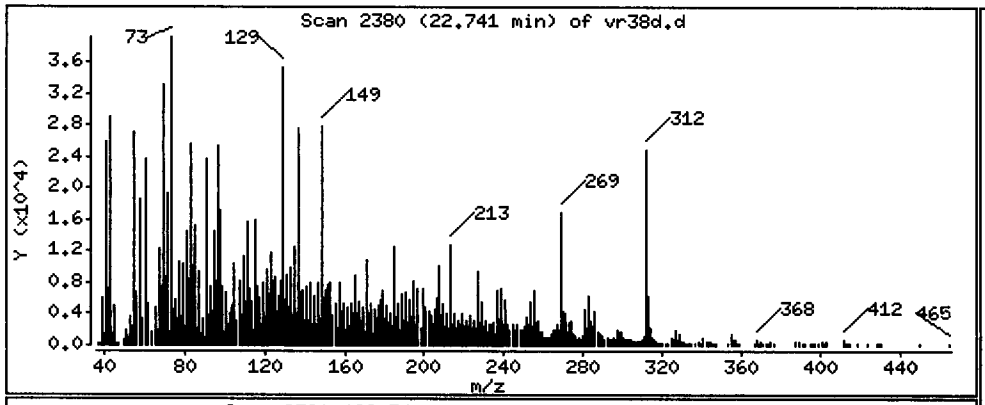
Operator: VTS/YZ

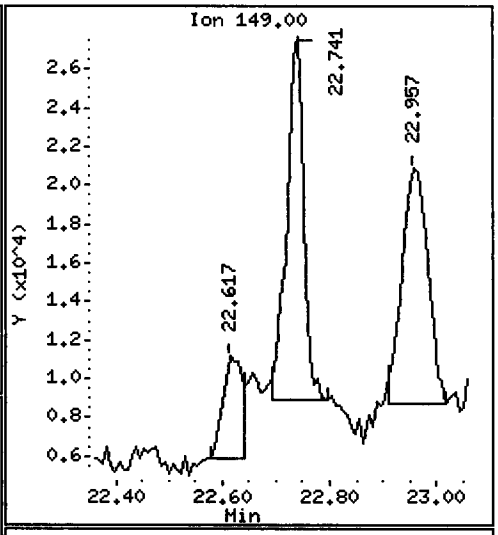
Column phase: ZB-5msi

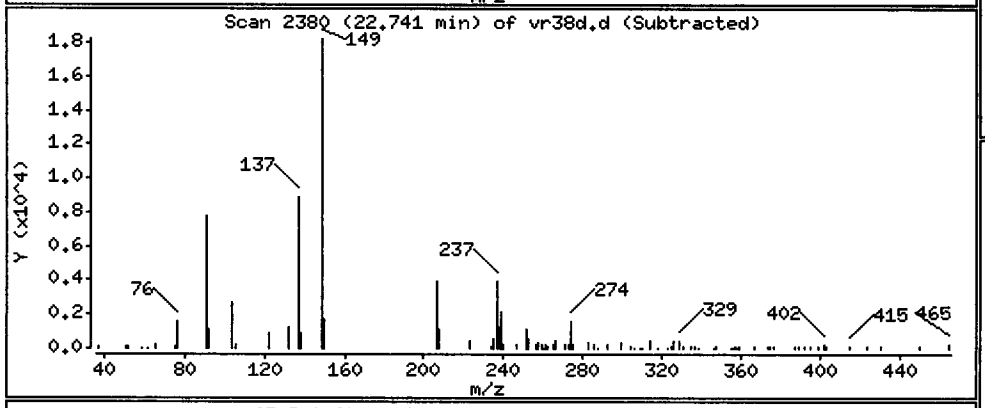
Column diameter: 0.25

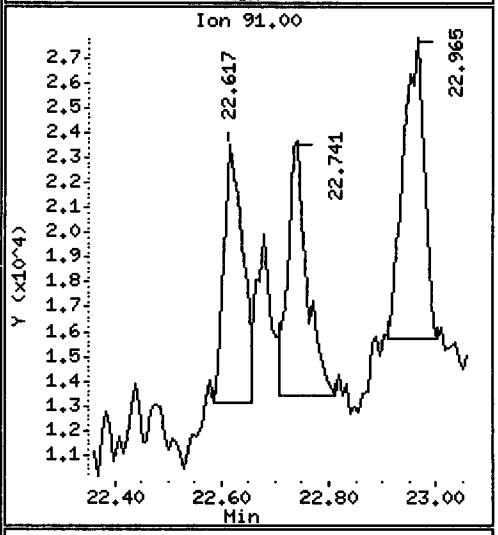
67 Butylbenzylphthalate

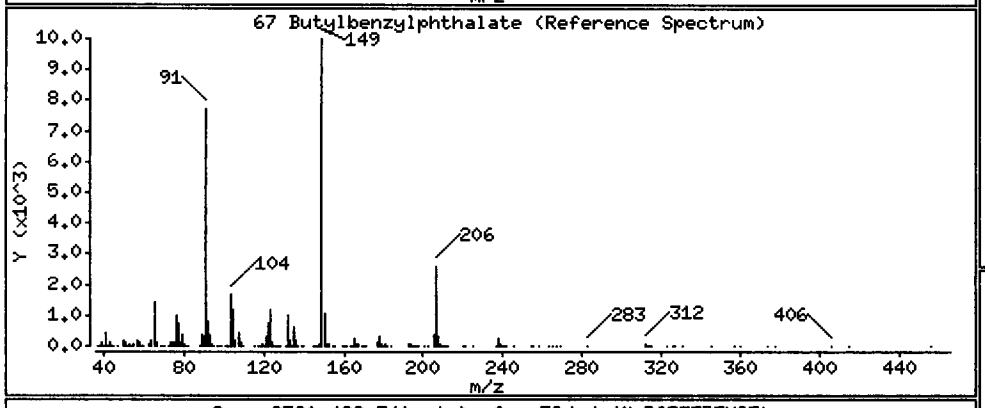
Concentration: 64.73 ug/kg

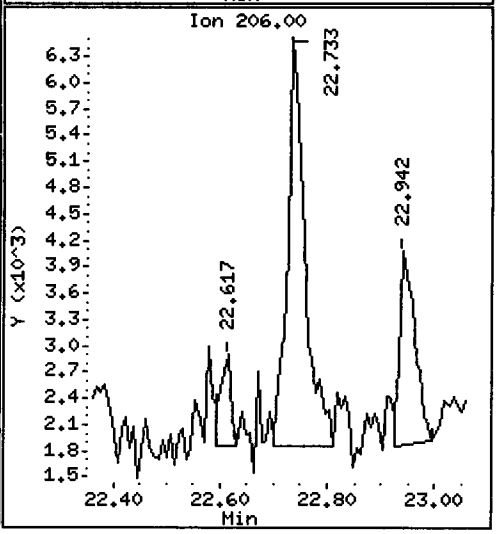


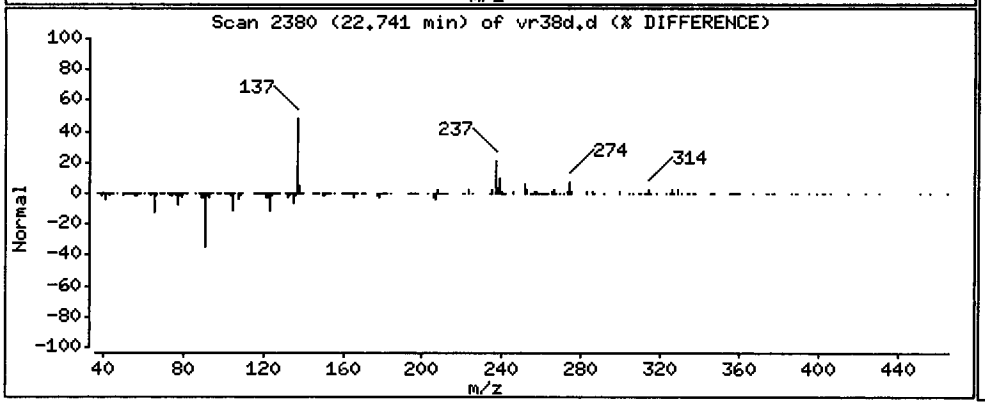












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

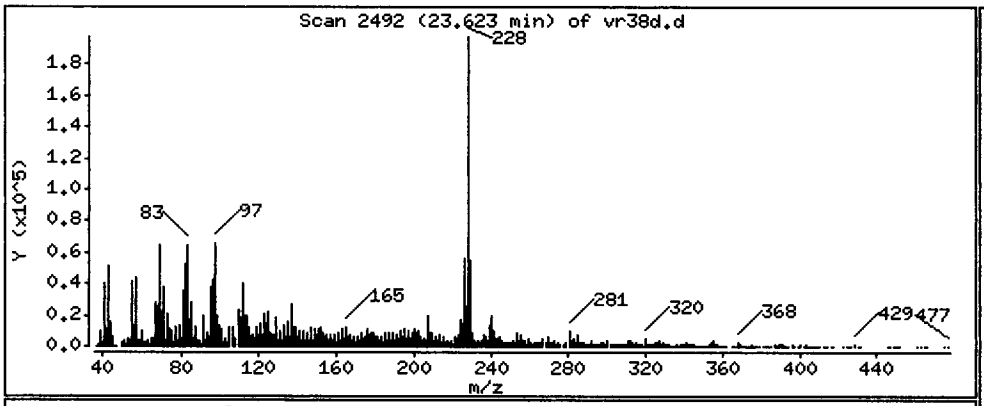
Operator: VTS/YZ

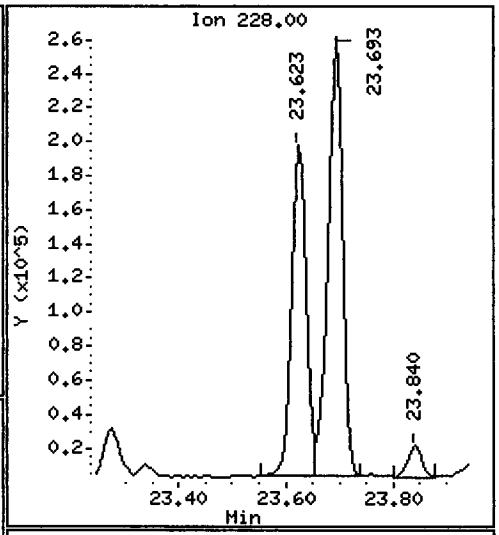
Column phase: ZB-5msi

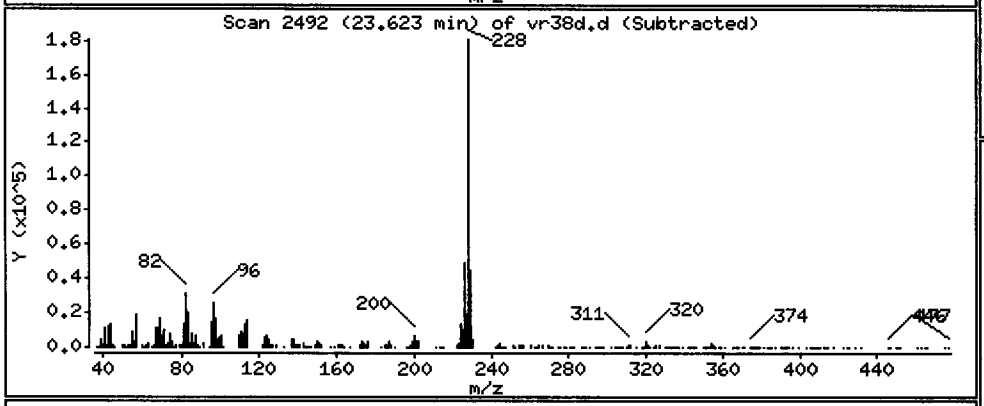
Column diameter: 0.25

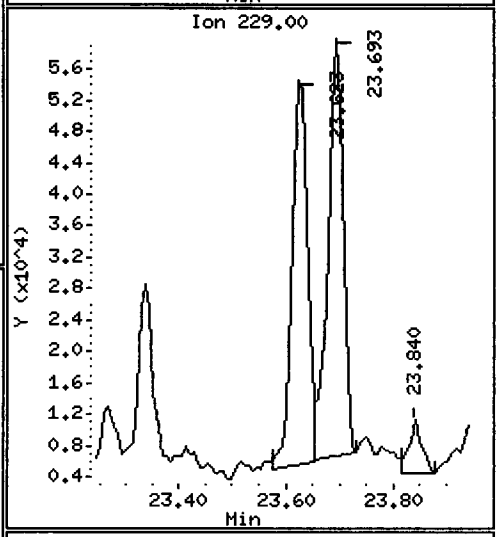
68 Benzo(a)anthracene

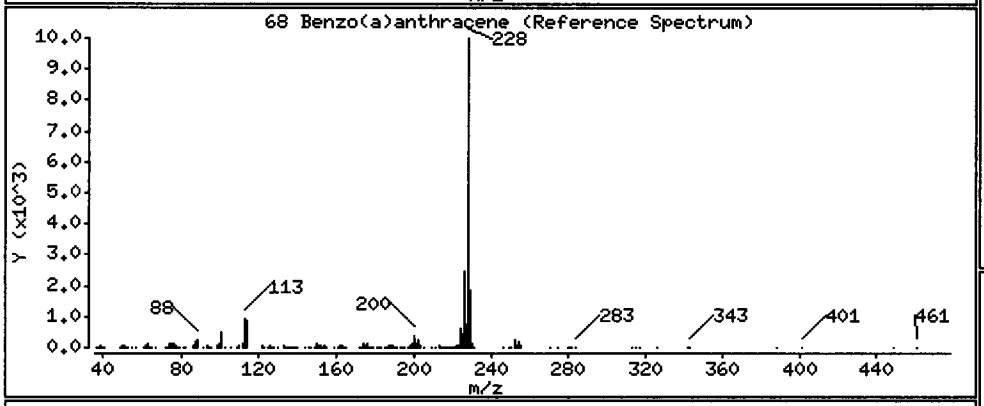
Concentration: 244.6 ug/kg

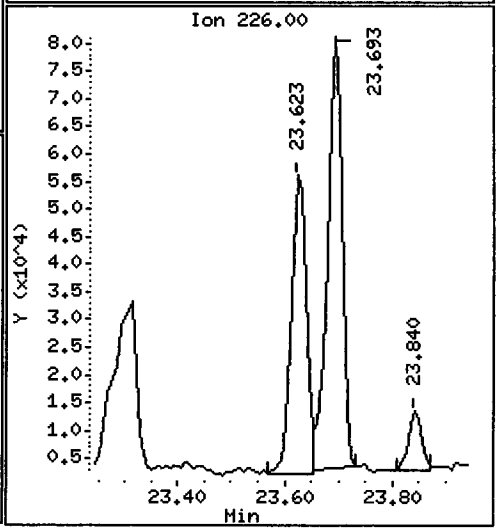


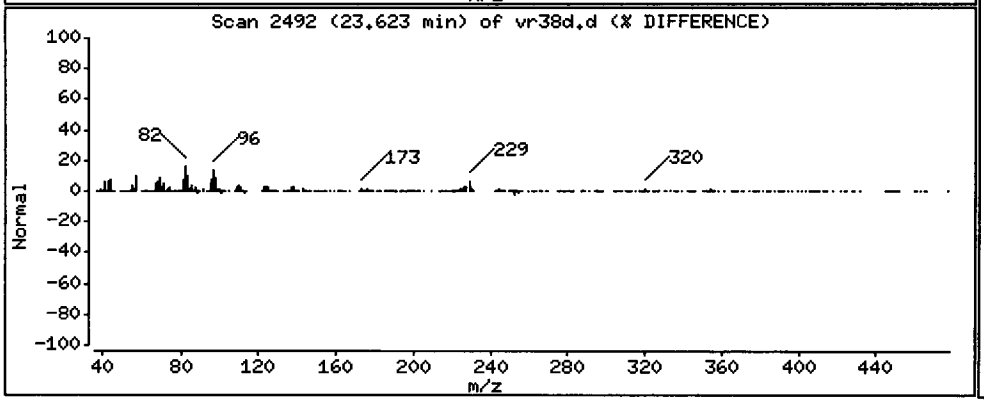












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

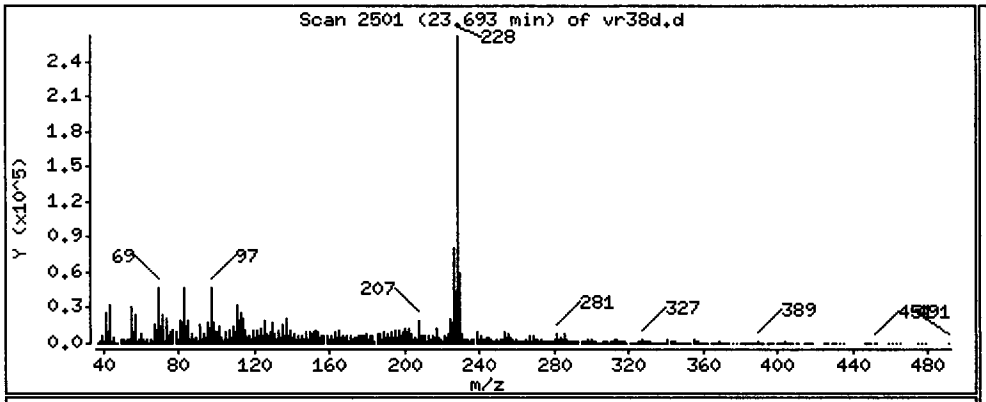
Client ID: HT-04-S-C-121106 Instrument: nt10.i

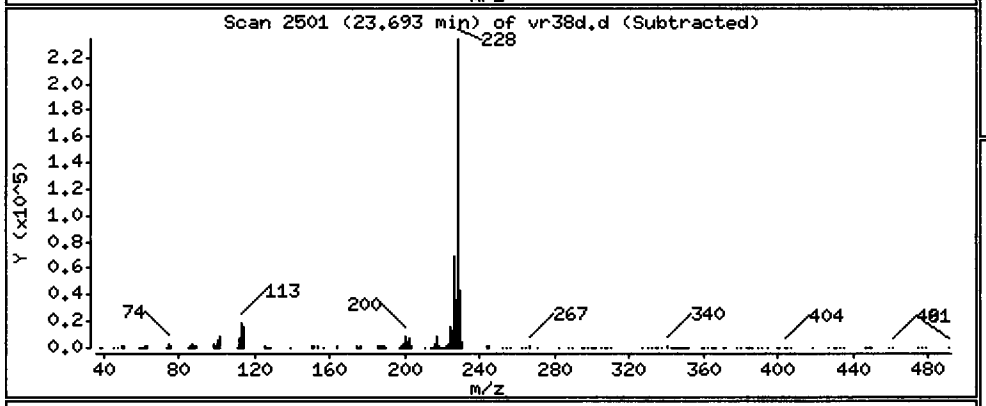
Sample Info: VR38D

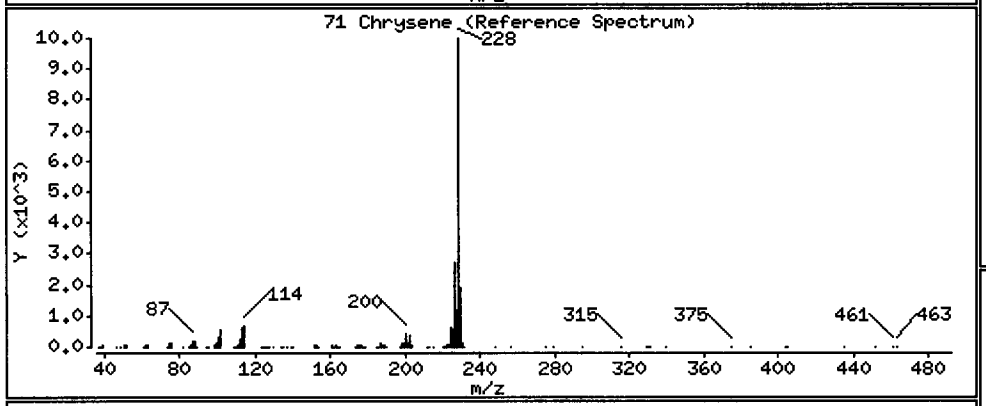
Volume Injected (uL): 1.0 Operator: VTS/YZ

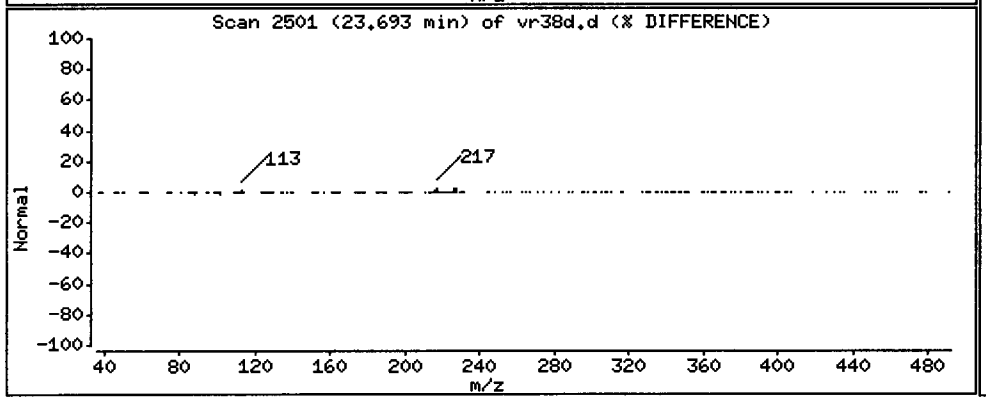
Column phase: ZB-5msi Column diameter: 0.25

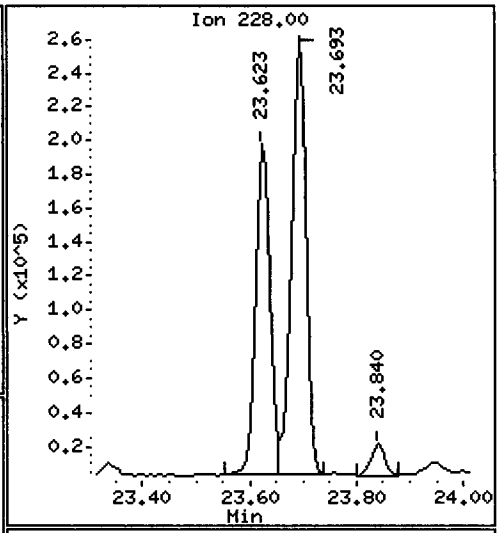
71 Chrysene Concentration: 363.4 ug/kg

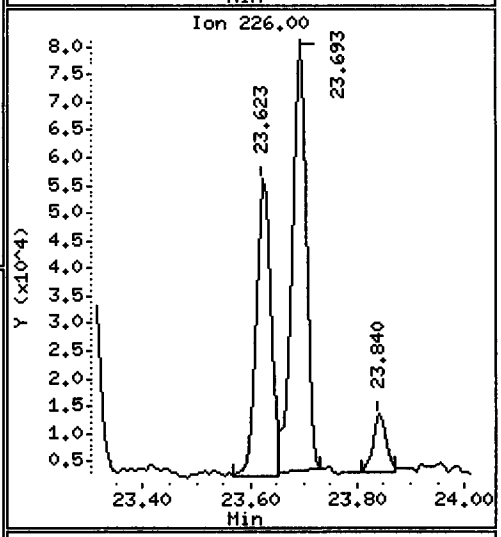


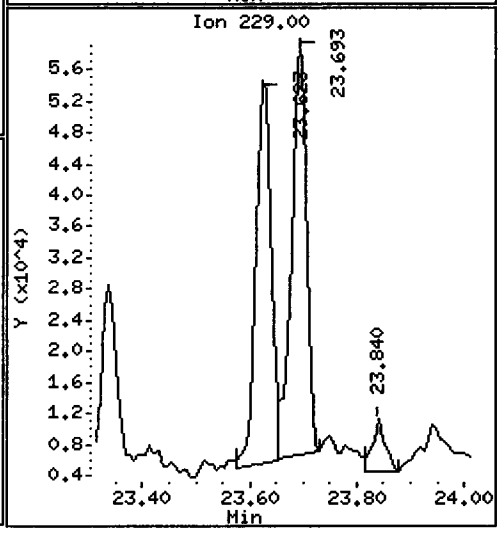












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

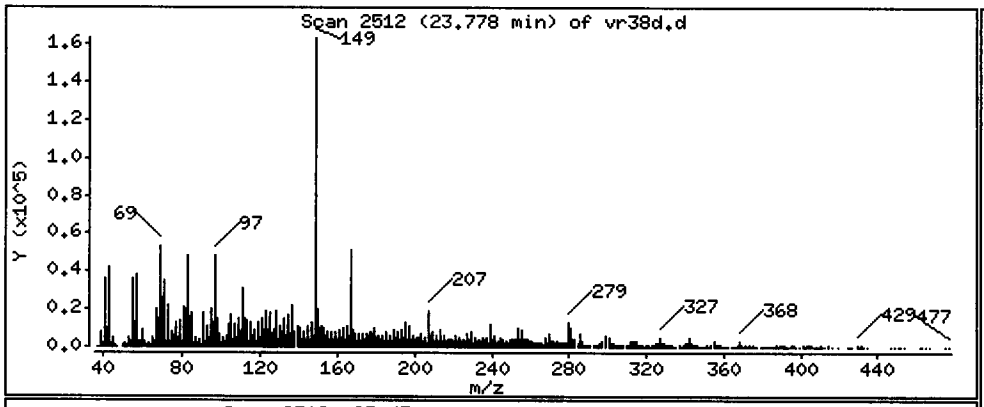
Operator: VTS/YZ

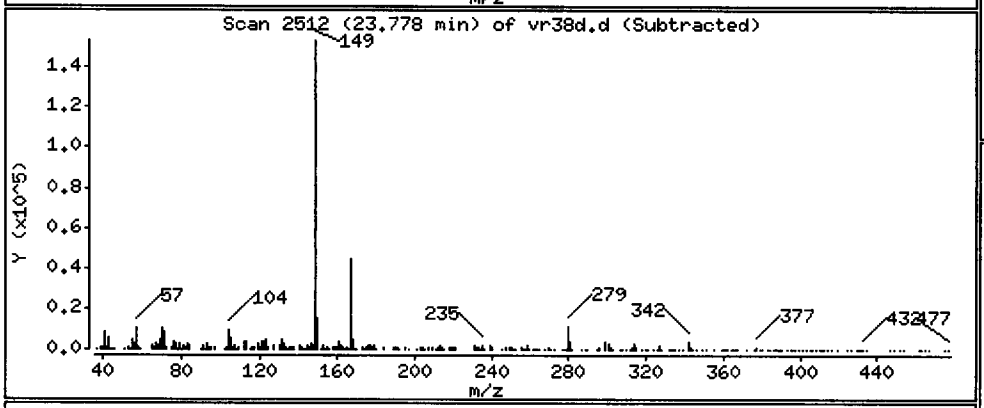
Column phase: ZB-5msi

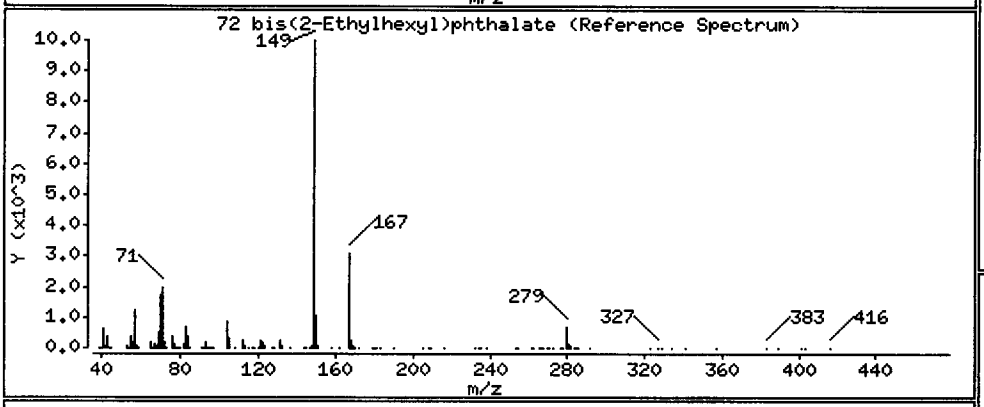
Column diameter: 0.25

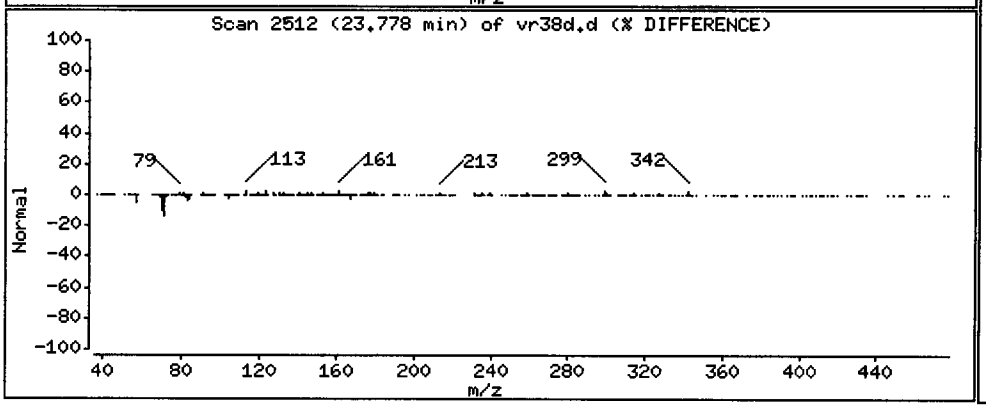
72 bis(2-Ethylhexyl)phthalate

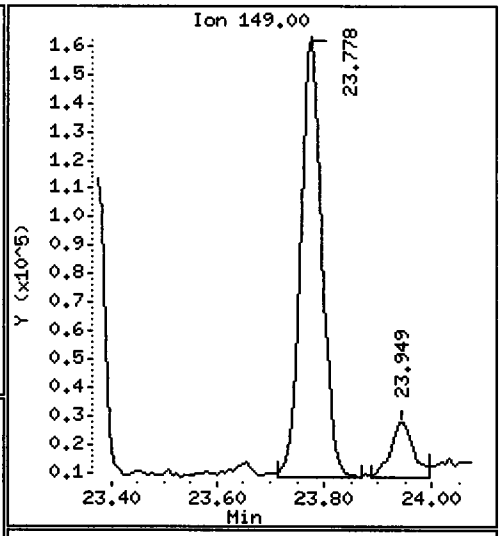
Concentration: 461.5 ug/kg

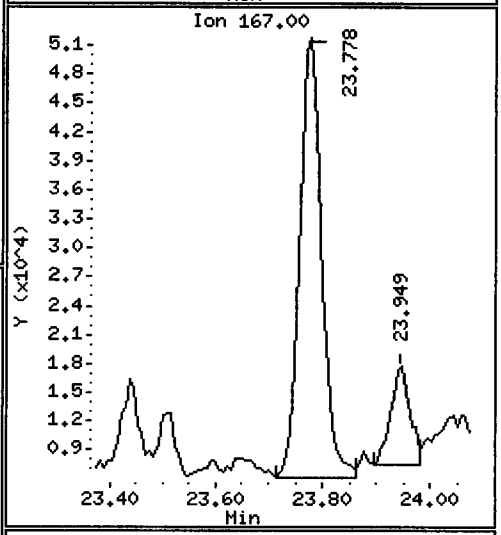


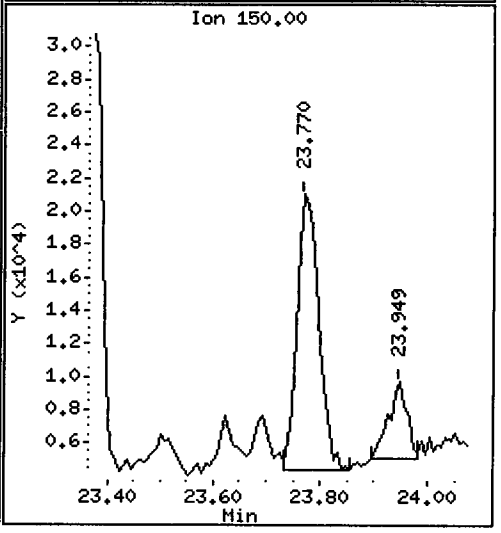












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

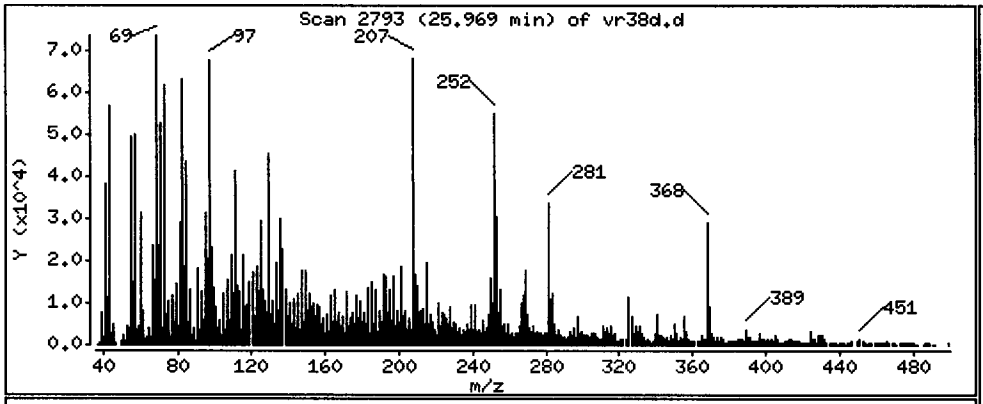
Client ID: HT-04-S-C-121106 Instrument: nt10.i

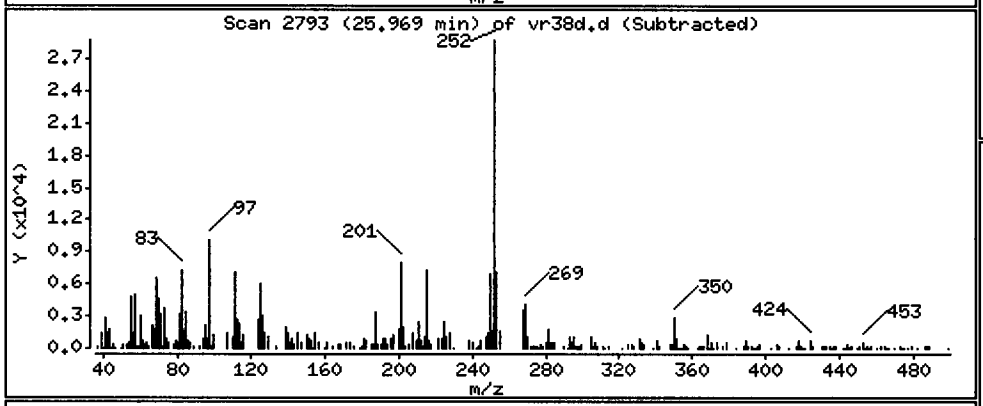
Sample Info: VR38D

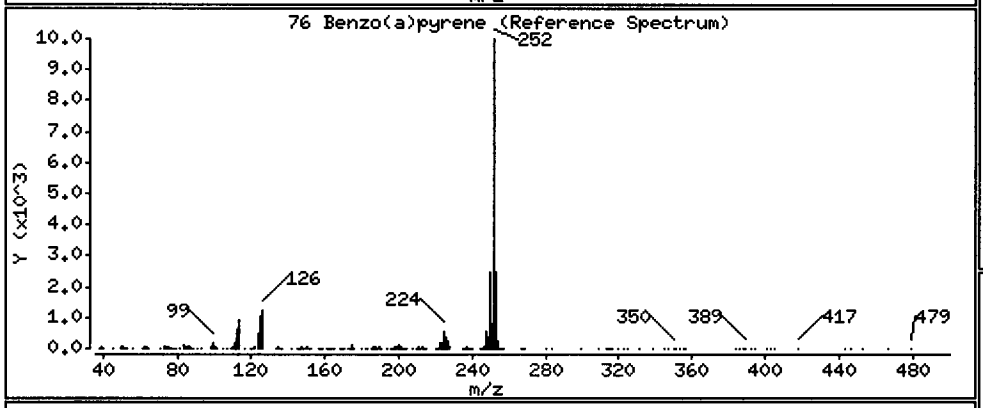
Volume Injected (uL): 1.0 Operator: VTS/YZ

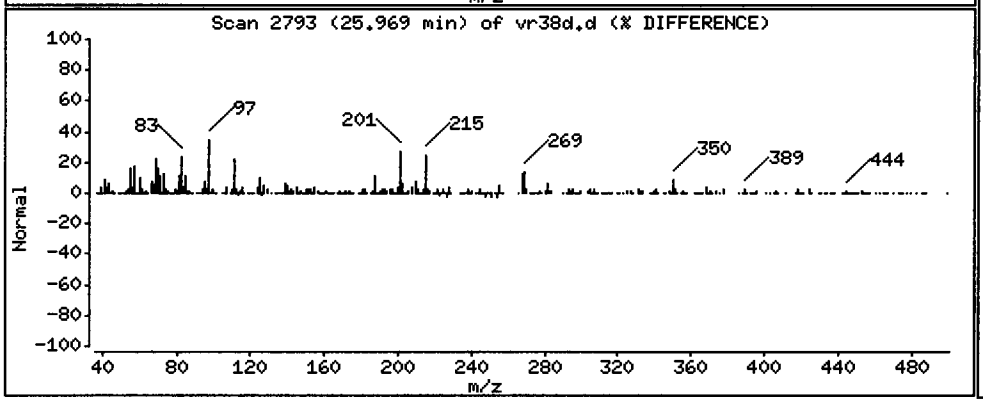
Column phase: ZB-5msi Column diameter: 0.25

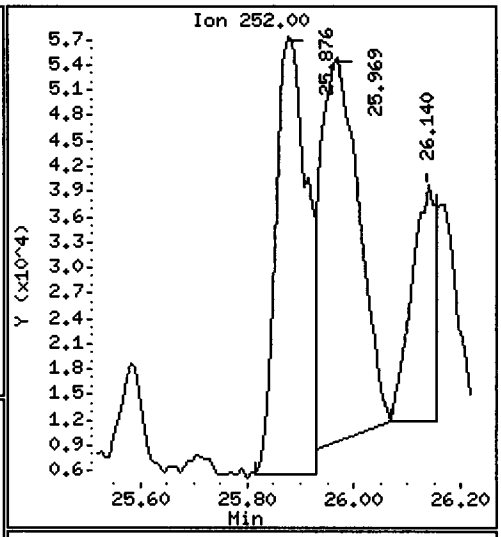
76 Benzo(a)pyrene Concentration: 142.7 ug/kg

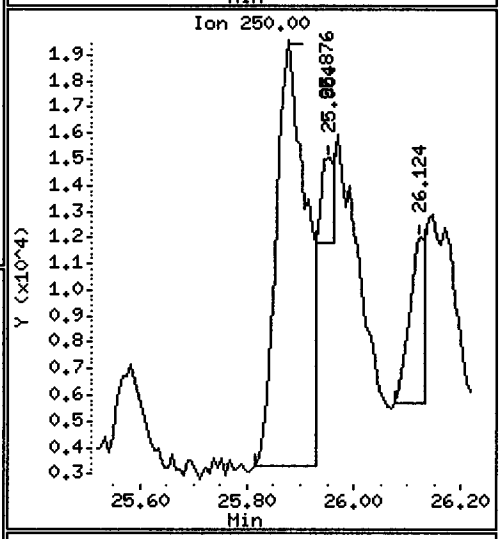


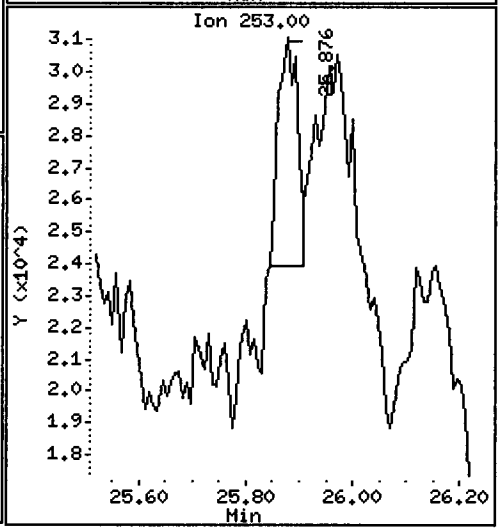












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

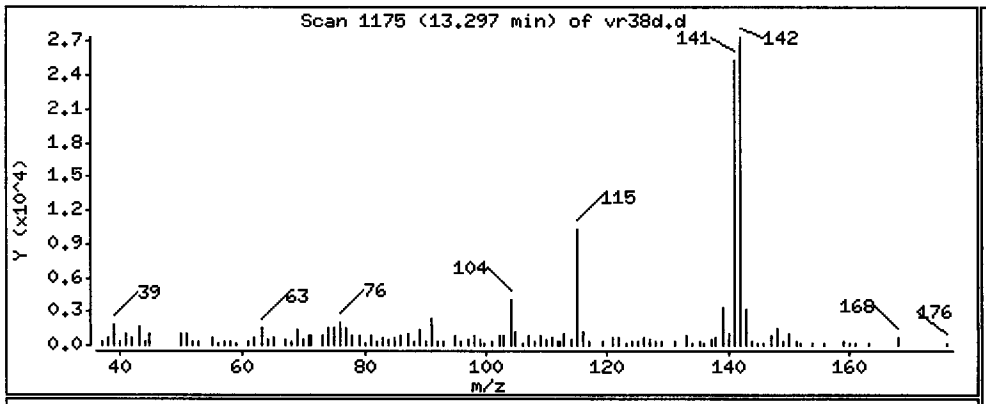
Client ID: HT-04-S-C-121106 Instrument: nt10.i

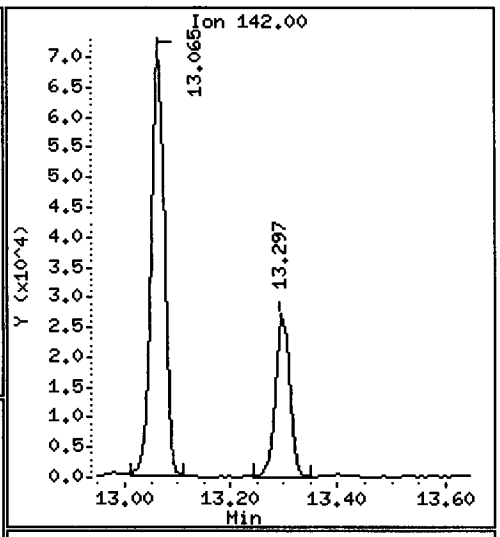
Sample Info: VR38D

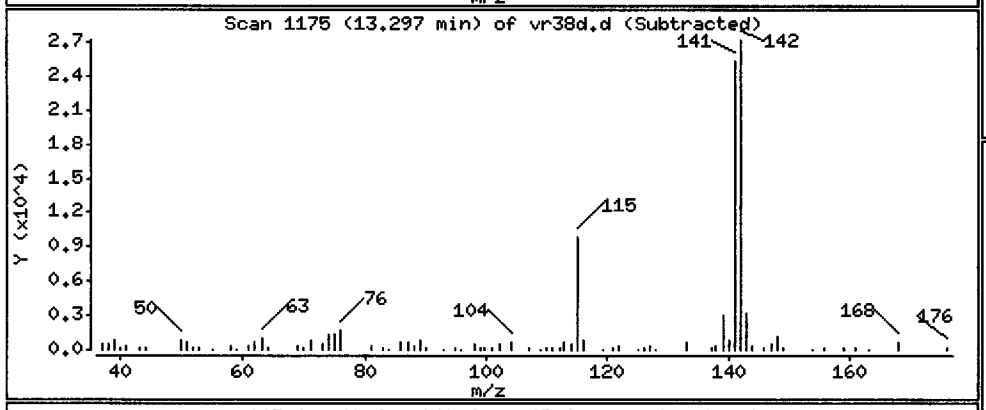
Volume Injected (uL): 1.0 Operator: VTS/YZ

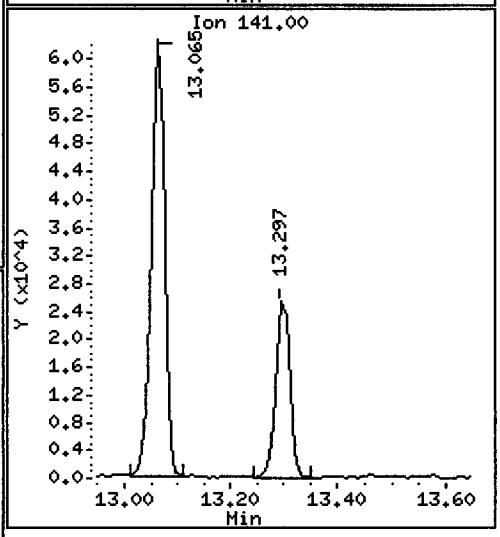
Column phase: ZB-5msi Column diameter: 0.25

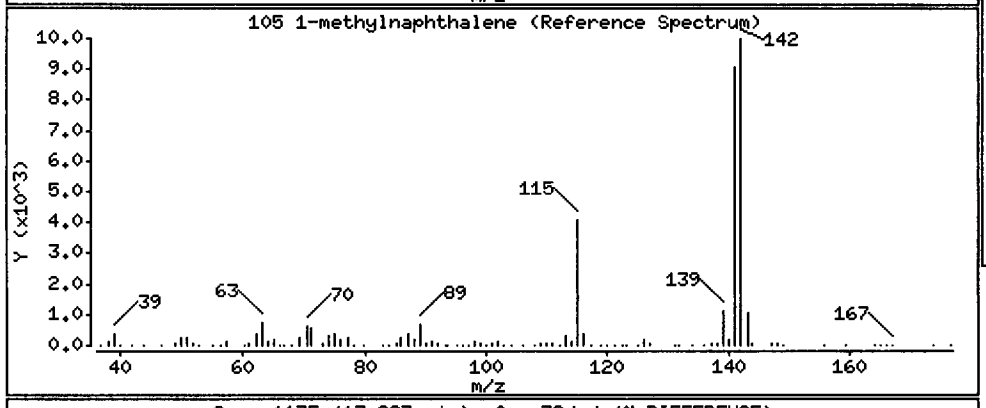
105 1-methylnaphthalene Concentration: 82.65 ug/kg

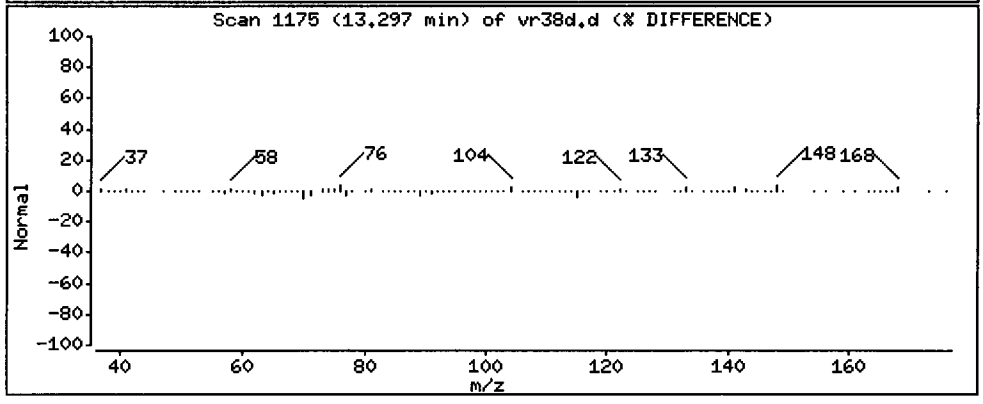












Data File: /chem1/nt10.i/20121119.b/vr38d.d

Date : 19-NOV-2012 17:16

Client ID: HT-04-S-C-121106

Instrument: nt10.i

Sample Info: VR38D

Volume Injected (uL): 1.0

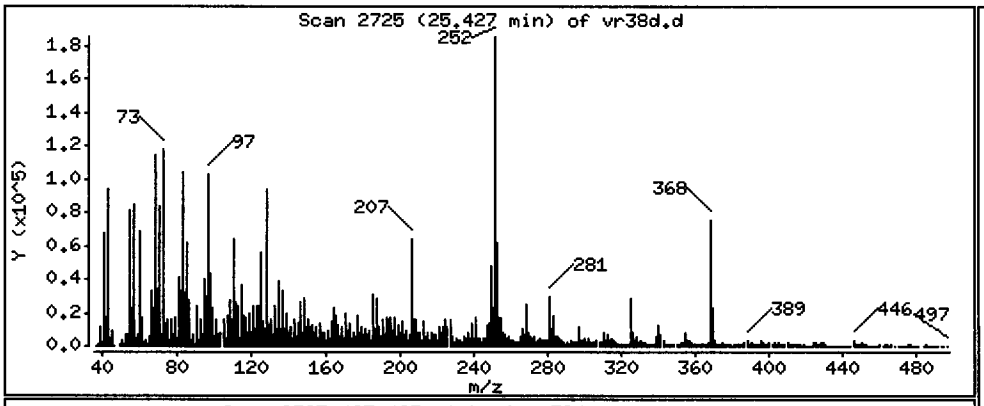
Operator: VTS/YZ

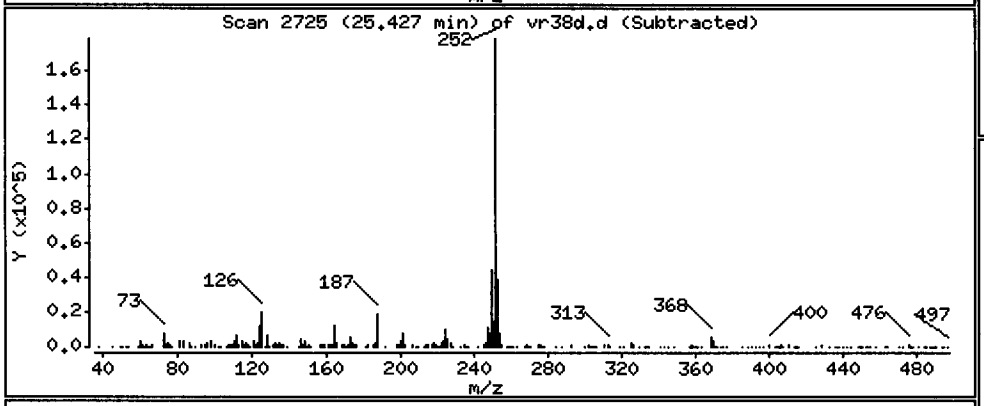
Column phase: ZB-5msi

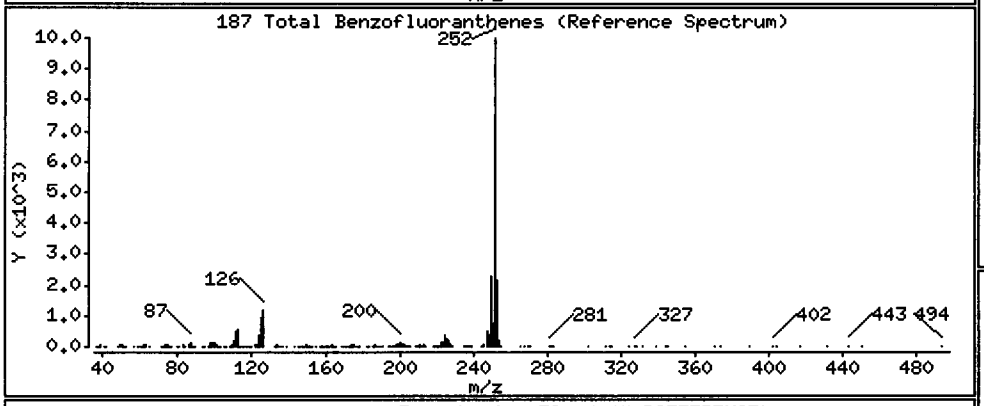
Column diameter: 0.25

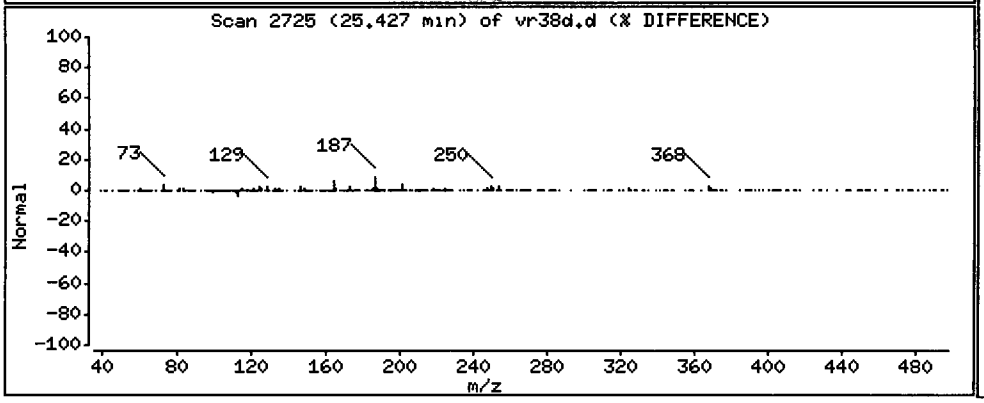
187 Total Benzofluoranthenes

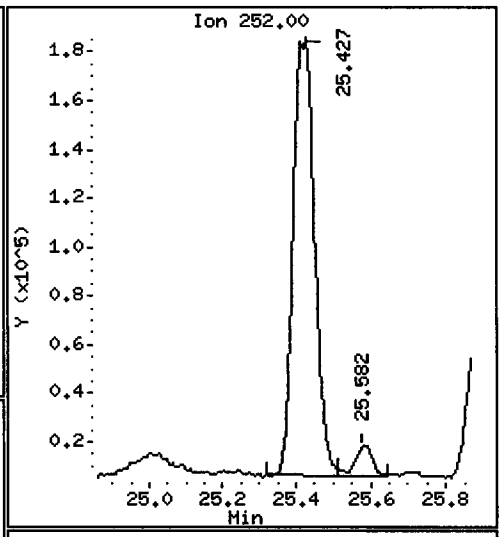
Concentration: 417.3 ug/kg

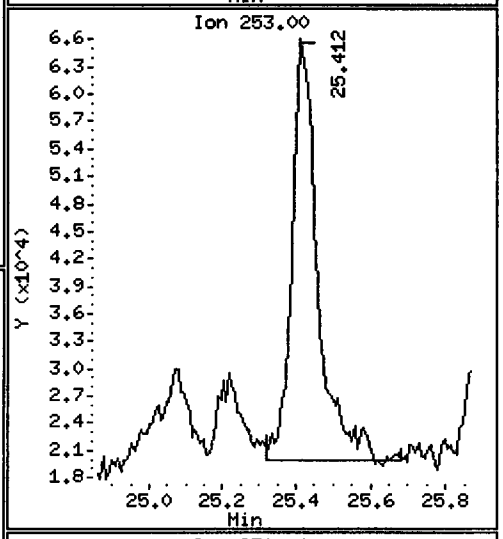


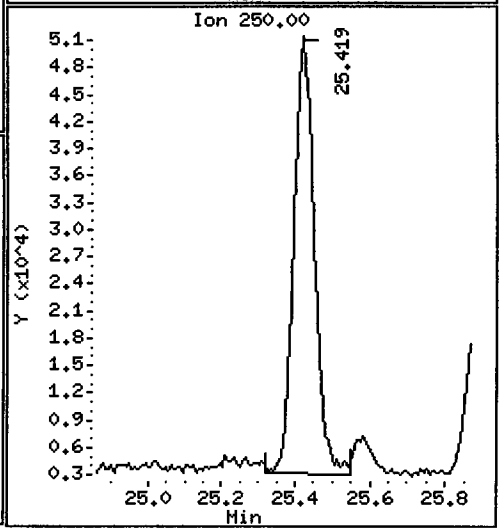






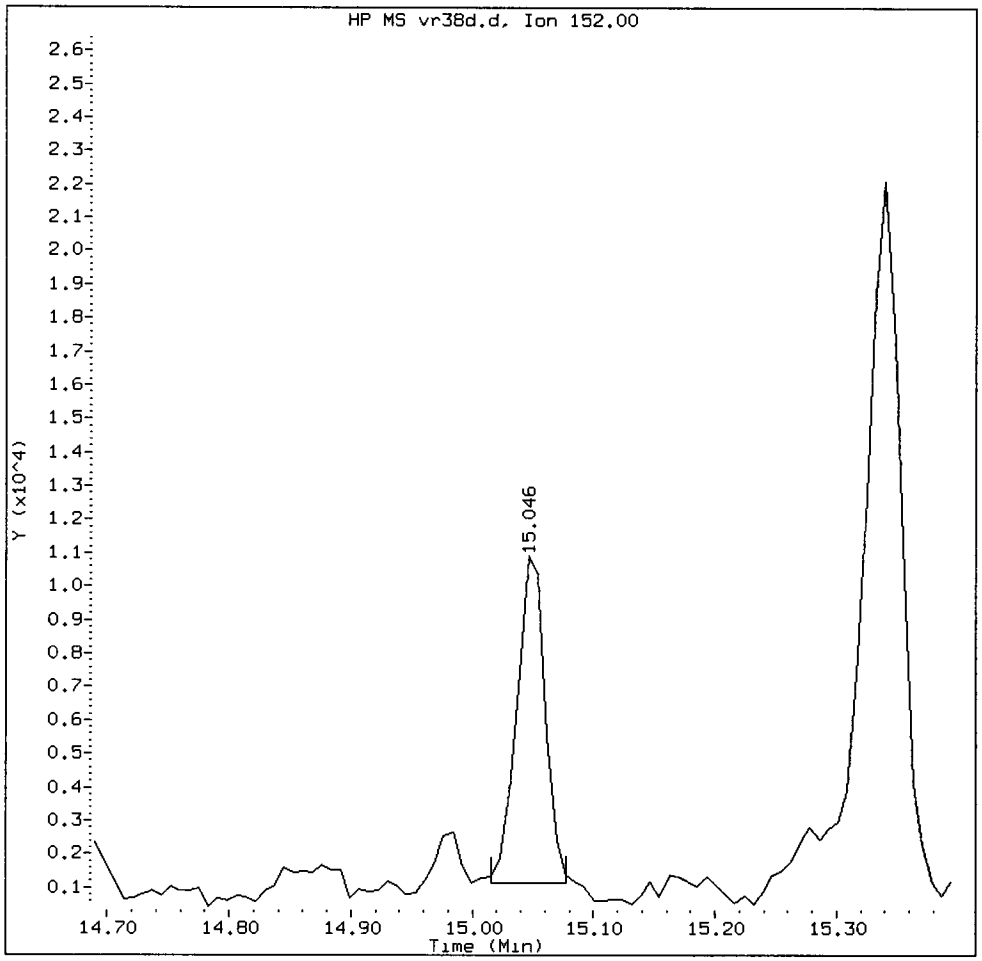






VR38D, /chem1/nt10.i/20121119.b/vr38d.d

Acenaphthylene Amount: 0.17 Area: 16722



MANUAL INTEGRATION for Acenaphthylene

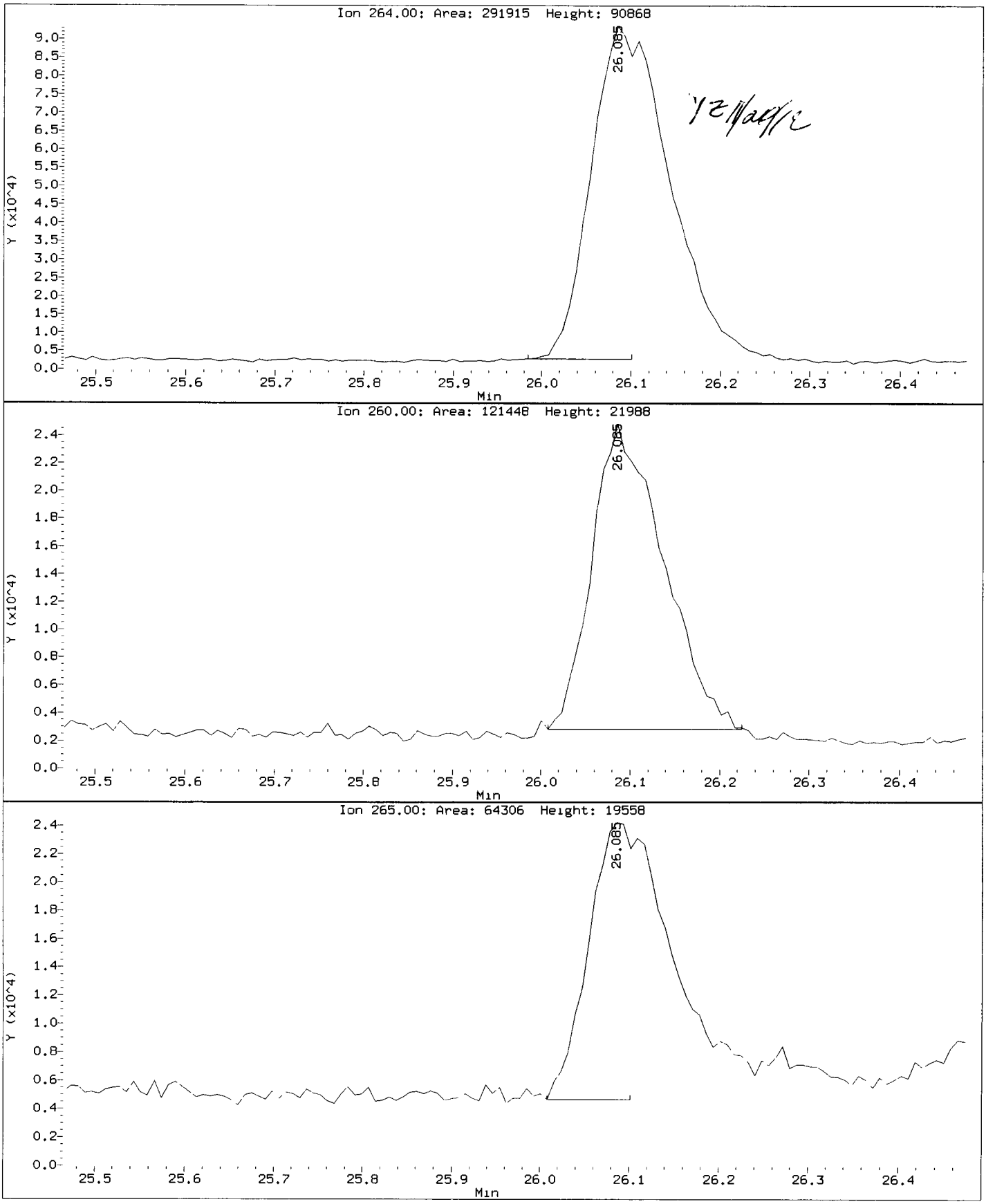
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 4/20/13

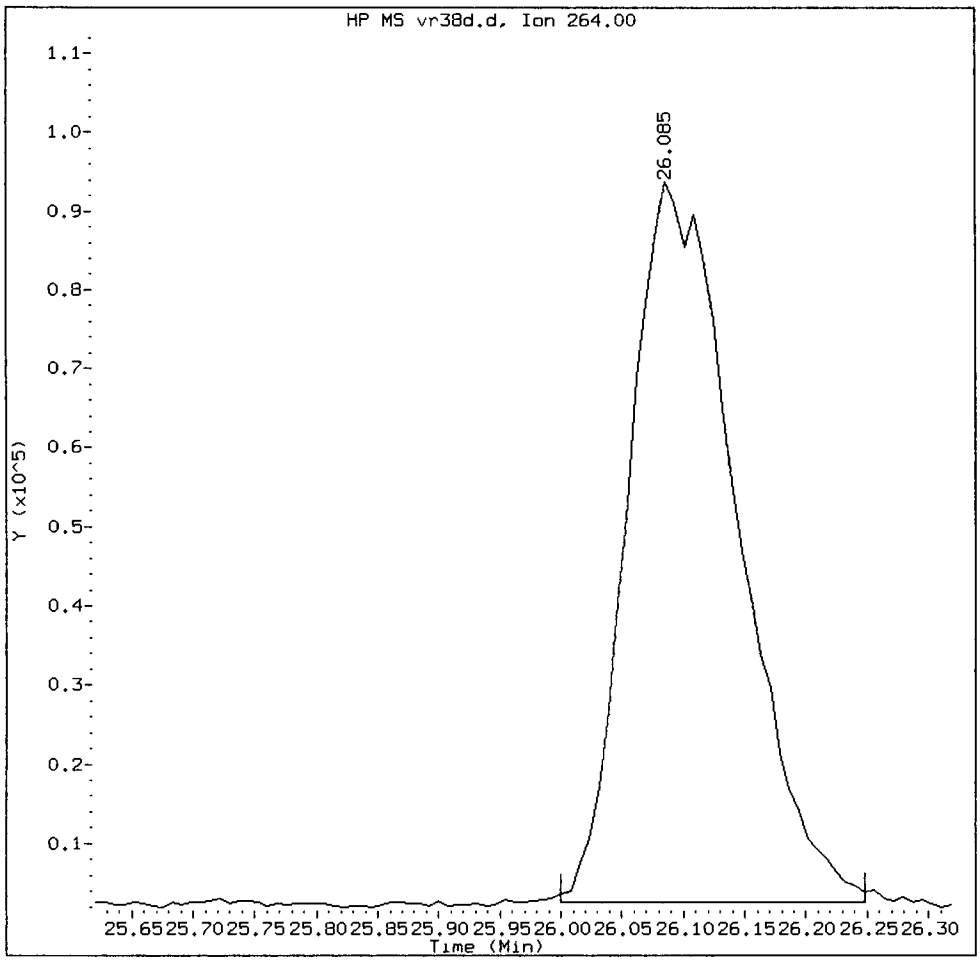
Data File: /chem1/nt10.1/20121119.b/vr38d.d
Injection Date: 19-NOV-2012 17:16
Instrument: nt10.1
Client Sample ID: HT-04-S-C-121106

Compound: Perylene-d12
CAS Number:



VR38D, /chem1/nt10.i/20121119.b/vr38d.d

Perylene-d12 Amount: 4.00 Area: 569610



MANUAL INTEGRATION for Perylene-d12

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 11/29/12

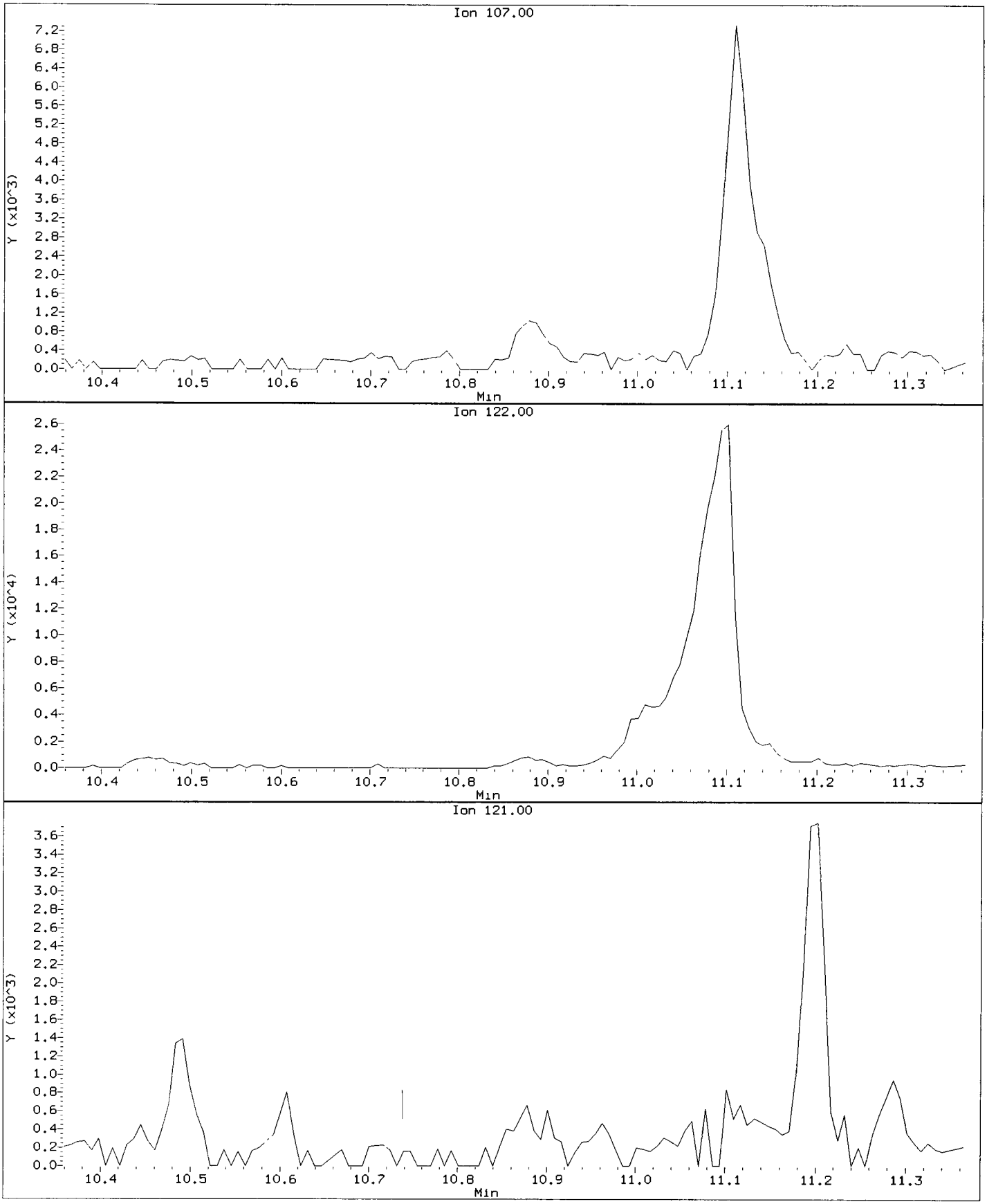
CO-ELUTION SUMMARY FOR FILE - vr38d.d

Lab ID: VR38D, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

Data File: /chem1/nt10.1/20121119.b/vr38d.d
Injection Date: 19-NOV-2012 17:16
Instrument: nt10.1
Client Sample ID: HT-04-S-C-121106

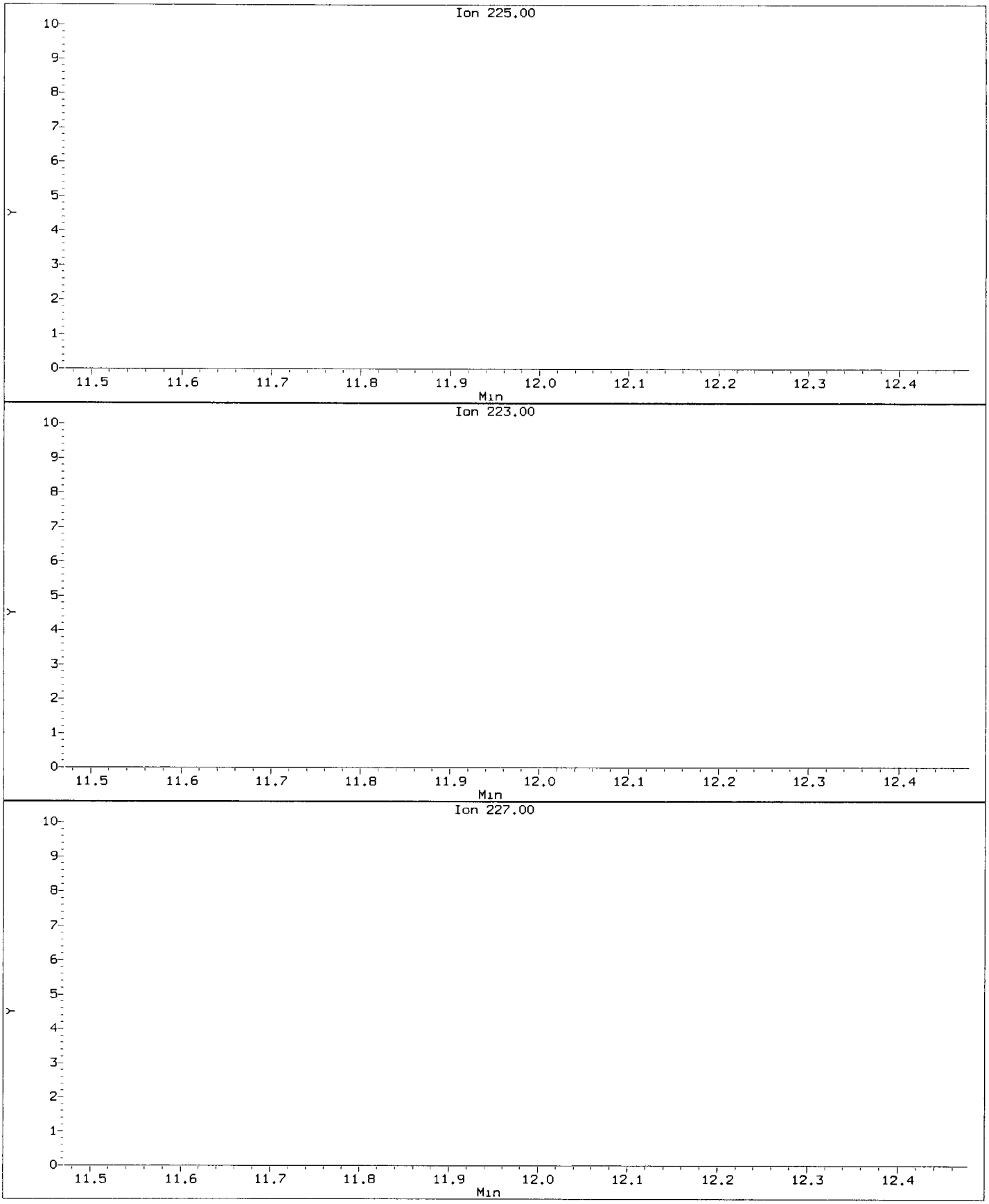
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



UD38:005HH

Data File: /chem1/nt10.1/20121119.b/vr38d.d
Injection Date: 19-NOV-2012 17:16
Instrument: nt10.1
Client Sample ID: HT-04-S-C-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

1/2 11/27/12

Data file : /chem1/nt10.i/20121119.b/vr38e.d
Lab Smp Id: VR38E Client Smp ID: HT-05-S-C-121106
Inj Date : 19-NOV-2012 17:53
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38E
Misc Info : 12-22271
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	13.20000	Weight of sample extracted (g)
M	18.40000	% 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	6.628	6.597	(0.744)	174588	5.54970	515.2
$	2 Phenol-d5	99	8.297	8.282	(0.931)	171591	5.36731	498.3
	3 Phenol	94	8.313	8.305	(0.933)	3685	0.10825 J	10.05
$	5 2-Chlorophenol-d4	132	8.537	8.529	(0.958)	220322	5.03291	467.3
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	118759	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.289	9.281	(1.043)	97508	3.26638	303.3
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	9.778	9.762	(1.098)	8918	0.26054	24.19
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	79189	3.09270	287.1
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	435116	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.924	13.916	(0.905)	315734	3.42979	318.4
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.387	15.386	(1.000)	259137	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	16.469	16.477	(1.070)	8482	0.11513 J	10.69
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.148	17.140	(1.114)	68634	6.73640	625.4
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.624	18.624	(1.000)	449432	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	21.069	21.053	(1.131)	31808	0.21009 J	19.50
	65 Pyrene	202	21.471	21.463	(0.909)	23685	0.13211 J	12.26
$	66 Terphenyl-d14	244	21.788	21.781	(0.922)	386752	3.42023	317.5
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	23.624	23.616	(1.000)	554267	4.00000	
	71 Chrysene	228	23.662	23.662	(1.002)	20142	0.13474 J	12.51(M)
	72 bis(2-Ethylhexyl)phthalate	149	23.724	23.724	(0.961)	23921	0.24508 J	22.75
*	134 Di-n-octylphthalate-d4	153	24.692	24.684	(1.000)	746139	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	25.977	25.969	(1.000)	579715	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.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	25.334	25.365	(0.975)	19249	0.11216 J	10.41(M)
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

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: vr38e.d
Lab Smp Id: VR38E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22271

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-05-S-C-121106
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	97486	48743	194972	118759	21.82
27 Naphthalene-d8	357150	178575	714300	435116	21.83
42 Acenaphthene-d10	217259	108630	434518	259137	19.28
59 Phenanthrene-d10	355415	177708	710830	449432	26.45
69 Chrysene-d12	390458	195229	780916	554267	41.95
134 Di-n-octylphthala	532303	266152	1064606	746139	40.17
77 Perylene-d12	386299	193150	772598	579715	50.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	0.00
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.03
134 Di-n-octylphthala	24.68	24.18	25.18	24.69	0.03
77 Perylene-d12	25.97	25.47	26.47	25.98	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.

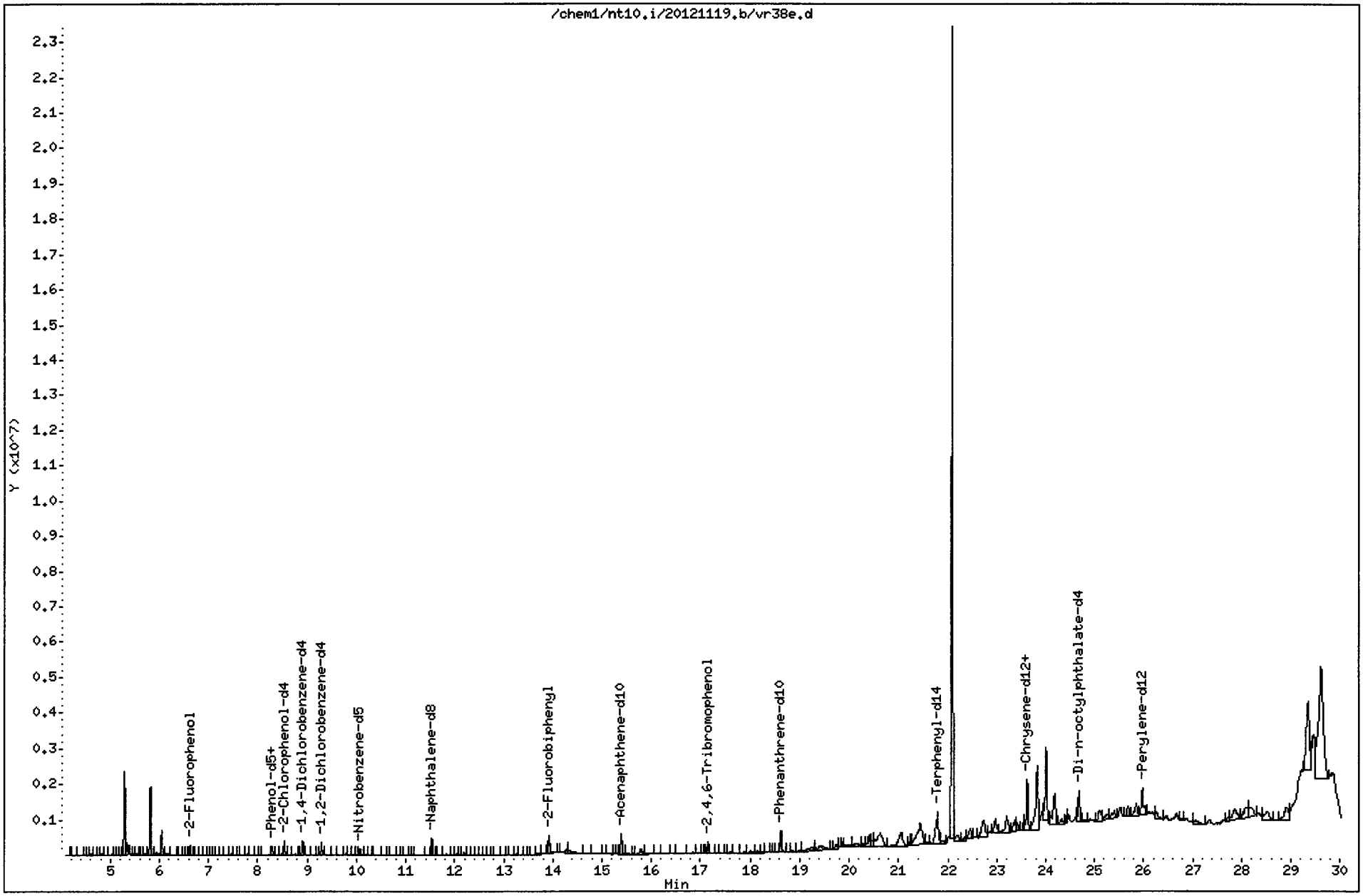
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38E Client Smp ID: HT-05-S-C-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22271

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	696.3	515.2	74.00	30-160
$ 2 Phenol-d5	696.3	498.3	71.56	30-160
$ 5 2-Chlorophenol-d4	696.3	467.3	67.11	30-160
$ 10 1,2-Dichlorobenzen	464.2	303.3	65.33	30-160
$ 18 Nitrobenzene-d5	464.2	287.1	61.85	30-160
$ 36 2-Fluorobiphenyl	464.2	318.4	68.60	30-160
$ 55 2,4,6-Tribromophen	696.3	625.4	89.82	30-160
$ 66 Terphenyl-d14	464.2	317.5	68.40	30-160

Data File: /chem1/nt10.i/20121119.b/vr38e.d
Date : 19-NOV-2012 17:53
Client ID: HT-05-S-C-121106
Sample Info: VR38E
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38e.d

Date : 19-NOV-2012 17:53

Client ID: HT-05-S-C-121106

Instrument: nt10.i

Sample Info: VR38E

Volume Injected (uL): 1.0

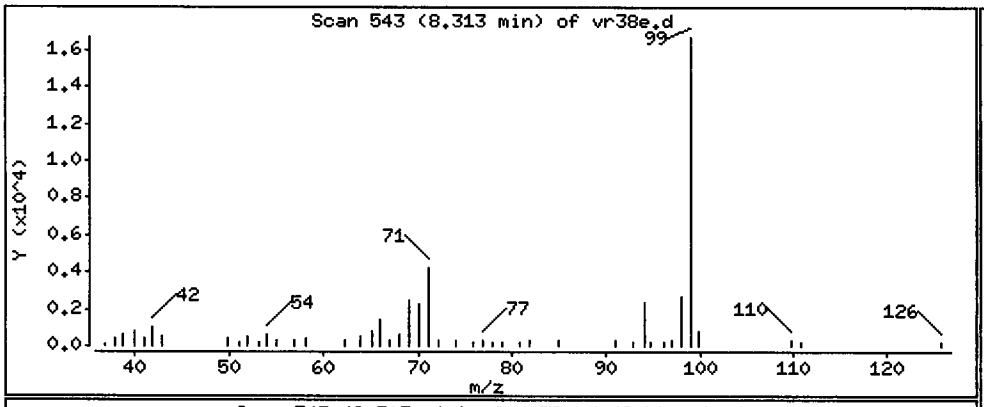
Operator: VTS/YZ

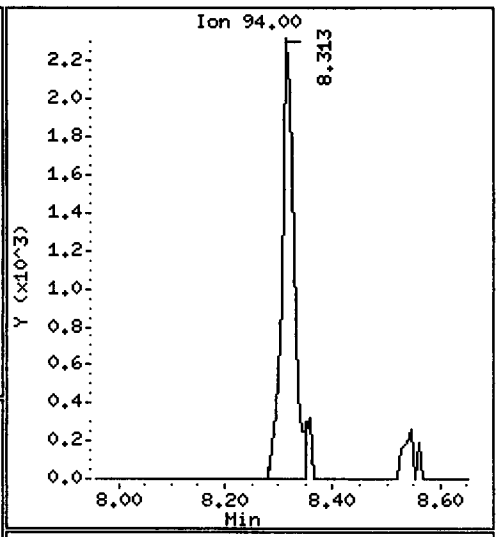
Column phase: ZB-5msi

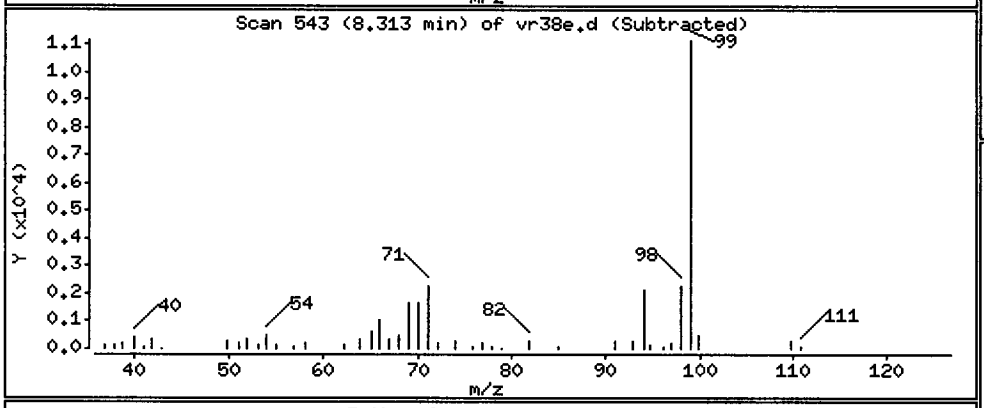
Column diameter: 0.25

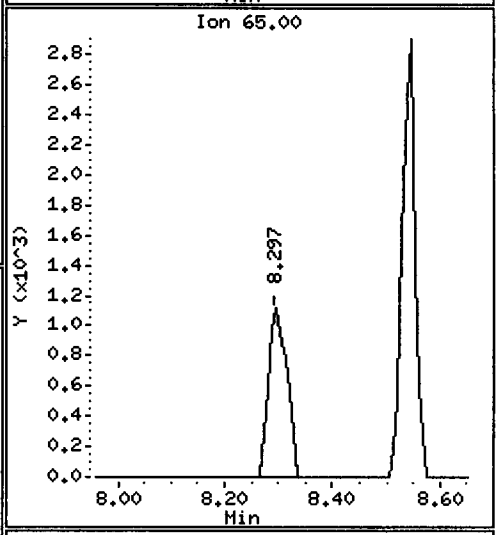
3 Phenol

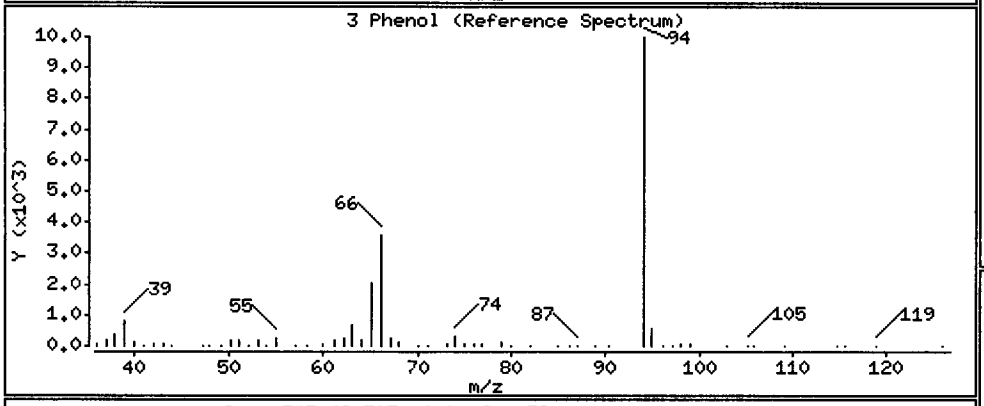
Concentration: 10.05 ug/kg

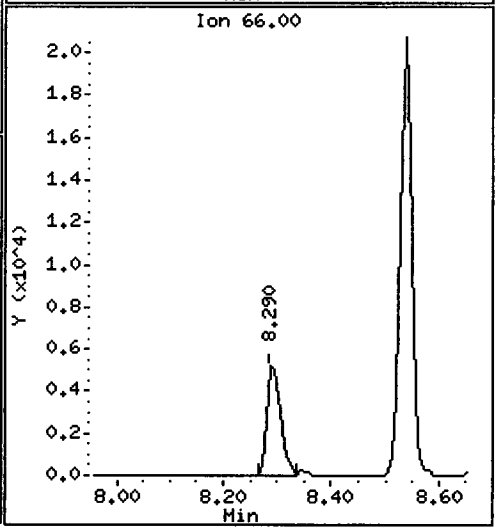


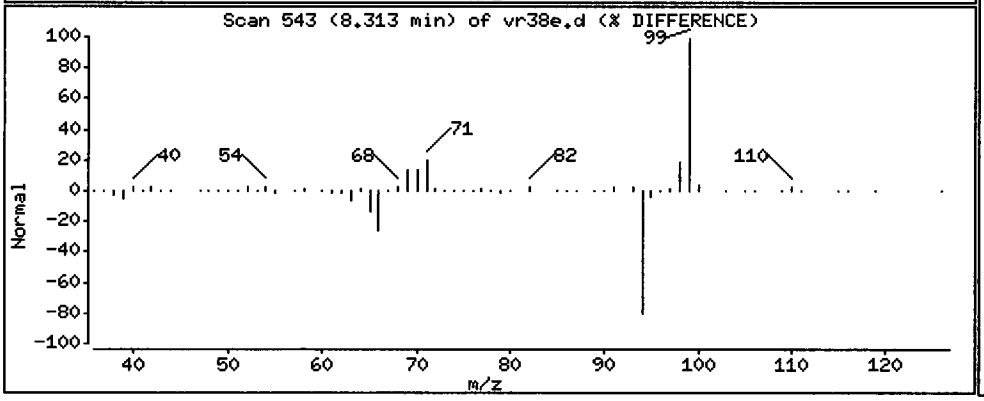












Data File: /chem1/nt10.i/20121119.b/vr38e.d

Date : 19-NOV-2012 17:53

Client ID: HT-05-S-C-121106

Instrument: nt10.i

Sample Info: VR38E

Volume Injected (uL): 1.0

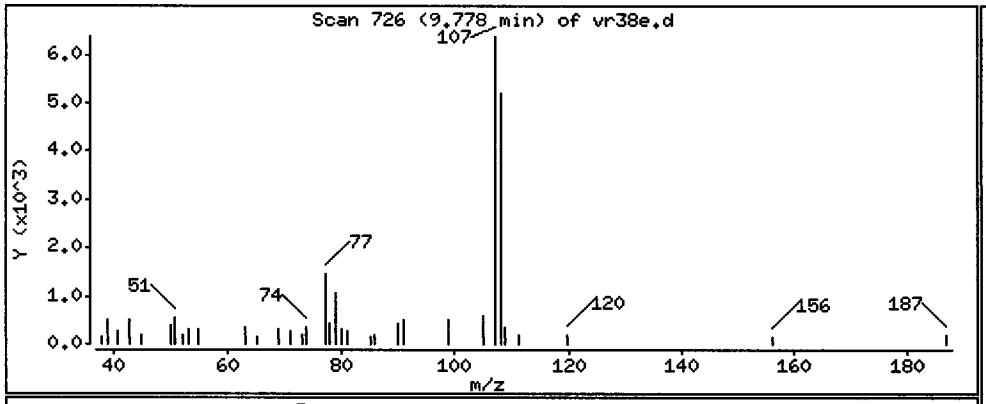
Operator: VTS/YZ

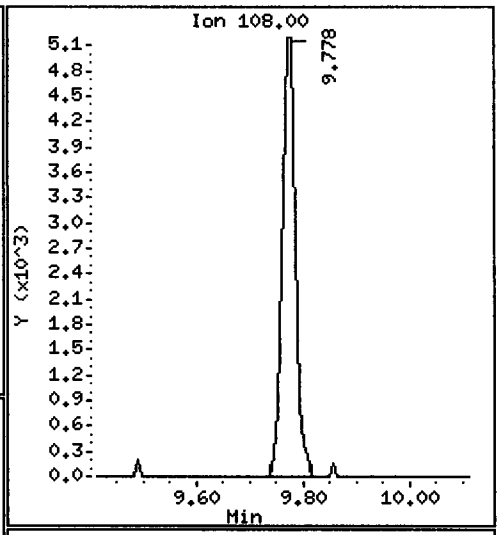
Column phase: ZB-5msi

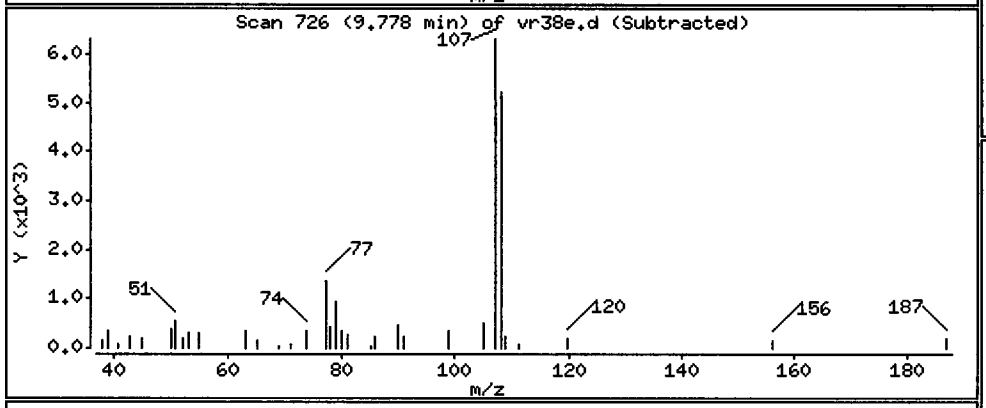
Column diameter: 0.25

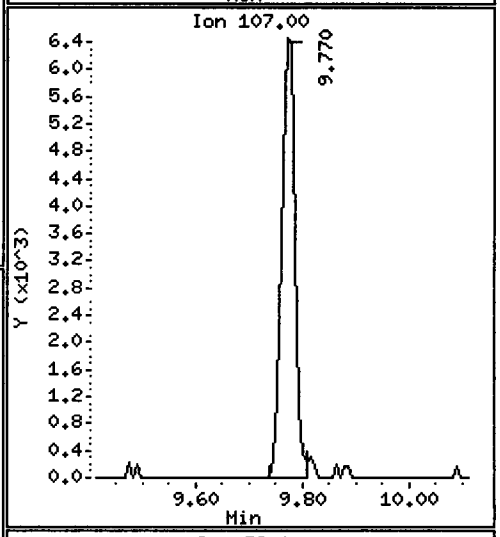
15 4-Methylphenol

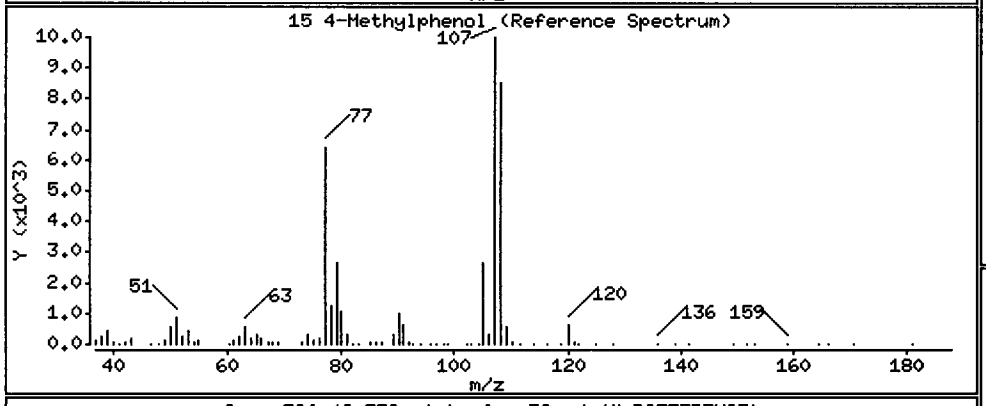
Concentration: 24.19 ug/kg

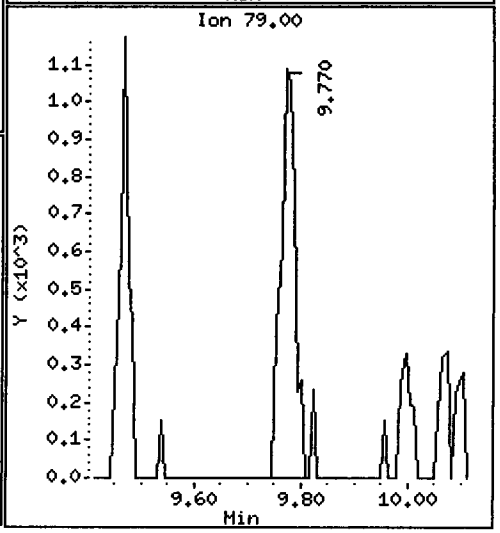


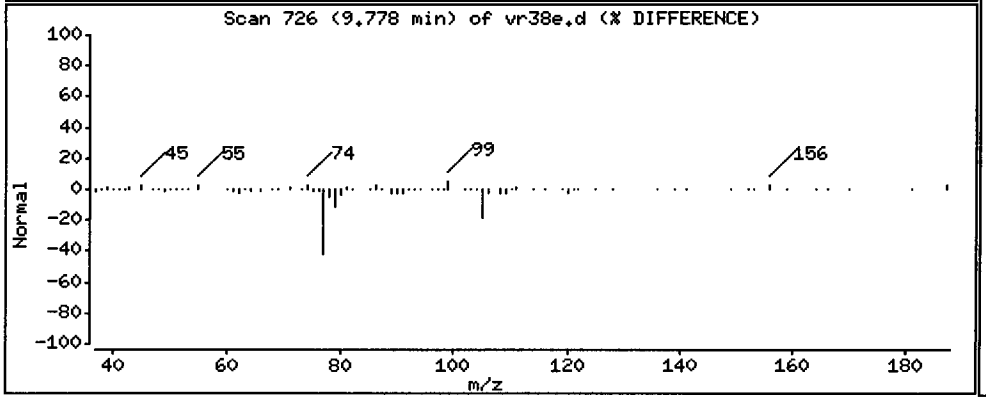












Data File: /chem1/nt10.i/20121119.b/vr38e.d

Date : 19-NOV-2012 17:53

Client ID: HT-05-S-C-121106

Instrument: nt10.i

Sample Info: VR38E

Volume Injected (uL): 1.0

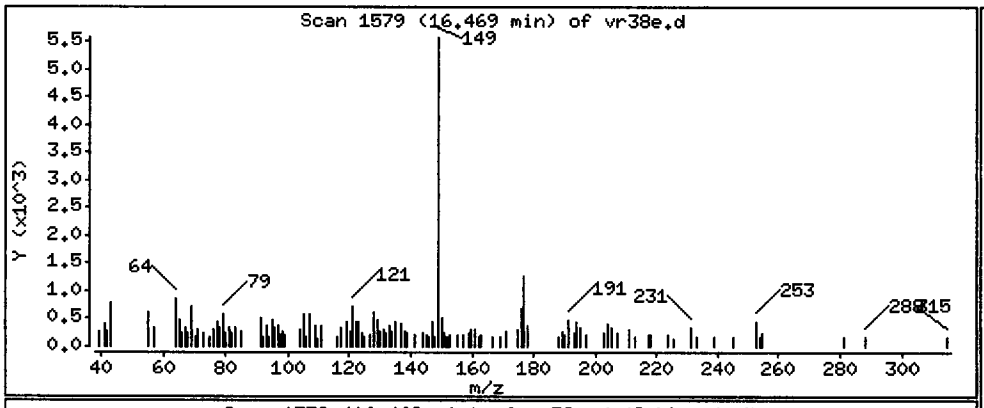
Operator: VTS/YZ

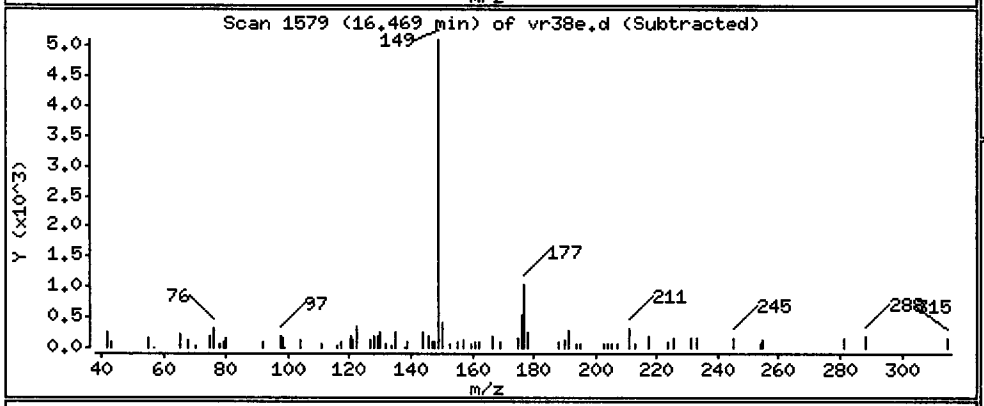
Column phase: ZB-5msi

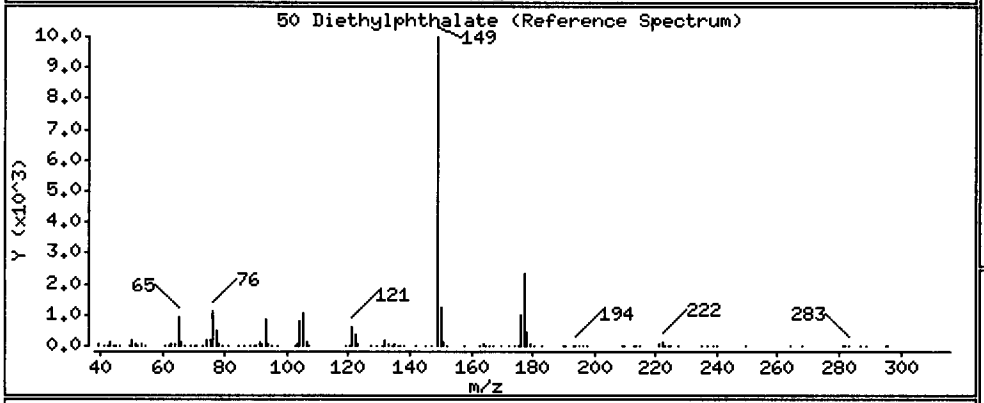
Column diameter: 0.25

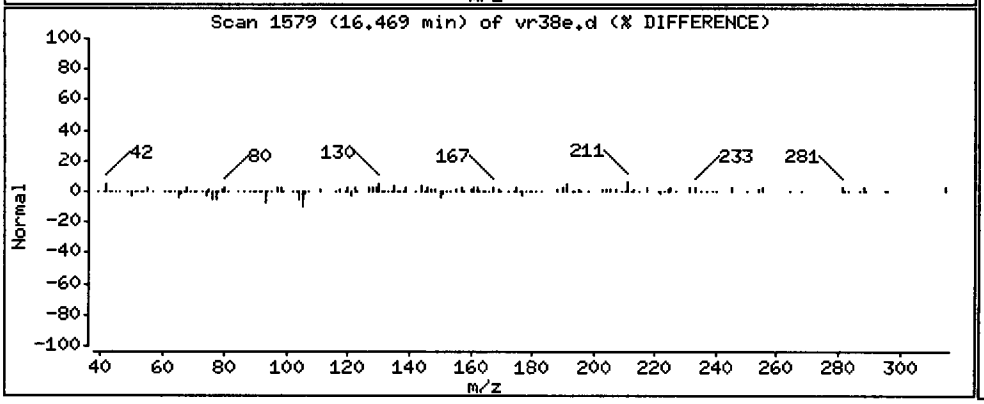
50 Diethylphthalate

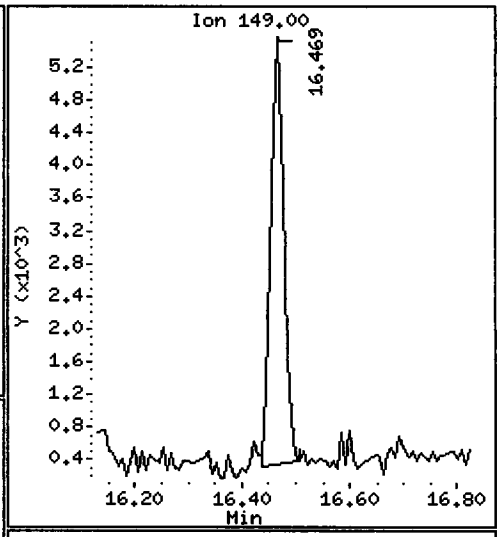
Concentration: 10.69 ug/kg

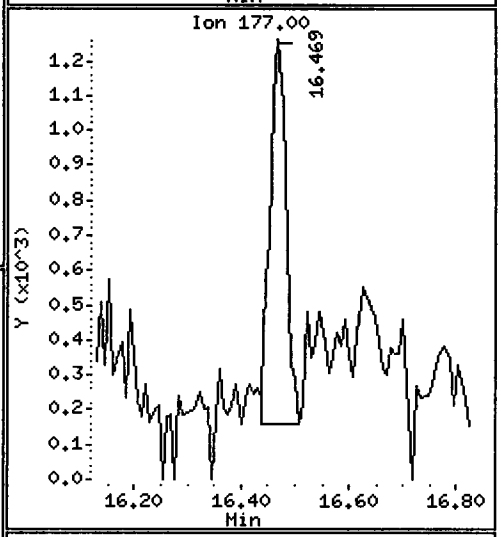


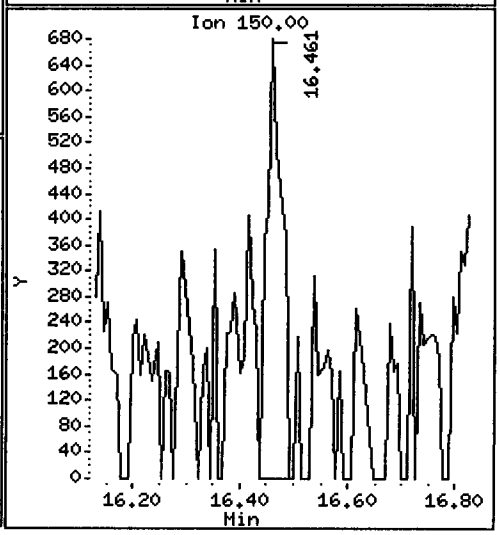












Data File: /chem1/nt10.i/20121119.b/vr38e.d

Date : 19-NOV-2012 17:53

Client ID: HT-05-S-C-121106

Instrument: nt10.i

Sample Info: VR38E

Volume Injected (uL): 1.0

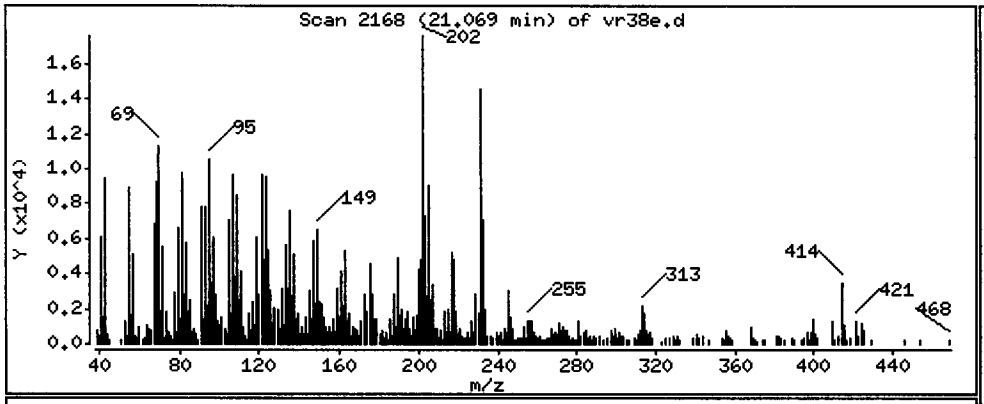
Operator: VTS/YZ

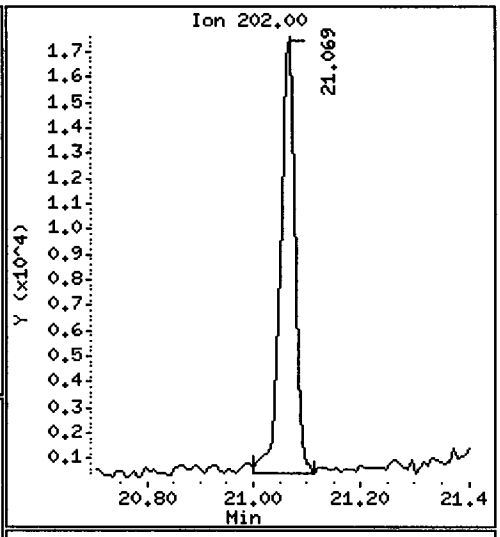
Column phase: ZB-5msi

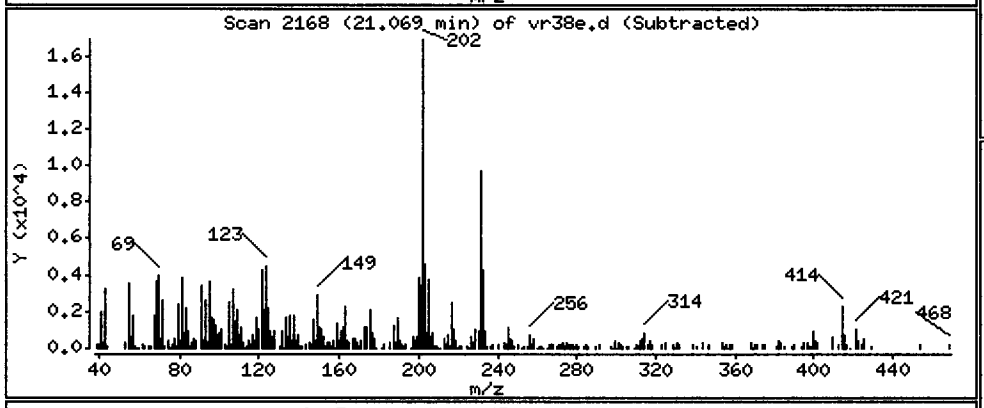
Column diameter: 0.25

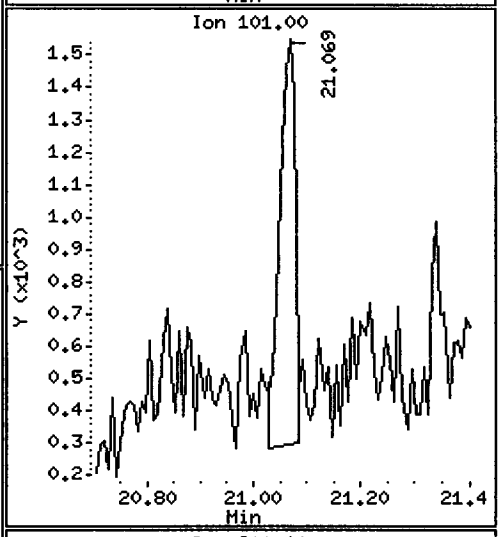
64 Fluoranthene

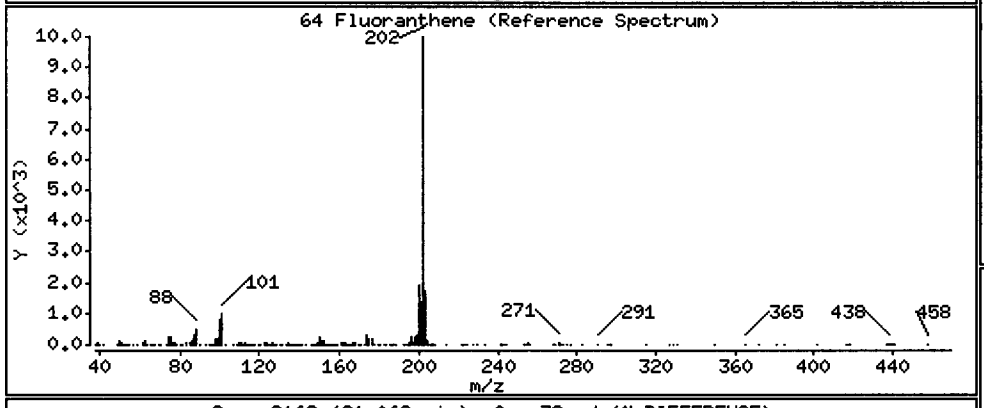
Concentration: 19.50 ug/kg

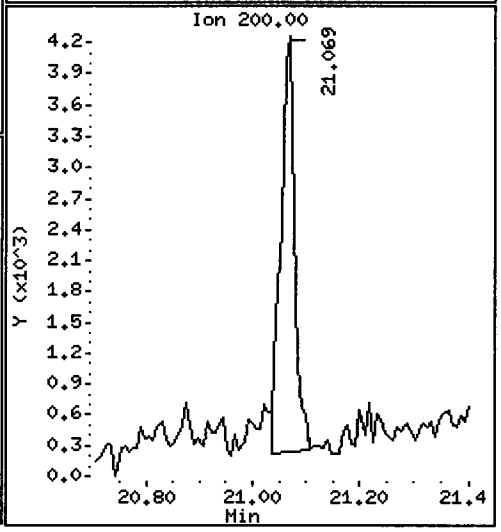


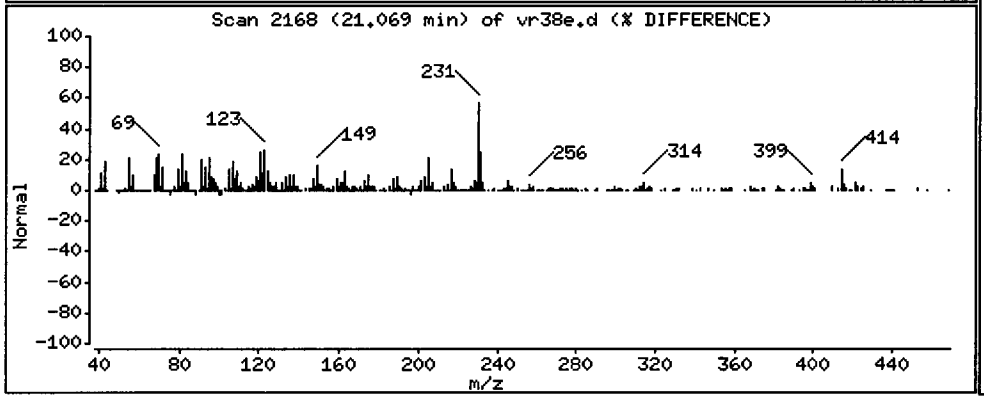












Data File: /chem1/nt10.i/20121119.b/vr38e.d

Date : 19-NOV-2012 17:53

Client ID: HT-05-S-C-121106

Instrument: nt10.i

Sample Info: VR38E

Volume Injected (uL): 1.0

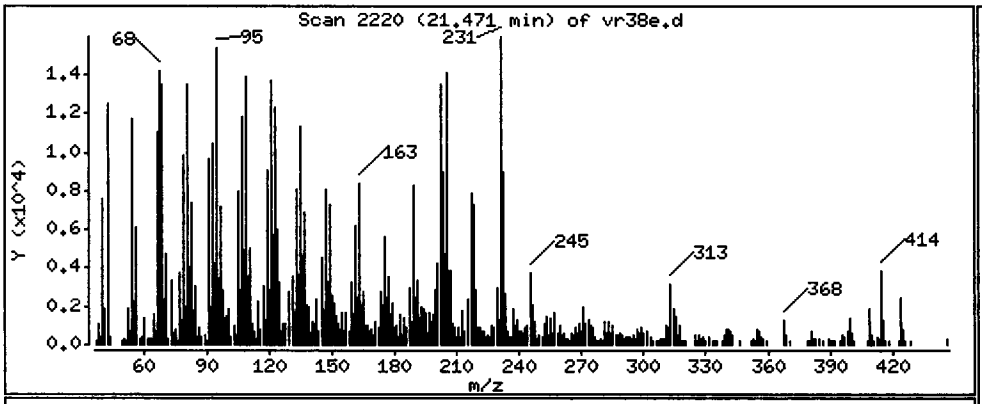
Operator: VTS/YZ

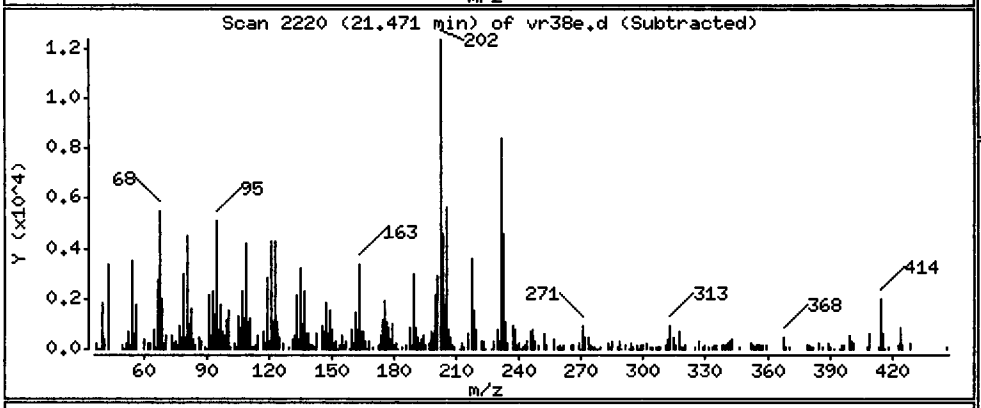
Column phase: ZB-5msi

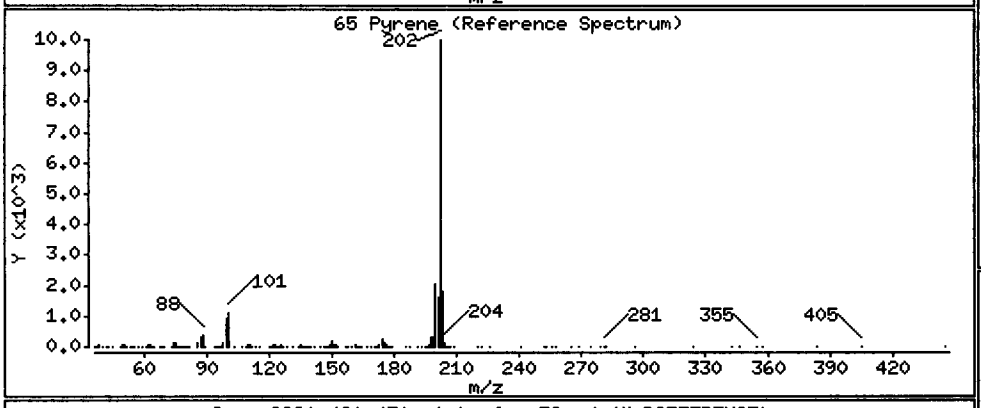
Column diameter: 0.25

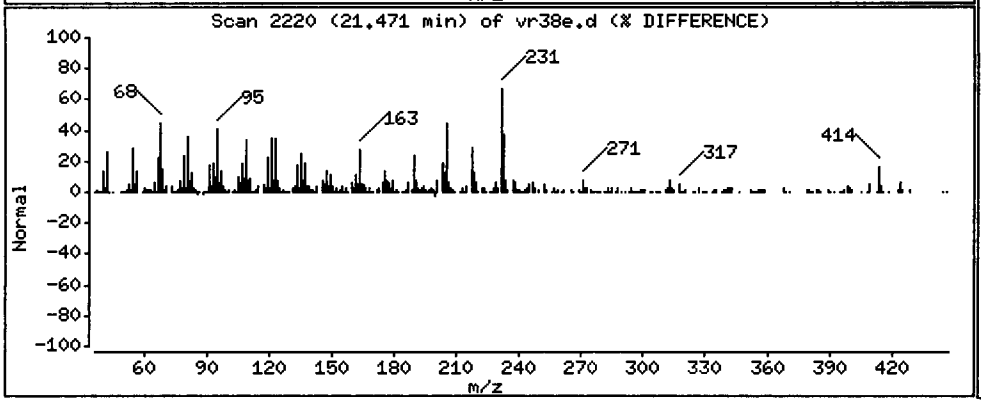
65 Pyrene

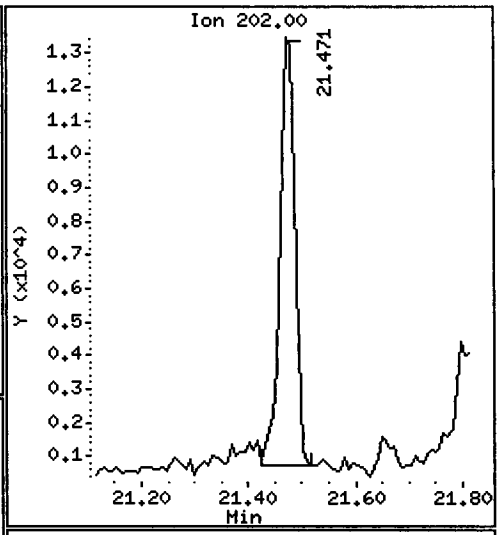
Concentration: 12.26 ug/kg

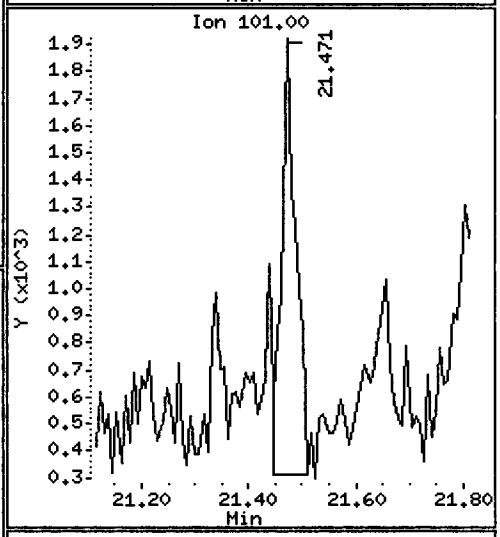


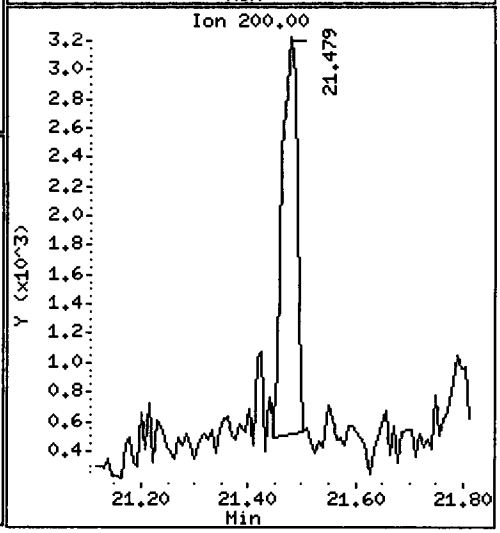












Data File: /chem1/nt10.i/20121119.b/vr38e.d

Date : 19-NOV-2012 17:53

Client ID: HT-05-S-C-121106

Instrument: nt10.i

Sample Info: VR38E

Volume Injected (uL): 1.0

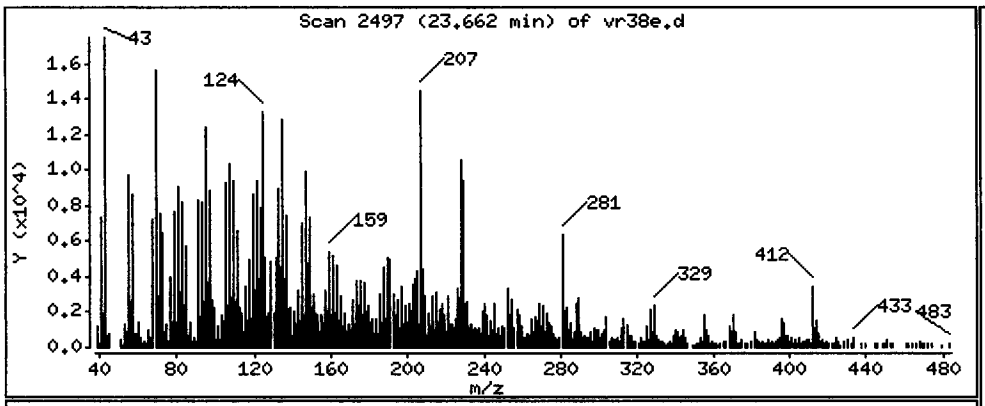
Operator: VTS/YZ

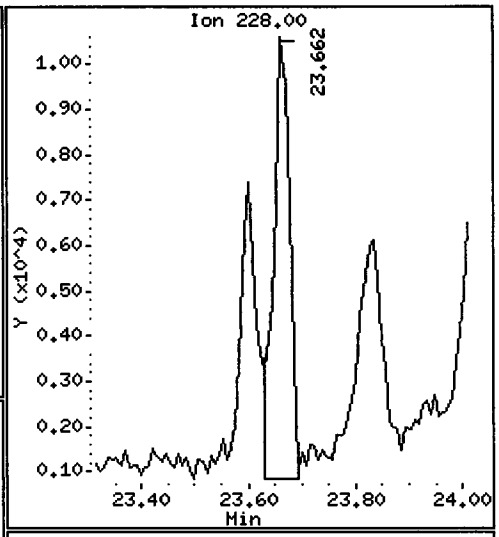
Column phase: ZB-5msi

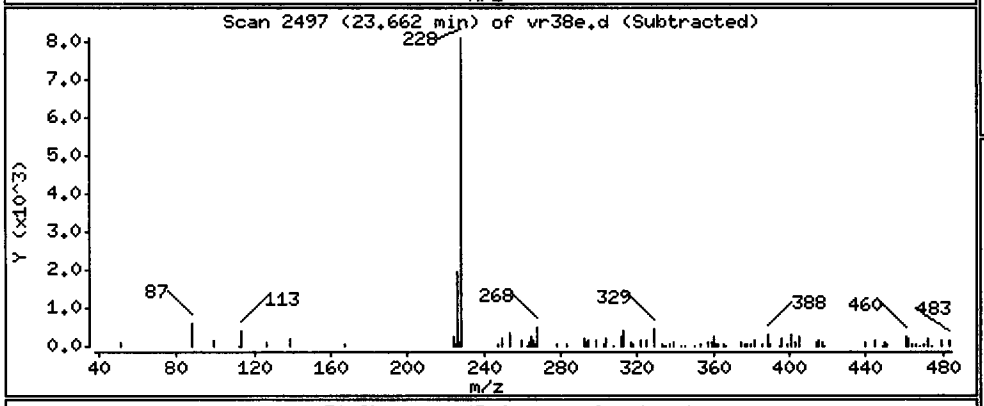
Column diameter: 0.25

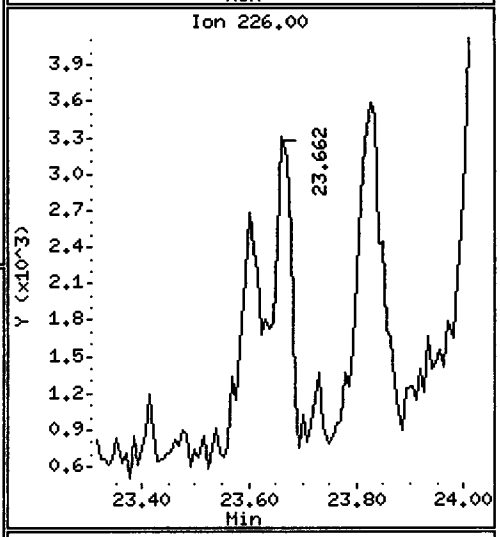
71 Chrysene

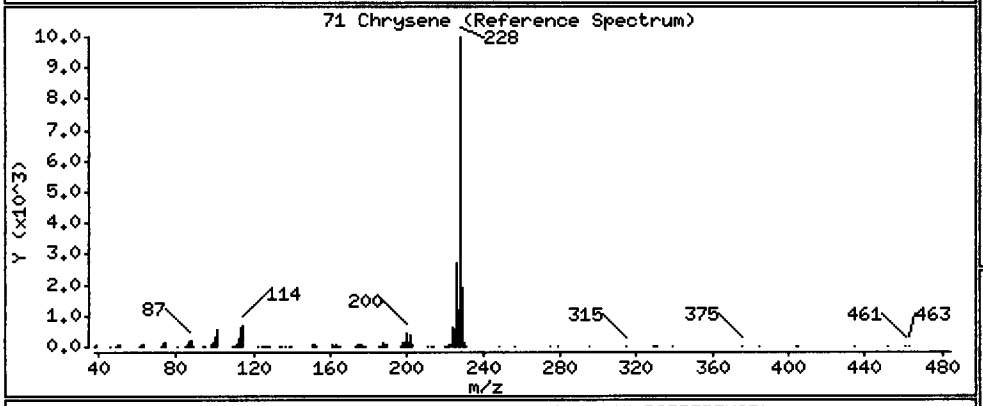
Concentration: 12.51 ug/kg

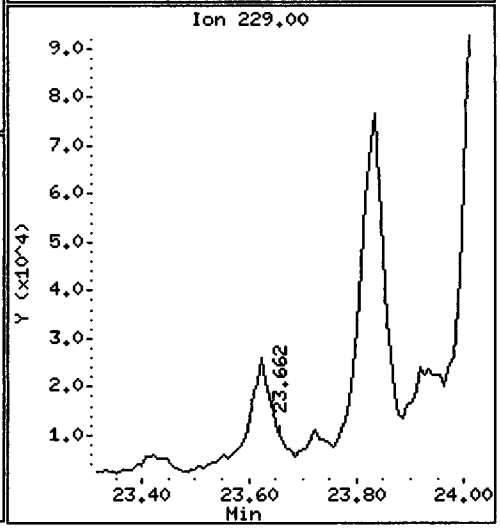


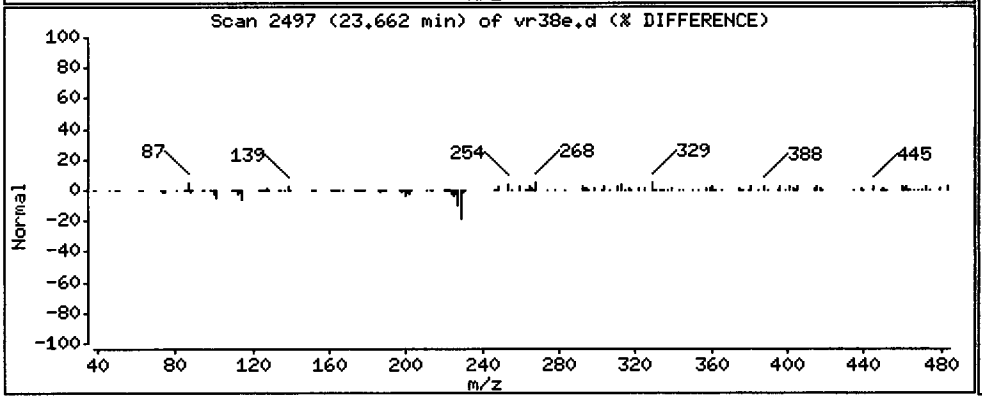












Data File: /chem1/nt10.i/20121119.b/vr38e.d

Date : 19-NOV-2012 17:53

Client ID: HT-05-S-C-121106

Instrument: nt10.i

Sample Info: VR38E

Volume Injected (uL): 1.0

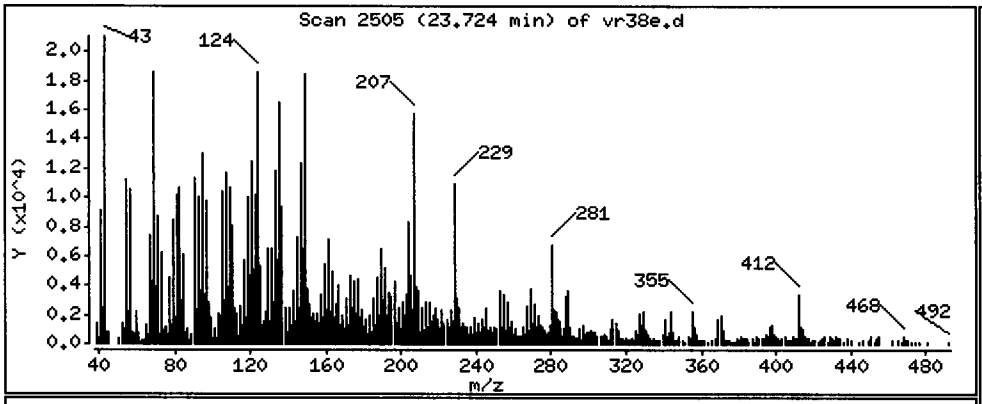
Operator: VTS/YZ

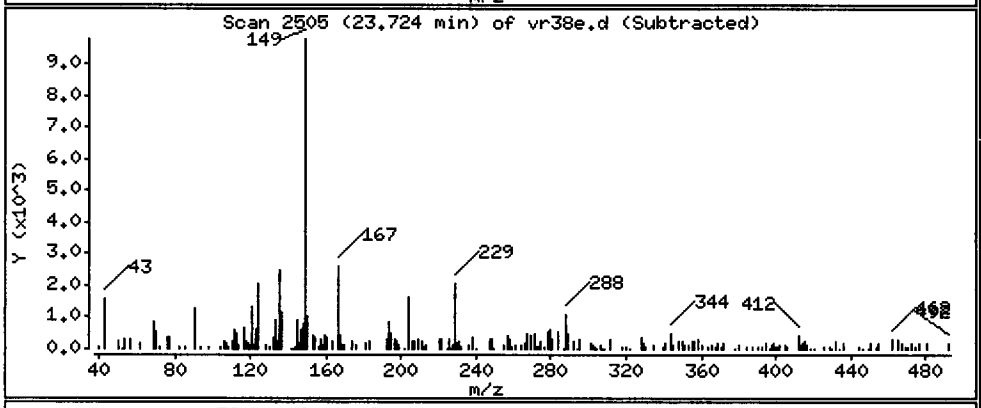
Column phase: ZB-5msi

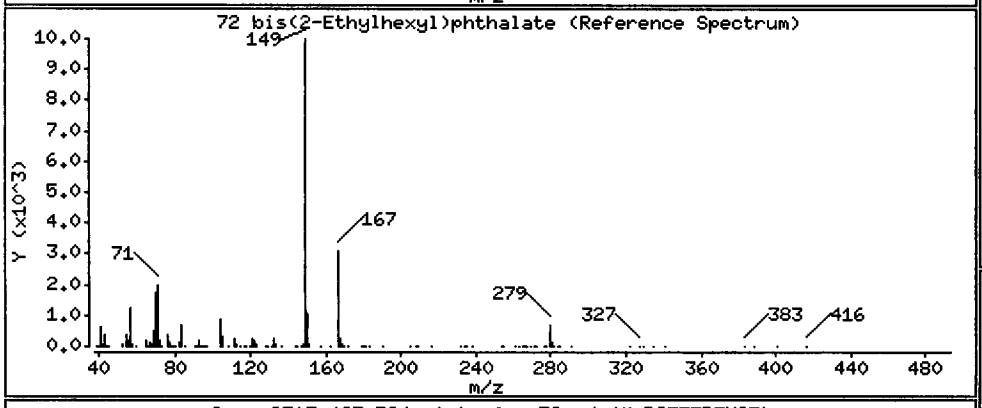
Column diameter: 0.25

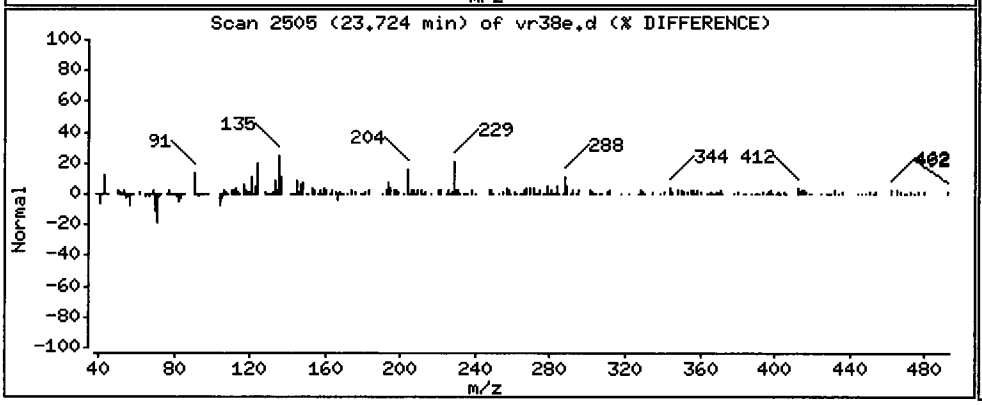
72 bis(2-Ethylhexyl)phthalate

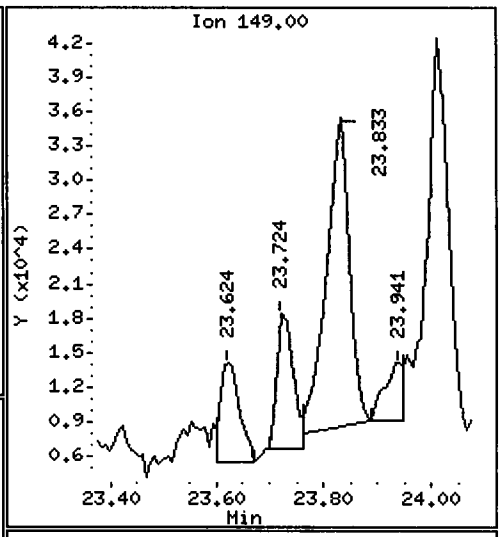
Concentration: 22.75 ug/kg

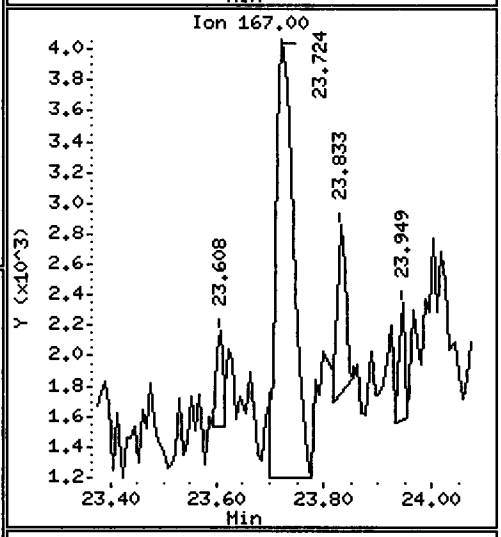


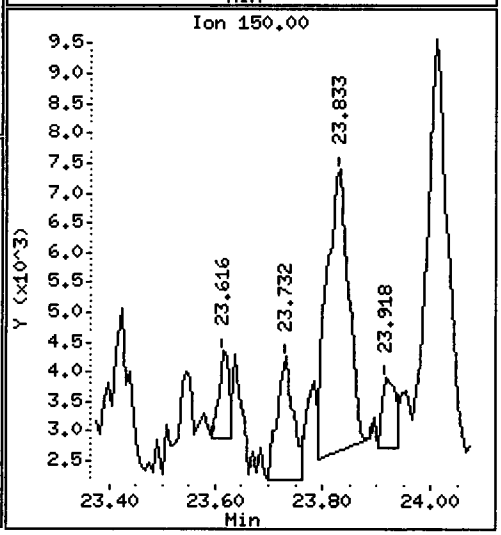












Data File: /chem1/nt10.i/20121119.b/vr38e.d

Date : 19-NOV-2012 17:53

Client ID: HT-05-S-C-121106

Instrument: nt10.i

Sample Info: VR38E

Volume Injected (uL): 1.0

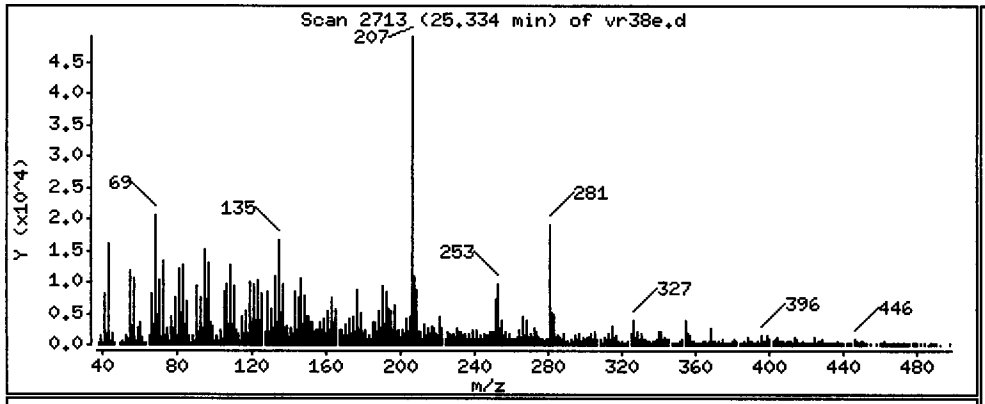
Operator: VTS/YZ

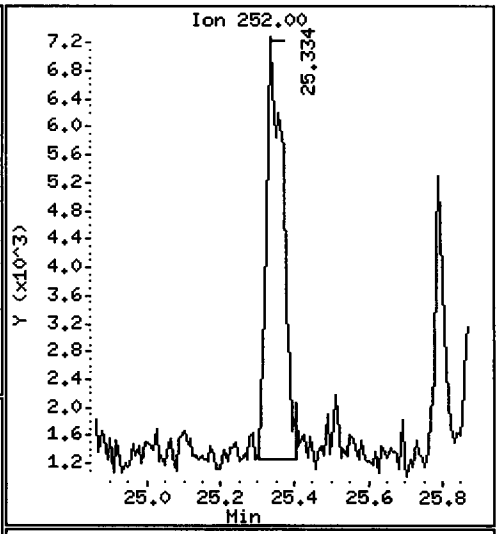
Column phase: ZB-5msi

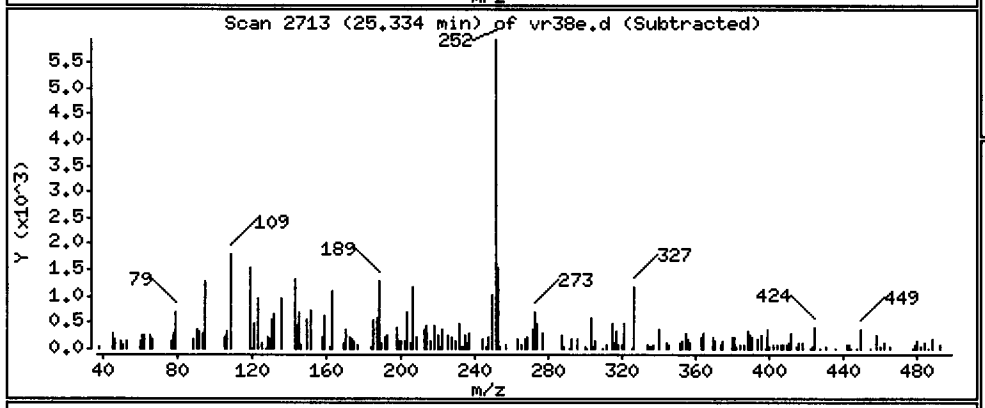
Column diameter: 0.25

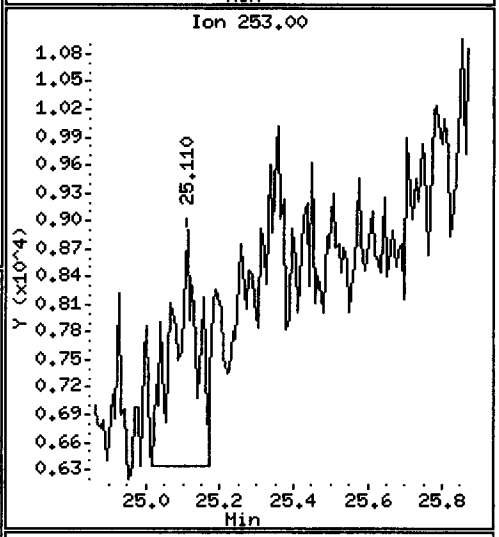
187 Total Benzofluoranthenes

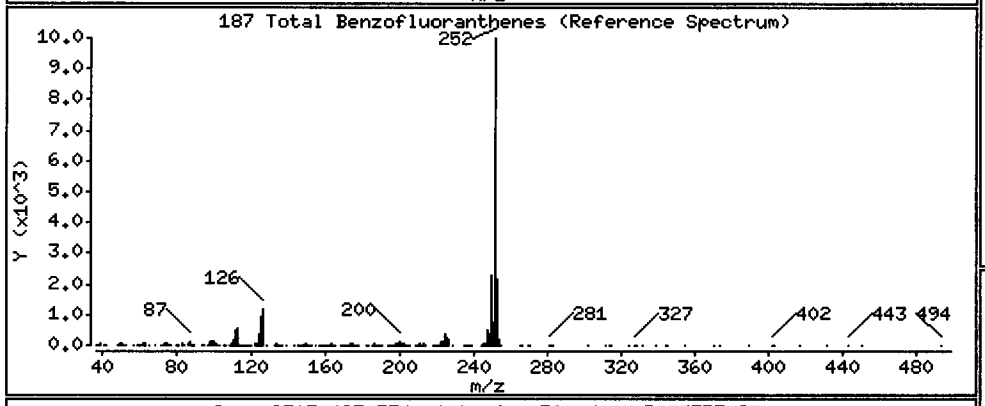
Concentration: 10.41 ug/kg

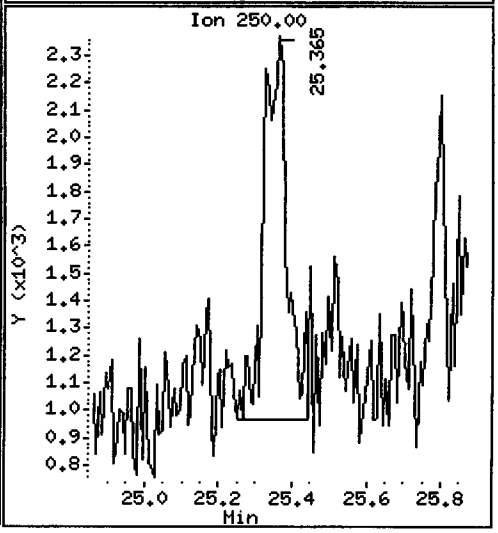


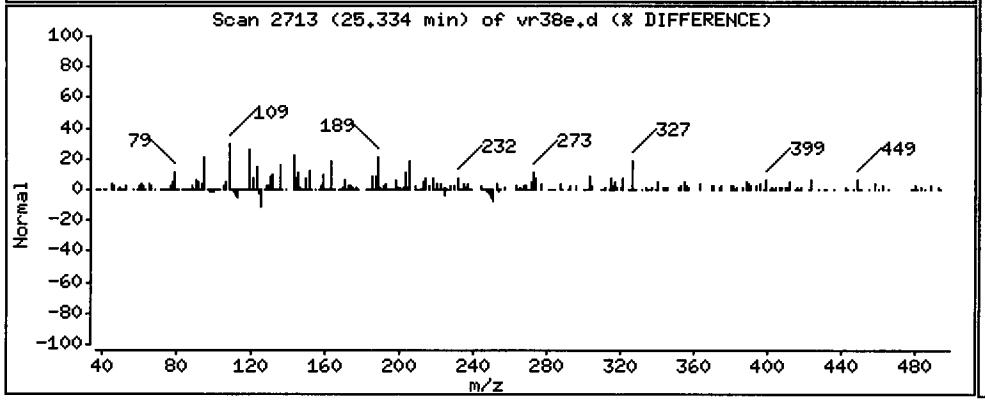






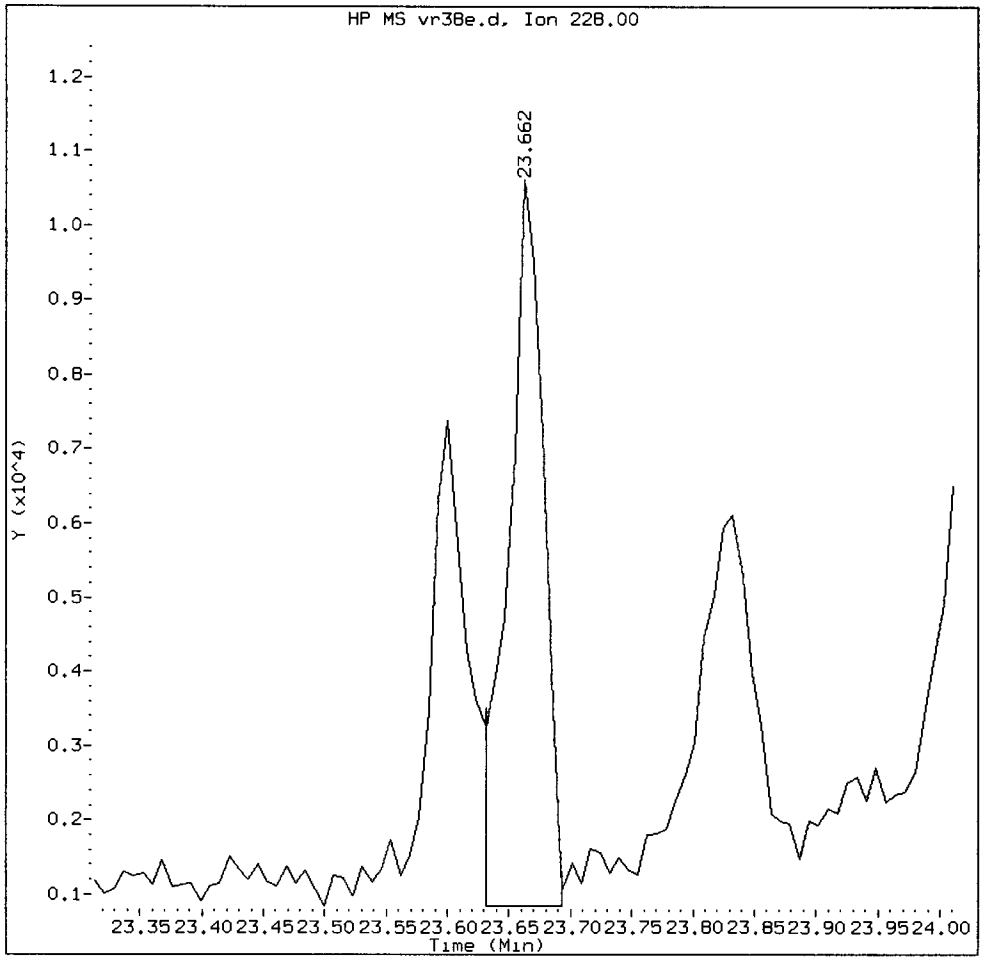






VR38E, /chem1/nt10.i/20121119.b/vr38e.d

Chrysene Amount: 0.13 Area: 20142



MANUAL INTEGRATION for Chrysene

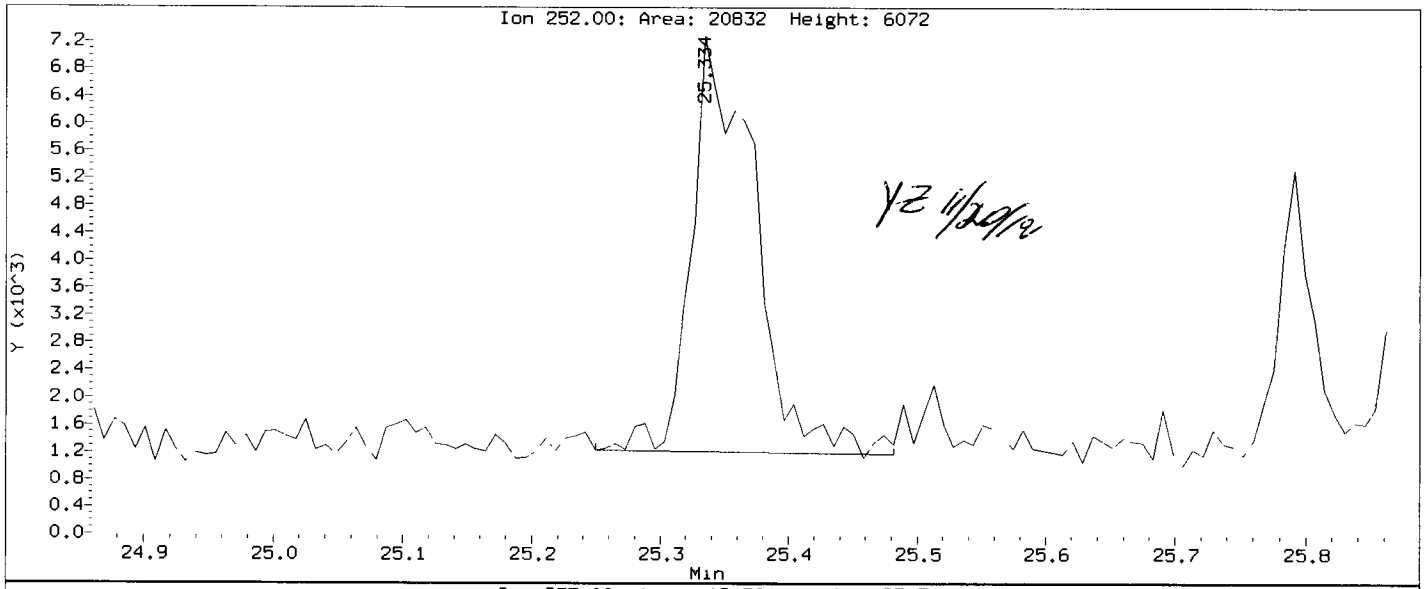
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

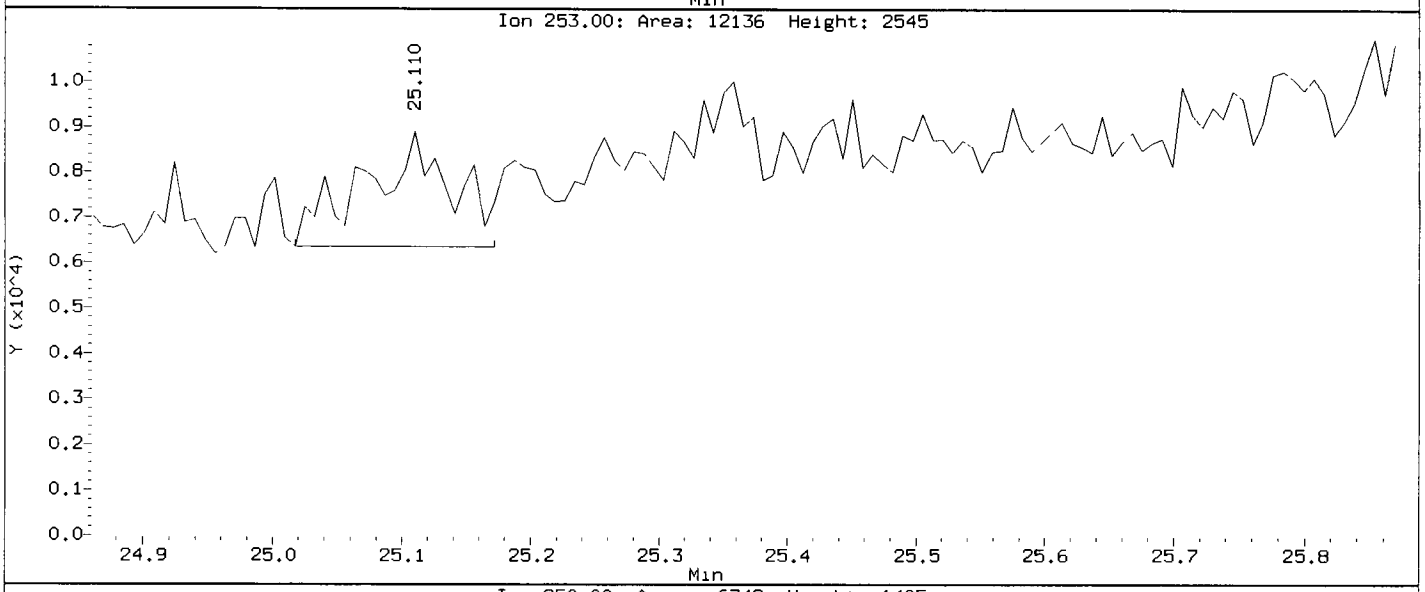
5. Other _____

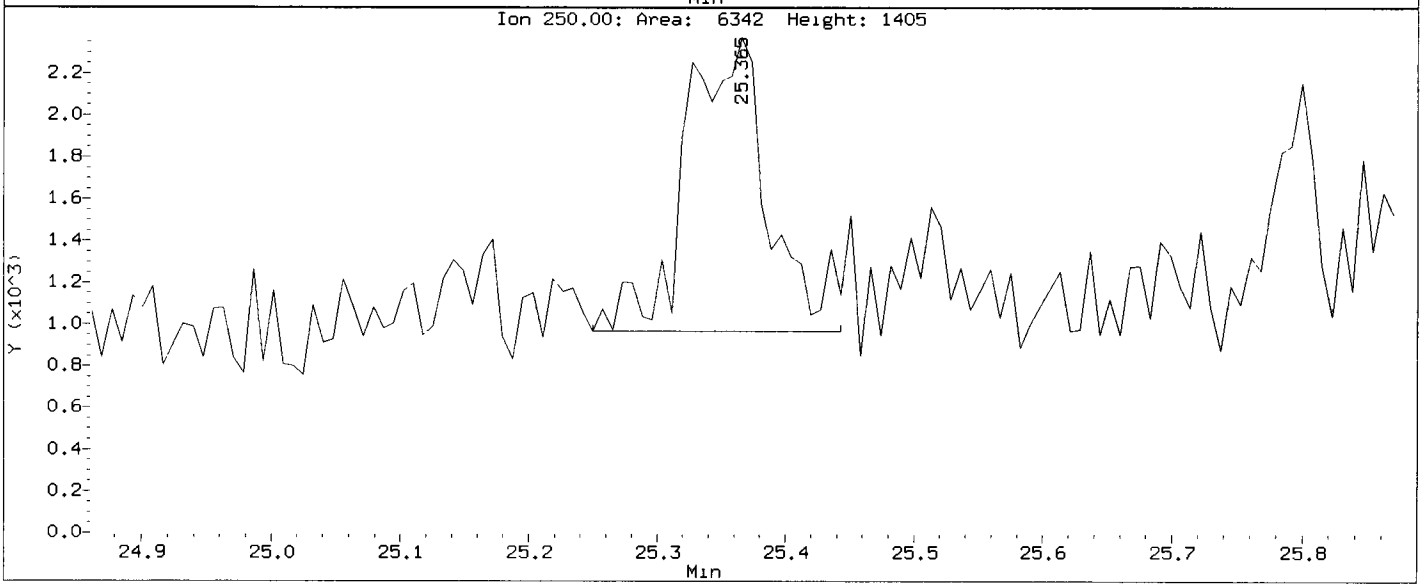
Analyst: YZ Date: 11/30/12

Data File: /chem1/nt10.i/20121119.b/vr38e.d
Injection Date: 19-NOV-2012 17:53
Instrument: nt10.i
Client Sample ID: HT-05-S-C-121106

Compound: Total Benzofluoranthenes
CAS Number:

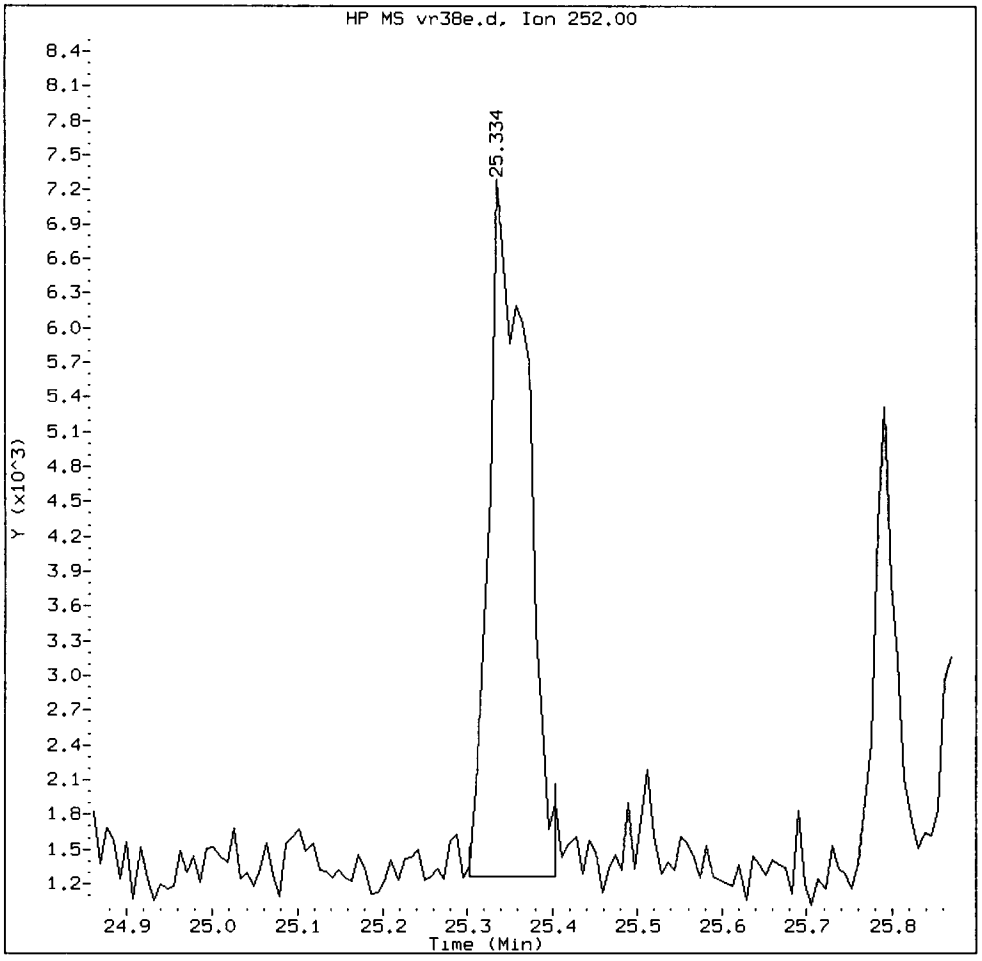






VR38E, /chem1/nt10.i/20121119.b/vr38e.d

Total Benzofluoranthenes Amount: 0.11 Area: 19249



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 11/20/12

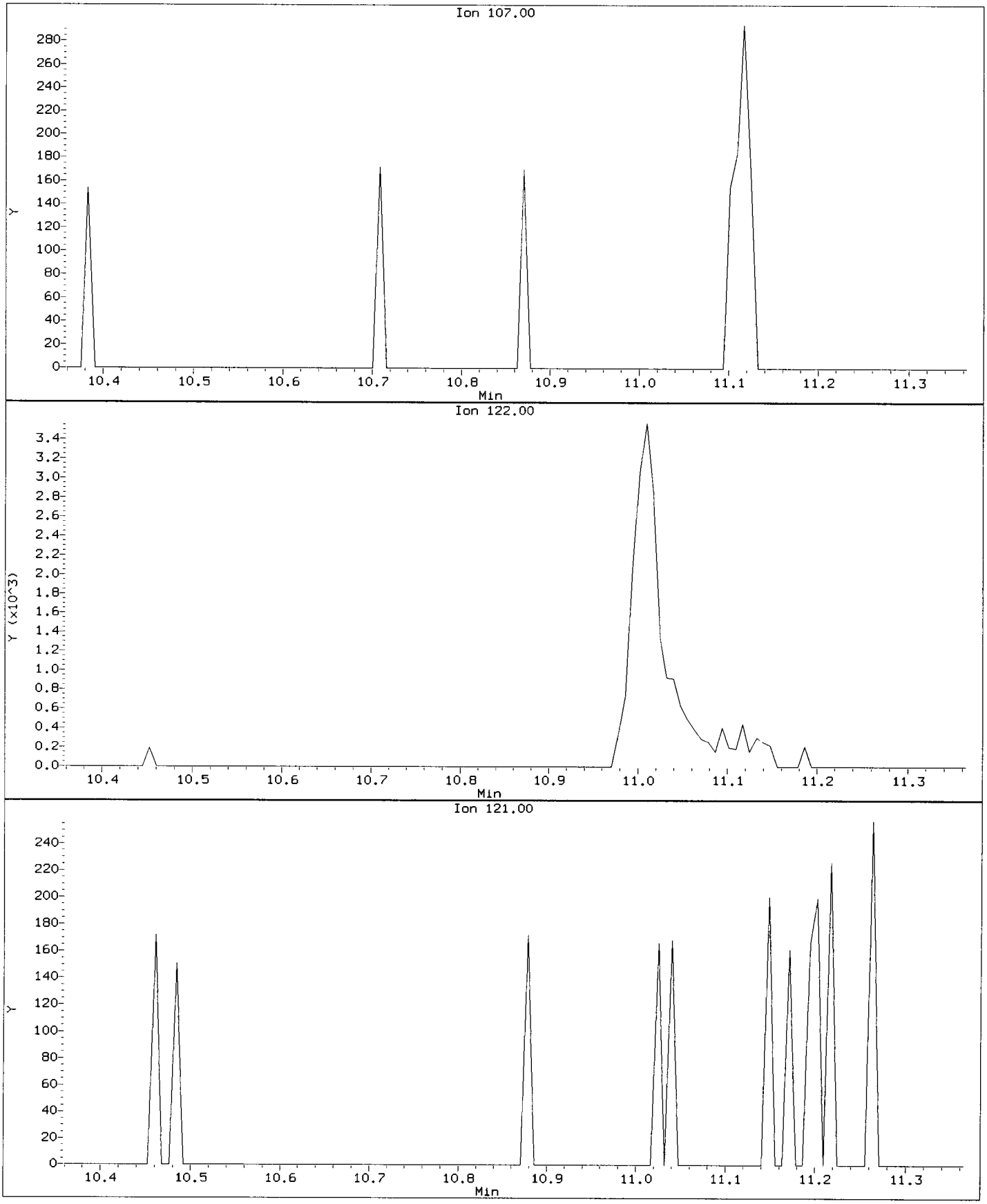
CO-ELUTION SUMMARY FOR FILE - vr38e.d

Lab ID: VR38E, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

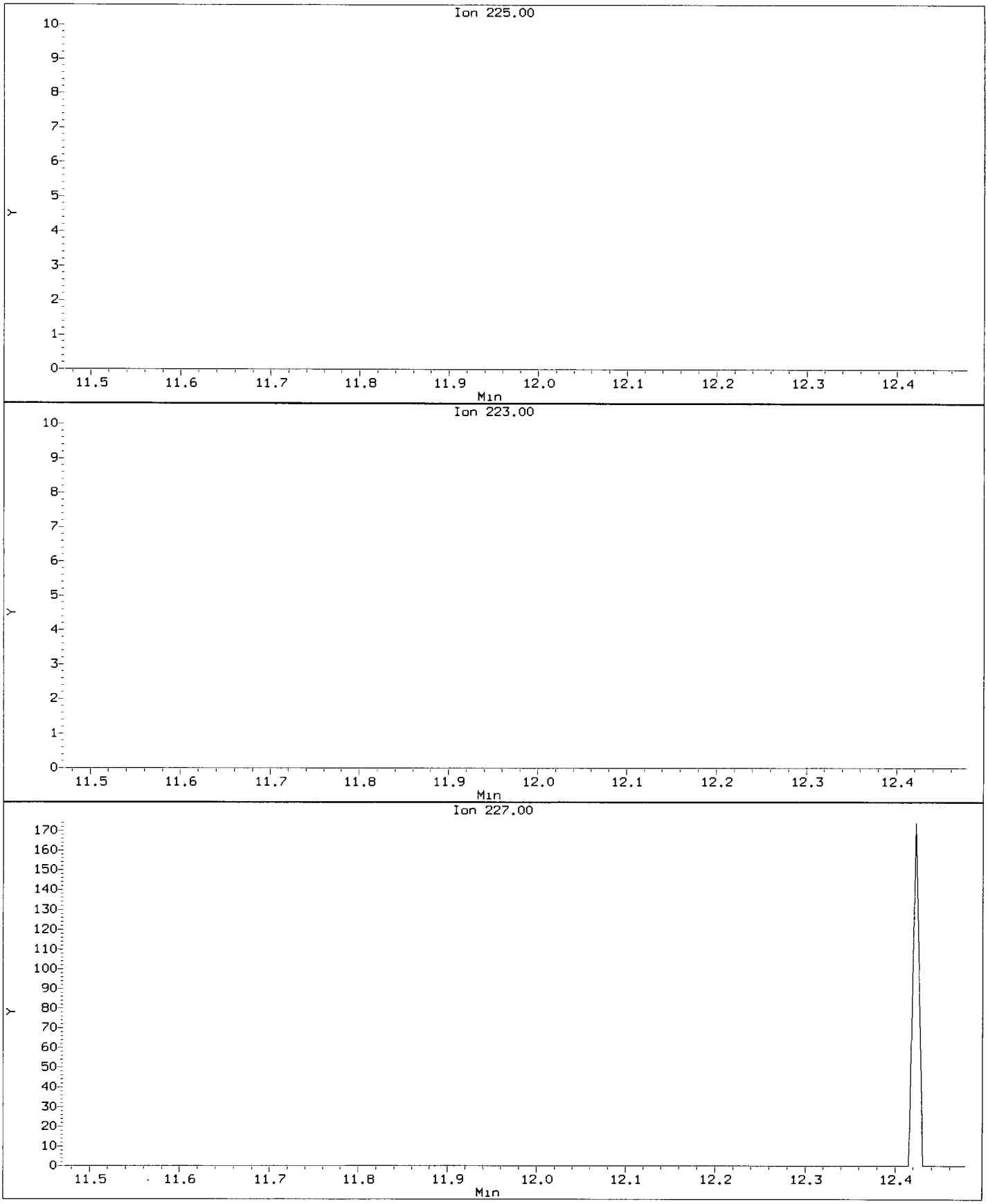
Data File: /chem1/nt10.1/20121119.b/vr38e.d
Injection Date: 19-NOV-2012 17:53
Instrument: nt10.1
Client Sample ID: HT-05-S-C-121106

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.i/20121119.b/vr38e.d
Injection Date: 19-NOV-2012 17:53
Instrument: nt10.i
Client Sample ID: HT-05-S-C-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 11/20/12

Data file : /chem1/nt10.i/20121119.b/vr38f.d
Lab Smp Id: VR38F Client Smp ID: HT-08-S-C-121106
Inj Date : 19-NOV-2012 18:30
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38F
Misc Info : 12-22272
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	13.10000	Weight of sample extracted (g)
M	17.30000	% 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	6.620	6.597	(0.743)	186784	5.63873	520.5
$	2 Phenol-d5	99	8.290	8.282	(0.931)	185057	5.49735	507.4
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.537	8.529	(0.958)	231351	5.01902	463.3
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	125049	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.289	9.281	(1.043)	101251	3.22116	297.3
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	86566	3.27017	301.9
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	449837	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.904)	325201	3.58410	330.8
	39 Dimethylphthalate	163	14.899	14.907	(0.968)	78866	1.04509	96.47
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.386	15.386	(1.000)	255416	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.148	17.140	(1.114)	63385	6.31184	582.6
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.624	18.624	(1.000)	429894	4.00000	
	60 Phenanthrene	178	18.670	18.670	(1.002)	11452	0.10012 J	9.241
	61 Anthracene	178	Compound Not Detected.					
	63 Di-n-butylphthalate	149	19.970	19.970	(1.072)	40806	0.29934	27.63
	64 Fluoranthene	202	21.061	21.053	(1.131)	30902	0.21338	19.70
	65 Pyrene	202	21.471	21.463	(0.909)	30694	0.18148	16.75
$	66 Terphenyl-d14	244	21.781	21.781	(0.922)	375798	3.52284	325.2
	67 Butylbenzylphthalate	149	22.710	22.710	(0.961)	13718	0.20910	19.30
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	23.623	23.616	(1.000)	522882	4.00000	
	71 Chrysene	228	23.654	23.662	(1.001)	15374	0.10902	10.06
	72 bis(2-Ethylhexyl)phthalate	149	23.724	23.724	(0.961)	74740	0.77916	71.92
*	134 Di-n-octylphthalate-d4	153	24.684	24.684	(1.000)	733295	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	25.977	25.969	(1.000)	561457	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.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	25.334	25.365	(0.975)	26234	0.15783 J	14.57(M)
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

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: vr38f.d
Lab Smp Id: VR38F
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22272

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-08-S-C-121106
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	97486	48743	194972	125049	28.27
27 Naphthalene-d8	357150	178575	714300	449837	25.95
42 Acenaphthene-d10	217259	108630	434518	255416	17.56
59 Phenanthrene-d10	355415	177708	710830	429894	20.96
69 Chrysene-d12	390458	195229	780916	522882	33.92
134 Di-n-octylphthala	532303	266152	1064606	733295	37.76
77 Perylene-d12	386299	193150	772598	561457	45.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	0.00
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.03
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	0.00
77 Perylene-d12	25.97	25.47	26.47	25.98	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.

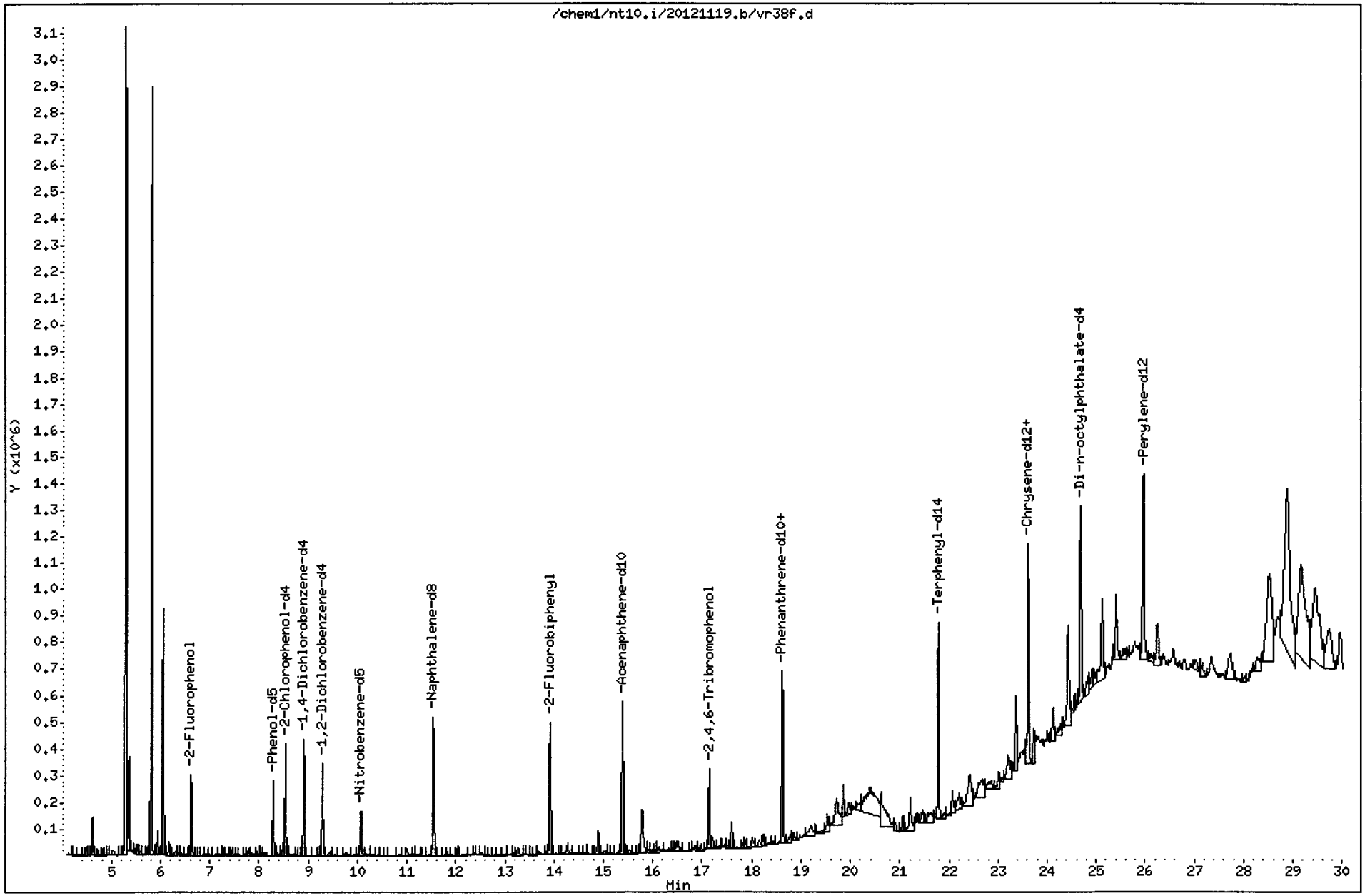
Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38F Client Smp ID: HT-08-S-C-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22272

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	692.3	520.5	75.18	30-160
$ 2 Phenol-d5	692.3	507.4	73.30	30-160
$ 5 2-Chlorophenol-d4	692.3	463.3	66.92	30-160
$ 10 1,2-Dichlorobenzen	461.5	297.3	64.42	30-160
$ 18 Nitrobenzene-d5	461.5	301.9	65.40	30-160
$ 36 2-Fluorobiphenyl	461.5	330.8	71.68	30-160
$ 55 2,4,6-Tribromophen	692.3	582.6	84.16	30-160
$ 66 Terphenyl-d14	461.5	325.2	70.46	30-160

Data File: /chem1/nt10.i/20121119.b/vr38f.d
Date : 19-NOV-2012 18:30
Client ID: HT-08-S-C-121106
Instrument: nt10.i
Sample Info: VR38F
Volume Injected (uL): 1.0
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25



VR38 : 08/C/121106

Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

Client ID: HT-08-S-C-121106

Instrument: nt10.i

Sample Info: VR38F

Volume Injected (uL): 1.0

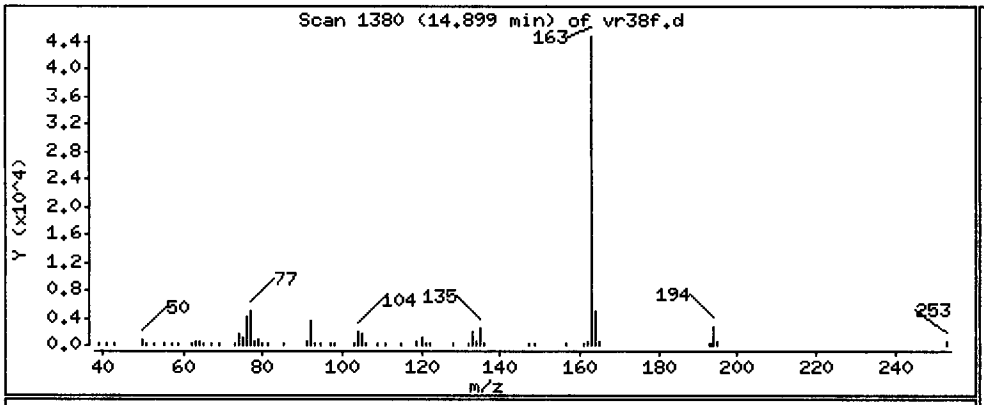
Operator: VTS/YZ

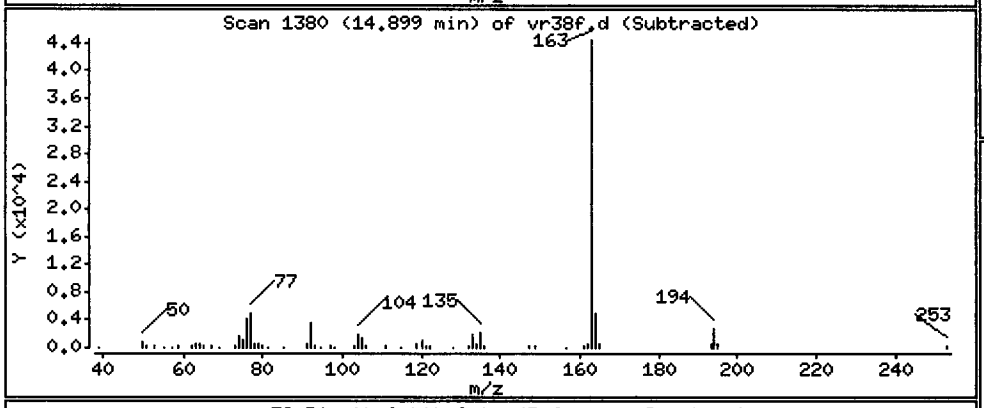
Column phase: ZB-5msi

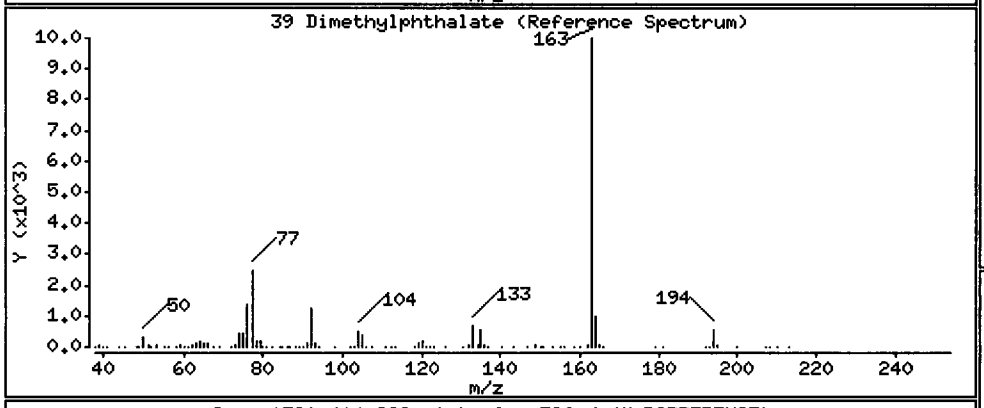
Column diameter: 0.25

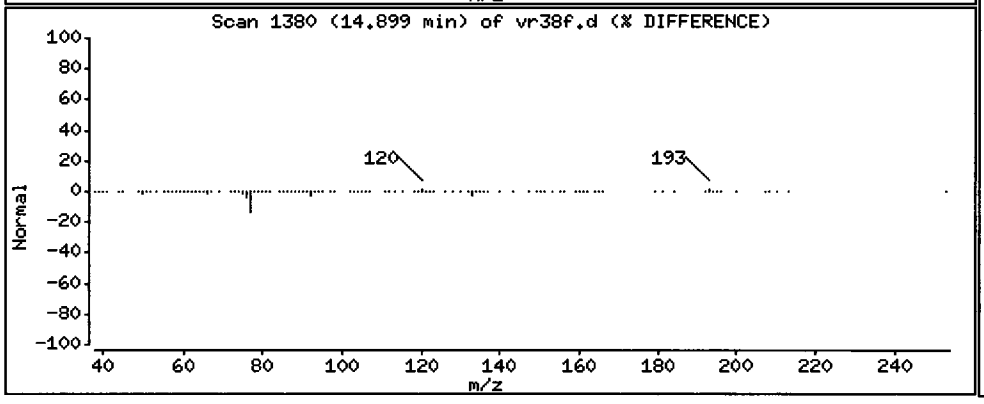
39 Dimethylphthalate

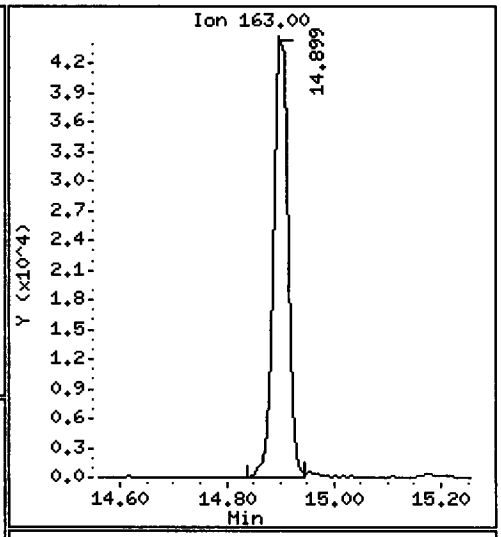
Concentration: 96.47 ug/kg

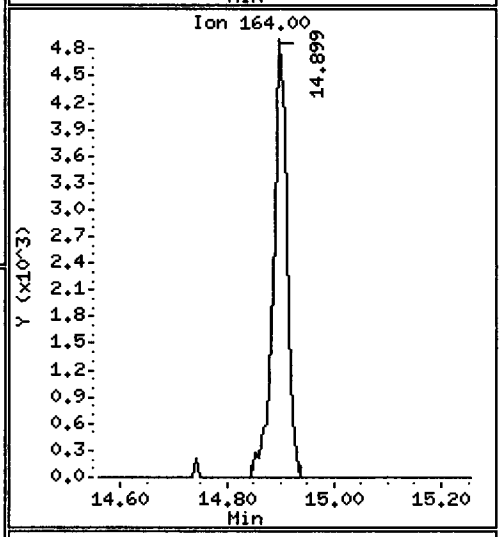


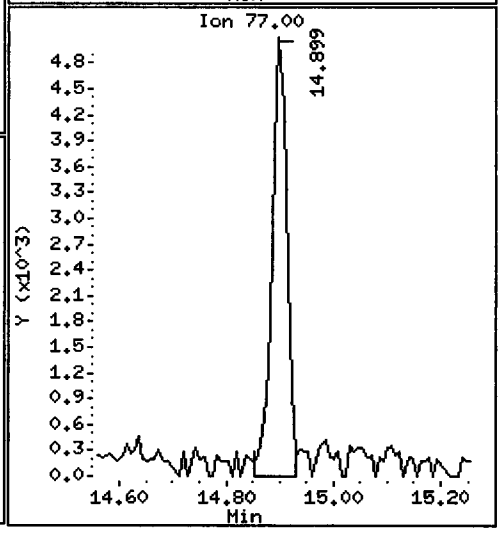












Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

Client ID: HT-08-S-C-121106

Instrument: nt10.i

Sample Info: VR38F

Volume Injected (uL): 1.0

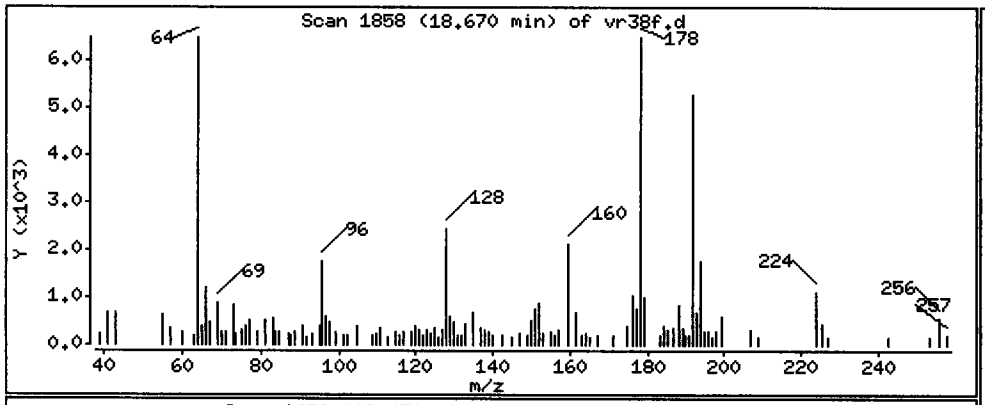
Operator: VTS/YZ

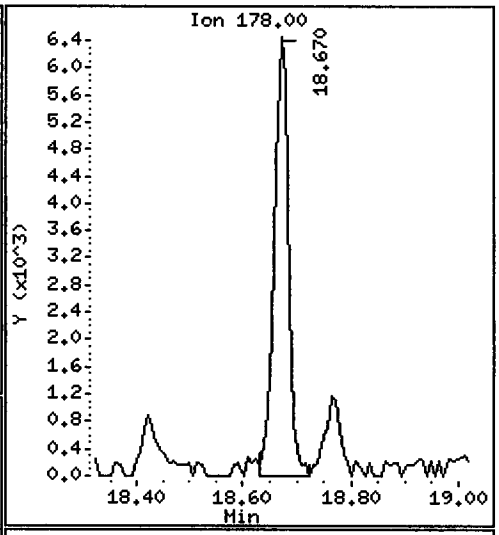
Column phase: ZB-5msi

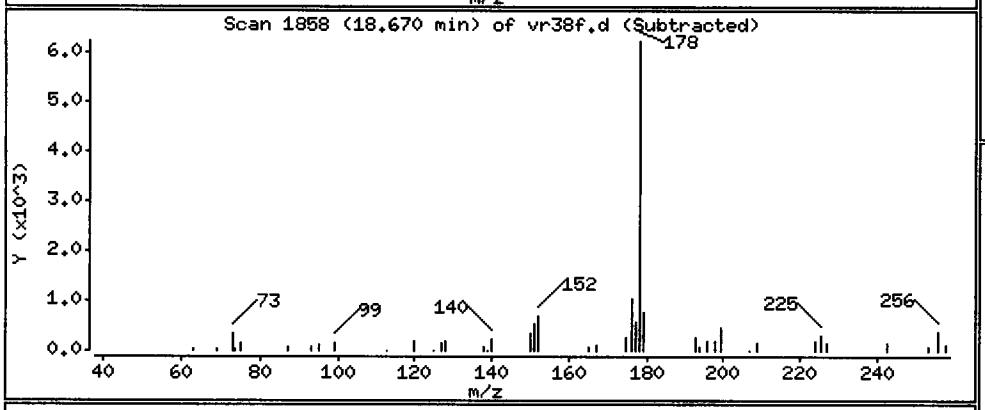
Column diameter: 0.25

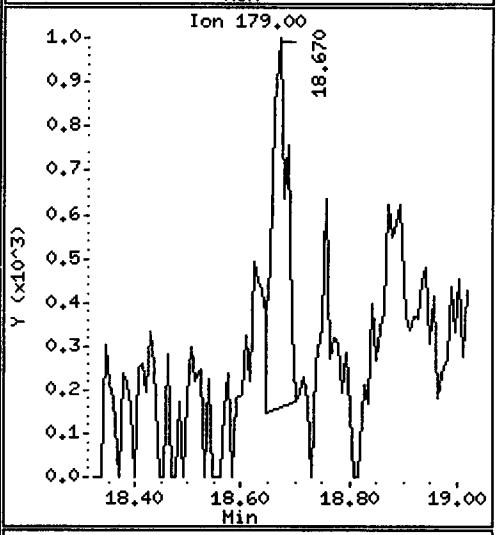
60 Phenanthrene

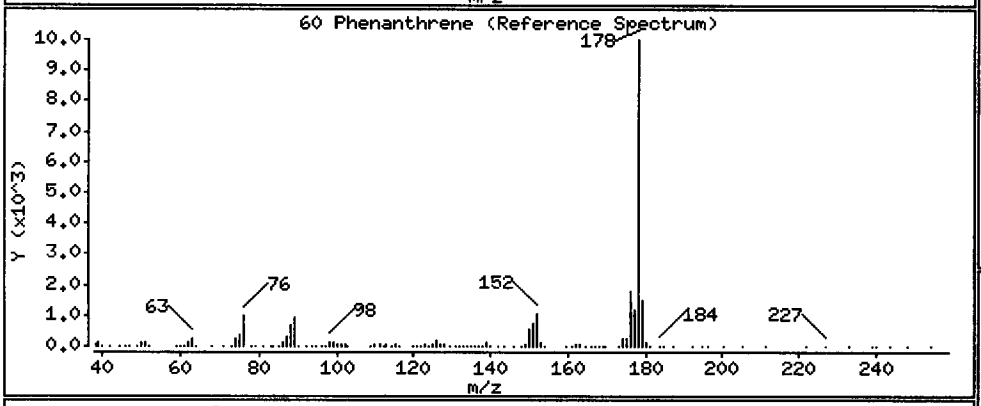
Concentration: 9.241 ug/kg

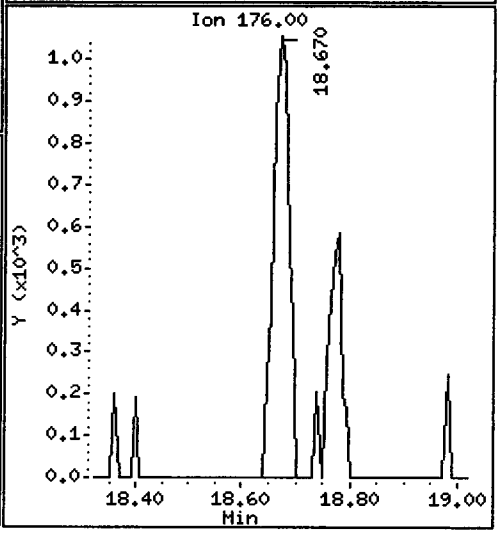


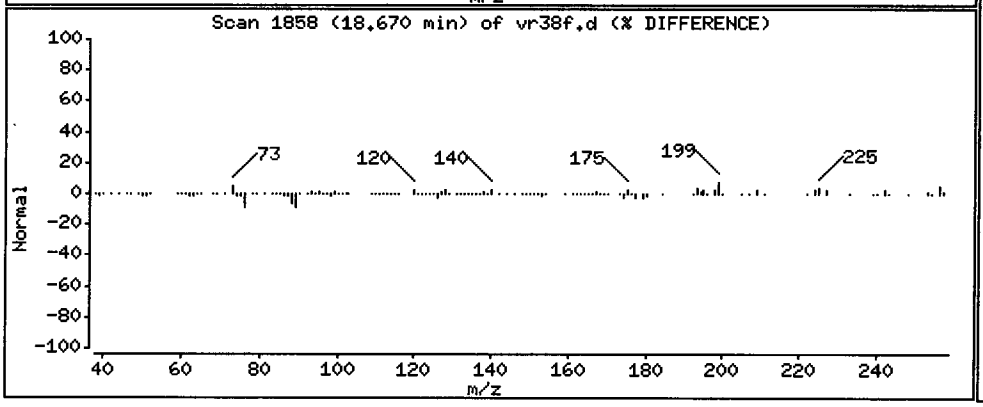












Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

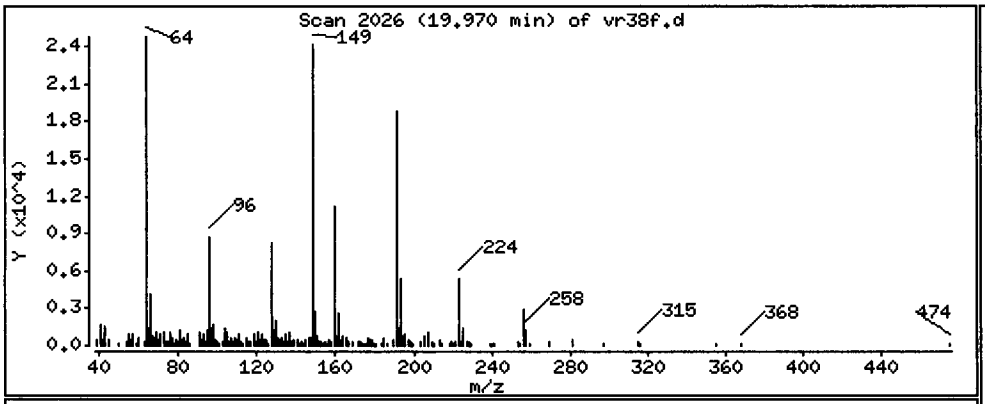
Client ID: HT-08-S-C-121106 Instrument: nt10.i

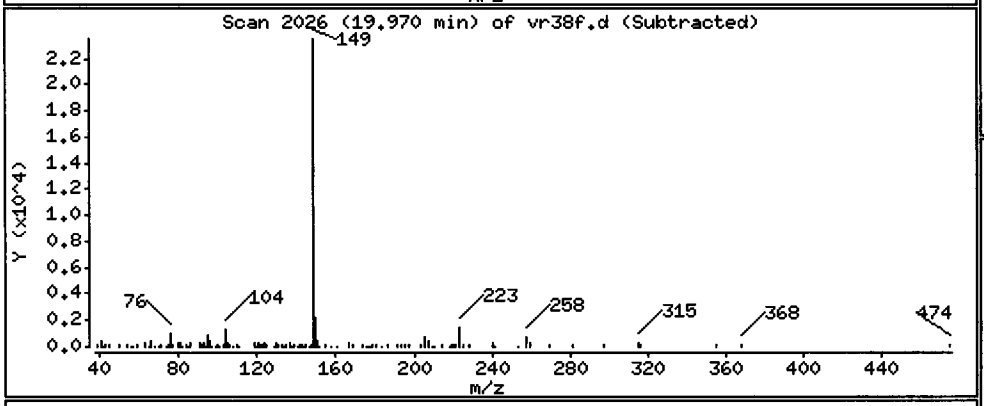
Sample Info: VR38F

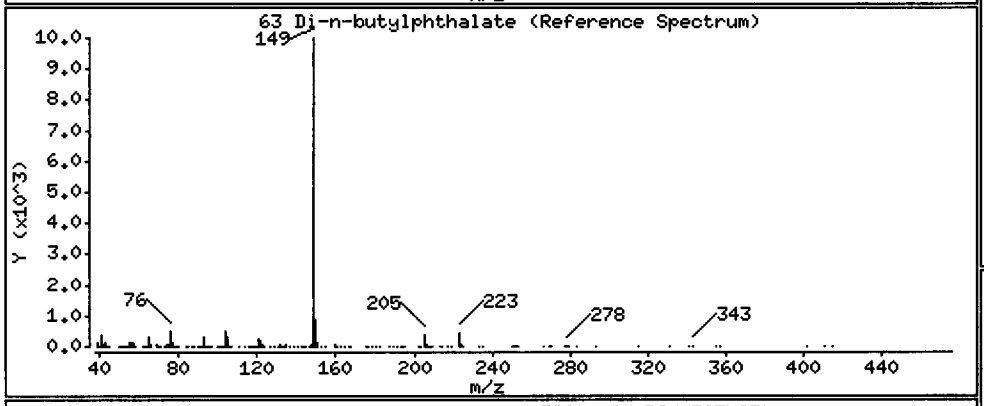
Volume Injected (uL): 1.0 Operator: VTS/YZ

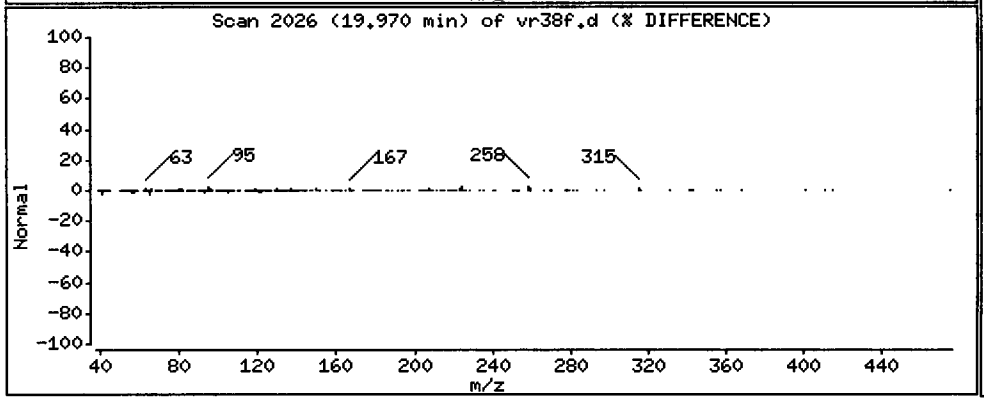
Column phase: ZB-5msi Column diameter: 0.25

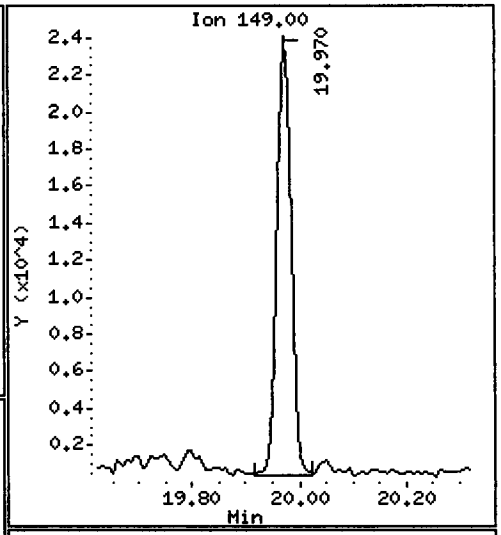
63 Di-n-butylphthalate Concentration: 27.63 ug/kg

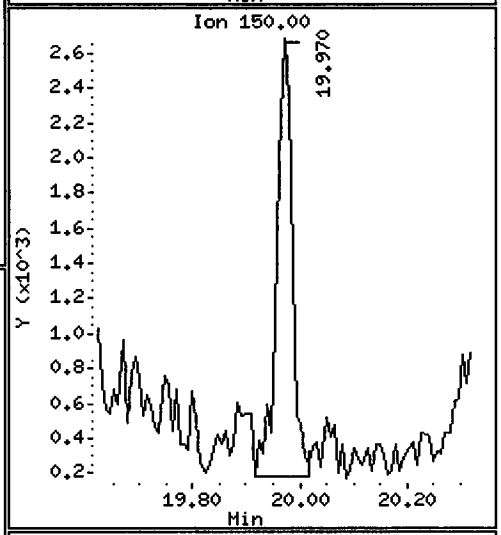


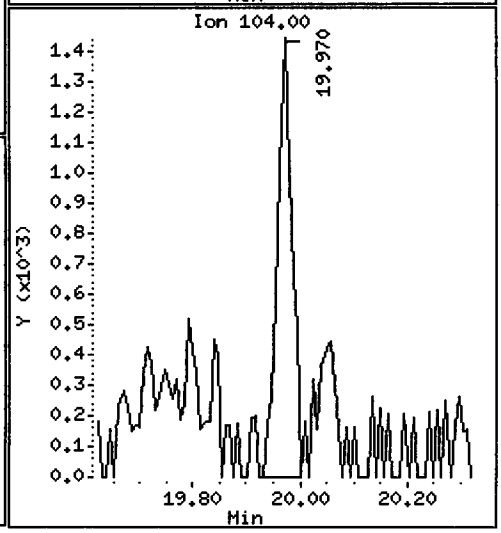












Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

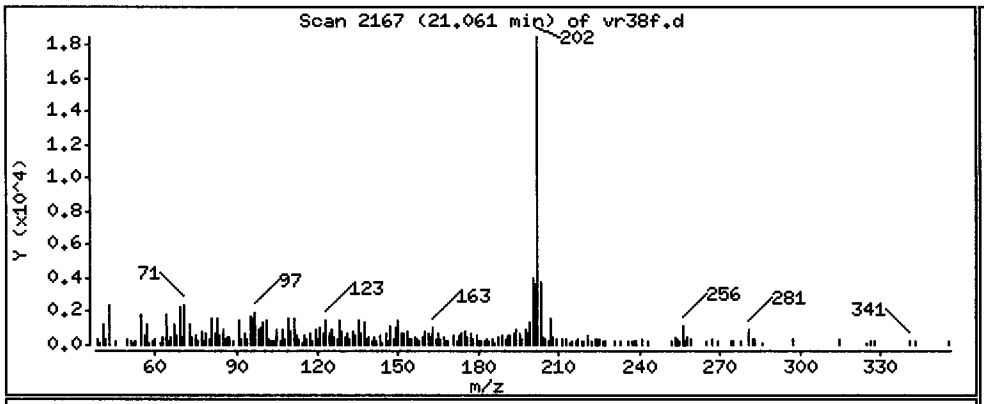
Client ID: HT-08-S-C-121106 Instrument: nt10.i

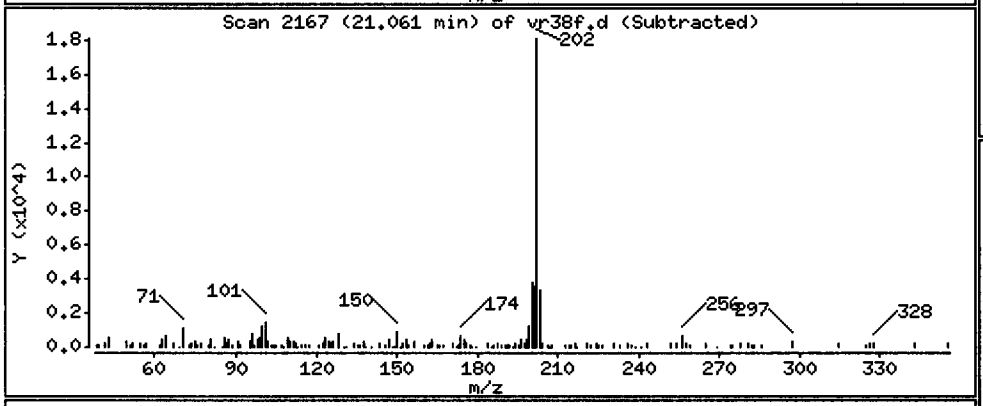
Sample Info: VR38F

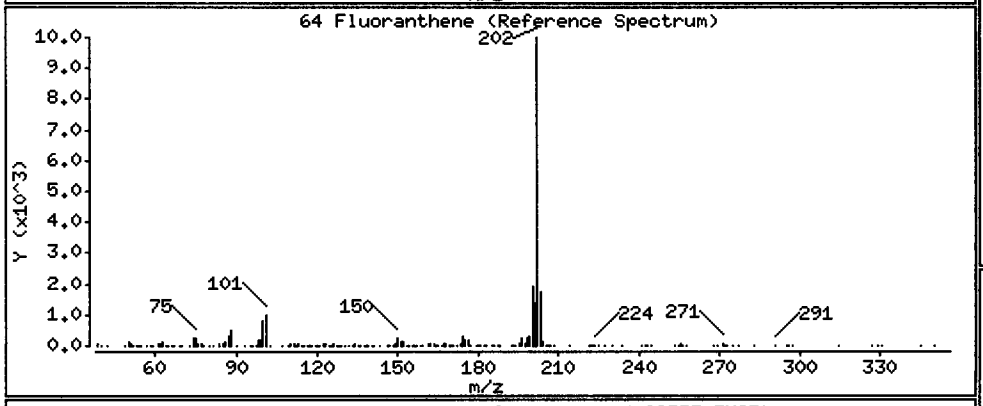
Volume Injected (uL): 1.0 Operator: VTS/YZ

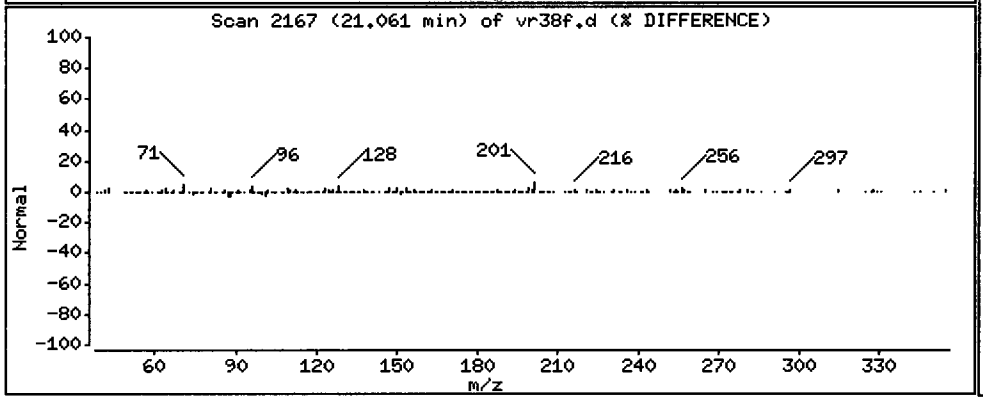
Column phase: ZB-5msi Column diameter: 0.25

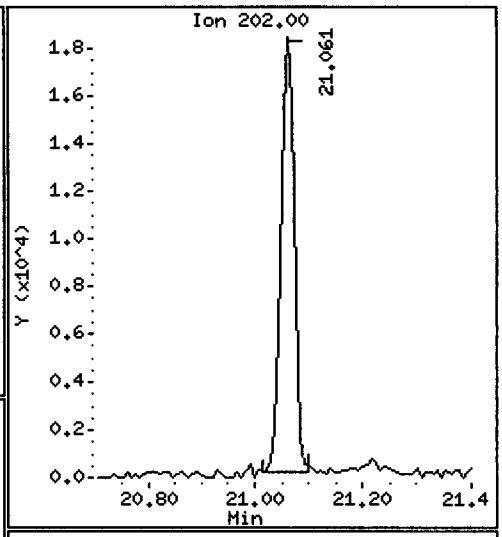
64 Fluoranthene Concentration: 19.70 ug/kg

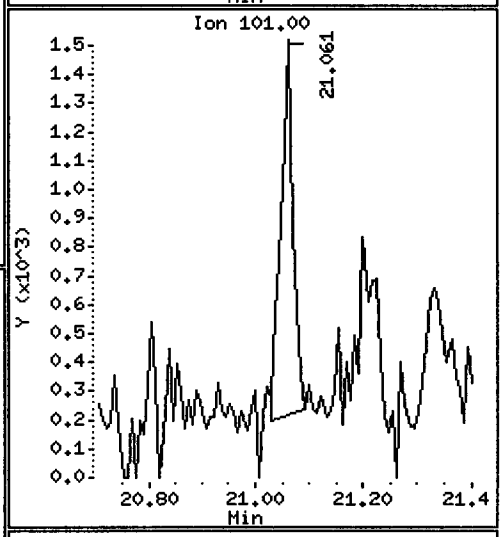


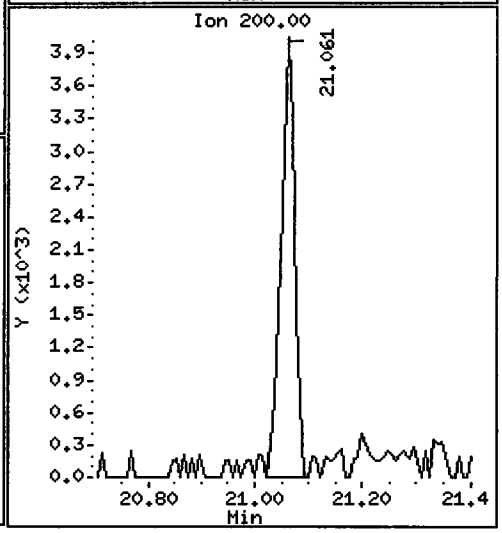












Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

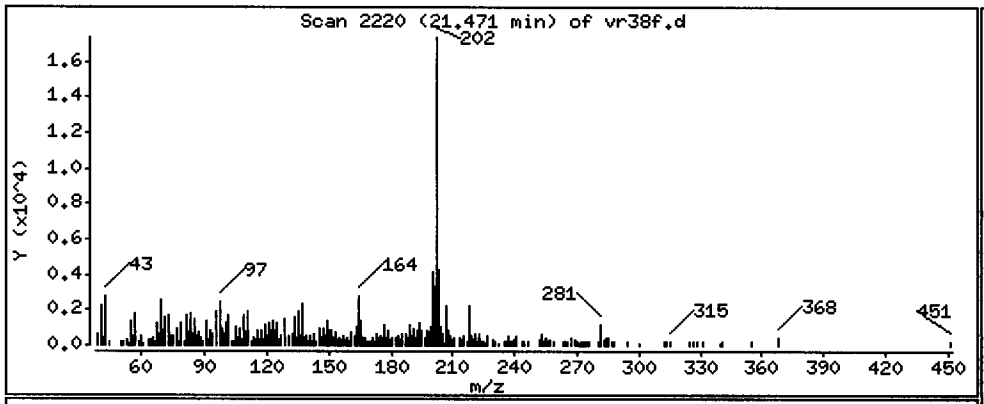
Client ID: HT-08-S-C-121106 Instrument: nt10.i

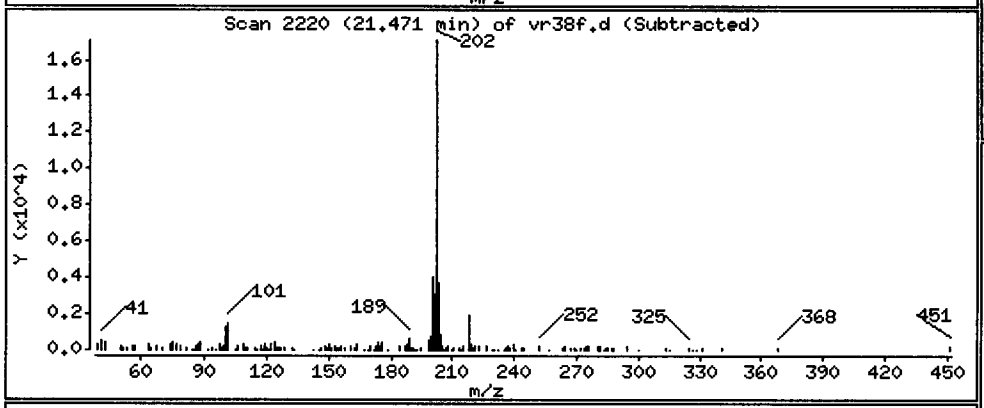
Sample Info: VR38F

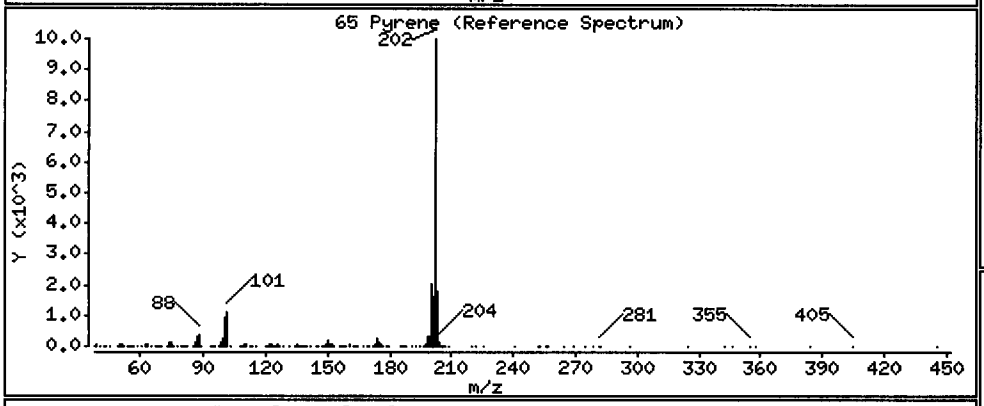
Volume Injected (uL): 1.0 Operator: VTS/YZ

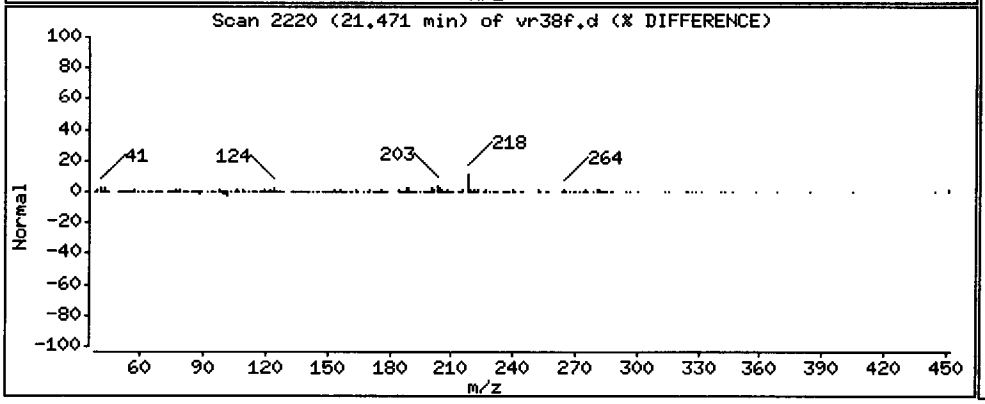
Column phase: ZB-5ms1 Column diameter: 0.25

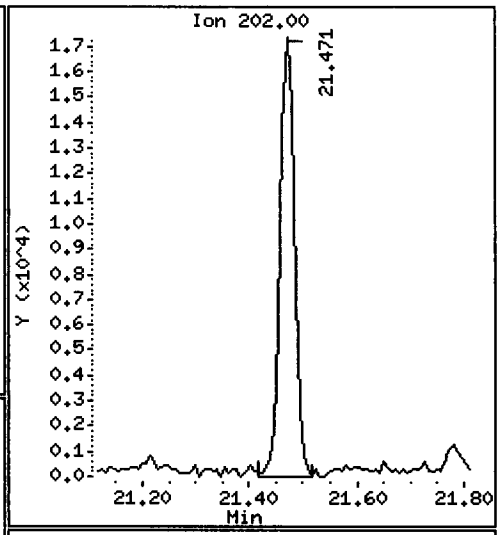
65 Pyrene Concentration: 16.75 ug/kg

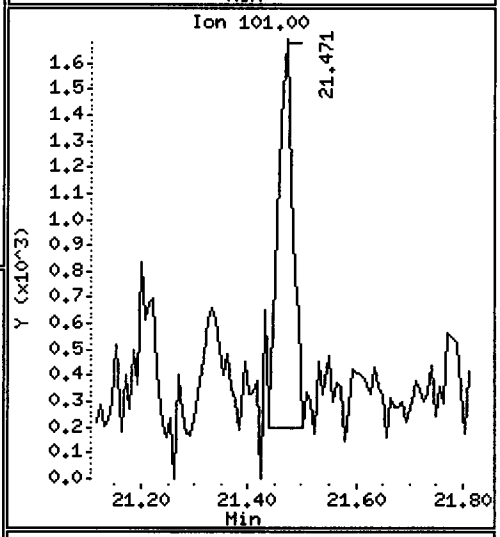


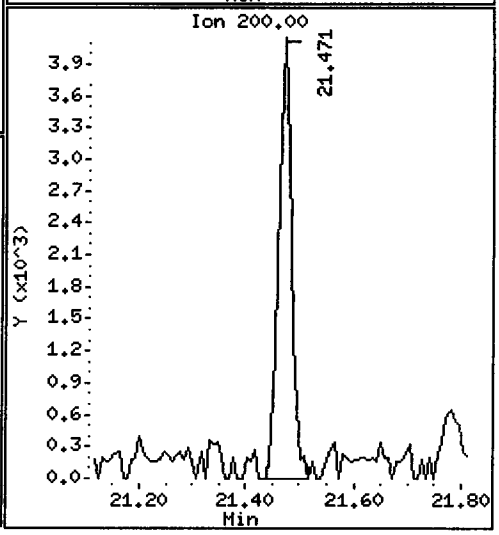












Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

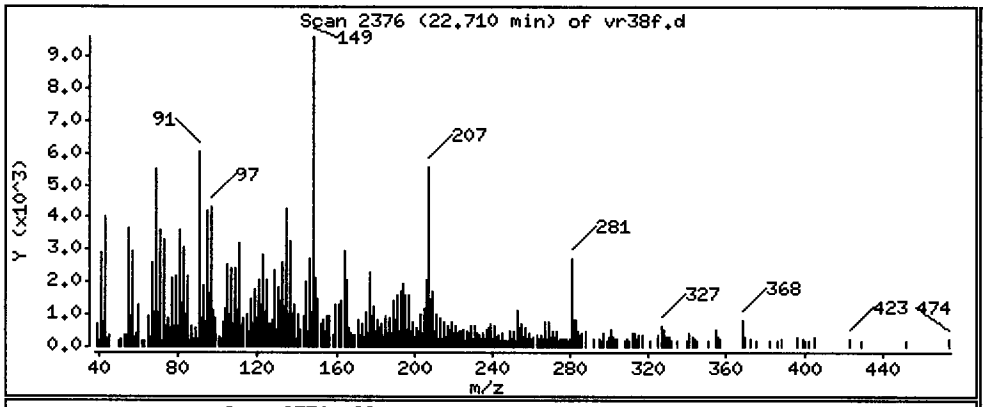
Client ID: HT-08-S-C-121106 Instrument: nt10.i

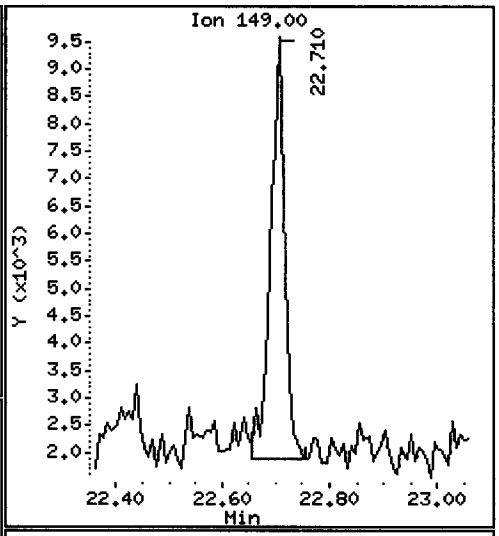
Sample Info: VR38F

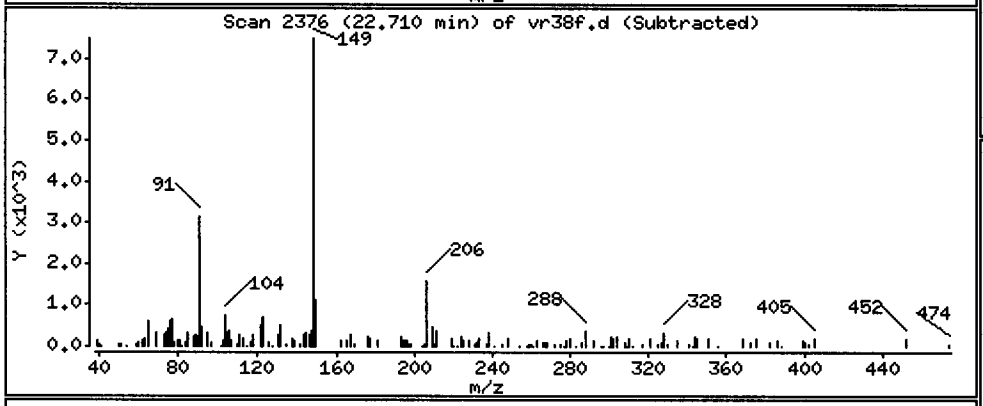
Volume Injected (uL): 1.0 Operator: VTS/YZ

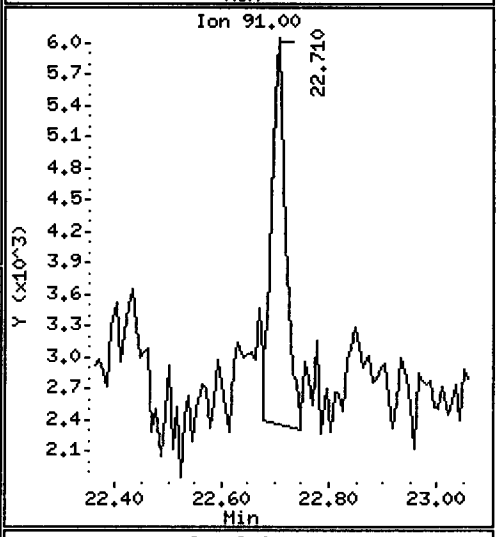
Column phase: ZB-5msi Column diameter: 0.25

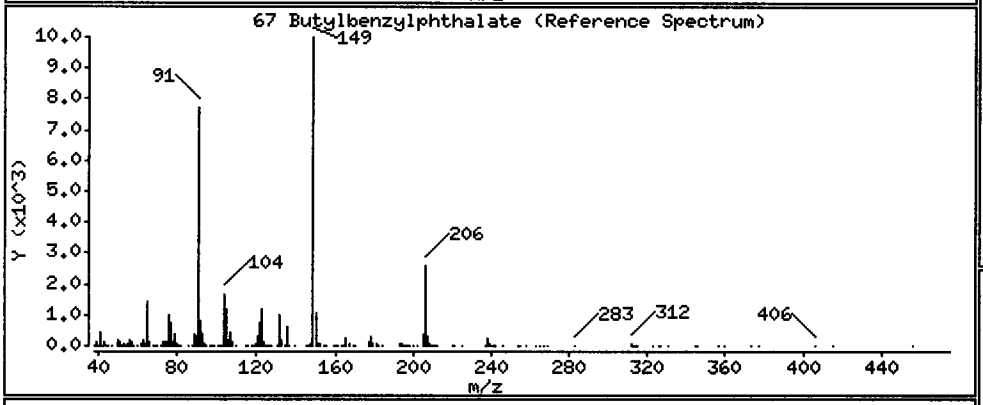
67 Butylbenzylphthalate Concentration: 19.30 ug/kg

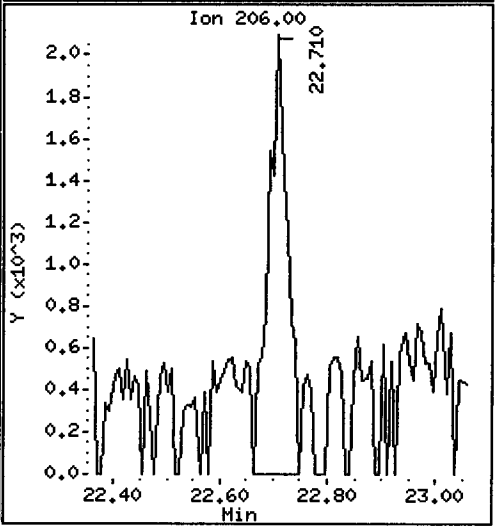


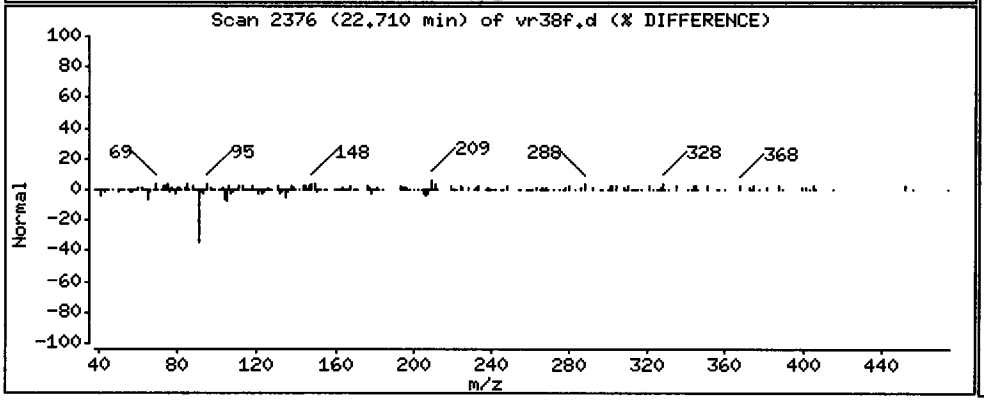












Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

Client ID: HT-08-S-C-121106

Instrument: nt10.i

Sample Info: VR38F

Volume Injected (uL): 1.0

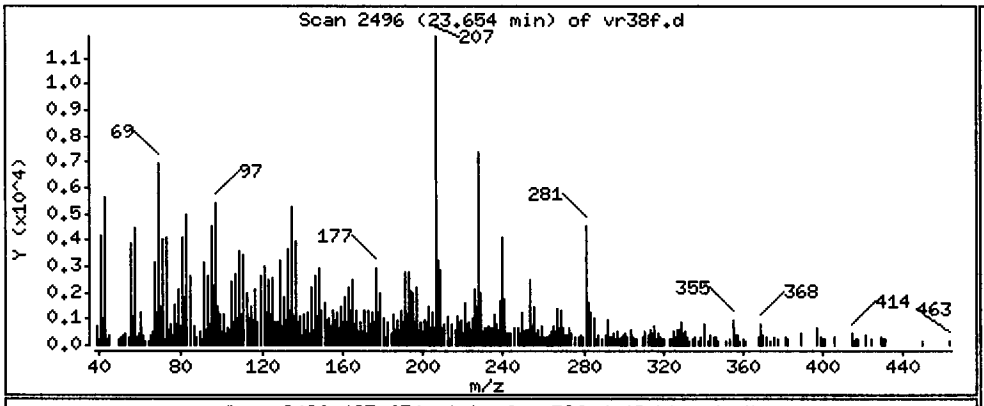
Operator: VTS/YZ

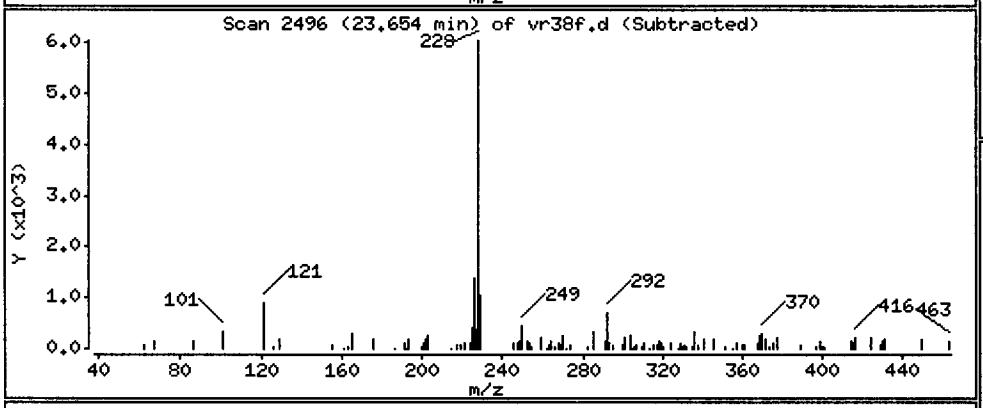
Column phase: ZB-5msi

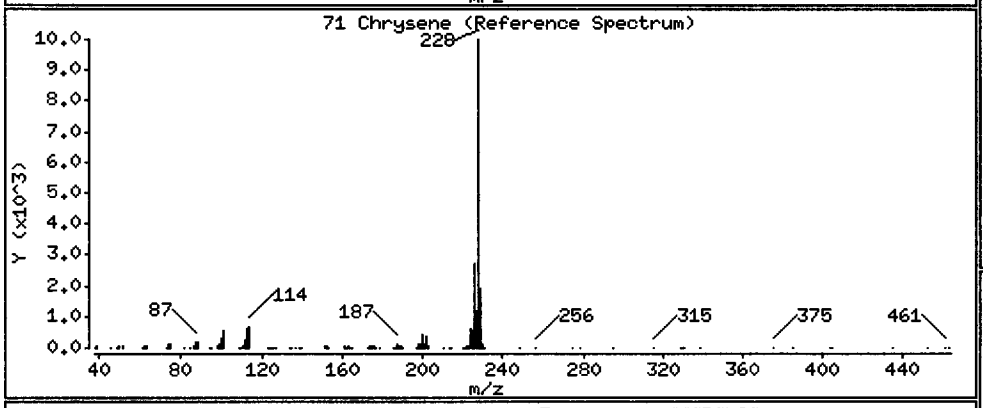
Column diameter: 0.25

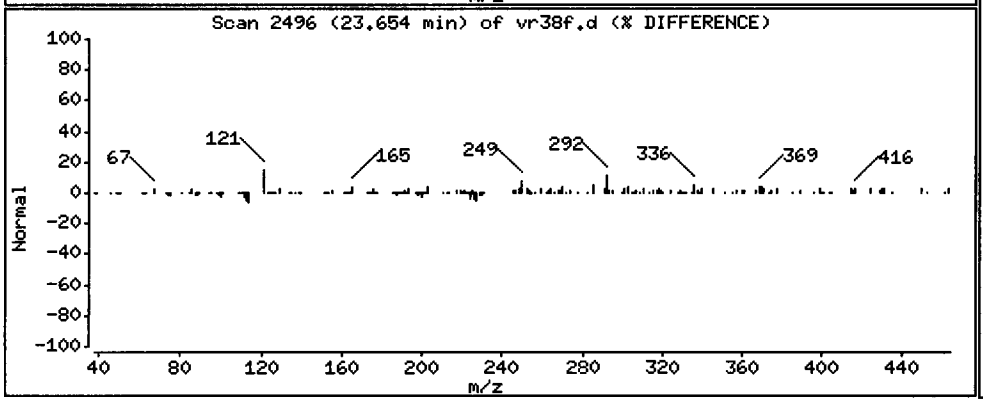
71 Chrysene

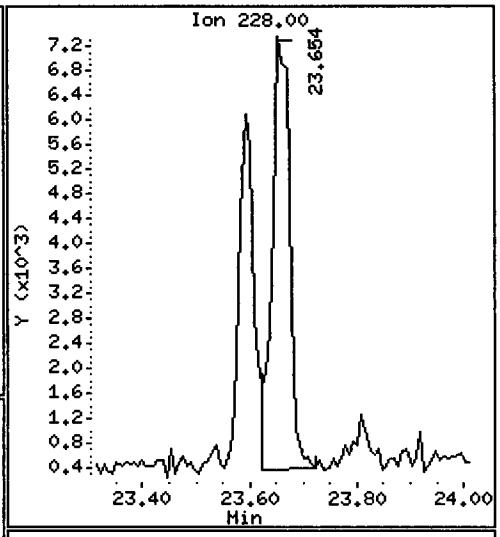
Concentration: 10.06 ug/kg

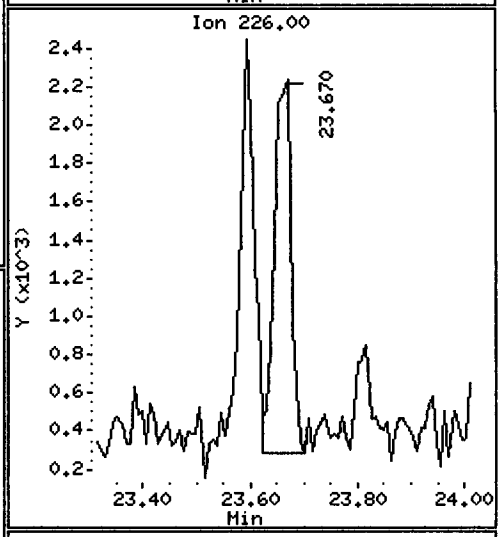


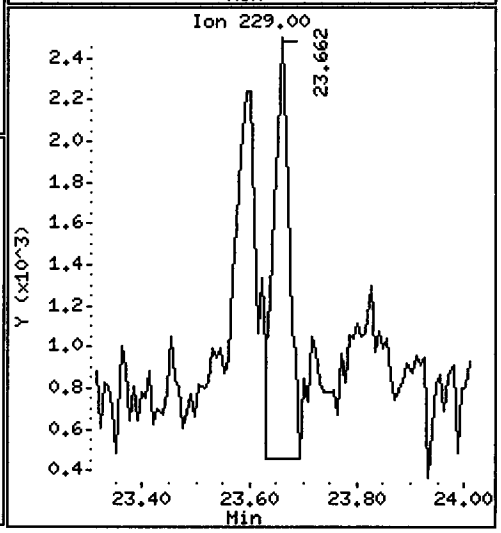












Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

Client ID: HT-08-S-C-121106

Instrument: nt10.i

Sample Info: VR38F

Volume Injected (uL): 1.0

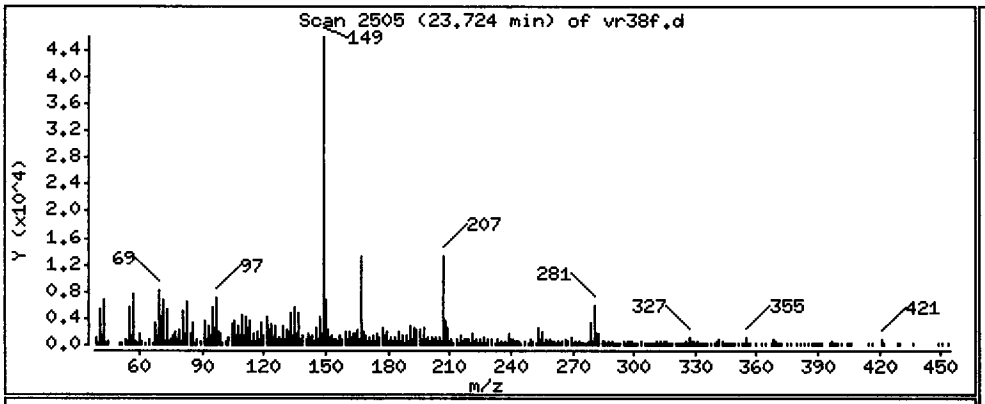
Operator: VTS/YZ

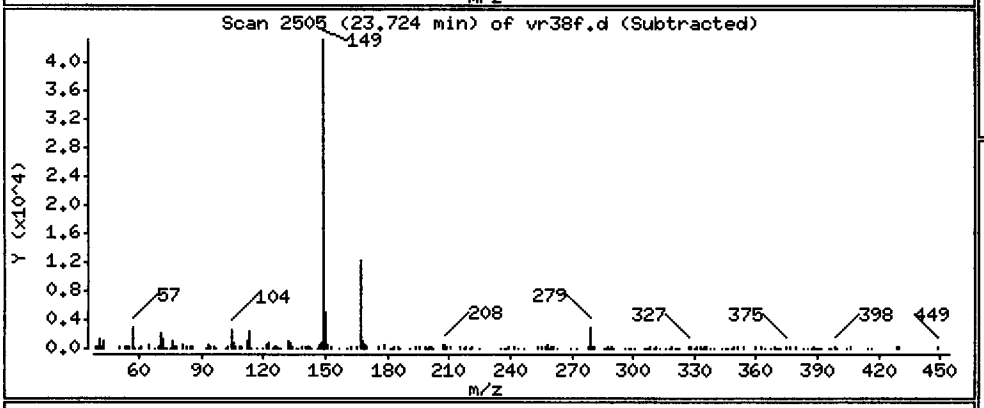
Column phase: ZB-5msi

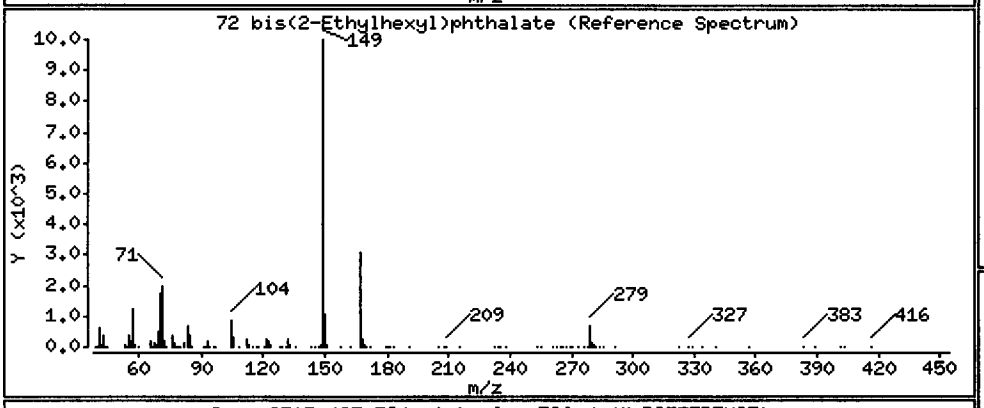
Column diameter: 0.25

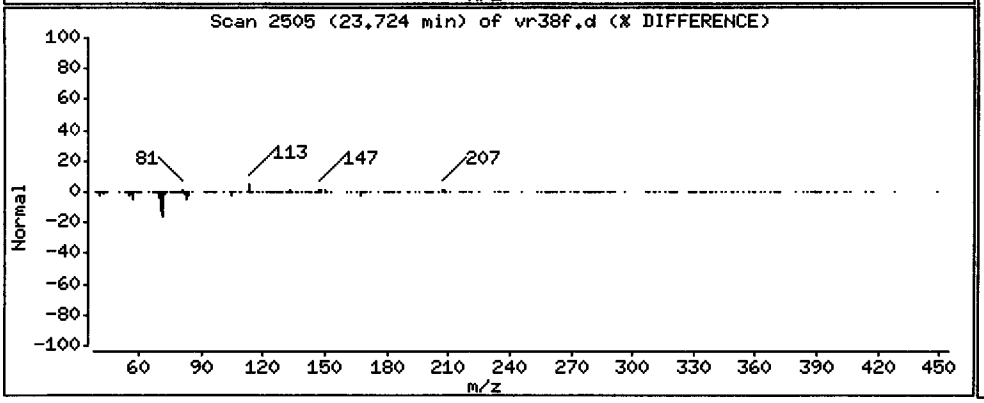
72 bis(2-Ethylhexyl)phthalate

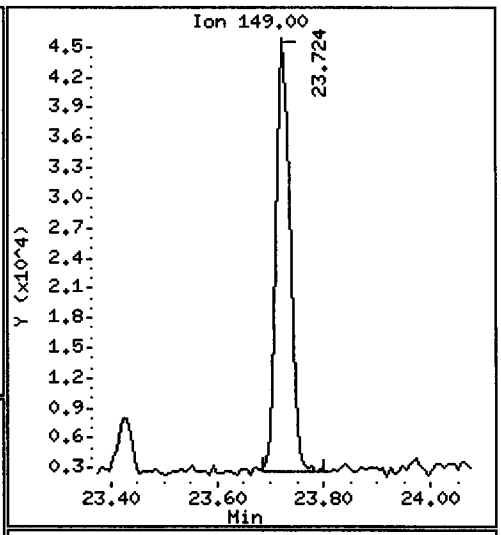
Concentration: 71.92 ug/kg

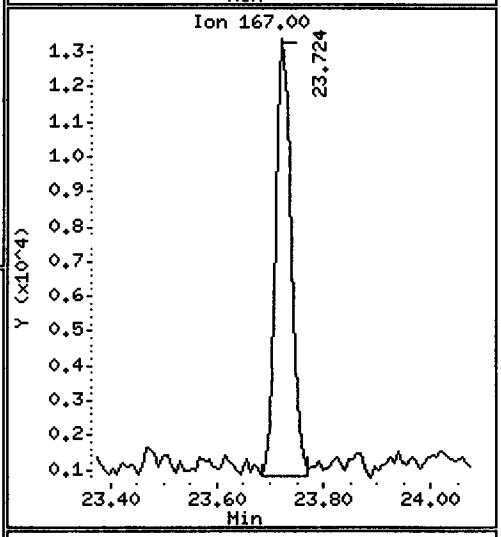


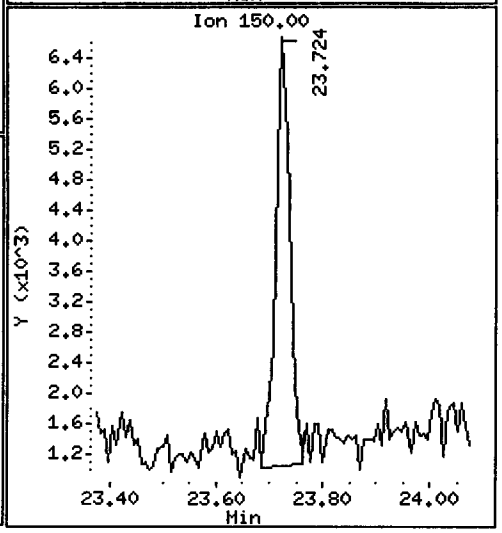












Data File: /chem1/nt10.i/20121119.b/vr38f.d

Date : 19-NOV-2012 18:30

Client ID: HT-08-S-C-121106

Instrument: nt10.i

Sample Info: VR38F

Volume Injected (uL): 1.0

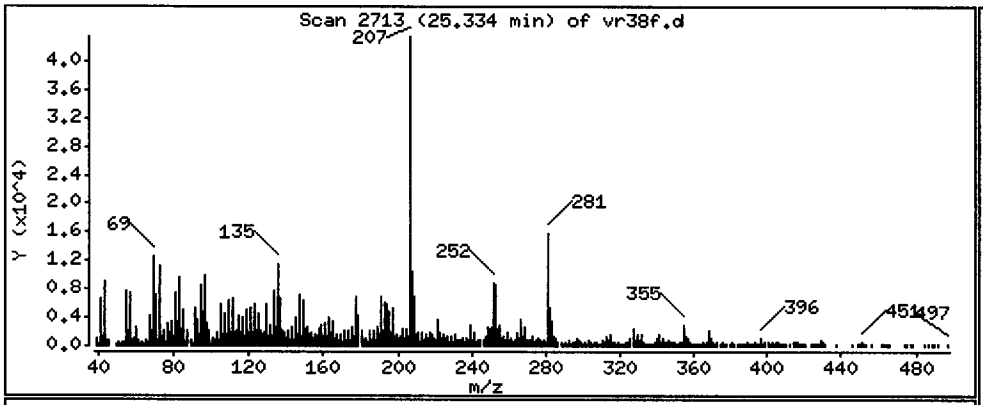
Operator: VTS/YZ

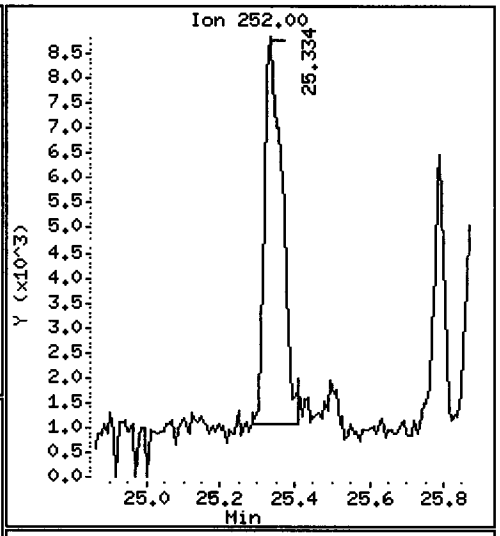
Column phase: ZB-5msi

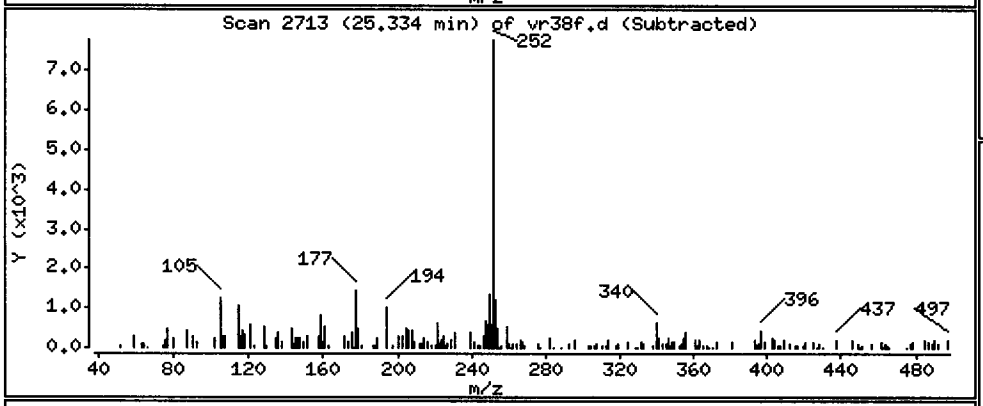
Column diameter: 0.25

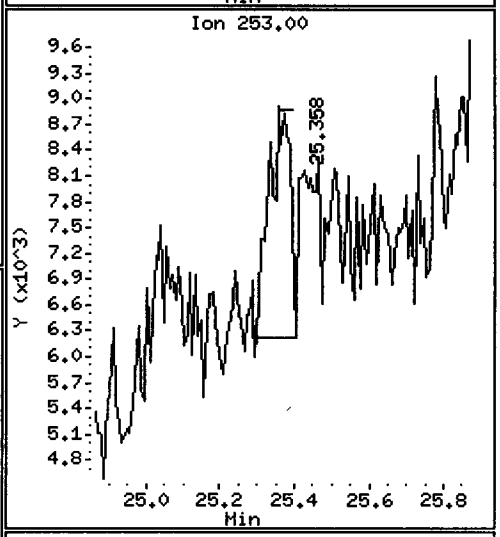
187 Total Benzofluoranthenes

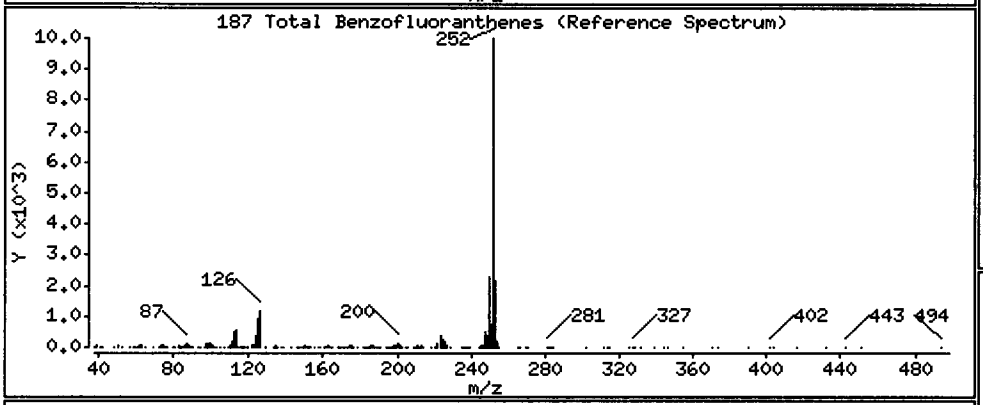
Concentration: 14.57 ug/kg

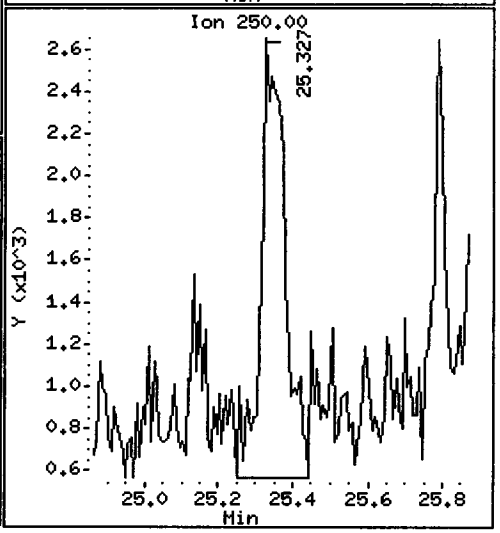


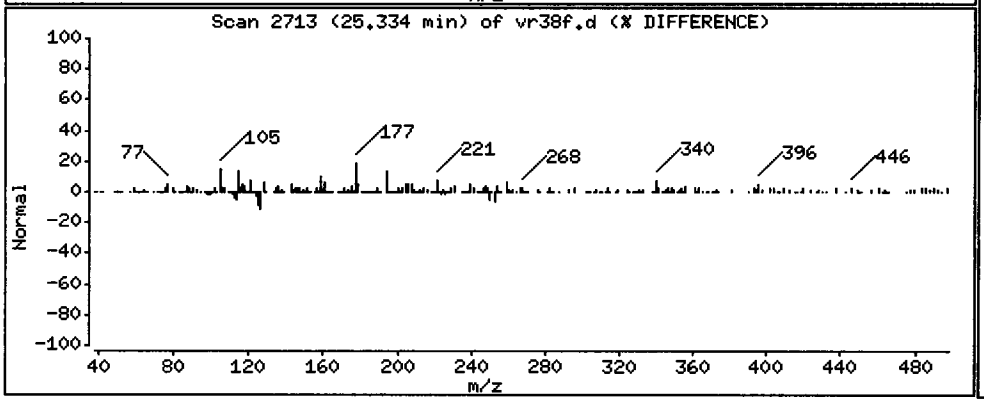






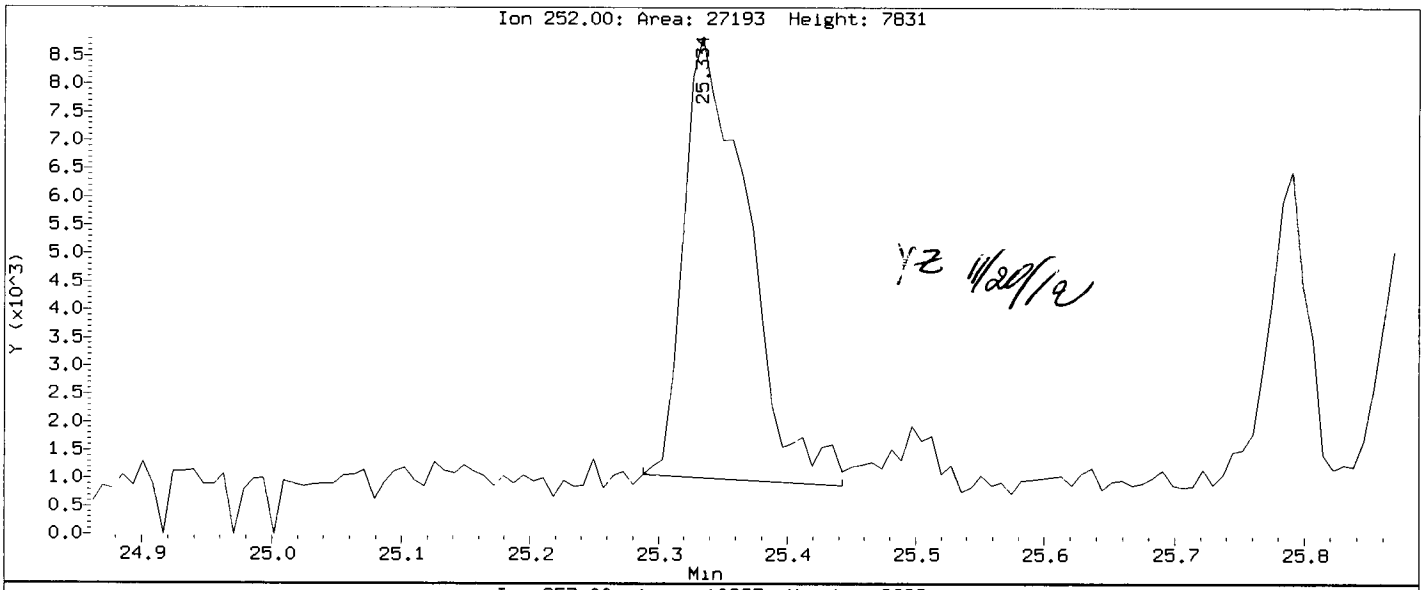




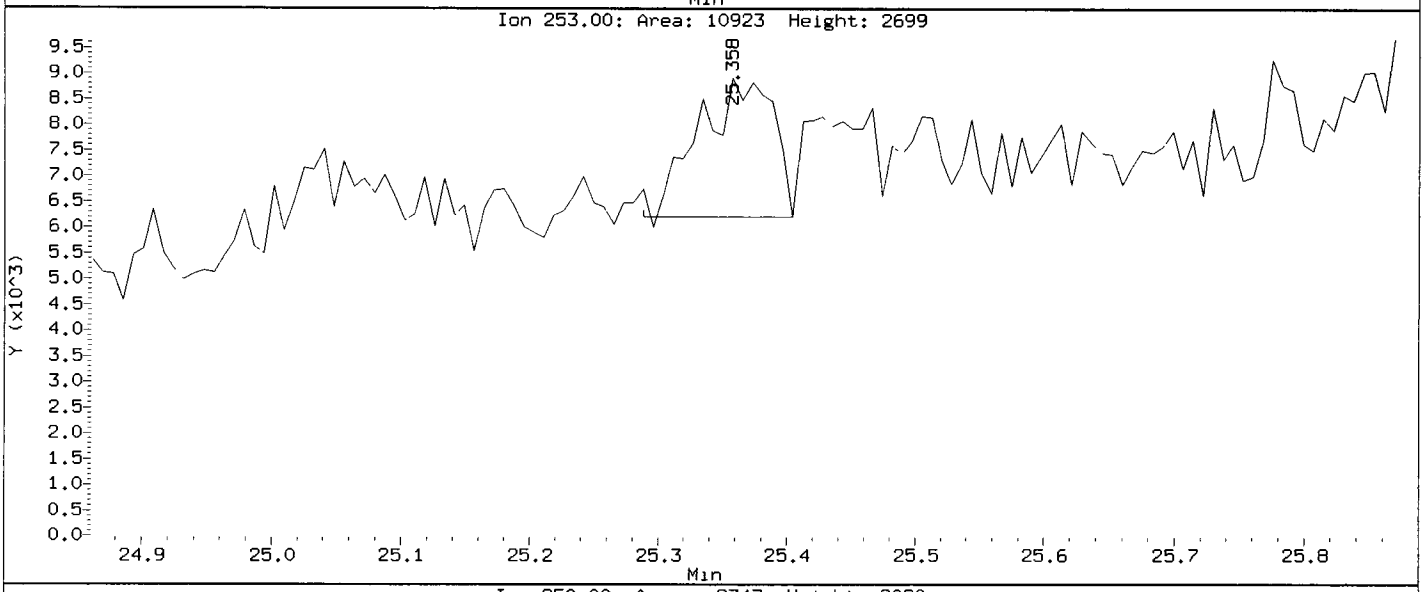


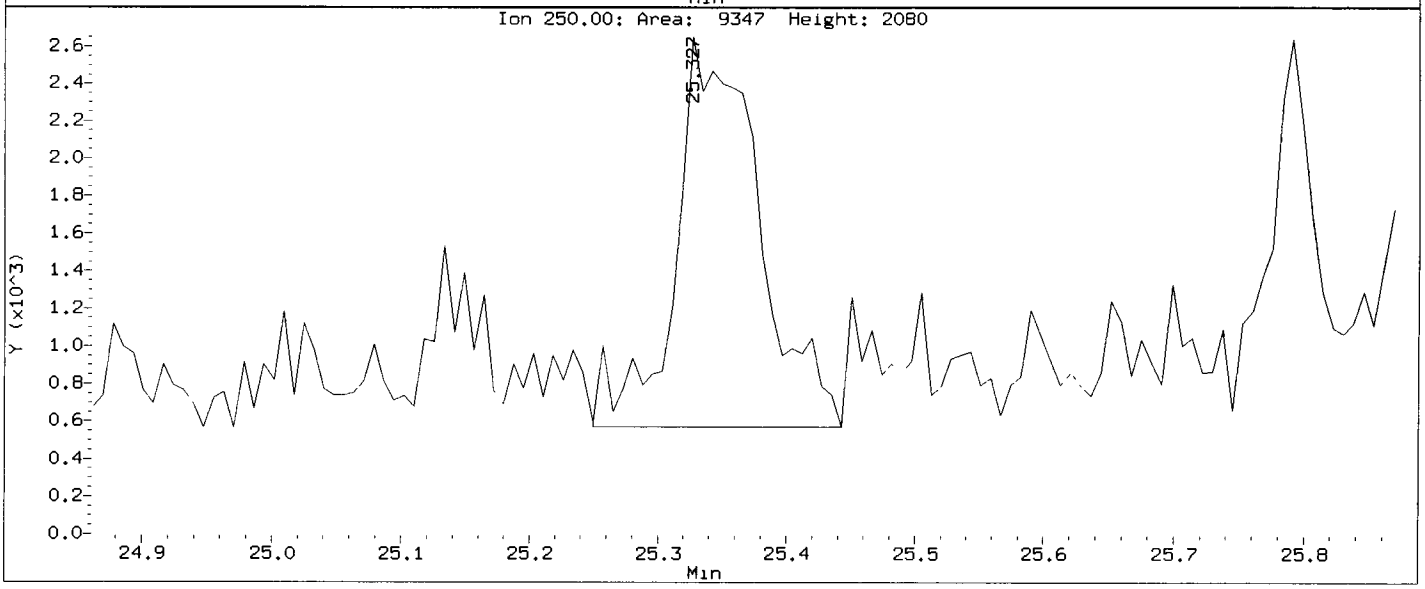
Data File: /chem1/nt10.i/20121119.b/vr38f.d
Injection Date: 19-NOV-2012 18:30
Instrument: nt10.i
Client Sample ID: HT-08-S-C-121106

Compound: Total Benzofluoranthenes
CAS Number:



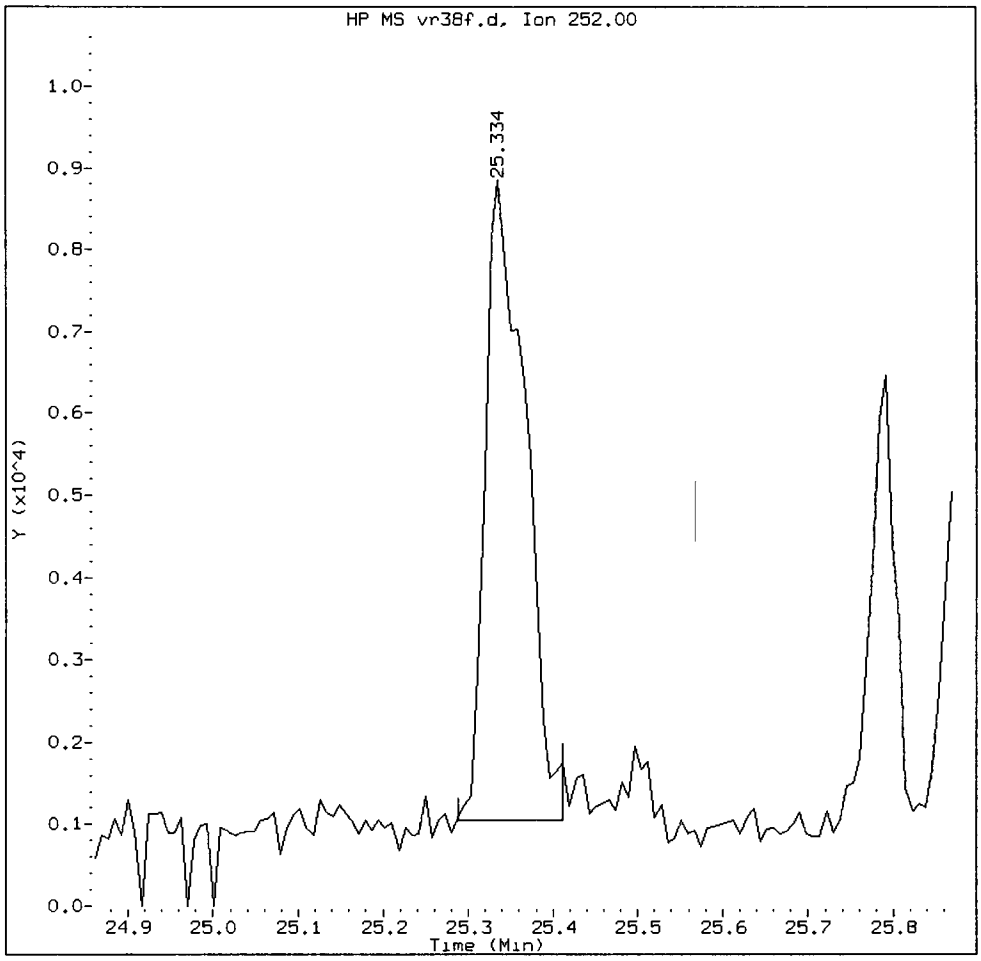
YZ 11/20/12





VR38F, /chem1/nt10.i/20121119.b/vr38f.d

Total Benzofluoranthenes Amount: 0.16 Area: 26234



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 11/20/12

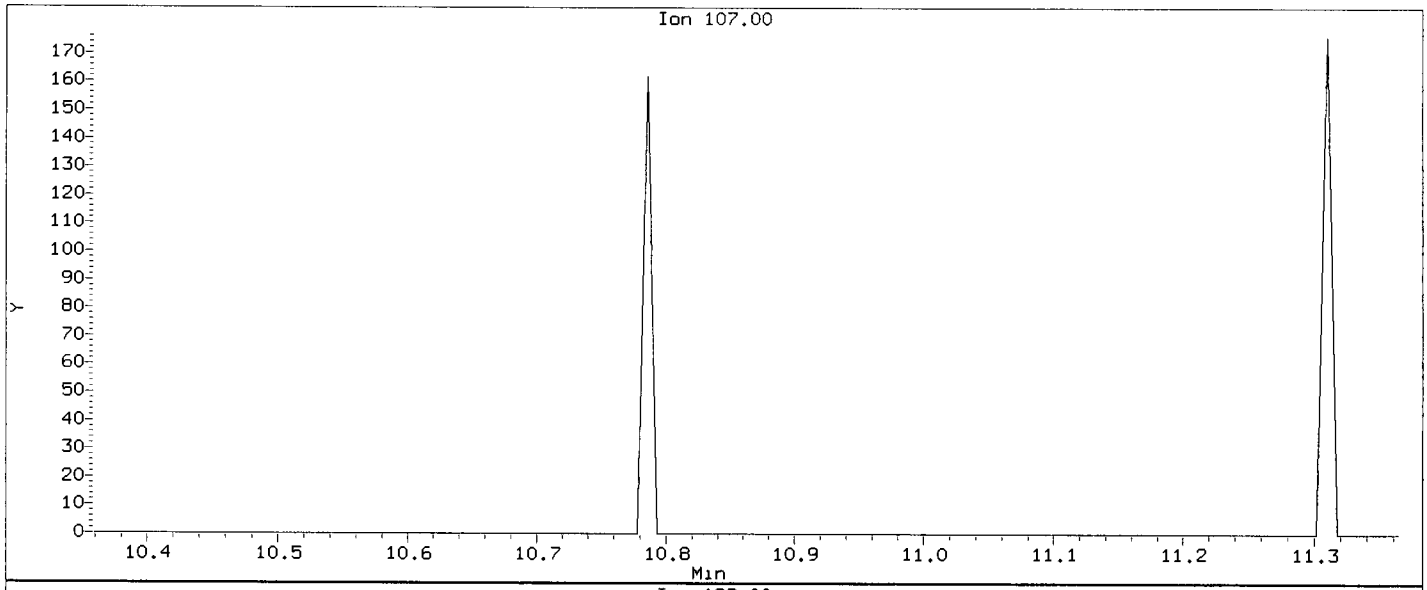
CO-ELUTION SUMMARY FOR FILE - vr38f.d

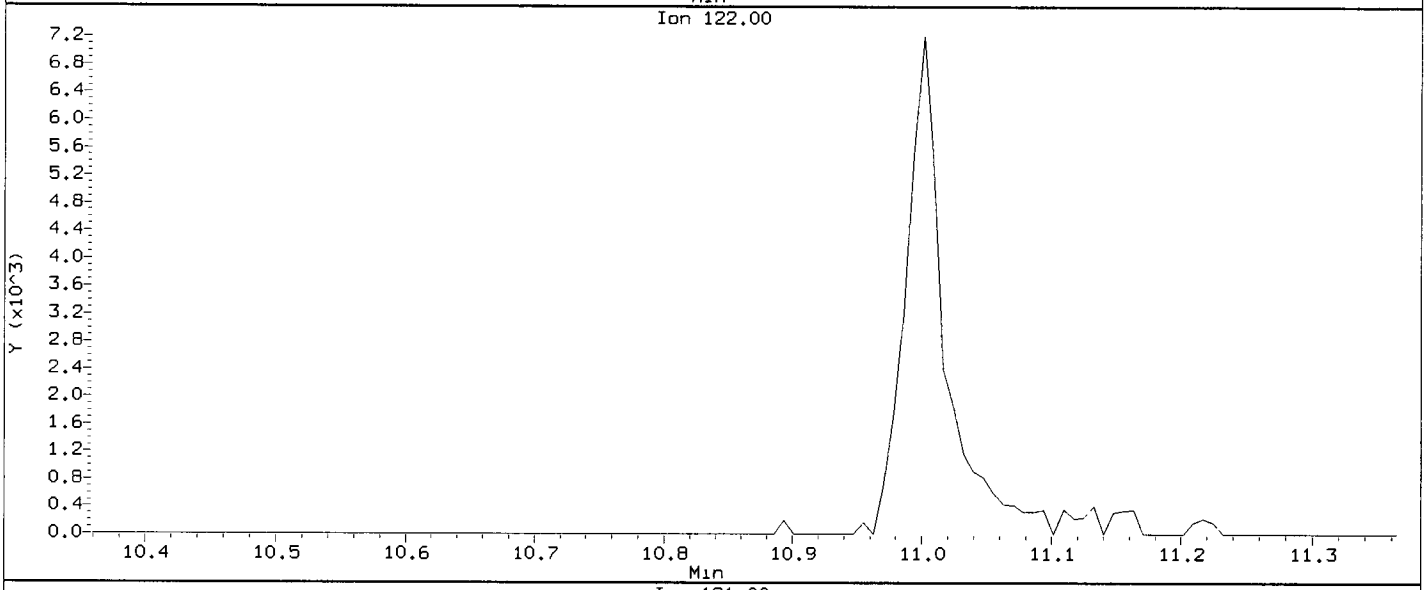
Lab ID: VR38F, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

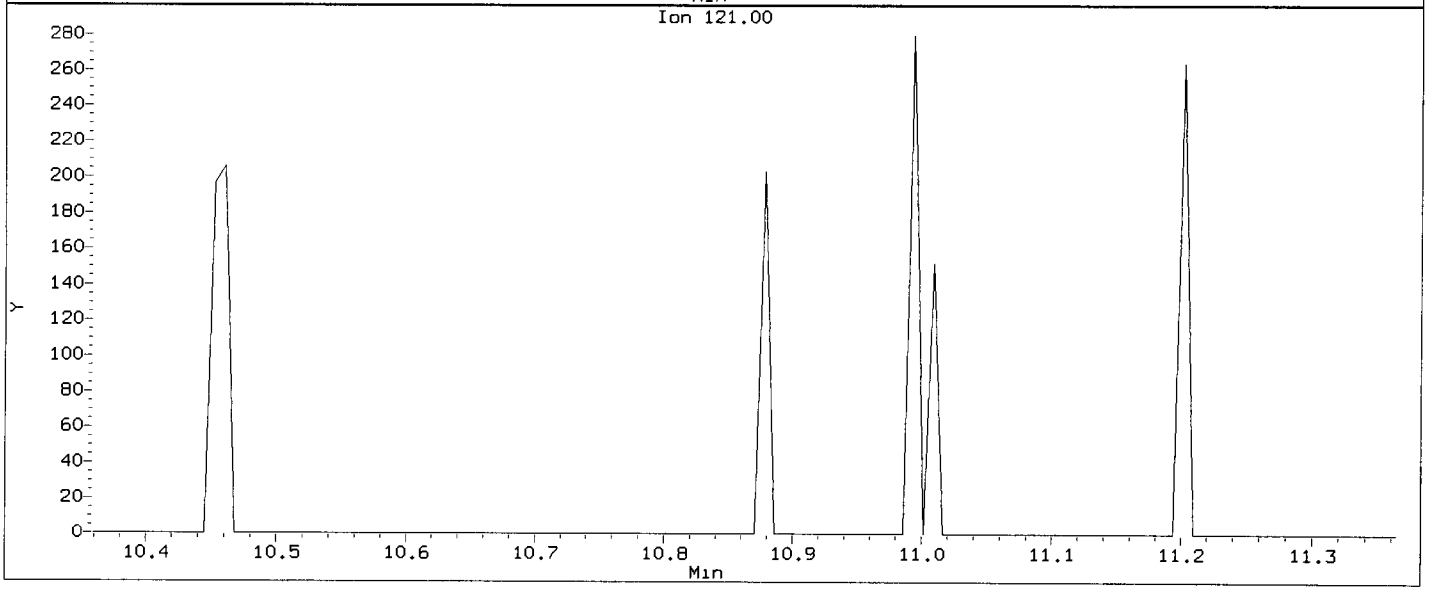
RT	CO-ELUTION COMPOUNDS

Data File: /chem1/nt10.1/20121119.b/vr38f.d
Injection Date: 19-NOV-2012 18:30
Instrument: nt10.1
Client Sample ID: HT-08-S-C-121106

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

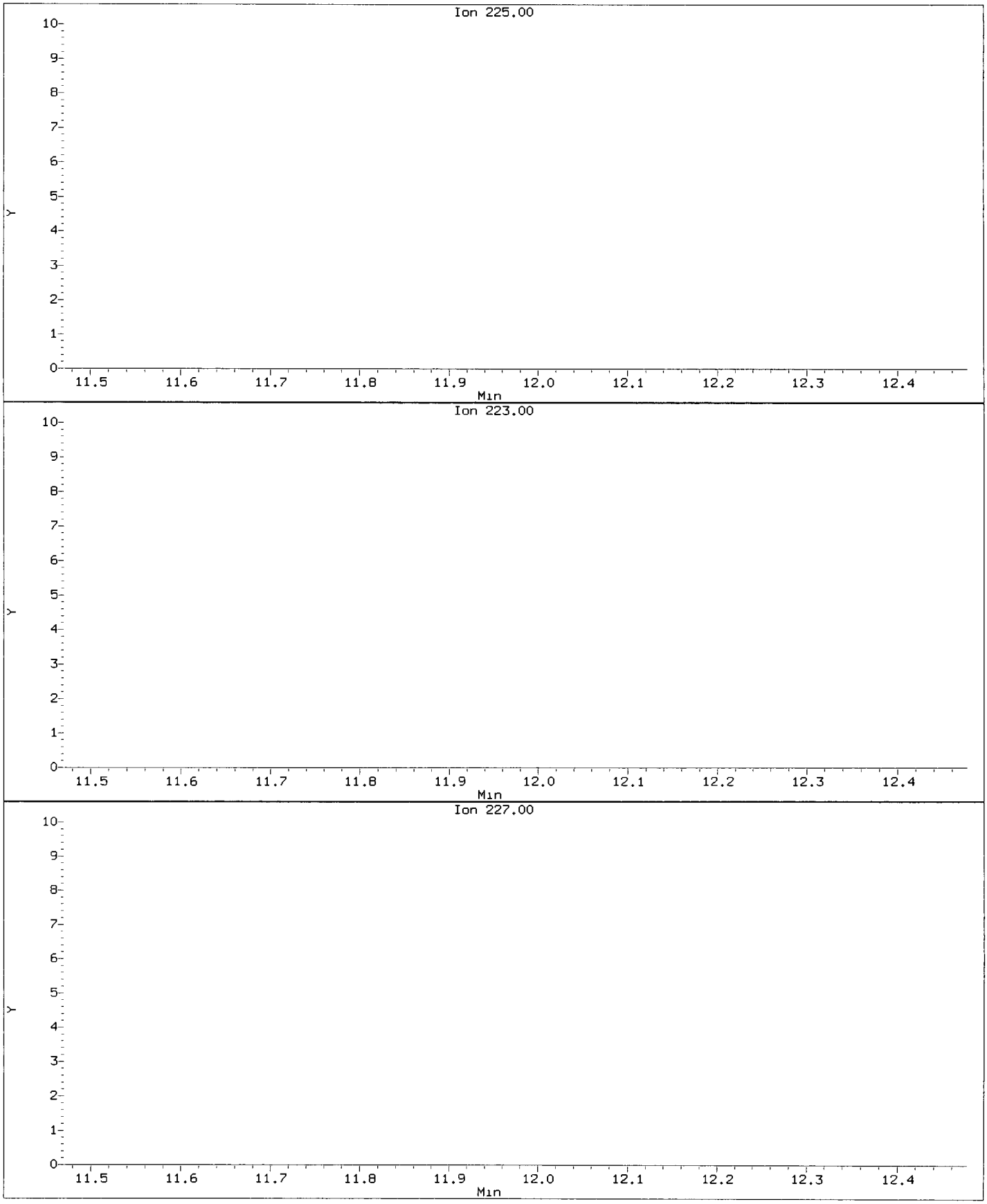






Data File: /chem1/nt10.1/20121119.b/vr38f.d
Injection Date: 19-NOV-2012 18:30
Instrument: nt10.1
Client Sample ID: HT-08-S-C-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

YZ 11/22/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38g.d
Lab Smp Id: VR38G Client Smp ID: HT-09-S-C-121106
Inj Date : 19-NOV-2012 19:07
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38G
Misc Info : 12-22273
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	14.10000	Weight of sample extracted (g)
M	26.20000	% 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	6.620	6.597	(0.743)	181586	5.57340	535.6
$	2 Phenol-d5	99	8.289	8.282	(0.931)	187679	5.66840	544.7
	3 Phenol	94	8.312	8.305	(0.933)	4052	0.11494 J	11.05
$	5 2-Chlorophenol-d4	132	8.536	8.529	(0.958)	236987	5.22719	502.3
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	122994	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.288	9.281	(1.043)	99503	3.21844	309.3
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.218	9.211	(1.035)	4433	0.23644	22.72
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	10.064	10.065	(0.873)	86043	3.35832	322.7
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

							CONCENTRATIONS	
		QUANT SIG					ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/kg)
	24 Benzoic acid	105	11.024	11.132	(0.956)	36174	1.40573	135.1
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	435383	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.904)	342821	3.92620	377.3
	39 Dimethylphthalate	163	14.906	14.907	(0.969)	733370	10.0986	970.5
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.386	15.386	(1.000)	245794	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.148	17.140	(1.114)	63222	6.54206	628.7
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.624	18.624	(1.000)	401439	4.00000	
	60 Phenanthrene	178	18.678	18.670	(1.003)	53608	0.50187	48.23
	61 Anthracene	178	Compound Not Detected.					
	63 Di-n-butylphthalate	149	19.978	19.970	(1.073)	23533	0.18487	17.77
	64 Fluoranthene	202	21.069	21.053	(1.131)	89359	0.66076	63.50
	65 Pyrene	202	21.479	21.463	(0.909)	80109	0.47832	45.97
$	66 Terphenyl-d14	244	21.788	21.781	(0.922)	369100	3.49422	335.8
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	23.600	23.592	(0.999)	32874	0.20609	19.81
*	69 Chrysene-d12	240	23.631	23.616	(1.000)	517768	4.00000	
	71 Chrysene	228	23.670	23.662	(1.002)	46452	0.33266	31.97
	72 bis(2-Ethylhexyl)phthalate	149	23.732	23.724	(0.961)	126343	1.32473	127.3
*	134 Di-n-octylphthalate-d4	153	24.699	24.684	(1.000)	729080	4.00000	
	73 Di-n-octylphthalate	149	24.707	24.692	(1.000)	27960	0.15926	15.30
	76 Benzo(a)pyrene	252	25.884	25.869	(0.996)	39379	0.25702	24.70
*	77 Perylene-d12	264	25.985	25.969	(1.000)	553437	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.209	28.155	(1.086)	38526	0.19668	18.90
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	28.869	28.799	(1.111)	41596	0.25362	24.37
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	25.334	25.365	(0.975)	94879	0.57909	55.65
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38g.d
Lab Smp Id: VR38G
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22273

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-09-S-C-121106
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	97486	48743	194972	122994	26.17
27 Naphthalene-d8	357150	178575	714300	435383	21.90
42 Acenaphthene-d10	217259	108630	434518	245794	13.13
59 Phenanthrene-d10	355415	177708	710830	401439	12.95
69 Chrysene-d12	390458	195229	780916	517768	32.61
134 Di-n-octylphthala	532303	266152	1064606	729080	36.97
77 Perylene-d12	386299	193150	772598	553437	43.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	0.00
69 Chrysene-d12	23.62	23.12	24.12	23.63	0.06
134 Di-n-octylphthala	24.68	24.18	25.18	24.70	0.06
77 Perylene-d12	25.97	25.47	26.47	25.98	0.06

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.

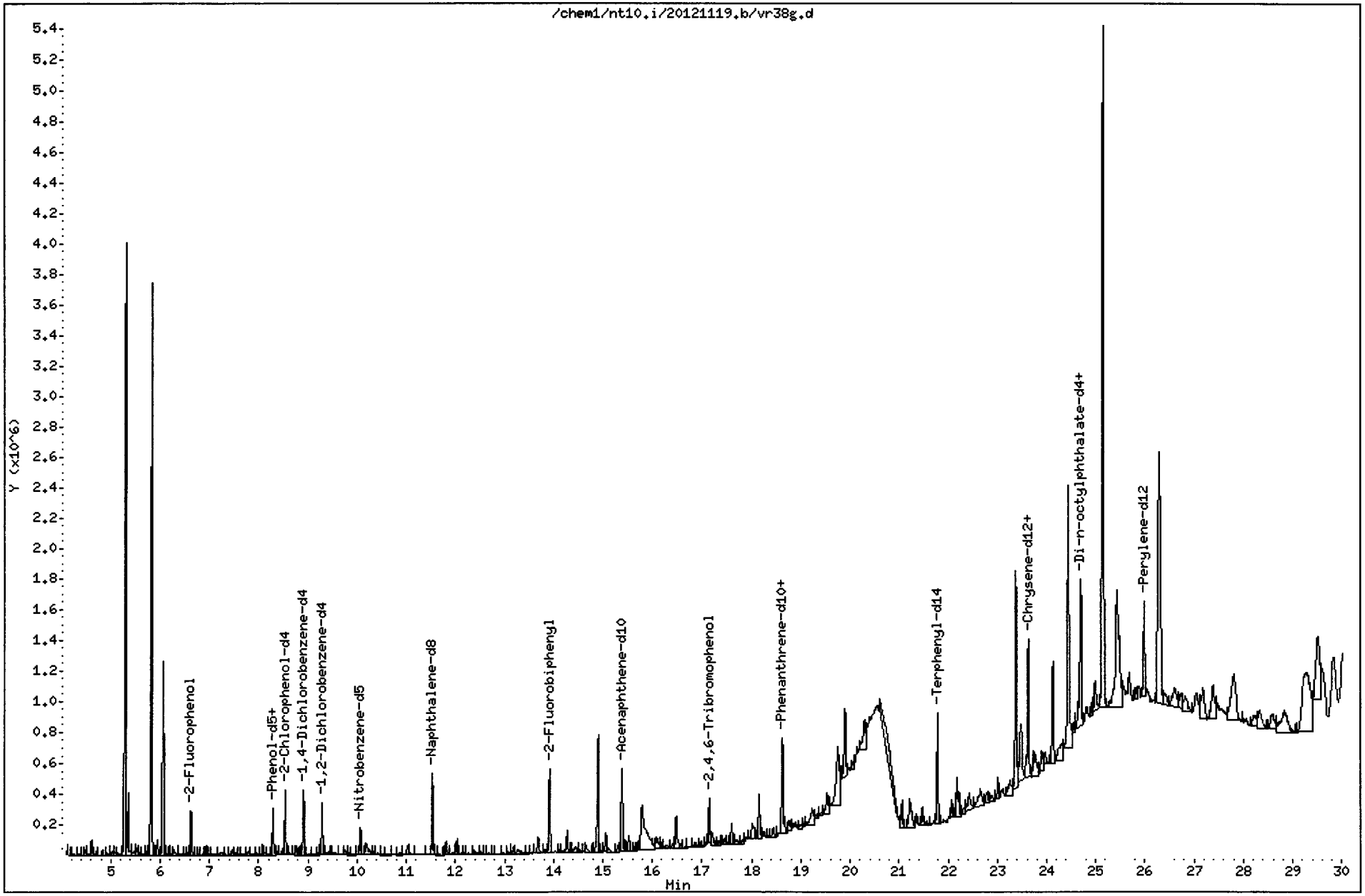
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38G Client Smp ID: HT-09-S-C-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22273

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	720.8	535.6	74.31	30-160
$ 2 Phenol-d5	720.8	544.7	75.58	30-160
$ 5 2-Chlorophenol-d4	720.8	502.3	69.70	30-160
$ 10 1,2-Dichlorobenzen	480.5	309.3	64.37	30-160
$ 18 Nitrobenzene-d5	480.5	322.7	67.17	30-160
$ 36 2-Fluorobiphenyl	480.5	377.3	78.52	30-160
$ 55 2,4,6-Tribromophen	720.8	628.7	87.23	30-160
$ 66 Terphenyl-d14	480.5	335.8	69.88	30-160

Data File: /chem1/nt10.i/20121119.b/vr38g.d
Date : 19-NOV-2012 19:07
Client ID: HT-09-S-C-121106
Sample Info: VR38G
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

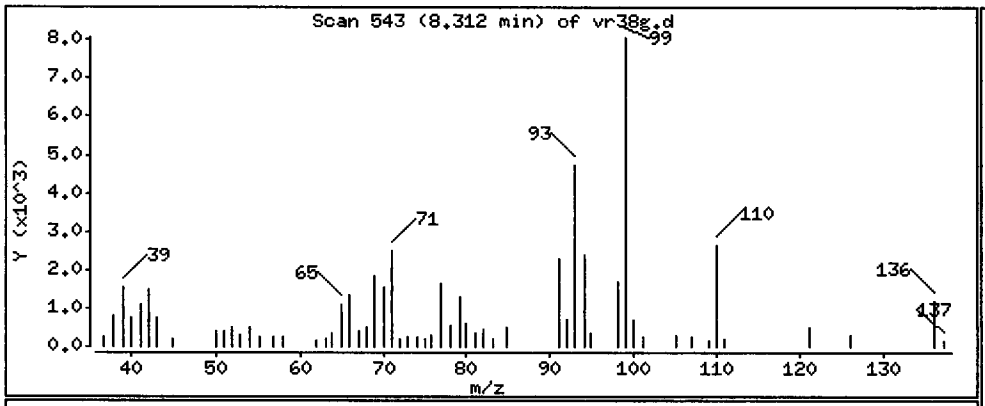
Operator: VTS/YZ

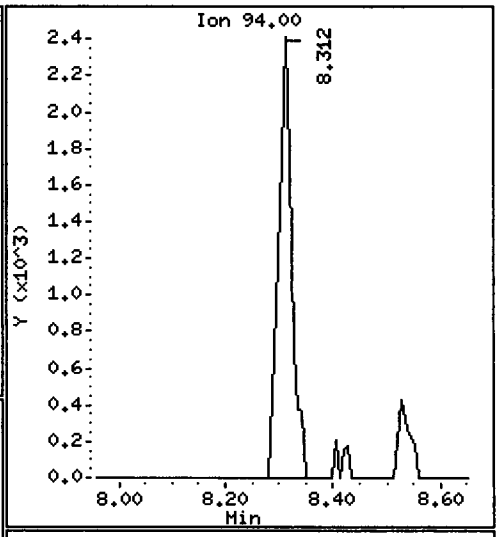
Column phase: ZB-5msi

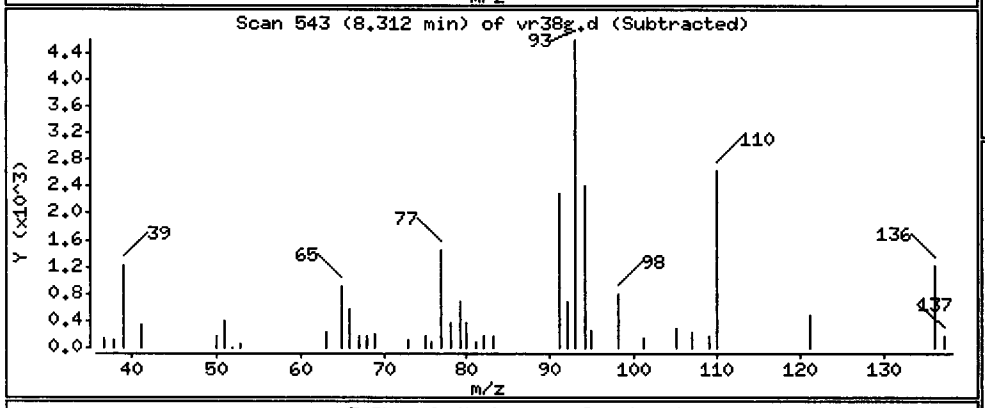
Column diameter: 0.25

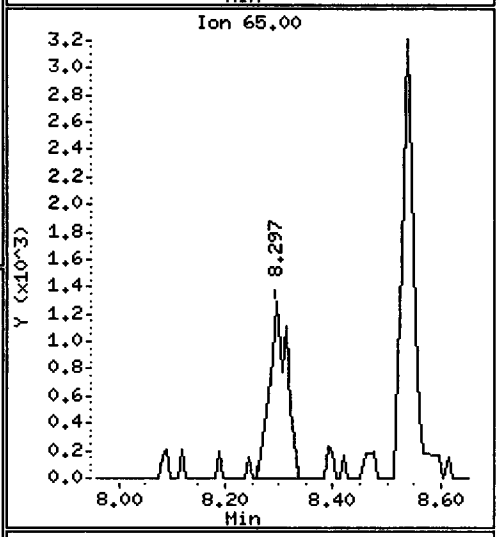
3 Phenol

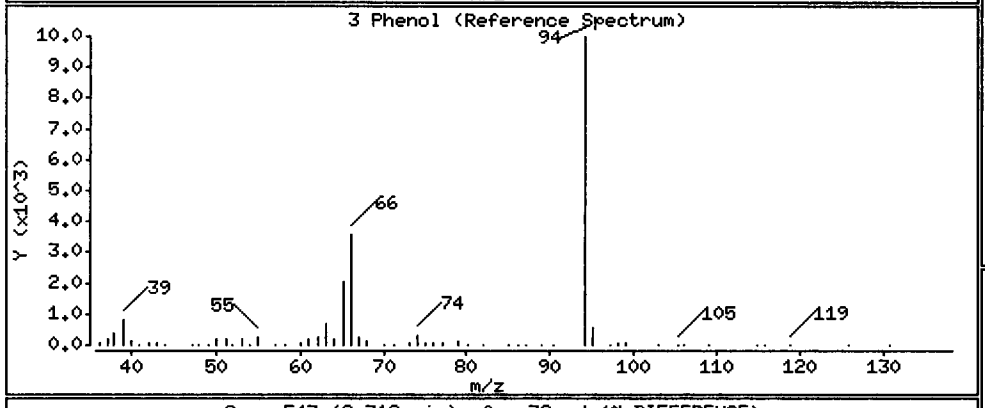
Concentration: 11.05 ug/kg

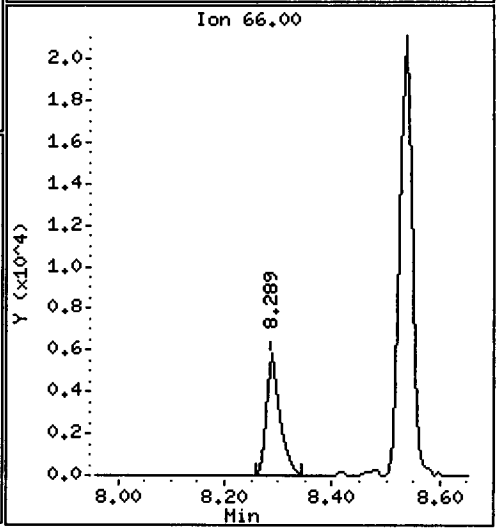


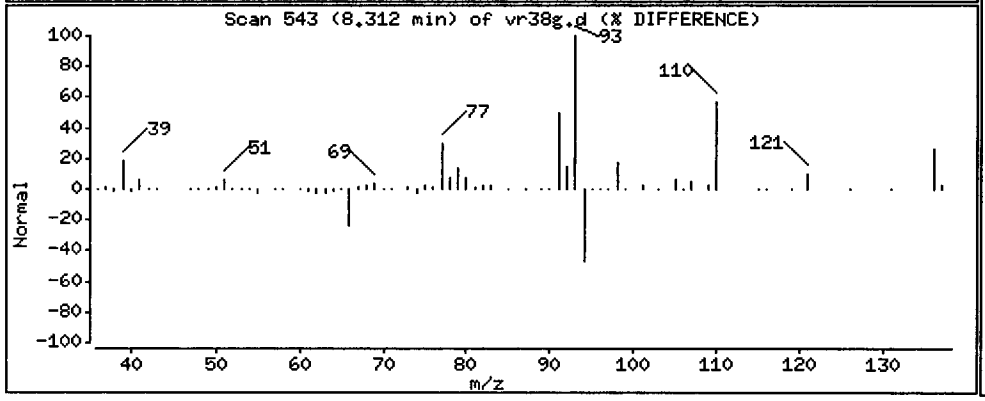












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

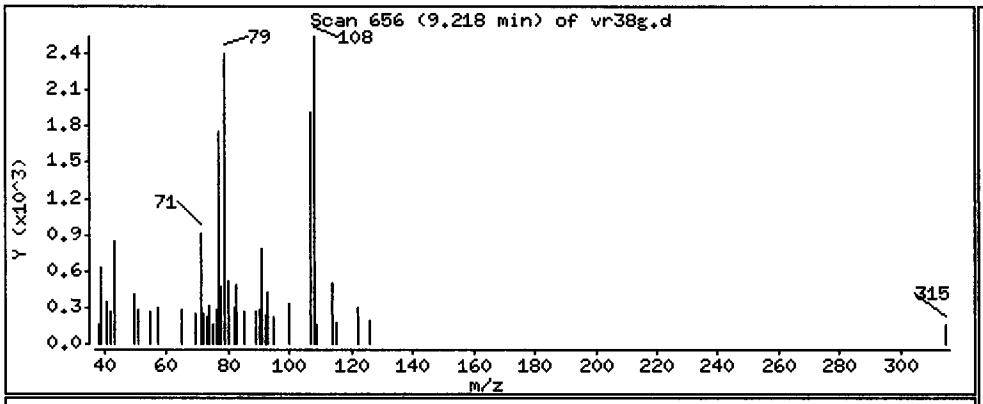
Client ID: HT-09-S-C-121106 Instrument: nt10.i

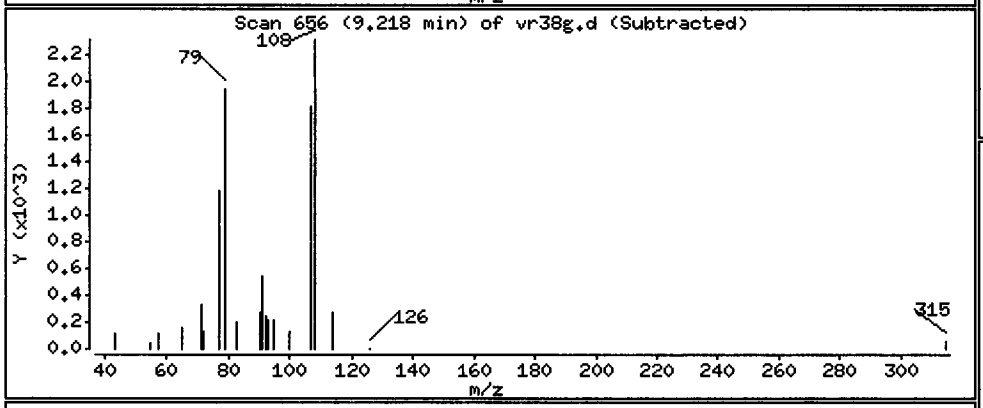
Sample Info: VR38G

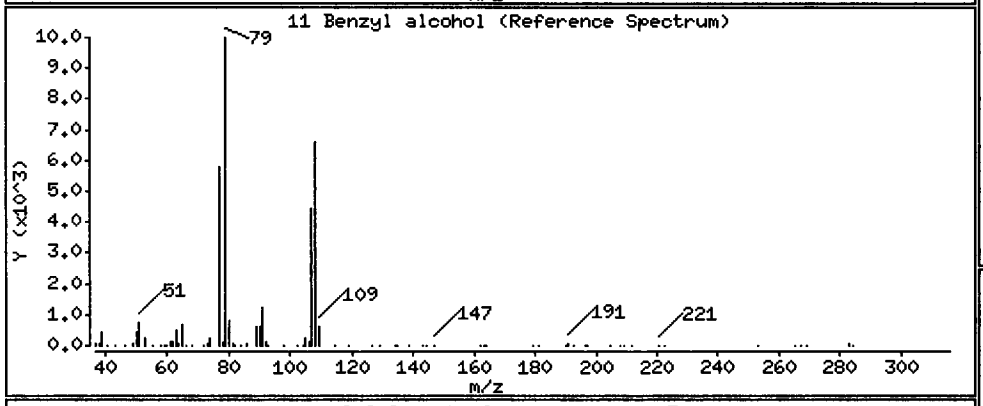
Volume Injected (uL): 1.0 Operator: VTS/YZ

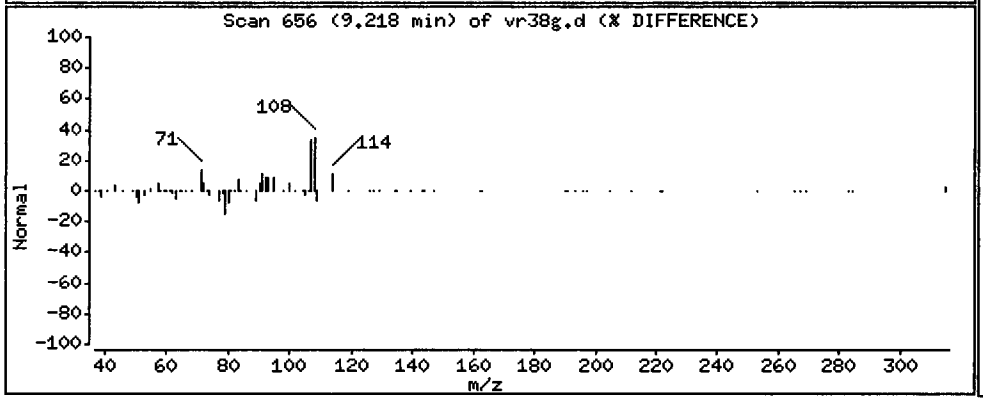
Column phase: ZB-5msi Column diameter: 0.25

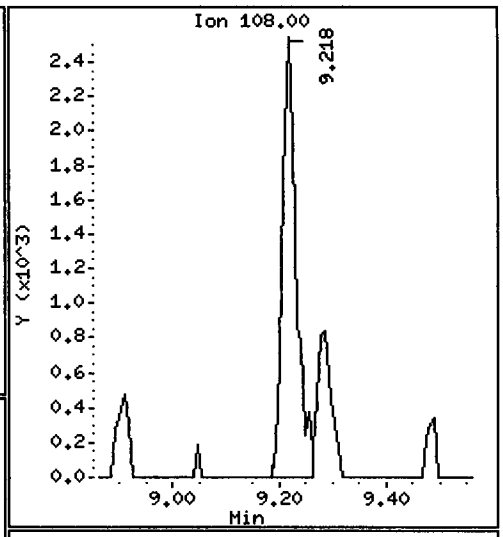
11 Benzyl alcohol Concentration: 22.72 ug/kg

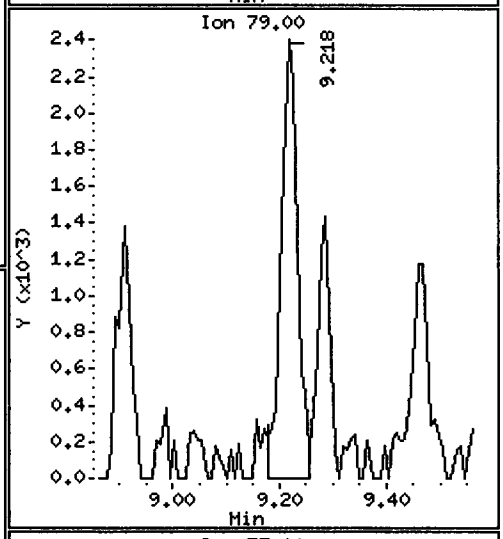


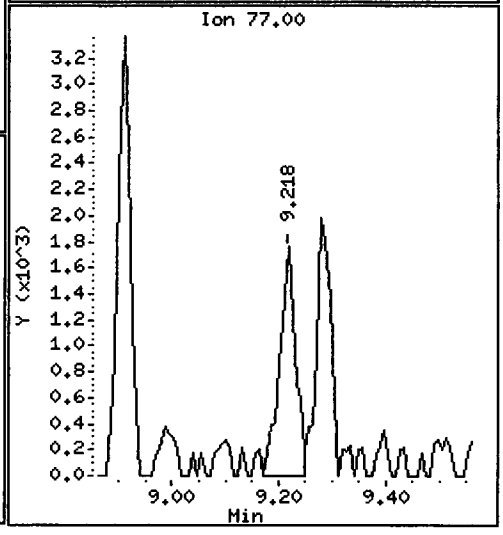












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

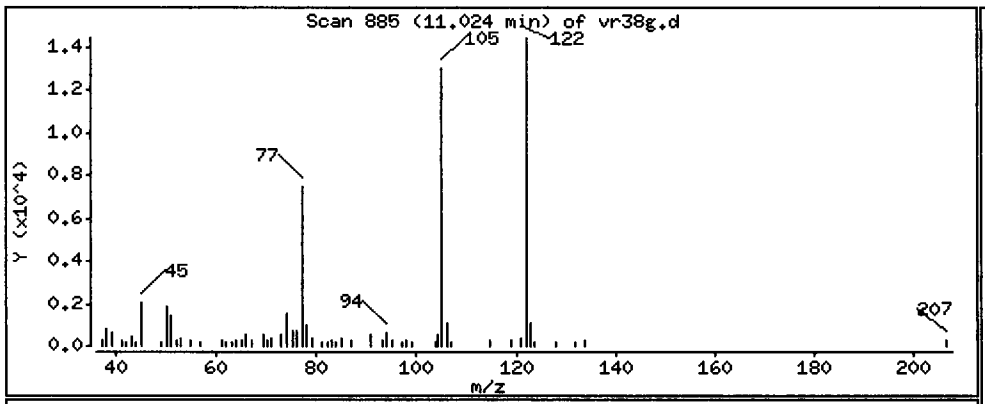
Operator: VTS/YZ

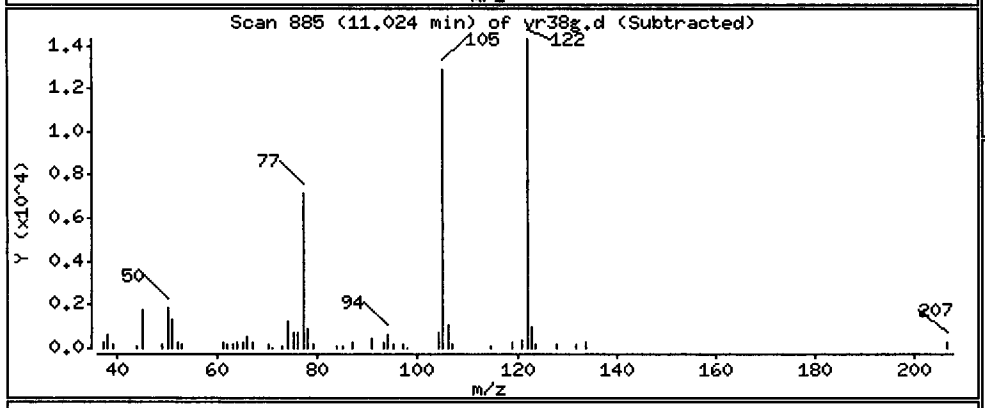
Column phase: ZB-5msi

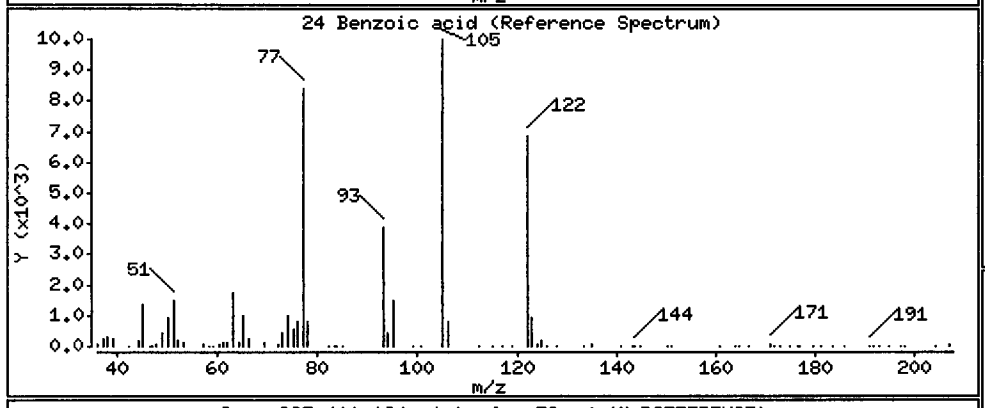
Column diameter: 0.25

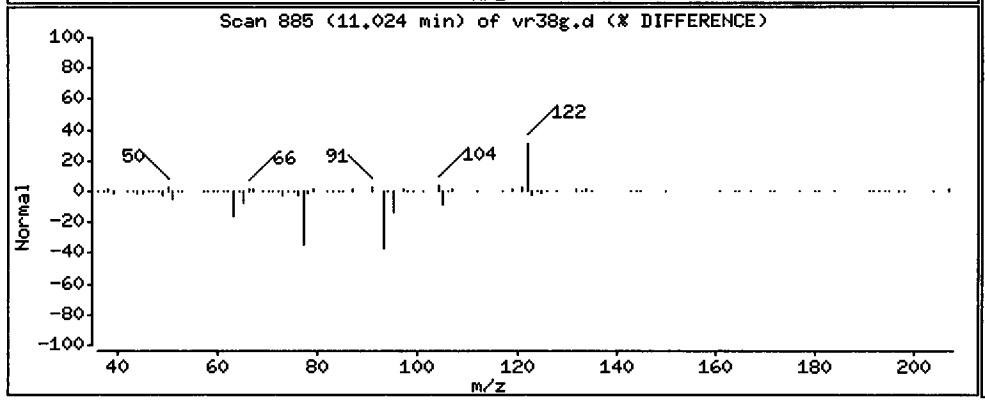
24 Benzoic acid

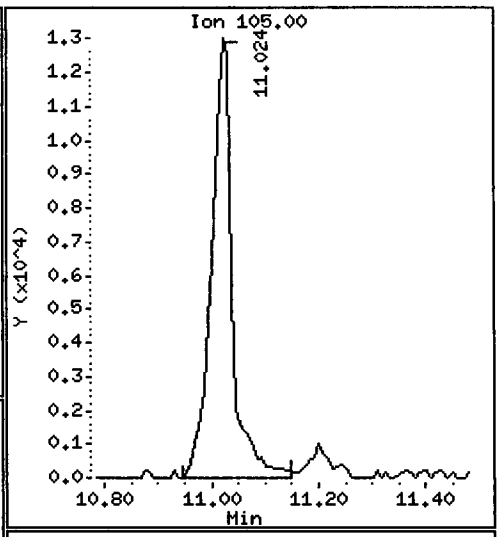
Concentration: 135.1 ug/kg

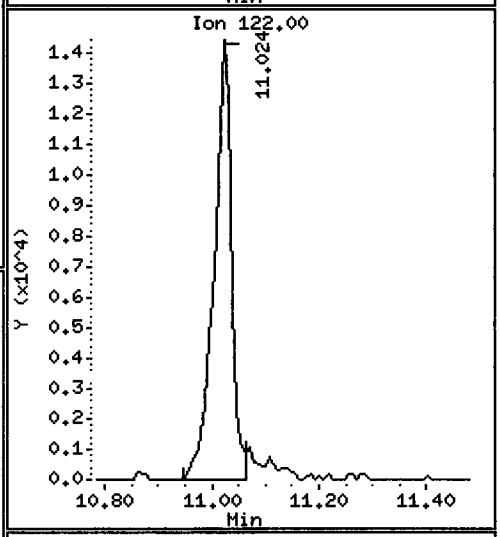


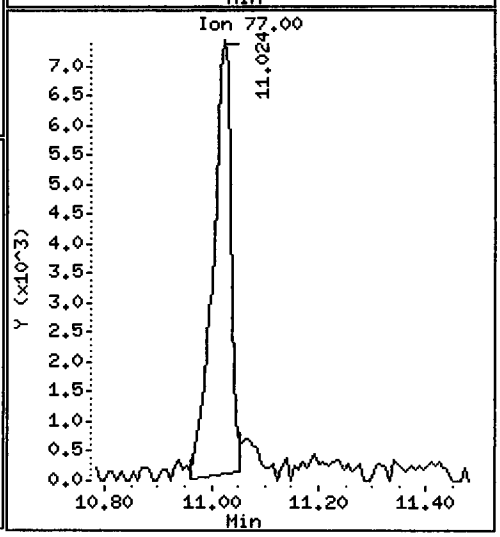












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

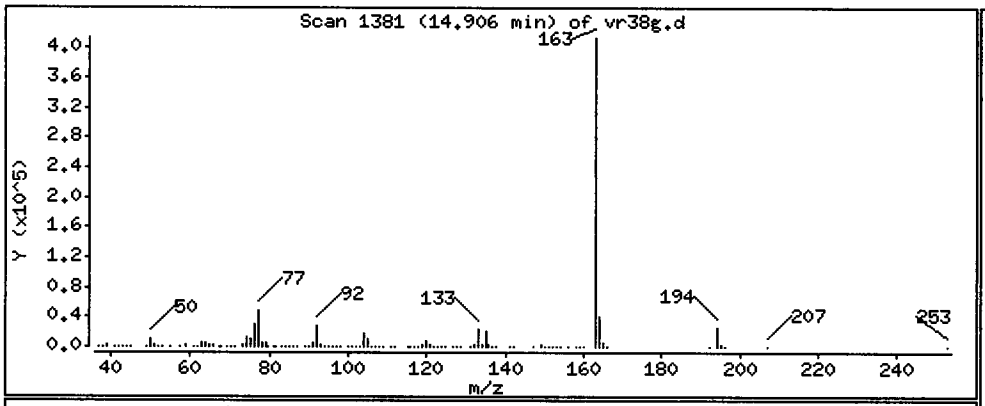
Operator: VTS/YZ

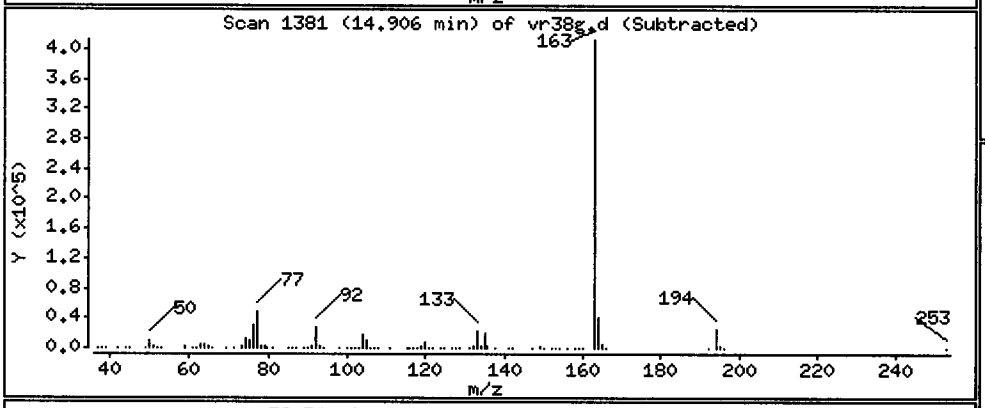
Column phase: ZB-5msi

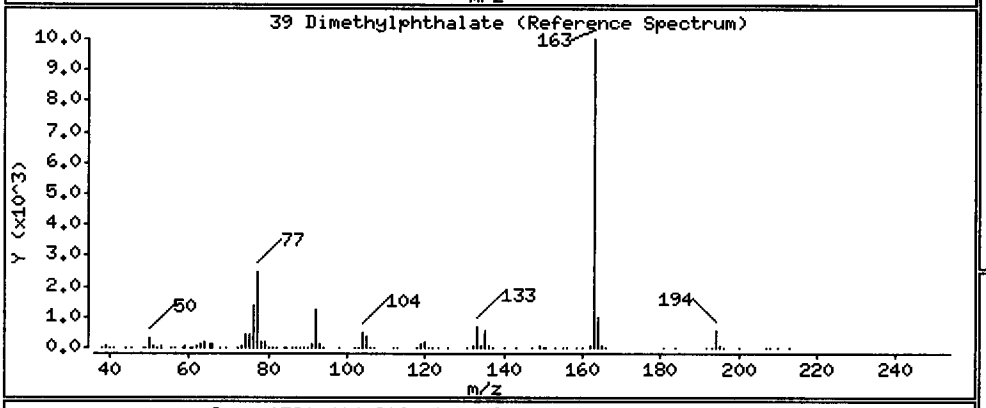
Column diameter: 0.25

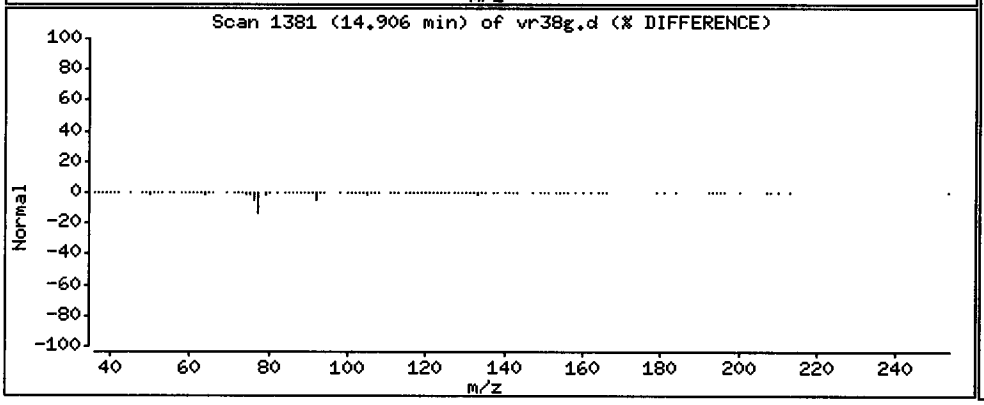
39 Dimethylphthalate

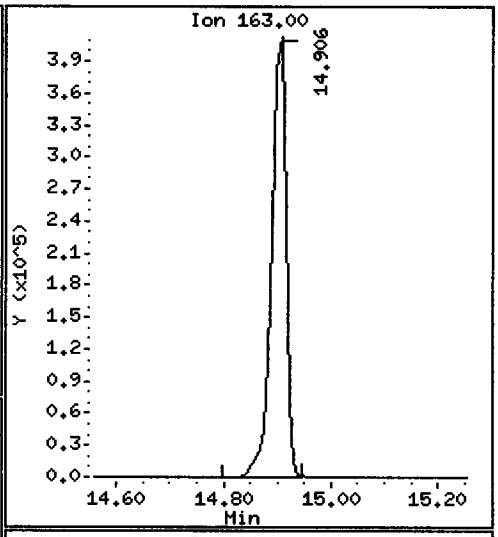
Concentration: 970.5 ug/kg

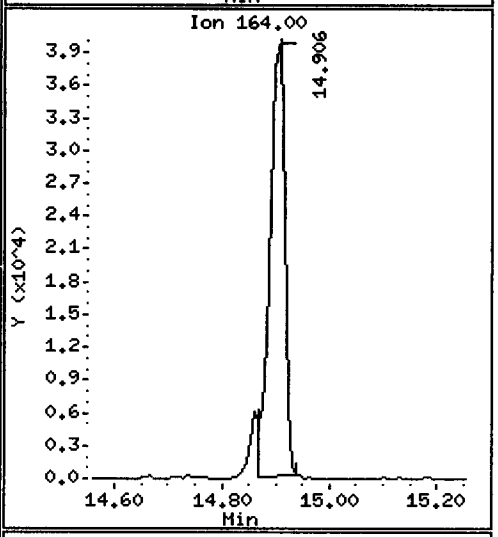


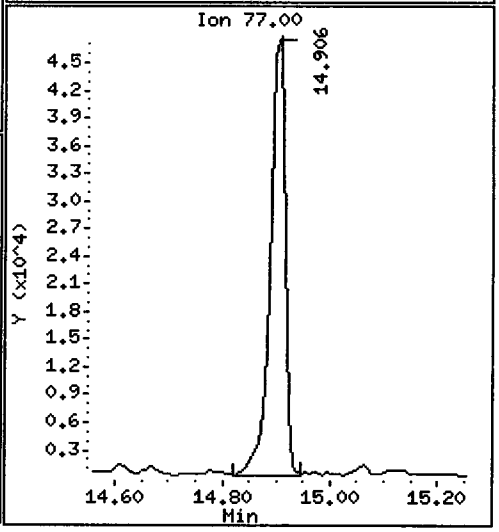












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

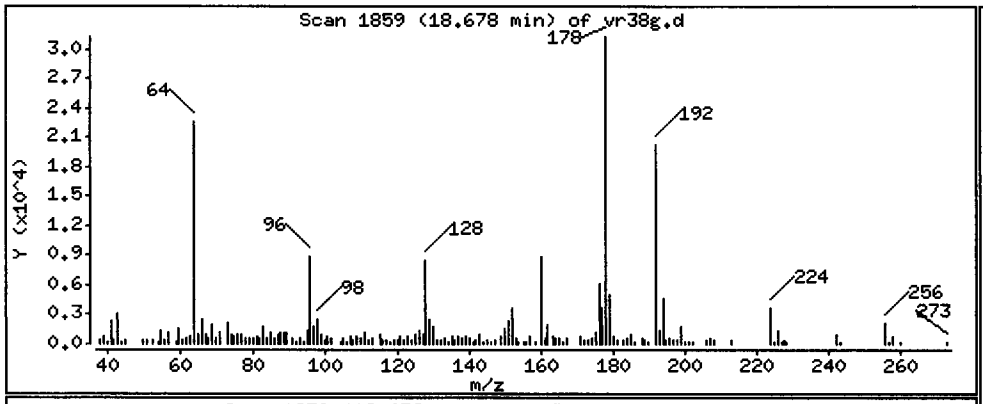
Client ID: HT-09-S-C-121106 Instrument: nt10.i

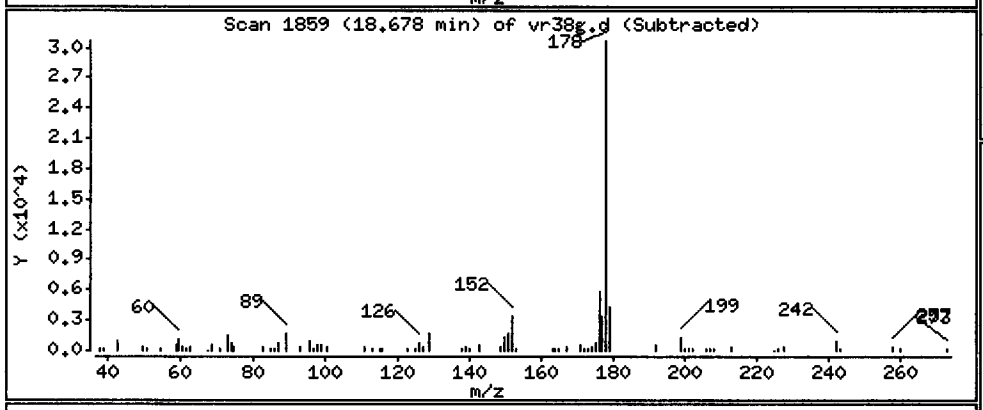
Sample Info: VR38G

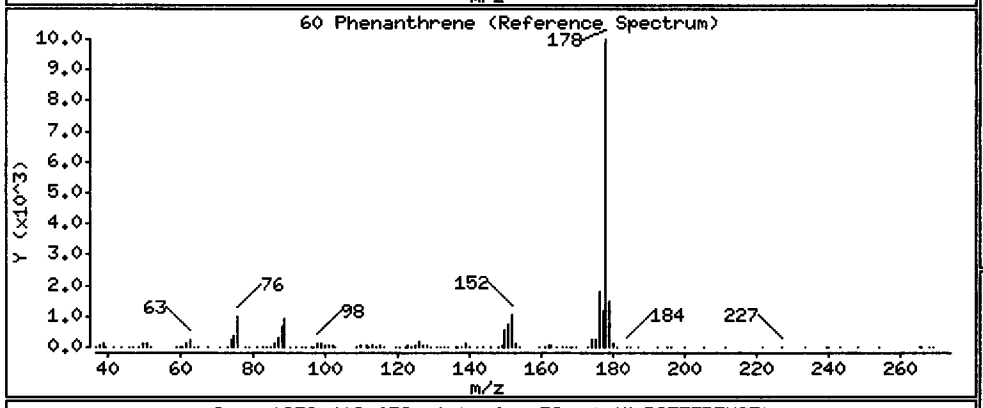
Volume Injected (uL): 1.0 Operator: VTS/YZ

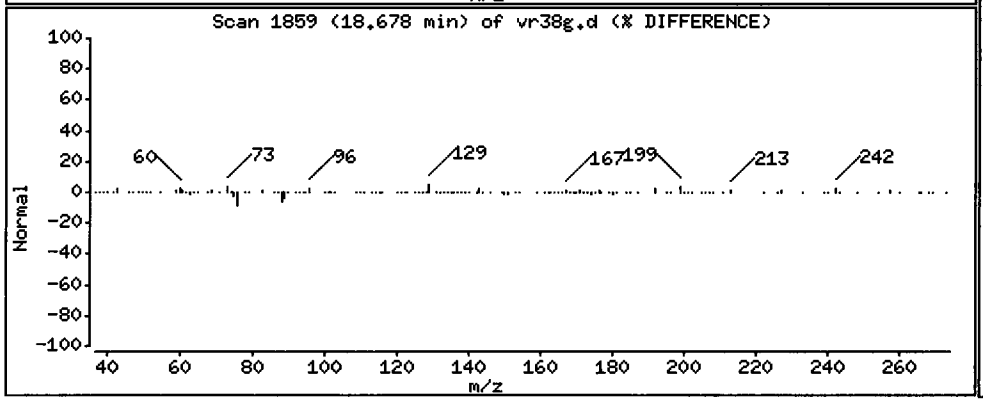
Column phase: ZB-5msi Column diameter: 0.25

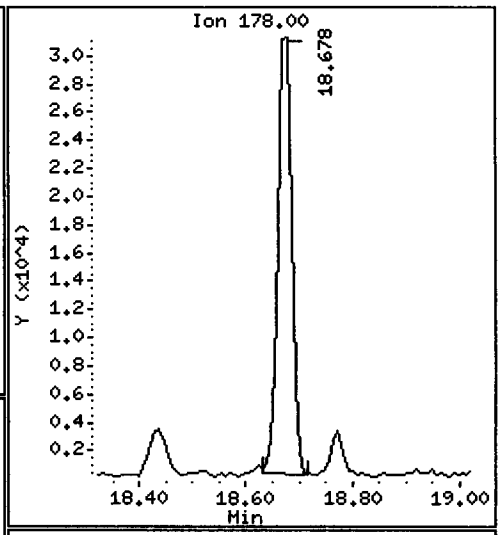
60 Phenanthrene Concentration: 48.23 ug/kg

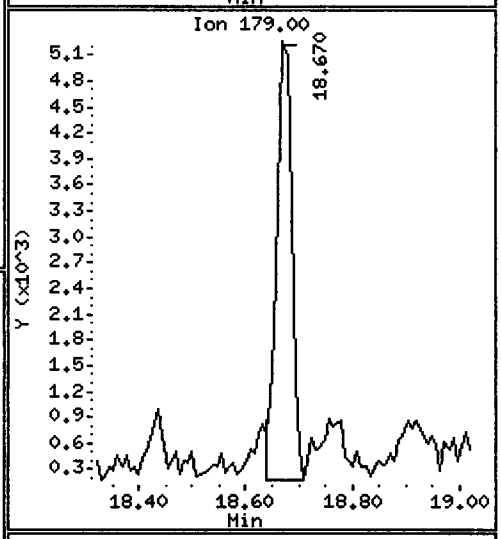


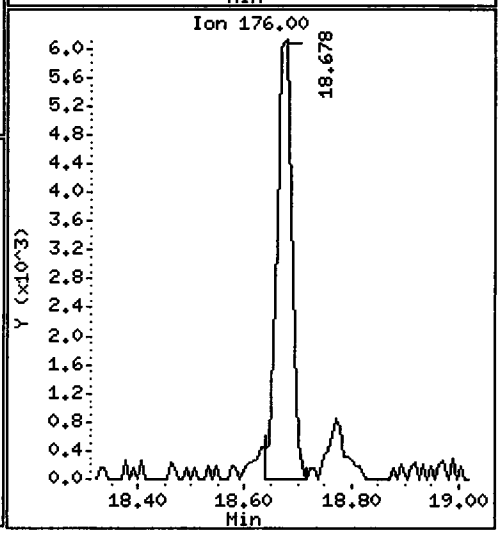












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

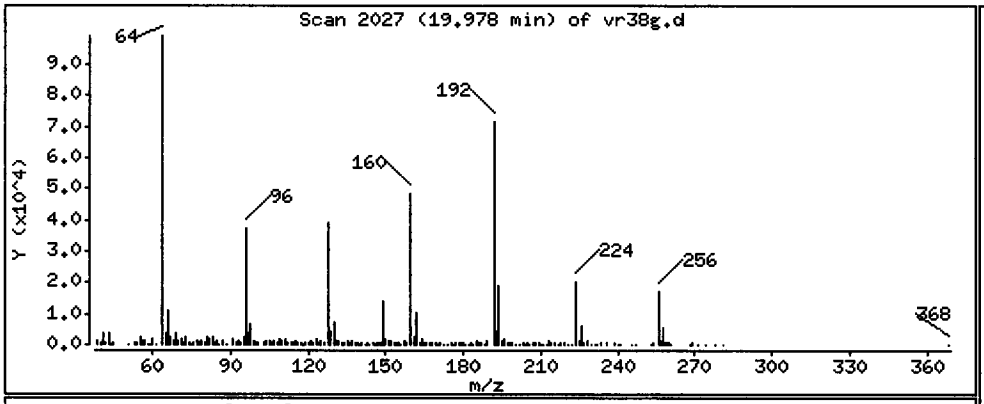
Operator: VTS/YZ

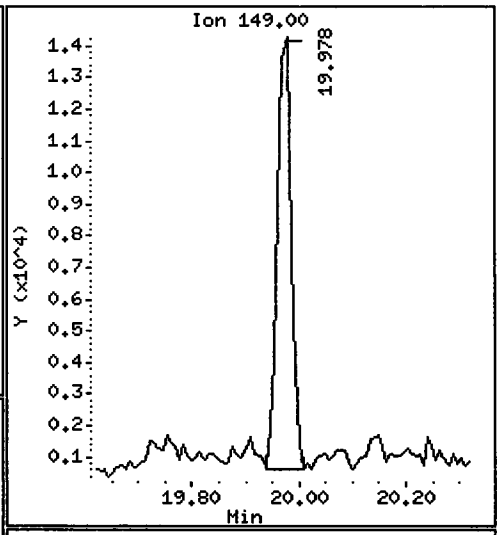
Column phase: ZB-5msi

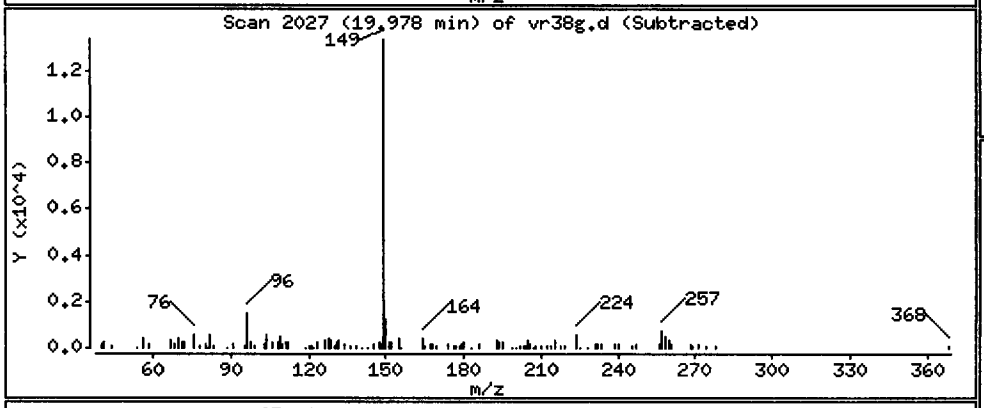
Column diameter: 0.25

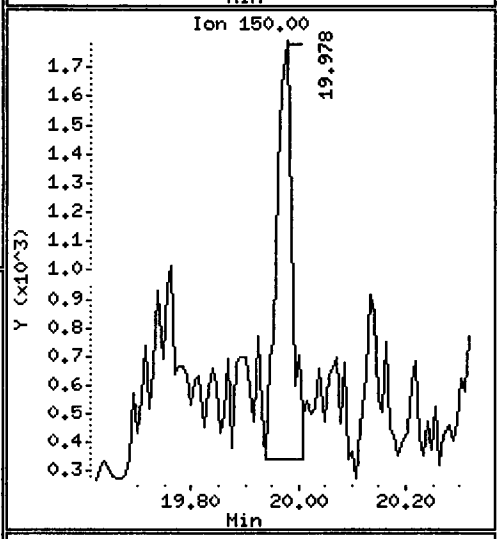
63 Di-n-butylphthalate

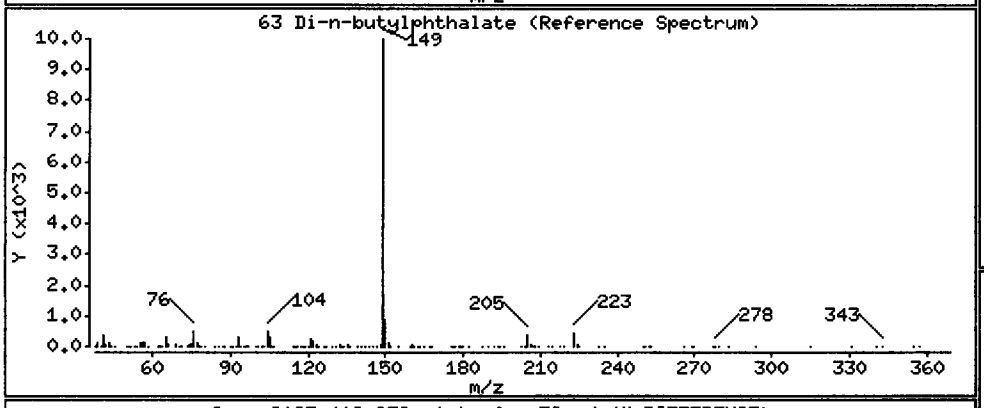
Concentration: 17.77 ug/kg

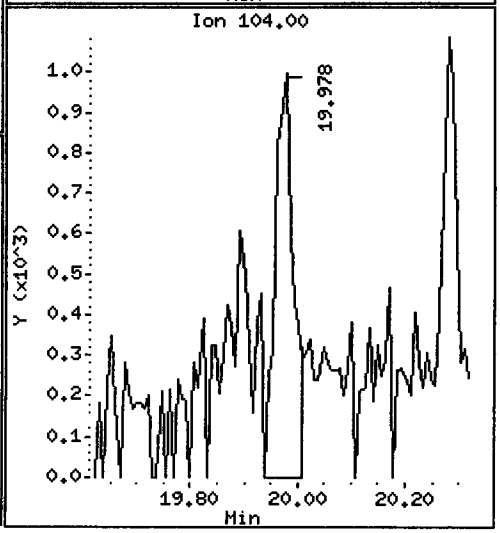


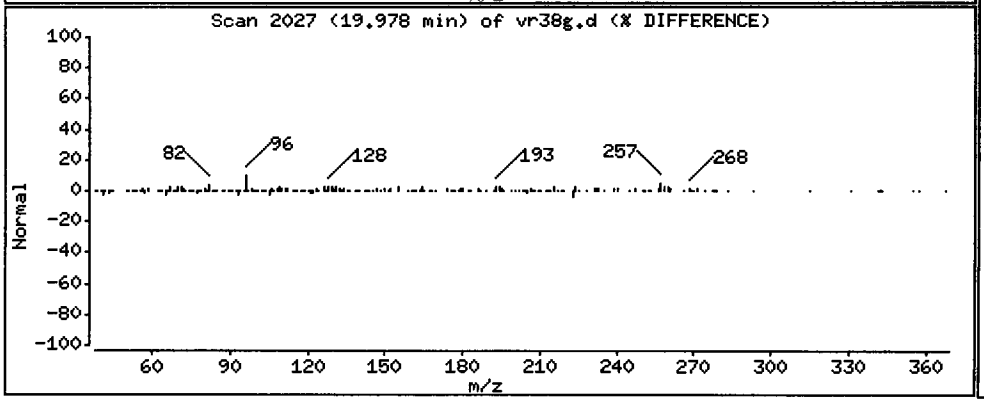












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

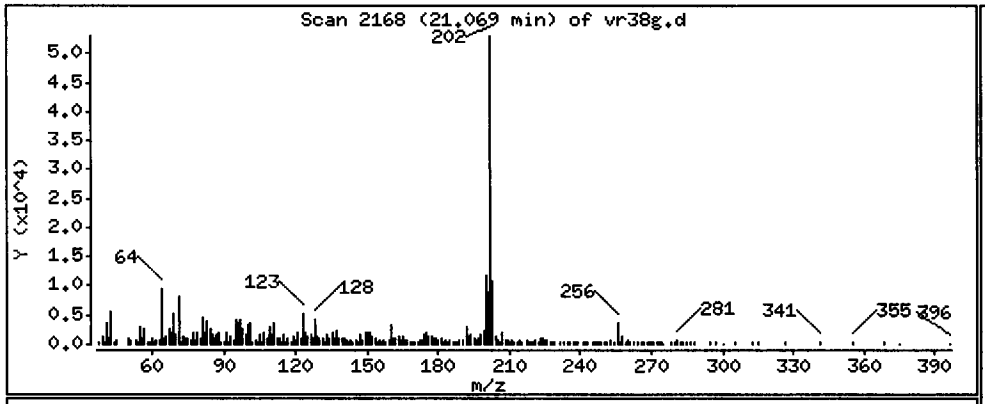
Client ID: HT-09-S-C-121106 Instrument: nt10.i

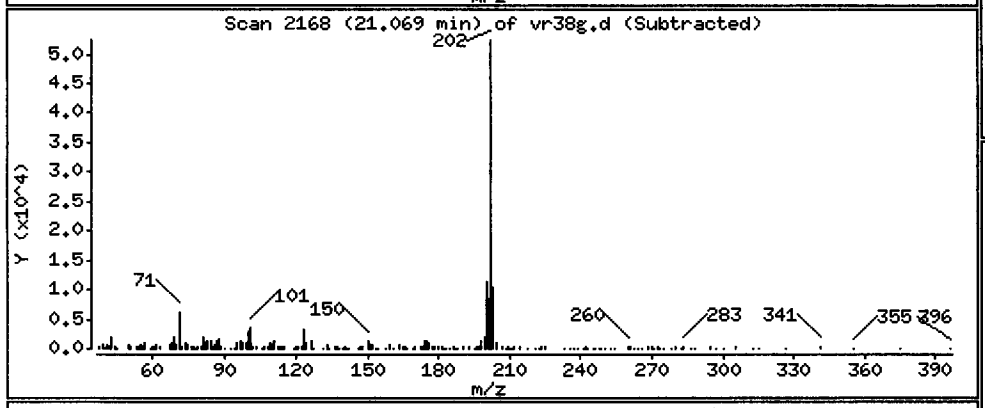
Sample Info: VR38G

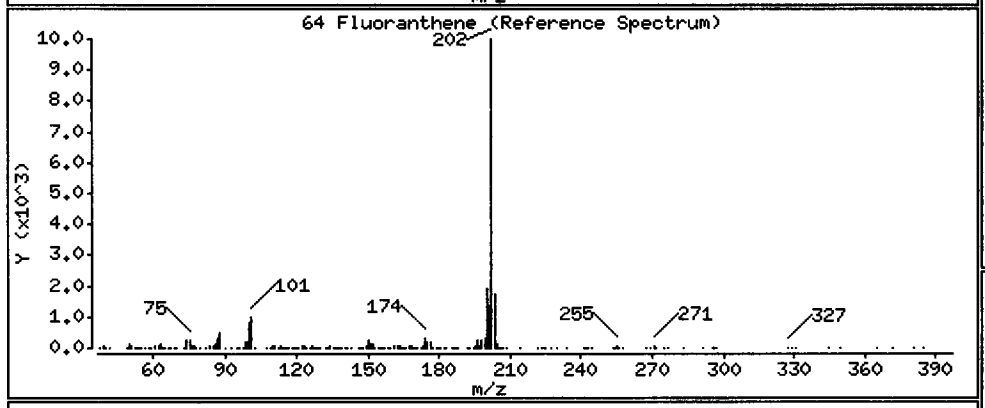
Volume Injected (uL): 1.0 Operator: VTS/YZ

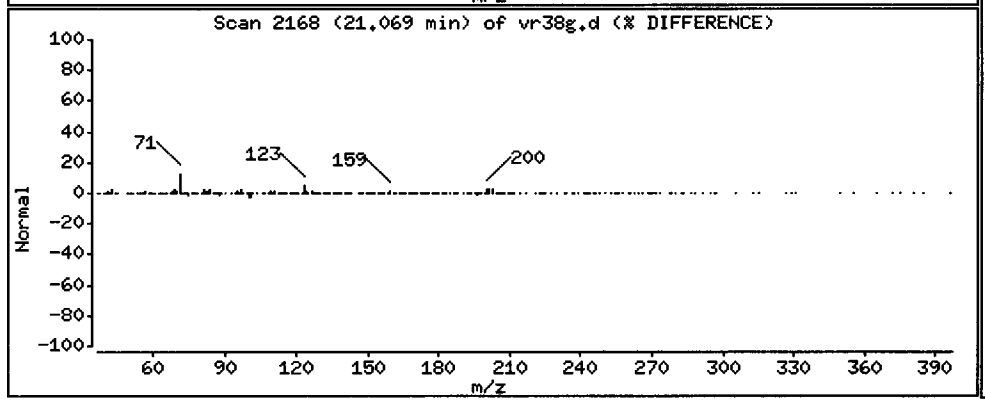
Column phase: ZB-5msi Column diameter: 0.25

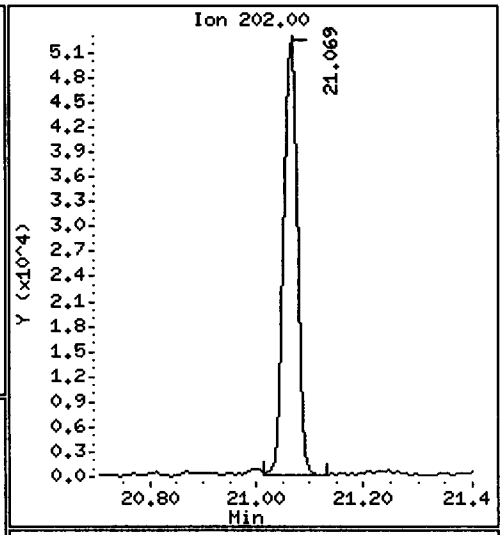
64 Fluoranthene Concentration: 63.50 ug/kg

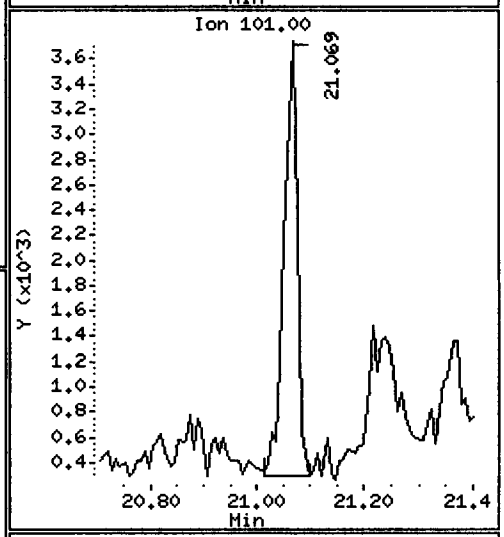


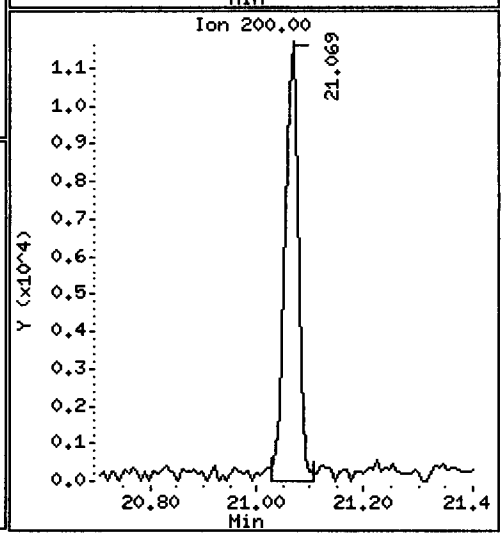












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

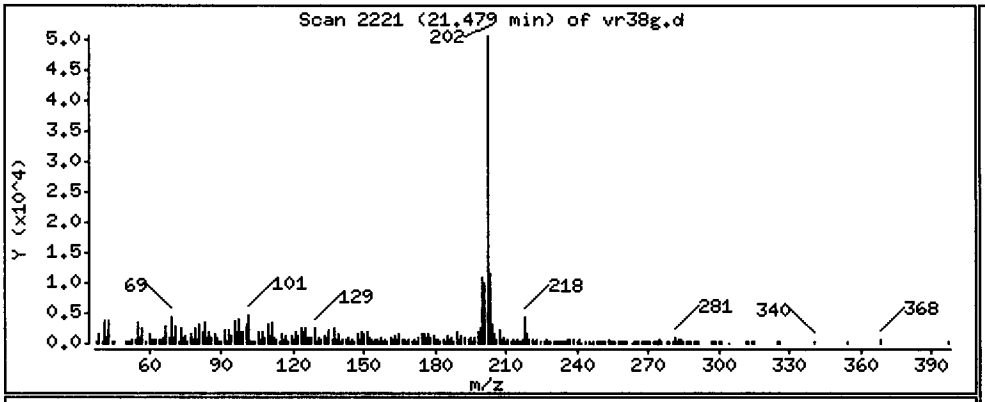
Operator: VTS/YZ

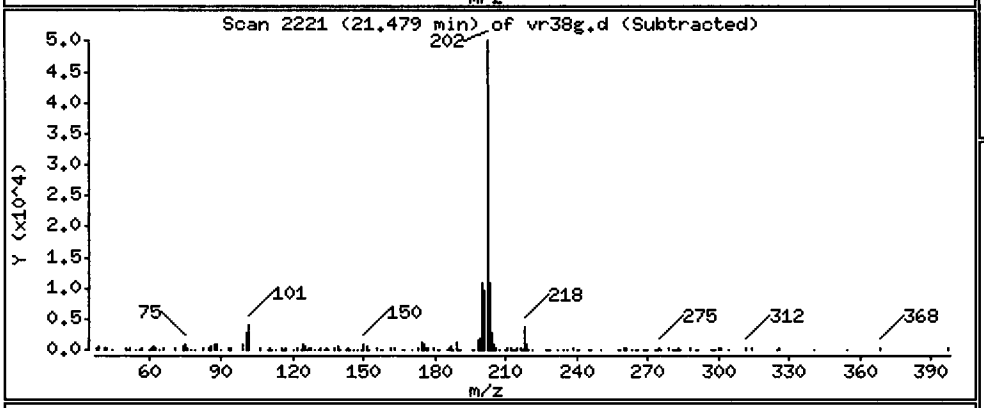
Column phase: ZB-5msi

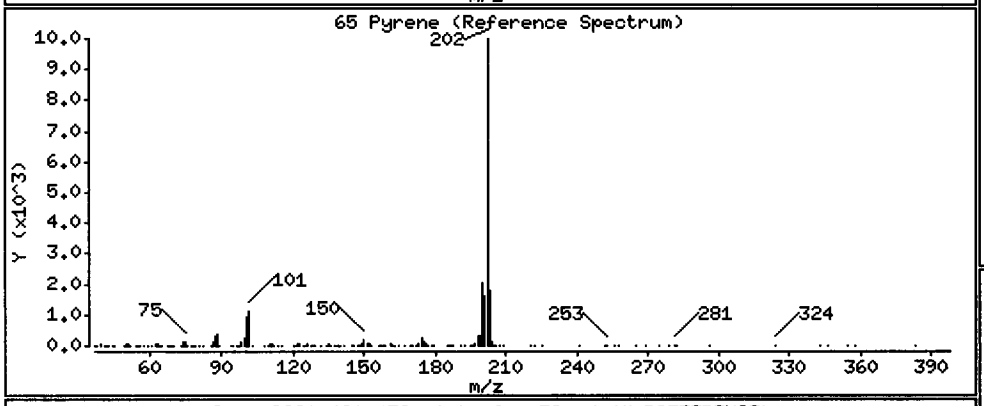
Column diameter: 0.25

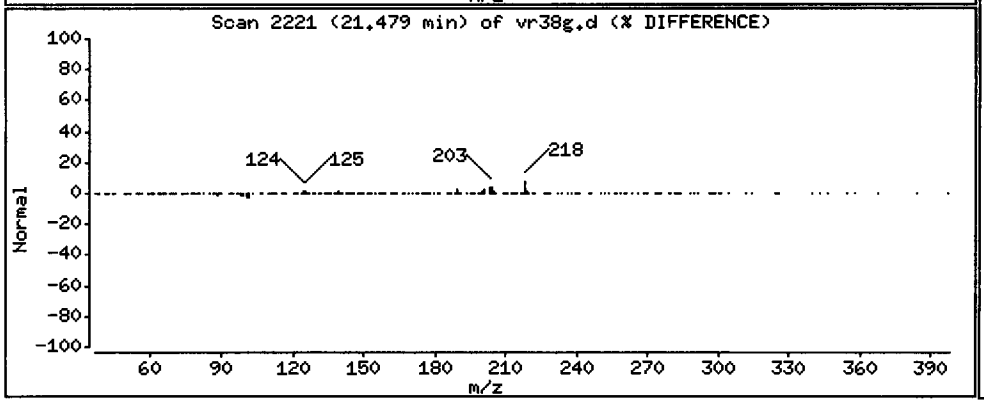
65 Pyrene

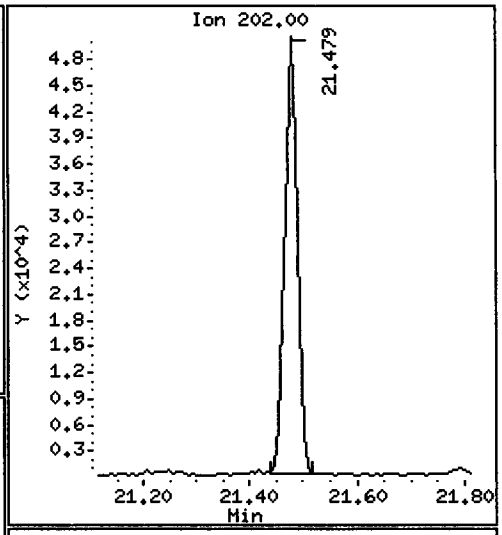
Concentration: 45.97 ug/kg

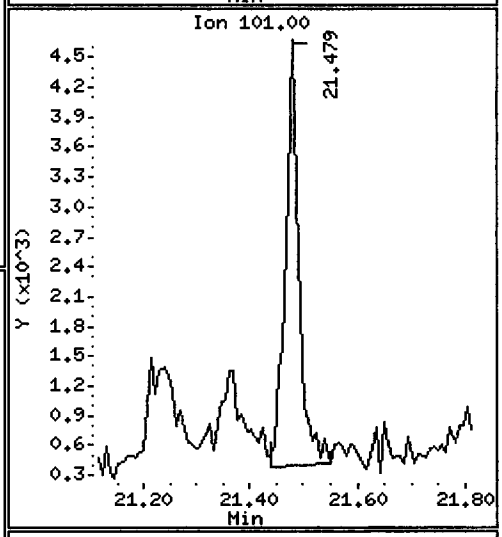


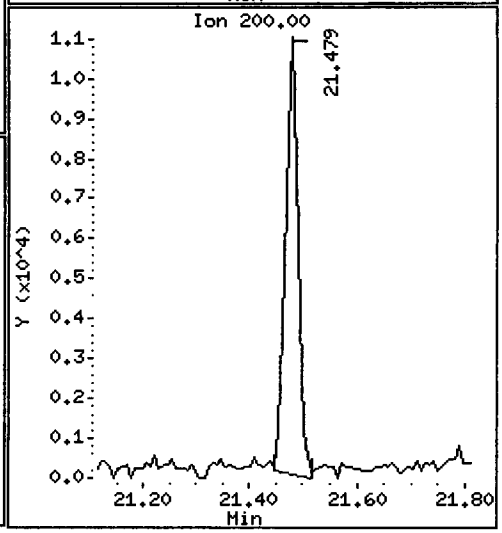












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

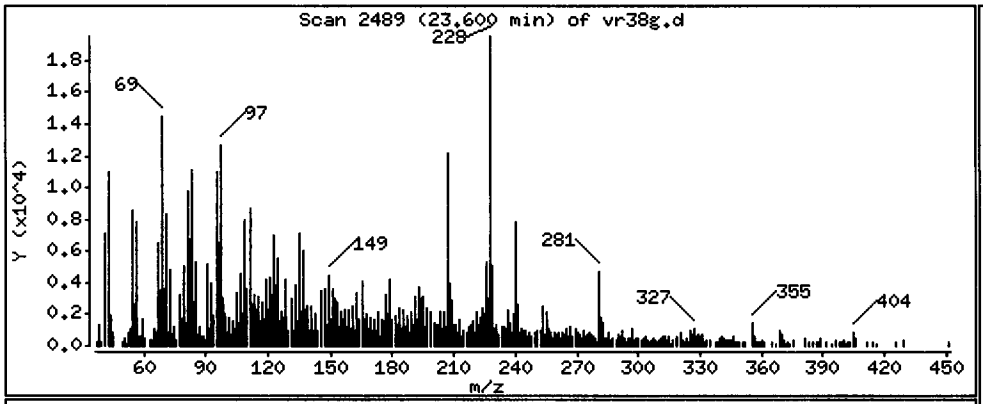
Client ID: HT-09-S-C-121106 Instrument: nt10.i

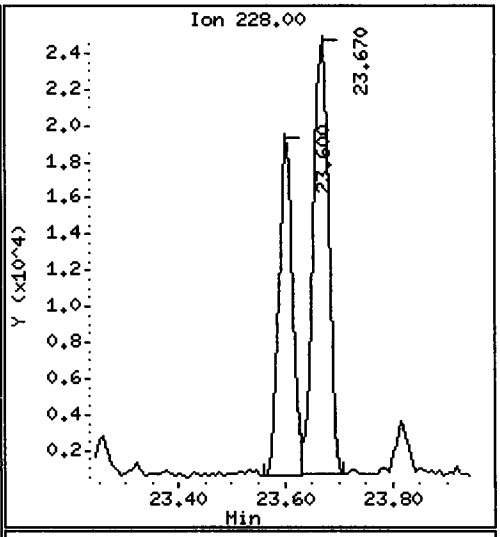
Sample Info: VR38G

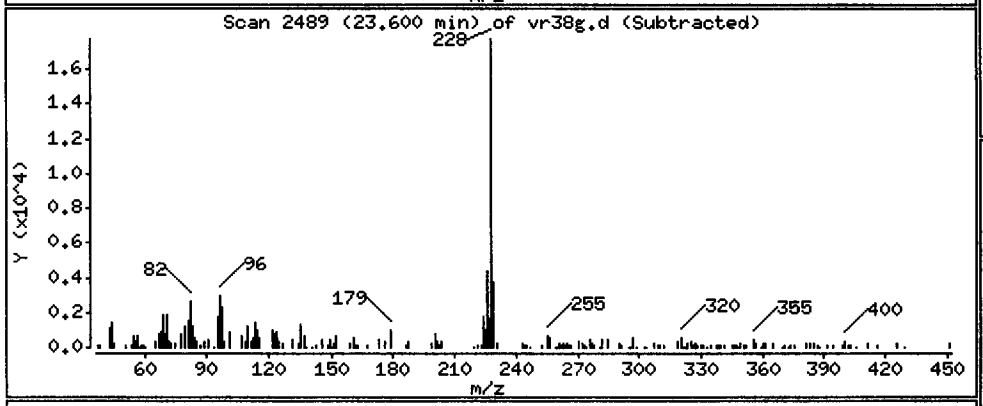
Volume Injected (uL): 1.0 Operator: VTS/YZ

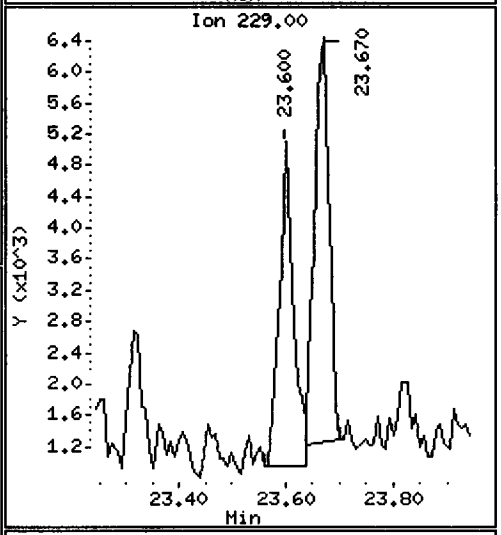
Column phase: ZB-5msi Column diameter: 0.25

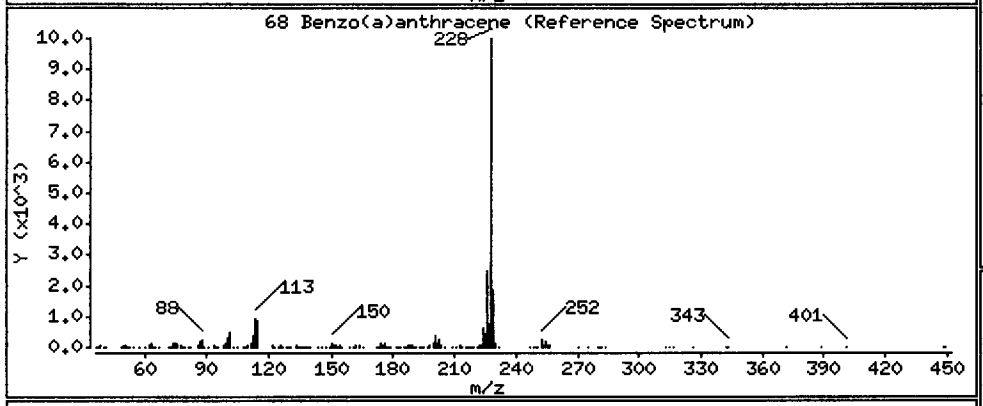
68 Benzo(a)anthracene Concentration: 19.81 ug/kg

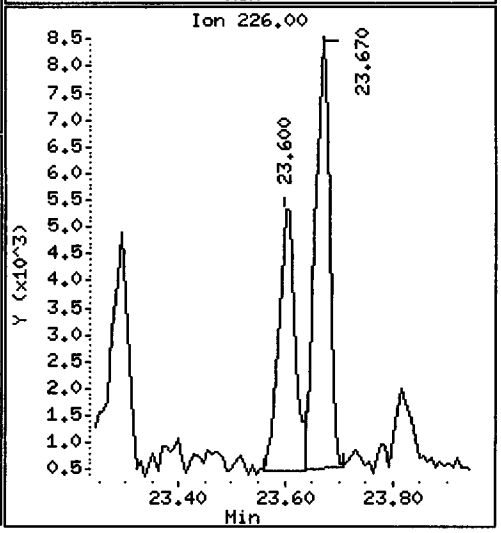


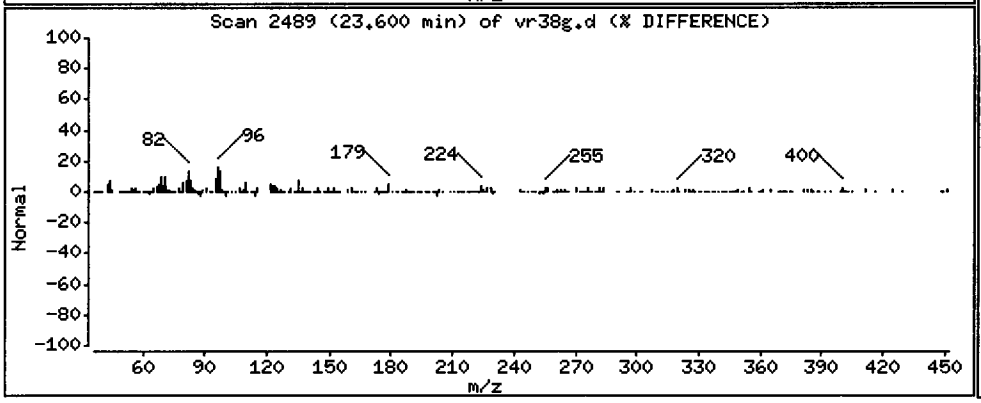












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

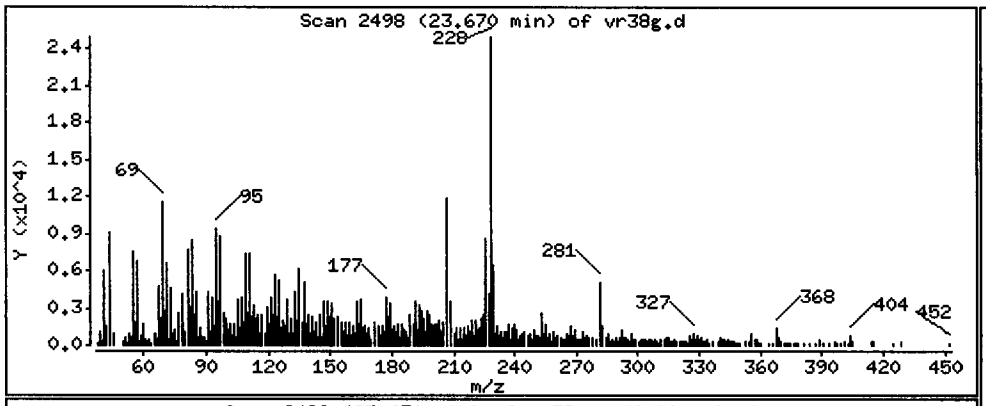
Operator: VTS/YZ

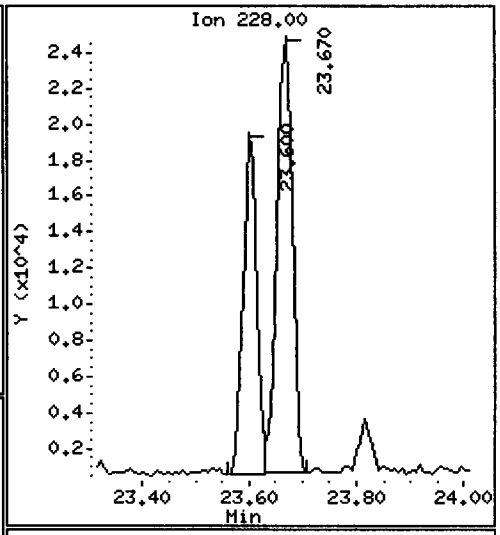
Column phase: ZB-5msi

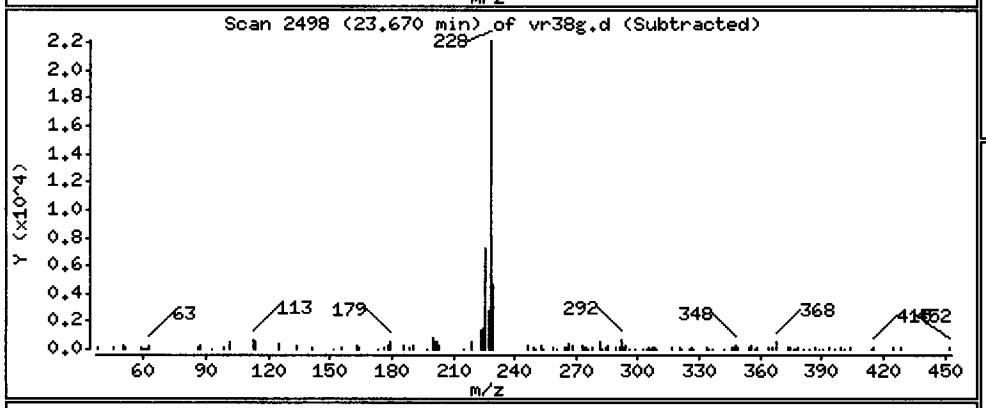
Column diameter: 0.25

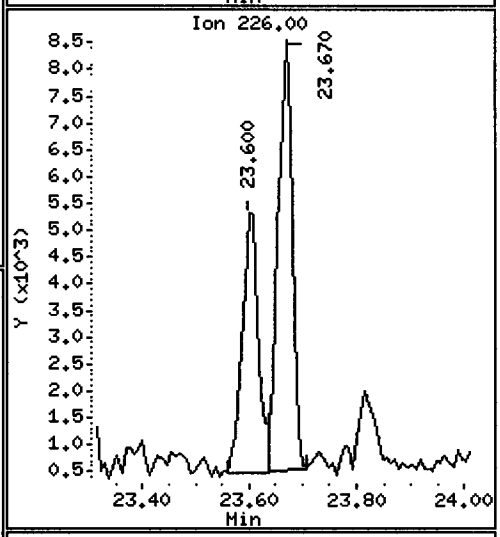
71 Chrysene

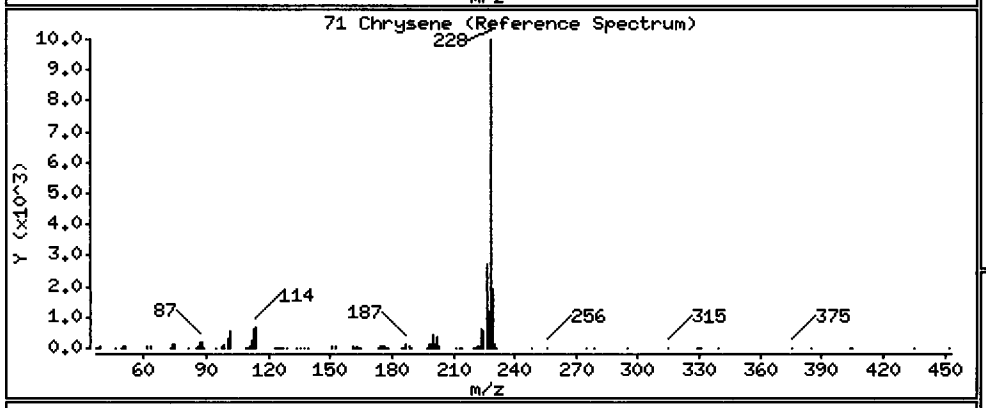
Concentration: 31.97 ug/kg

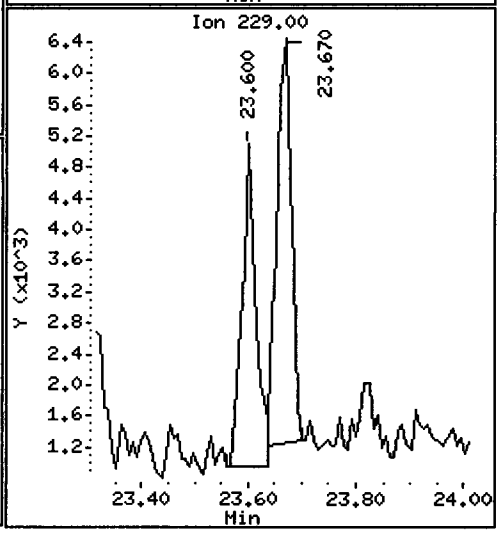


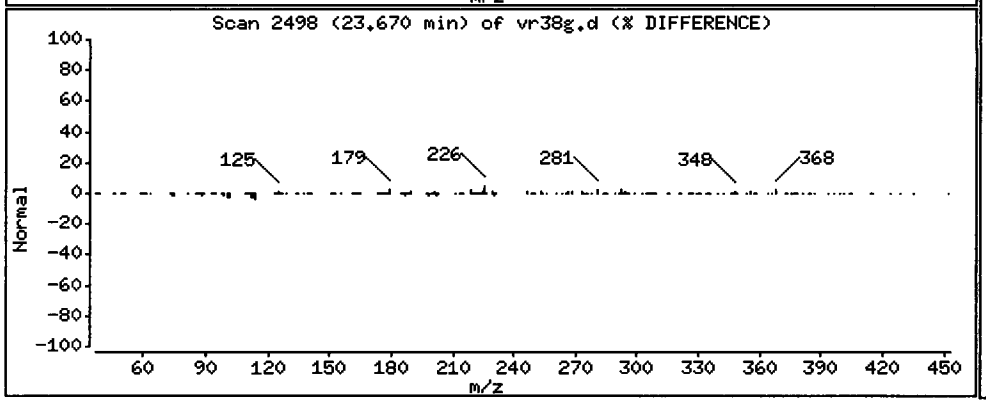












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

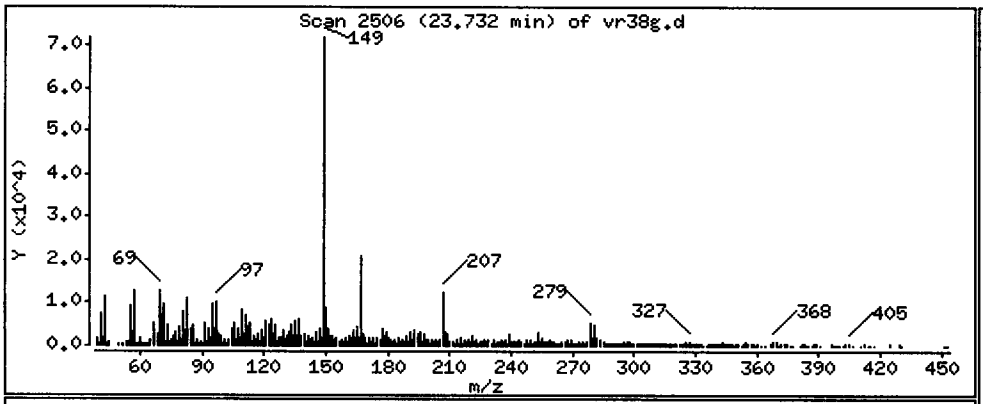
Operator: VTS/YZ

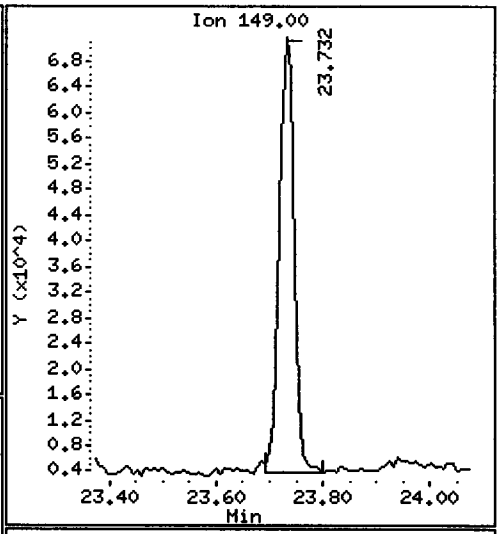
Column phase: ZB-5msi

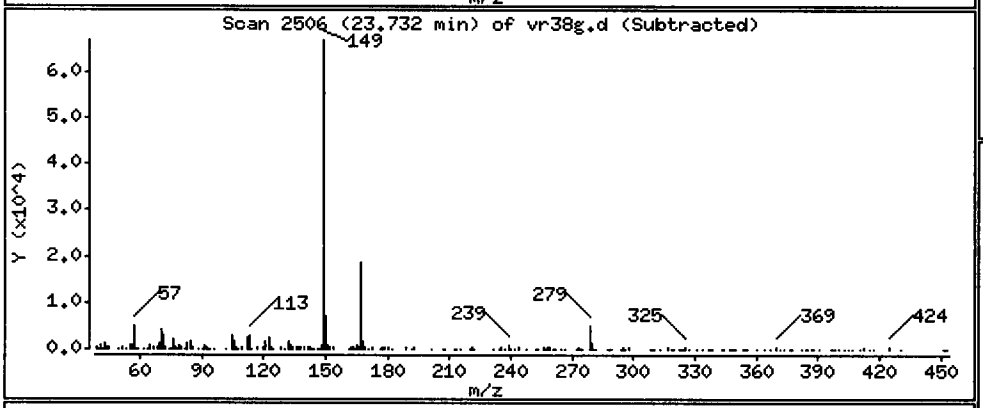
Column diameter: 0.25

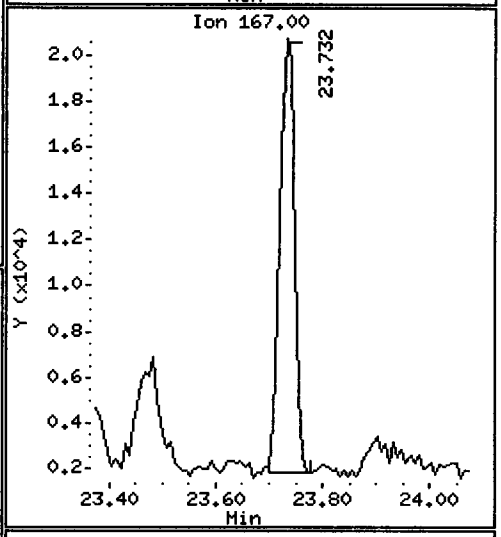
72 bis(2-Ethylhexyl)phthalate

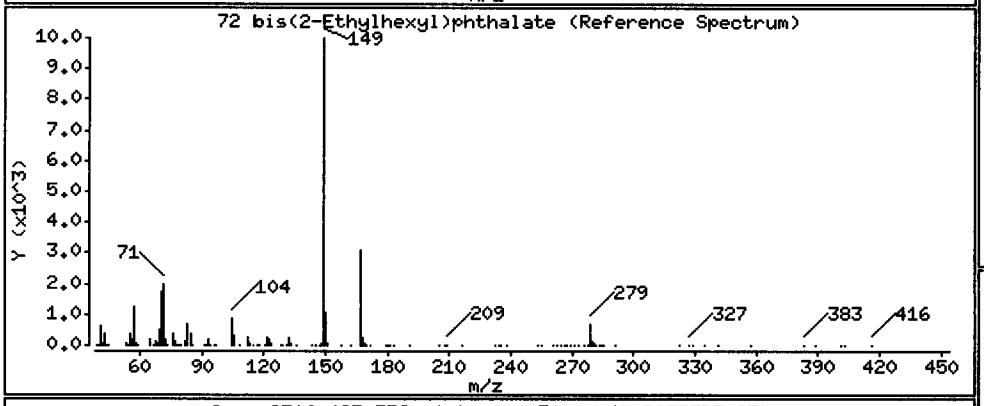
Concentration: 127.3 ug/kg

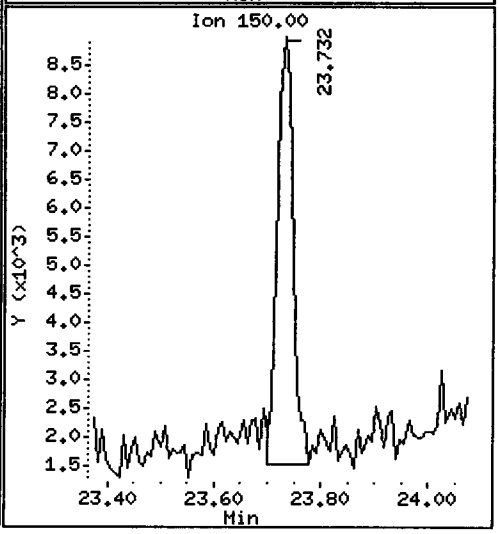


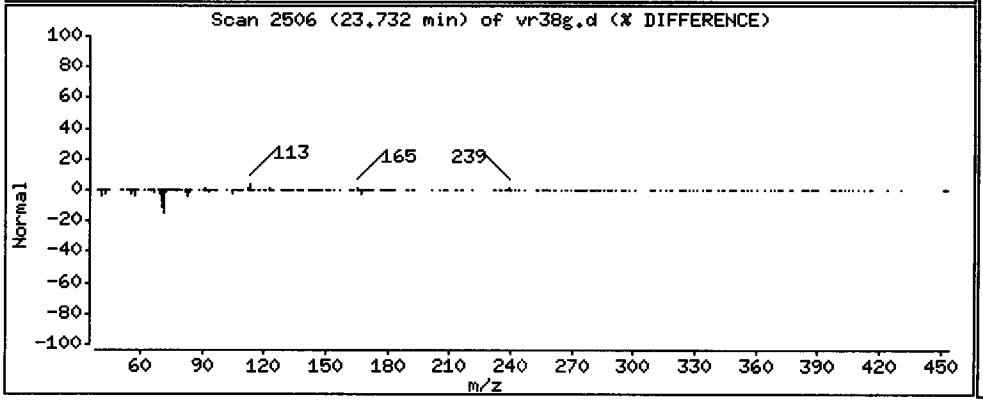












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

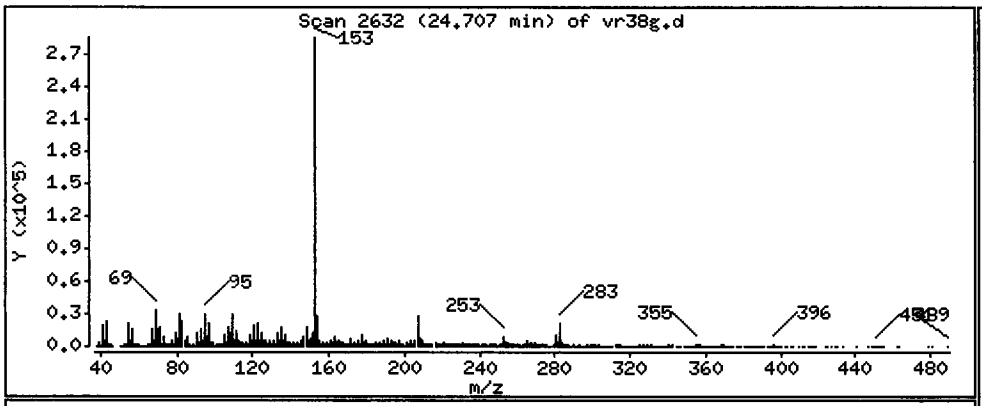
Operator: VTS/YZ

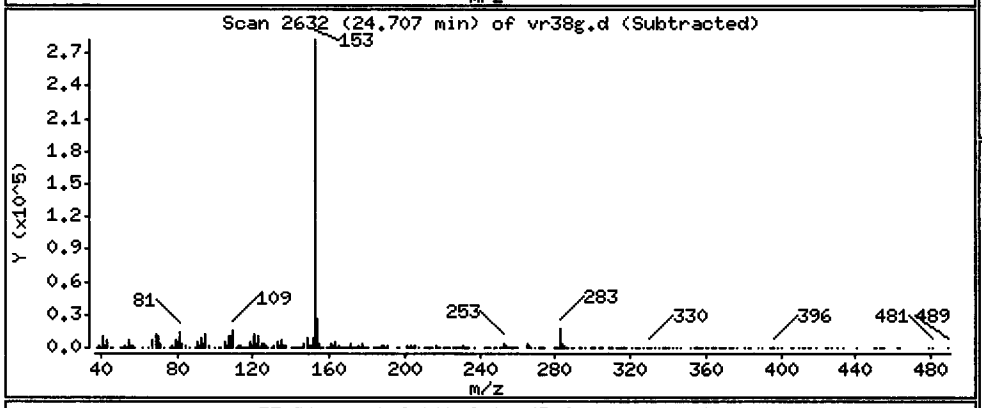
Column phase: ZB-5msi

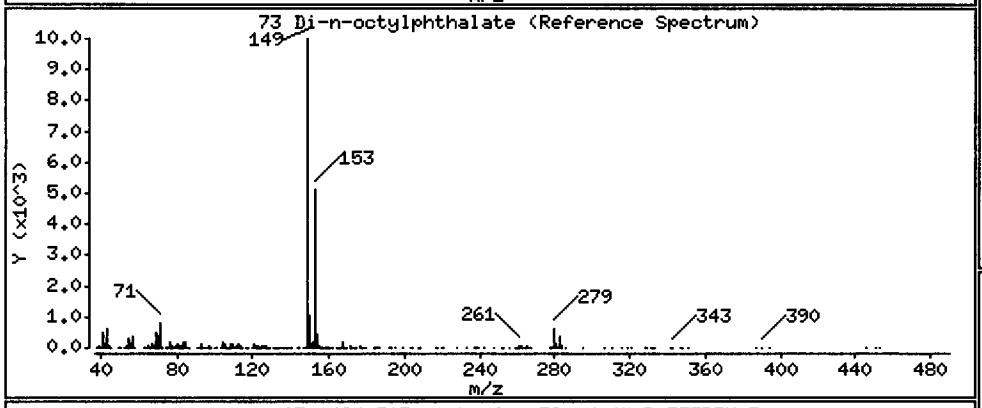
Column diameter: 0.25

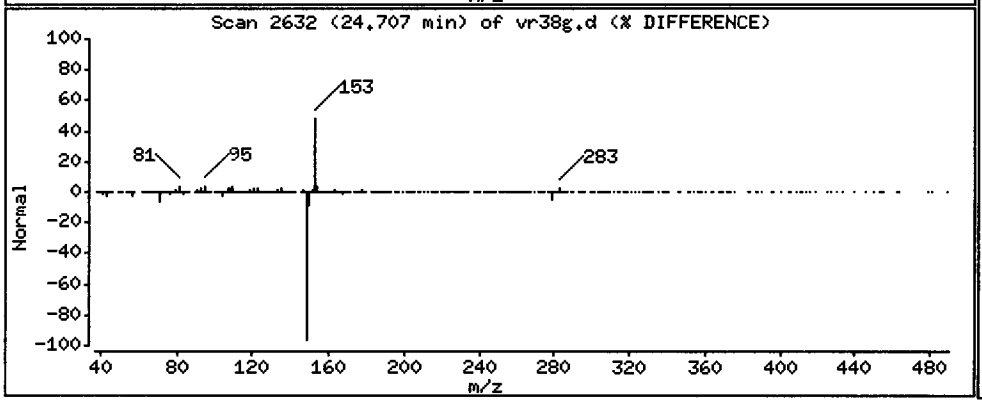
73 Di-n-octylphthalate

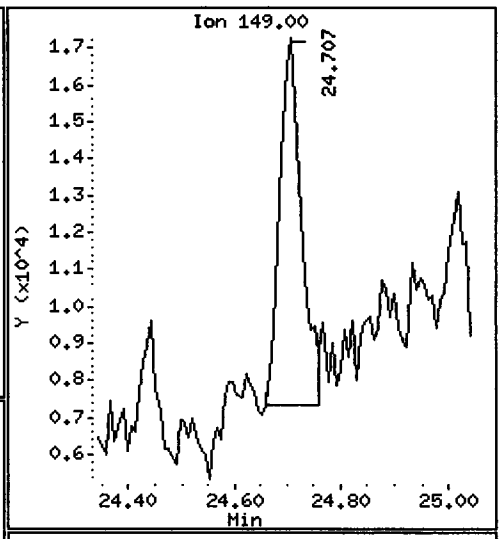
Concentration: 15.30 ug/kg

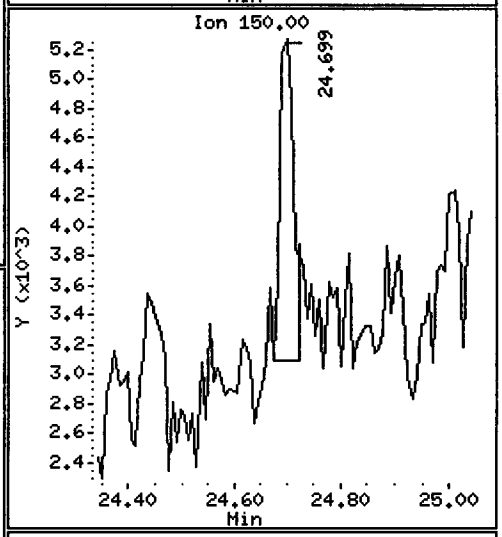


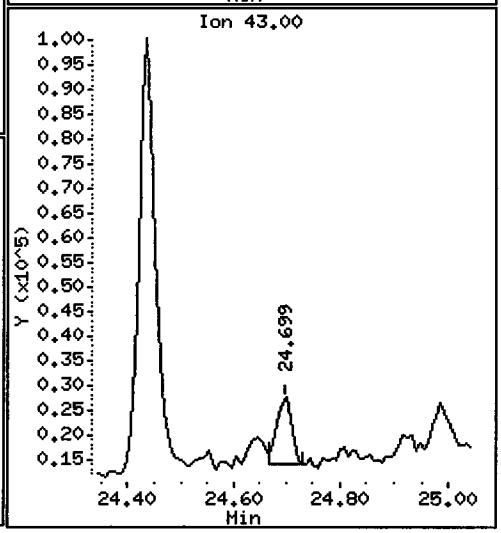












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

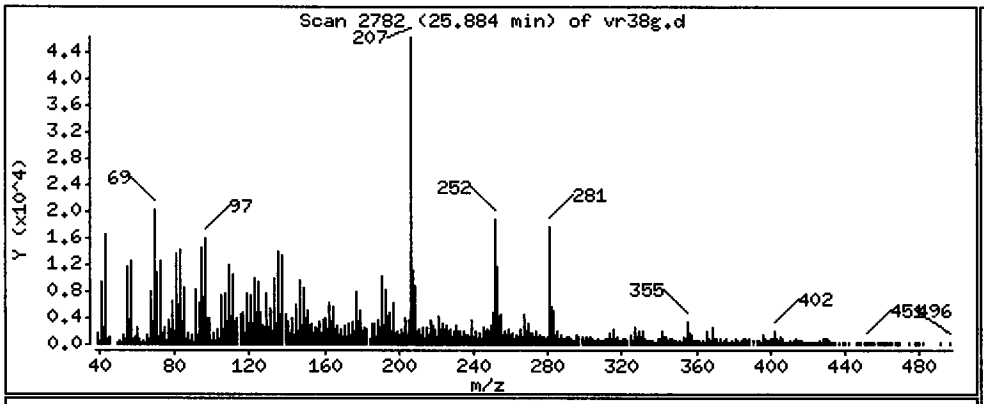
Operator: VTS/YZ

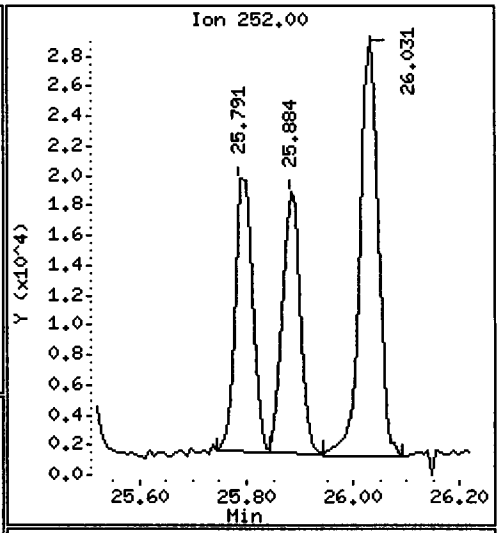
Column phase: ZB-5msi

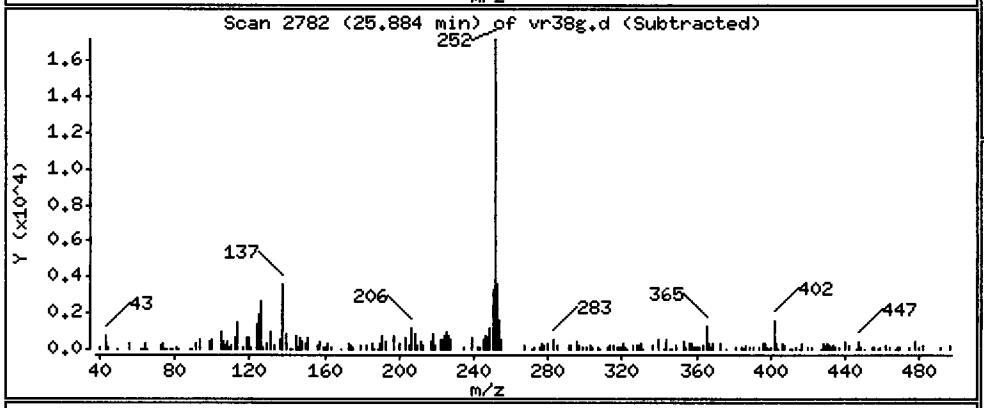
Column diameter: 0.25

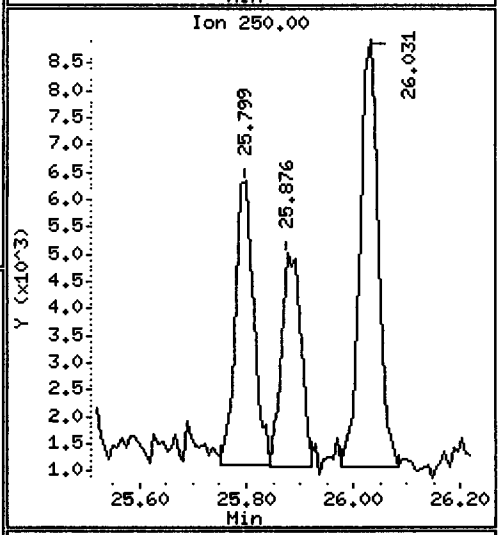
76 Benzo(a)pyrene

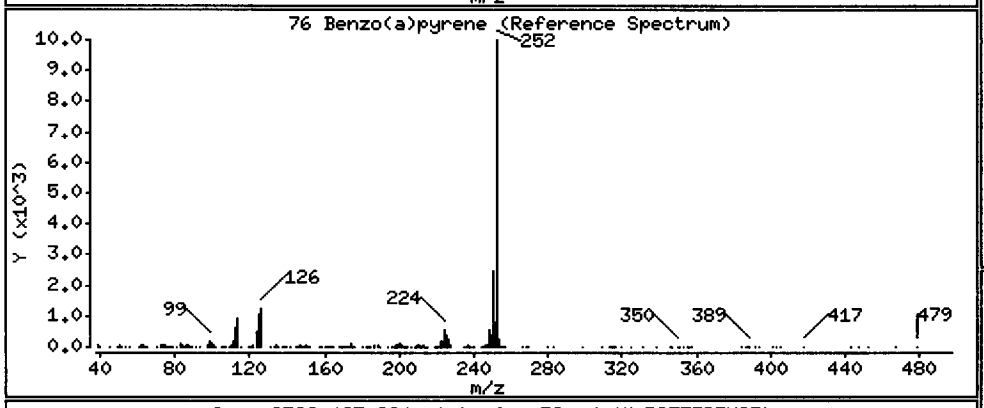
Concentration: 24.70 ug/kg

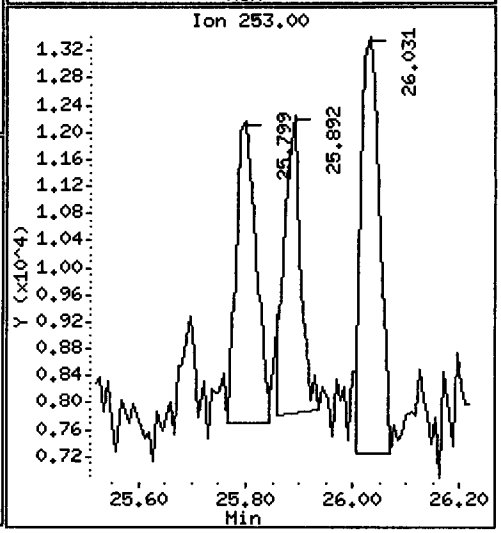


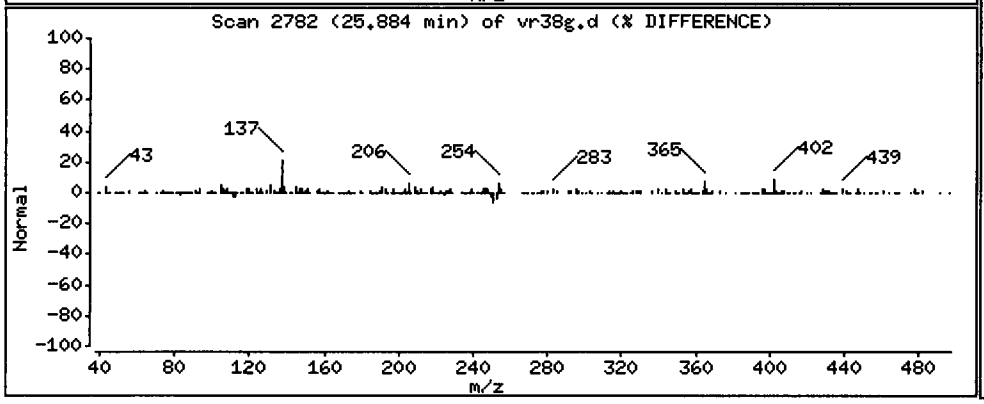












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

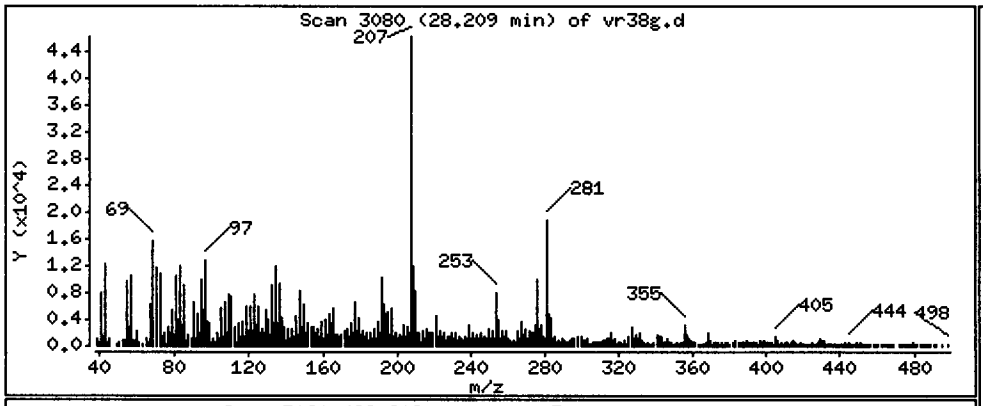
Operator: VTS/YZ

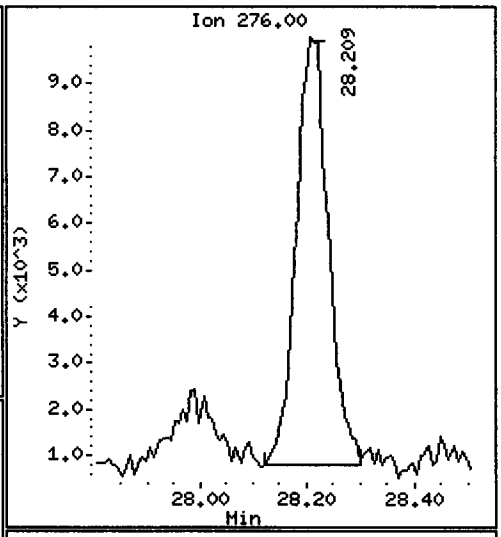
Column phase: ZB-5msi

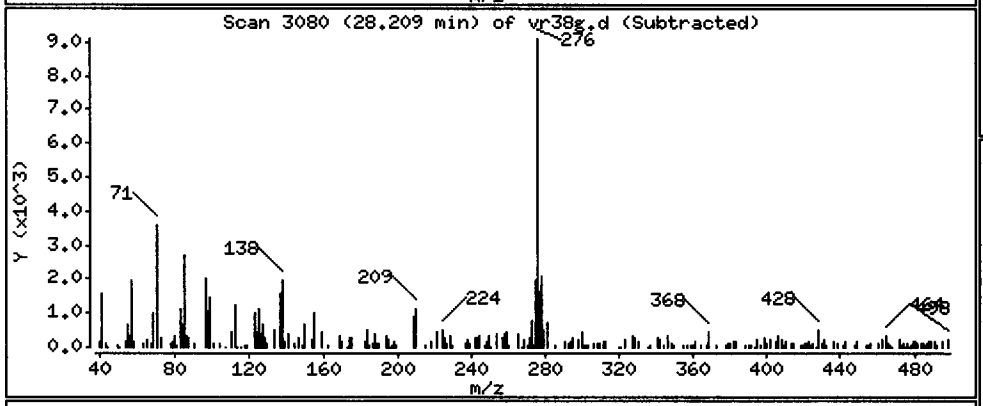
Column diameter: 0.25

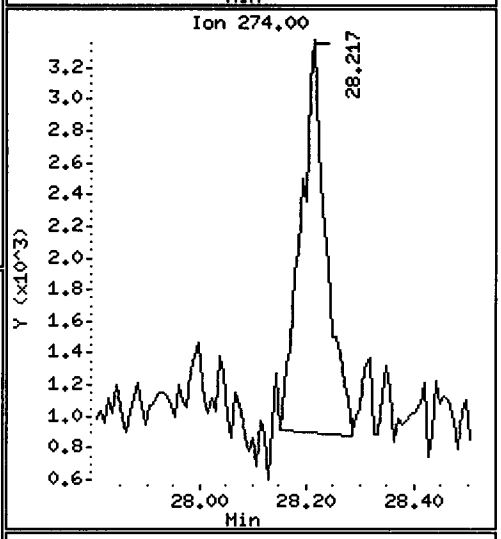
78 Indeno(1,2,3-cd)pyrene

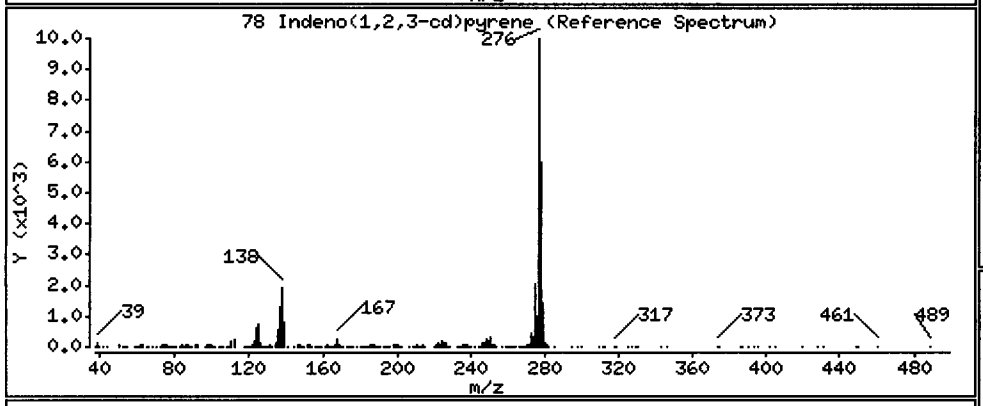
Concentration: 18.90 ug/kg

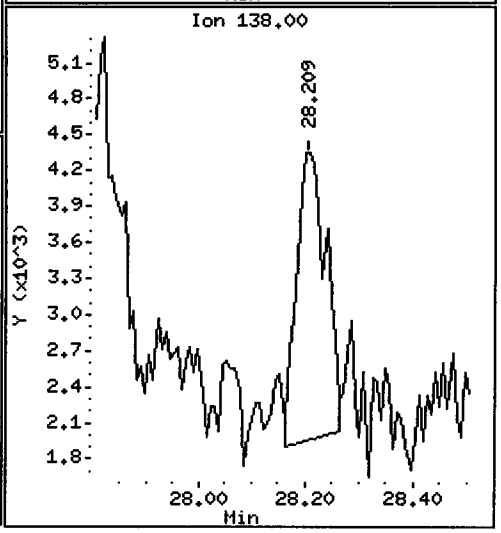


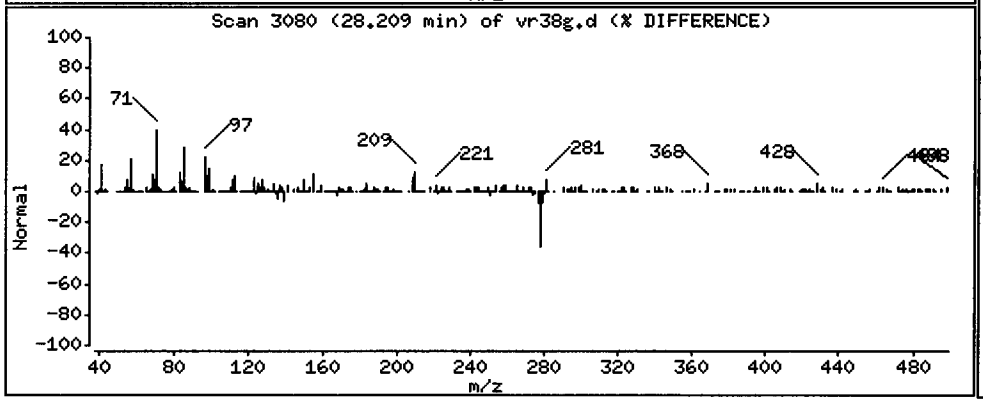












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

Client ID: HT-09-S-C-121106

Instrument: nt10.i

Sample Info: VR38G

Volume Injected (uL): 1.0

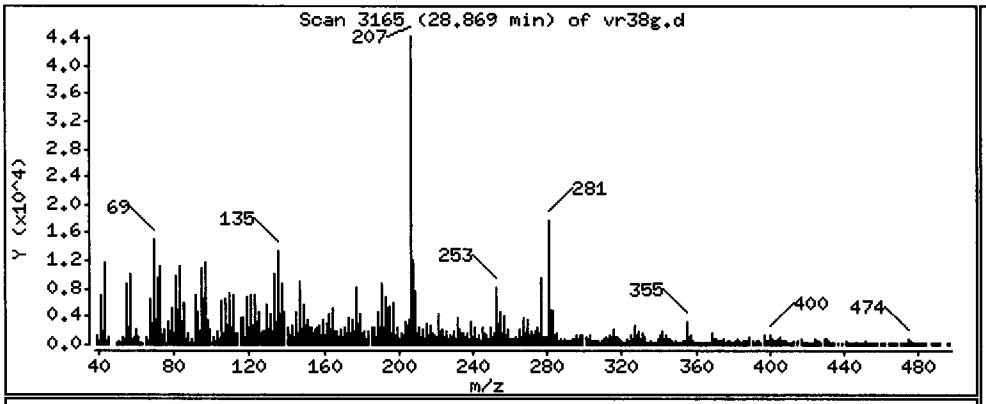
Operator: VTS/YZ

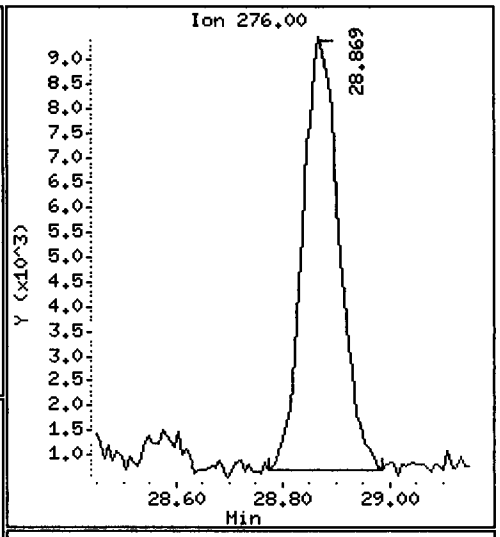
Column phase: ZB-5msi

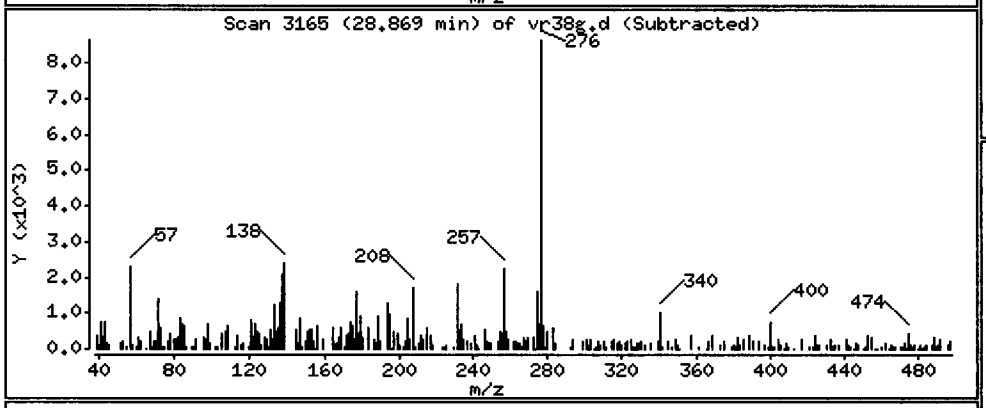
Column diameter: 0.25

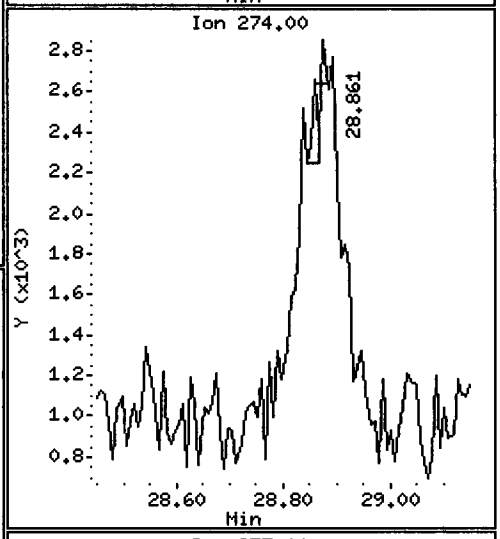
80 Benzo(g,h,i)perylene

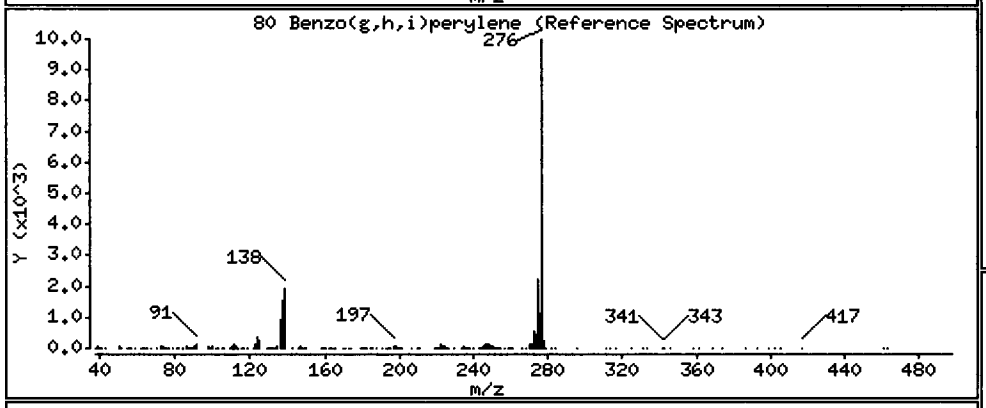
Concentration: 24.37 ug/kg

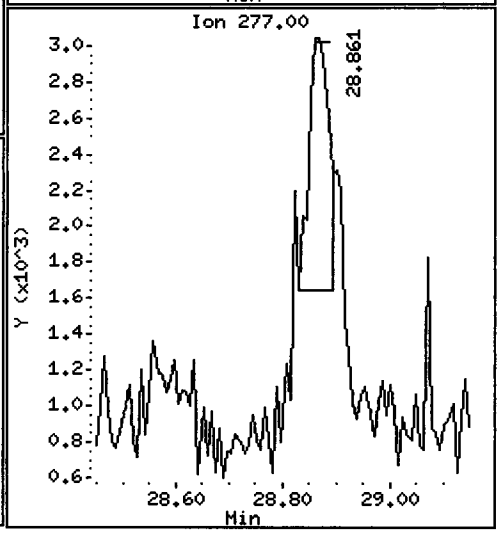


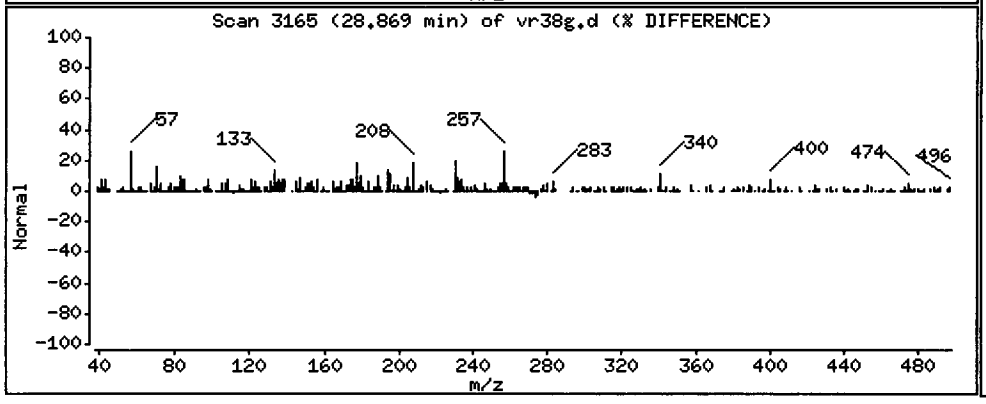












Data File: /chem1/nt10.i/20121119.b/vr38g.d

Date : 19-NOV-2012 19:07

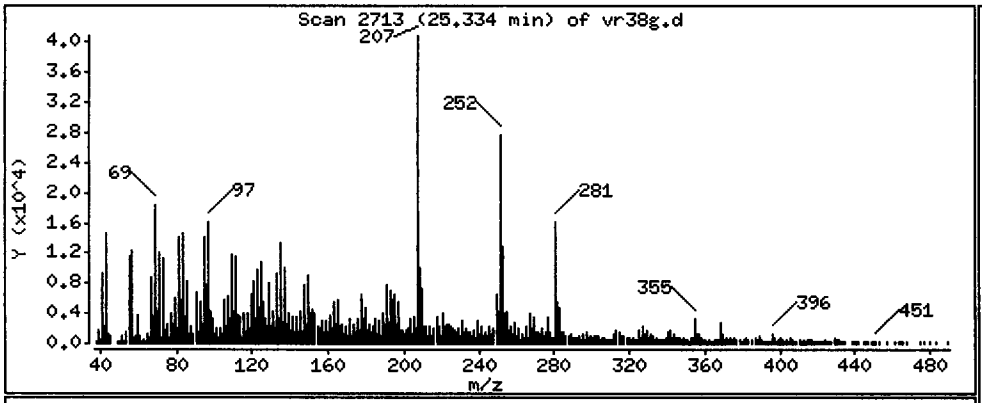
Client ID: HT-09-S-C-121106 Instrument: nt10.i

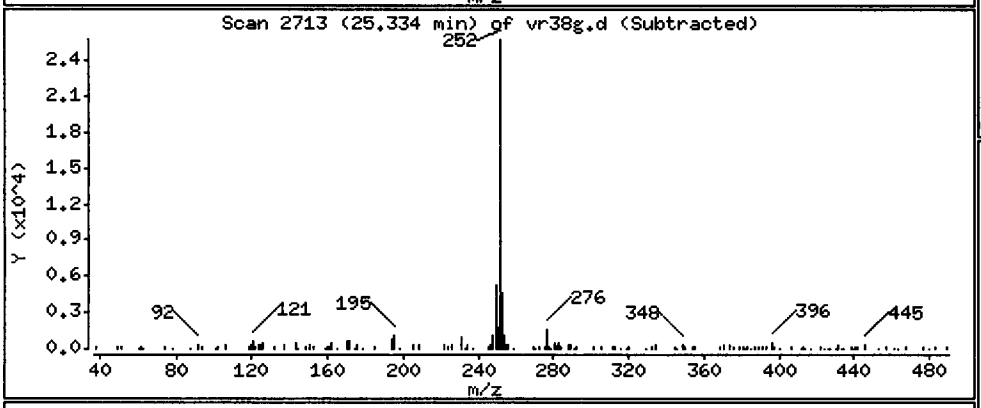
Sample Info: VR38G

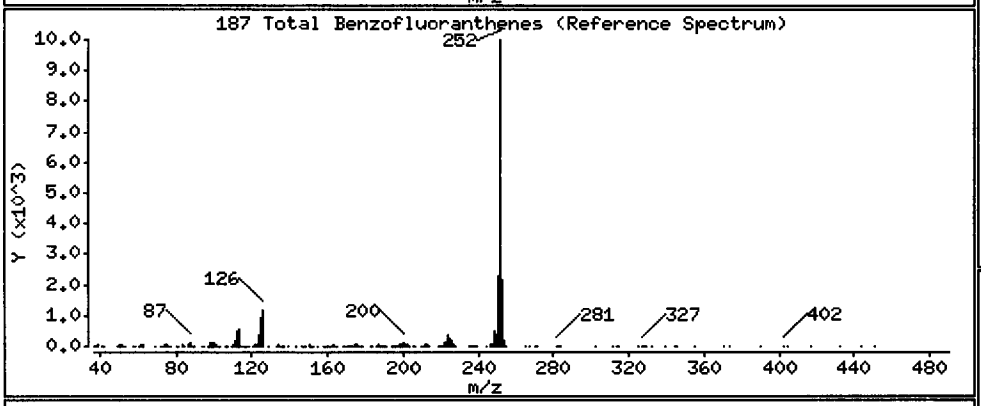
Volume Injected (uL): 1.0 Operator: VTS/YZ

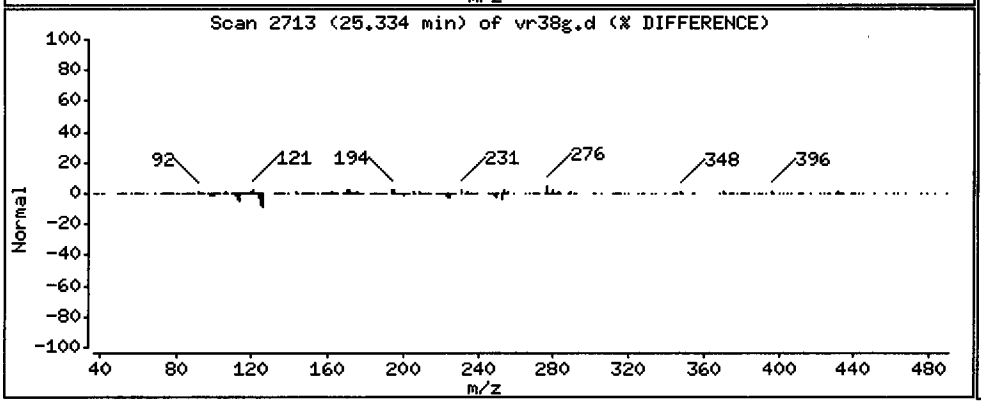
Column phase: ZB-5msi Column diameter: 0.25

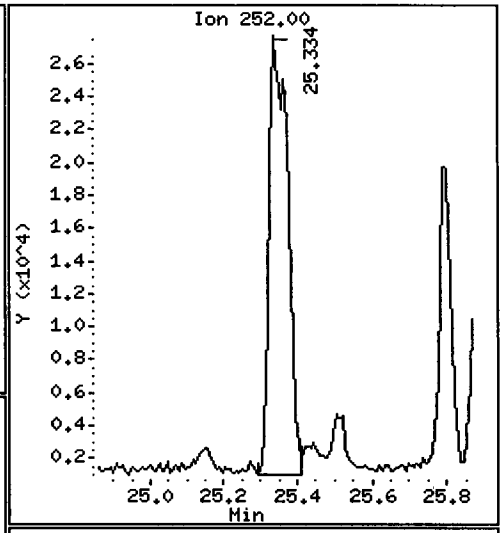
187 Total Benzofluoranthenes Concentration: 55.65 ug/kg

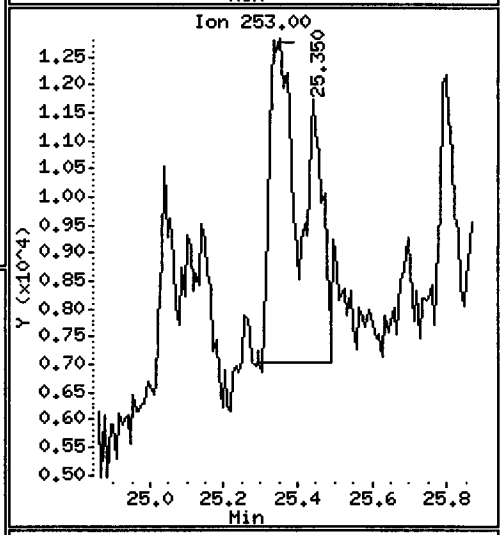


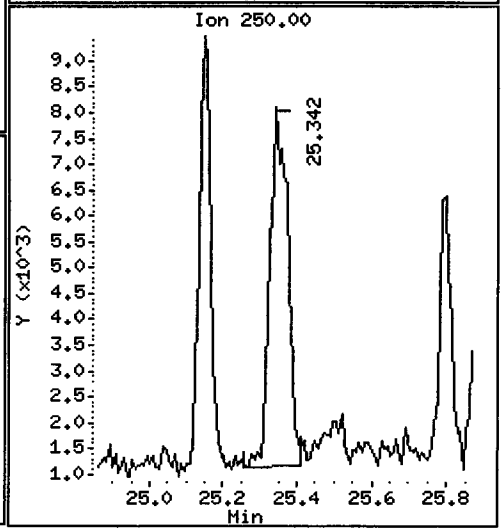












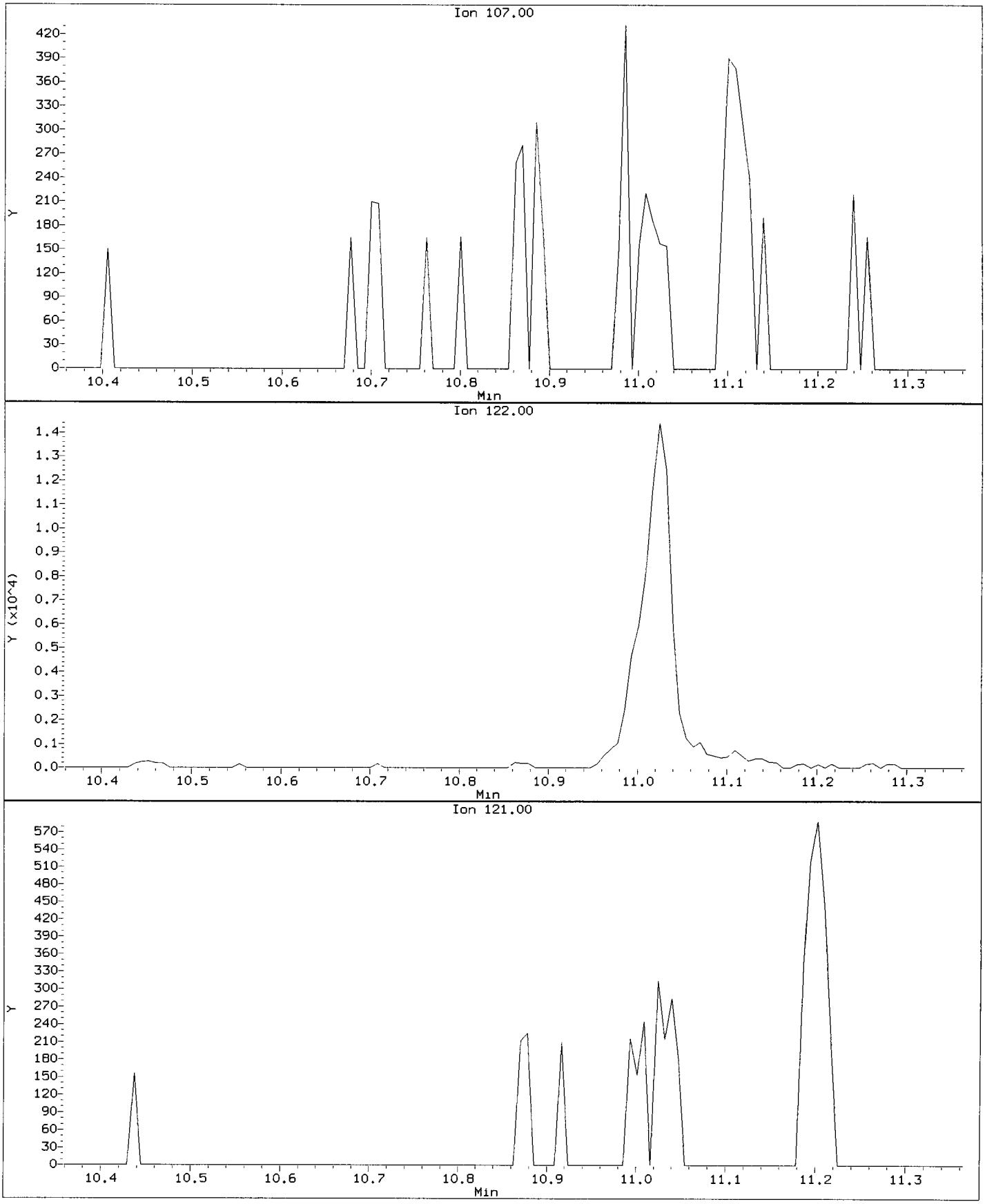
CO-ELUTION SUMMARY FOR FILE - vr38g.d

Lab ID: VR38G, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

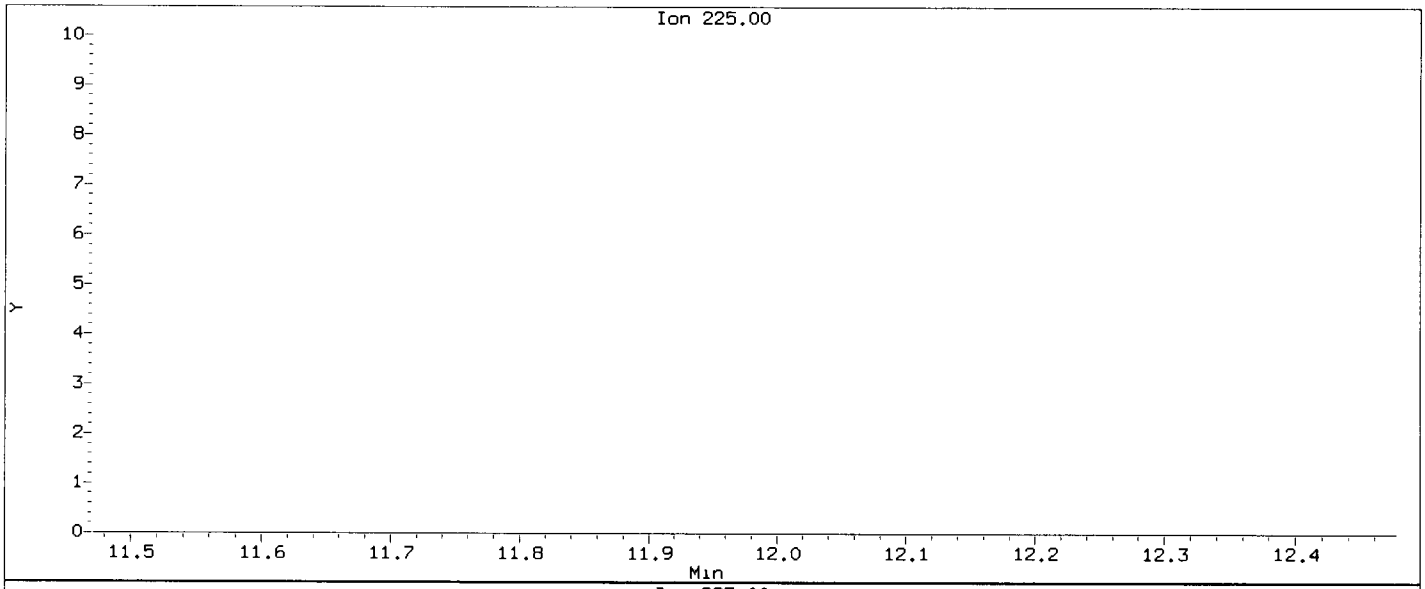
Data File: /chem1/nt10.1/20121119.b/vr38g.d
Injection Date: 19-NOV-2012 19:07
Instrument: nt10.1
Client Sample ID: HT-09-S-C-121106

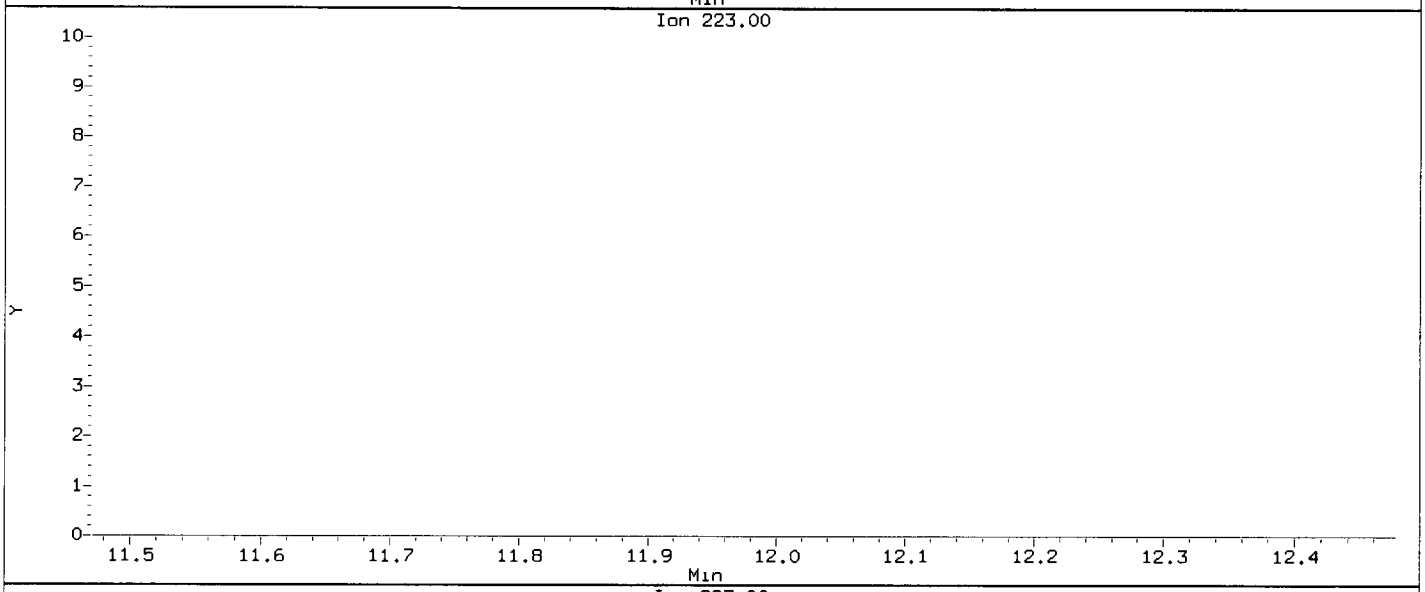
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

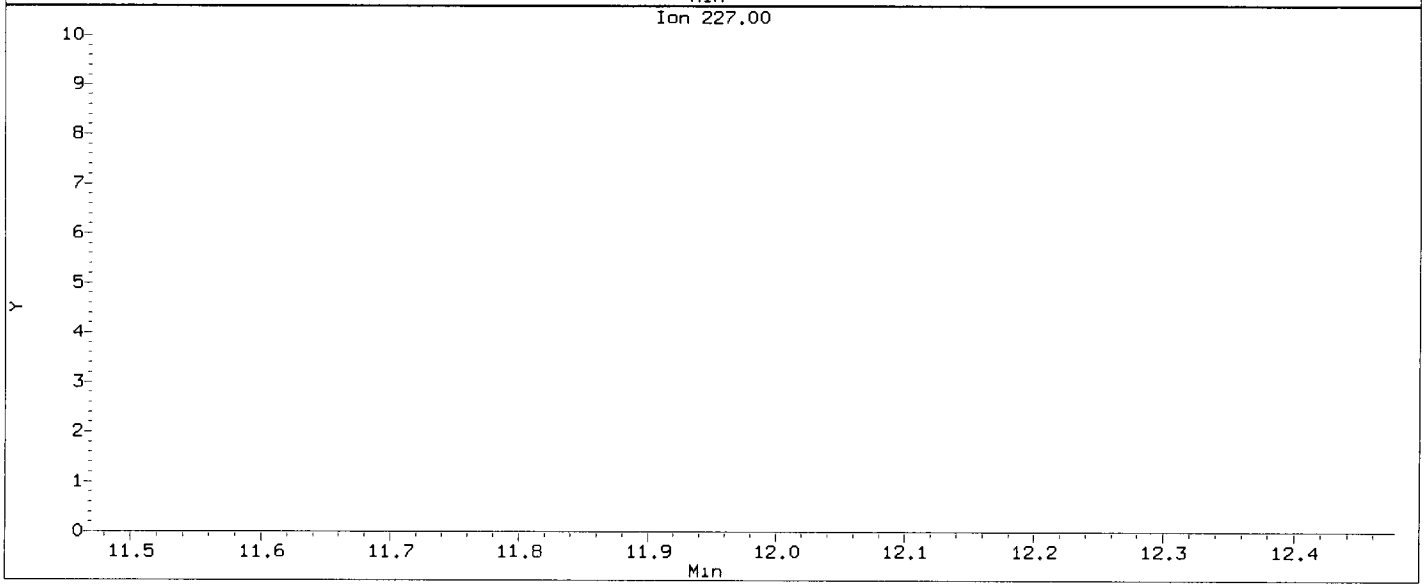


Data File: /chem1/nt10.1/20121119.b/vr38g.d
Injection Date: 19-NOV-2012 19:07
Instrument: nt10.1
Client Sample ID: HT-09-S-C-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3







Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38h.d
Lab Smp Id: VR38H Client Smp ID: HT-10-S-LFP-121106
Inj Date : 19-NOV-2012 19:44
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38H
Misc Info : 12-22274
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	12.10000	Weight of sample extracted (g)
M	14.30000	% 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	6.620	6.597	(0.743)	171157	5.41742	522.4
$ 2	Phenol-d5	99	8.289	8.282	(0.931)	166488	5.18546	500.1
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.536	8.529	(0.958)	216780	4.93086	475.5
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	119268	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	9.288	9.281	(1.043)	93035	3.10324	299.3
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	10.065	10.065	(0.873)	75990	3.11329	300.2
22	2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	414777	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.904)	303137	3.53904	341.3
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.386	15.386	(1.000)	241118	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.148	17.140	(1.114)	60418	6.37316	614.6
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.624	18.624	(1.000)	406539	4.00000	
	60 Phenanthrene	178	18.670	18.670	(1.002)	32155	0.29725	28.67
	61 Anthracene	178	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	21.061	21.053	(1.131)	79512	0.58057	55.99
	65 Pyrene	202	21.471	21.463	(0.909)	65767	0.41794	40.30
$	66 Terphenyl-d14	244	21.781	21.781	(0.922)	364586	3.67339	354.2
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	23.592	23.592	(0.999)	28979	0.19335 J	18.65
*	69 Chrysene-d12	240	23.616	23.616	(1.000)	486491	4.00000	
	71 Chrysene	228	23.662	23.662	(1.002)	35295	0.26901	25.94
	72 bis(2-Ethylhexyl)phthalate	149	23.724	23.724	(0.961)	28092	0.31527	30.40
*	134 Di-n-octylphthalate-d4	153	24.684	24.684	(1.000)	681171	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	25.868	25.869	(0.996)	31930	0.22084	21.30
*	77 Perylene-d12	264	25.969	25.969	(1.000)	522251	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.155	28.155	(1.084)	29468	0.15942 J	15.37
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	28.807	28.799	(1.109)	30895	0.19962 J	19.25
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	25.326	25.365	(0.975)	70085	0.45330	43.71
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38h.d
Lab Smp Id: VR38H
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22274

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-10-S-LFP-1211
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	97486	48743	194972	119268	22.34
27 Naphthalene-d8	357150	178575	714300	414777	16.14
42 Acenaphthene-d10	217259	108630	434518	241118	10.98
59 Phenanthrene-d10	355415	177708	710830	406539	14.38
69 Chrysene-d12	390458	195229	780916	486491	24.59
134 Di-n-octylphthala	532303	266152	1064606	681171	27.97
77 Perylene-d12	386299	193150	772598	522251	35.19

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	0.00
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	0.00
77 Perylene-d12	25.97	25.47	26.47	25.97	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

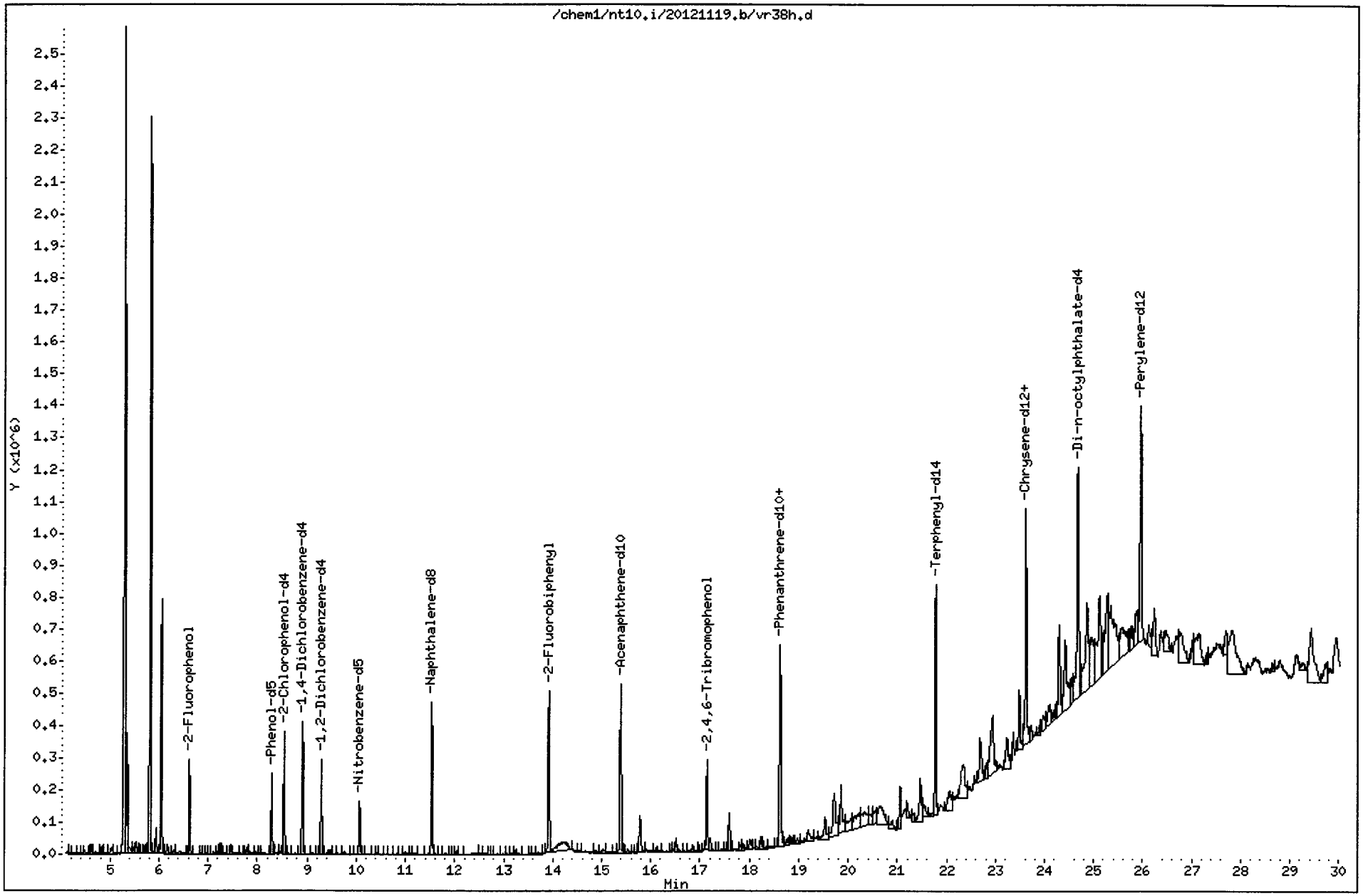
Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38H Client Smp ID: HT-10-S-LFP-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/201211 9.b/ABN.m
Misc Info: 12-22274

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	723.3	522.4	72.23	30-160
$ 2 Phenol-d5	723.3	500.1	69.14	30-160
$ 5 2-Chlorophenol-d4	723.3	475.5	65.74	30-160
$ 10 1,2-Dichlorobenzen	482.2	299.3	62.06	30-160
$ 18 Nitrobenzene-d5	482.2	300.2	62.27	30-160
$ 36 2-Fluorobiphenyl	482.2	341.3	70.78	30-160
$ 55 2,4,6-Tribromophen	723.3	614.6	84.98	30-160
$ 66 Terphenyl-d14	482.2	354.2	73.47	30-160

Data File: /chem1/nt10.i/20121119.b/vr38h.d
Date : 19-NOV-2012 19:44
Client ID: HT-10-S-LFP-121106
Sample Info: VR38H
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

Client ID: HT-10-S-LFP-121106

Instrument: nt10.i

Sample Info: VR38H

Volume Injected (uL): 1.0

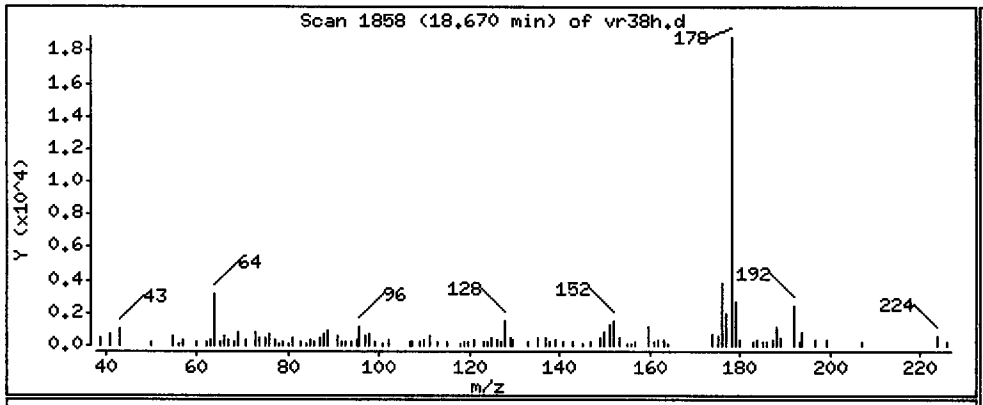
Operator: VTS/YZ

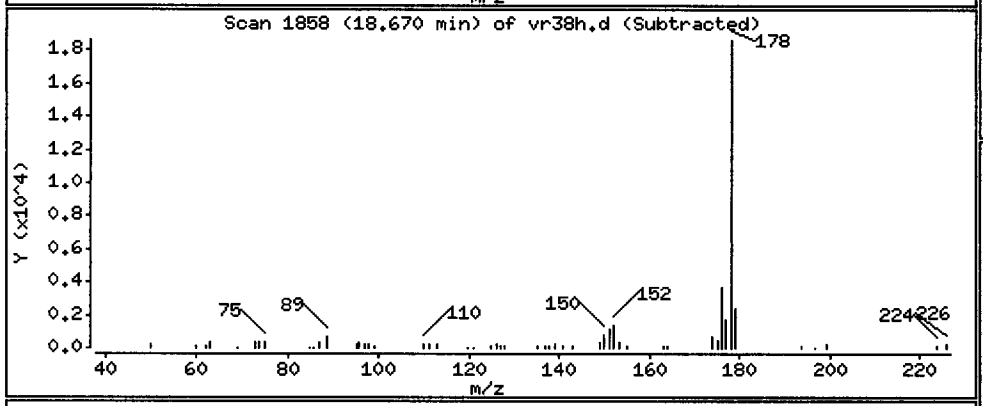
Column phase: ZB-5msi

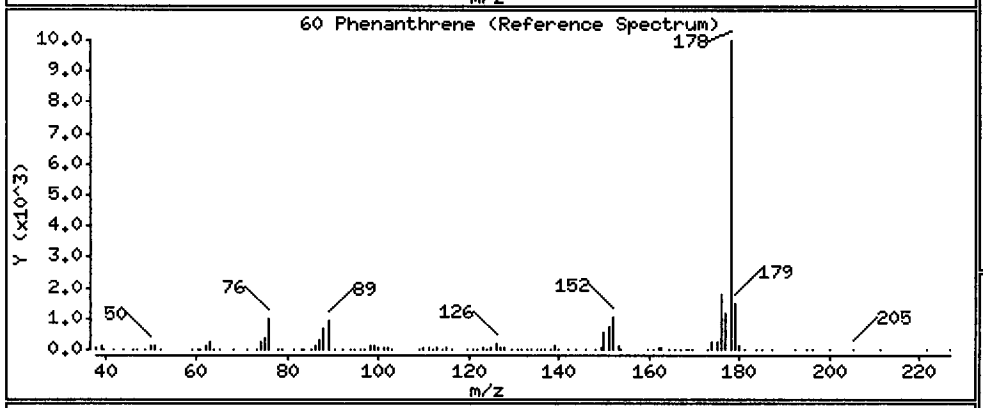
Column diameter: 0.25

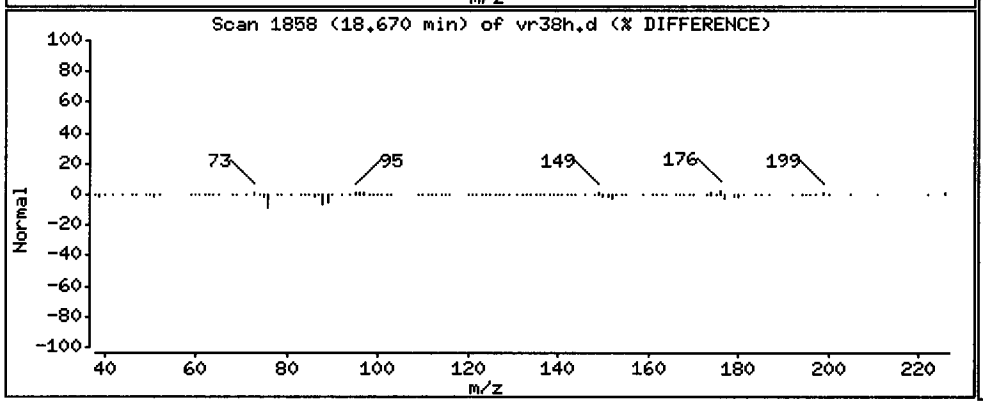
60 Phenanthrene

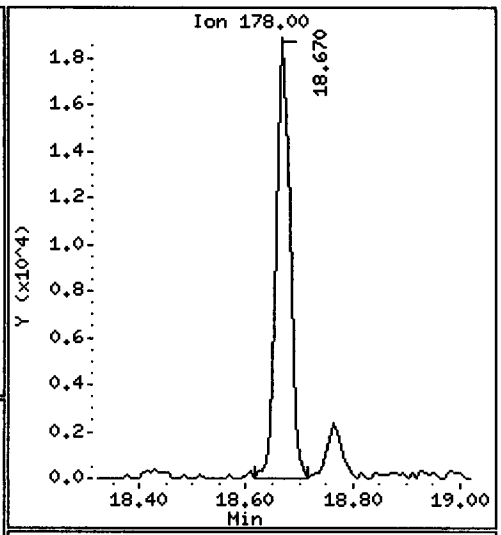
Concentration: 28.67 ug/kg

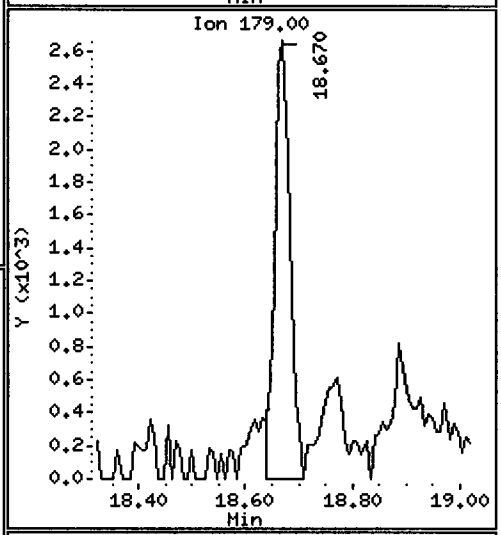


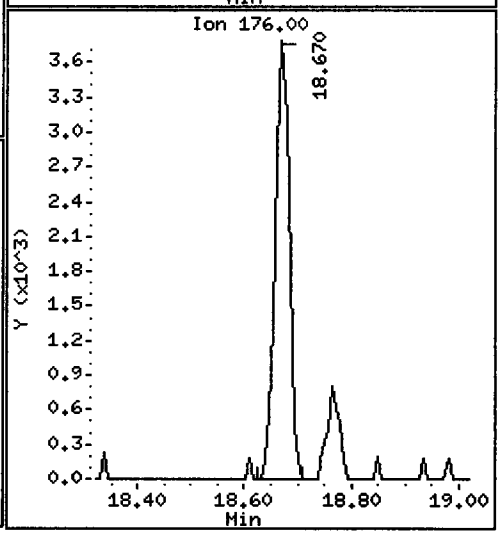












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

Client ID: HT-10-S-LFP-121106

Instrument: nt10.i

Sample Info: VR38H

Volume Injected (uL): 1.0

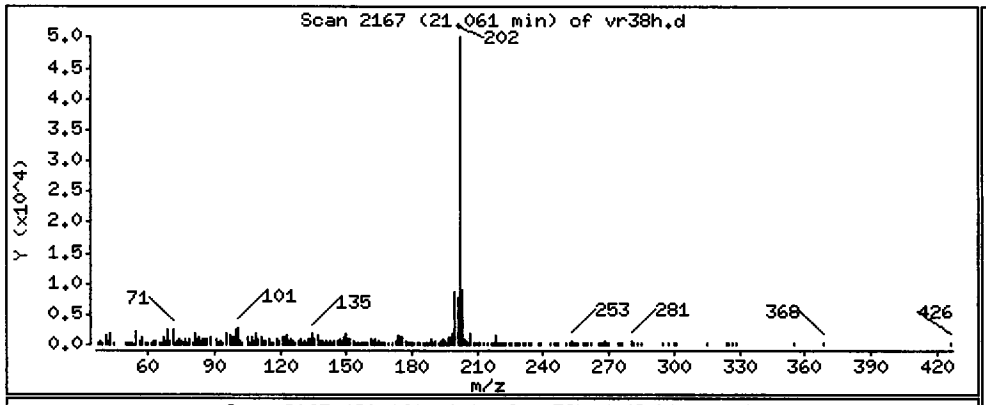
Operator: VTS/YZ

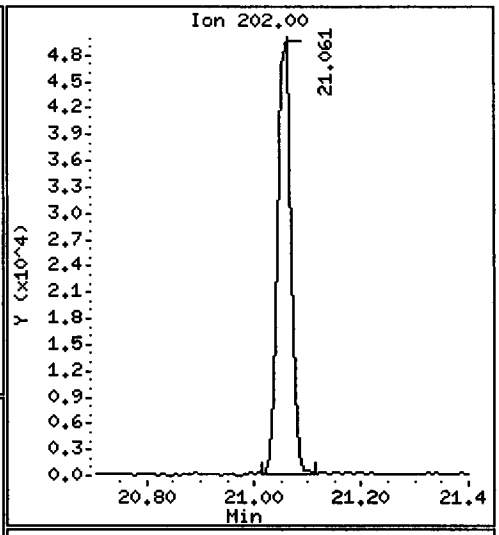
Column phase: ZB-5msi

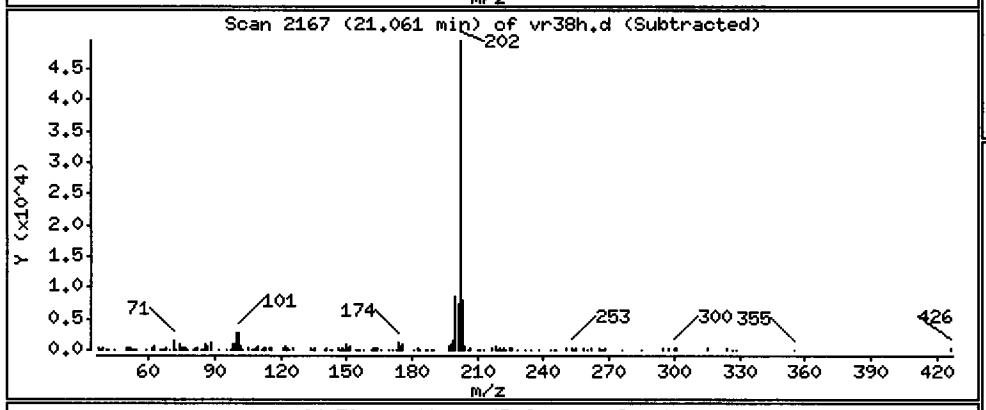
Column diameter: 0.25

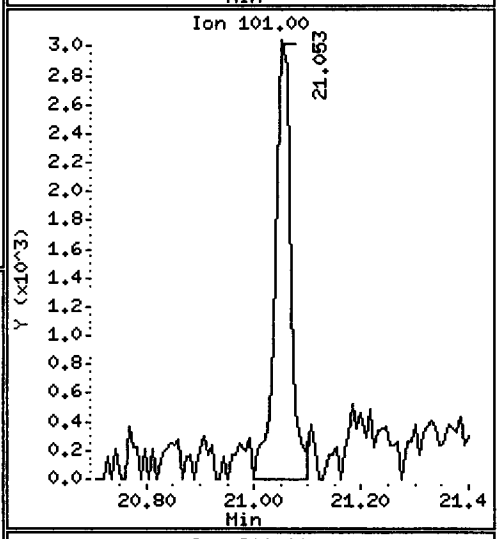
64 Fluoranthene

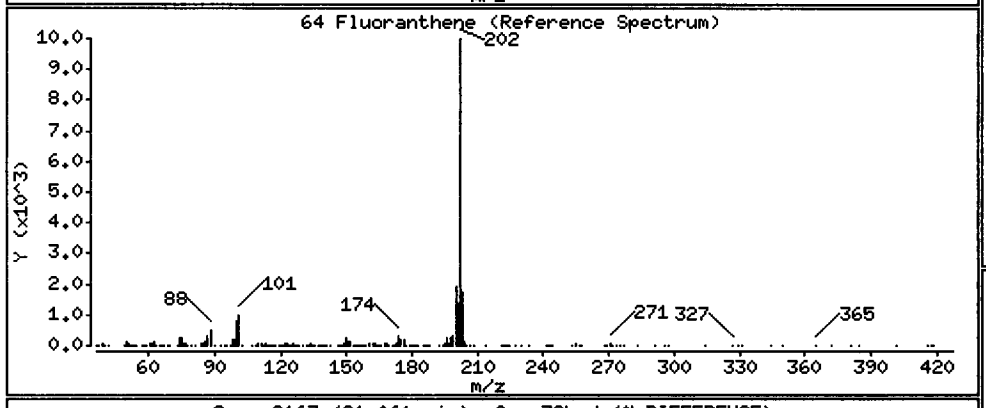
Concentration: 55.99 ug/kg

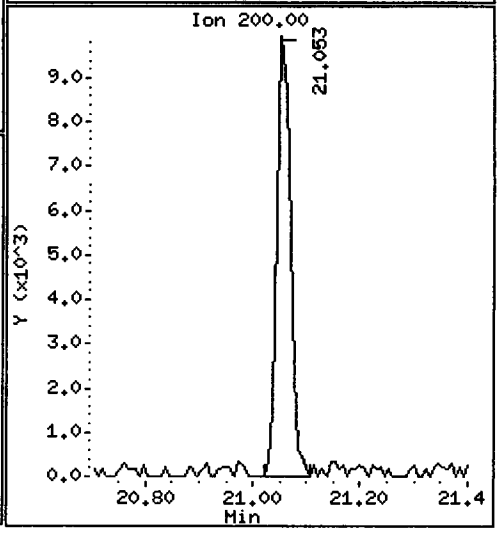


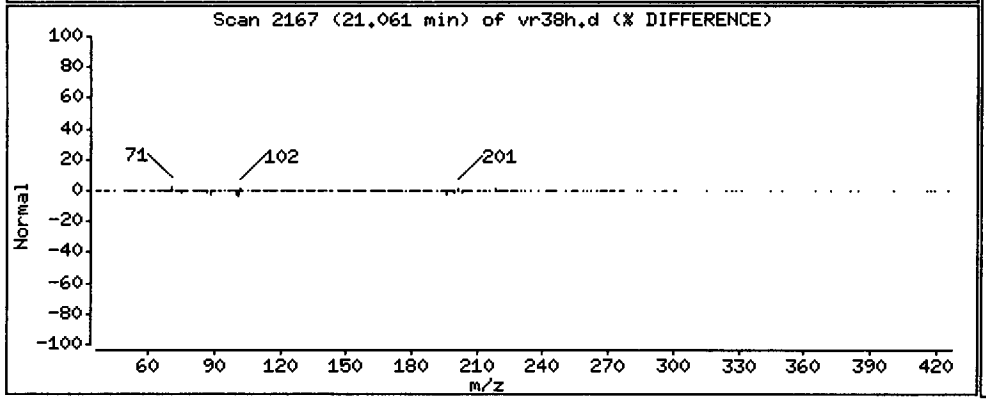












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

Client ID: HT-10-S-LFP-121106

Instrument: nt10.i

Sample Info: VR38H

Volume Injected (uL): 1.0

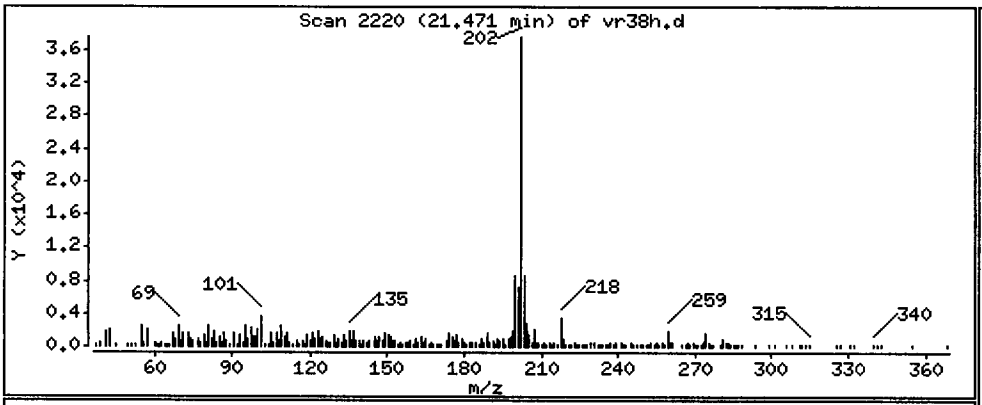
Operator: VTS/YZ

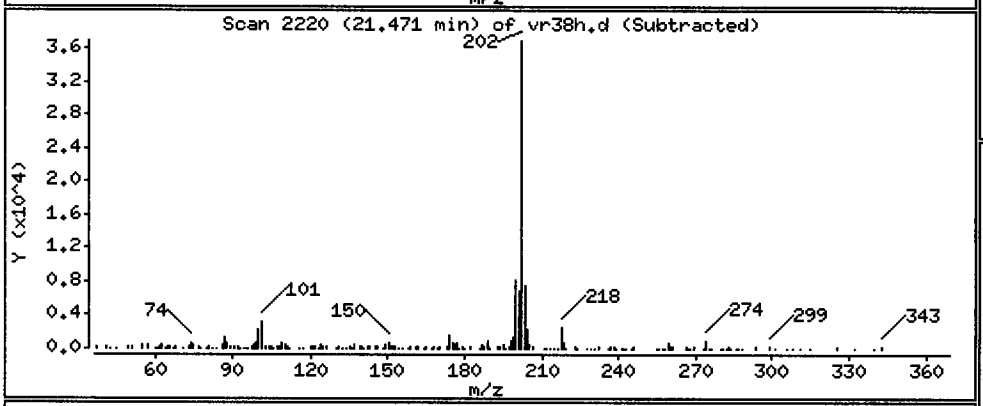
Column phase: ZB-5msi

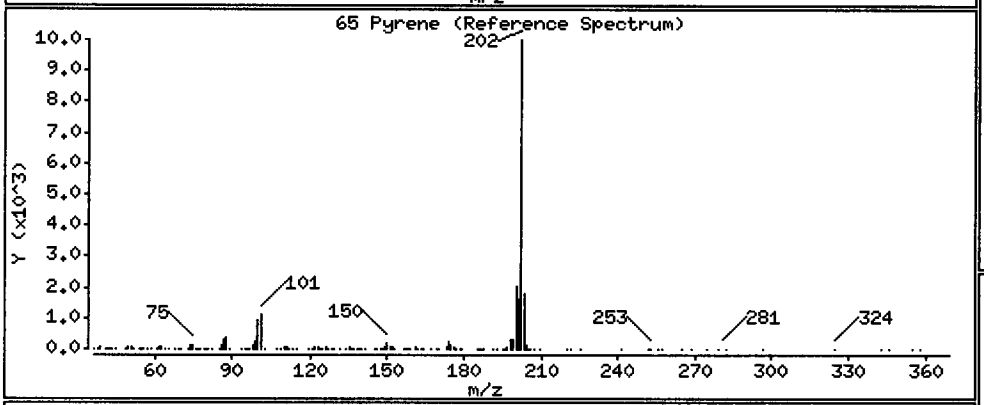
Column diameter: 0.25

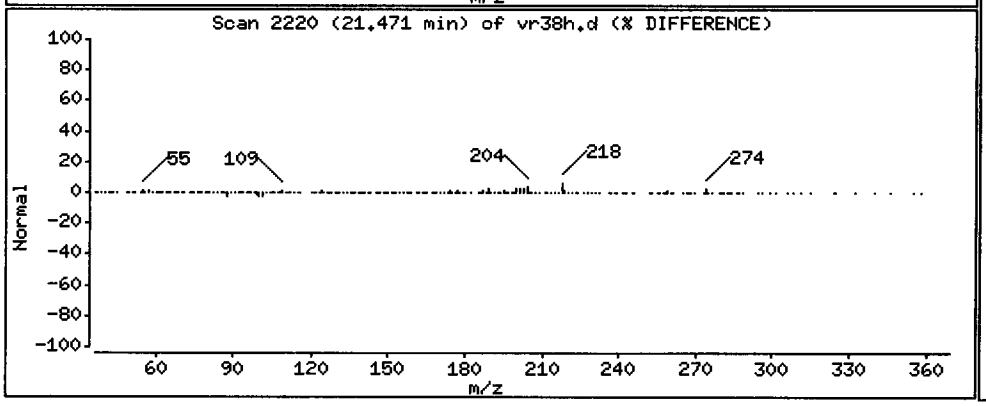
65 Pyrene

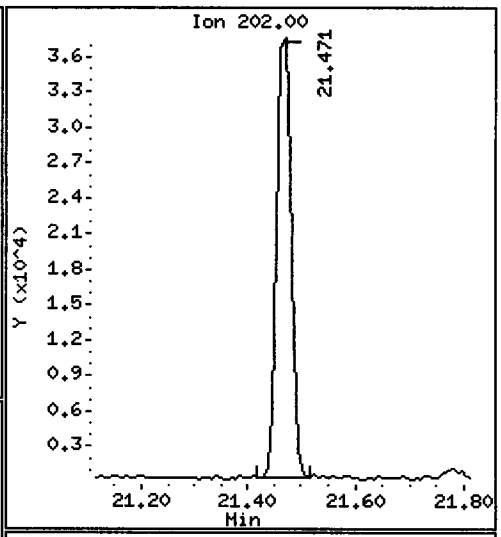
Concentration: 40.30 ug/kg

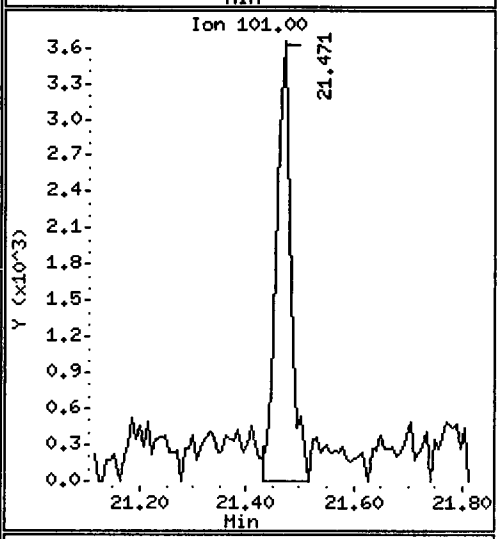


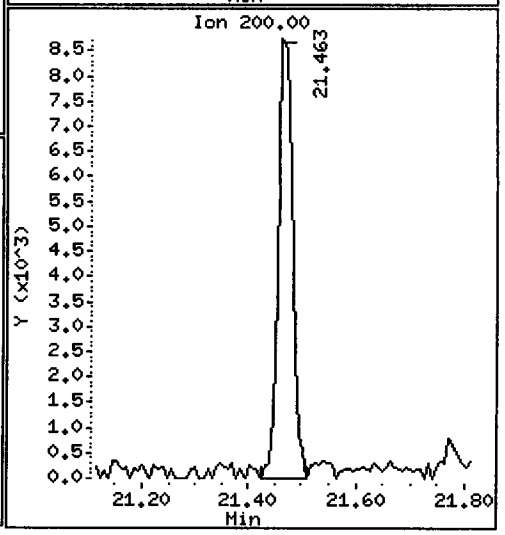












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

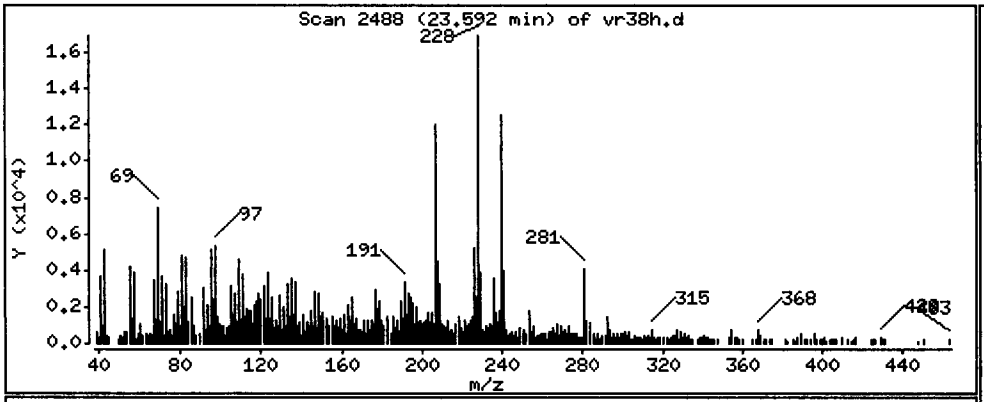
Client ID: HT-10-S-LFP-121106 Instrument: nt10.i

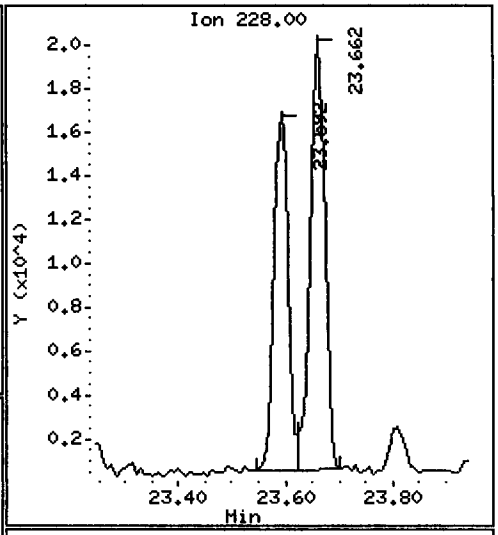
Sample Info: VR38H

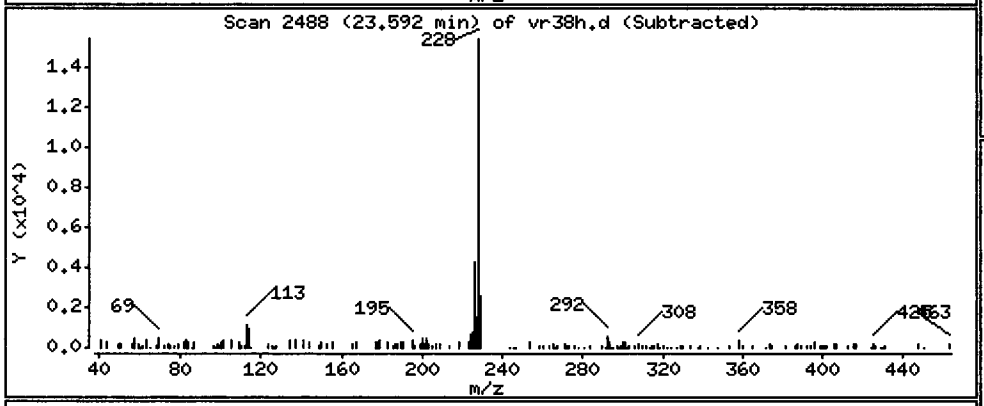
Volume Injected (uL): 1.0 Operator: VTS/YZ

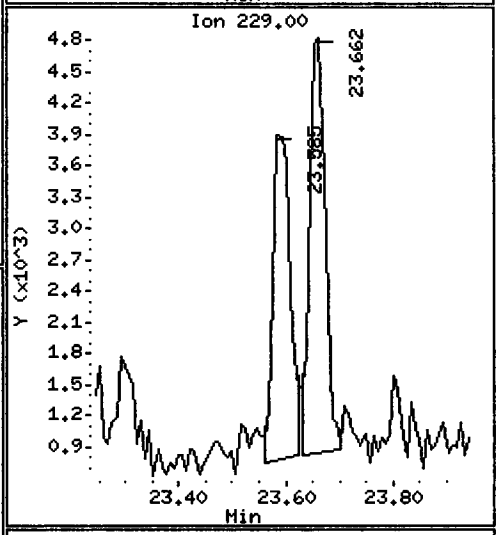
Column phase: ZB-5msi Column diameter: 0.25

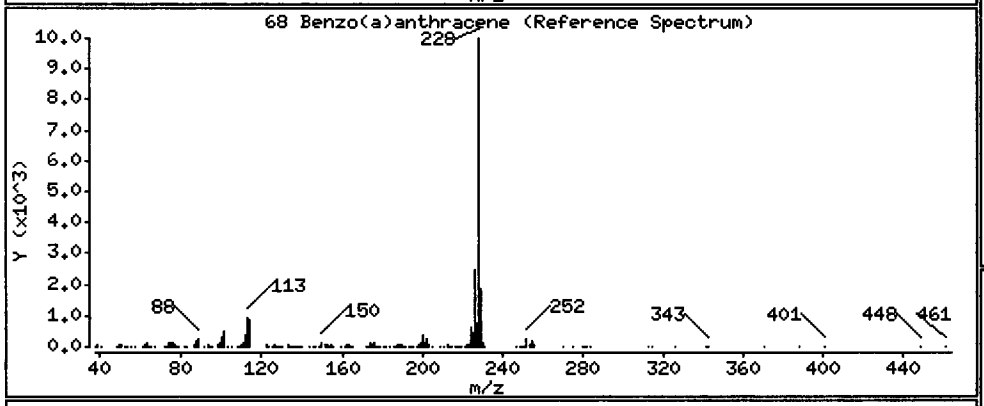
68 Benzo(a)anthracene Concentration: 18.65 ug/kg

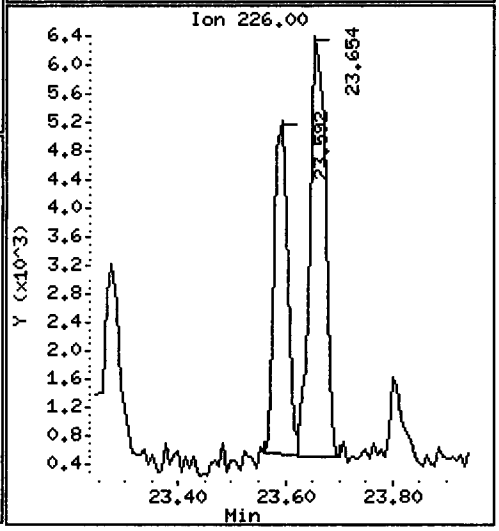


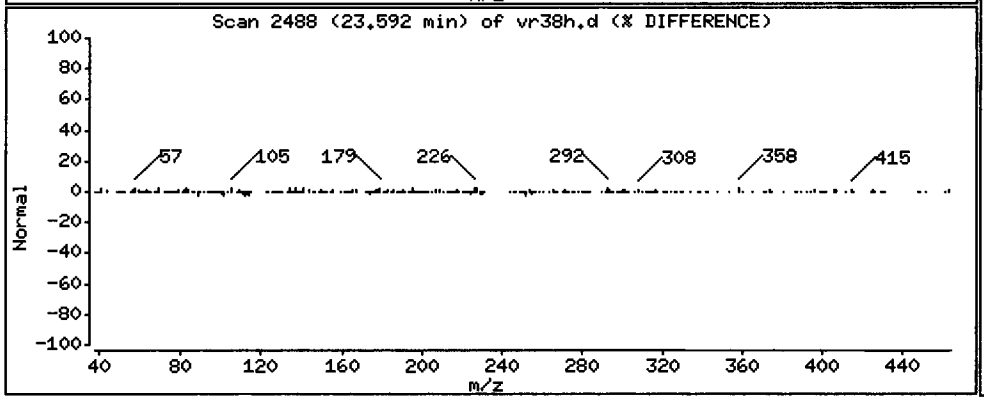












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

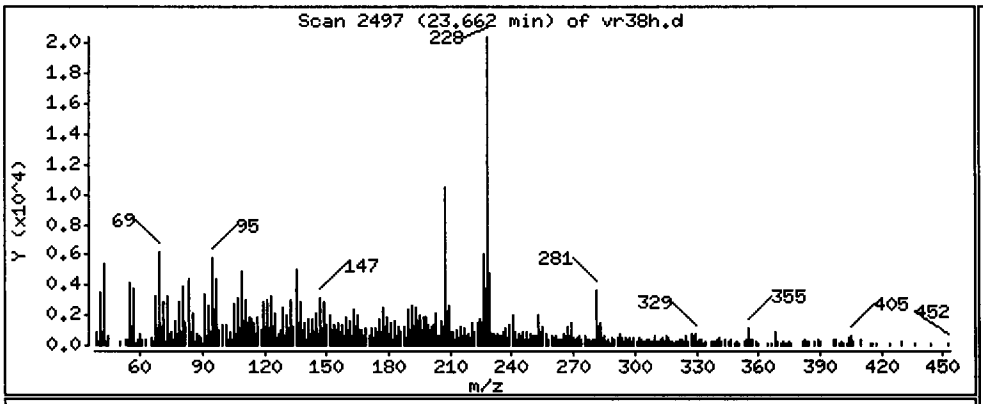
Client ID: HT-10-S-LFP-121106 Instrument: nt10.i

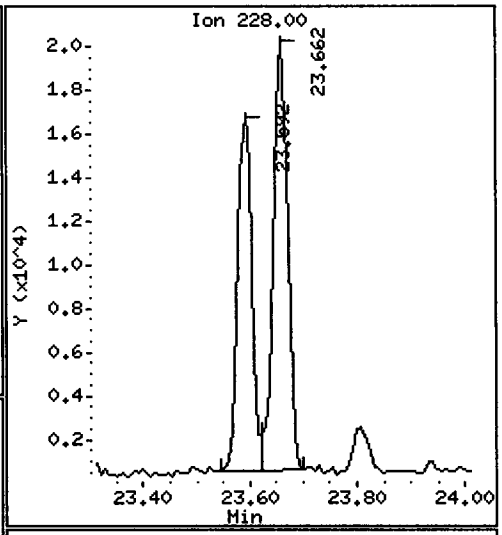
Sample Info: VR38H

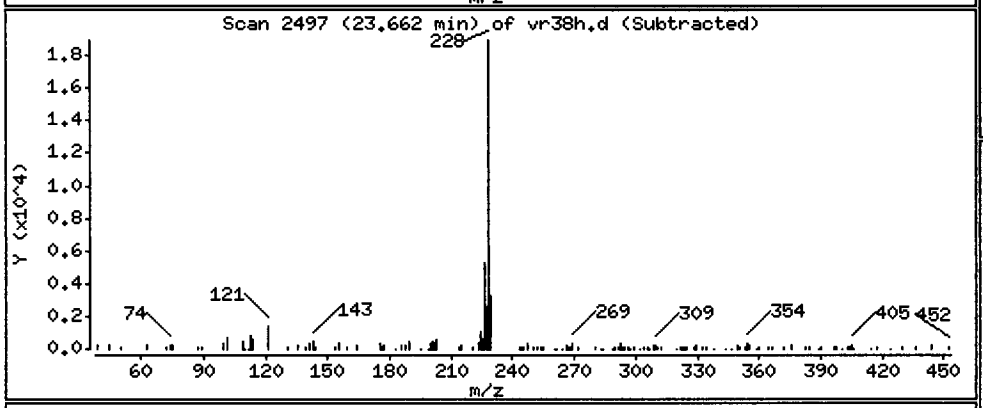
Volume Injected (uL): 1.0 Operator: VTS/YZ

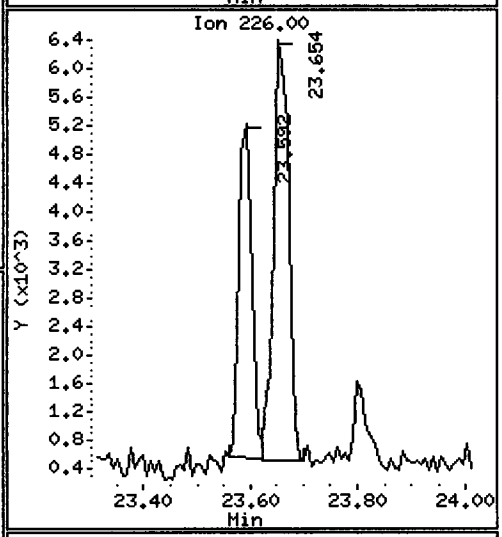
Column phase: ZB-5ms1 Column diameter: 0.25

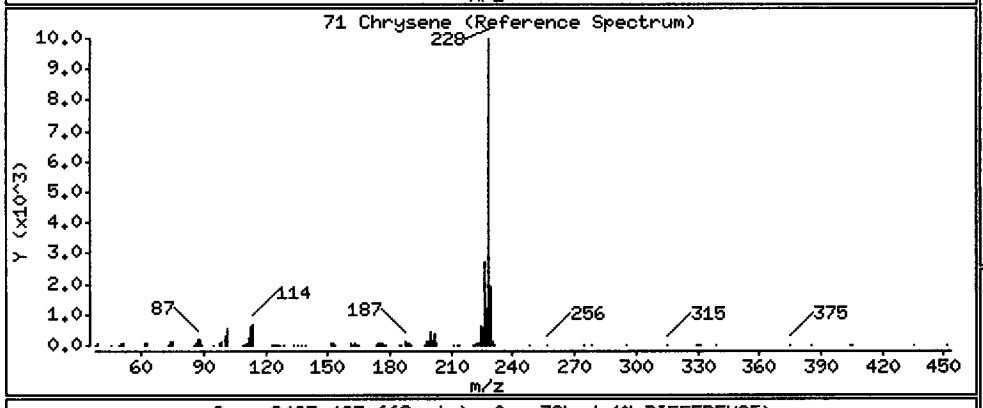
71 Chrysene Concentration: 25.94 ug/kg

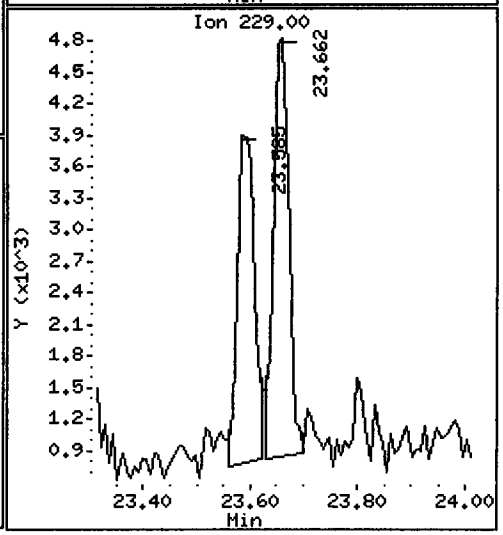


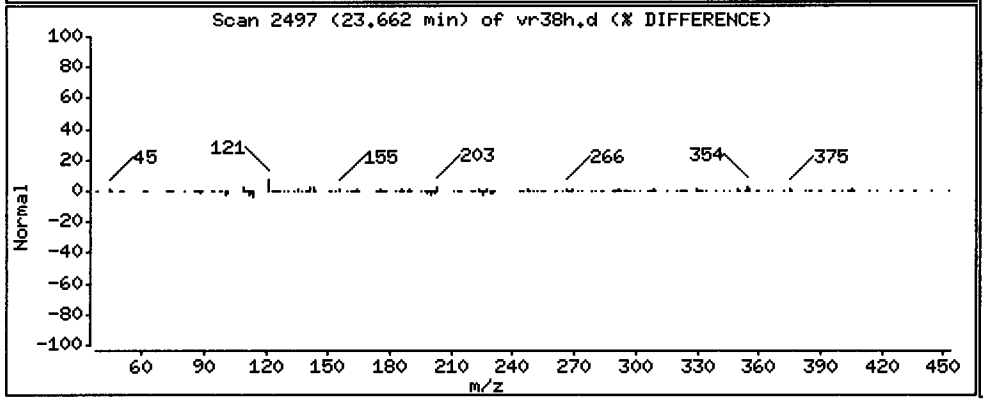












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

Client ID: HT-10-S-LFP-121106

Instrument: nt10.i

Sample Info: VR38H

Volume Injected (uL): 1.0

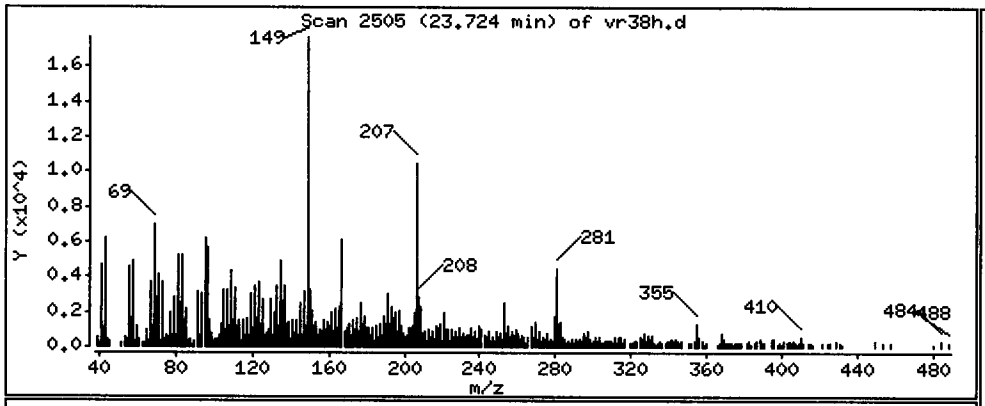
Operator: VTS/YZ

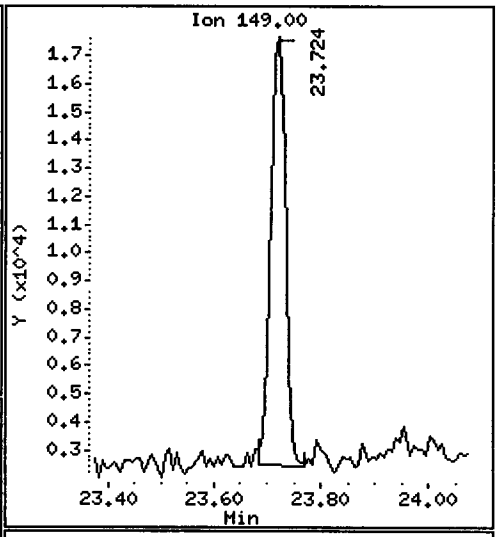
Column phase: ZB-5msi

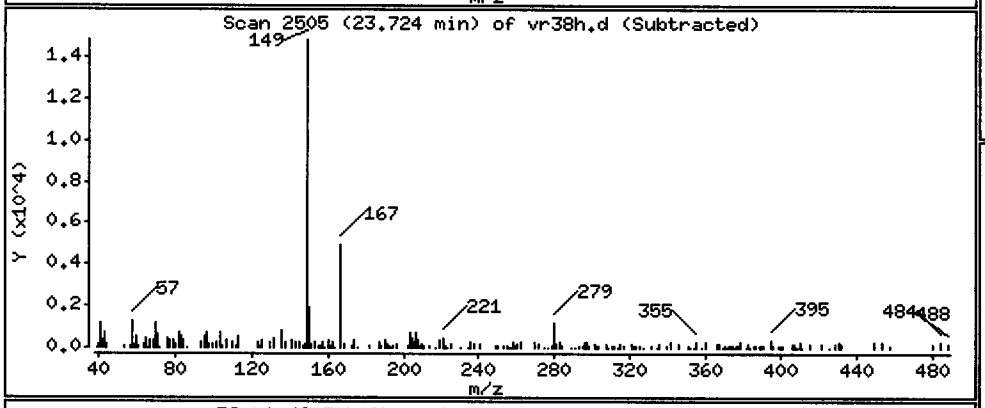
Column diameter: 0.25

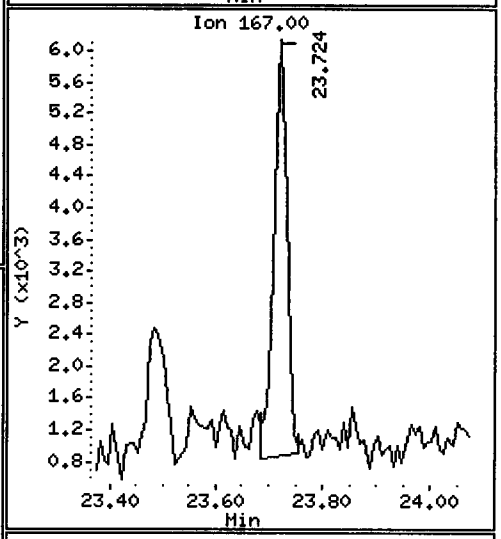
72 bis(2-Ethylhexyl)phthalate

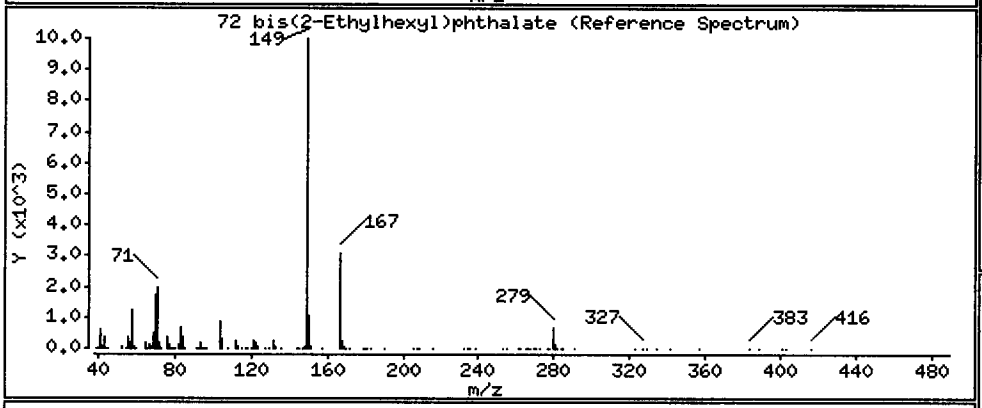
Concentration: 30.40 ug/kg

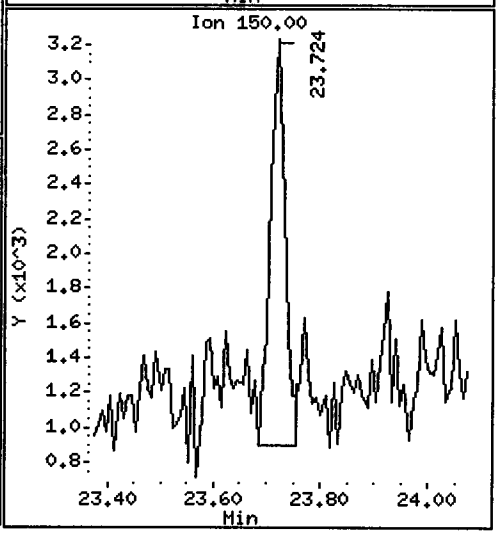


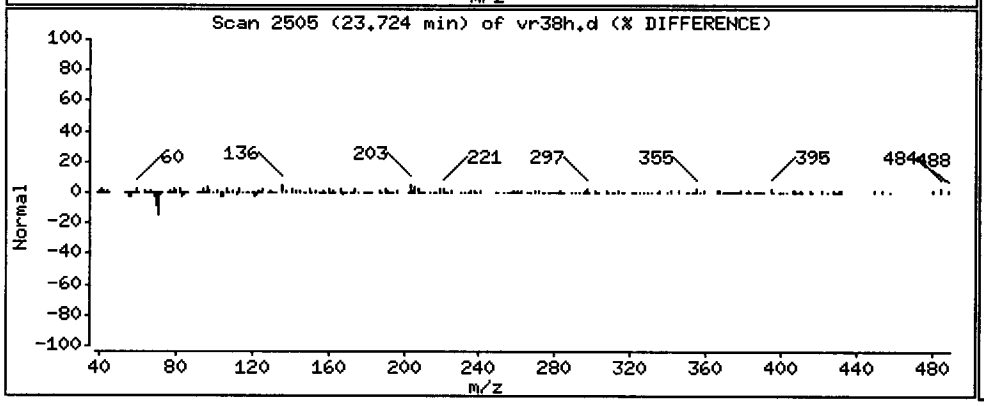












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

Client ID: HT-10-S-LFP-121106

Instrument: nt10.i

Sample Info: VR38H

Volume Injected (uL): 1.0

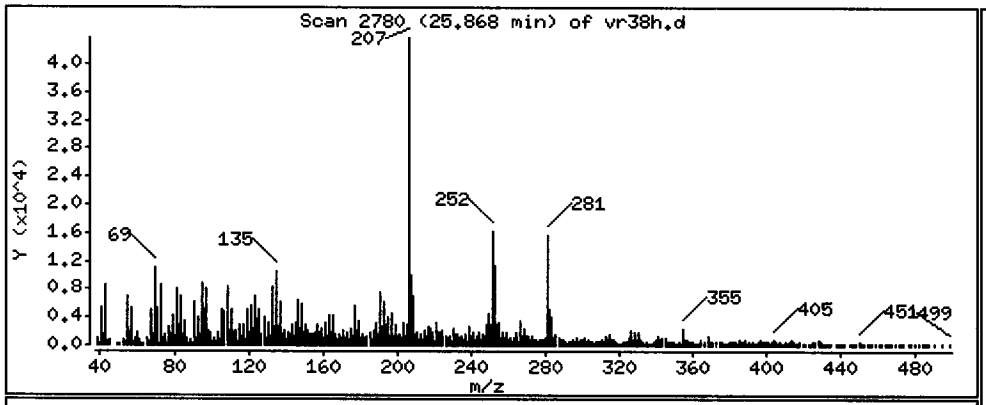
Operator: VTS/YZ

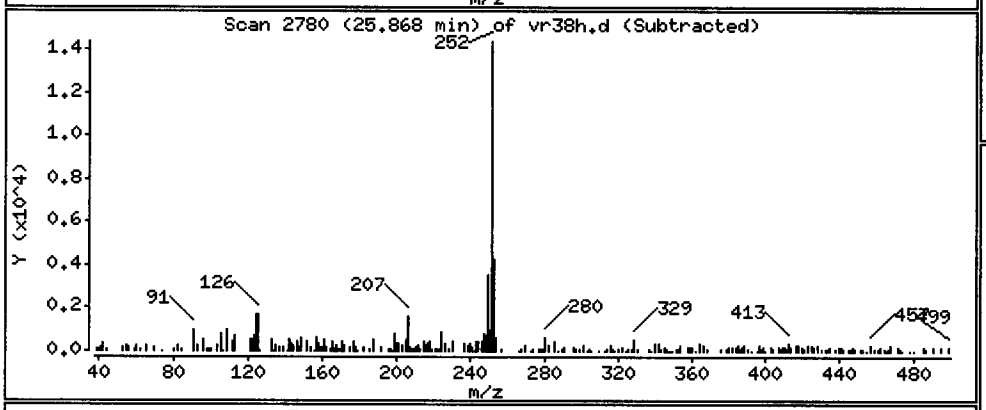
Column phase: ZB-5msi

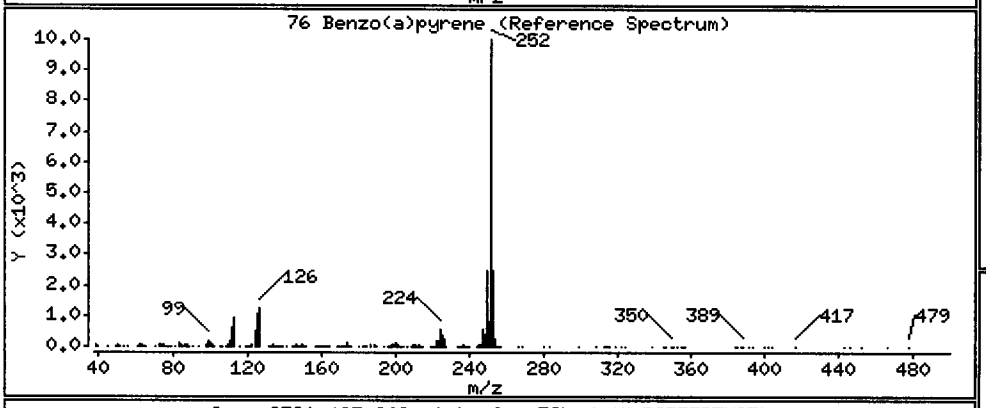
Column diameter: 0.25

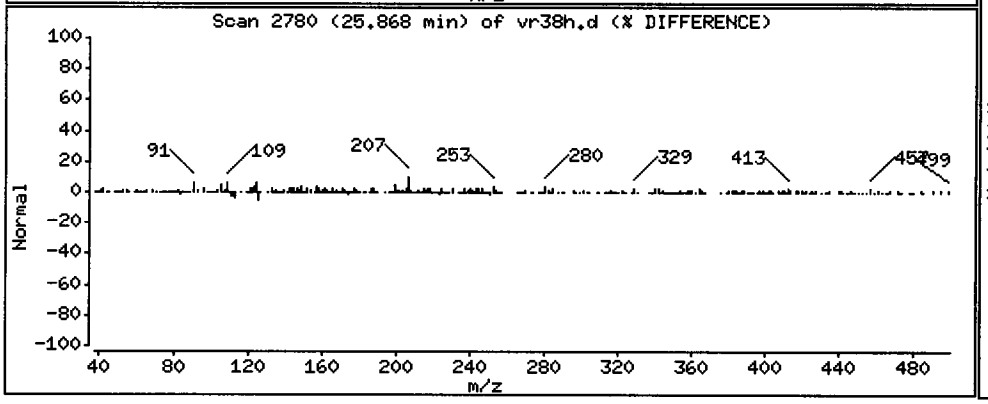
76 Benzo(a)pyrene

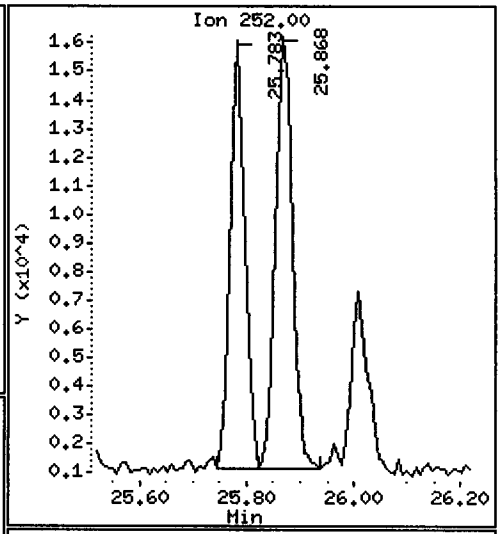
Concentration: 21.30 ug/kg

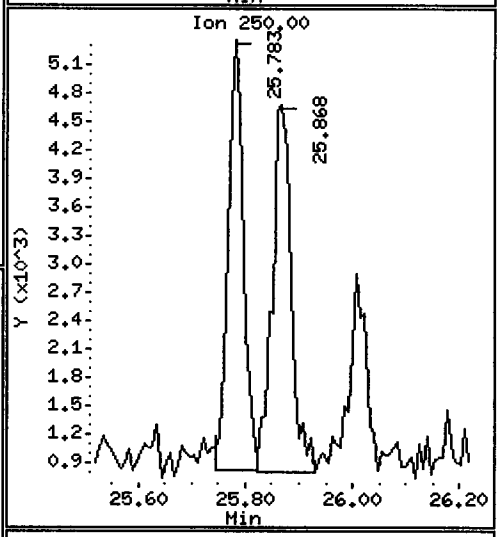


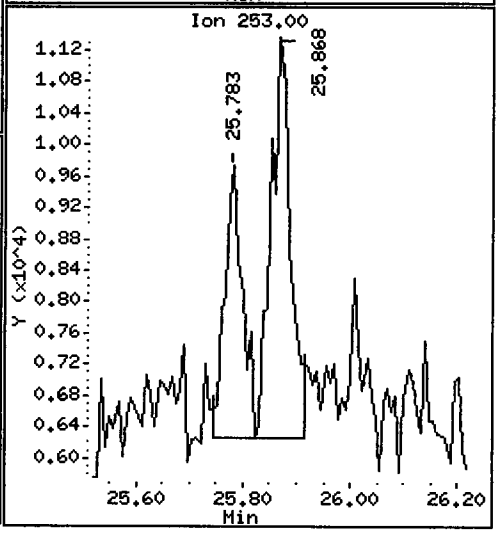












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

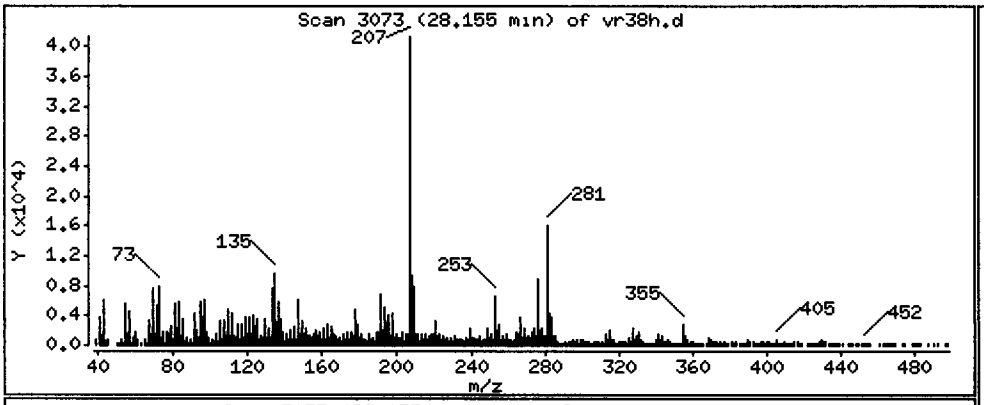
Client ID: HT-10-S-LFP-121106 Instrument: nt10.i

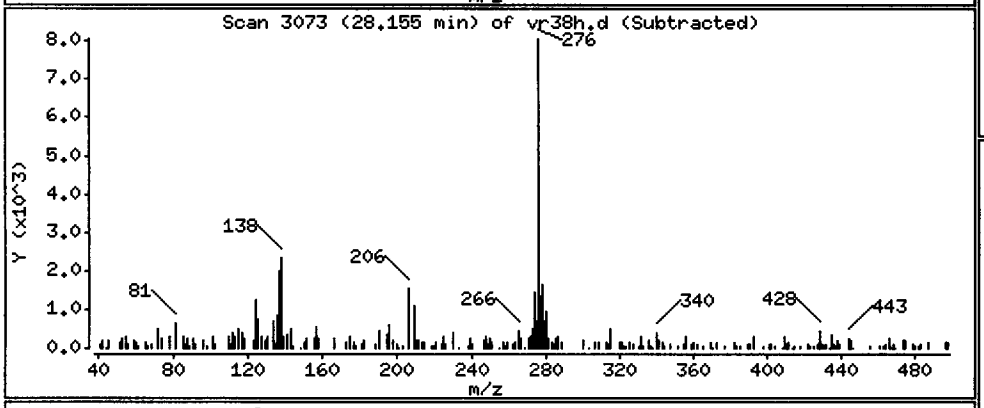
Sample Info: VR38H

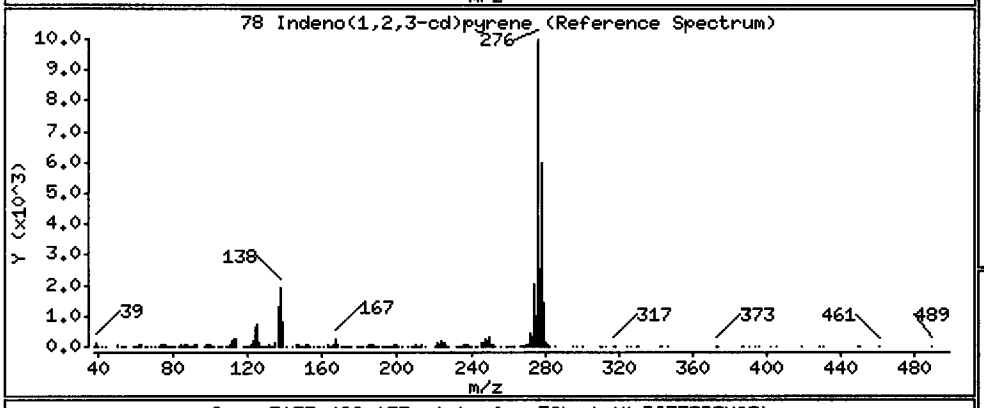
Volume Injected (uL): 1.0 Operator: VTS/YZ

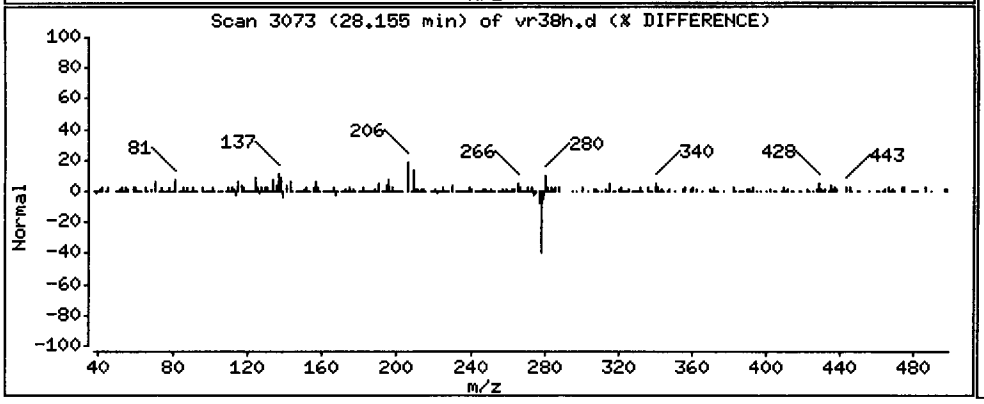
Column phase: ZB-5msi Column diameter: 0.25

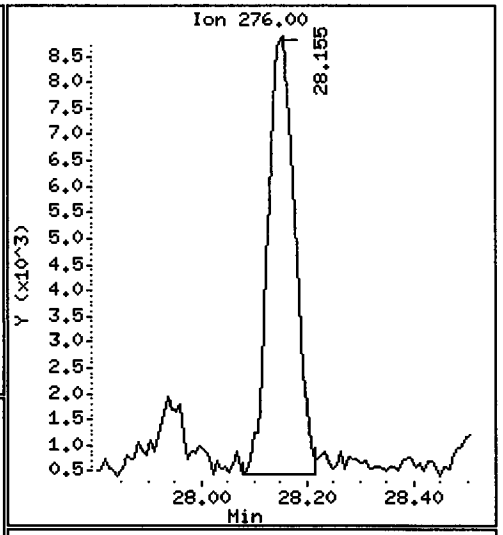
78 Indeno(1,2,3-cd)pyrene Concentration: 15.37 ug/kg

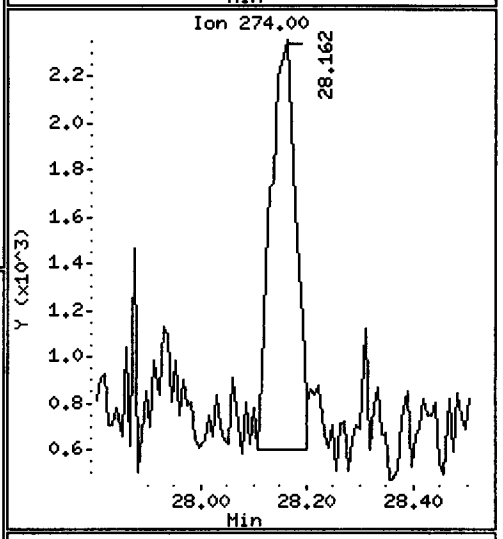


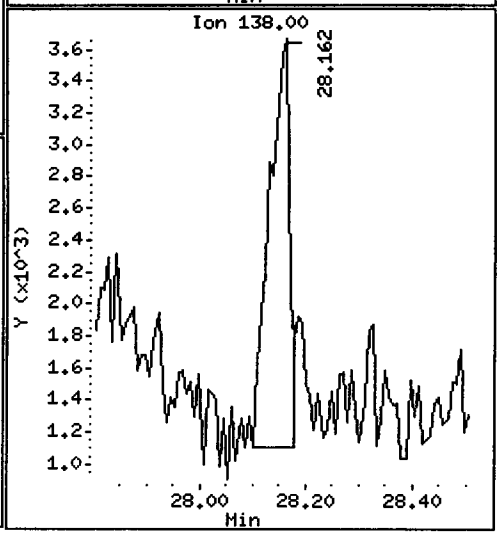












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

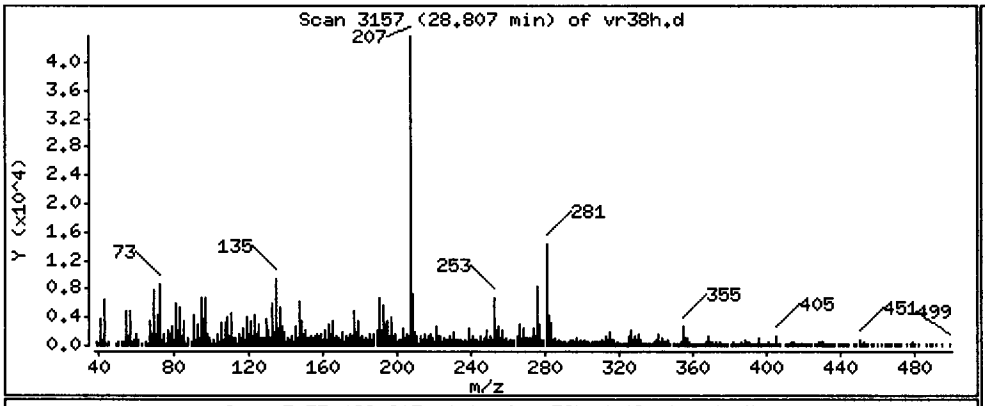
Client ID: HT-10-S-LFP-121106 Instrument: nt10.i

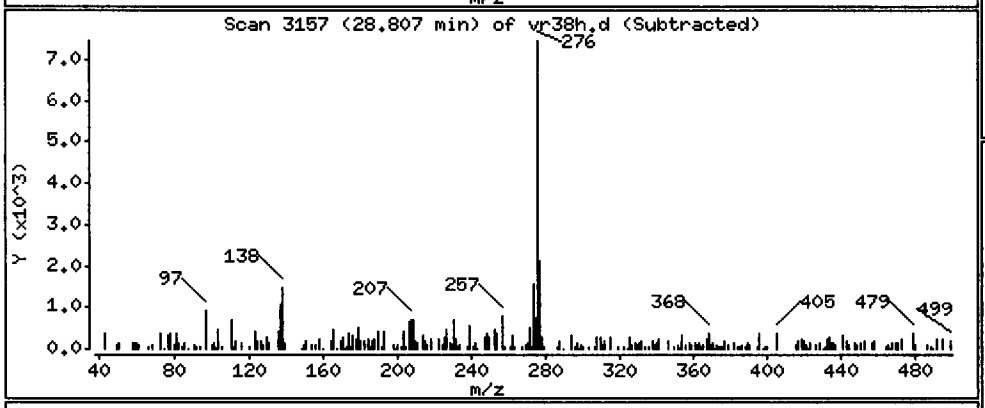
Sample Info: VR38H

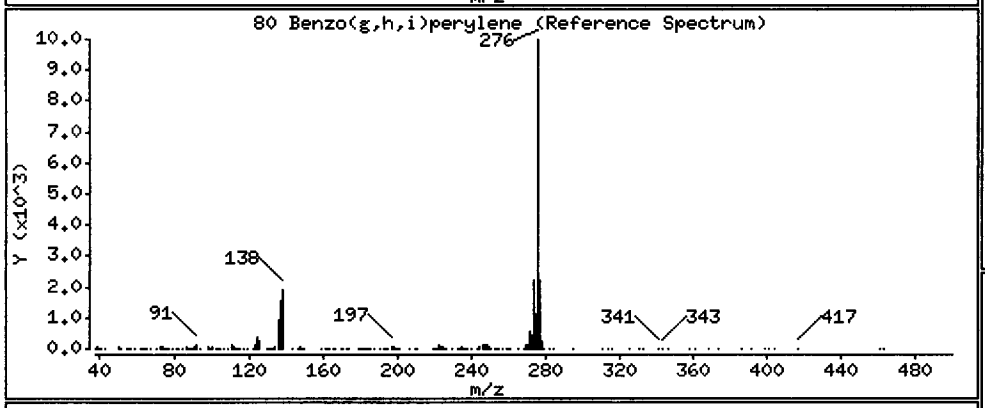
Volume Injected (uL): 1.0 Operator: VTS/YZ

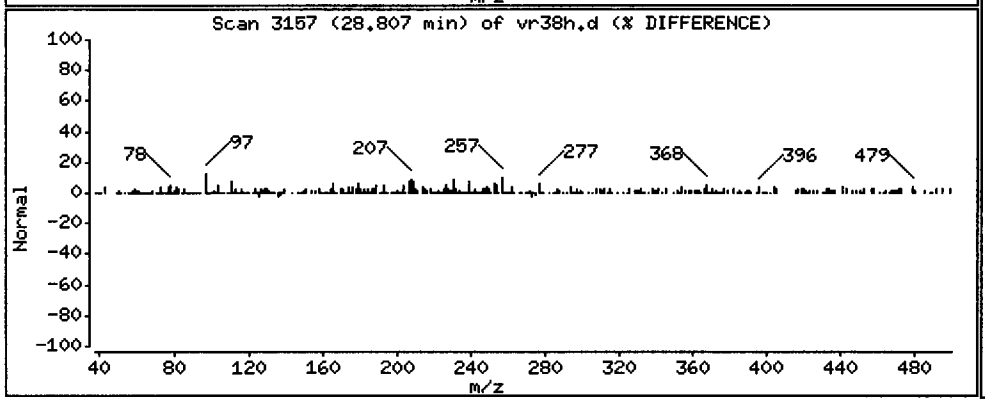
Column phase: ZB-5msi Column diameter: 0.25

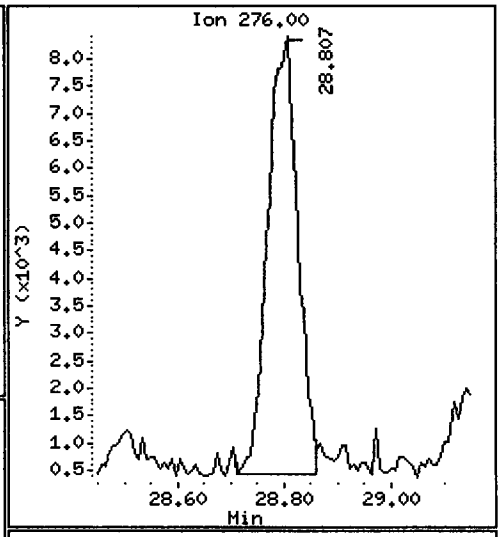
80 Benzo(g,h,i)perylene Concentration: 19.25 ug/kg

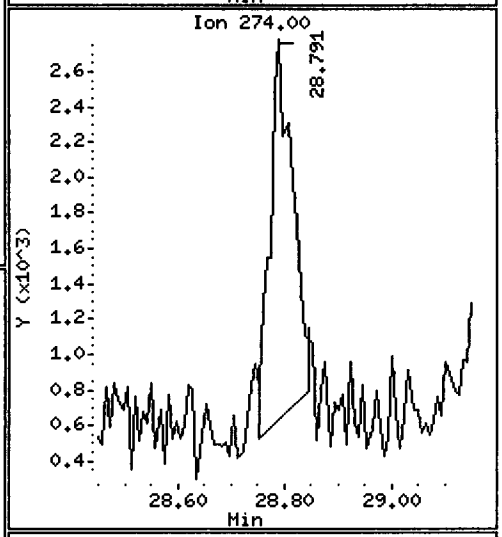


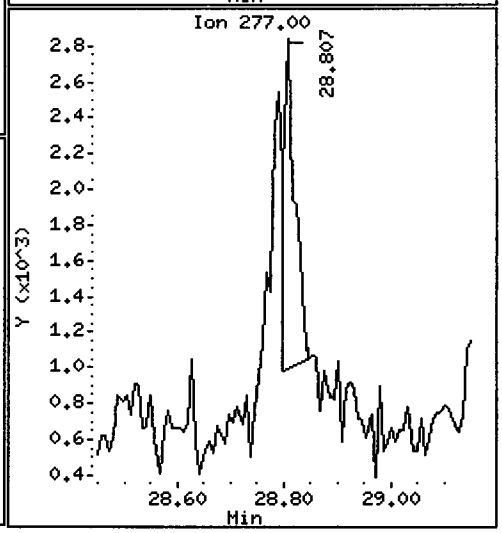












Data File: /chem1/nt10.i/20121119.b/vr38h.d

Date : 19-NOV-2012 19:44

Client ID: HT-10-S-LFP-121106

Instrument: nt10.i

Sample Info: VR38H

Volume Injected (uL): 1.0

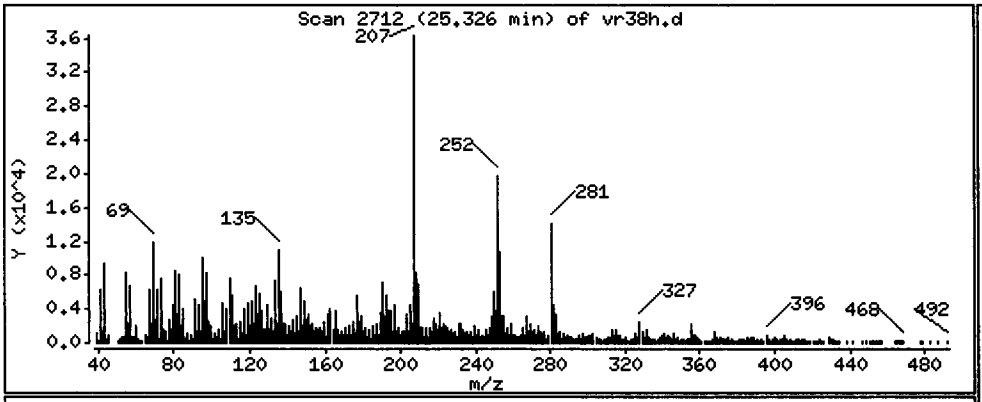
Operator: VTS/YZ

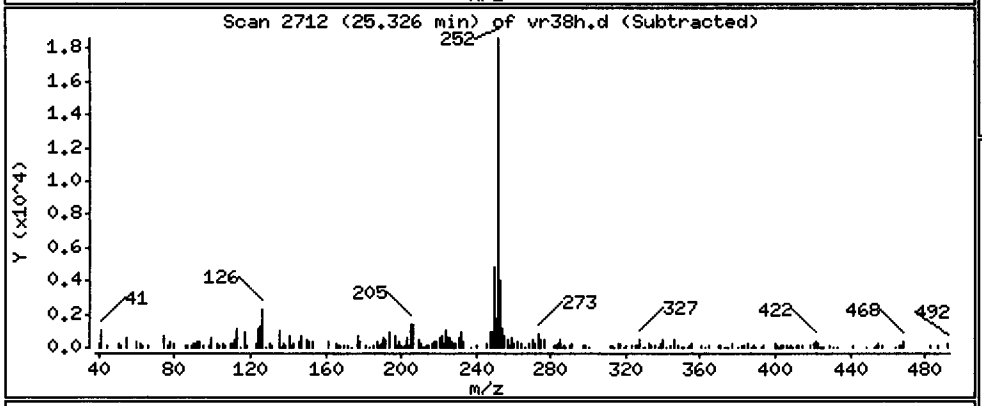
Column phase: ZB-5msi

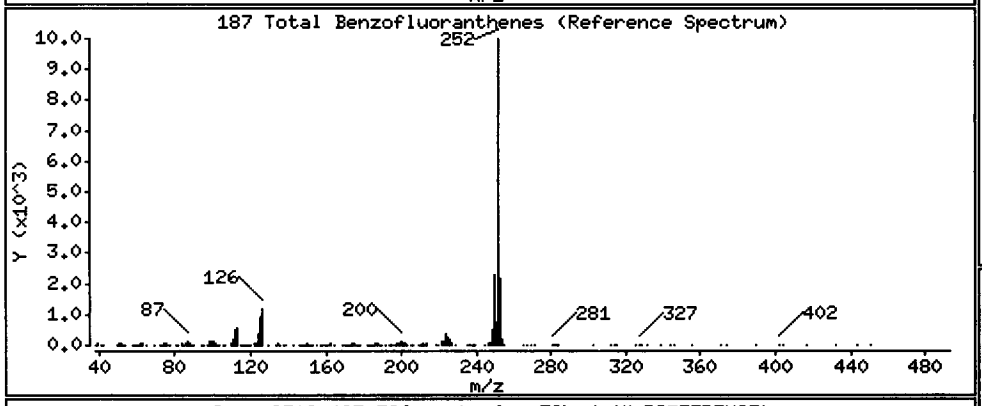
Column diameter: 0.25

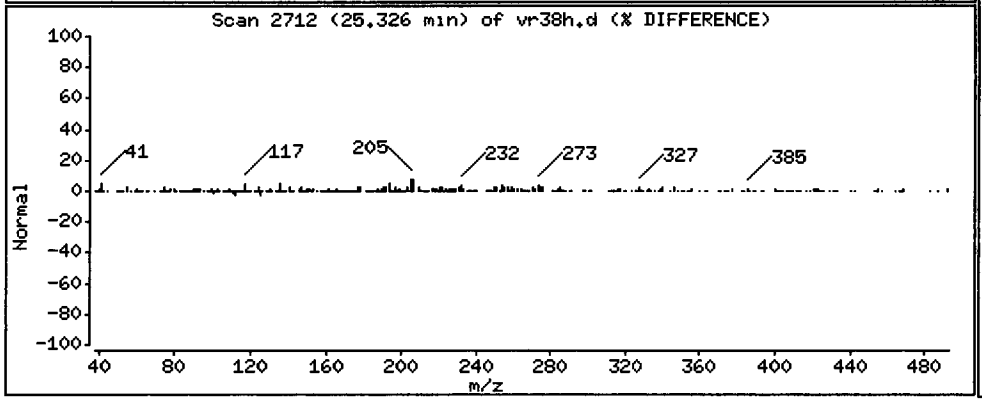
187 Total Benzofluoranthenes

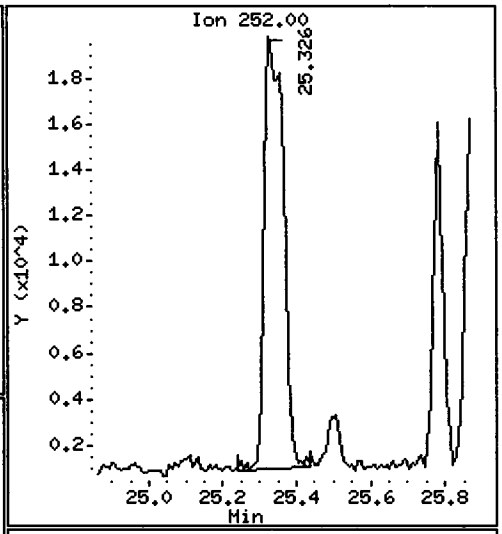
Concentration: 43.71 ug/kg

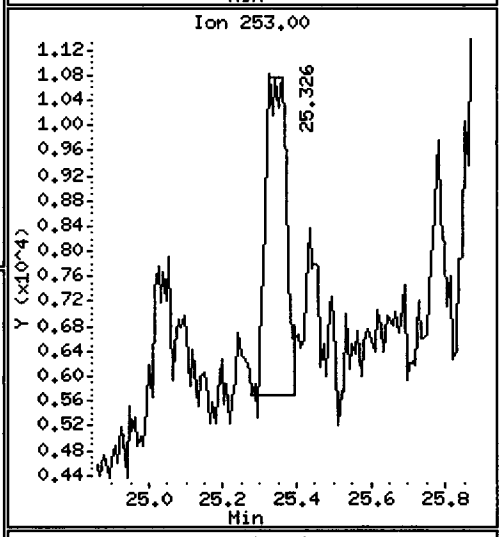


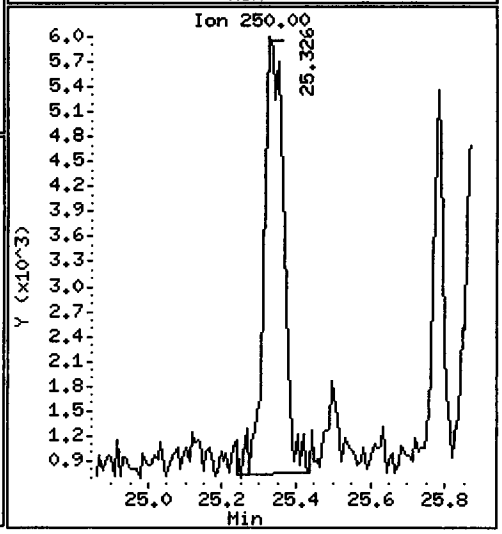












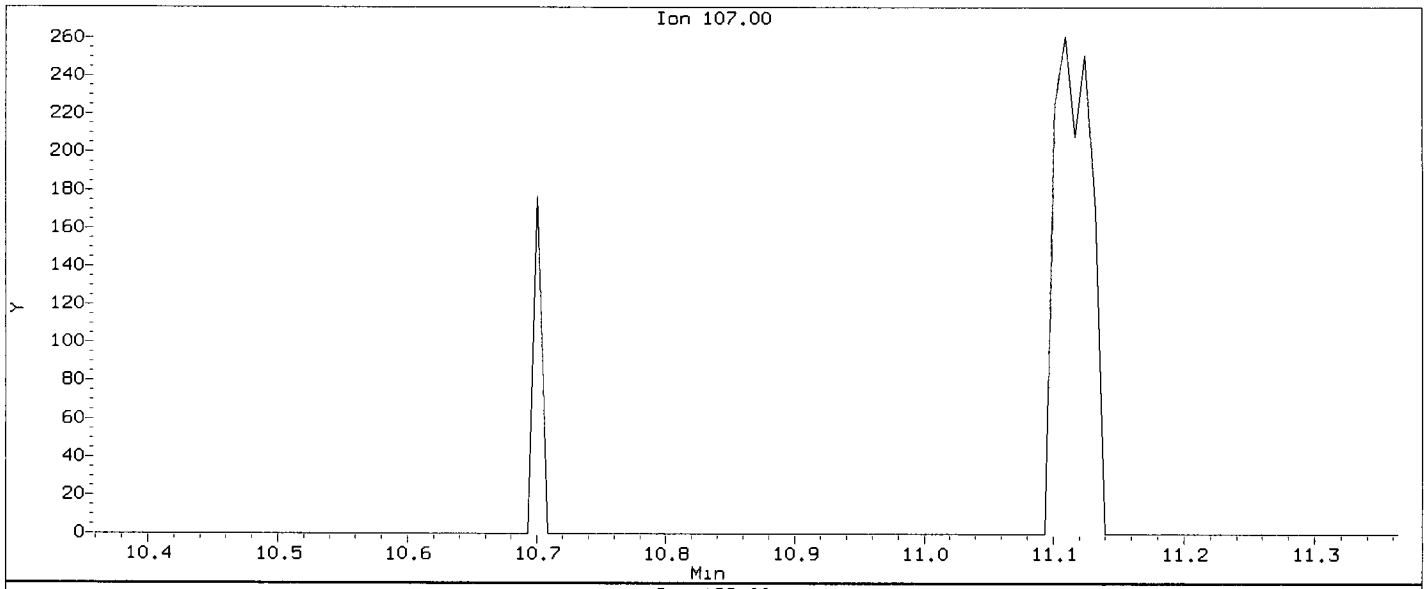
CO-ELUTION SUMMARY FOR FILE - vr38h.d

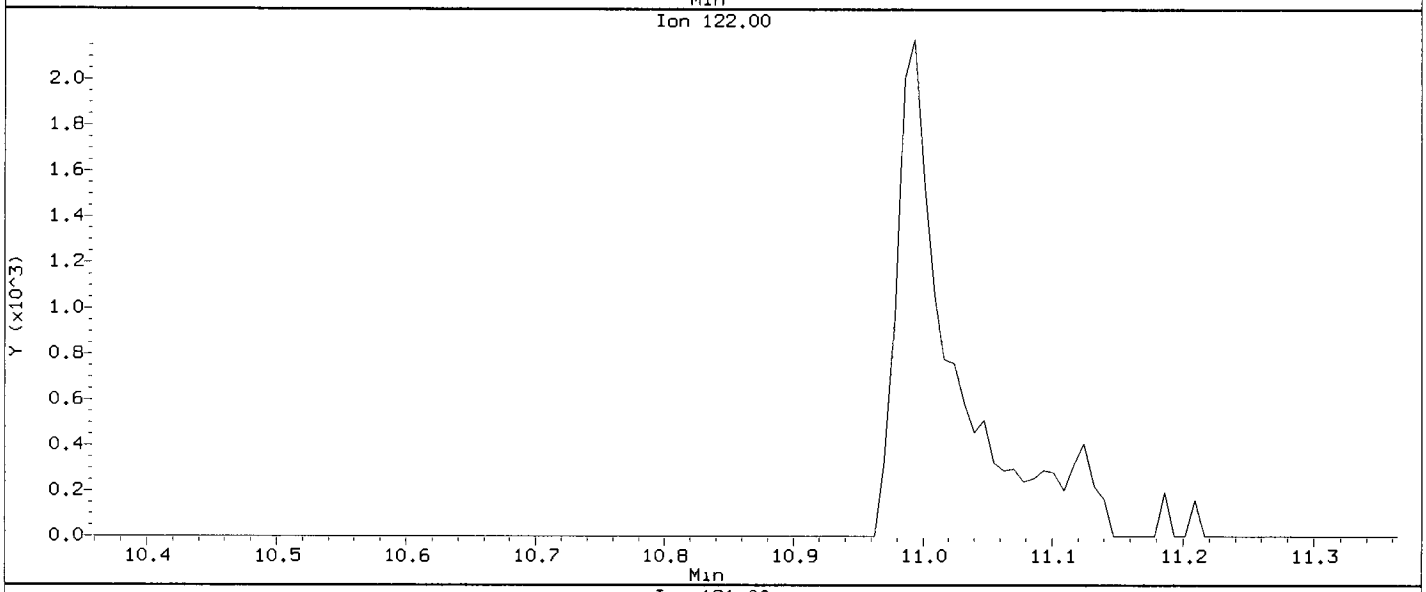
Lab ID: VR38H, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

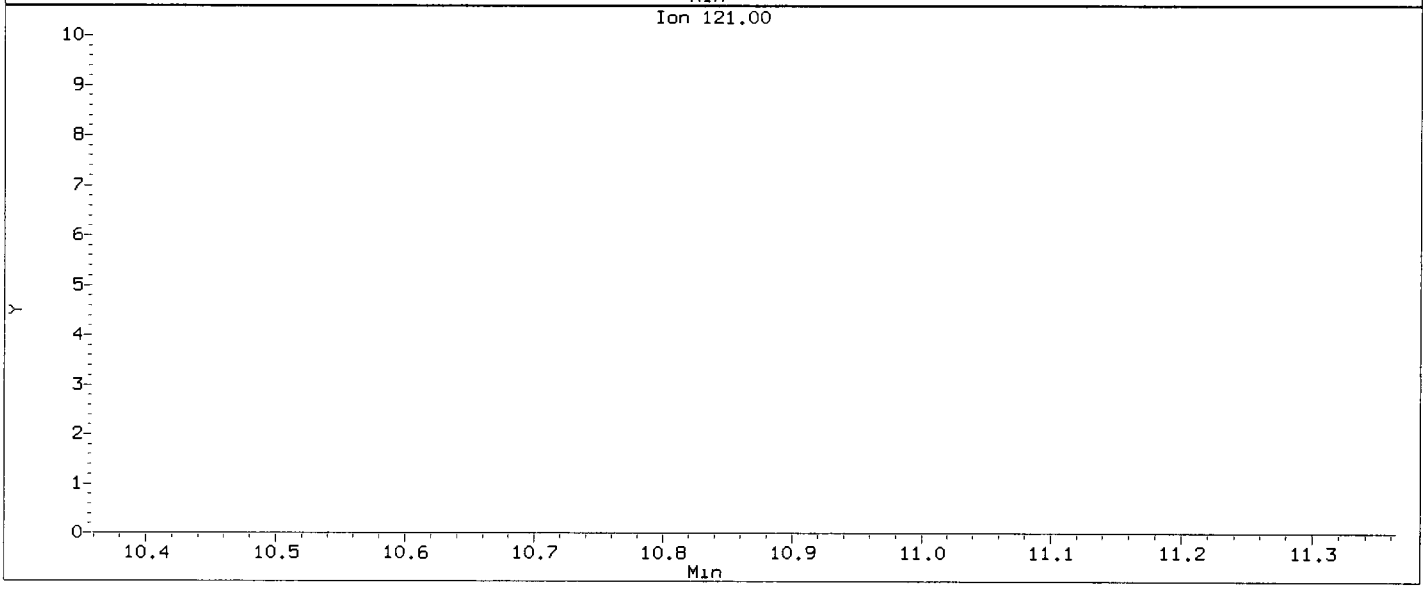
RT	CO-ELUTION COMPOUNDS

Data File: /chem1/nt10.1/20121119.b/vr38h.d
Injection Date: 19-NOV-2012 19:44
Instrument: nt10.1
Client Sample ID: HT-10-S-LFP-121106

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



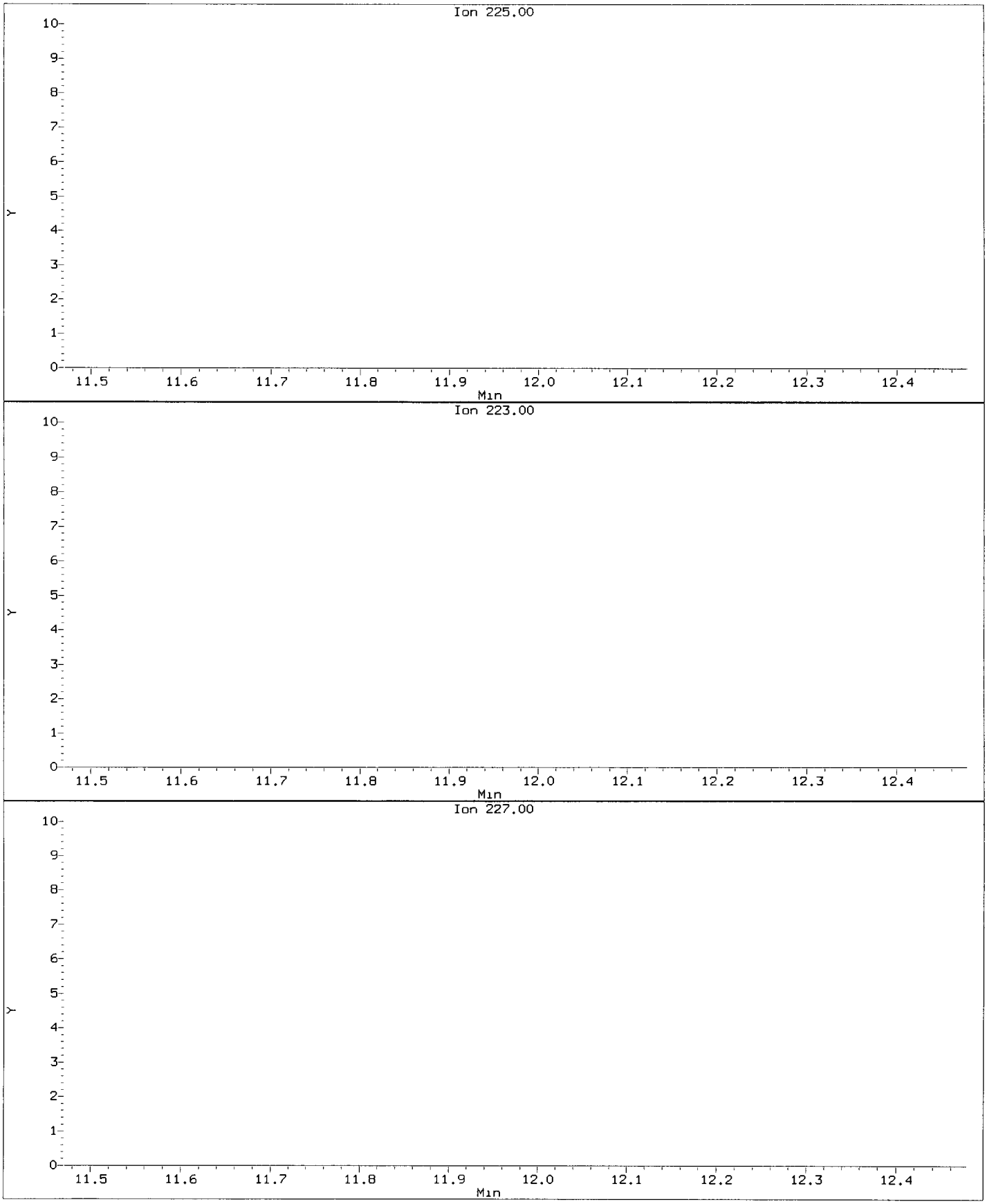




VR38 : 88624

Data File: /chem1/nt10.1/20121119.b/vr38h.d
Injection Date: 19-NOV-2012 19:44
Instrument: nt10.1
Client Sample ID: HT-10-S-LFP-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38i.d
Lab Smp Id: VR38I Client Smp ID: HT-11-S-LFP-121106
Inj Date : 19-NOV-2012 20:21
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38I
Misc Info : 12-22275
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	12.10000	Weight of sample extracted (g)
M	14.70000	% 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	6.620	6.597	(0.743)	160391	5.56280	539.0
$	2 Phenol-d5	99	8.290	8.282	(0.931)	159281	5.43606	526.7
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.537	8.529	(0.958)	205993	5.13419	497.4
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	108845	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.289	9.281	(1.043)	88587	3.23784	313.7
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	74395	3.21177	311.2
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	393621	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.904)	283344	3.54060	343.0
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.387	15.386	(1.000)	225275	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.148	17.140	(1.114)	55524	6.26882	607.4
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.616	18.624	(1.000)	368492	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	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	21.773	21.781	(0.922)	331943	3.59007	347.8
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	23.616	23.616	(1.000)	453213	4.00000	
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	23.724	23.724	(0.961)	18107	0.21944	21.26
*	134 Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	630799	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	25.962	25.969	(1.000)	489636	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.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38i.d
Lab Smp Id: VR38I
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-11-S-LFP-1211
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	97486	48743	194972	108845	11.65
27 Naphthalene-d8	357150	178575	714300	393621	10.21
42 Acenaphthene-d10	217259	108630	434518	225275	3.69
59 Phenanthrene-d10	355415	177708	710830	368492	3.68
69 Chrysene-d12	390458	195229	780916	453213	16.07
134 Di-n-octylphthala	532303	266152	1064606	630799	18.50
77 Perylene-d12	386299	193150	772598	489636	26.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	-0.04
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.96	-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.

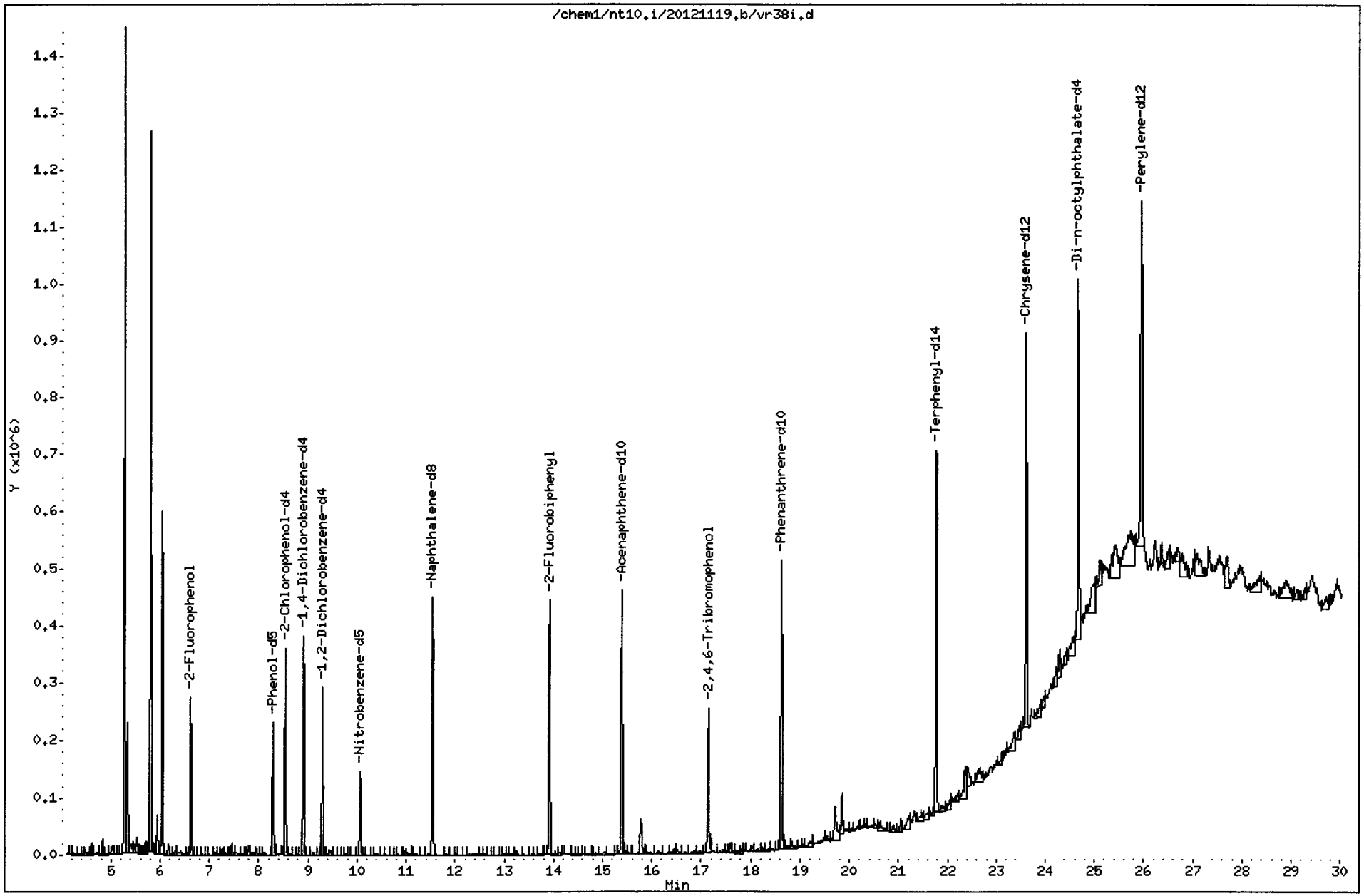
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38I Client Smp ID: HT-11-S-LFP-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	726.7	539.0	74.17	30-160
$ 2 Phenol-d5	726.7	526.7	72.48	30-160
$ 5 2-Chlorophenol-d4	726.7	497.4	68.46	30-160
$ 10 1,2-Dichlorobenzen	484.4	313.7	64.76	30-160
$ 18 Nitrobenzene-d5	484.4	311.2	64.24	30-160
$ 36 2-Fluorobiphenyl	484.4	343.0	70.81	30-160
$ 55 2,4,6-Tribromophen	726.7	607.4	83.58	30-160
$ 66 Terphenyl-d14	484.4	347.8	71.80	30-160

Data File: /chem1/nt10.i/20121119.b/vr38i.d
Date : 19-NOV-2012 20:21
Client ID: HT-11-S-LFP-121106
Sample Info: VR38I
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38i.d

Date : 19-NOV-2012 20:21

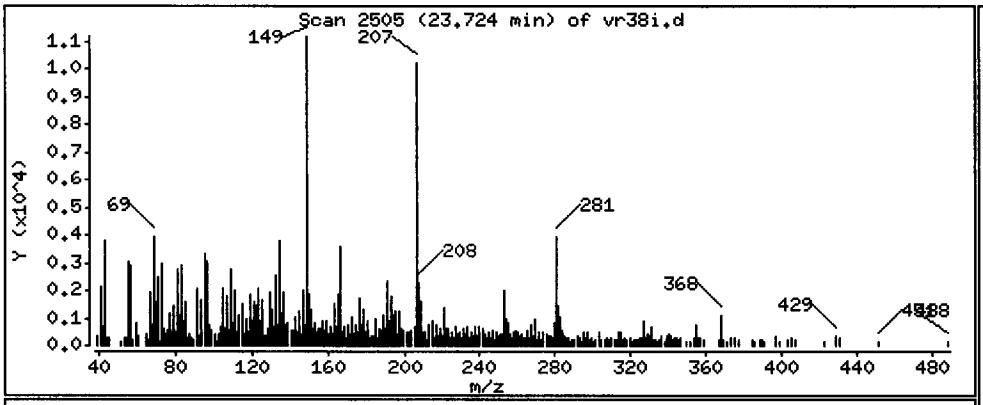
Client ID: HT-11-S-LFP-121106 Instrument: nt10.i

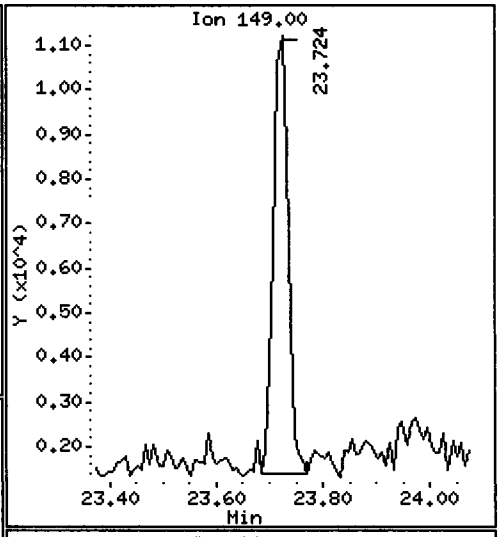
Sample Info: VR38I

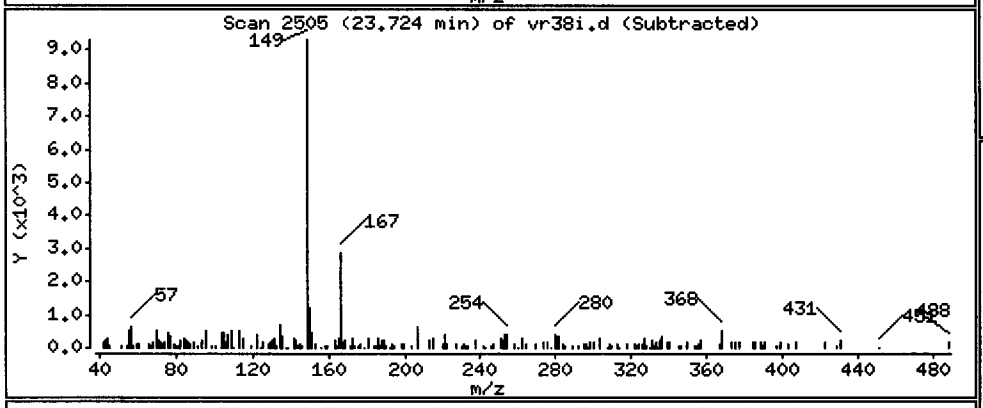
Volume Injected (uL): 1.0 Operator: VTS/YZ

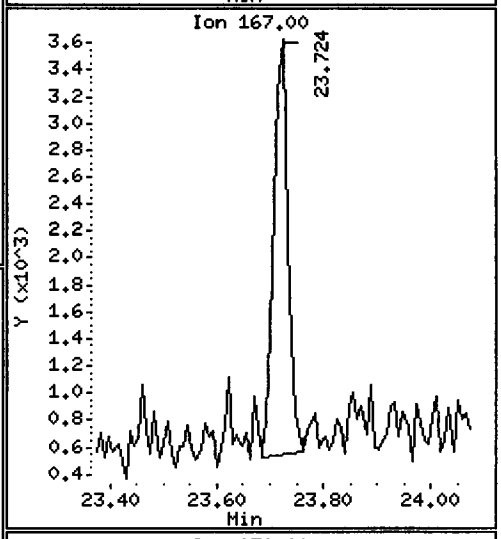
Column phase: ZB-5msi Column diameter: 0.25

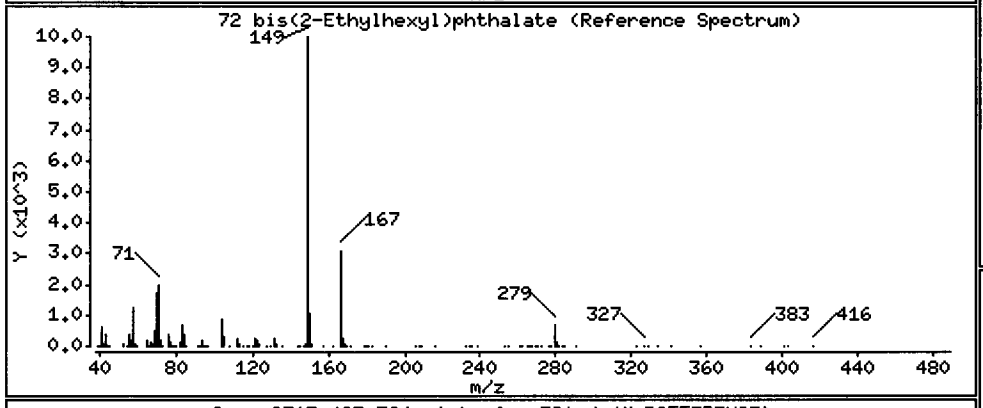
72 bis(2-Ethylhexyl)phthalate Concentration: 21.26 ug/kg

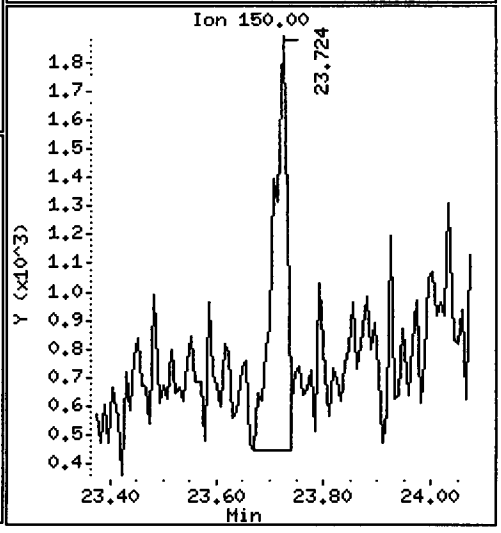


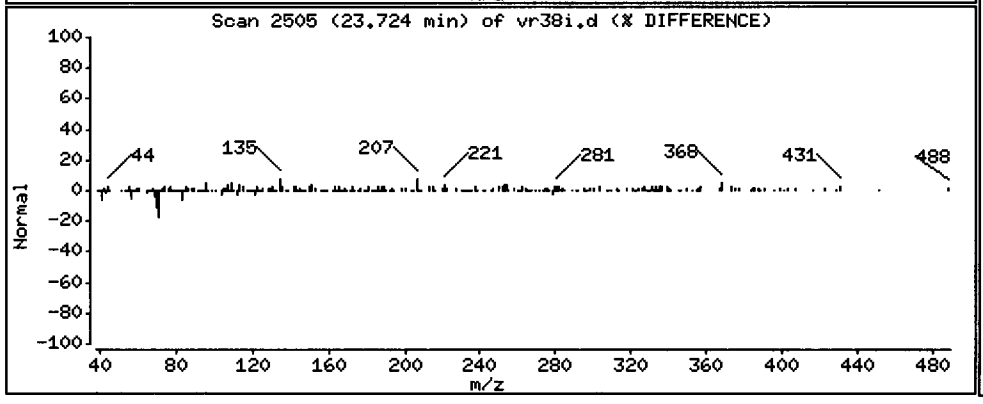












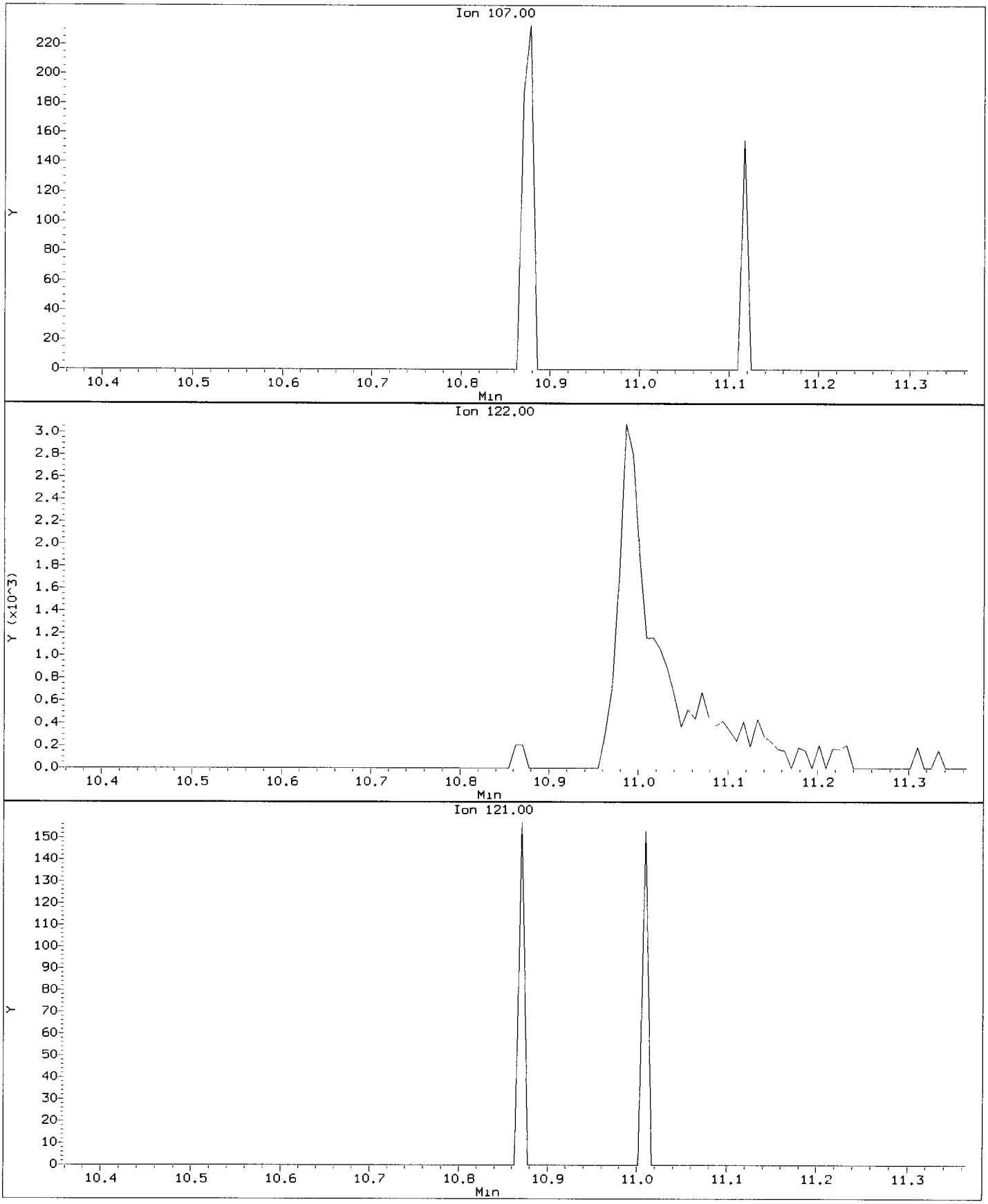
CO-ELUTION SUMMARY FOR FILE - vr38i.d

Lab ID: VR38I, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

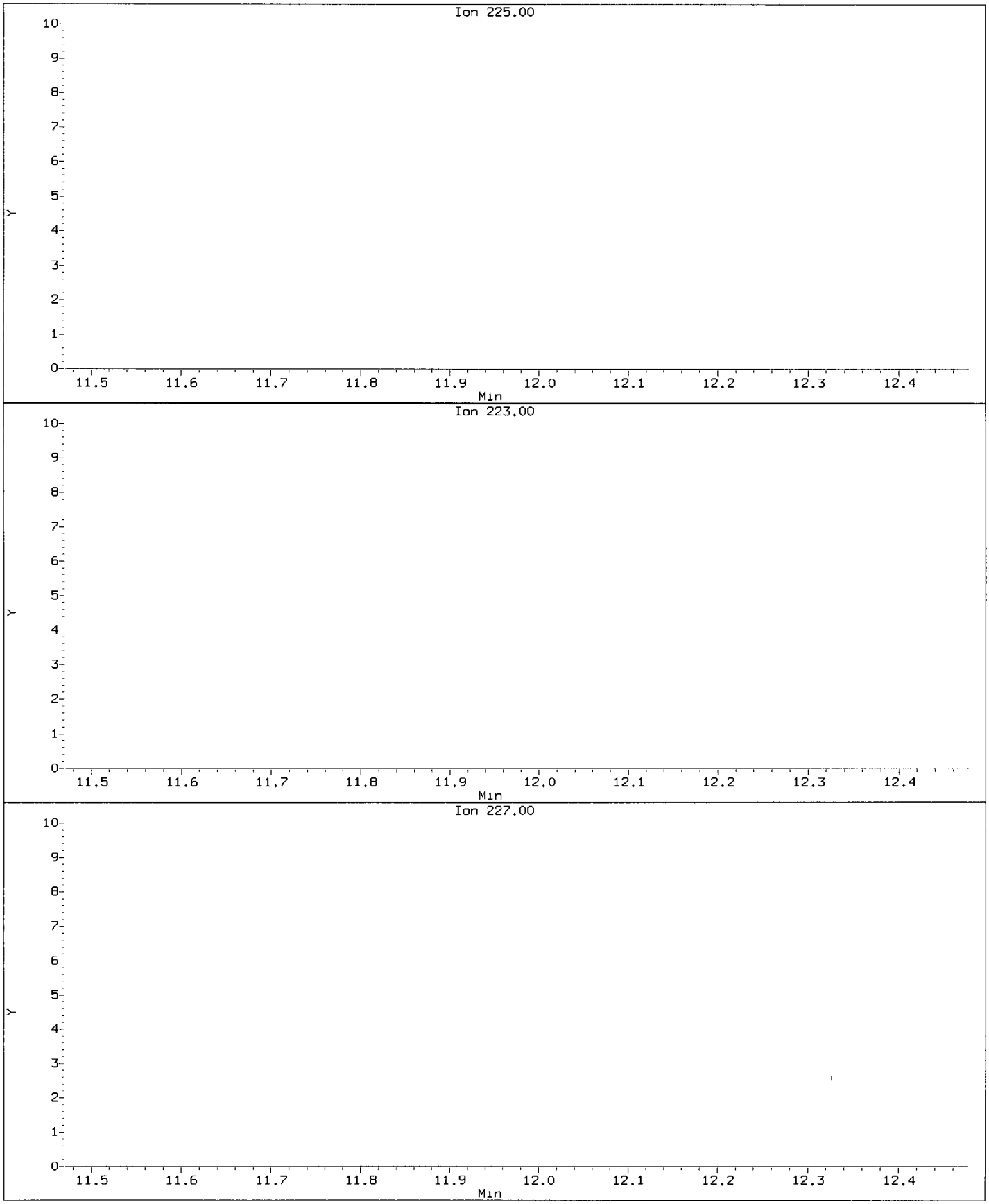
Data File: /chem1/nt10.1/20121119.b/vr381.d
Injection Date: 19-NOV-2012 20:21
Instrument: nt10.1
Client Sample ID: HT-11-S-LFP-121106

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.i/20121119.b/vr381.d
Injection Date: 19-NOV-2012 20:21
Instrument: nt10.i
Client Sample ID: HT-11-S-LFP-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



YZ 11/29/12

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38ims.d
Lab Smp Id: VR38IMS Client Smp ID: HT-11-S-LFP-121 MS
Inj Date : 19-NOV-2012 20:58
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38IMS
Misc Info : 12-22275
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 15:22 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	12.00000	Weight of sample extracted (g)
M	14.70000	% 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	6.620	6.597	(0.743)	161469	5.92742	579.1
$	2 Phenol-d5	99	8.289	8.282	(0.931)	164524	5.94309	580.6
	3 Phenol	94	8.312	8.305	(0.933)	102321	3.47130	339.1
$	5 2-Chlorophenol-d4	132	8.536	8.529	(0.958)	201522	5.31624	519.4
	7 1,3-Dichlorobenzene	146	8.838	8.838	(0.992)	136834	3.44087	336.2
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	102836	4.00000	
	9 1,4-Dichlorobenzene	146	8.939	8.939	(1.003)	131679	3.49276	341.2
$	10 1,2-Dichlorobenzene-d4	152	9.288	9.281	(1.043)	90042	3.48332	340.3
	12 1,2-Dichlorobenzene	146	9.311	9.312	(1.045)	128893	3.44826	336.9
	11 Benzyl alcohol	108	9.218	9.211	(1.035)	59477	3.79407	370.7
	13 2-Methylphenol	108	9.475	9.467	(1.064)	82428	2.86084	279.5
	17 Hexachloroethane	117	9.932	9.933	(1.115)	40212	2.97795	290.9
	15 4-Methylphenol	108	9.777	9.762	(1.098)	178006	6.00578	586.7
$	18 Nitrobenzene-d5	82	10.064	10.065	(0.873)	72579	3.37351	329.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
22	2,4-Dimethylphenol	107	10.870	10.863	(0.942)	261811	8.60042	840.2
24	Benzoic acid	105	11.117	11.132	(0.964)	352718	16.3229	1595
26	1,2,4-Trichlorobenzene	180	11.448	11.448	(0.993)	108376	3.57296	349.1
* 27	Naphthalene-d8	136	11.533	11.533	(1.000)	365601	4.00000	
28	Naphthalene	128	11.579	11.572	(1.004)	328989	3.48426	340.4
30	Hexachlorobutadiene	225	11.981	11.974	(1.039)	60786	3.44775	336.8
32	2-Methylnaphthalene	142	13.064	13.065	(1.133)	228843	3.68516	360.0
$ 36	2-Fluorobiphenyl	172	13.916	13.916	(0.904)	282350	3.73929	365.3
39	Dimethylphthalate	163	14.906	14.907	(0.969)	267705	4.26277	416.4
40	Acenaphthylene	152	15.046	15.046	(0.978)	367555	3.60612	352.3
* 42	Acenaphthene-d10	164	15.386	15.386	(1.000)	212557	4.00000	
44	Acenaphthene	153	15.456	15.456	(1.005)	218526	3.57453	349.2
46	Dibenzofuran	168	15.811	15.804	(1.028)	313381	3.93240	384.2
50	Diethylphthalate	149	16.468	16.477	(1.070)	256812	4.24967	415.2
49	Fluorene	166	16.569	16.569	(1.077)	258668	3.68337	359.8
54	N-Nitrosodiphenylamine	169	16.855	16.855	(0.905)	179541	4.27740	417.9
$ 55	2,4,6-Tribromophenol	330	17.148	17.140	(1.114)	53927	6.45281	630.4
57	Hexachlorobenzene	284	17.966	17.966	(0.965)	73049	4.02733	393.4
58	Pentachlorophenol	266	18.361	18.369	(0.986)	154183	9.75481	953.0
* 59	Phenanthrene-d10	188	18.624	18.624	(1.000)	346314	4.00000	
60	Phenanthrene	178	18.670	18.670	(1.002)	369460	4.00940	391.7
61	Anthracene	178	18.763	18.763	(1.007)	376847	3.74344	365.7
63	Di-n-butylphthalate	149	19.962	19.970	(1.072)	481345	4.38313	428.2
64	Fluoranthene	202	21.053	21.053	(1.130)	476895	4.08767	399.3
65	Pyrene	202	21.463	21.463	(0.909)	494140	3.47520	339.5
$ 66	Terphenyl-d14	244	21.773	21.781	(0.922)	338332	3.77258	368.6
67	Butylbenzylphthalate	149	22.702	22.710	(0.961)	219822	3.98553	389.4
68	Benzo(a)anthracene	228	23.592	23.592	(0.999)	509641	3.76322	367.6
* 69	Chrysene-d12	240	23.615	23.616	(1.000)	439589	4.00000	
71	Chrysene	228	23.662	23.662	(1.002)	455692	3.84371	375.5
72	bis(2-Ethylhexyl)phthalate	149	23.716	23.724	(0.961)	325475	3.93157	384.1
* 134	Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	632853	4.00000	
73	Di-n-octylphthalate	149	24.684	24.692	(1.000)	573315	3.76209	367.5
76	Benzo(a)pyrene	252	25.868	25.869	(0.996)	488605	3.67261	358.8
* 77	Perylene-d12	264	25.961	25.969	(1.000)	480563	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.147	28.155	(1.084)	632694	3.71986	363.4
79	Dibenzo(a,h)anthracene	278	28.170	28.170	(1.085)	533081	3.90985	382.0
80	Benzo(g,h,i)perylene	276	28.799	28.799	(1.109)	569141	3.99645	390.4
105	1-methylnaphthalene	142	13.304	13.297	(1.154)	219776	3.74974	366.3
187	Total Benzofluoranthenes	252	25.357	25.365	(0.977)	1082341	7.60774	743.2
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38ims.d
Lab Smp Id: VR38IMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-11-S-LFP-121
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	97486	48743	194972	102836	5.49
27 Naphthalene-d8	357150	178575	714300	365601	2.37
42 Acenaphthene-d10	217259	108630	434518	212557	-2.16
59 Phenanthrene-d10	355415	177708	710830	346314	-2.56
69 Chrysene-d12	390458	195229	780916	439589	12.58
134 Di-n-octylphthala	532303	266152	1064606	632853	18.89
77 Perylene-d12	386299	193150	772598	480563	24.40

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	0.00
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.96	-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: VR38IMS
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

Client SDG: VR38
Fraction: SV
Client Smp ID: HT-11-S-LFP-121 MS
Operator: VTS/YZ
SampleType: MS
Quant Type: ISTD

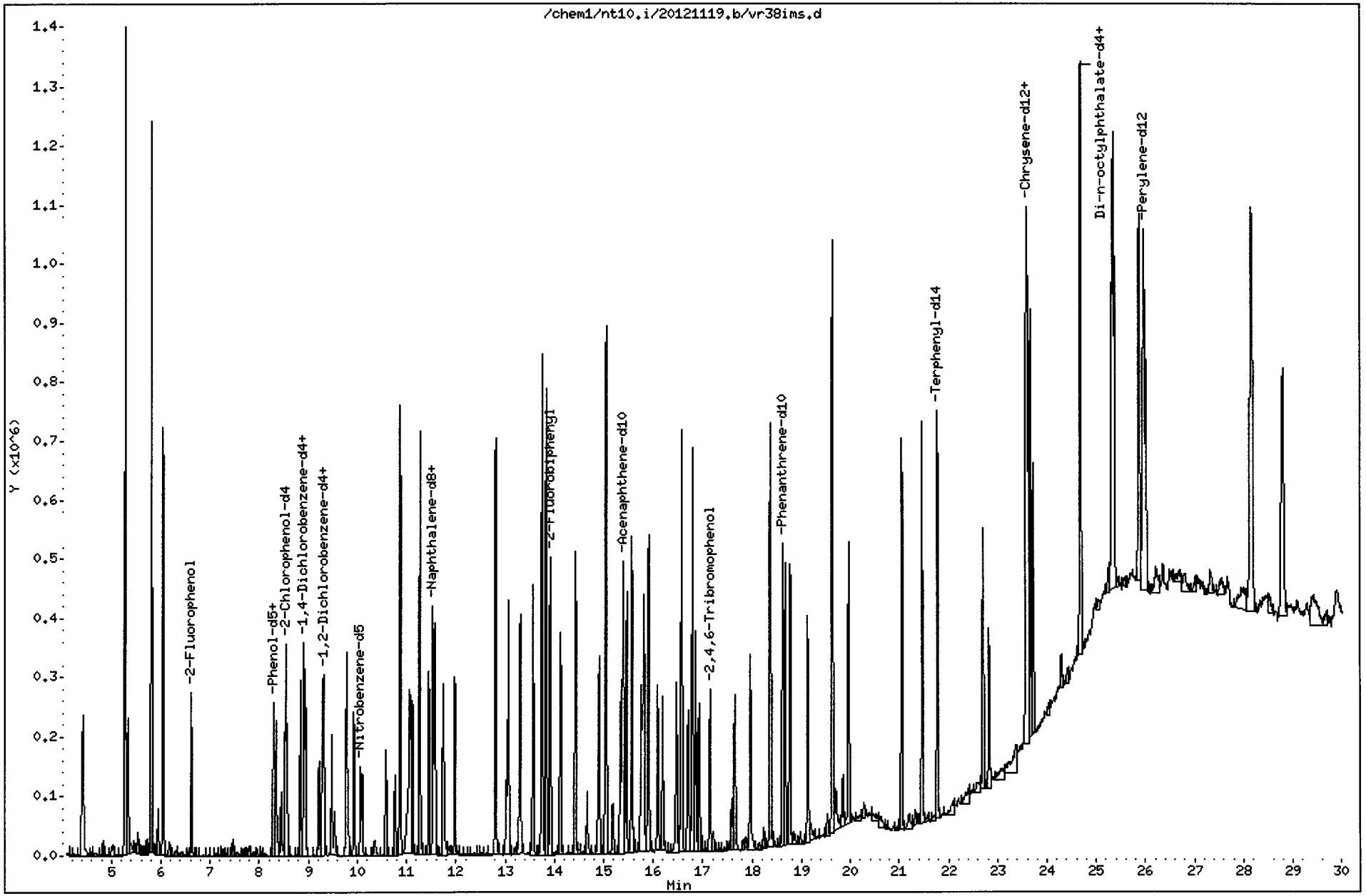
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	488.5	339.1	69.43	30-160
7	1,3-Dichlorobenzen	488.5	336.2	68.82	30-160
9	1,4-Dichlorobenzen	488.5	341.2	69.86	30-160
11	Benzyl alcohol	488.5	370.7	75.88	30-160
12	1,2-Dichlorobenzen	488.5	336.9	68.97	30-160
13	2-Methylphenol	488.5	279.5	57.22	30-160
15	4-Methylphenol	976.9	586.7	60.06	30-160
17	Hexachloroethane	488.5	290.9	59.56	30-160
22	2,4-Dimethylphenol	1465	840.2	57.34	30-160
24	Benzoic acid	2687	1595	59.36	30-160
26	1,2,4-Trichloroben	488.5	349.1	71.46	30-160
28	Naphthalene	488.5	340.4	69.69	30-160
30	Hexachlorobutadien	488.5	336.8	68.96	30-160
32	2-Methylnaphthalen	488.5	360.0	73.70	30-160
39	Dimethylphthalate	488.5	416.4	85.26	30-160
40	Acenaphthylene	488.5	352.3	72.12	30-160
44	Acenaphthene	488.5	349.2	71.49	30-160
46	Dibenzofuran	488.5	384.2	78.65	30-160
49	Fluorene	488.5	359.8	73.67	30-160
50	Diethylphthalate	488.5	415.2	84.99	30-160
54	N-Nitrosodiphenyla	488.5	417.9	85.55	30-160
57	Hexachlorobenzene	488.5	393.4	80.55	30-160
58	Pentachlorophenol	1465	953.0	65.03	30-160
60	Phenanthrene	488.5	391.7	80.19	30-160
61	Anthracene	488.5	365.7	74.87	30-160
63	Di-n-butylphthalat	488.5	428.2	87.66	30-160
64	Fluoranthene	488.5	399.3	81.75	30-160
65	Pyrene	488.5	339.5	69.50	30-160
67	Butylbenzylphthala	488.5	389.4	79.71	30-160
68	Benzo(a)anthracene	488.5	367.6	75.26	30-160
71	Chrysene	488.5	375.5	76.87	30-160
72	bis(2-Ethylhexyl)p	488.5	384.1	78.63	30-160
73	Di-n-octylphthalat	488.5	367.5	75.24	30-160

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	488.5	358.8	73.45	30-160
78 Indeno(1,2,3-cd)py	488.5	363.4	74.40	30-160
79 Dibenzo(a,h)anthra	488.5	382.0	78.20	30-160
80 Benzo(g,h,i)peryle	488.5	390.4	79.93	30-160
105 1-methylnaphthalen	488.5	366.3	74.99	30-160
187 Total Benzofluoran	976.9	743.2	76.08	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	732.7	579.1	79.03	30-160
$ 2 Phenol-d5	732.7	580.6	79.24	30-160
$ 5 2-Chlorophenol-d4	732.7	519.4	70.88	30-160
$ 10 1,2-Dichlorobenzen	488.5	340.3	69.67	30-160
$ 18 Nitrobenzene-d5	488.5	329.6	67.47	30-160
$ 36 2-Fluorobiphenyl	488.5	365.3	74.79	30-160
$ 55 2,4,6-Tribromophen	732.7	630.4	86.04	30-160
$ 66 Terphenyl-d14	488.5	368.6	75.45	30-160

Data File: /chem1/nt10.i/20121119.b/vr38ims.d
Date : 19-NOV-2012 20:58
Client ID: HT-11-S-LFP-121 MS
Sample Info: VR38IMS
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - vr38ims.d

Lab ID: VR38IMS, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

YZ 11/20/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38imsd.d
Lab Smp Id: VR38IMSD Client Smp ID: HT-11-S-LFP-121 MSD
Inj Date : 19-NOV-2012 21:35
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38IMSD
Misc Info : 12-22275
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 15:22 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	12.00000	Weight of sample extracted (g)
M	14.70000	% 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	6.620	6.597	(0.743)	153376	5.61504	548.6
$	2 Phenol-d5	99	8.290	8.282	(0.931)	151413	5.45463	532.9
	3 Phenol	94	8.313	8.305	(0.933)	100297	3.39339	331.5
$	5 2-Chlorophenol-d4	132	8.537	8.529	(0.958)	191228	5.03099	491.5
	7 1,3-Dichlorobenzene	146	8.838	8.838	(0.992)	134110	3.36321	328.6
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	103116	4.00000	
	9 1,4-Dichlorobenzene	146	8.939	8.939	(1.003)	131378	3.47532	339.5
$	10 1,2-Dichlorobenzene-d4	152	9.289	9.281	(1.043)	85990	3.31753	324.1
	12 1,2-Dichlorobenzene	146	9.312	9.312	(1.045)	128700	3.43375	335.5
	11 Benzyl alcohol	108	9.219	9.211	(1.035)	57879	3.68211	359.7
	13 2-Methylphenol	108	9.475	9.467	(1.064)	80388	2.78246	271.8
	17 Hexachloroethane	117	9.933	9.933	(1.115)	40571	2.99638	292.7
	15 4-Methylphenol	108	9.778	9.762	(1.098)	174113	5.85848	572.3
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	68216	3.15418	308.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
22	2,4-Dimethylphenol	107	10.870	10.863	(0.942)	253587	8.28681	809.6
24	Benzoic acid	105	11.117	11.132	(0.964)	338051	15.5626	1520
26	1,2,4-Trichlorobenzene	180	11.448	11.448	(0.993)	108479	3.55770	347.6
* 27	Naphthalene-d8	136	11.533	11.533	(1.000)	367518	4.00000	
28	Naphthalene	128	11.572	11.572	(1.003)	321620	3.38844	331.0
30	Hexachlorobutadiene	225	11.974	11.974	(1.038)	61527	3.47158	339.2
32	2-Methylnaphthalene	142	13.065	13.065	(1.133)	224533	3.59690	351.4
$ 36	2-Fluorobiphenyl	172	13.916	13.916	(0.904)	269146	3.63667	355.3
39	Dimethylphthalate	163	14.899	14.907	(0.968)	257492	4.18325	408.7
40	Acenaphthylene	152	15.046	15.046	(0.978)	353445	3.53798	345.6
* 42	Acenaphthene-d10	164	15.386	15.386	(1.000)	208334	4.00000	
44	Acenaphthene	153	15.456	15.456	(1.005)	216950	3.62069	353.7
46	Dibenzofuran	168	15.812	15.804	(1.028)	302675	3.87505	378.6
50	Diethylphthalate	149	16.469	16.477	(1.070)	248242	4.19112	409.4
49	Fluorene	166	16.569	16.569	(1.077)	282832	4.10909	401.4
54	N-Nitrosodiphenylamine	169	16.855	16.855	(0.905)	171641	4.18362	408.7
$ 55	2,4,6-Tribromophenol	330	17.148	17.140	(1.114)	49156	6.00115	586.3
57	Hexachlorobenzene	284	17.966	17.966	(0.965)	73881	4.16726	407.1
58	Pentachlorophenol	266	18.369	18.369	(0.986)	151700	9.81936	959.3
* 59	Phenanthrene-d10	188	18.624	18.624	(1.000)	338497	4.00000	
60	Phenanthrene	178	18.670	18.670	(1.002)	360994	4.00800	391.6
61	Anthracene	178	18.771	18.763	(1.008)	358416	3.64257	355.9
63	Di-n-butylphthalate	149	19.970	19.970	(1.072)	459039	4.27654	417.8
64	Fluoranthene	202	21.053	21.053	(1.130)	469832	4.12013	402.5
65	Pyrene	202	21.463	21.463	(0.909)	485235	3.40786	332.9
$ 66	Terphenyl-d14	244	21.781	21.781	(0.922)	313439	3.49018	341.0
67	Butylbenzylphthalate	149	22.702	22.710	(0.961)	211855	3.83577	374.7
68	Benzo(a)anthracene	228	23.592	23.592	(0.999)	501463	3.69771	361.2
* 69	Chrysene-d12	240	23.616	23.616	(1.000)	440197	4.00000	
71	Chrysene	228	23.662	23.662	(1.002)	444983	3.74820	366.2
72	bis(2-Ethylhexyl)phthalate	149	23.716	23.724	(0.961)	305078	3.64622	356.2
* 134	Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	639617	4.00000	
73	Di-n-octylphthalate	149	24.684	24.692	(1.000)	524927	3.40814	333.0
76	Benzo(a)pyrene	252	25.869	25.869	(0.996)	486036	3.58091	349.8
* 77	Perylene-d12	264	25.969	25.969	(1.000)	490278	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.155	28.155	(1.084)	623197	3.59142	350.9
79	Dibenzo(a,h)anthracene	278	28.170	28.170	(1.085)	528075	3.79638	370.9
80	Benzo(g,h,i)perylene	276	28.799	28.799	(1.109)	609233	4.19320	409.7
105	1-methylnaphthalene	142	13.297	13.297	(1.153)	218586	3.70998	362.4
187	Total Benzofluoranthenes	252	25.327	25.365	(0.975)	1087982	7.49585	732.3
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38imsd.d
Lab Smp Id: VR38IMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-11-S-LFP-121
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	97486	48743	194972	103116	5.78
27 Naphthalene-d8	357150	178575	714300	367518	2.90
42 Acenaphthene-d10	217259	108630	434518	208334	-4.11
59 Phenanthrene-d10	355415	177708	710830	338497	-4.76
69 Chrysene-d12	390458	195229	780916	440197	12.74
134 Di-n-octylphthala	532303	266152	1064606	639617	20.16
77 Perylene-d12	386299	193150	772598	490278	26.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	0.00
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.97	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: VR38IMSD
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22275

Client SDG: VR38
Fraction: SV
Client Smp ID: HT-11-S-LFP-121 MSD
Operator: VTS/YZ
SampleType: MSD
Quant Type: ISTD

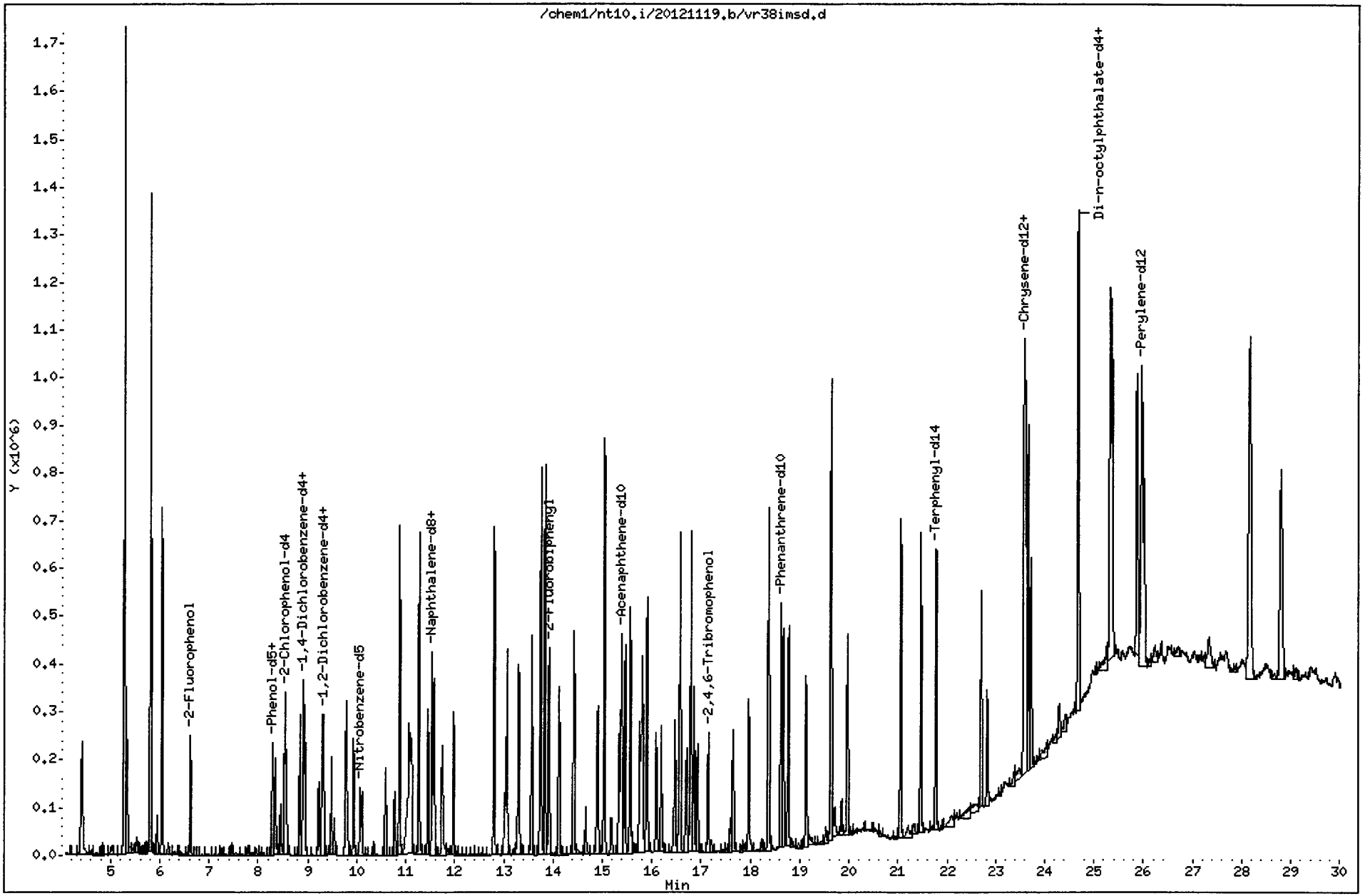
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	488.5	331.5	67.87	30-160
7	1,3-Dichlorobenzen	488.5	328.6	67.26	30-160
9	1,4-Dichlorobenzen	488.5	339.5	69.51	30-160
11	Benzyl alcohol	488.5	359.7	73.64	30-160
12	1,2-Dichlorobenzen	488.5	335.5	68.67	30-160
13	2-Methylphenol	488.5	271.8	55.65	30-160
15	4-Methylphenol	976.9	572.3	58.58	30-160
17	Hexachloroethane	488.5	292.7	59.93	30-160
22	2,4-Dimethylphenol	1465	809.6	55.25	30-160
24	Benzoic acid	2687	1520	56.59	30-160
26	1,2,4-Trichloroben	488.5	347.6	71.15	30-160
28	Naphthalene	488.5	331.0	67.77	30-160
30	Hexachlorobutadien	488.5	339.2	69.43	30-160
32	2-Methylnaphthalen	488.5	351.4	71.94	30-160
39	Dimethylphthalate	488.5	408.7	83.67	30-160
40	Acenaphthylene	488.5	345.6	70.76	30-160
44	Acenaphthene	488.5	353.7	72.41	30-160
46	Dibenzofuran	488.5	378.6	77.50	30-160
49	Fluorene	488.5	401.4	82.18	30-160
50	Diethylphthalate	488.5	409.4	83.82	30-160
54	N-Nitrosodiphenyla	488.5	408.7	83.67	30-160
57	Hexachlorobenzene	488.5	407.1	83.35	30-160
58	Pentachlorophenol	1465	959.3	65.46	30-160
60	Phenanthrene	488.5	391.6	80.16	30-160
61	Anthracene	488.5	355.9	72.85	30-160
63	Di-n-butylphthalat	488.5	417.8	85.53	30-160
64	Fluoranthene	488.5	402.5	82.40	30-160
65	Pyrene	488.5	332.9	68.16	30-160
67	Butylbenzylphthala	488.5	374.7	76.72	30-160
68	Benzo(a)anthracene	488.5	361.2	73.95	30-160
71	Chrysene	488.5	366.2	74.96	30-160
72	bis(2-Ethylhexyl)p	488.5	356.2	72.92	30-160
73	Di-n-octylphthalat	488.5	333.0	68.16	30-160

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	488.5	349.8	71.62	30-160
78 Indeno(1,2,3-cd)py	488.5	350.9	71.83	30-160
79 Dibenzo(a,h)anthra	488.5	370.9	75.93	30-160
80 Benzo(g,h,i)peryle	488.5	409.7	83.86	30-160
105 1-methylnaphthalen	488.5	362.4	74.20	30-160
187 Total Benzofluoran	976.9	732.3	74.96	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	732.7	548.6	74.87	30-160
$ 2 Phenol-d5	732.7	532.9	72.73	30-160
$ 5 2-Chlorophenol-d4	732.7	491.5	67.08	30-160
$ 10 1,2-Dichlorobenzen	488.5	324.1	66.35	30-160
$ 18 Nitrobenzene-d5	488.5	308.1	63.08	30-160
$ 36 2-Fluorobiphenyl	488.5	355.3	72.73	30-160
$ 55 2,4,6-Tribromophen	732.7	586.3	80.02	30-160
$ 66 Terphenyl-d14	488.5	341.0	69.80	30-160

Data File: /chem1/nt10.i/20121119.b/vr38imsd.d
Date : 19-NOV-2012 21:35
Client ID: HT-11-S-LFP-121 MSD
Sample Info: VR38IMSD
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - vr38imsd.d

Lab ID: VR38IMSD, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

Analytical Resources, Inc.

YZ 11/26/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38j.d
Lab Smp Id: VR38J Client Smp ID: HT-06-S-E-121106
Inj Date : 19-NOV-2012 22:12
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38J
Misc Info : 12-22276
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	13.20000	Weight of sample extracted (g)
M	20.20000	% 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	6.620	6.597	(0.743)	148903	5.39132	511.8
$	2 Phenol-d5	99	8.289	8.282	(0.931)	147829	5.26693	500.0
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.537	8.529	(0.958)	190384	4.95368	470.3
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	104263	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.288	9.281	(1.043)	83949	3.20316	304.1
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.219	9.211	(1.035)	6187	0.38927	36.96
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	68875	3.16889	300.8
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
24	Benzoic acid	105	10.994	11.132	(0.953)	12342	0.56537	53.67
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	11.533	11.533	(1.000)	369346	4.00000	
28	Naphthalene	128	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
32	2-Methylnaphthalene	142	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	13.916	13.916	(0.904)	271315	3.59921	341.7
39	Dimethylphthalate	163	Compound Not Detected.					
40	Acenaphthylene	152	Compound Not Detected.					
* 42	Acenaphthene-d10	164	15.386	15.386	(1.000)	212199	4.00000	
44	Acenaphthene	153	Compound Not Detected.					
46	Dibenzofuran	168	Compound Not Detected.					
50	Diethylphthalate	149	16.461	16.477	(1.070)	7087	0.11747 J	11.15
49	Fluorene	166	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	17.140	17.140	(1.114)	52557	6.29949	598.0
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	18.616	18.624	(1.000)	365006	4.00000	
60	Phenanthrene	178	18.670	18.670	(1.003)	20119	0.20715	19.67
61	Anthracene	178	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	21.053	21.053	(1.131)	61717	0.50191	47.65
65	Pyrene	202	21.463	21.463	(0.909)	51821	0.36043	34.22
$ 66	Terphenyl-d14	244	21.773	21.781	(0.922)	320380	3.53306	335.4
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.585	23.592	(0.999)	21497	0.15699 J	14.90
* 69	Chrysene-d12	240	23.616	23.616	(1.000)	444484	4.00000	
71	Chrysene	228	23.654	23.662	(1.002)	29658	0.24741	23.49
72	bis(2-Ethylhexyl)phthalate	149	23.716	23.724	(0.961)	91572	1.13605	107.9
* 134	Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	616192	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
76	Benzo(a)pyrene	252	25.869	25.869	(0.996)	25648	0.19346 J	18.37
* 77	Perylene-d12	264	25.969	25.969	(1.000)	478887	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.155	28.155	(1.084)	24666	0.14553 J	13.82
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	28.799	28.799	(1.109)	27304	0.19240 J	18.27
105	1-methylnaphthalene	142	Compound Not Detected.					
187	Total Benzofluoranthenes	252	25.327	25.365	(0.975)	70788	0.49931	47.40
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38j.d
Lab Smp Id: VR38J
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22276

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-06-S-E-121106
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	97486	48743	194972	104263	6.95
27 Naphthalene-d8	357150	178575	714300	369346	3.41
42 Acenaphthene-d10	217259	108630	434518	212199	-2.33
59 Phenanthrene-d10	355415	177708	710830	365006	2.70
69 Chrysene-d12	390458	195229	780916	444484	13.84
134 Di-n-octylphthala	532303	266152	1064606	616192	15.76
77 Perylene-d12	386299	193150	772598	478887	23.97

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	-0.04
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.97	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.

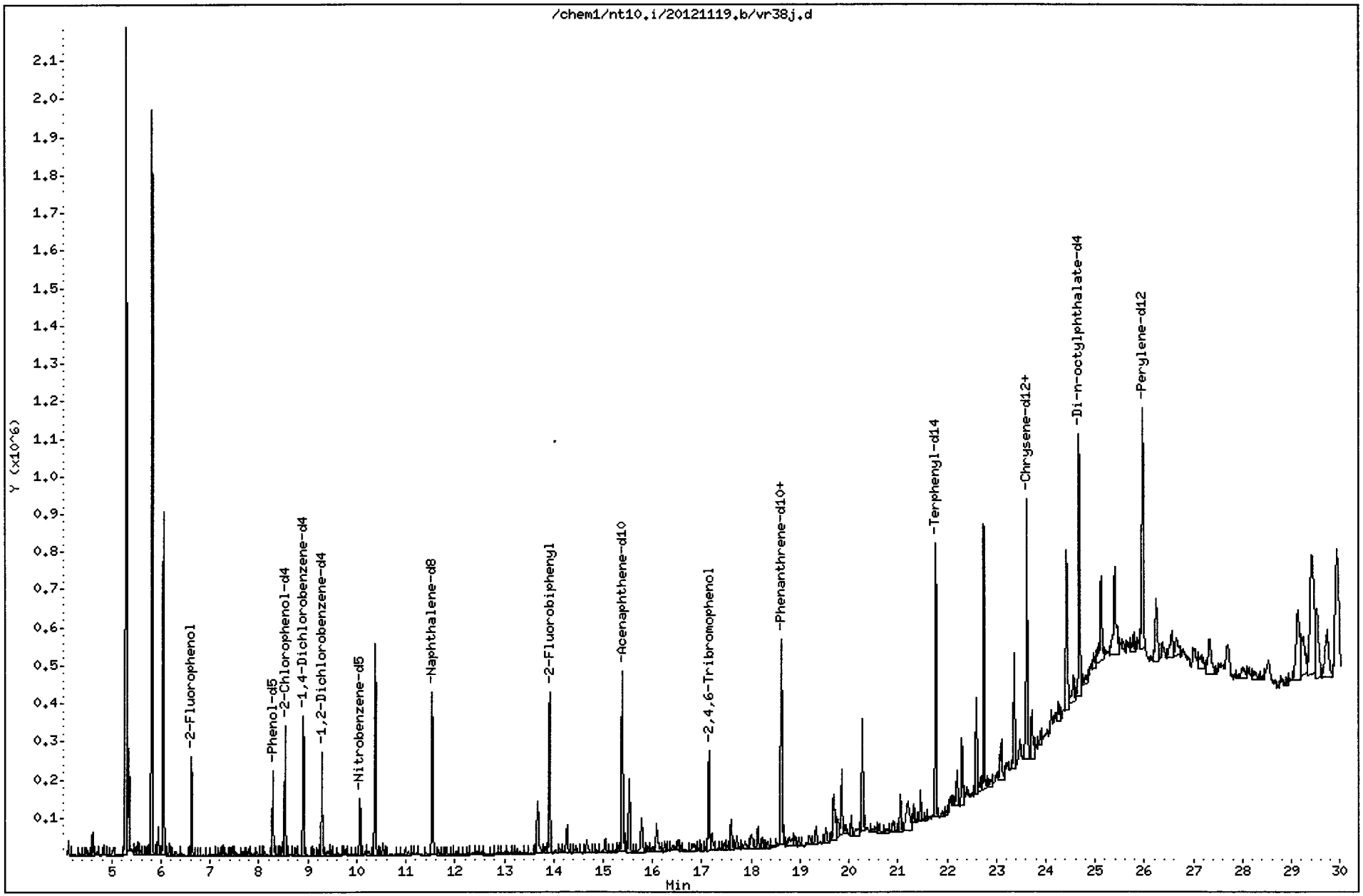
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38J Client Smp ID: HT-06-S-E-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22276

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	712.0	511.8	71.88	30-160
$ 2 Phenol-d5	712.0	500.0	70.23	30-160
$ 5 2-Chlorophenol-d4	712.0	470.3	66.05	30-160
$ 10 1,2-Dichlorobenzen	474.7	304.1	64.06	30-160
$ 18 Nitrobenzene-d5	474.7	300.8	63.38	30-160
$ 36 2-Fluorobiphenyl	474.7	341.7	71.98	30-160
$ 55 2,4,6-Tribromophen	712.0	598.0	83.99	30-160
$ 66 Terphenyl-d14	474.7	335.4	70.66	30-160

Data File: /chem1/nt10.i/20121119.b/vr38j.d
Date : 19-NOV-2012 22:12
Client ID: HT-06-S-E-121106
Sample Info: VR38J
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

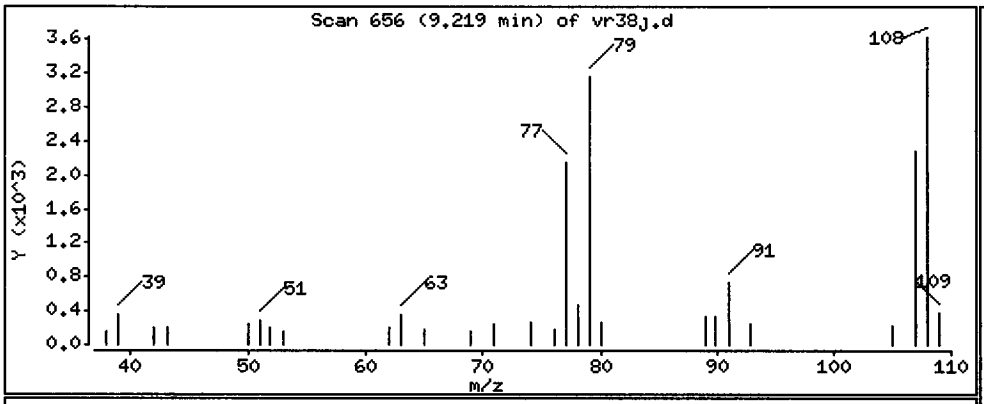
Operator: VTS/YZ

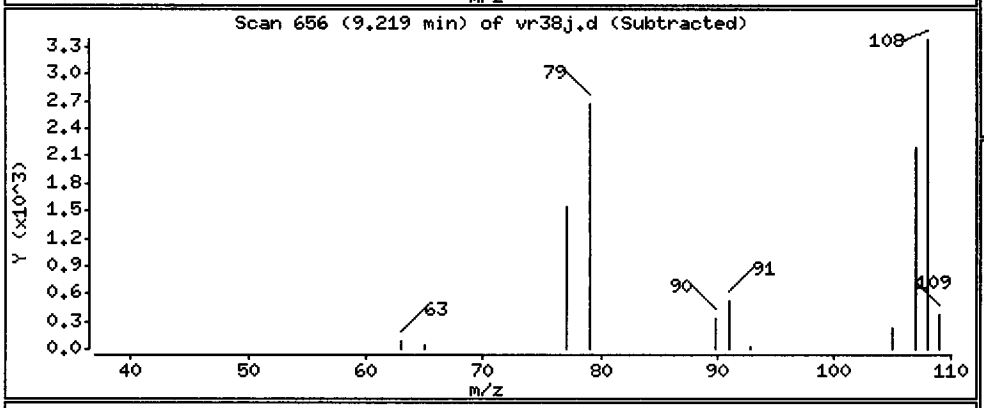
Column phase: ZB-5msi

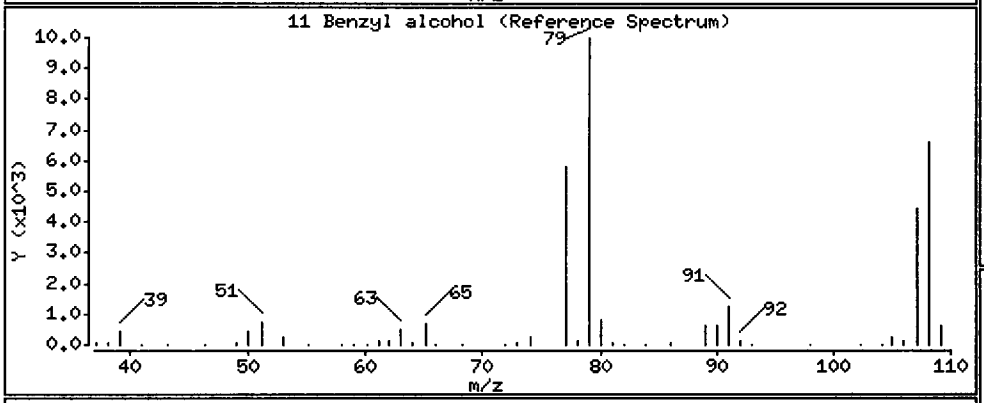
Column diameter: 0.25

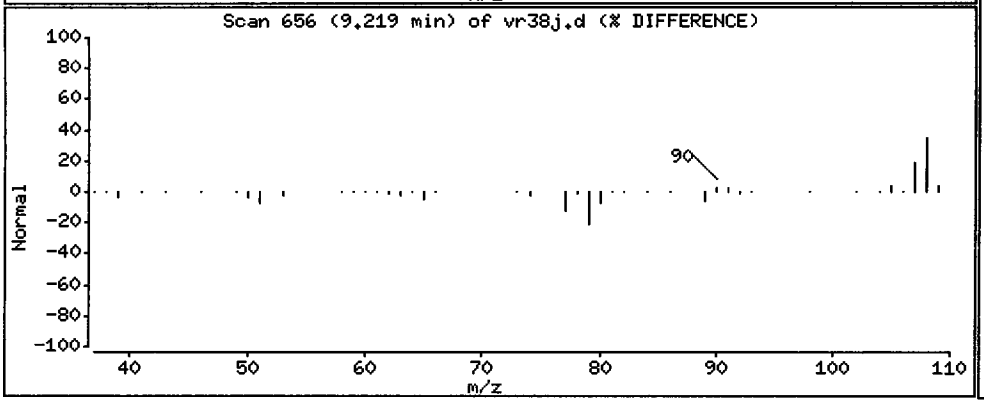
11 Benzyl alcohol

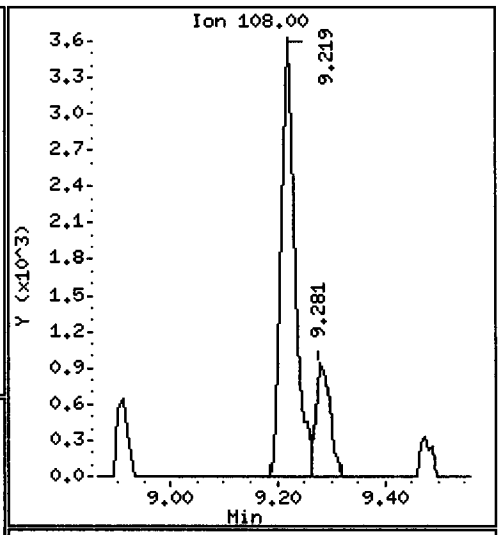
Concentration: 36.96 ug/kg

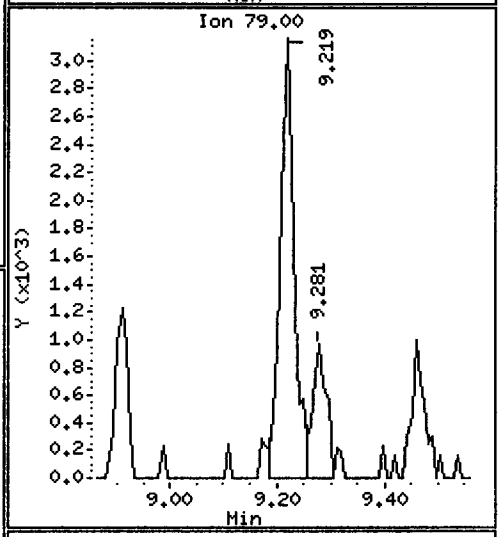


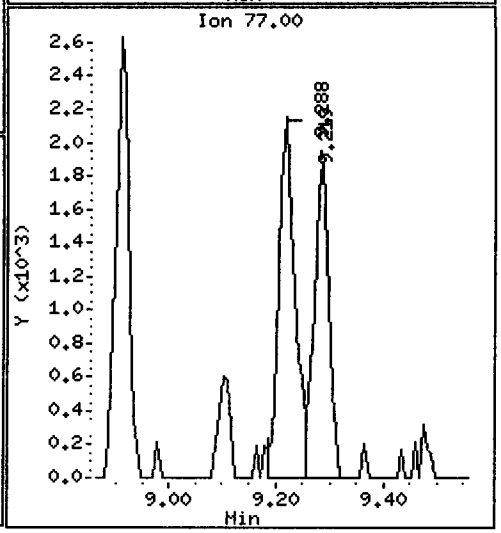












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

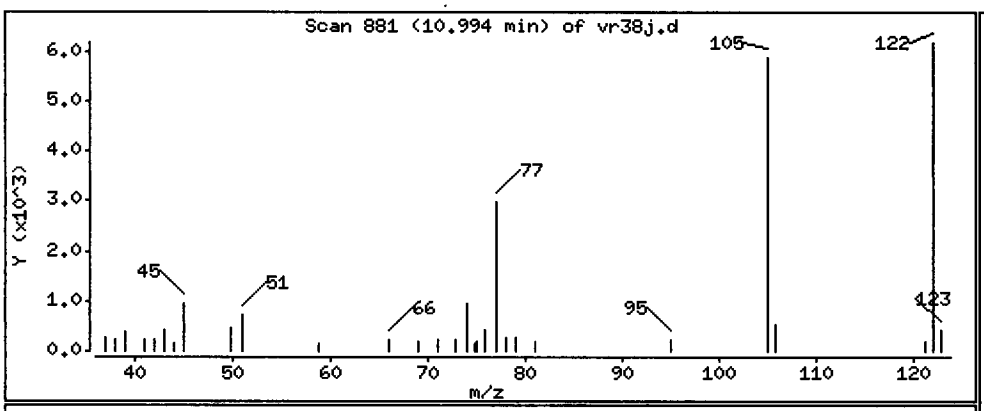
Operator: VTS/YZ

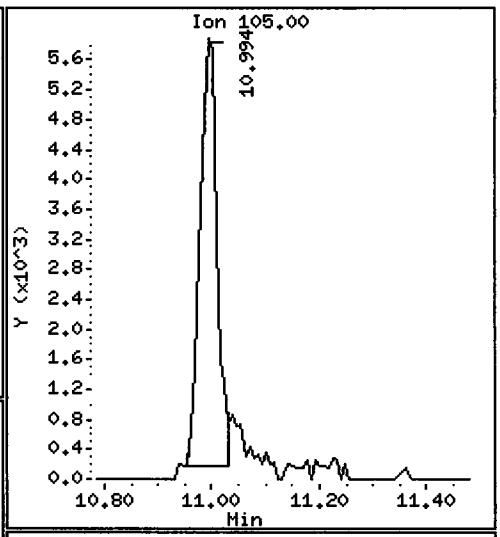
Column phase: ZB-5msi

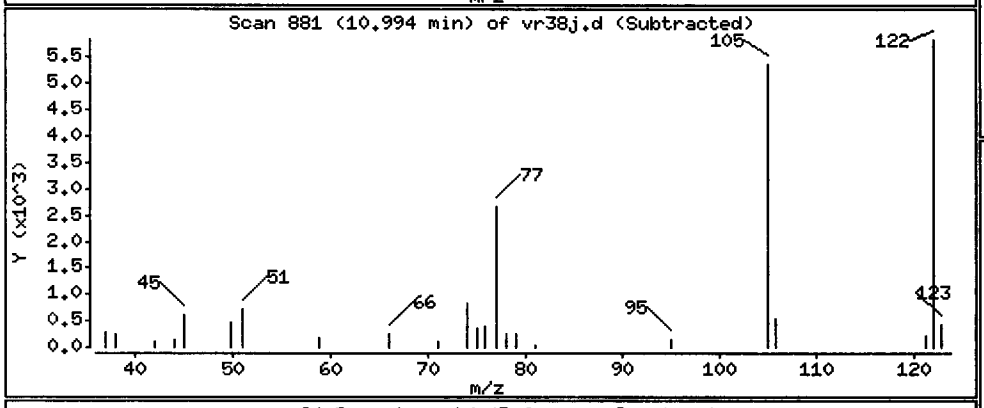
Column diameter: 0.25

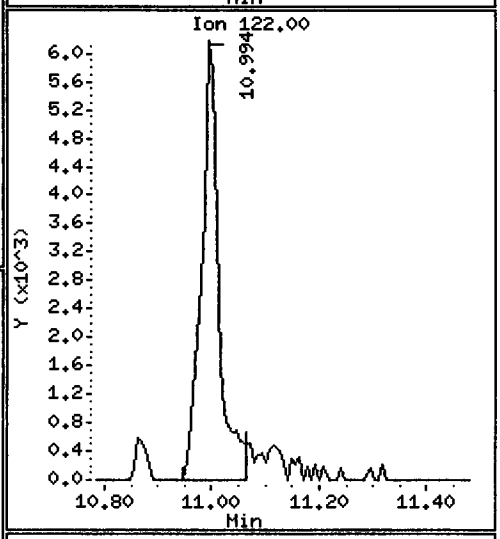
24 Benzoic acid

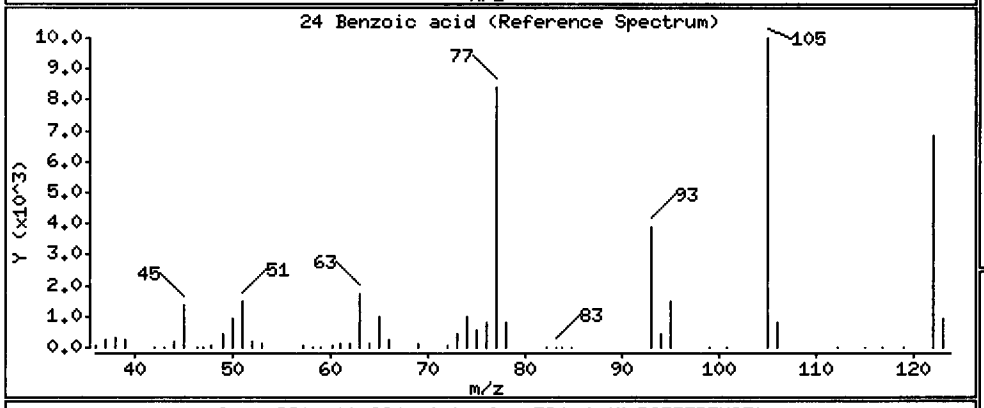
Concentration: 53.67 ug/kg

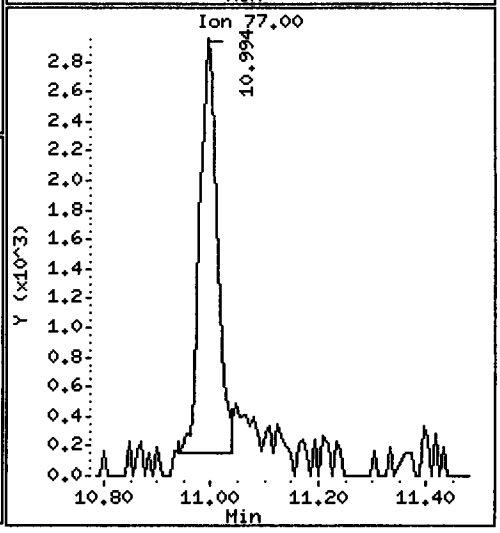


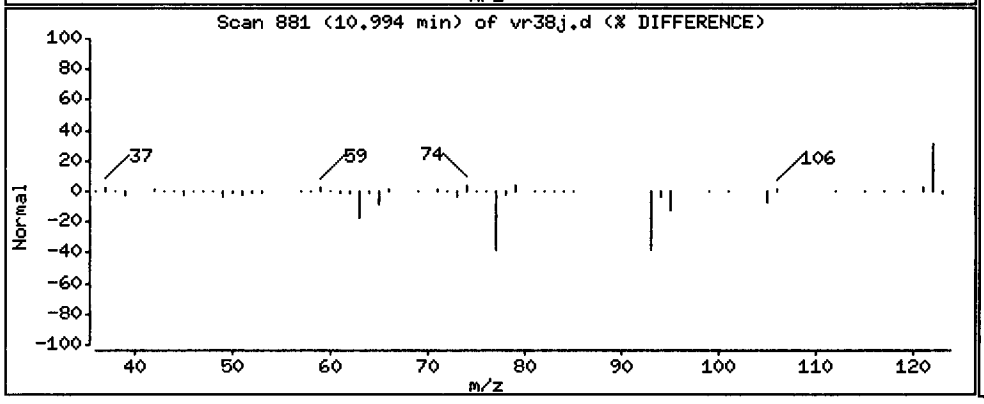












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

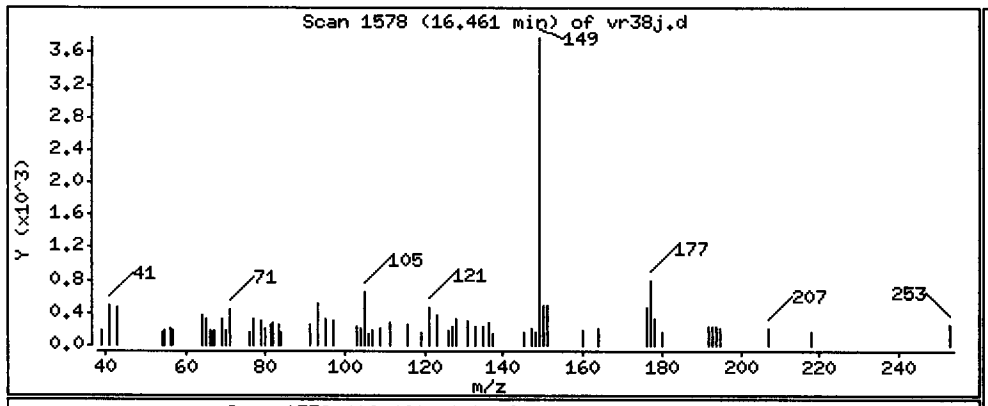
Operator: VTS/YZ

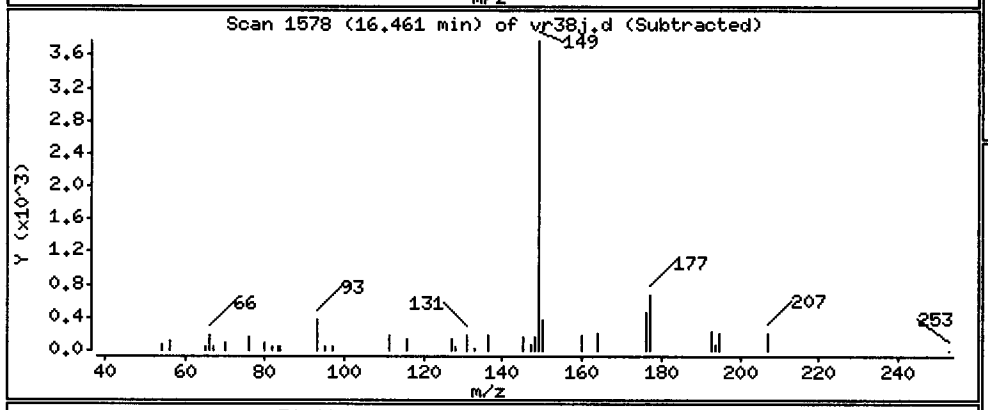
Column phase: ZB-5msi

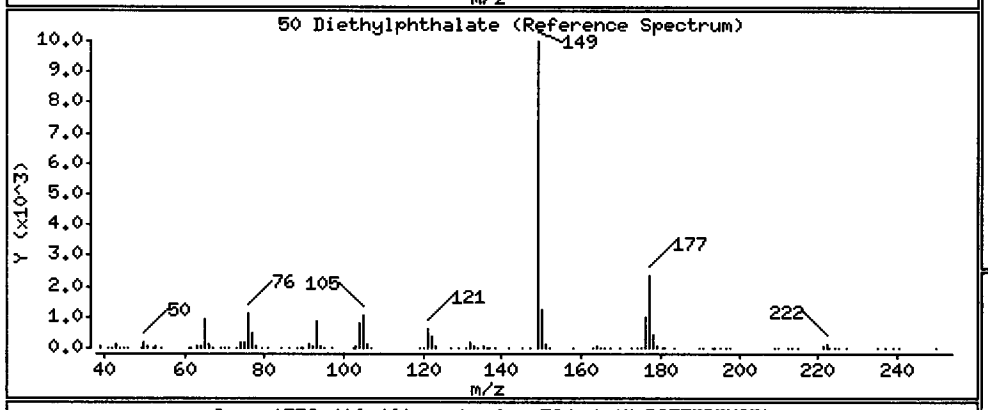
Column diameter: 0.25

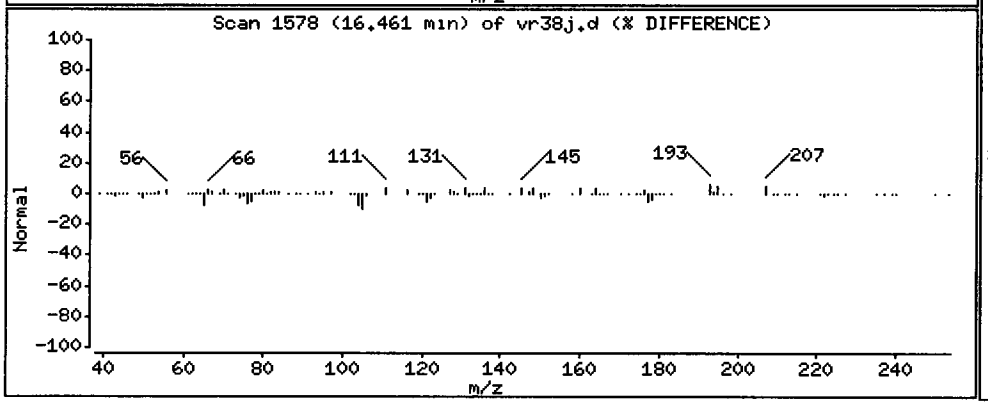
50 Diethylphthalate

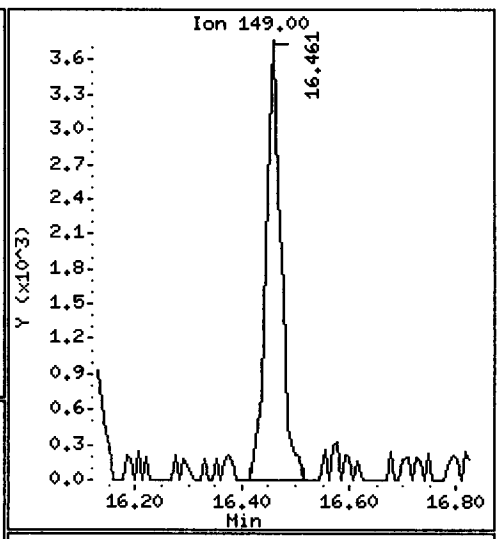
Concentration: 11.15 ug/kg

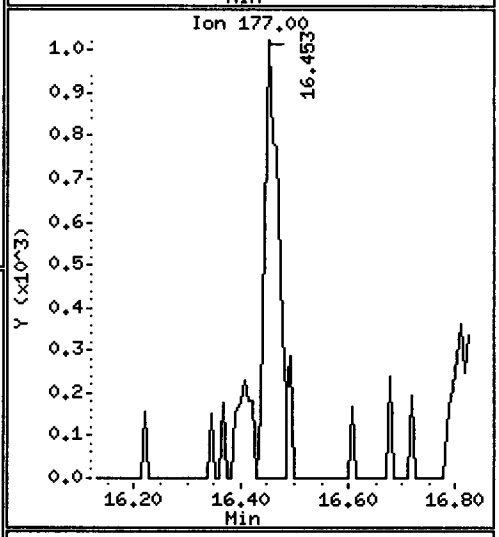


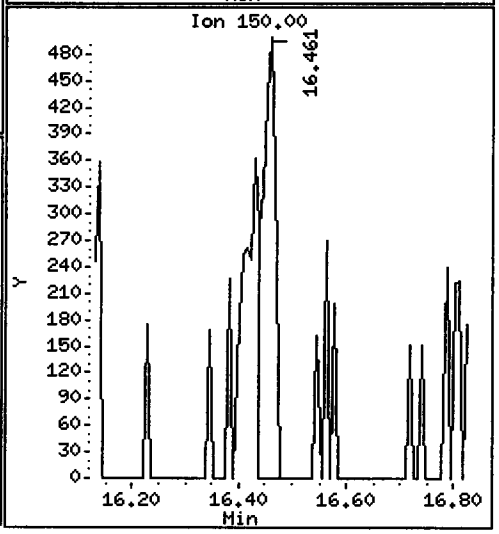












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

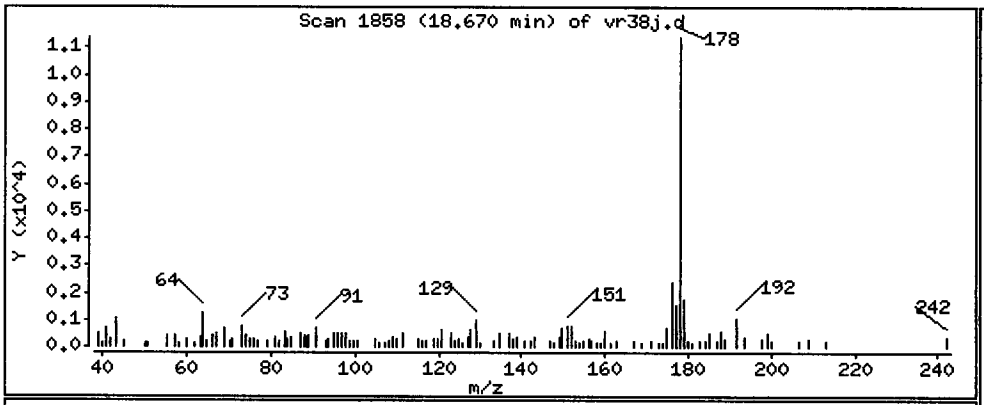
Operator: VTS/YZ

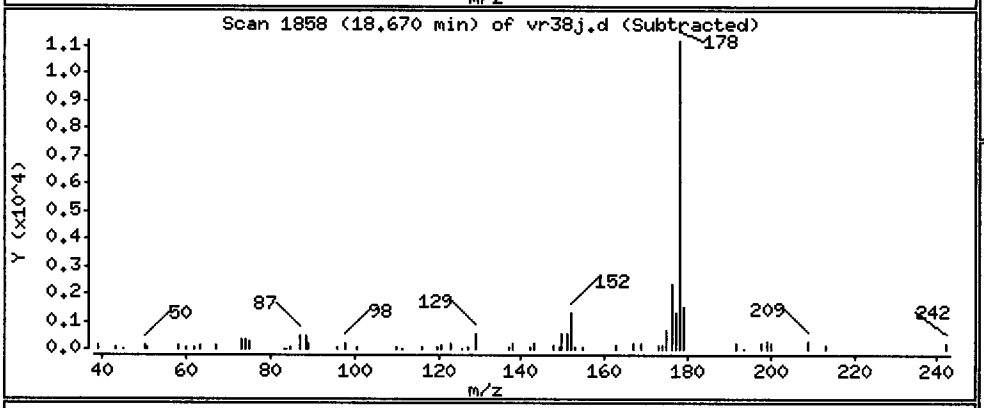
Column phase: ZB-5msi

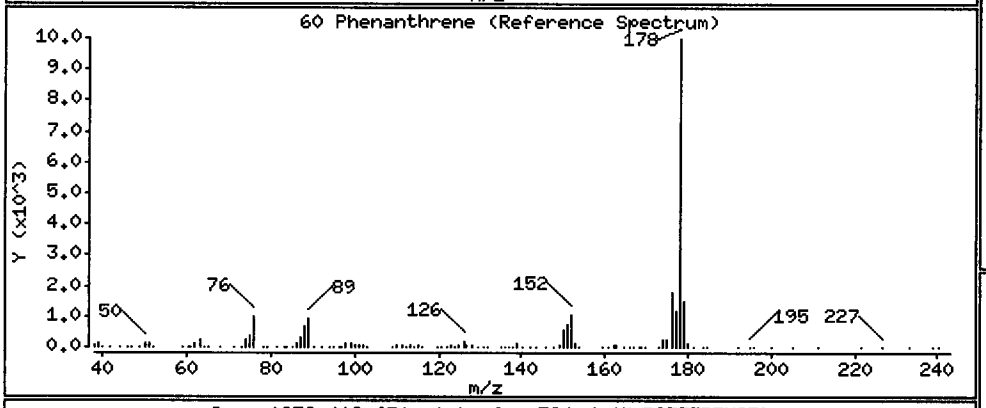
Column diameter: 0.25

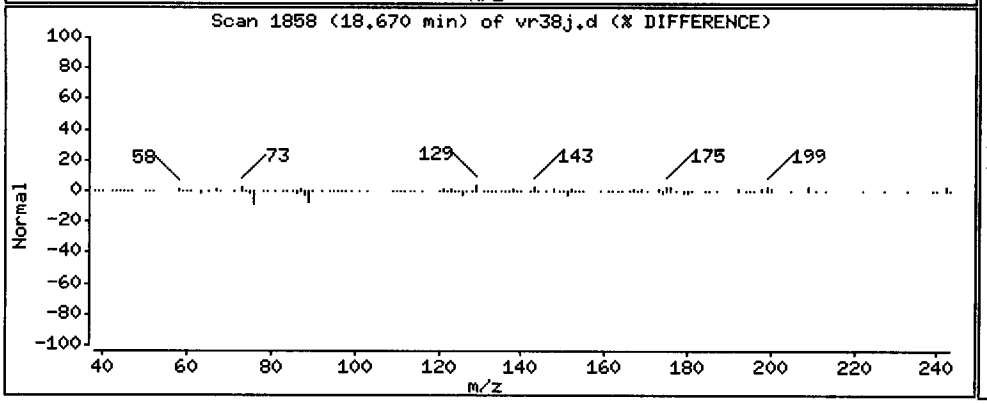
60 Phenanthrene

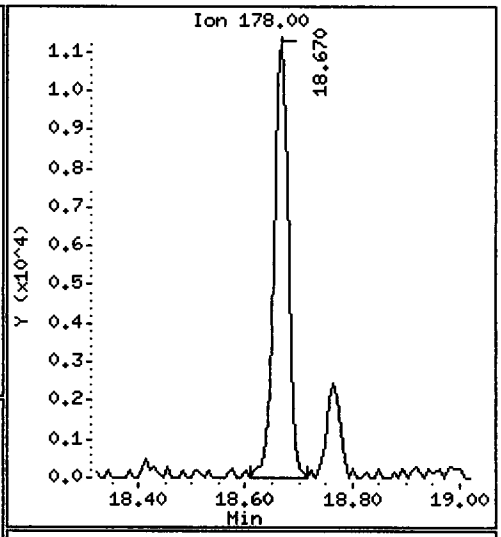
Concentration: 19.67 ug/kg

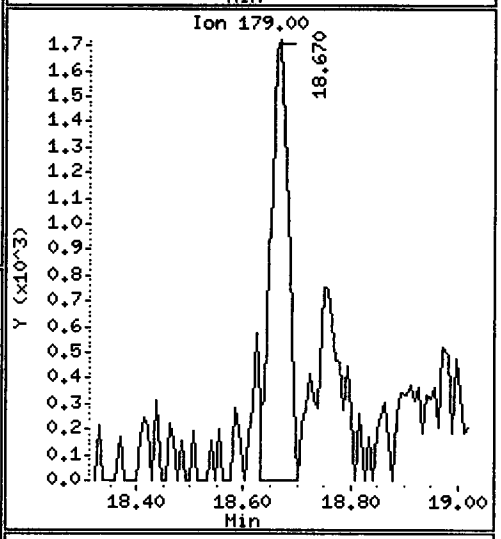


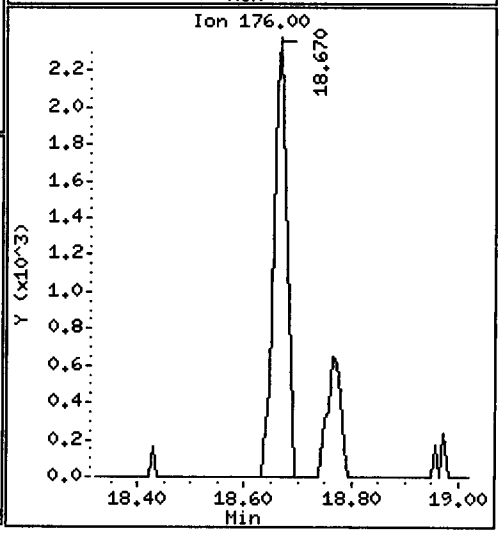












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

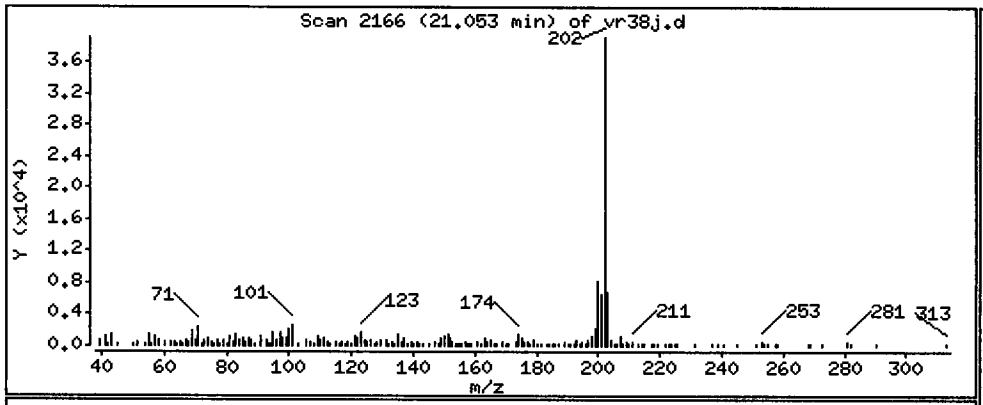
Operator: VTS/YZ

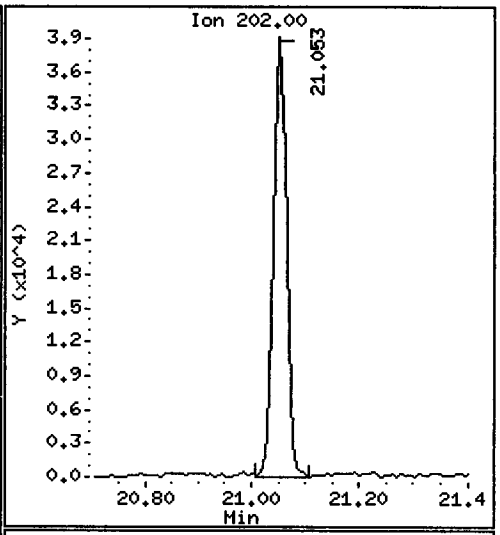
Column phase: ZB-5msi

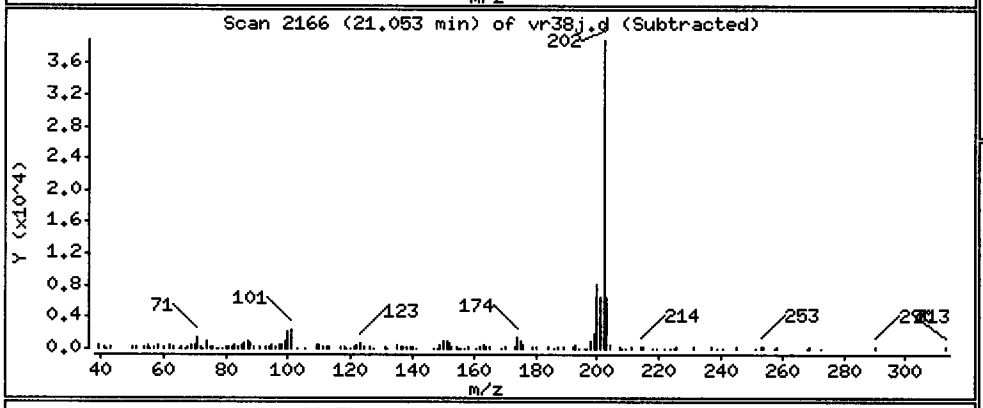
Column diameter: 0.25

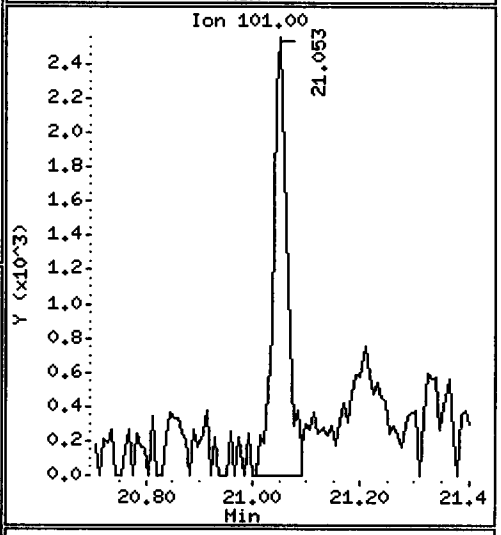
64 Fluoranthene

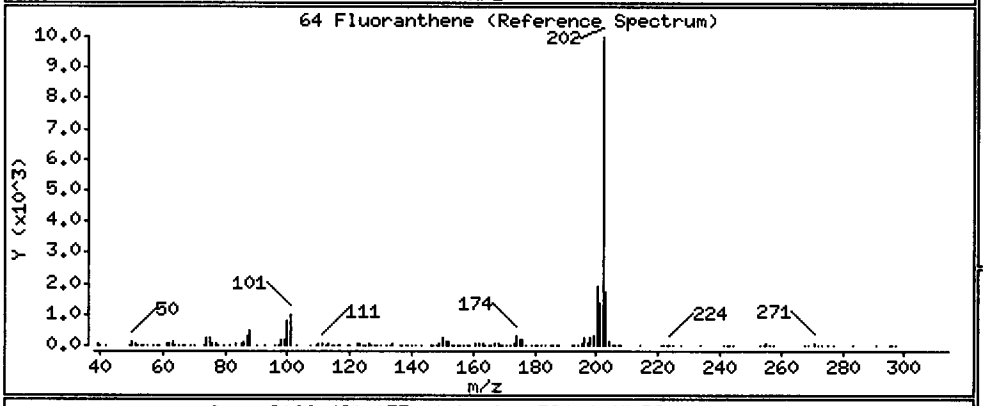
Concentration: 47.65 ug/kg

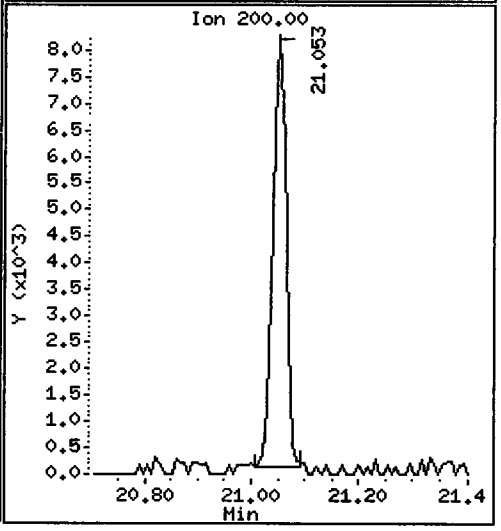


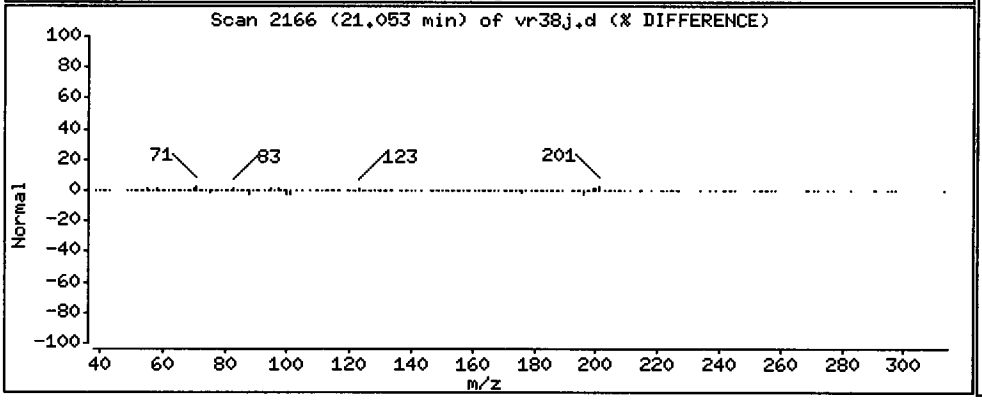












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

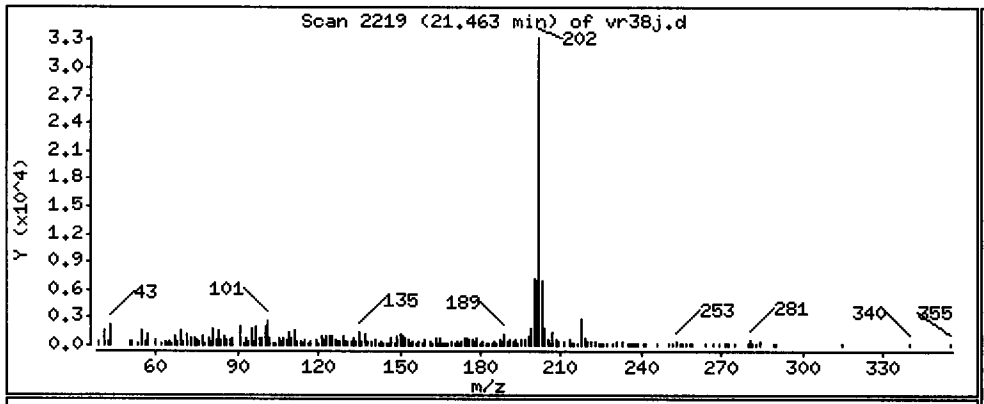
Operator: VTS/YZ

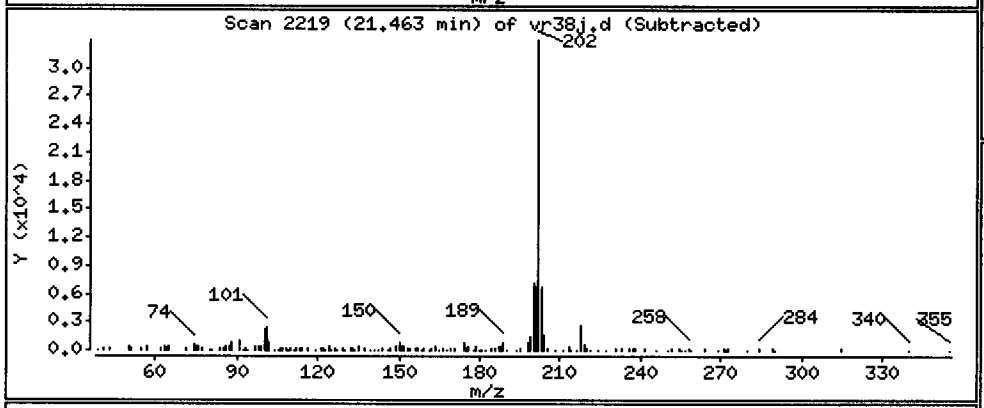
Column phase: ZB-5msi

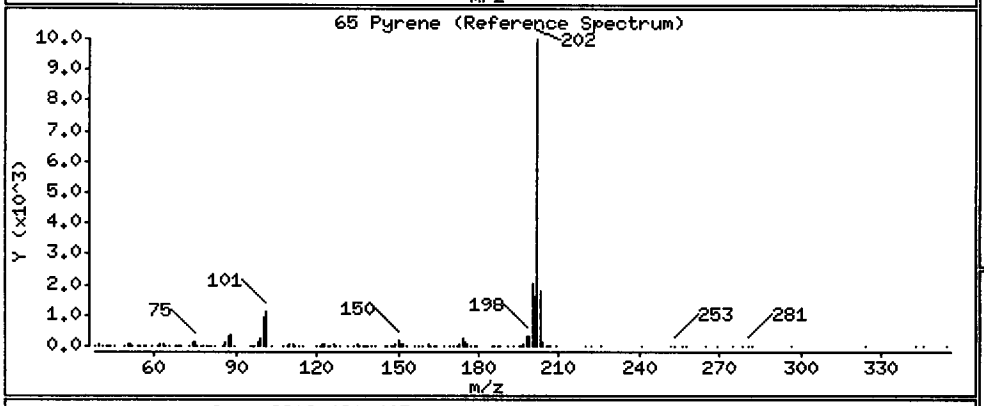
Column diameter: 0.25

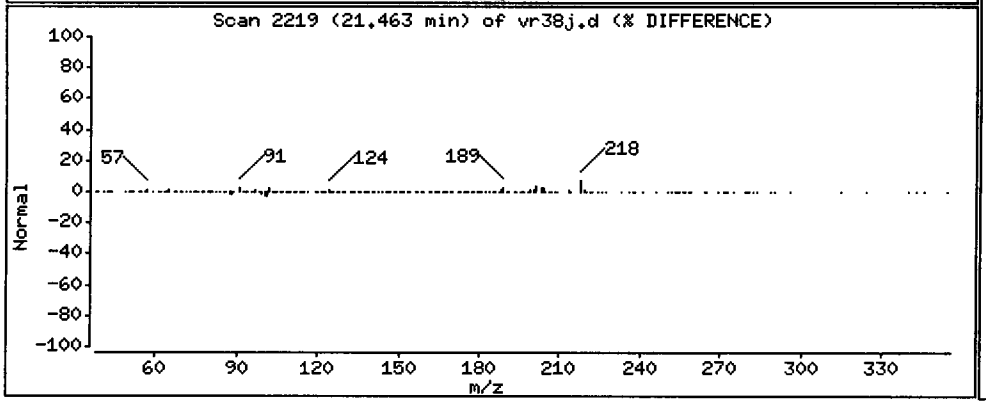
65 Pyrene

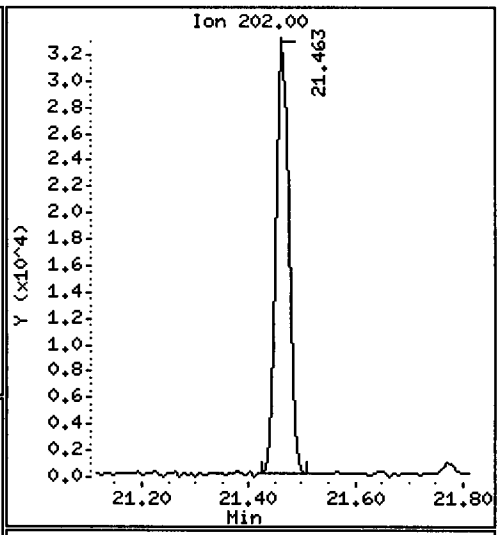
Concentration: 34.22 ug/kg

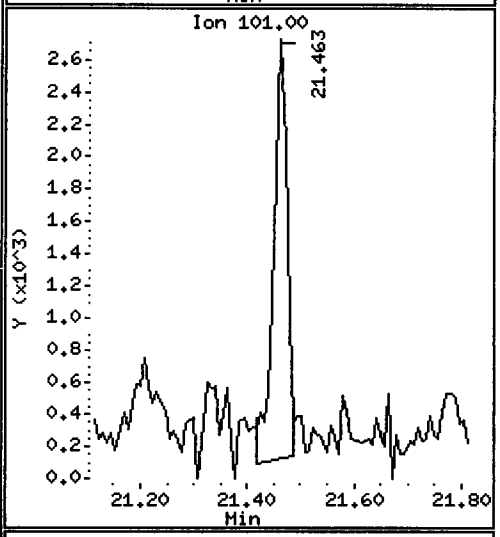


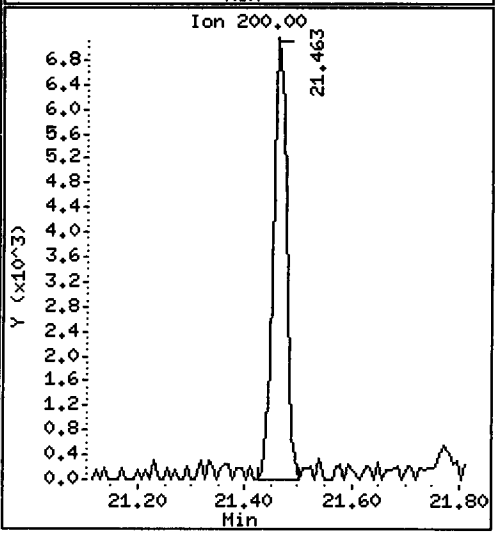












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

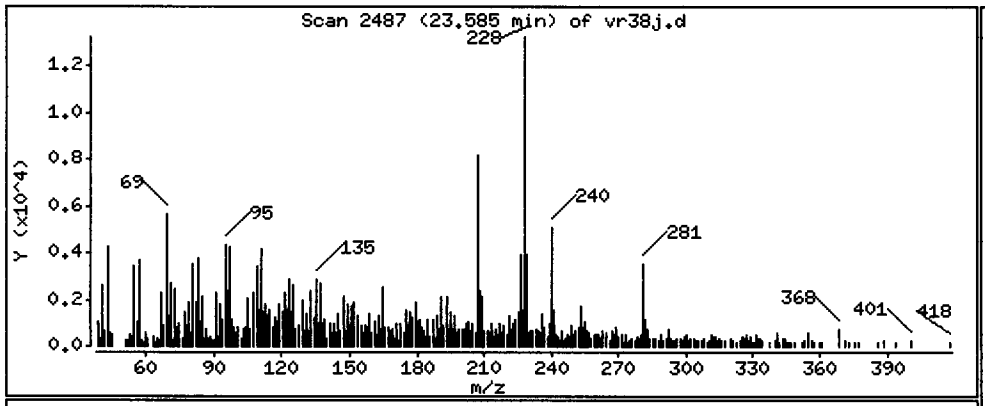
Operator: VTS/YZ

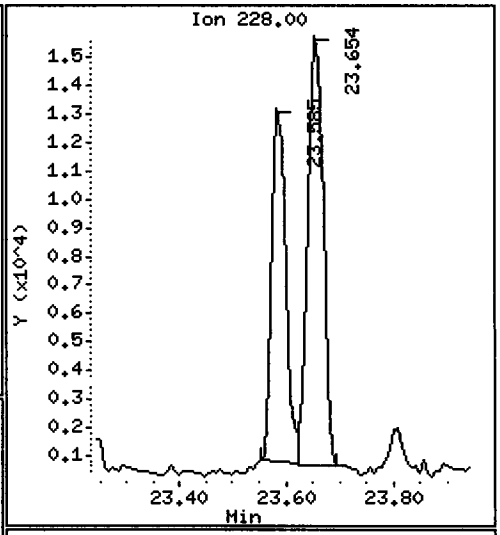
Column phase: ZB-5msi

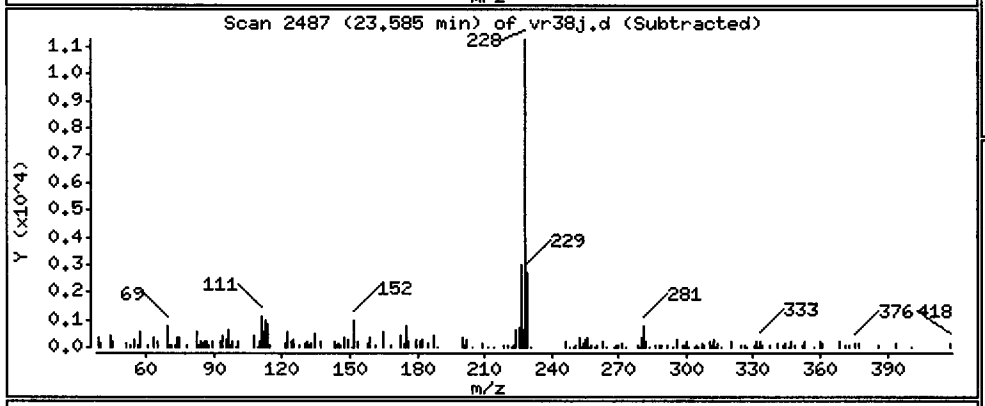
Column diameter: 0.25

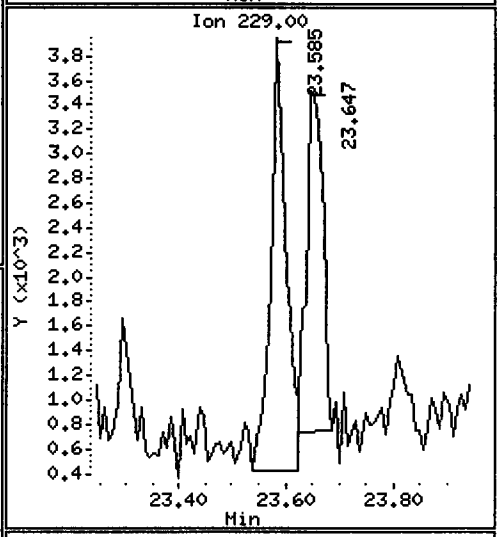
68 Benzo(a)anthracene

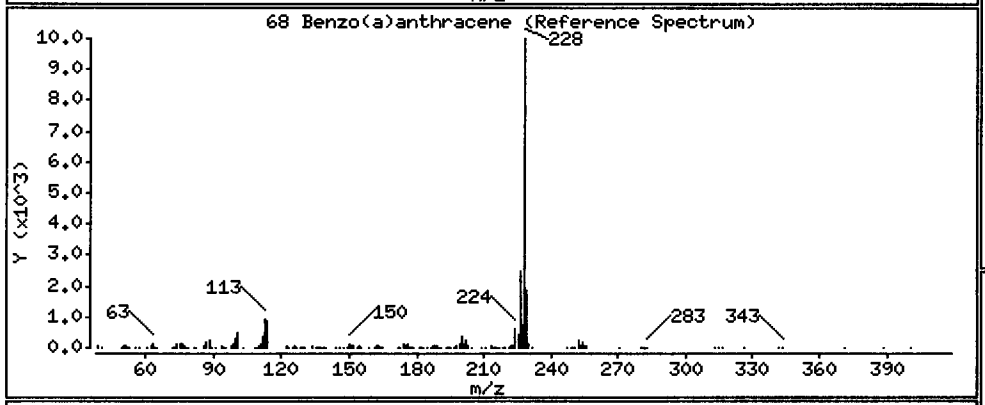
Concentration: 14.90 ug/kg

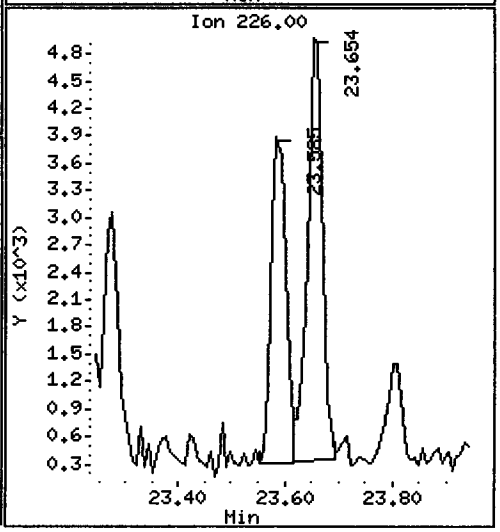


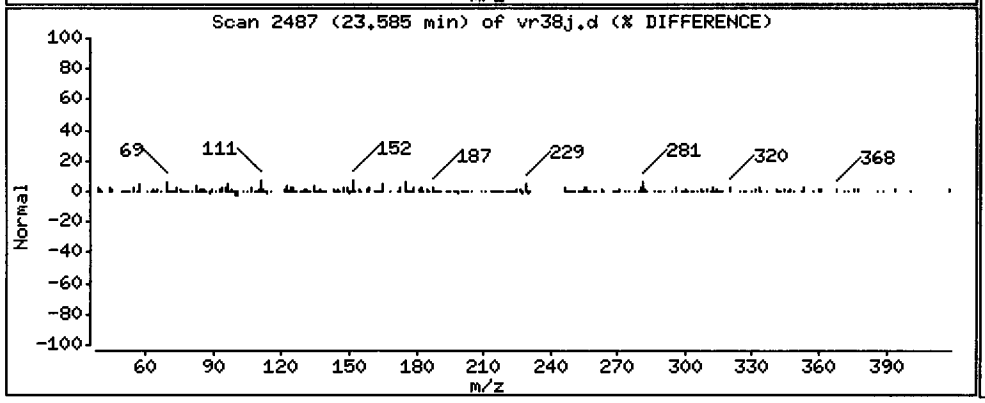












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

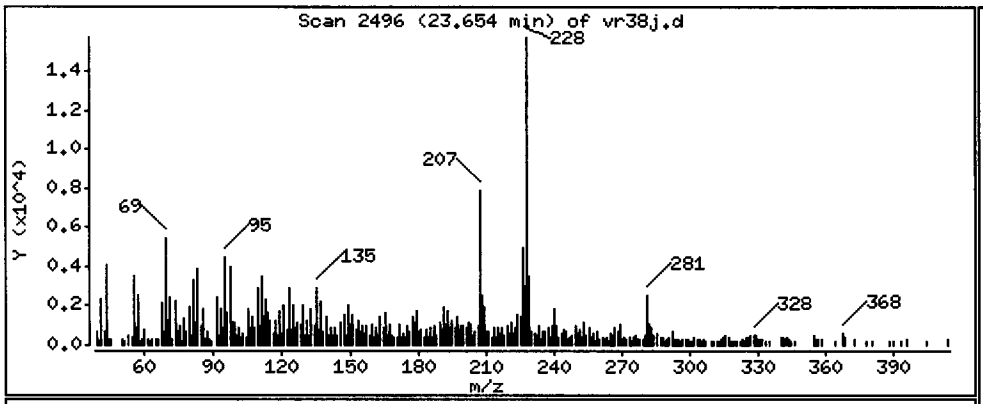
Operator: VTS/YZ

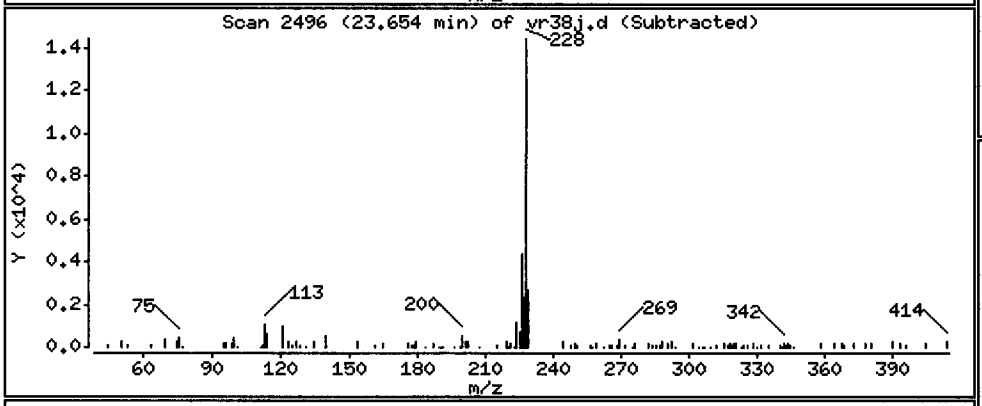
Column phase: ZB-5msi

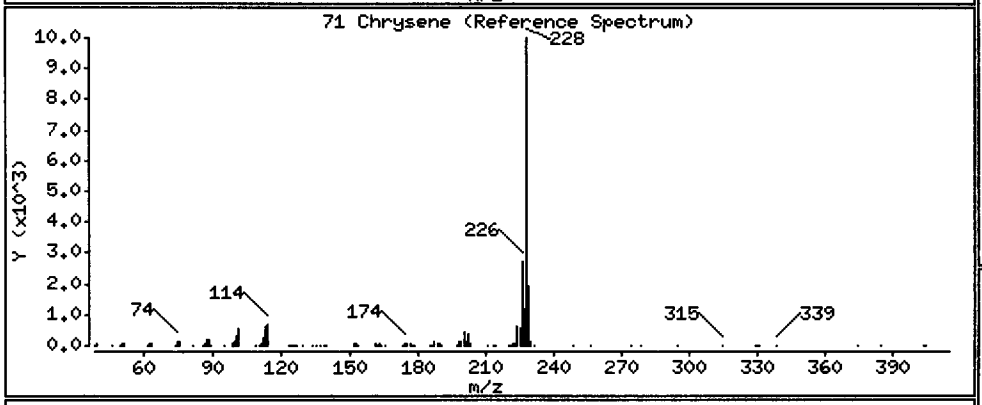
Column diameter: 0.25

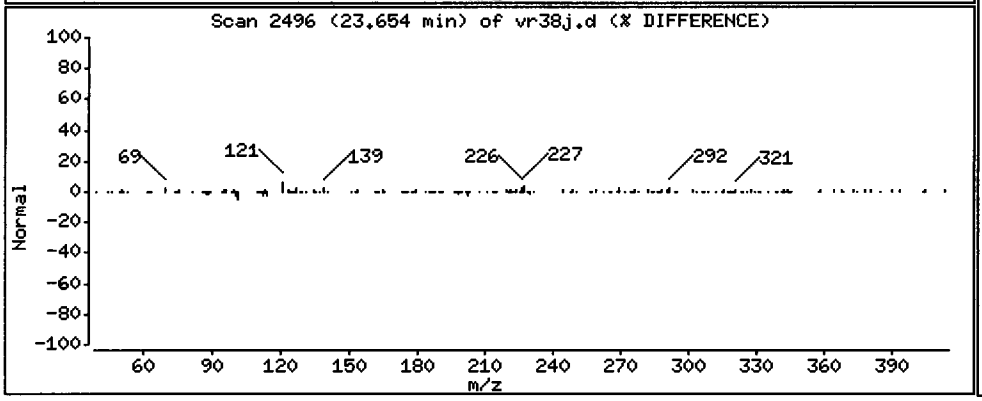
71 Chrysene

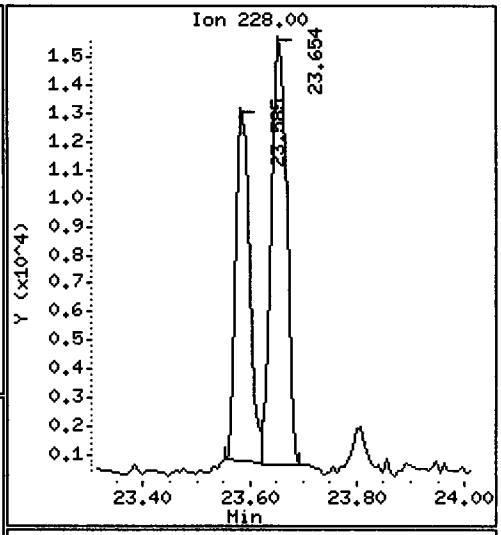
Concentration: 23.49 ug/kg

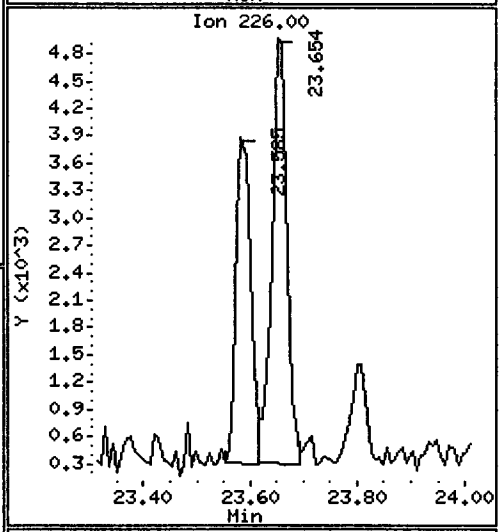


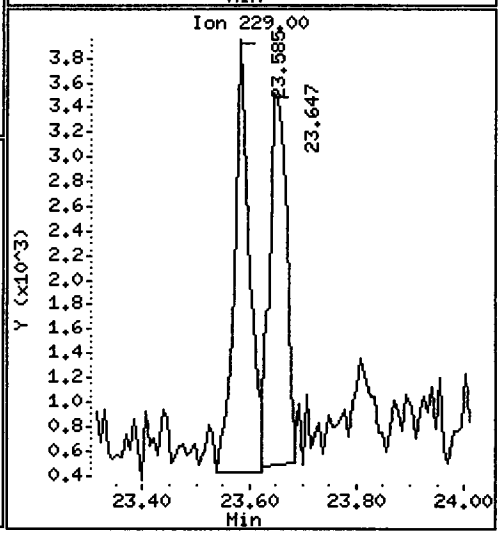












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

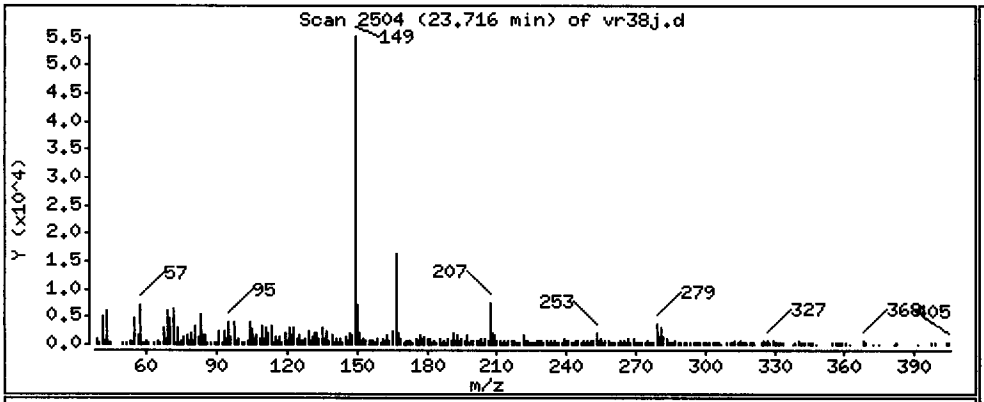
Operator: VTS/YZ

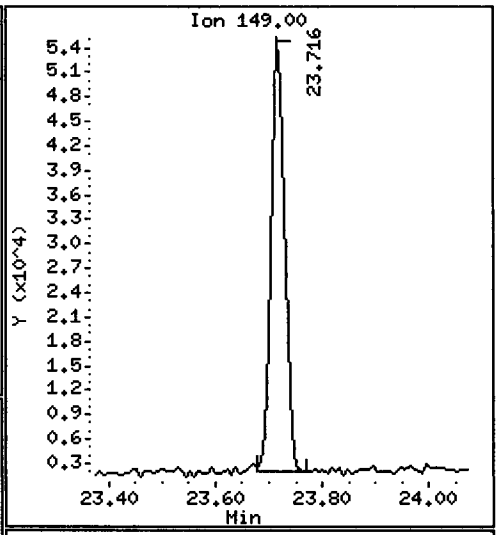
Column phase: ZB-5msi

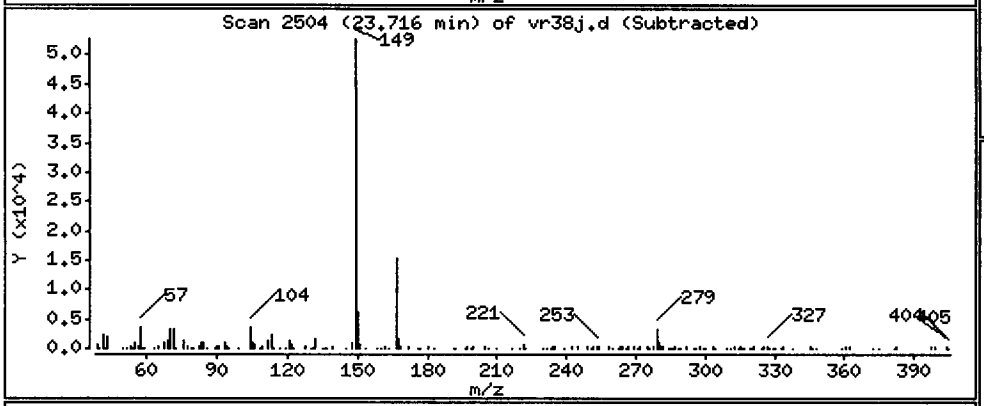
Column diameter: 0.25

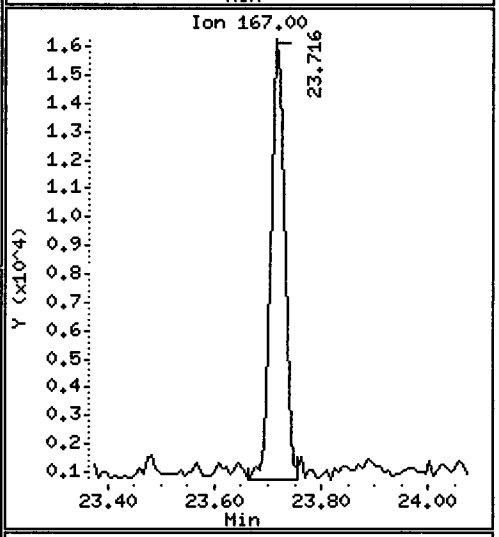
72 bis(2-Ethylhexyl)phthalate

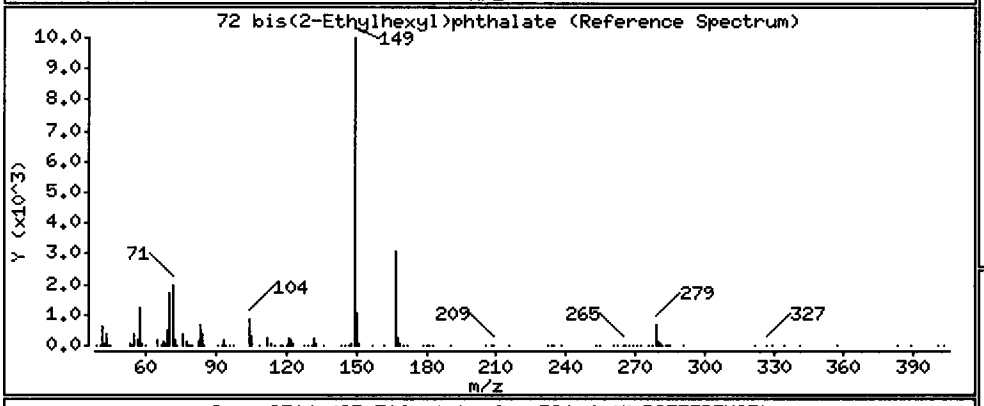
Concentration: 107.9 ug/kg

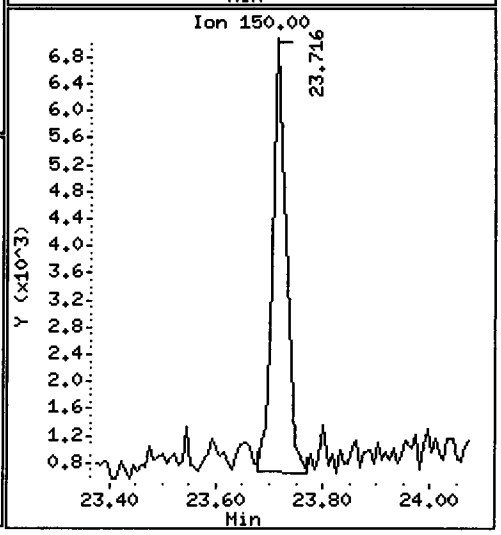


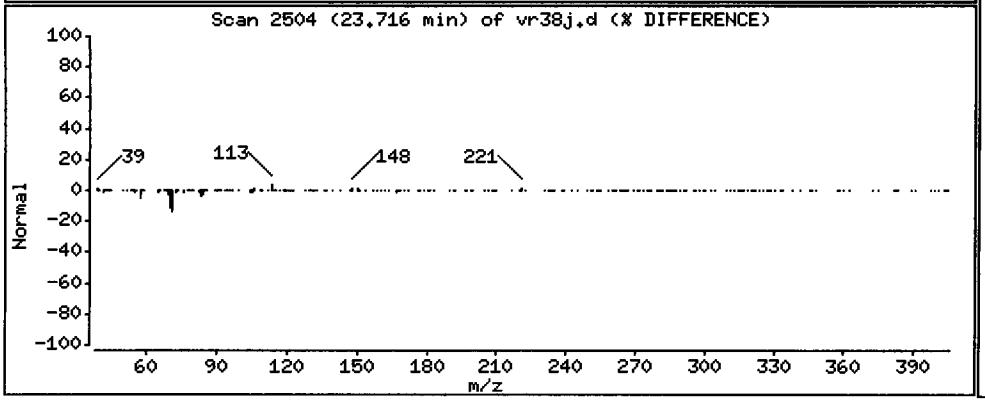












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

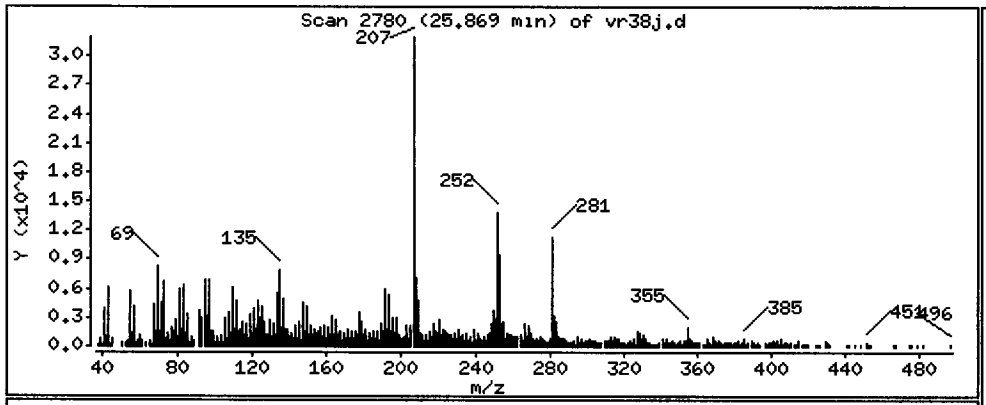
Operator: VTS/YZ

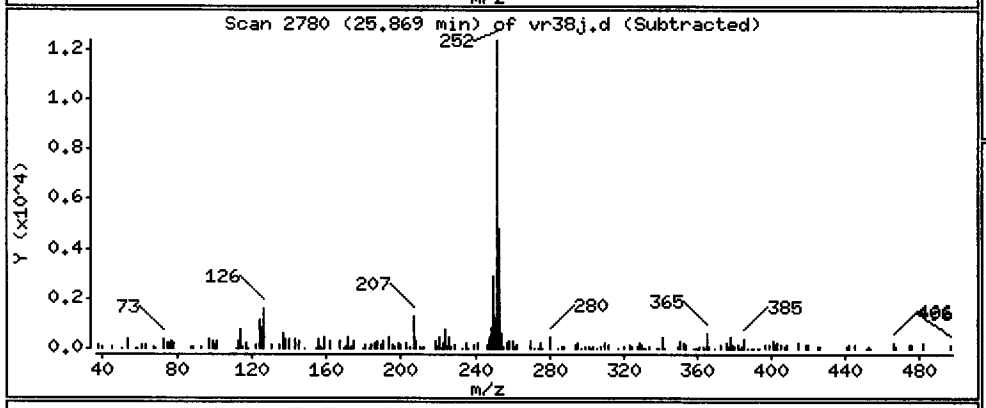
Column phase: ZB-5msi

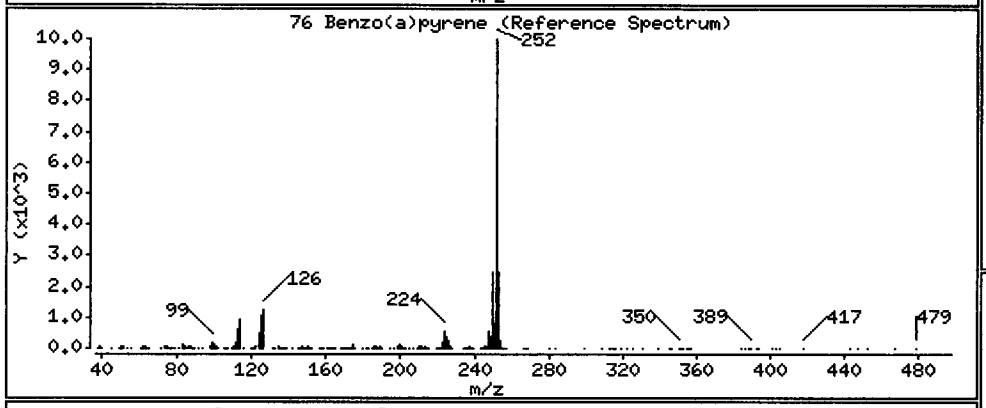
Column diameter: 0.25

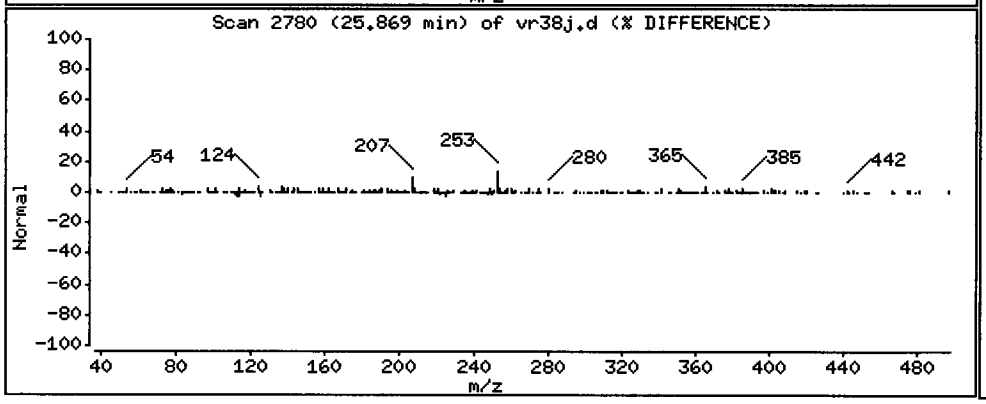
76 Benzo(a)pyrene

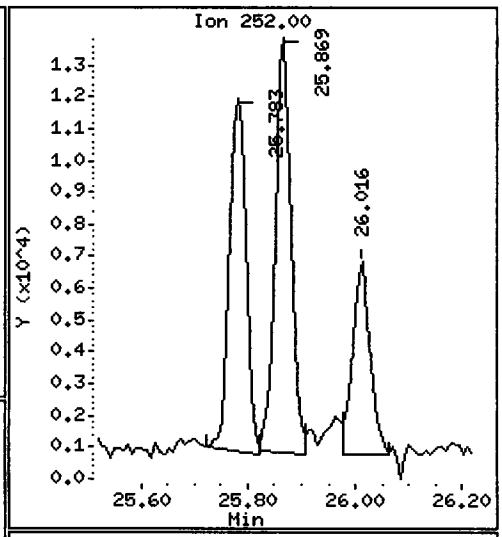
Concentration: 18.37 ug/kg

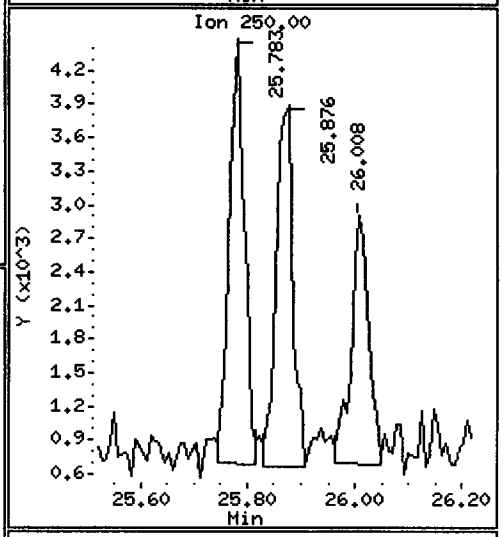


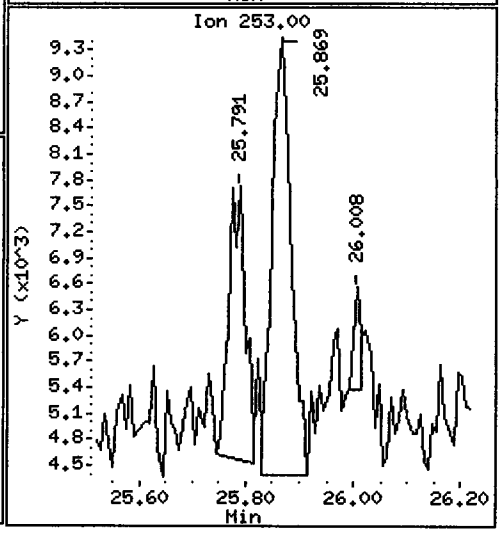












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

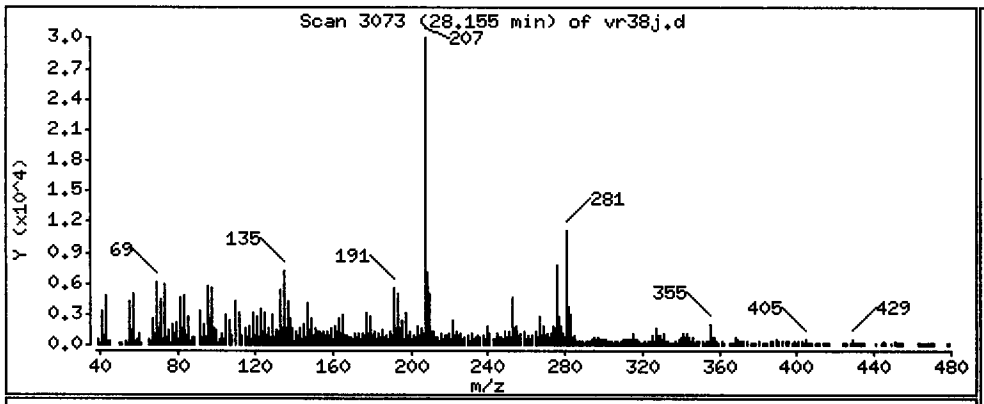
Client ID: HT-06-S-E-121106 Instrument: nt10.i

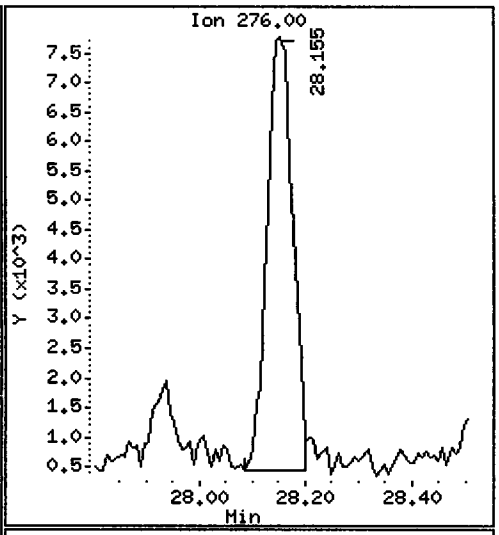
Sample Info: VR38J

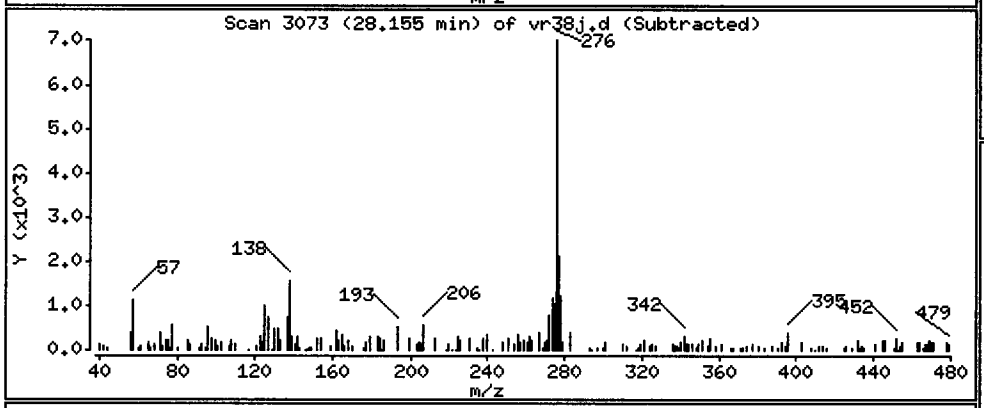
Volume Injected (uL): 1.0 Operator: VTS/YZ

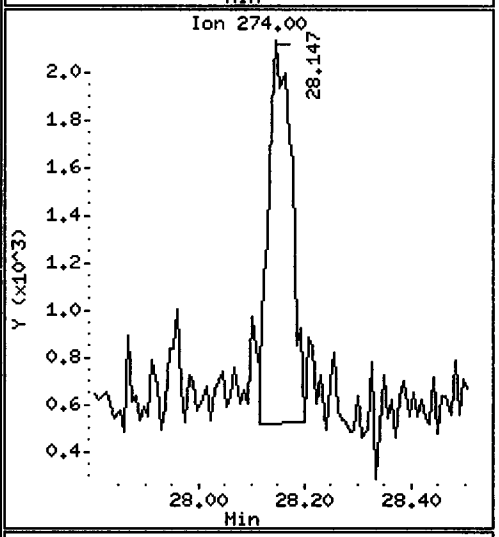
Column phase: ZB-5msi Column diameter: 0.25

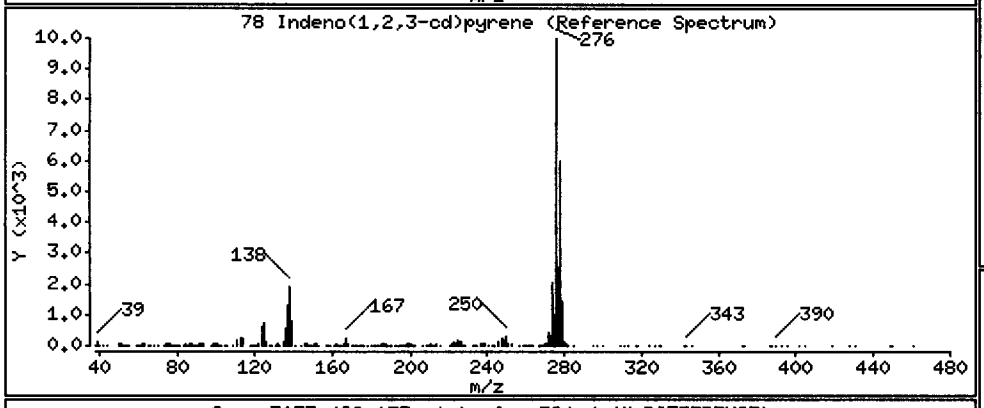
78 Indeno(1,2,3-cd)pyrene Concentration: 13.82 ug/kg

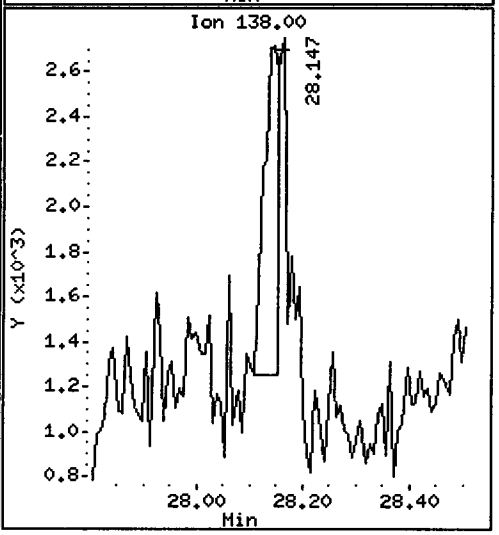


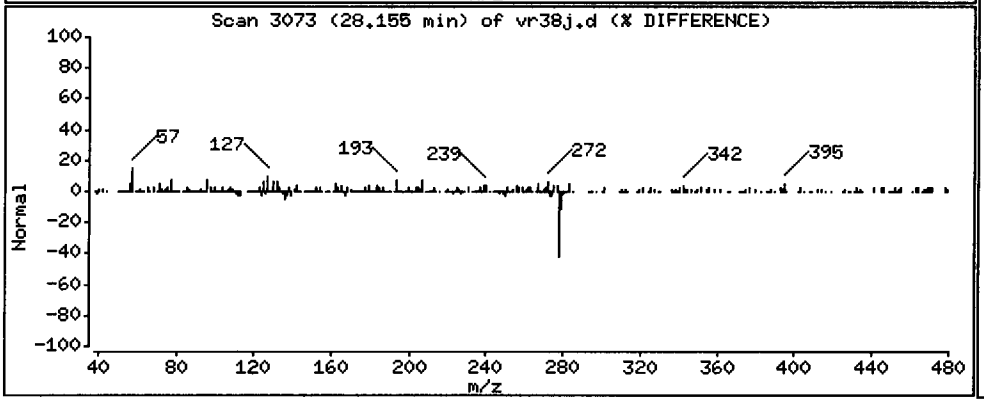












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

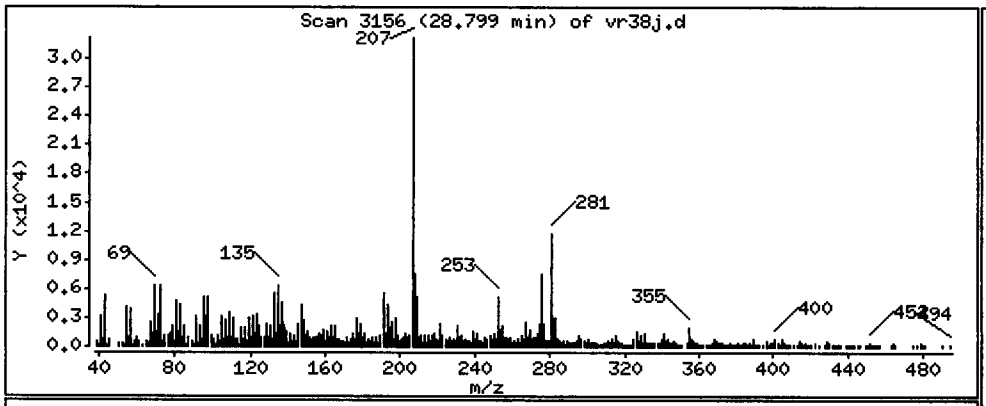
Client ID: HT-06-S-E-121106 Instrument: nt10.i

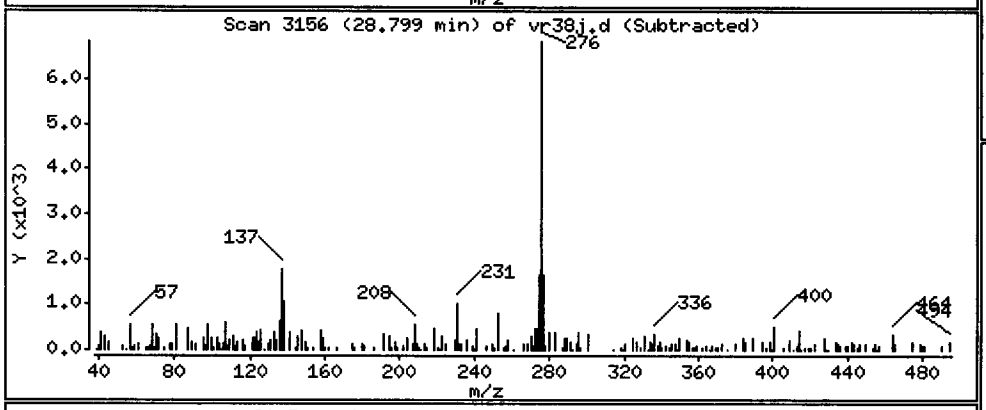
Sample Info: VR38J

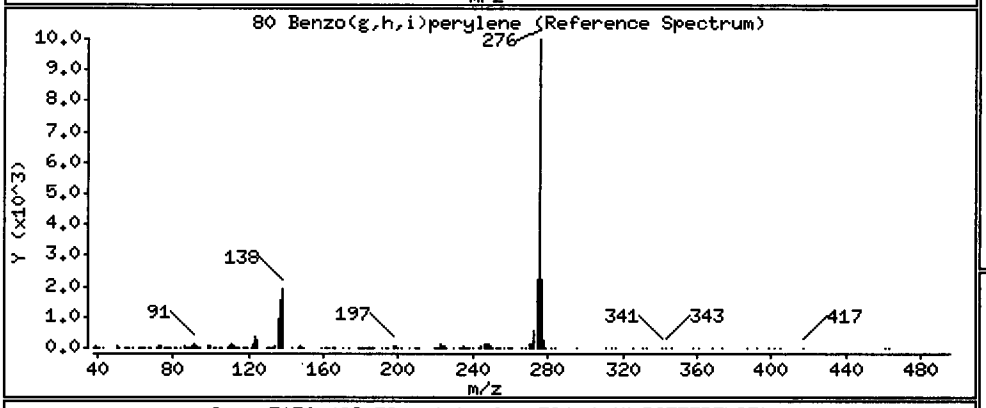
Volume Injected (uL): 1.0 Operator: VTS/YZ

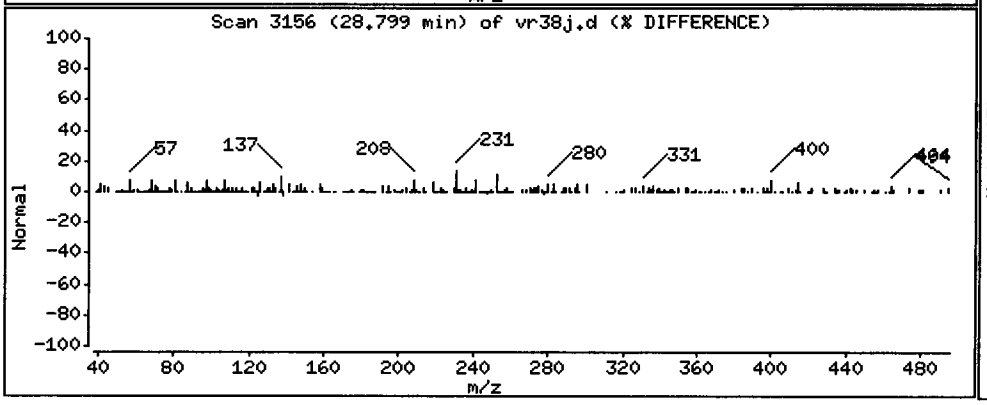
Column phase: ZB-5msi Column diameter: 0.25

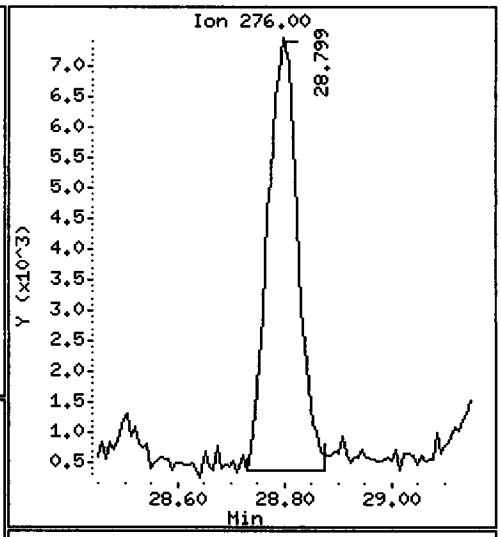
80 Benzo(g,h,i)perylene Concentration: 18.27 ug/kg

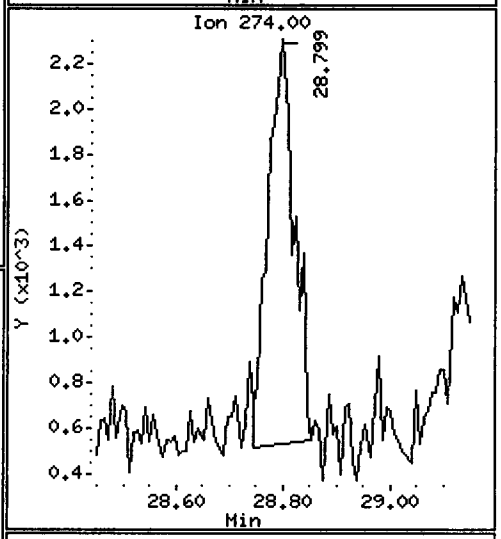


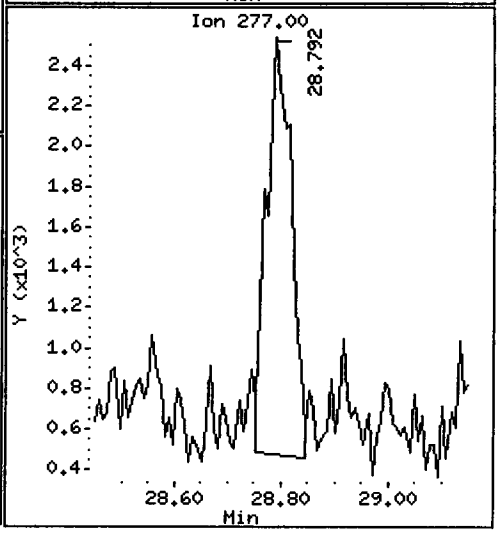












Data File: /chem1/nt10.i/20121119.b/vr38j.d

Date : 19-NOV-2012 22:12

Client ID: HT-06-S-E-121106

Instrument: nt10.i

Sample Info: VR38J

Volume Injected (uL): 1.0

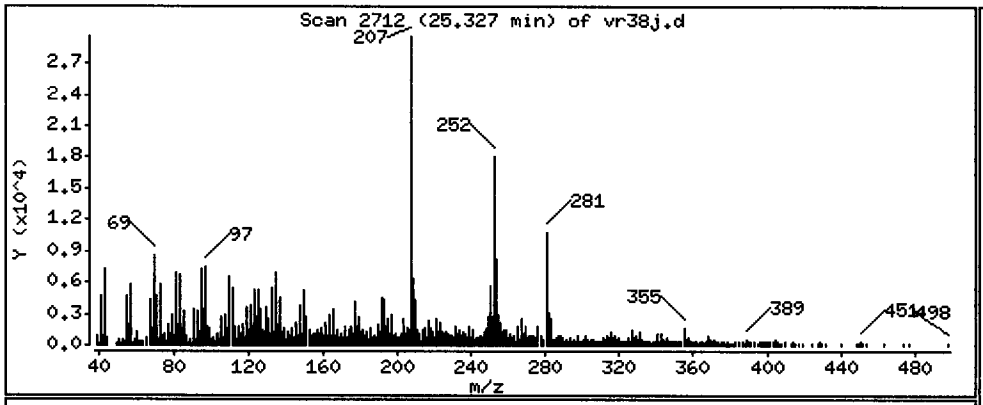
Operator: VTS/YZ

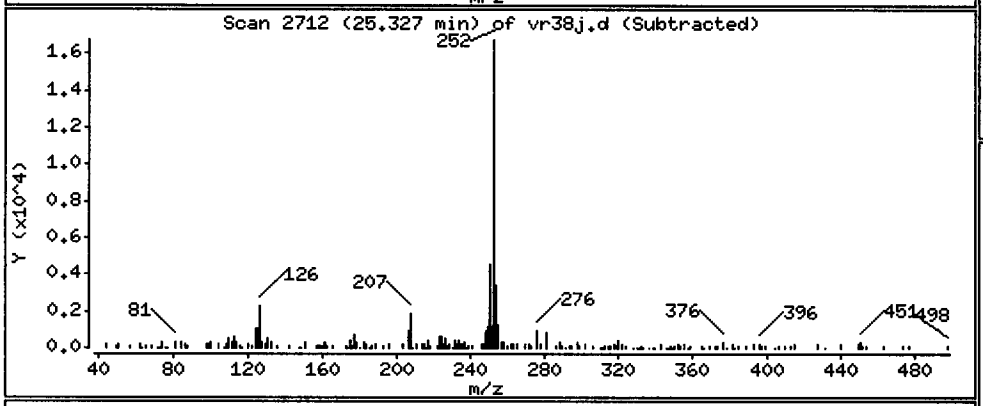
Column phase: ZB-5msi

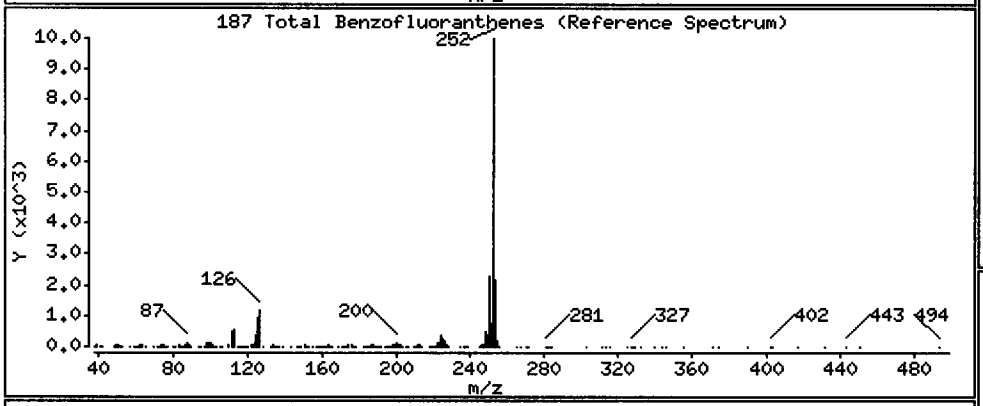
Column diameter: 0.25

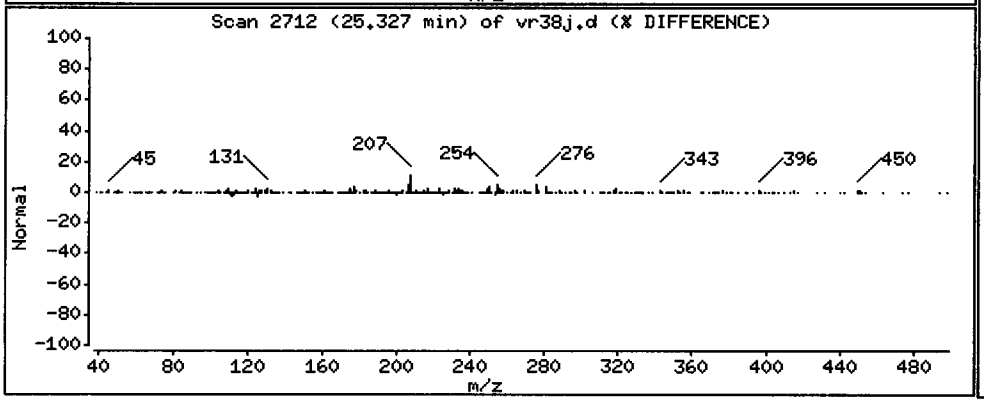
187 Total Benzofluoranthenes

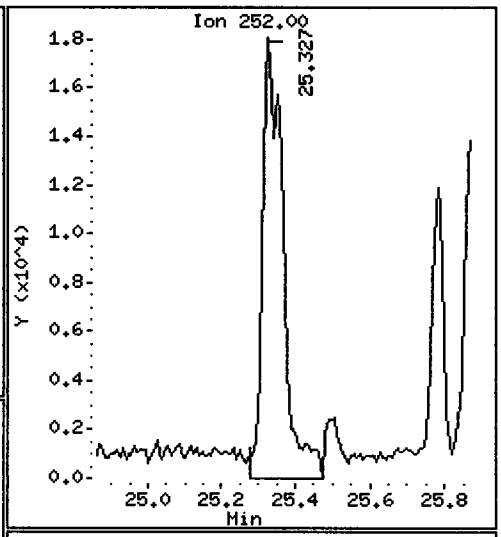
Concentration: 47.40 ug/kg

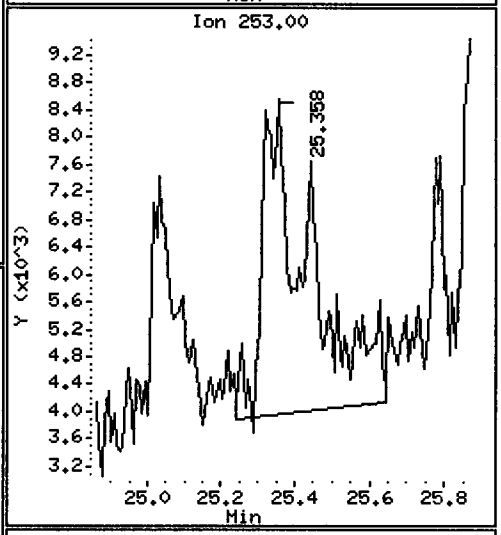


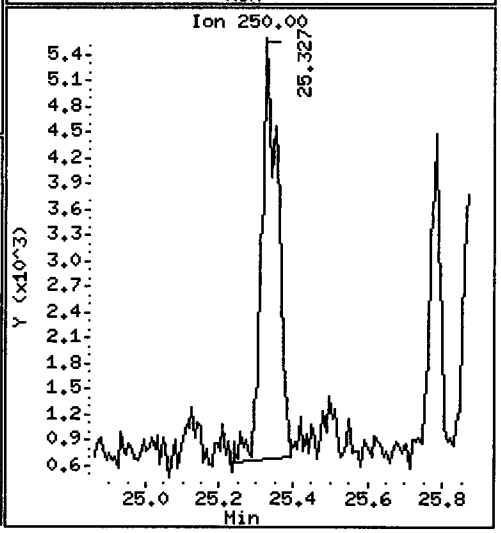












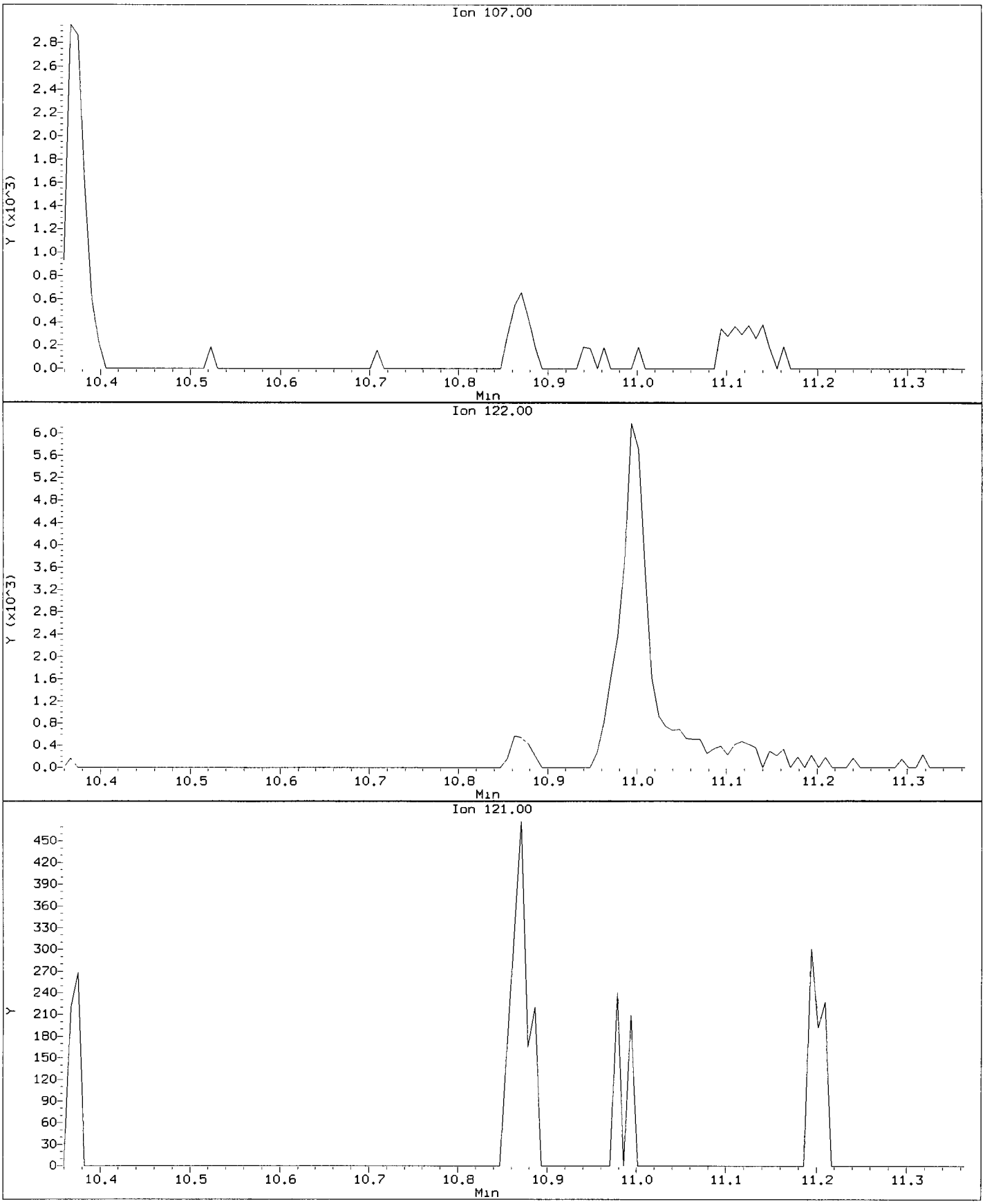
CO-ELUTION SUMMARY FOR FILE - vr38j.d

Lab ID: VR38J, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

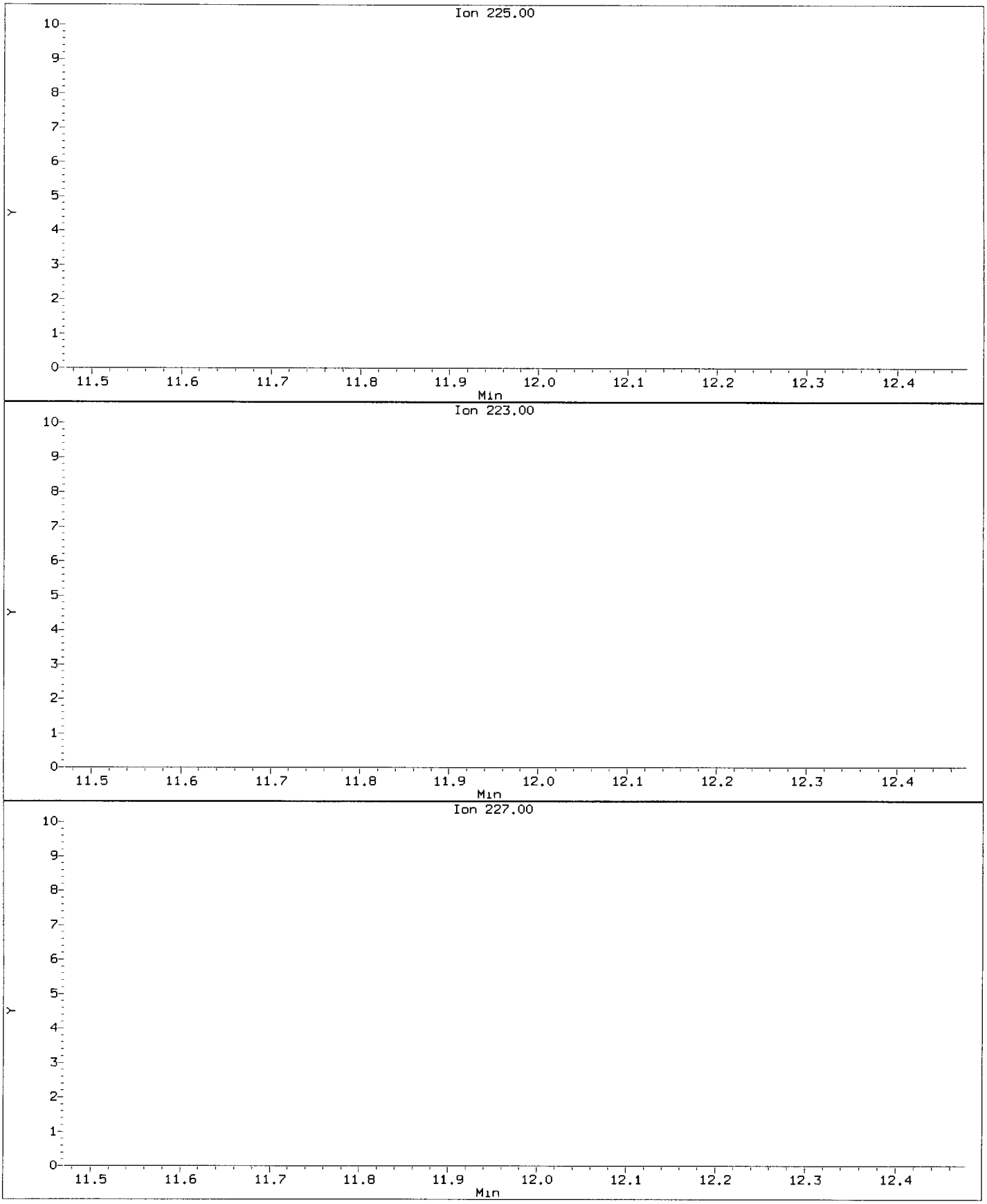
Data File: /chem1/nt10.1/20121119.b/vr38j.d
Injection Date: 19-NOV-2012 22:12
Instrument: nt10.1
Client Sample ID: HT-06-S-E-121106

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



Data File: /chem1/nt10.1/20121119.b/vr38j.d
Injection Date: 19-NOV-2012 22:12
Instrument: nt10.1
Client Sample ID: HT-06-S-E-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Analytical Resources, Inc.

YZ 11/29/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20121119.b/vr38k.d
Lab Smp Id: VR38K Client Smp ID: HT-07-S-E-121106
Inj Date : 19-NOV-2012 22:49
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : VR38K
Misc Info : 12-22277
Comment : 1ul Injection
Method : /chem1/nt10.i/20121119.b/ABN.m
Meth Date : 20-Nov-2012 14:53 yev Quant Type: ISTD
Cal Date : 14-NOV-2012 21:31 Cal File: ic1114i.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.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	12.10000	Weight of sample extracted (g)
M	16.50000	% 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	6.620	6.597	(0.743)	149137	5.51964	546.3
$	2 Phenol-d5	99	8.289	8.282	(0.931)	148494	5.40806	535.3
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.537	8.529	(0.958)	190950	5.07869	502.7
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.908	8.908	(1.000)	101999	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.288	9.281	(1.043)	81830	3.19161	315.9
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.219	9.211	(1.035)	2911	0.18722	18.53
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	10.065	10.065	(0.873)	67952	3.16574	313.3
	22 2,4-Dimethylphenol	107	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.533	11.533	(1.000)	364758	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.916	13.916	(0.904)	271009	3.55890	352.2
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.386	15.386	(1.000)	214360	4.00000	
	44 Acenaphthene	153	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	50 Diethylphthalate	149	16.461	16.477	(1.070)	7648	0.12549	12.42
	49 Fluorene	166	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	17.140	17.140	(1.114)	51498	6.11033	604.8
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.616	18.624	(1.000)	362879	4.00000	
	60 Phenanthrene	178	18.670	18.670	(1.003)	19518	0.20214	20.01
	61 Anthracene	178	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	21.053	21.053	(1.131)	60846	0.49773	49.26
	65 Pyrene	202	21.463	21.463	(0.909)	56420	0.39207	38.81
$	66 Terphenyl-d14	244	21.773	21.781	(0.922)	326787	3.60051	356.4
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	23.585	23.592	(0.999)	24513	0.17885	17.70
*	69 Chrysene-d12	240	23.616	23.616	(1.000)	444880	4.00000	
	71 Chrysene	228	23.654	23.662	(1.002)	34502	0.28756	28.46
	72 bis(2-Ethylhexyl)phthalate	149	23.716	23.724	(0.961)	64819	0.79836	79.02
*	134 Di-n-octylphthalate-d4	153	24.676	24.684	(1.000)	620661	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	76 Benzo(a)pyrene	252	25.861	25.869	(0.996)	31230	0.24025	23.78
*	77 Perylene-d12	264	25.962	25.969	(1.000)	469551	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.162	28.155	(1.085)	33162	0.19955	19.75
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	28.792	28.799	(1.109)	36874	0.26500	26.23
	105 1-methylnaphthalene	142	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	25.327	25.365	(0.976)	71049	0.51111	50.59
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: vr38k.d
Lab Smp Id: VR38K
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22277

Calibration Date: 19-NOV-2012
Calibration Time: 12:19
Client Smp ID: HT-07-S-E-121106
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	97486	48743	194972	101999	4.63
27 Naphthalene-d8	357150	178575	714300	364758	2.13
42 Acenaphthene-d10	217259	108630	434518	214360	-1.33
59 Phenanthrene-d10	355415	177708	710830	362879	2.10
69 Chrysene-d12	390458	195229	780916	444880	13.94
134 Di-n-octylphthala	532303	266152	1064606	620661	16.60
77 Perylene-d12	386299	193150	772598	469551	21.55

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.91	8.41	9.41	8.91	0.00
27 Naphthalene-d8	11.53	11.03	12.03	11.53	0.00
42 Acenaphthene-d10	15.39	14.89	15.89	15.39	0.00
59 Phenanthrene-d10	18.62	18.12	19.12	18.62	-0.04
69 Chrysene-d12	23.62	23.12	24.12	23.62	0.00
134 Di-n-octylphthala	24.68	24.18	25.18	24.68	-0.03
77 Perylene-d12	25.97	25.47	26.47	25.96	-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.

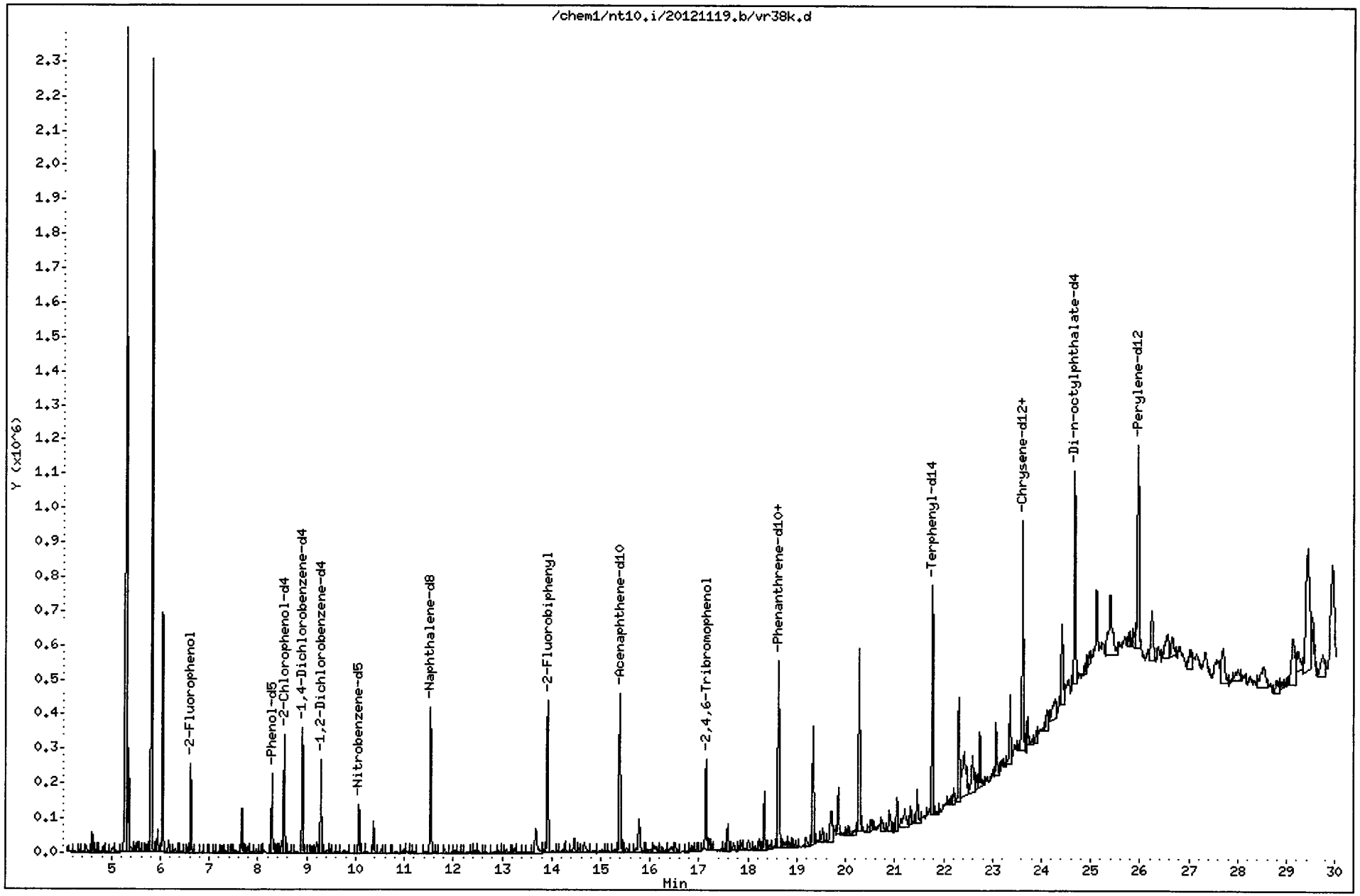
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38K Client Smp ID: HT-07-S-E-121106
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: SHORTPSDDA.sub
Method File: /chem1/nt10.i/20121119.b/ABN.m
Misc Info: 12-22277

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	742.3	546.3	73.60	30-160
$ 2 Phenol-d5	742.3	535.3	72.11	30-160
$ 5 2-Chlorophenol-d4	742.3	502.7	67.72	30-160
$ 10 1,2-Dichlorobenzen	494.9	315.9	63.83	30-160
$ 18 Nitrobenzene-d5	494.9	313.3	63.31	30-160
$ 36 2-Fluorobiphenyl	494.9	352.2	71.18	30-160
$ 55 2,4,6-Tribromophen	742.3	604.8	81.47	30-160
$ 66 Terphenyl-d14	494.9	356.4	72.01	30-160

Data File: /chem1/nt10.i/20121119.b/vr38k.d
Date : 19-NOV-2012 22:49
Client ID: HT-07-S-E-121106
Sample Info: VR38K
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

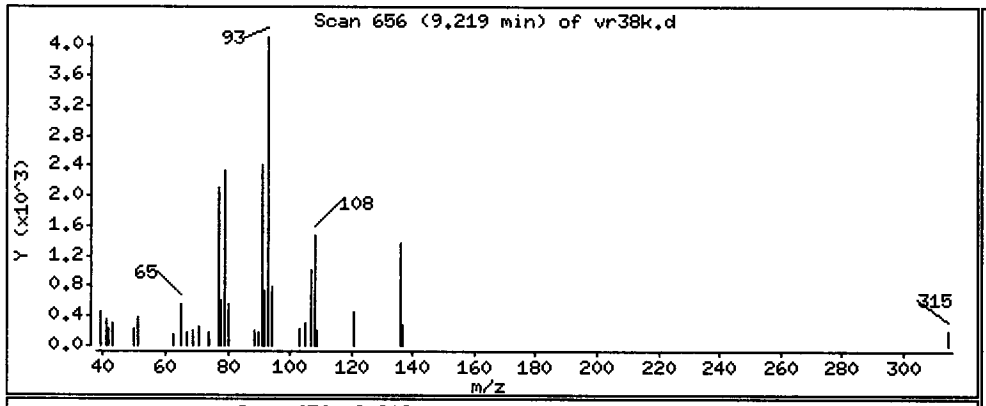
Operator: VTS/YZ

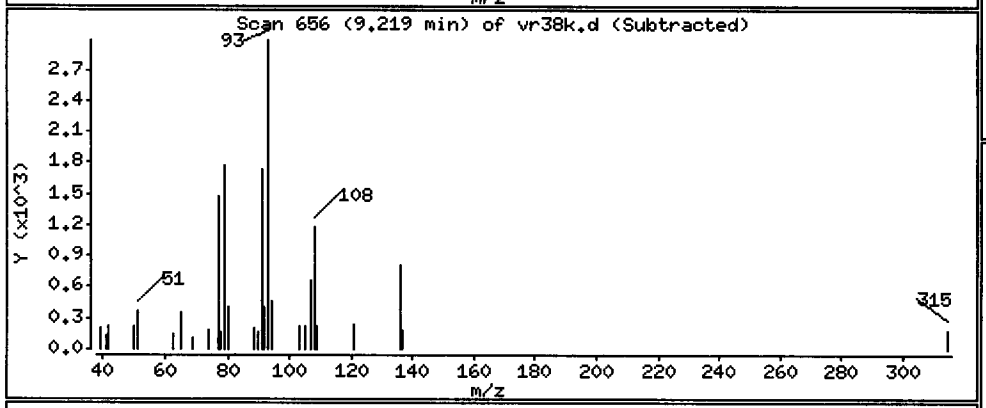
Column phase: ZB-5msi

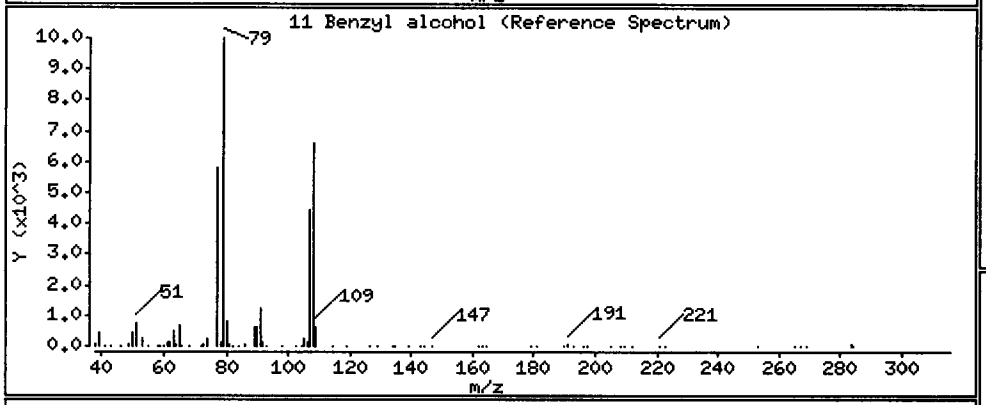
Column diameter: 0.25

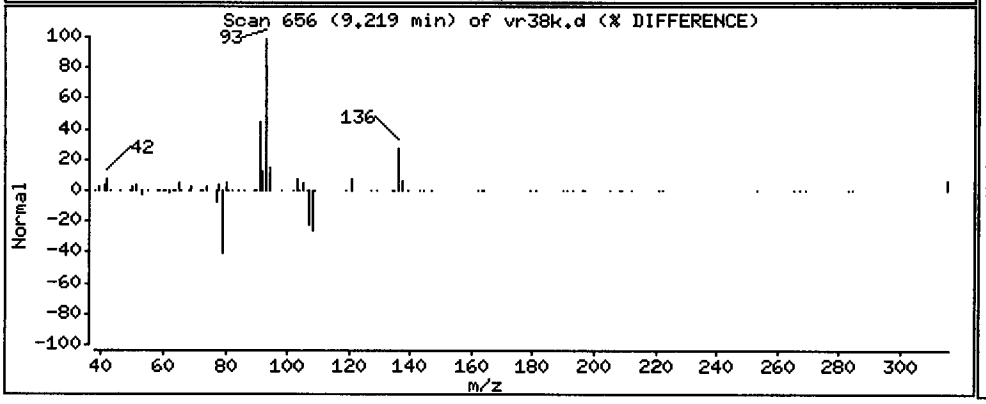
11 Benzyl alcohol

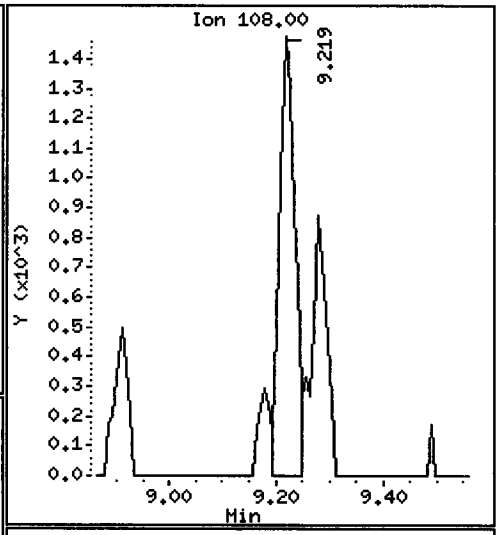
Concentration: 18.53 ug/kg

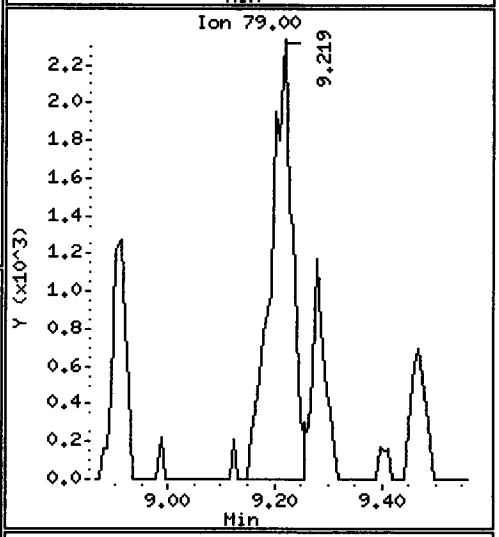


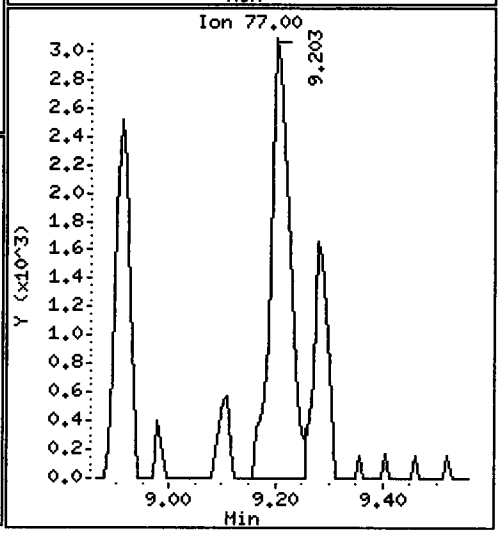












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

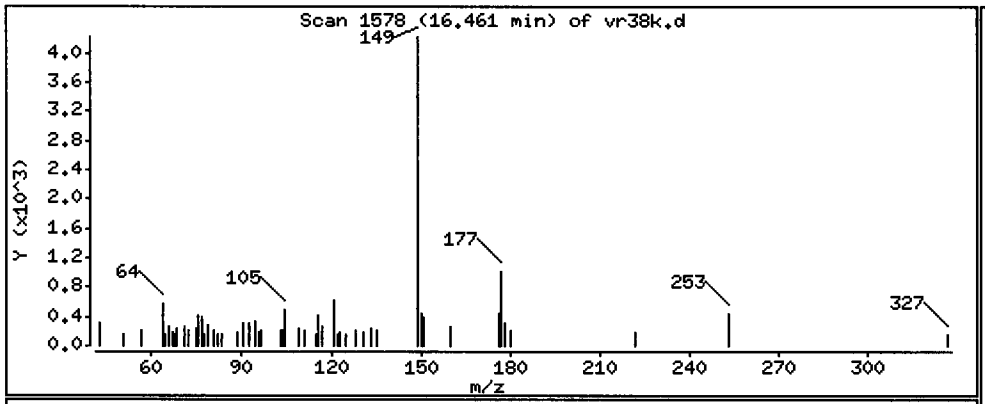
Client ID: HT-07-S-E-121106 Instrument: nt10.i

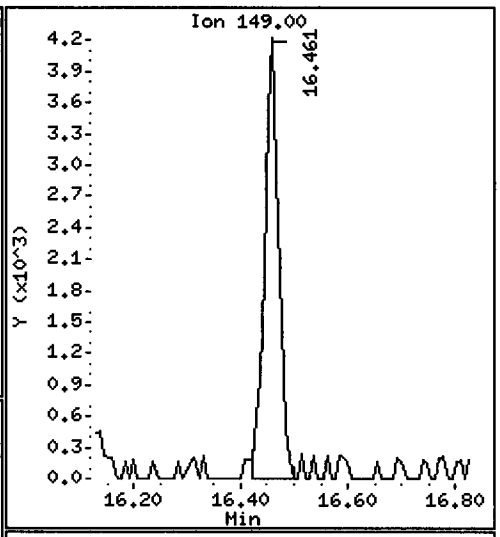
Sample Info: VR38K

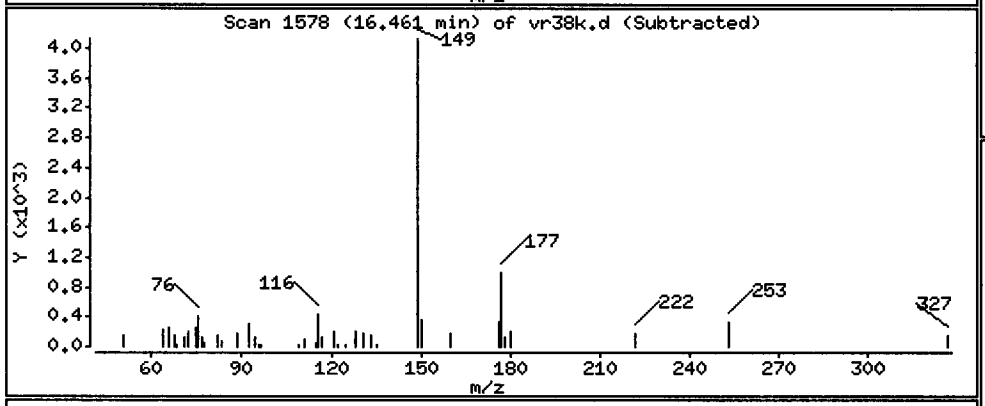
Volume Injected (uL): 1.0 Operator: VTS/YZ

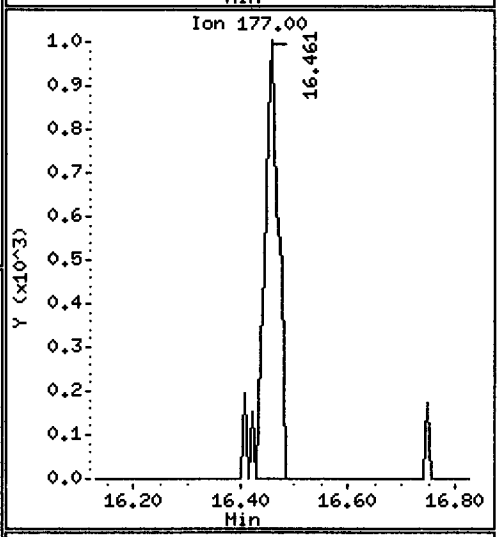
Column phase: ZB-5msi Column diameter: 0.25

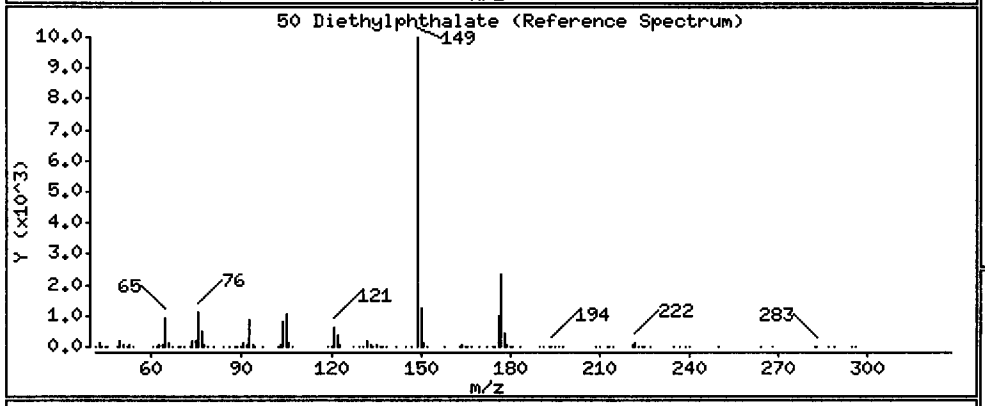
50 Diethylphthalate Concentration: 12.42 ug/kg

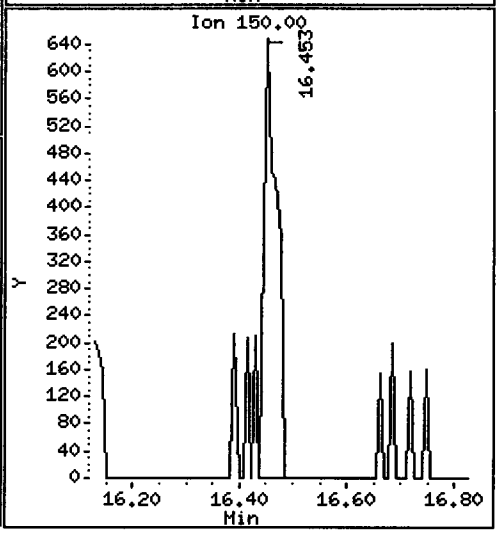


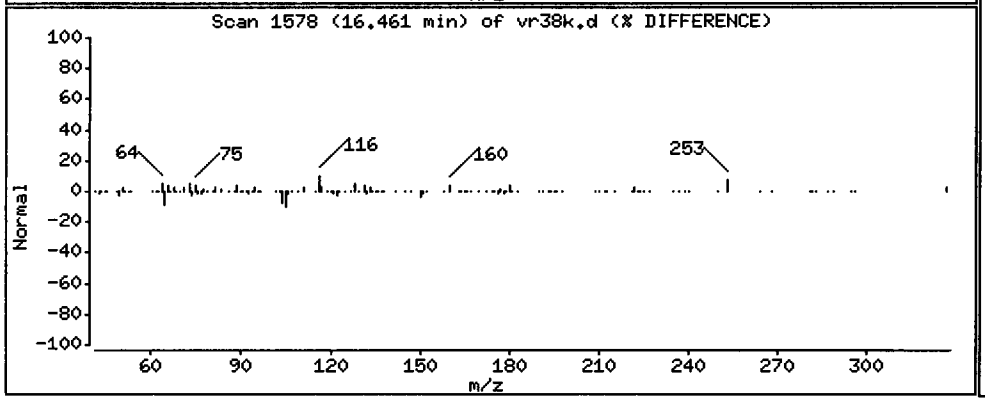












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

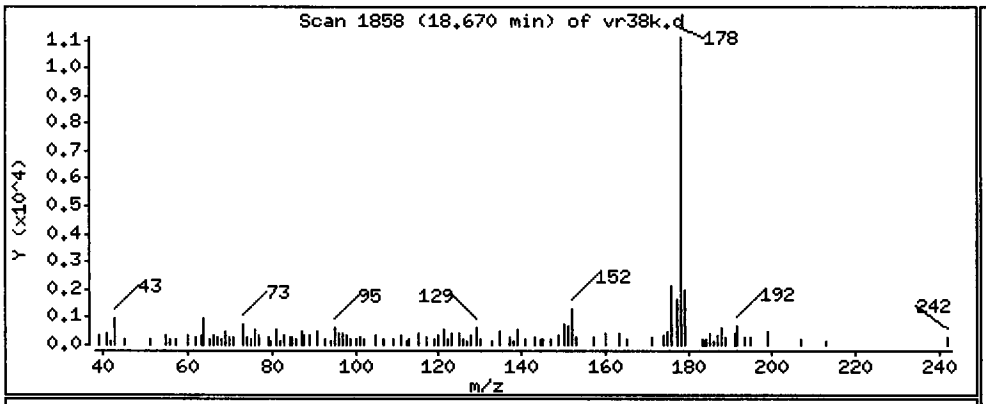
Operator: VTS/YZ

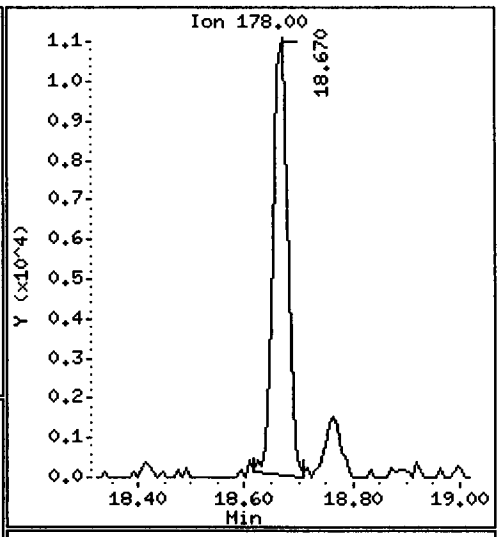
Column phase: ZB-5msi

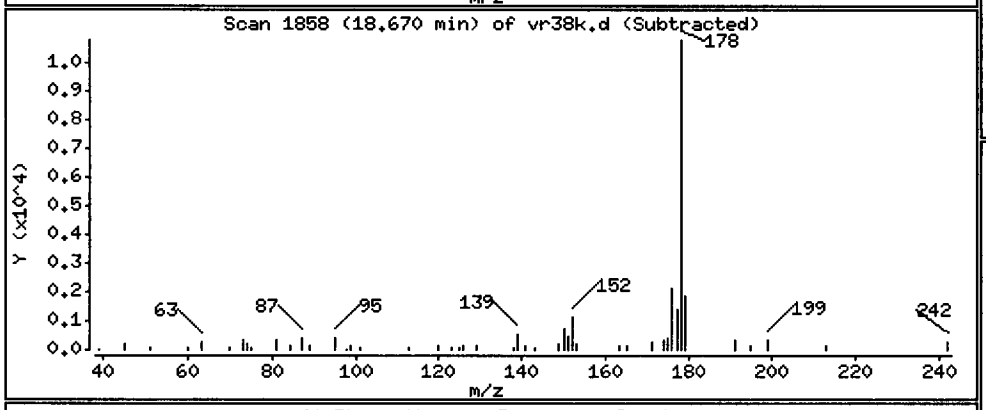
Column diameter: 0.25

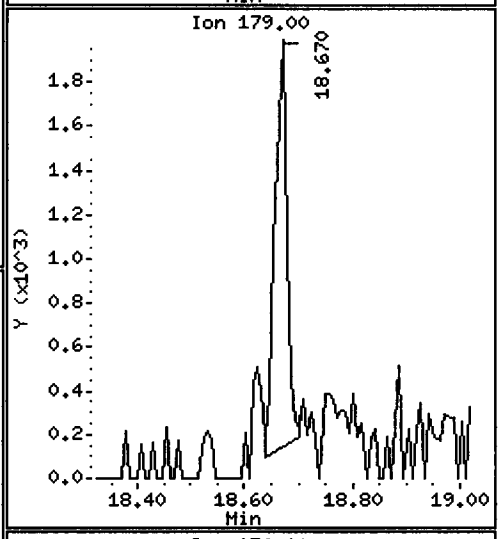
60 Phenanthrene

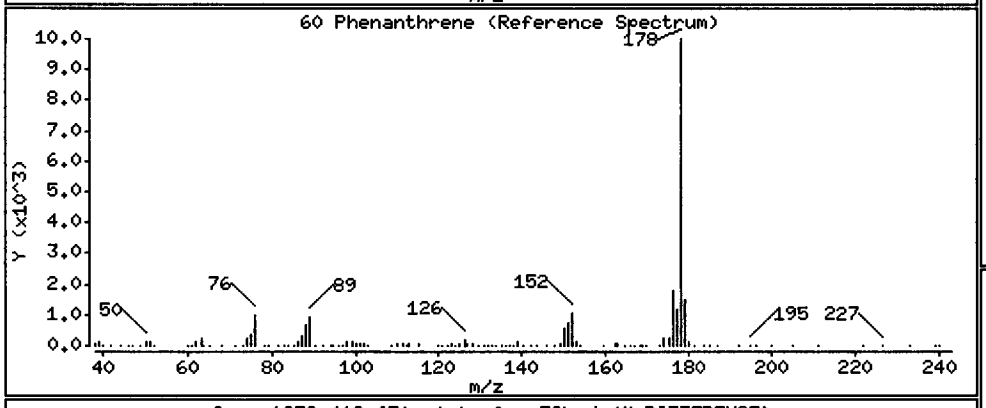
Concentration: 20.01 ug/kg

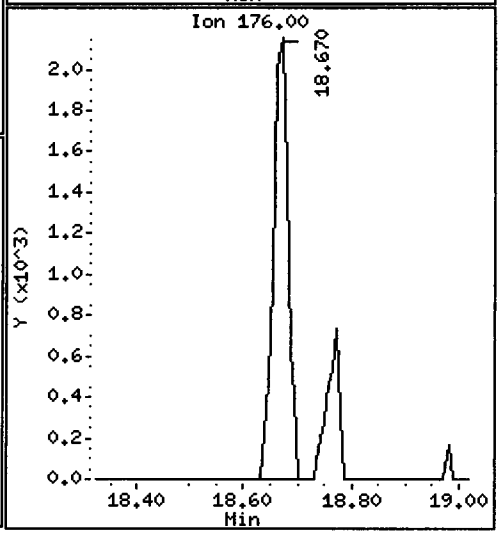


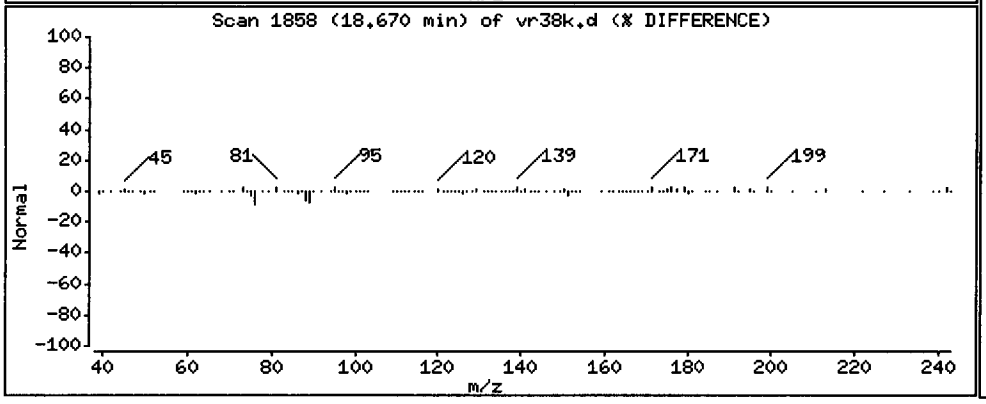












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

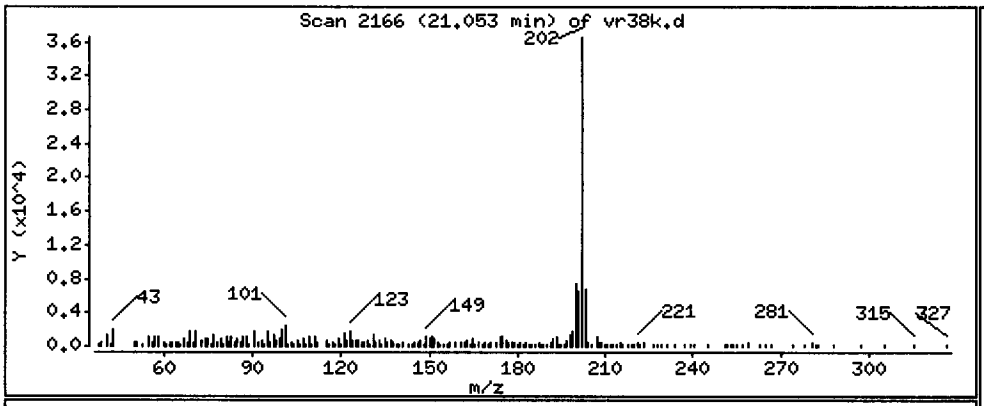
Client ID: HT-07-S-E-121106 Instrument: nt10.i

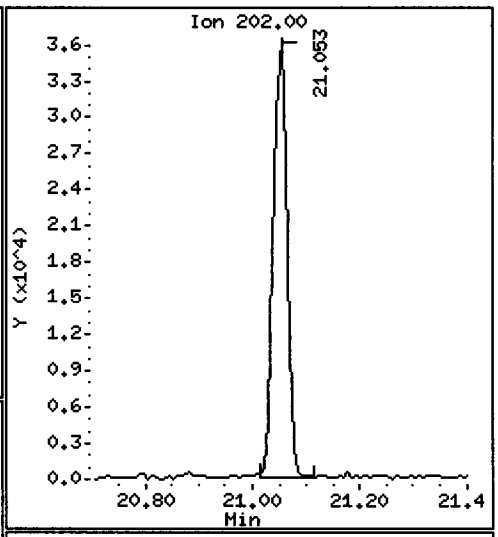
Sample Info: VR38K

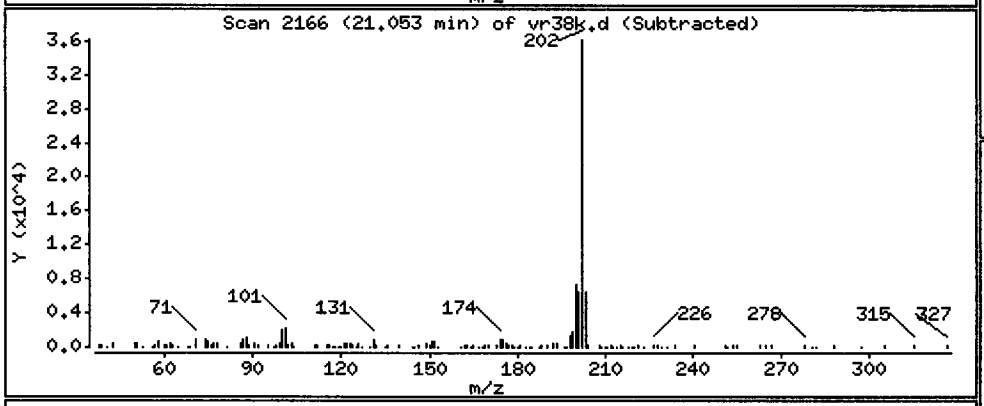
Volume Injected (uL): 1.0 Operator: VTS/YZ

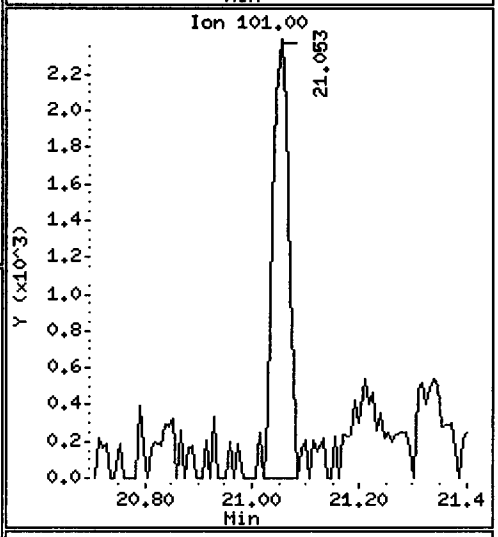
Column phase: ZB-5msi Column diameter: 0.25

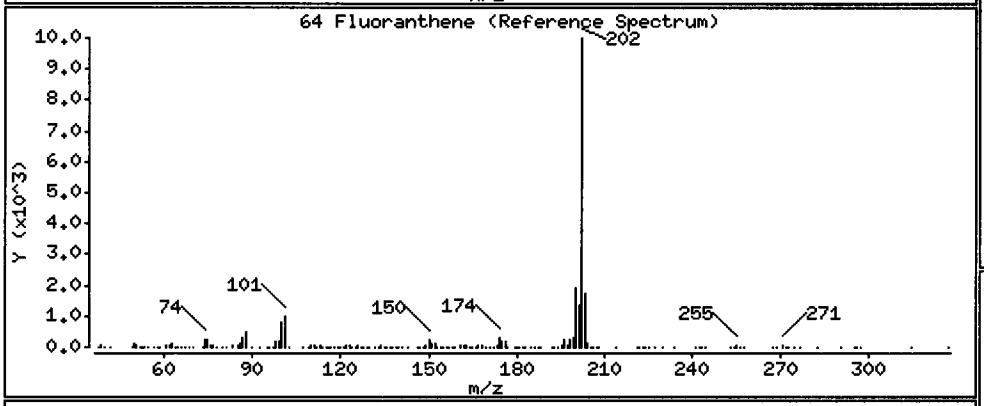
64 Fluoranthene Concentration: 49.26 ug/kg

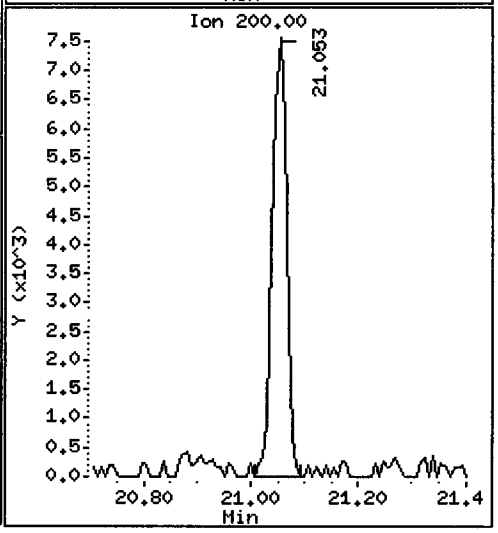


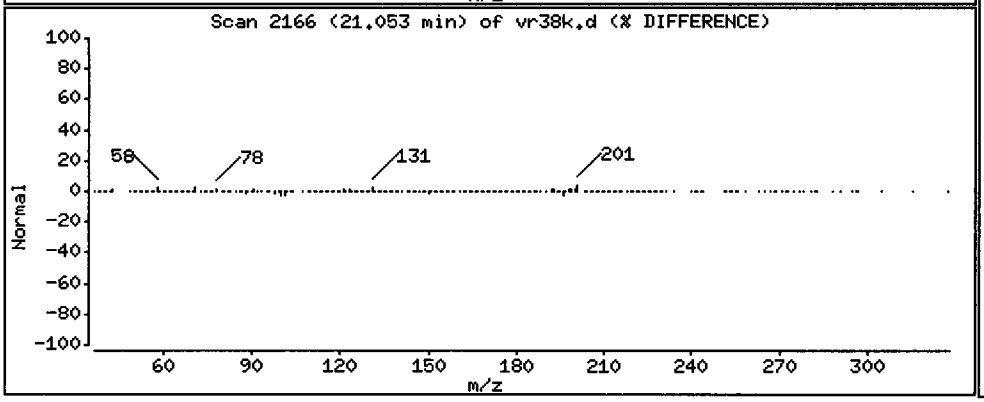












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

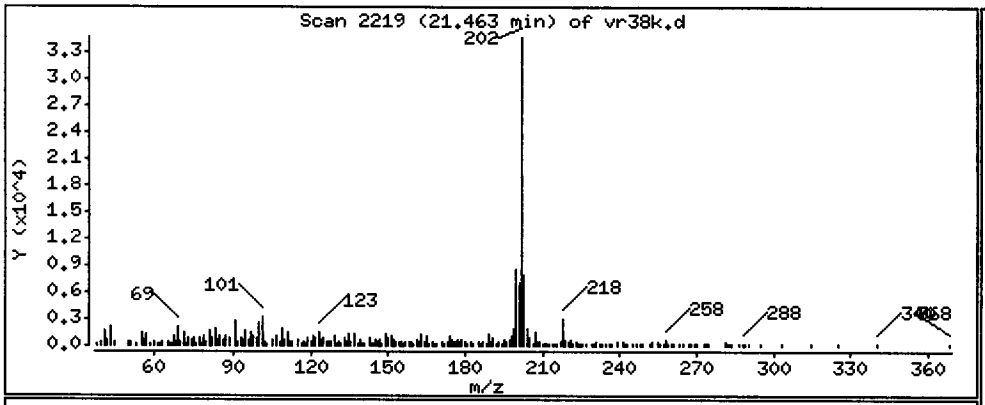
Operator: VTS/YZ

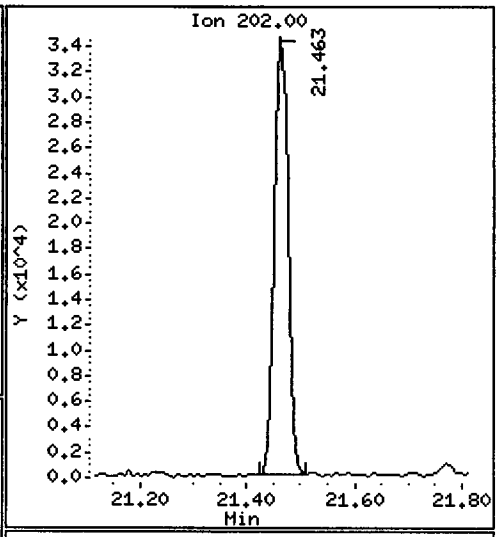
Column phase: ZB-5msi

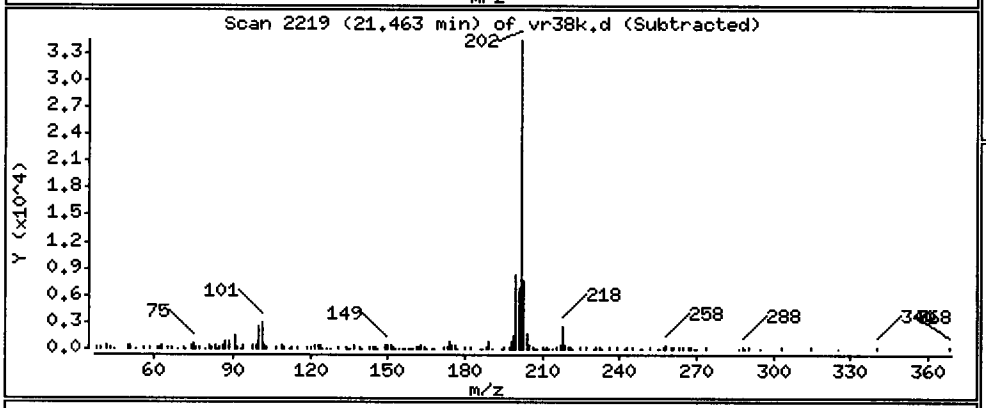
Column diameter: 0.25

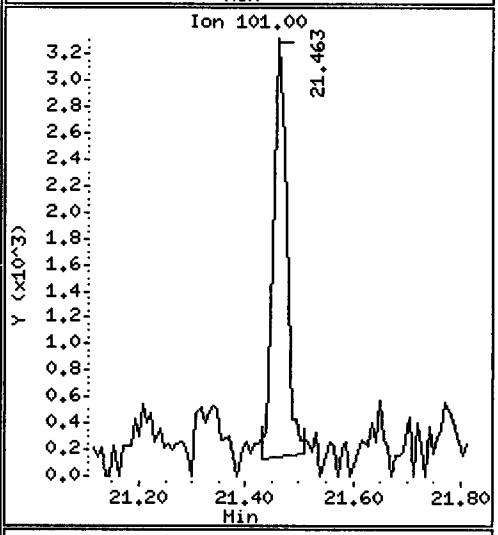
65 Pyrene

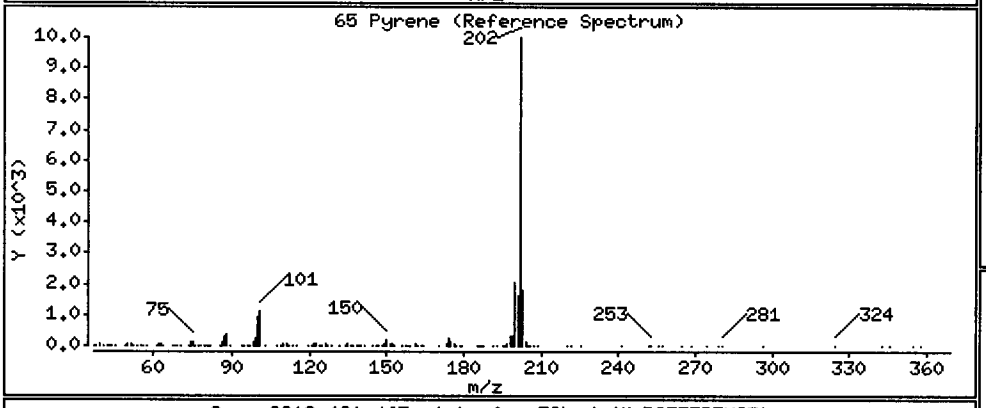
Concentration: 38.81 ug/kg

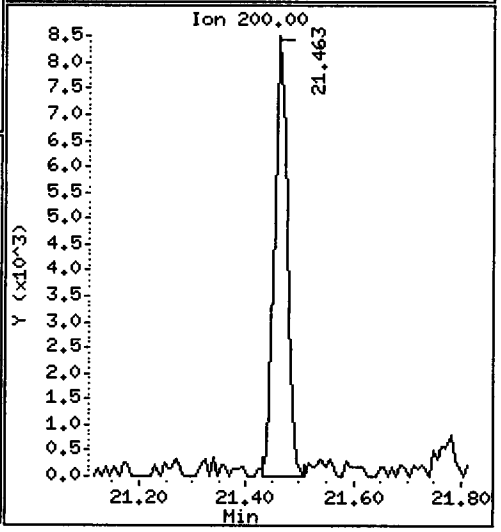


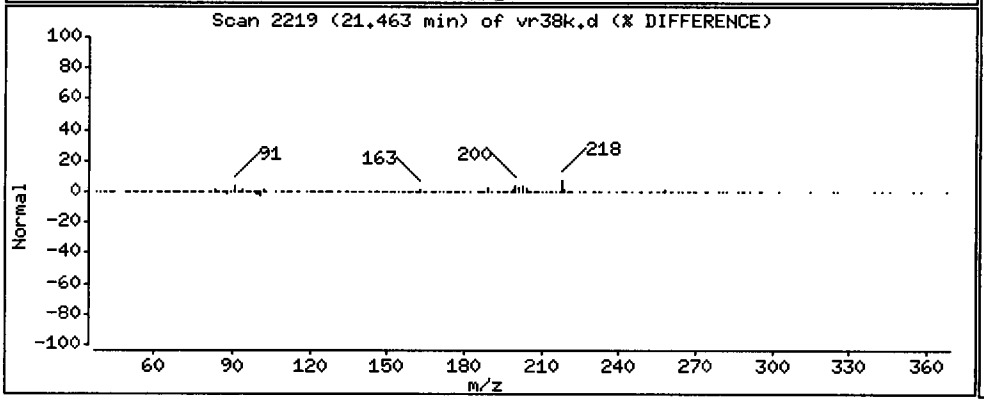












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

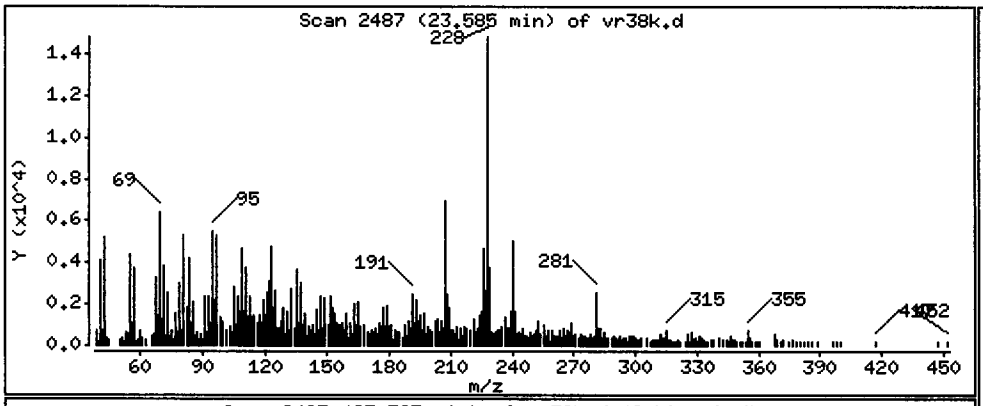
Operator: VTS/YZ

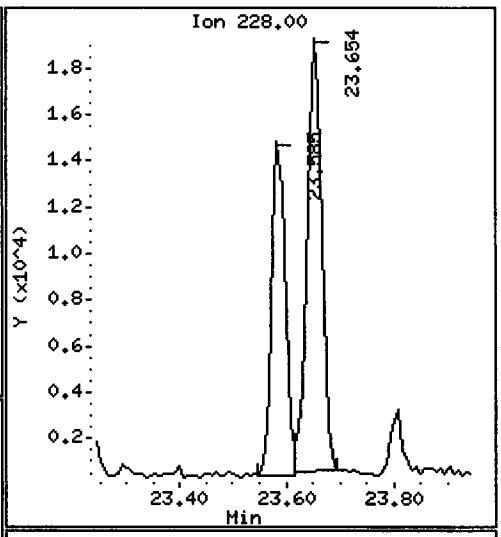
Column phase: ZB-5msi

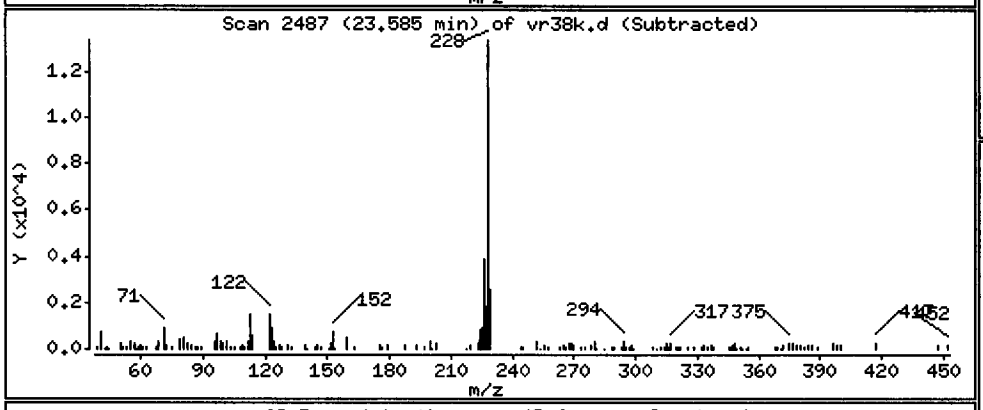
Column diameter: 0.25

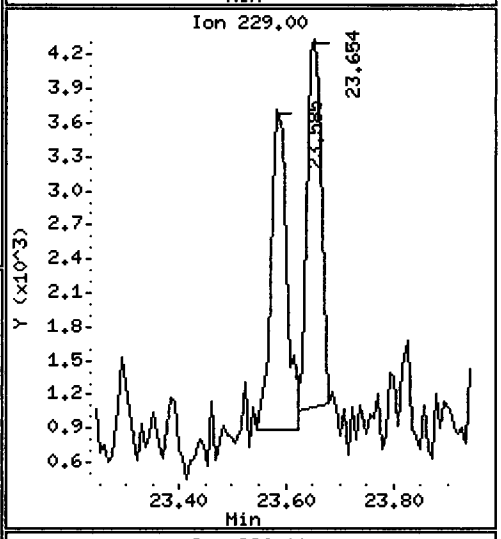
68 Benzo(a)anthracene

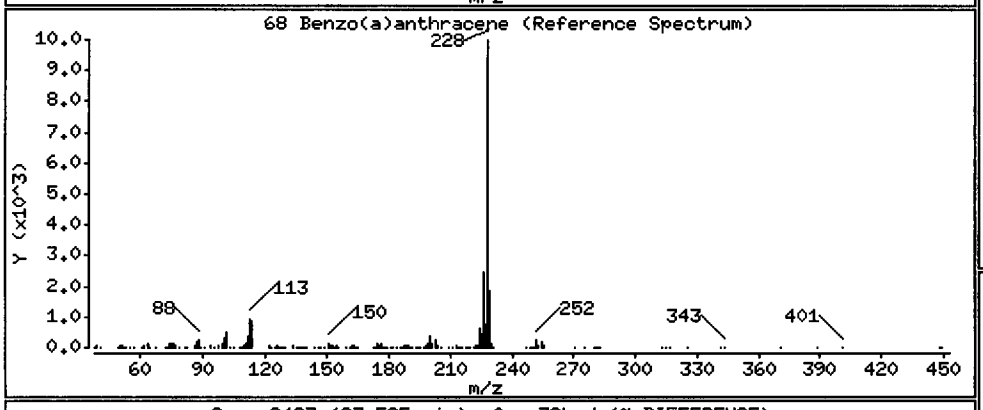
Concentration: 17.70 ug/kg

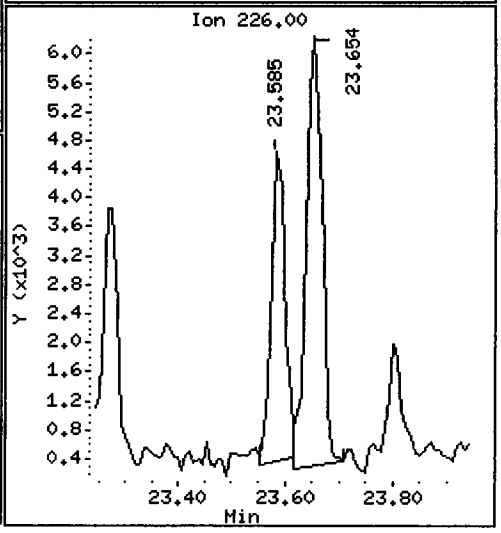


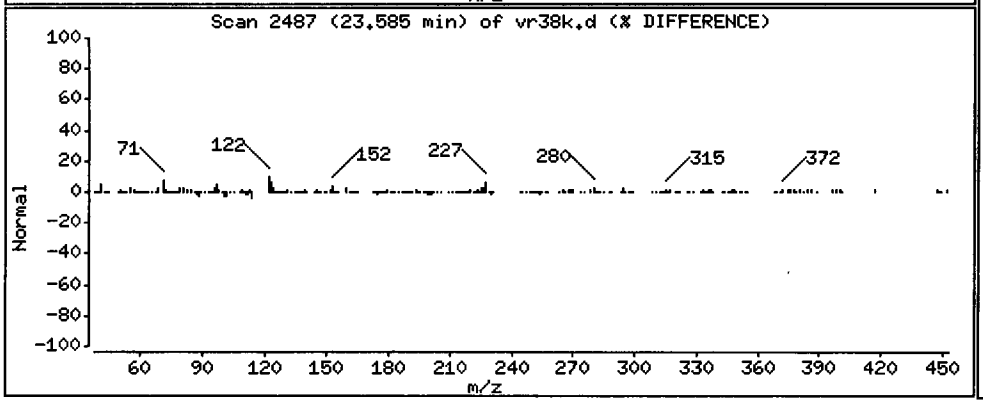












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

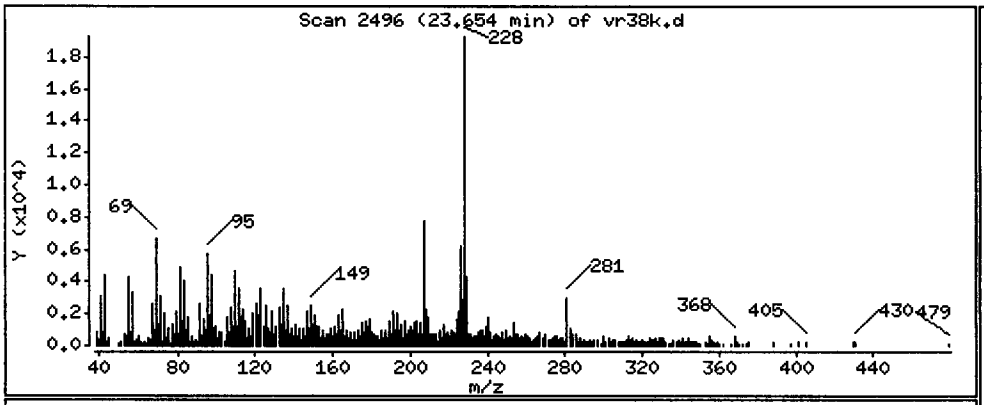
Operator: VTS/YZ

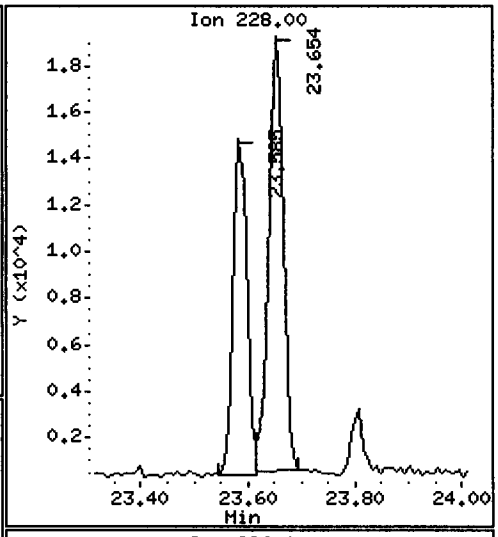
Column phase: ZB-5msi

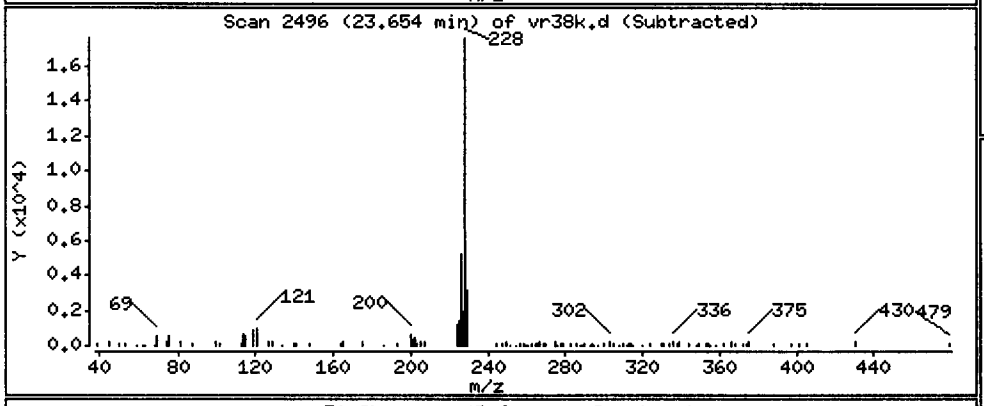
Column diameter: 0.25

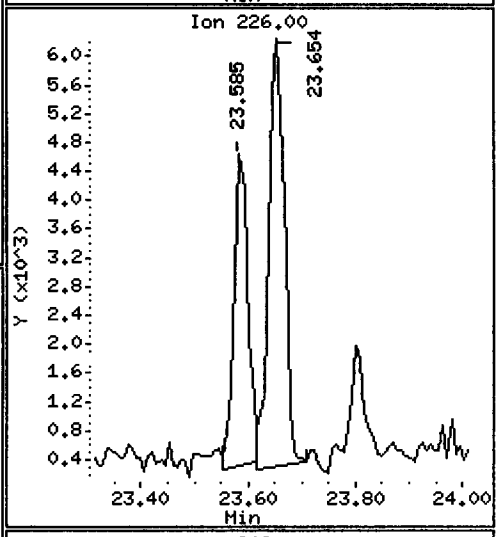
71 Chrysene

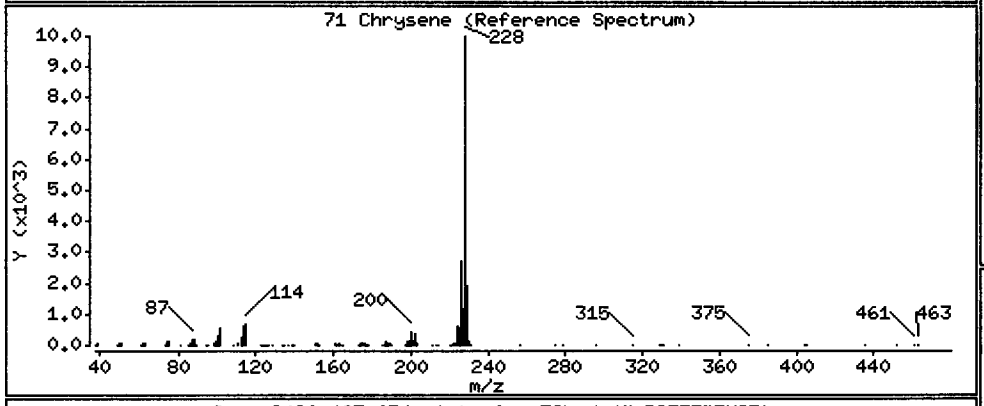
Concentration: 28.46 ug/kg

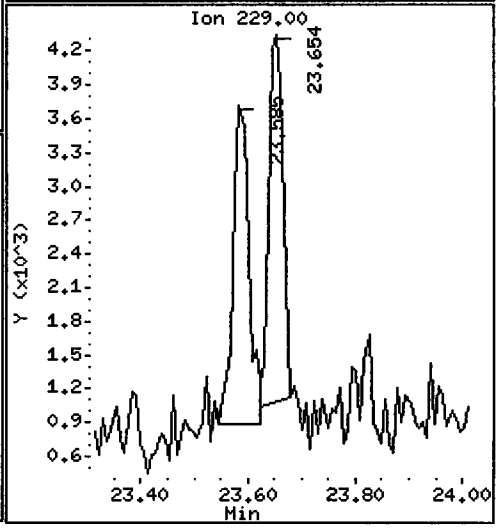


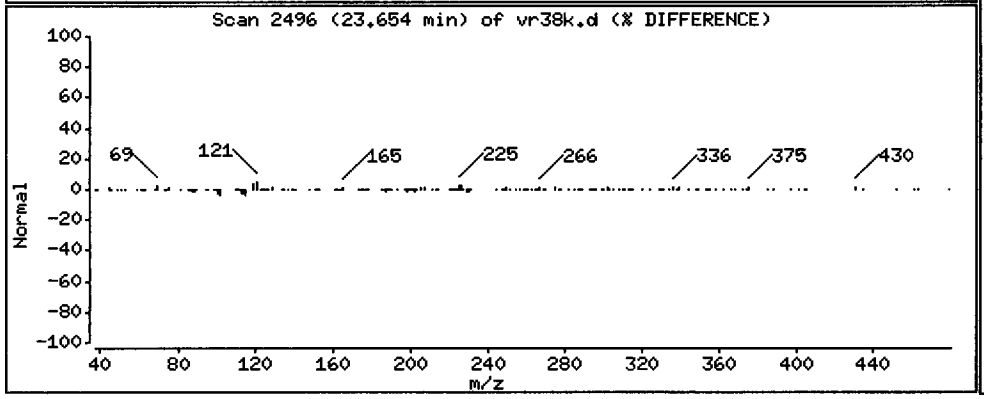












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

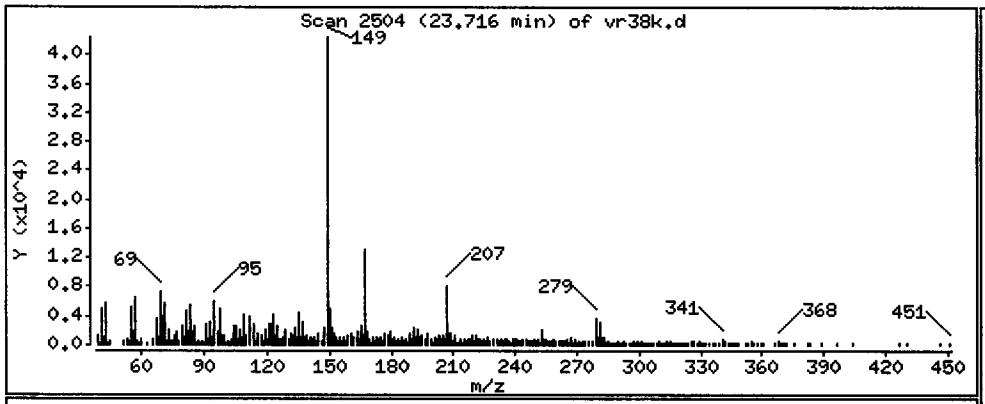
Operator: VTS/YZ

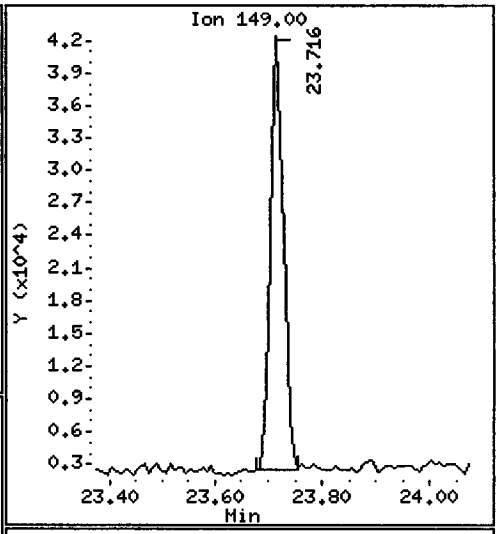
Column phase: ZB-5msi

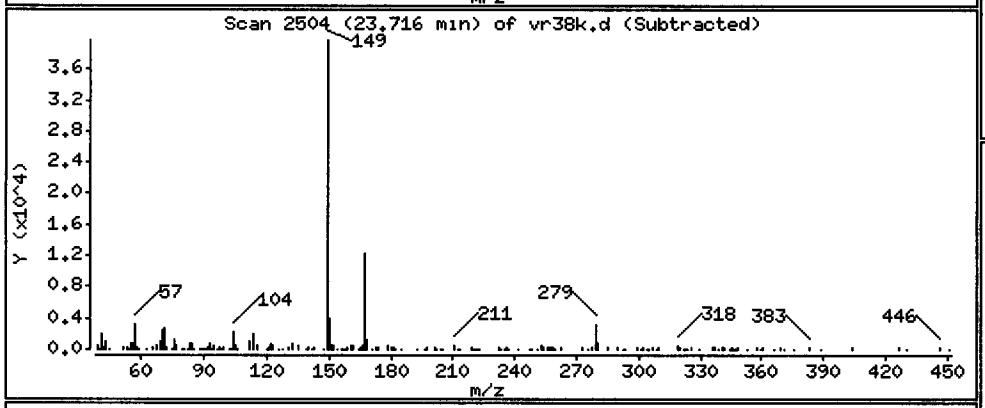
Column diameter: 0.25

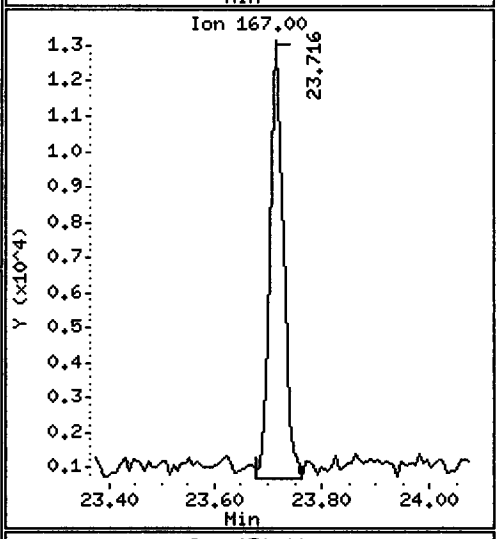
72 bis(2-Ethylhexyl)phthalate

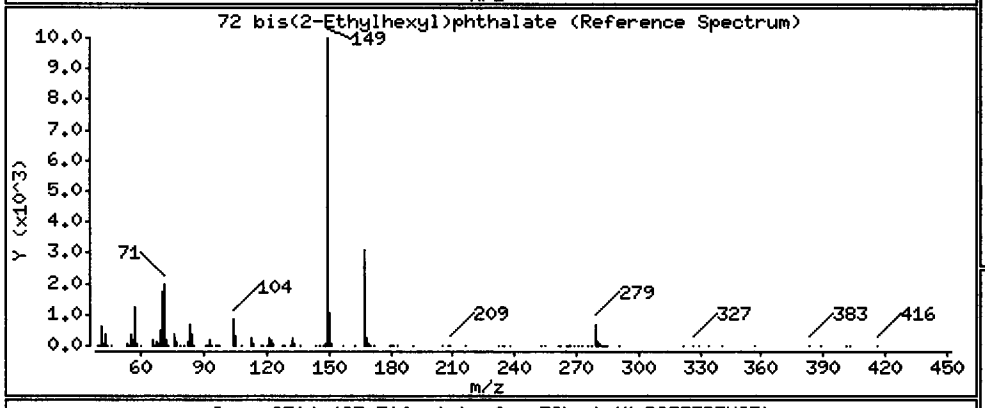
Concentration: 79.02 ug/kg

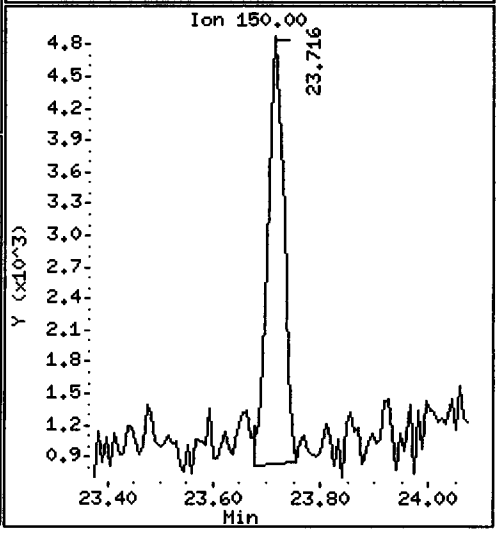


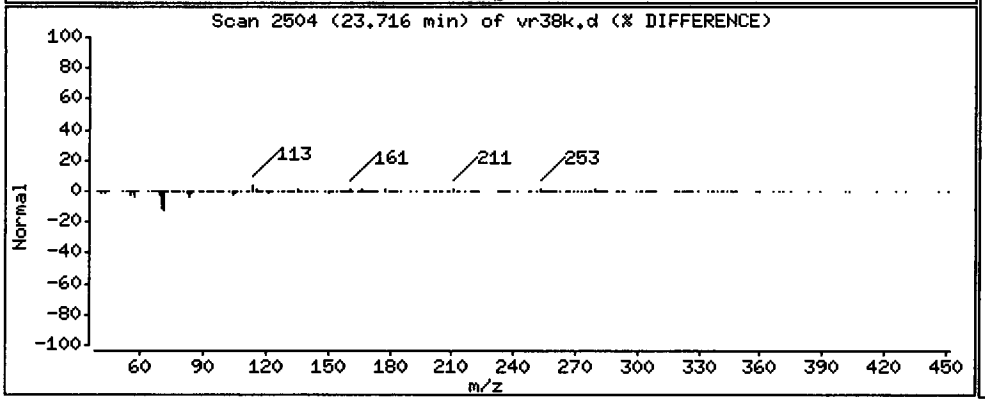












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

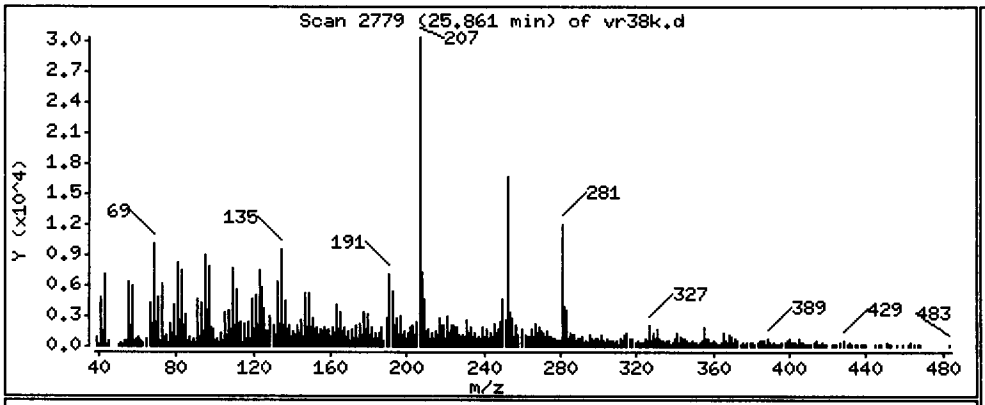
Operator: VTS/YZ

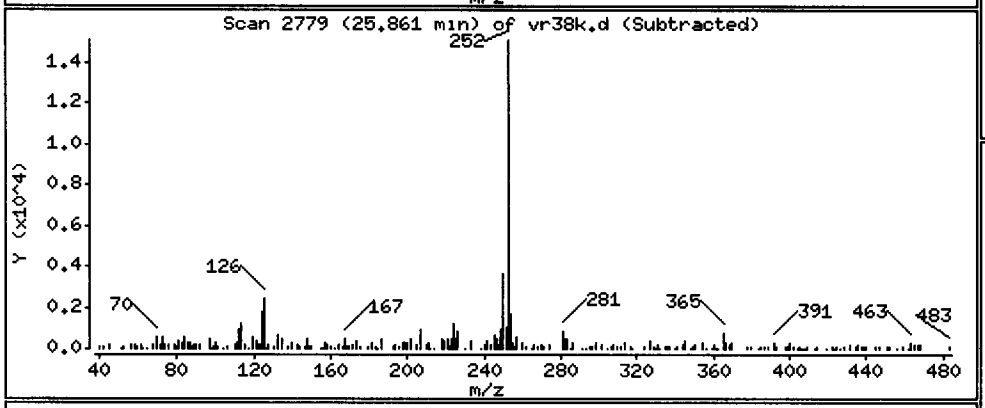
Column phase: ZB-5msi

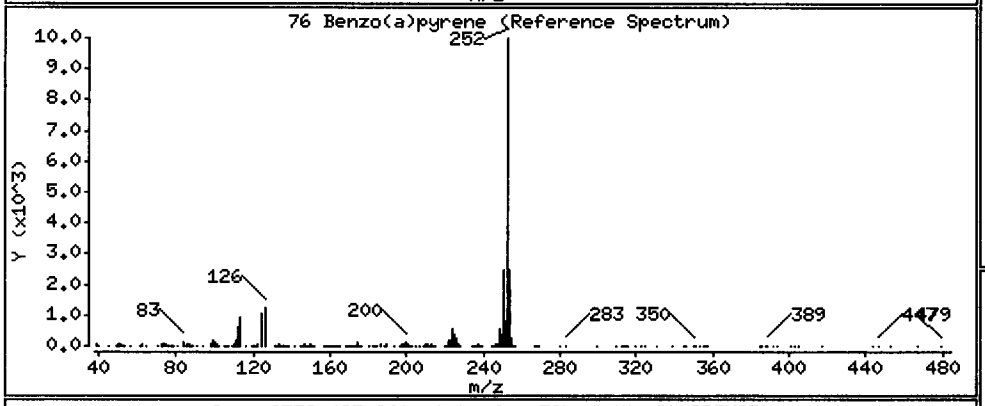
Column diameter: 0.25

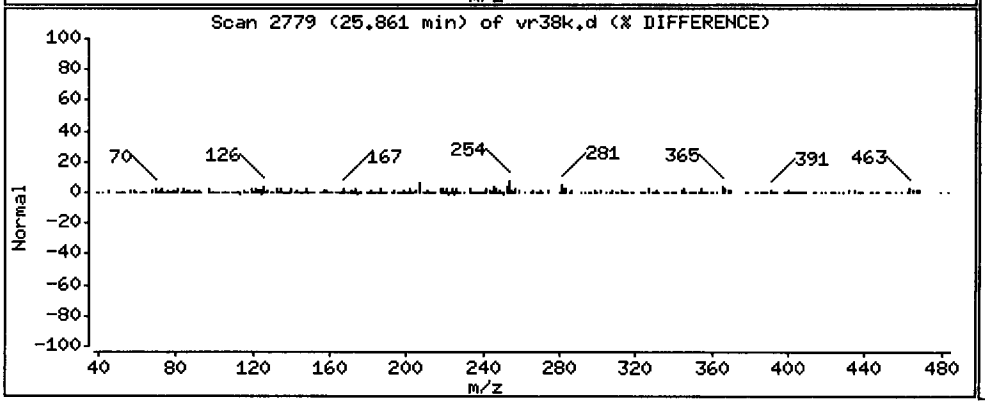
76 Benzo(a)pyrene

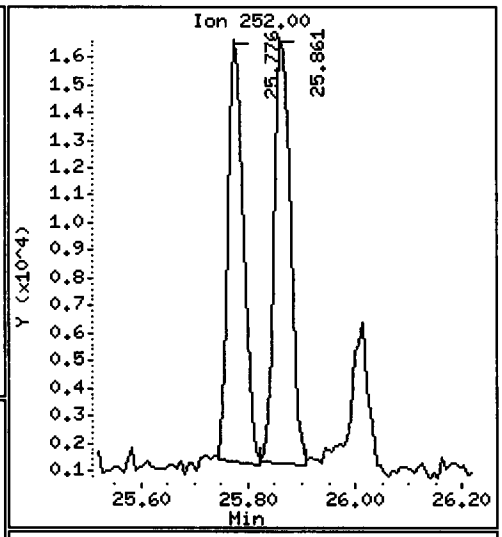
Concentration: 23.78 ug/kg

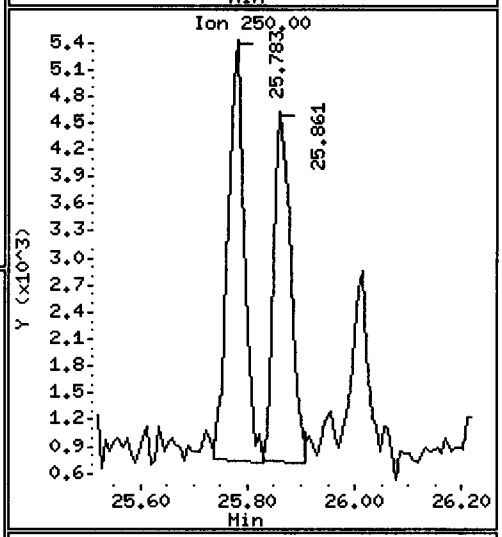


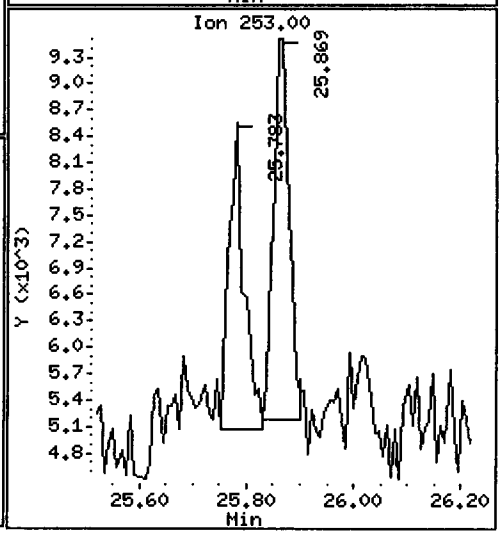












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

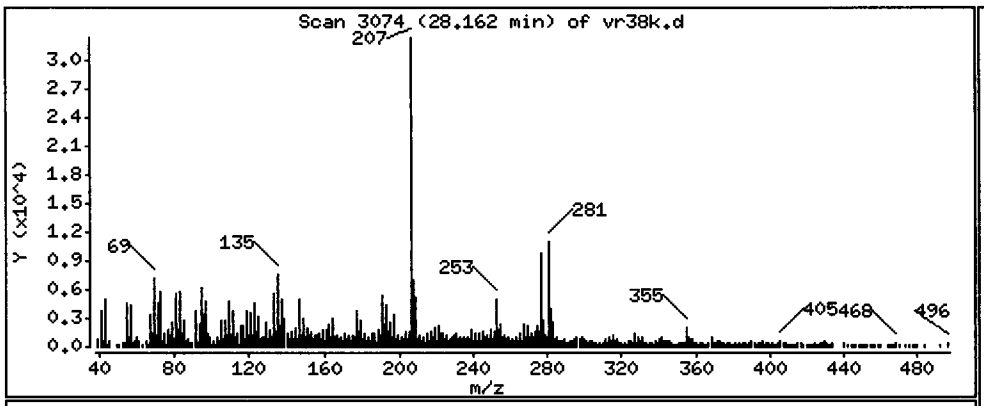
Operator: VTS/YZ

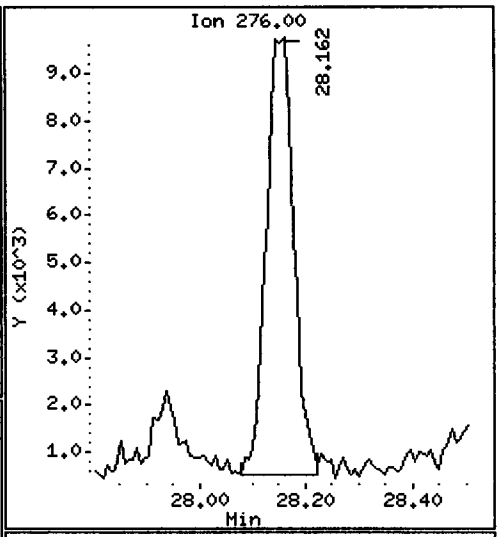
Column phase: ZB-5msi

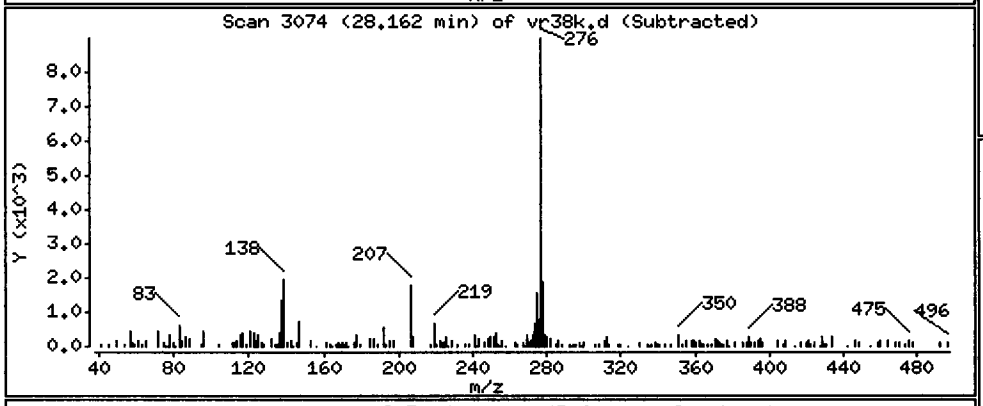
Column diameter: 0.25

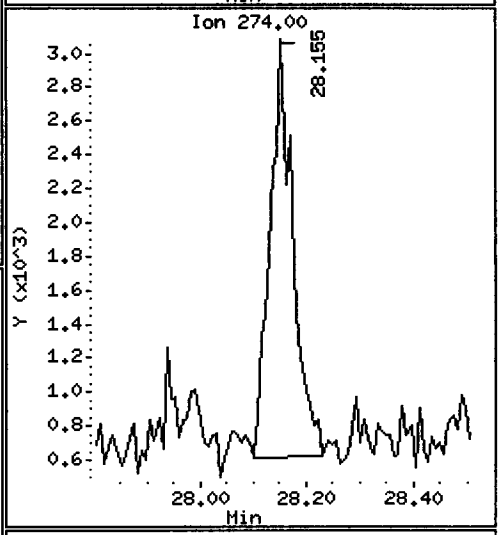
78 Indeno(1,2,3-cd)pyrene

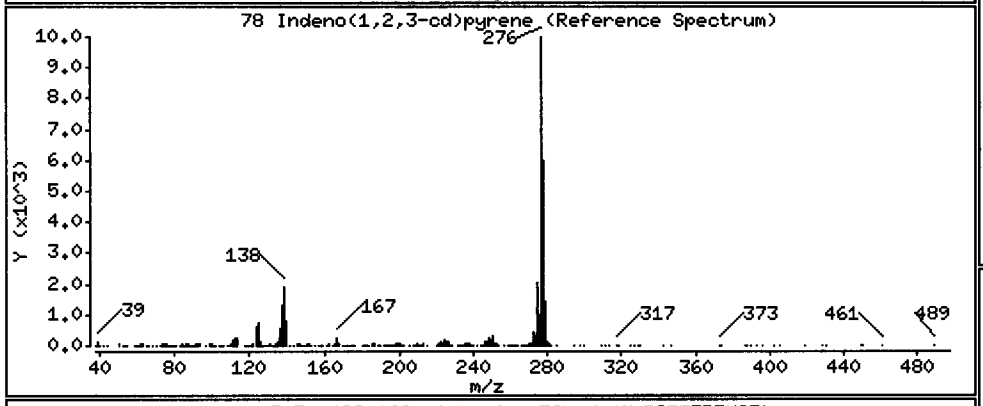
Concentration: 19.75 ug/kg

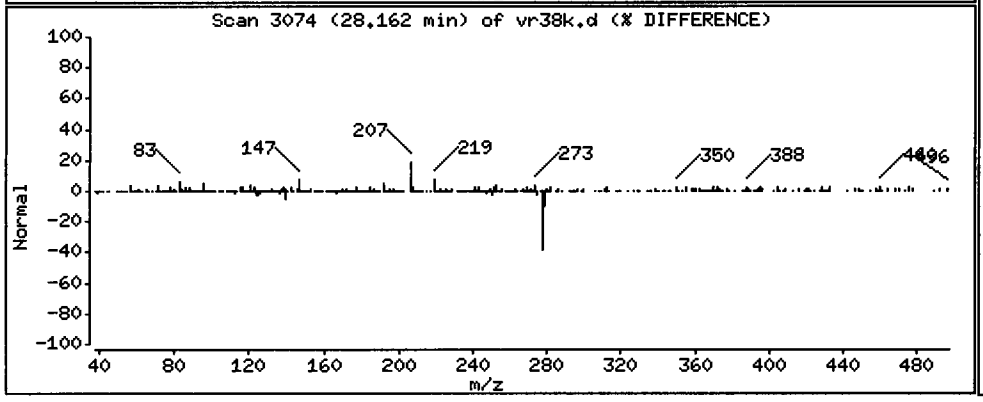


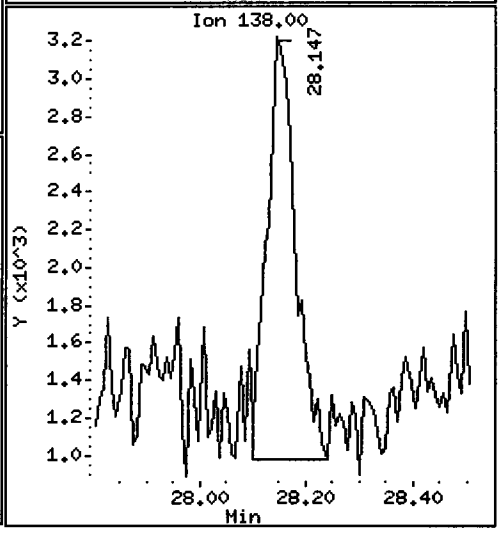












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

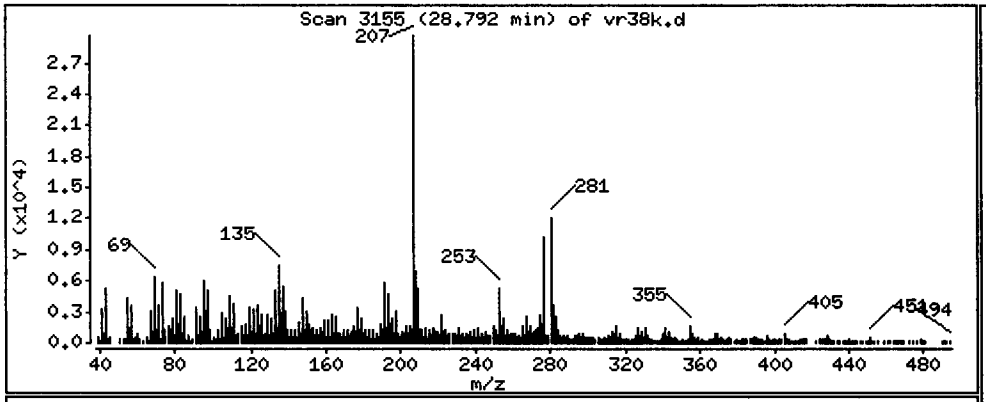
Client ID: HT-07-S-E-121106 Instrument: nt10.i

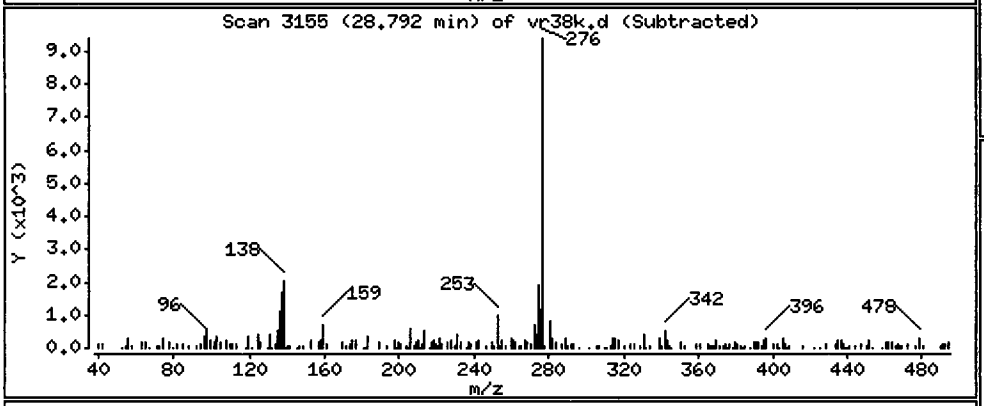
Sample Info: VR38K

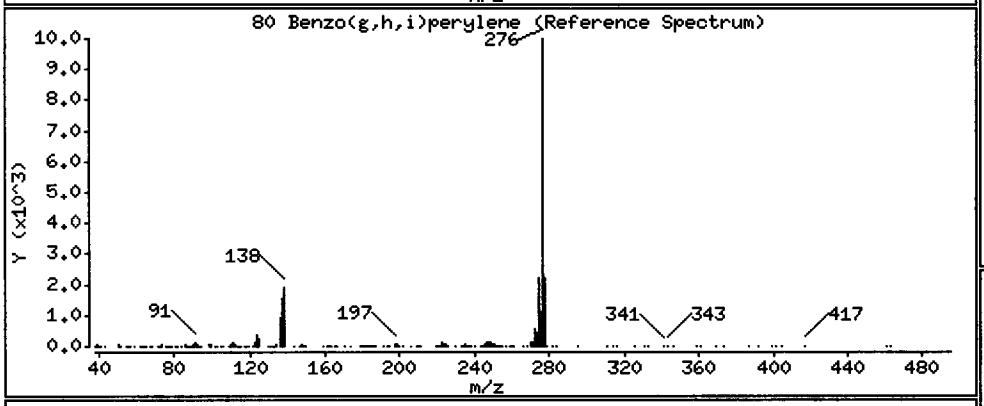
Volume Injected (uL): 1.0 Operator: VTS/YZ

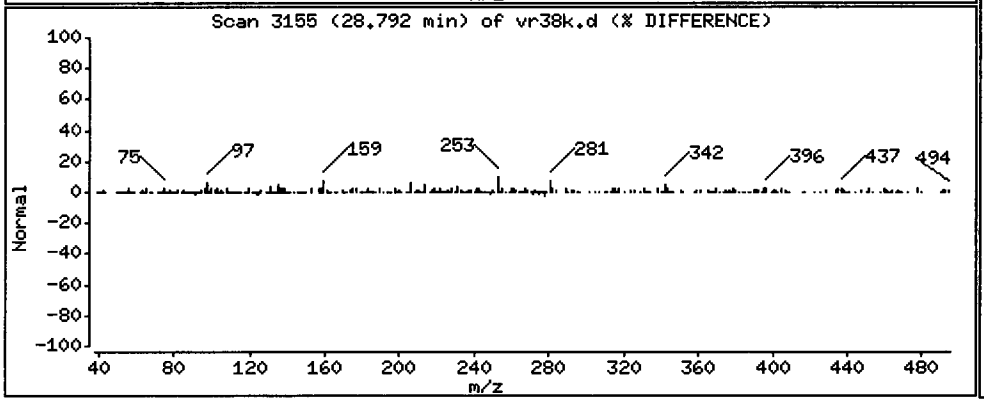
Column phase: ZB-5msi Column diameter: 0.25

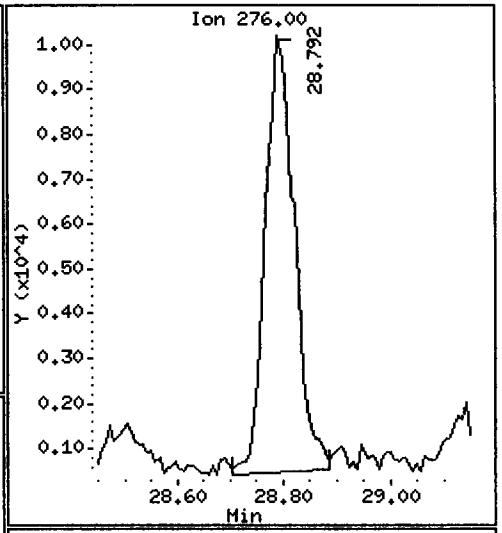
80 Benzo(g,h,i)perylene Concentration: 26.23 ug/kg

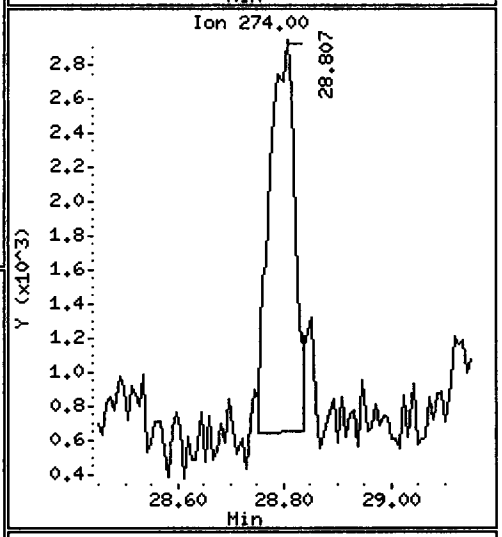


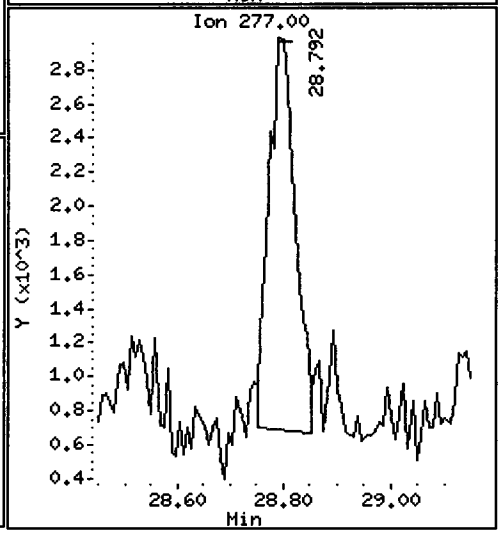












Data File: /chem1/nt10.i/20121119.b/vr38k.d

Date : 19-NOV-2012 22:49

Client ID: HT-07-S-E-121106

Instrument: nt10.i

Sample Info: VR38K

Volume Injected (uL): 1.0

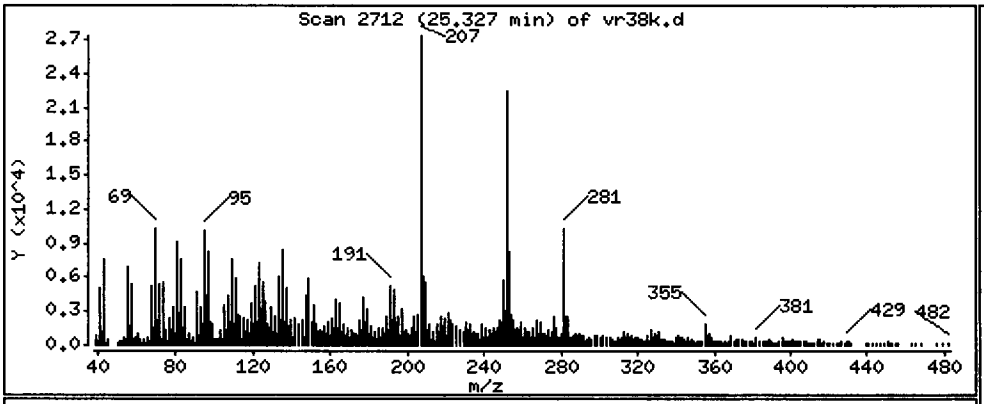
Operator: VTS/YZ

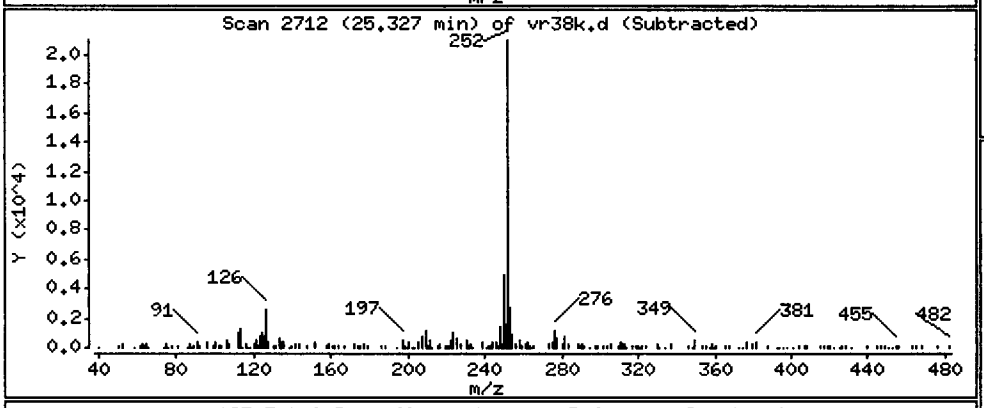
Column phase: ZB-5msi

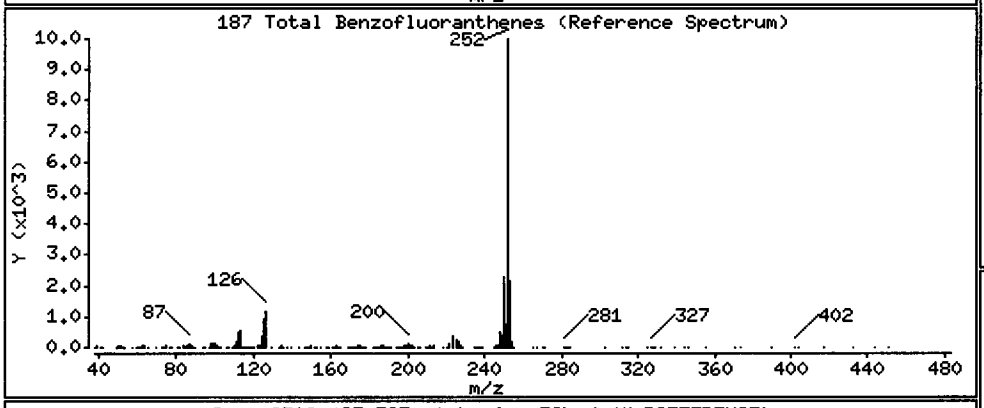
Column diameter: 0.25

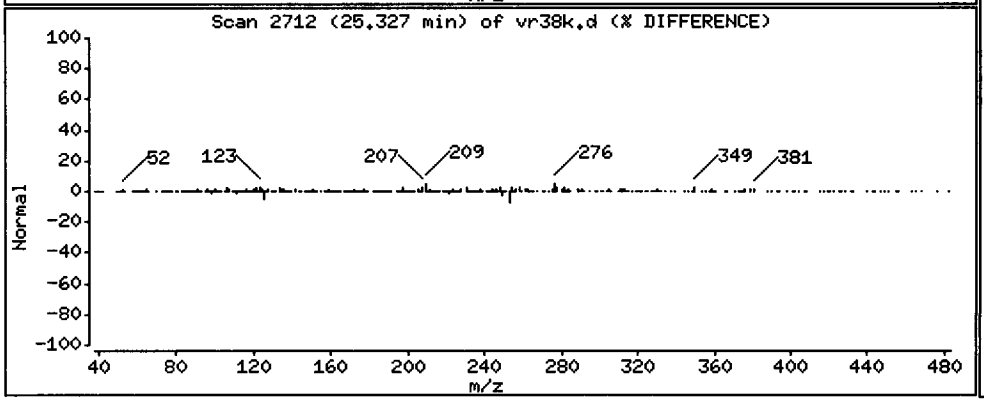
187 Total Benzofluoranthenes

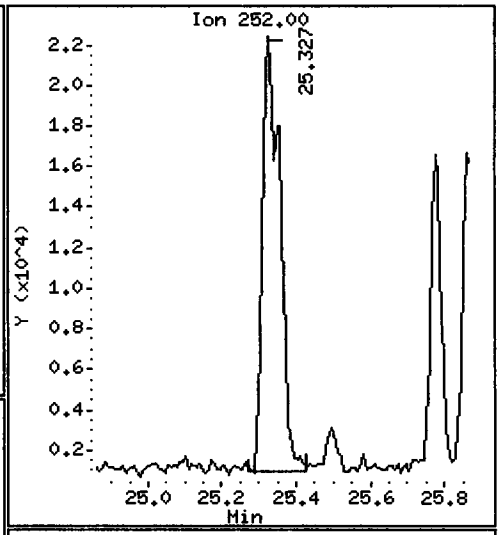
Concentration: 50.59 ug/kg

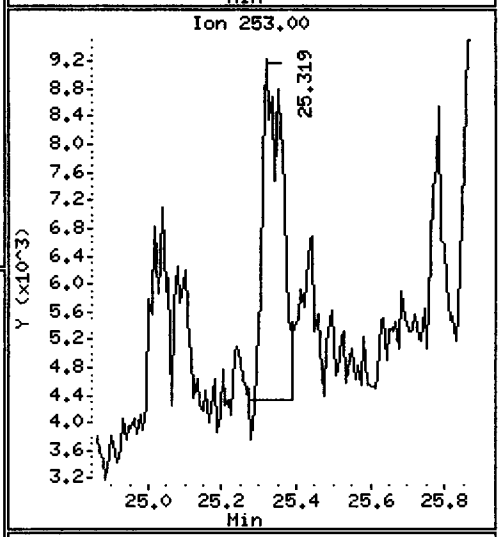


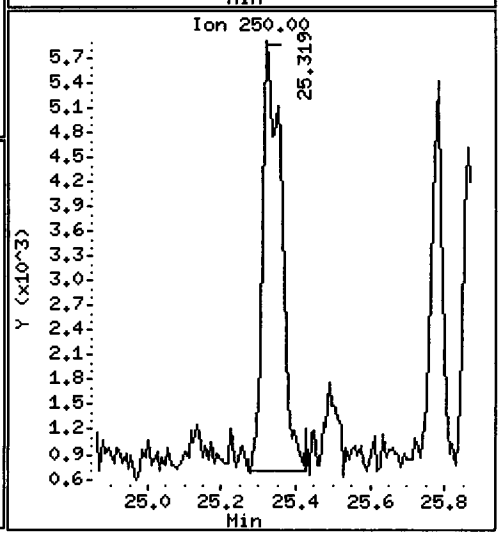












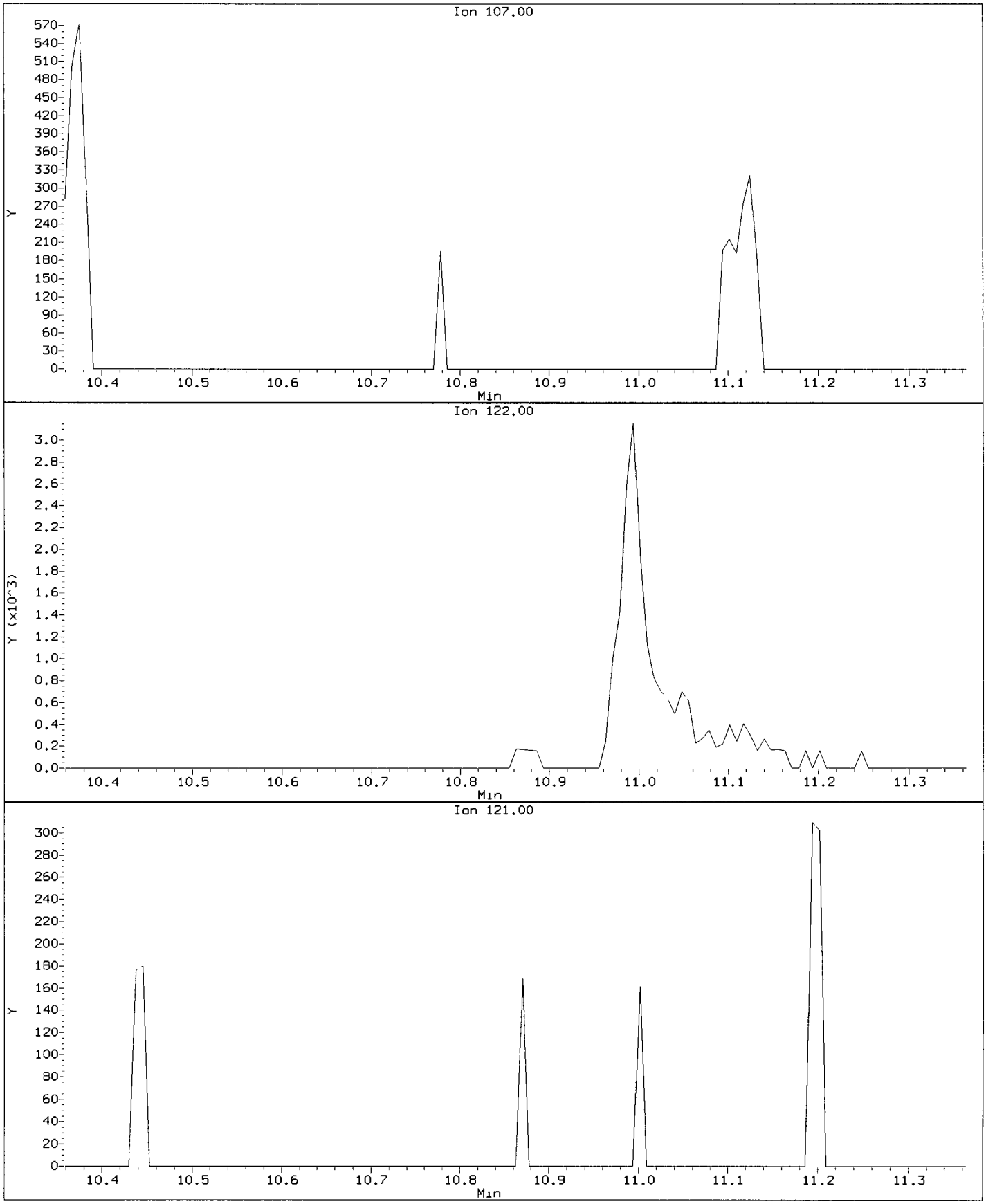
CO-ELUTION SUMMARY FOR FILE - vr38k.d

Lab ID: VR38K, Method: ABN.m, Instrument: nt10.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

Data File: /chem1/nt10.i/20121119.b/vr38k.d
Injection Date: 19-NOV-2012 22:49
Instrument: nt10.i
Client Sample ID: HT-07-S-E-121106

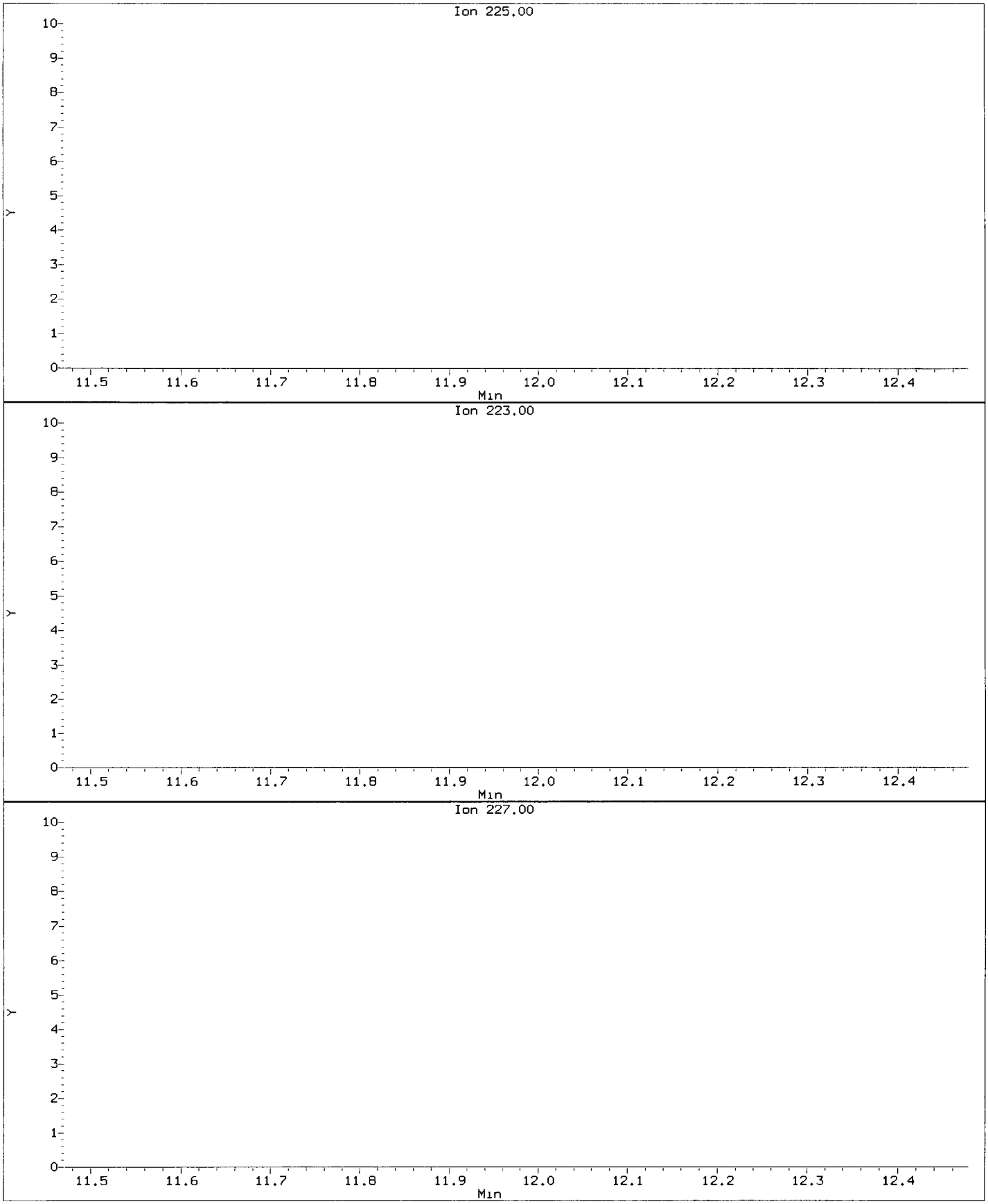
Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9



VD3A · 0068A

Data File: /chem1/nt10.1/20121119.b/vr38k.d
Injection Date: 19-NOV-2012 22:49
Instrument: nt10.1
Client Sample ID: HT-07-S-E-121106

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



SIM PAH Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: VR38

Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

SIM PNA-Soil/Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test SIM PNA # 5 (SPNASDMI) In-House (5ppb)

ARI Job No(s) VR38 Page 1 of 1 Batch set up by: JH

Bottle #	Extraction Requirements	Weight Extracted (eq. to 10g dry wt)	(Opt) Silica Gel Clean (1:1) Y / N	Final Effective Volume	Volume to Lab	Comments	Verify Client ID
	VR38 MBS	10.00g	(1:1) Y / N	0.5mL	0.5mL		NG 11/12/12 Analyst/Date
	↓ SBS	10.00g	(1:1) Y / N	0.5mL	0.5mL		Microwave
	~~SBS Dup.~~	~~10.00g~~	(1:1) Y / N	~~0.5mL~~	~~0.5mL~~		NG 11/12/12
4	VR38 A	13.14	(1:1) Y / N	0.5mL	0.5mL		
4	B	12.17	(1:1) Y / N	0.5mL	0.5mL		Analyst/Date
4	C	14.20	(1:1) Y / N	0.5mL	0.5mL		KD 80-85°C
4	D	17.96	(1:1) Y / N	0.5mL	0.5mL		Hexane Exchange (2X 10mL) 100°C
4	E	13.17	(1:1) Y / N	0.5mL	0.5mL		YL RR
4	F	13.11	(1:1) Y / N	0.5mL	0.5mL		11/13/12
4	G	14.20	(1:1) Y / N	0.5mL	0.5mL		Analyst/Date
4	H	12.11	(1:1) Y / N	0.5mL	0.5mL		TurboVap 1 2 3 Pre-Silica Gel Clean
4	Hms	12.10	(1:1) Y / N	0.5mL	0.5mL		
4	Hmsd	12.12	(1:1) Y / N	0.5mL	0.5mL		CSZ 11/19/12
4	I	12.20	(1:1) Y / N	0.5mL	0.5mL		Analyst/Date
5	J	13.28	(1:1) Y / N	0.5mL	0.5mL		TurboVap 1 2 3 Post Silica Gel Clean
5	↓ K	12.27	(1:1) Y / N	0.5mL	0.5mL		
Analyst/Date	NG 11/12/12		CSZ 11/19/12	CSZ 11/19/12	CSZ 11/19/12		CSZ 11/19/12 Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	B (2429-3)	15/75µg/mL	100µL	9/11/13	M	AC
Spike	15 (1987-1)	15/75µg/mL	100µL	11/34/12	M	AC
~~QLS Spike~~	~~4 ( )~~	~~1µg/mL~~	~~50µL~~			
Extraction Time: 14:26				Balance ID: B14642614		

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-re-homogenize while hot-then let cool 15 min in cold water. 7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing neutral glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using DCM only (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant solvent then empty the soil into the funnel and rinse with DCM. 11. KD (Small or ~~large~~ drying column) to 5mL at 80-85°C. 12. Exchange to Hexane (2X with 10mL). 13. TurboVap.
14. Silica Clean-up Opt-Any Color=REQ (All or none). 15. TurboVap (if Silica Clean). 16. Vial in DCM.
A. Need Total Solids Y / N B. Archive/Freeze Y / N

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: VR38 Client ID: Anchor QEA, LLC

Parameter: SIM PNA Client Project: City of Kenmore Sediment

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= A, B, C, D, E, F, G, H, I, J, K	YL 11/07/12
☒ Standing Water Decanted (Not shared)= A, B, C, D, E, F, G, H, I, J, K.	YL 11/07/12
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☒ Rocks (%+size)? E, 15% small rocks, 2% small rocks F, G, H, I, J, K.	YL 11/07/12
☒ Organics (Leaves/sticks/grass)= C.	YL 11/07/12
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
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) Extracts thms Nmsd, I, J and K were concentrated to ~ 100µL in error used DCM to bring to 0.5mL (F.E.V)	CSZ 11/19/12

SIM PAH Raw Data
Initial Calibration

ARI Job ID: VR38

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): 11/15/12 Internal Standard ID 1998-3 Expiration 7/3/2013

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 / NA	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
8260 Suite	2020-1	3/24/13	in house stock	2026-1	3/23/13

Detail problems, corrective actions and/or other pertinent information below:

ICV: finished on 11/16/12 and no SS added in.

Analyst: _____ **Date:** 11/16/12

Reviewer: _____ **Date:** 11/16/12

VB38 · 00691

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 15-NOV-2012 18:53
End Cal Date : 15-NOV-2012 21:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Cal Date : 16-Nov-2012 09:06 jianqing
Curve Type : Average

Calibration File Names:
Level 1: /chem3/nt11.i/20121115.b/11151203.d
Level 2: /chem3/nt11.i/20121115.b/11151204.d
Level 3: /chem3/nt11.i/20121115.b/11151205.d
Level 4: /chem3/nt11.i/20121115.b/11151202.d
Level 5: /chem3/nt11.i/20121115.b/11151206.d
Level 6: /chem3/nt11.i/20121115.b/11151207.d

11/16/12

	Compound	0.10000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	___ RRF	% RSD
1	trans-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2	cis-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3	Benzo(b)thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7	Naphthalene	1.24513	1.16489	1.06275	1.03134	0.96314	0.94592	1.06886	10.913
14	2-Methylnaphthalene	0.65184	0.65602	0.61141	0.59572	0.55924	0.53916	0.60223	7.897
15	1-methylnaphthalene	0.66748	0.61955	0.56819	0.56573	0.52870	0.51132	0.57683	10.063
19	Biphenyl	1.68070	1.61021	1.44064	1.41051	1.30692	1.25030	1.44988	11.578
20	2,6-Dimethylnaphthalene	1.17937	1.13352	1.01503	1.02296	0.94371	0.90335	1.03299	10.312
21	Acenaphthylene	1.78022	1.82773	1.73389	1.78263	1.66886	1.63395	1.73788	4.263
23	Acenaphthene	1.31501	1.21353	1.08900	1.06662	0.99096	0.95606	1.10520	12.327
11	Dibenzofuran	1.88435	1.80363	1.59365	1.58153	1.45476	1.39664	1.61909	11.815
24	1,6,7-Trimethylnaphthalene	1.14785	1.12815	0.99487	0.97574	0.90491	0.86048	1.00200	11.586
4	C1-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25	Fluorene	1.32085	1.37625	1.24167	1.25453	1.15913	1.11369	1.24435	7.849
5	C2-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8	C3-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27	Dibenzothiophene	1.23225	1.19785	1.09511	1.04878	0.99121	0.93997	1.08419	10.569
30	Phenanthrene	1.42427	1.32003	1.23036	1.15972	1.08627	1.02799	1.20811	12.242
9	C2-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10	C1-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31	Anthracene	1.23145	1.25026	1.16740	1.16604	1.09421	1.04924	1.15976	6.672

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 15-NOV-2012 18:53
End Cal Date : 15-NOV-2012 21:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Cal Date : 16-Nov-2012 09:06 jianqing
Curve Type : Average

Compound	0.10000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	RRF	% RSD
26 Carbazole	1.31272	1.29090	1.20083	1.18009	1.11888	1.06689	1.19505	7.984
13 C3_Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 1-Methylphenanthrene	0.93890	0.95365	0.88024	0.86546	0.80712	0.76723	0.86877	8.360
16 C3-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 C1-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 C2-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 Fluoranthene	1.31172	1.32463	1.22815	1.20281	1.12334	1.07176	1.21040	8.302
39 Pyrene	1.20099	1.17188	1.10228	1.10066	1.02725	1.00984	1.10215	6.882
46 Benzo(a)anthracene	1.13715	1.05919	1.00634	0.97405	0.92439	0.92870	1.00497	8.167
48 Chrysene	1.15328	1.04584	0.94987	0.93654	0.89926	0.86778	0.97543	10.864
32 C4-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 C1-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 C2-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 Benzo(b)fluoranthene	0.97369	0.95191	0.93086	0.91509	0.86475	0.91736	0.92561	4.017
52 Benzo(k)fluoranthene	1.07737	1.03112	0.99607	1.02491	0.95418	0.94778	1.00524	4.924
64 Total Benzofluoranthenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 Benzo(j)fluoranthene	1.14094	1.10565	1.09053	1.04613	0.98567	0.99469	1.06060	5.895
37 C2-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Benzo(e)pyrene	1.05404	1.04578	0.94565	0.94719	0.88540	0.88572	0.96063	7.741
54 Benzo(a)pyrene	0.90216	1.00440	0.94282	0.96026	0.91277	0.91867	0.94018	4.035
57 Perylene	1.11126	1.03744	0.96010	0.95202	0.90303	0.88619	0.97501	8.737
40 C3-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 C3-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 C1-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 C1-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 C1-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Indeno(1,2,3-cd)pyrene	0.99465	1.14591	1.14805	1.22400	1.15060	1.17571	1.13982	6.759
62 Dibenzo(a,h)anthracene	0.81645	0.93039	0.94444	0.99335	0.94388	0.94129	0.92830	6.358

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 15-NOV-2012 18:53
End Cal Date : 15-NOV-2012 21:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Cal Date : 16-Nov-2012 09:06 jianqing
Curve Type : Average

Compound	0.10000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	___ RRF	% RSD
49 Naphthobenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 Benzo(g,h,i)perylene	0.90249	0.96118	0.97711	0.97022	0.95676	1.05036	0.96969	4.907
50 C3-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 C4-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 C4-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 C3-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 C1-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 C2-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 C1-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 C2-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 C2-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 C2-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 C3-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 C3-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 C1-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 C2-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 C3-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 C4-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 12 2-Methylnaphthalene-d10	0.78189	0.74752	0.68223	0.67354	0.61812	0.59678	0.68335	10.487
$ 253 Fluoranthene-d10	1.22307	1.22025	1.13380	1.14675	1.08117	1.04556	1.14177	6.290
$ 60 Dibenzo(a,h)anthracene-d14	0.51832	0.62796	0.64194	0.71749	0.72083	0.75169	0.66304	12.936

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Batch File: /chem3/nt11.i/20121115.b
Inst ID: nt11.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	11151202	11151203	11151204	11151205	11151206	11151207
INJ.DATE:	15-NOV-2012	15-NOV-2012	15-NOV-2012	15-NOV-2012	15-NOV-2012	15-NOV-2012
INJ.TIME:	18:53	19:24	19:54	20:24	20:54	21:24

11/16/12

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 trans-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	4.243	1.243-7.243	+++++	+++++
	2 cis-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	4.856	1.856-7.856	+++++	+++++
	3 Benzo(b)thiophene	+++++	+++++	+++++	+++++	+++++	+++++	6.193	3.193-9.193	+++++	+++++
*	6 Naphthalene-d8	5.473	5.470	5.470	5.470	5.470	5.470	5.473	2.473-8.473	5.470	0.001
	7 Naphthalene	5.501	5.501	5.498	5.498	5.498	5.502	5.501	2.501-8.501	5.500	0.002
$	12 2-Methylnaphthalene-d1	6.208	6.205	6.205	6.205	6.208	6.208	6.208	3.208-9.208	6.207	0.002
	14 2-Methylnaphthalene	6.255	6.252	6.252	6.252	6.252	6.256	6.255	3.255-9.255	6.253	0.002
	15 1-methylnaphthalene	6.448	6.445	6.445	6.445	6.448	6.448	6.448	3.448-9.448	6.446	0.002
	19 Biphenyl	6.912	6.912	6.912	6.912	6.912	6.915	6.912	3.912-9.912	6.912	0.001
	20 2,6-Dimethylnaphthalen	6.956	6.956	6.953	6.953	6.956	6.956	6.956	3.956-9.956	6.955	0.002
	21 Acenaphthylene	7.631	7.631	7.631	7.631	7.631	7.635	7.631	4.631-10.631	7.632	0.001
*	22 Acenaphthene-d10	7.745	7.742	7.742	7.742	7.742	7.742	7.745	4.745-10.745	7.742	0.001
	23 Acenaphthene	7.792	7.789	7.789	7.792	7.792	7.796	7.792	4.792-10.792	7.792	0.002
	11 Dibenzofuran	7.944	7.941	7.941	7.941	7.944	7.944	7.944	4.944-10.944	7.942	0.002
	24 1,6,7-Trimethylnaphtha	8.016	8.013	8.016	8.016	8.016	8.020	8.016	5.016-11.016	8.016	0.002
	4 C1-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	8.826	5.826-11.826	+++++	+++++
	25 Fluorene	8.417	8.414	8.417	8.414	8.417	8.420	8.417	5.417-11.417	8.417	0.002

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: 11/16/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Batch File: /chem3/nt11.i/20121115.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
5 C2-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	10.000	7.000-13.000	+++++	+++++
8 C3-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	10.296	7.296-13.296	+++++	+++++
27 Dibenzothiophene	9.635	9.635	9.632	9.635	9.635	9.639	9.635	6.635-12.635	9.635	0.002
* 28 Phenanthrene-d10	9.761	9.761	9.761	9.761	9.761	9.762	9.761	6.761-12.761	9.761	0.000
30 Phenanthrene	9.799	9.796	9.796	9.796	9.796	9.799	9.799	6.799-12.799	9.797	0.002
9 C2-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	10.453	7.453-13.453	+++++	+++++
10 C1-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	10.453	7.453-13.453	+++++	+++++
31 Anthracene	9.840	9.834	9.834	9.834	9.837	9.840	9.840	6.840-12.840	9.837	0.003
26 Carbazole	10.348	10.345	10.345	10.345	10.348	10.352	10.348	7.348-13.348	10.347	0.003
13 C3_Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	11.200	8.200-14.200	+++++	+++++
33 1-Methylphenanthrene	10.547	10.544	10.544	10.544	10.547	10.550	10.547	7.547-13.547	10.546	0.003
16 C3-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	11.600	8.600-14.600	+++++	+++++
17 C1-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	11.769	8.769-14.769	+++++	+++++
18 C2-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	11.842	8.842-14.842	+++++	+++++
36 Fluoranthene	11.456	11.453	11.450	11.453	11.456	11.462	11.456	8.456-14.456	11.455	0.004
$ 253 Fluoranthene-d10	11.421	11.418	11.418	11.418	11.421	11.425	11.421	8.421-14.421	11.420	0.003
39 Pyrene	11.923	11.920	11.920	11.920	11.923	11.929	11.923	8.923-14.923	11.922	0.004
46 Benzo(a)anthracene	14.261	14.255	14.255	14.255	14.261	14.268	14.261	11.261-17.261	14.259	0.005
* 47 Chrysene-d12	14.381	14.375	14.378	14.378	14.378	14.381	14.381	11.381-17.381	14.379	0.002
48 Chrysene	14.451	14.447	14.444	14.444	14.451	14.460	14.451	11.451-17.451	14.450	0.006
* 29 Fluorene-d10	+++++	+++++	+++++	+++++	+++++	13.163	13.163	10.163-16.163	13.163	0.000
32 C4-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	15.983	12.983-18.983	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Batch File: /chem3/nt11.i/20121115.b
Inst ID: nt11.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	34 C1-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	16.962	13.962-19.962	+++++	+++++
	35 C2-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	17.000	14.000-20.000	+++++	+++++
	51 Benzo(b)fluoranthene	16.896	16.890	16.887	16.893	16.902	16.909	16.896	13.896-19.896	16.896	0.008
	52 Benzo(k)fluoranthene	16.959	16.947	16.947	16.950	16.962	16.975	16.959	13.959-19.959	16.957	0.011
	64 Total Benzofluoranthen	+++++	+++++	+++++	+++++	+++++	+++++	17.174	14.174-20.174	+++++	+++++
	251 Benzo(j)fluoranthene	17.032	17.022	17.022	17.022	17.035	17.051	17.032	14.032-20.032	17.031	0.011
*	38 Pyrene-d10	17.041	+++++	16.883	17.013	17.035	17.041	17.041	14.041-20.041	17.003	0.068
	37 C2-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	17.500	14.500-20.500	+++++	+++++
	55 Benzo(e)pyrene	17.789	17.786	17.780	17.780	17.792	17.805	17.789	14.789-20.789	17.789	0.010
	54 Benzo(a)pyrene	17.915	17.900	17.906	17.906	17.919	17.931	17.915	14.915-20.915	17.913	0.011
*	56 Perylene-d12	18.143	18.136	18.136	18.139	18.143	18.146	18.143	15.143-21.143	18.141	0.004
	57 Perylene	18.215	18.206	18.206	18.209	18.218	18.231	18.215	15.215-21.215	18.214	0.010
	40 C3-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	18.800	15.800-21.800	+++++	+++++
	41 C3-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	18.831	15.831-21.831	+++++	+++++
	42 Retene	+++++	+++++	+++++	+++++	+++++	+++++	18.831	15.831-21.831	+++++	+++++
	43 C1-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	18.997	15.997-21.997	+++++	+++++
	44 C1-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	19.008	16.008-22.008	+++++	+++++
	45 C1-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	19.500	16.500-22.500	+++++	+++++
$	60 Dibenzo(a,h)anthracene	20.377	20.364	20.364	20.367	20.380	20.393	20.377	17.377-23.377	20.374	0.011
	63 Indeno(1,2,3-cd)pyrene	20.471	20.453	20.456	20.459	20.475	20.500	20.471	17.471-23.471	20.469	0.018
	62 Dibenzo(a,h)anthracene	20.468	20.453	20.459	20.459	20.471	20.497	20.468	17.468-23.468	20.468	0.016
	49 Naphthobenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	20.438	17.438-23.438	+++++	+++++
	61 Benzo(g,h,i)perylene	21.342	21.339	21.330	21.333	21.349	21.374	21.342	18.342-24.342	21.344	0.016
	50 C3-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	21.254	18.254-24.254	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Batch File: /chem3/nt11.i/20121115.b
Inst ID: nt11.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	53 C4-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	21.403	18.403-24.403	+++++	+++++
	58 C4-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	22.001	19.001-25.001	+++++	+++++
	59 C3-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	22.500	19.500-25.500	+++++	+++++
*	65 Benzo(a)pyrene-d12	+++++	+++++	+++++	24.182	+++++	23.854	23.633	20.633-26.633	24.018	0.232
	66 C1-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	24.564	21.564-27.564	+++++	+++++
	67 C2-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	24.611	21.611-27.611	+++++	+++++
	68 C1-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	25.122	22.122-28.122	+++++	+++++
	69 C2-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	26.122	23.122-29.122	+++++	+++++
	70 C2-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	26.436	23.436-29.436	+++++	+++++
	71 C2-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	26.660	23.660-29.660	+++++	+++++
	72 C3-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	27.203	24.203-30.203	+++++	+++++
	73 C3-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	27.491	24.491-30.491	+++++	+++++
	74 C1-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	28.000	25.000-31.000	+++++	+++++
	75 C2-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	29.000	26.000-32.000	+++++	+++++
	76 C3-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	29.500	26.500-32.500	+++++	+++++
	77 C4-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	30.777	27.777-33.777	+++++	+++++

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt11.i/20121115.b

ARI Job No.: DFTP Method: tune.b/DF8270.m Instrument: nt11.i Date: 15-NOV-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1733	11151201.d	DFTPP1115	DFTPP1115	1	NO MANUAL INTEGRATION
1853	11151202.d	IC251115	IC251115	1	Benzo(g,h,i)perylene,
1924	11151203.d	IC011115	IC011115	1	Benzo(j)fluoranthene, Dibenzo(a,h)anthracene-d14,
1954	11151204.d	IC051115	IC051115	1	Dibenzo(a,h)anthracene-d14,
2024	11151205.d	IC11115	IC11115	1	Dibenzo(a,h)anthracene-d14,
2054	11151206.d	IC51115	IC51115	1	Benzo(k)fluoranthene, Benzo(g,h,i)perylene,
2124	11151207.d	IC101115	IC101115	1	Chrysene, Benzo(k)fluoranthene, Perylene,

11/16/12

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 11/16/12 Analysis: SIMPAH Analyst: AB

GC Program: SIMPAH35 Column No: 14423 Column Type: RXi-17Si/MS

Instrument Tune (.U or .CT.): 120327 EM Voltage: 2400

Calibration File: 111612 Curve Date: 11/16/12 Injection Vol.: 1µl

IS/SS	Ical/Ccal	LCS/ICV
1998-3	2070-1	2074-1

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt11.i/20121115.b

	Time	Filename	LabID	ClientId	DF								
1	1733	11151201.d	DFTPP1115	DFTPP1115	1	NO ISTDS FOUND							
2	1853	11151202.d	IC251115	IC251115	1	5.47	516111	7.74	284255	9.76	410660	14.38	467886	18.14	472330
3	1924	11151203.d	IC011115	IC011115	1	5.47	525648	7.74	281168	9.76	400894	14.37	450177	18.14	421899
4	1954	11151204.d	IC051115	IC051115	1	5.47	502178	7.74	272531	9.76	391251	14.38	452865	18.14	442240
5	2024	11151205.d	IC11115	IC11115	1	5.47	543154	7.74	299409	9.76	422941	14.38	479647	18.14	477073
6	2054	11151206.d	IC51115	IC51115	1	5.47	544640	7.74	302706	9.76	431003	14.38	495359	18.14	510632
7	2124	11151207.d	IC101115	IC101115	1	5.47	559831	7.74	310166	9.76	444629	14.38	502333	18.15	522850
8	2154	11151208.d	ICV1115	ICV1115	1	5.47	674396	7.74	364379	9.76	520591	14.38	585586	18.14	582081

wrong Meth /AR

Re-Inj on 11/16/12

AB 11/16/12.

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 StarLIMS

Data File: /chem3/nt11.i/20121115.b/tune.b/11151201.d

Date : 15-NOV-2012 17:33

Client ID: DFTPP1115

Instrument: nt11.i

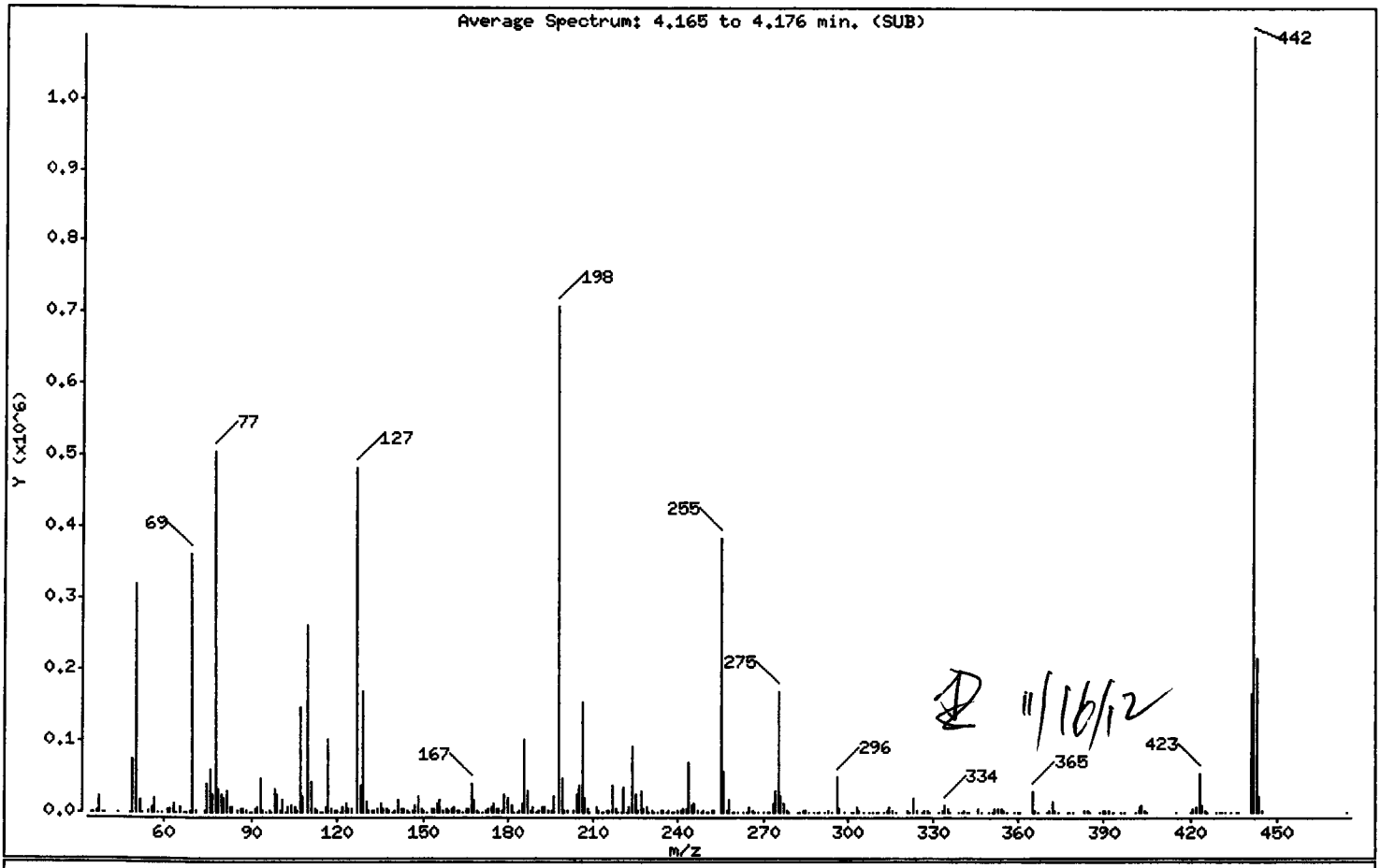
Sample Info: DFTPP1115

Operator: JZ

Column phase: Rxi-17silms

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	45.29
68	Less than 2.00% of mass 69	0.50 (0.97)
69	Mass 69 relative abundance	51.38
70	Less than 2.00% of mass 69	0.36 (0.69)
127	10.00 - 80.00% of mass 198	68.24
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.73
275	10.00 - 60.00% of mass 198	24.19
365	Greater than 1.00% of mass 198	4.30
441	0.01 - 24.00% of mass 442	23.85 (15.50)
442	50.00 - 200.00% of mass 198	153.89
443	15.00 - 24.00% of mass 442	30.94 (20.11)

Data File: /chem3/nt11.i/20121115.b/tune.b/11151201.d

Date : 15-NOV-2012 17:33

Client ID: DFTPP1115 Instrument: nt11.i

Sample Info: DFTPP1115

Operator: JZ

Column phase: Rxi-17silms Column diameter: 0.25

Data File: 11151201.d
Spectrum: Average Spectrum: 4.165 to 4.176 min. (SUB)
Location of Maximum: 442.00
Number of points: 329

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	11	132.00	1990	219.00	310	315.00	6317
37.00	1240	133.00	1756	220.00	409	316.00	2658
38.00	1997	134.00	4047	221.00	35048	317.00	481
39.00	22256	135.00	12609	222.00	180	321.00	3066
40.00	839	136.00	5881	223.00	7018	322.00	209
41.00	590	137.00	5477	224.00	92888	323.00	19768
45.00	259	138.00	2380	225.00	24792	324.00	3305
49.00	1180	139.00	776	226.00	2532	326.00	561
50.00	74248	140.00	2705	227.00	29368	327.00	3021
51.00	320576	141.00	18528	228.00	5630	328.00	1794
52.00	16488	142.00	6047	229.00	8355	329.00	621
53.00	609	143.00	4754	230.00	585	332.00	876
55.00	1660	144.00	1270	231.00	2780	333.00	3146
56.00	8473	145.00	1151	232.00	471	334.00	10218
57.00	21176	146.00	3526	233.00	396	335.00	3904
58.00	1097	147.00	9078	234.00	1412	336.00	499
59.00	181	148.00	22968	235.00	2960	339.00	478
61.00	4350	149.00	4829	236.00	1232	340.00	168
62.00	4497	150.00	2172	237.00	2389	341.00	1407
63.00	13413	151.00	1247	238.00	595	342.00	1072
64.00	1001	153.00	4276	239.00	888	343.00	182
65.00	7457	154.00	4519	240.00	1298	346.00	3866
66.00	296	155.00	11477	241.00	2134	347.00	381
67.00	529	156.00	17280	242.00	5560	350.00	424
68.00	3529	157.00	2817	243.00	5355	351.00	649
69.00	363712	158.00	4328	244.00	71264	352.00	4461
70.00	2513	159.00	2693	245.00	9302	353.00	5484
73.00	2059	160.00	5261	246.00	12169	354.00	6204
74.00	39920	161.00	6508	247.00	2883	355.00	2377
75.00	61272	162.00	3100	248.00	470	356.00	170
76.00	24584	163.00	1333	249.00	3204	359.00	241
77.00	505728	164.00	69	250.00	993	360.00	205
78.00	33720	165.00	6210	251.00	1020	361.00	222
79.00	25288	166.00	5183	252.00	1726	365.00	30416
80.00	20192	167.00	40064	253.00	1787	366.00	3494

Data File: /chem3/nt11.i/20121115.b/tune.b/11151201.d

Date : 15-NOV-2012 17:33

Client ID: DFTPP1115

Instrument: nt11.i

Sample Info: DFTPP1115

Operator: JZ

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: 11151201.d
Spectrum: Average Spectrum: 4.165 to 4.176 min. (SUB)
Location of Maximum: 442.00
Number of points: 329

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	30984	168.00	16760	255.00	384960	367.00	389
82.00	8732	169.00	2275	256.00	56360	370.00	835
83.00	7892	170.00	941	257.00	3542	371.00	2105
85.00	2961	171.00	1035	258.00	17464	372.00	14192
86.00	5742	172.00	2834	259.00	1184	373.00	2883
87.00	3892	173.00	3759	260.00	578	374.00	835
88.00	1275	174.00	7655	261.00	1097	377.00	310
89.00	777	175.00	13136	263.00	574	378.00	261
90.00	261	176.00	4399	264.00	1143	379.00	179
91.00	5911	177.00	5275	265.00	8588	383.00	3468
92.00	7343	178.00	1539	266.00	1857	384.00	2092
93.00	47312	179.00	25912	267.00	465	385.00	280
94.00	3135	180.00	20176	268.00	277	389.00	183
95.00	1147	181.00	9450	270.00	715	390.00	1974
96.00	2971	182.00	1145	271.00	155	391.00	1660
97.00	1251	183.00	865	272.00	1112	392.00	1628
98.00	31880	184.00	2772	273.00	12144	393.00	177
99.00	25264	185.00	11657	274.00	31224	396.00	167
100.00	2832	186.00	102880	275.00	171200	397.00	621
101.00	17688	187.00	29536	276.00	23744	401.00	545
102.00	217	188.00	2720	277.00	13539	402.00	6526
103.00	6528	189.00	6670	278.00	2452	403.00	10651
104.00	10763	190.00	986	279.00	524	404.00	3360
105.00	8256	191.00	2354	282.00	808	405.00	1072
106.00	2649	192.00	6841	283.00	742	415.00	1059
107.00	146944	193.00	8375	284.00	1422	420.00	216
108.00	22632	194.00	1258	285.00	3369	421.00	6077
110.00	262528	195.00	1433	286.00	683	422.00	8458
111.00	41520	196.00	21328	288.00	378	423.00	54712
112.00	5546	198.00	707840	289.00	614	424.00	10691
113.00	2227	199.00	47616	290.00	1101	425.00	1499
114.00	183	200.00	3531	292.00	1207	426.00	308
115.00	542	201.00	3350	293.00	3236	429.00	271
116.00	7310	203.00	3698	294.00	860	430.00	341
117.00	103504	204.00	25752	296.00	49280	431.00	242

Data File: /chem3/nt11.i/20121115.b/tune.b/11151201.d

Date : 15-NOV-2012 17:33

Client ID: DFTPP1115

Instrument: nt11.i

Sample Info: DFTPP1115

Operator: JZ

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: 11151201.d
Spectrum: Average Spectrum: 4.165 to 4.176 min. (SUB)
Location of Maximum: 442.00
Number of points: 329

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	5993	205.00	38528	297.00	5513	432.00	190
119.00	1442	206.00	154816	299.00	363	434.00	442
120.00	1865	207.00	19720	301.00	969	436.00	272
121.00	765	208.00	4796	302.00	1174	437.00	183
122.00	7624	209.00	1103	303.00	6621	441.00	168768
123.00	11403	211.00	6760	304.00	2376	442.00	1089024
124.00	5318	212.00	1720	306.00	188	443.00	219008
125.00	5238	213.00	378	308.00	1229	444.00	21824
127.00	483008	214.00	682	309.00	1020	445.00	1699
128.00	36568	215.00	1892	310.00	706	474.00	221
129.00	169856	216.00	2927	311.00	250		
130.00	16082	217.00	36696	313.00	144		
131.00	2705	218.00	4083	314.00	2515		

Data File: /chem3/nt11.i/20121115.b/tune.b/11151201.d

Date : 15-NOV-2012 17:33

Client ID: DFTPP1115

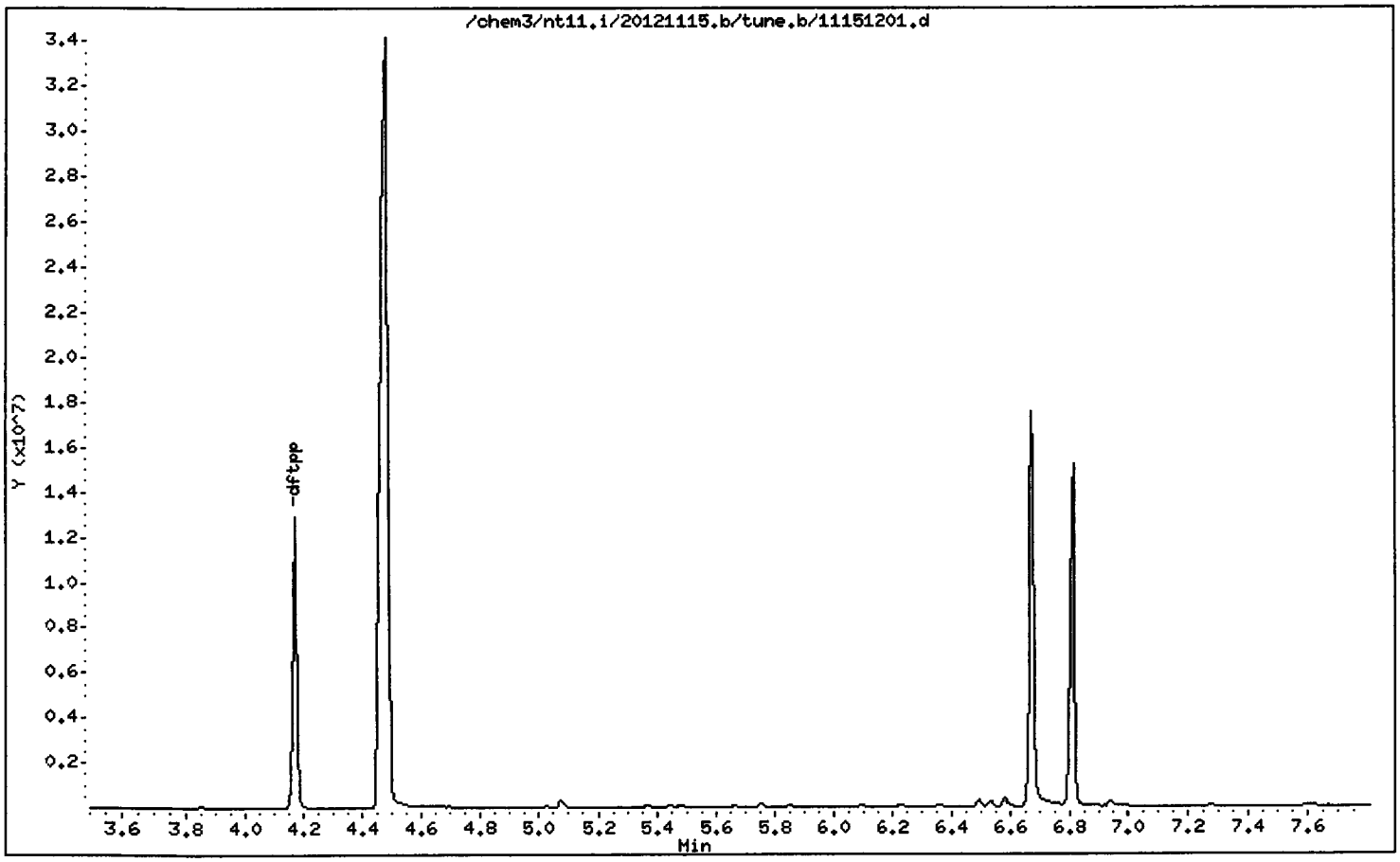
Instrument: nt11.i

Sample Info: DFTPP1115

Operator: JZ

Column phase: Rxi-17silms

Column diameter: 0.25



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20121115.b/ddt.b/11151201.d ARI ID:
Method: /chem3/nt11.i/20121115.b/ddt.b/sw846ddt.m Misc:
Analysis Date: 15-NOV-2012 17:33 Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	4.486	7530186
Benzidine	6.671	7578439
4,4'-DDE	6.094	9809
4,4'-DDD	6.580	65764
4,4'-DDT	6.810	2868447

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

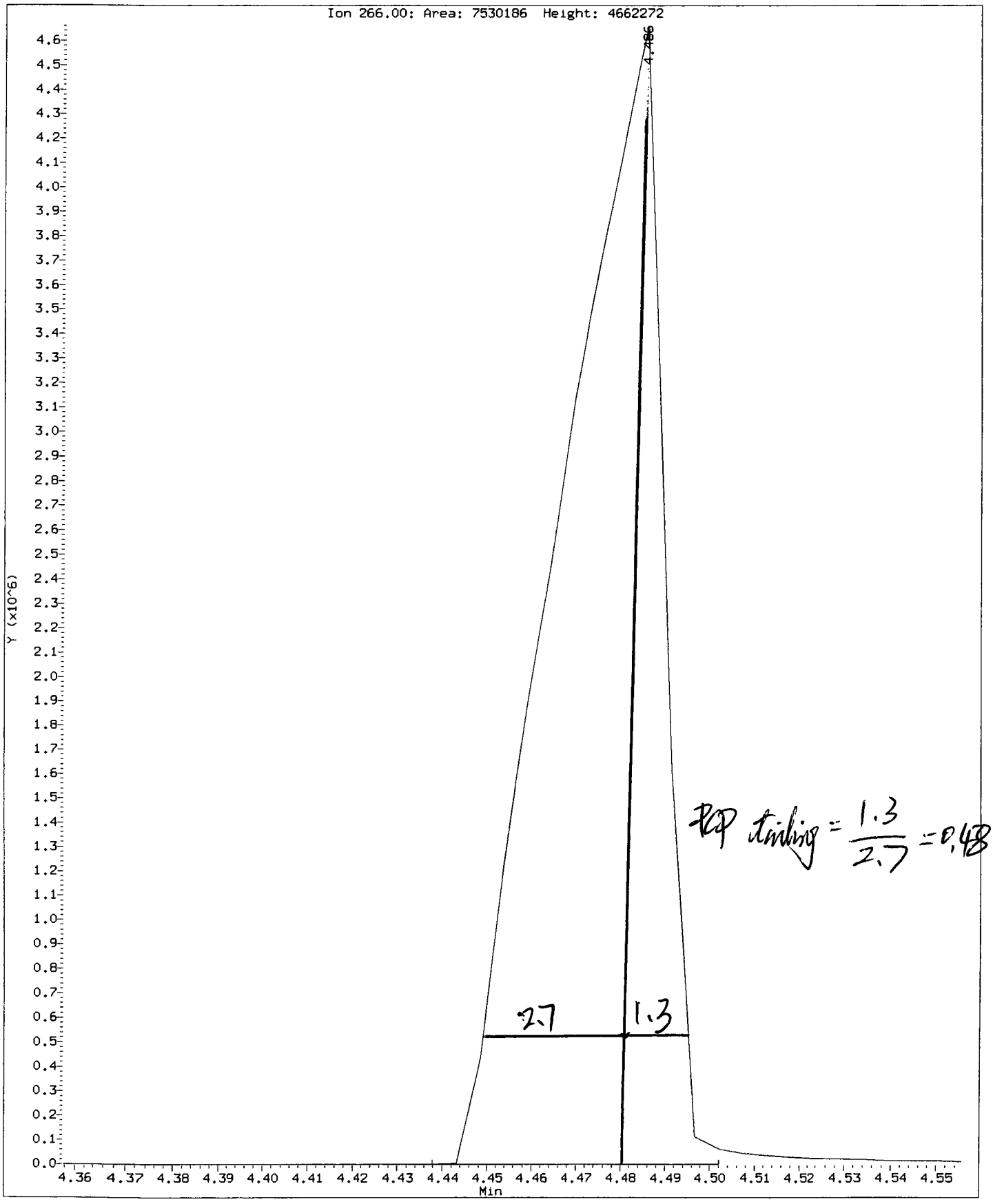
$$\text{DDT Percent Breakdown} = \frac{(9809 + 65764) * 100}{(9809 + 65764 + 2868447)}$$

DDT Percent Breakdown = 2.6 %

11/16/12

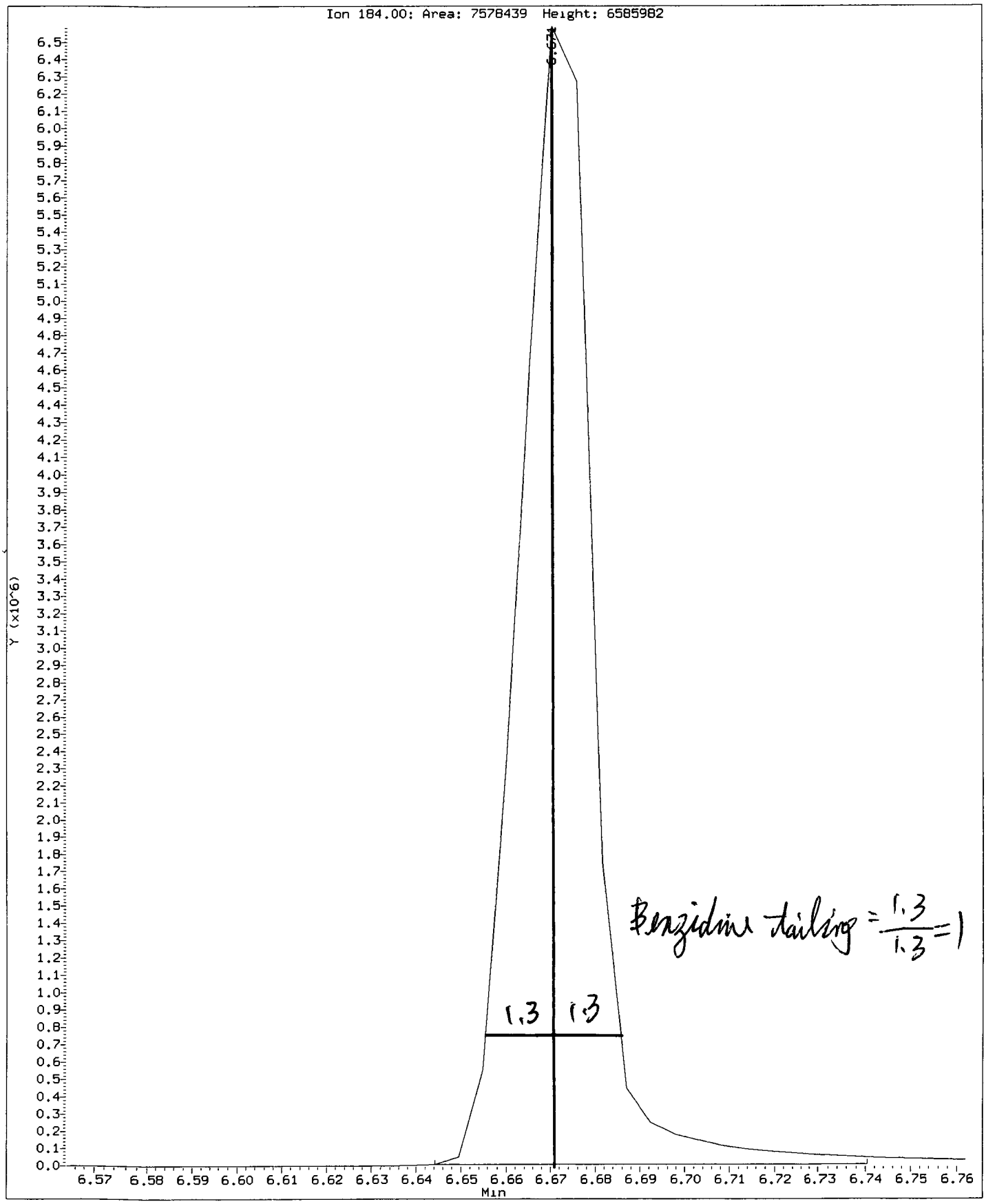
Data File: /chem3/nt11.i/20121115.b/ddt.b/11151201.d
Injection Date: 15-NOV-2012 17:33
Instrument: nt11.i
Client Sample ID: DDT1115

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt11.i/20121115.b/ddt.b/11151201.d
Injection Date: 15-NOV-2012 17:33
Instrument: nt11.i
Client Sample ID: DDT1115

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121115.b/11151203.d
Lab Smp Id: IC011115 Client Smp ID: IC011115
Inj Date : 15-NOV-2012 19:24
Operator : JZ Inst ID: nt11.i
Smp Info : IC011115,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Meth Date : 16-Nov-2012 09:06 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 19:24 Cal File: 11151203.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NEWSIMPNAICL.sub
Target Version: 3.50

11/16/12

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 6 Naphthalene-d8	136	5.470	5.470	(1.000)	525648	2.00000	
7 Naphthalene	128	5.501	5.498	(1.006)	32725	0.10000	0.1094
$ 12 2-Methylnaphthalene-d10	152	6.205	6.205	(1.134)	20550	0.10000	0.1074
14 2-Methylnaphthalene	141	6.252	6.252	(1.143)	17132	0.10000	0.1045
15 1-methylnaphthalene	141	6.445	6.445	(1.178)	17543	0.10000	0.1083
19 Biphenyl	154	6.912	6.912	(0.893)	23628	0.10000	0.1087
20 2,6-Dimethylnaphthalene	156	6.956	6.953	(0.898)	16580	0.10000	0.1071
21 Acenaphthylene	152	7.631	7.631	(0.986)	25027	0.10000	0.09993
* 22 Acenaphthene-d10	164	7.742	7.742	(1.000)	281168	2.00000	
23 Acenaphthene	153	7.789	7.792	(1.006)	18487	0.10000	0.1104
11 Dibenzofuran	168	7.941	7.941	(1.026)	26491	0.10000	0.1087
24 1,6,7-Trimethylnaphthalene	170	8.013	8.016	(1.035)	16137	0.10000	0.1081
25 Fluorene	166	8.414	8.414	(1.087)	18569	0.10000	0.1026
27 Dibenzothiophene	184	9.635	9.635	(0.987)	24700	0.10000	0.1080
* 28 Phenanthrene-d10	188	9.761	9.761	(1.000)	400894	2.00000	
30 Phenanthrene	178	9.796	9.796	(1.004)	28549	0.10000	0.1102
31 Anthracene	178	9.834	9.834	(1.007)	24684	0.10000	0.1027
26 Carbazole	167	10.345	10.345	(1.060)	26313	0.10000	0.1053
33 1-Methylphenanthrene	192	10.544	10.544	(1.080)	18820	0.10000	0.1041
36 Fluoranthene	202	11.453	11.453	(1.173)	26293	0.10000	0.1043
$ 253 Fluoranthene-d10	212	11.418	11.418	(1.170)	24516	0.10000	0.1032
39 Pyrene	202	11.920	11.920	(0.829)	27033	0.10000	0.1044
46 Benzo(a)anthracene	228	14.255	14.255	(0.992)	25596	0.10000	0.1077
* 47 Chrysene-d12	240	14.375	14.378	(1.000)	450177	2.00000	
48 Chrysene	228	14.447	14.444	(1.005)	25959	0.10000	0.1104
51 Benzo(b)fluoranthene	252	16.890	16.893	(0.931)	20540	0.10000	0.1031
52 Benzo(k)fluoranthene	252	16.947	16.950	(0.934)	22727	0.10000	0.1025

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
251	Benzo(j)fluoranthene	252	17.022	17.022	(0.939)	24068	0.10000	0.1043(M)
55	Benzo(e)pyrene	252	17.786	17.780	(0.981)	22235	0.10000	0.1053
54	Benzo(a)pyrene	252	17.900	17.906	(0.987)	19031	0.10000	0.09688
* 56	Perylene-d12	264	18.136	18.139	(1.000)	421899	2.00000	
57	Perylene	252	18.206	18.209	(1.004)	23442	0.10000	0.1077
$ 60	Dibenzo(a,h)anthracene-d14	292	20.364	20.367	(1.123)	10934	0.10000	0.08388(M)
63	Indeno(1,2,3-cd)pyrene	276	20.453	20.459	(1.128)	20982	0.10000	0.08966
62	Dibenzo(a,h)anthracene	278	20.453	20.459	(1.128)	17223	0.10000	0.09023
61	Benzo(g,h,i)perylene	276	21.339	21.333	(1.177)	19038	0.10000	0.09638

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11151203.d
Lab Smp Id: IC011115
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 15-NOV-2012
Calibration Time: 18:53
Client Smp ID: IC011115
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	525648	1.85
22 Acenaphthene-d10	284255	142128	568510	281168	-1.09
28 Phenanthrene-d10	410660	205330	821320	400894	-2.38
47 Chrysene-d12	467886	233943	935772	450177	-3.78
56 Perylene-d12	472330	236165	944660	421899	-10.68

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.06
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	0.00
47 Chrysene-d12	14.38	13.88	14.88	14.37	-0.04
56 Perylene-d12	18.14	17.64	18.64	18.14	-0.03

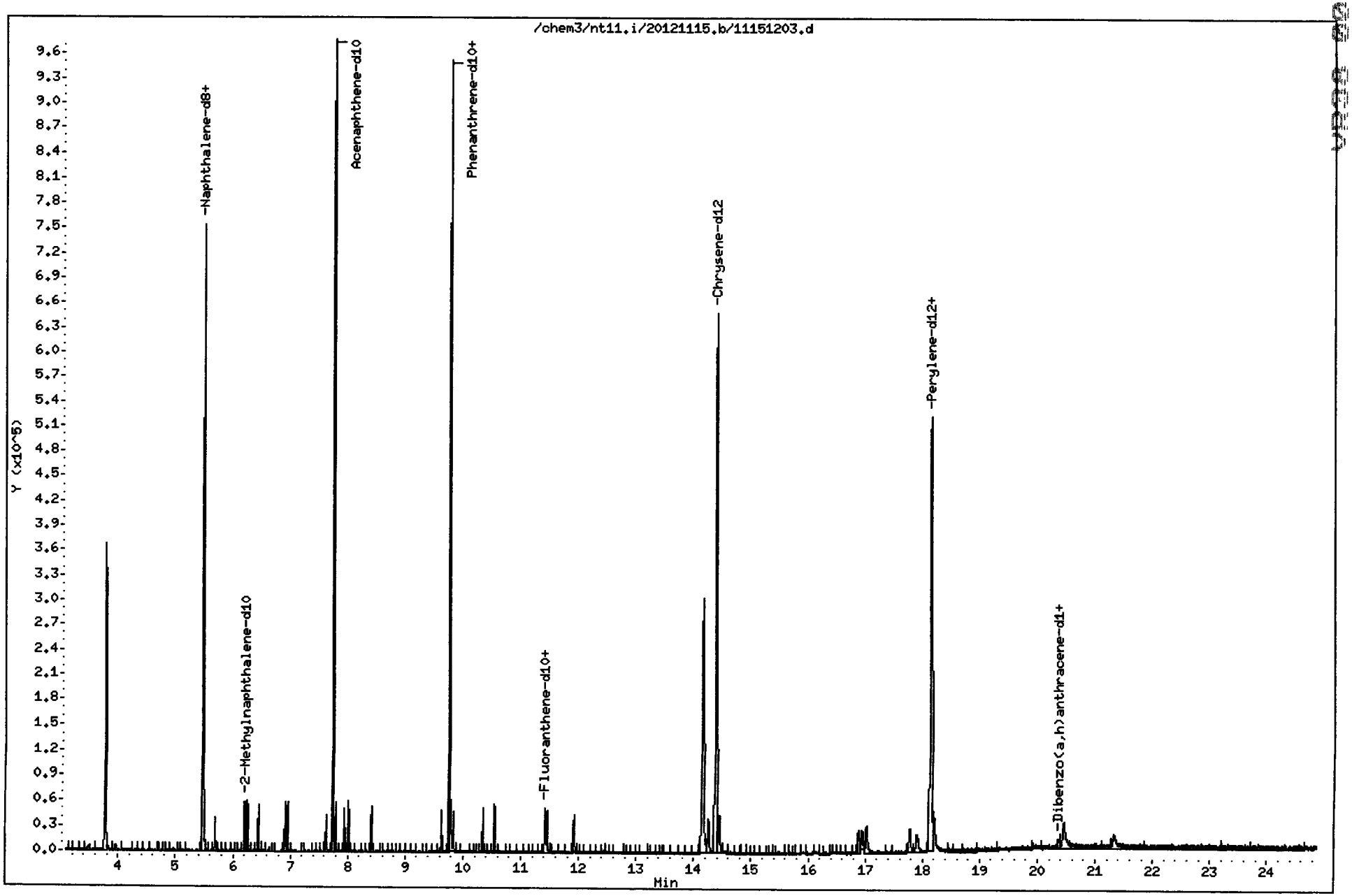
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20121115.b/11151203.d
Date : 15-NOV-2012 19:24
Client ID: IC011115
Sample Info: IC011115,

Instrument: nt11.i

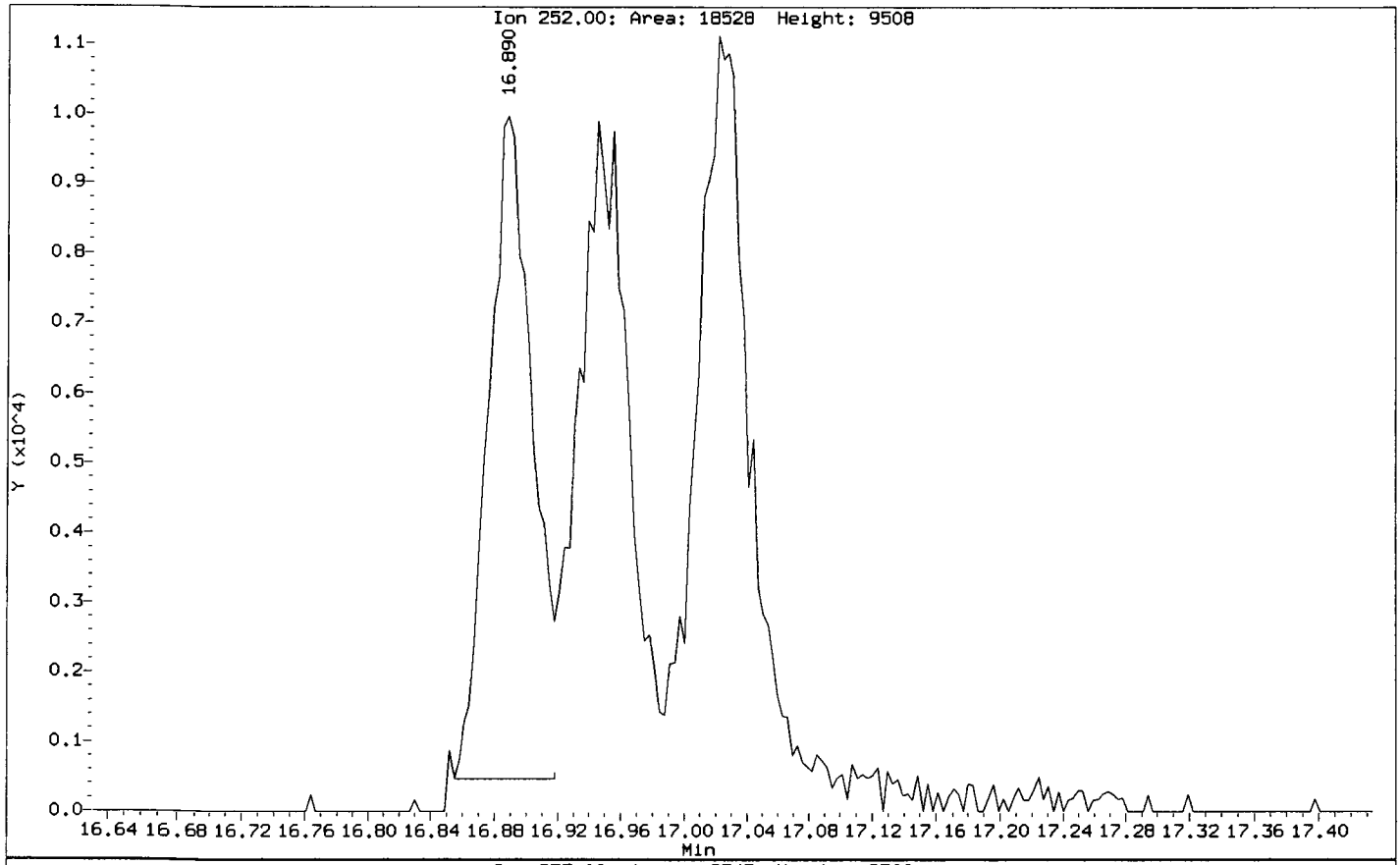
Operator: JZ
Column diameter: 0.25

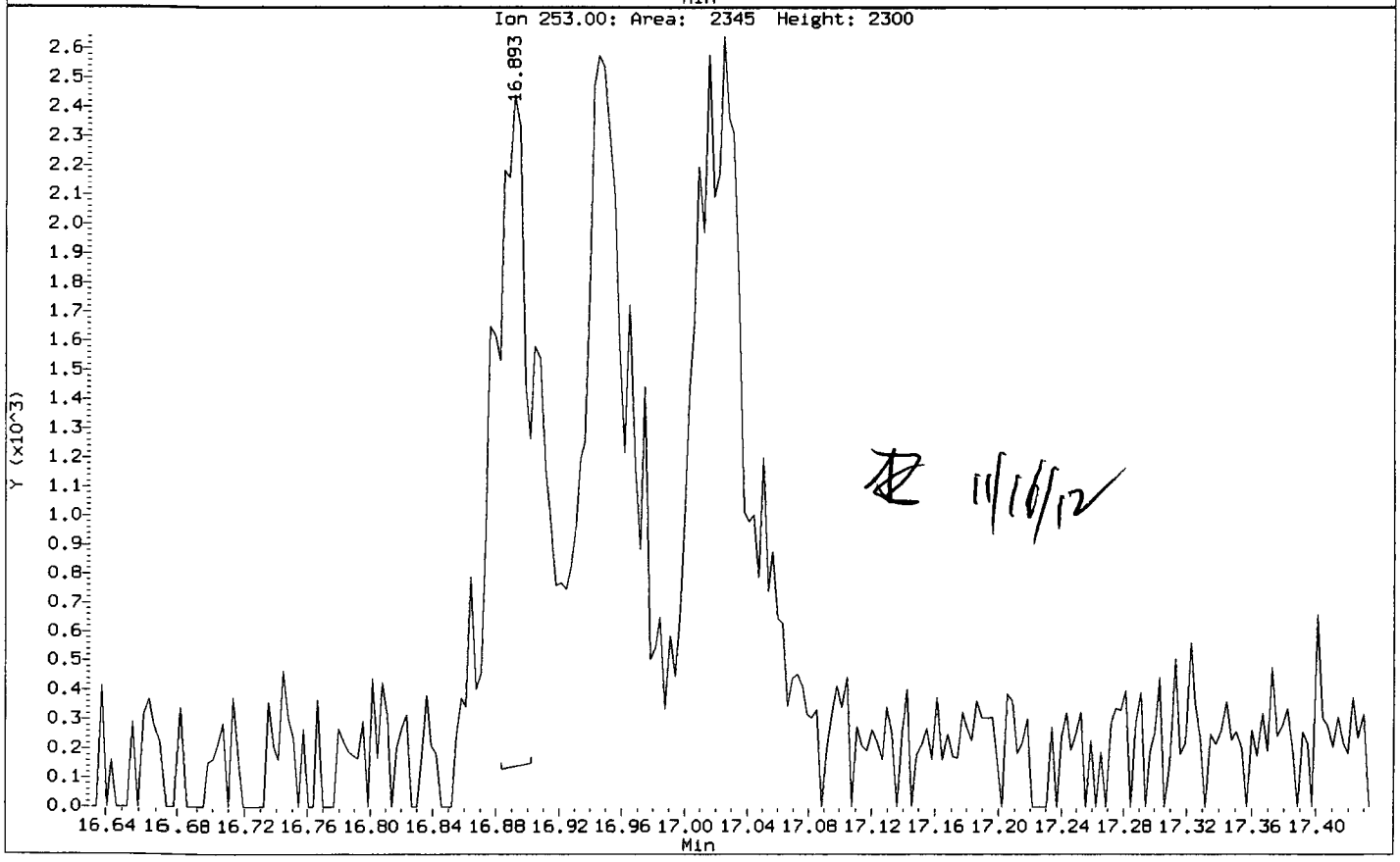
Column phase: ZB-5msi



Data File: /chem3/nt11.i/20121115.b/11151203.d
Injection Date: 15-NOV-2012 19:24
Instrument: nt11.i
Client Sample ID: IC011115

Compound: Benzo(j)fluoranthene
CAS Number:

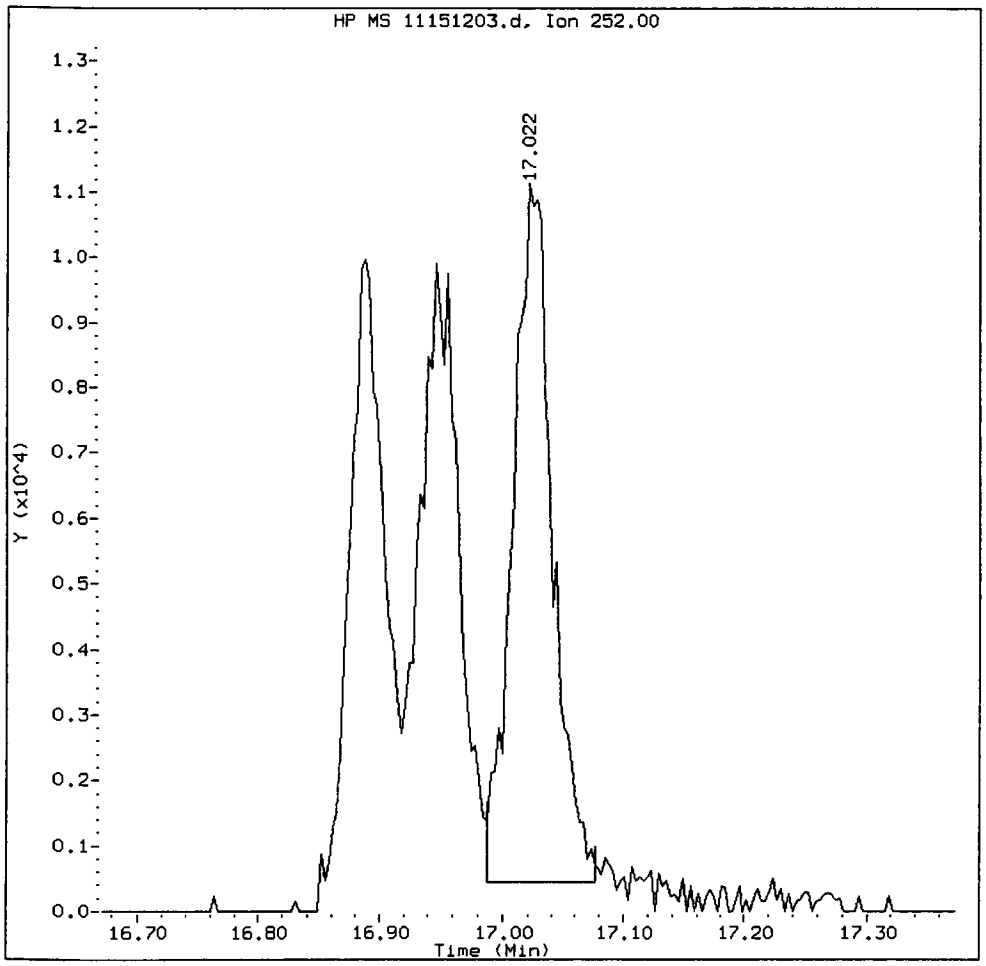




11/16/12

IC011115, /chem3/nt11.i/20121115.b/11151203.d

Benzo(j)fluoranthene Amount: 0.10 Area: 24068



MANUAL INTEGRATION for Benzo(j)fluoranthene

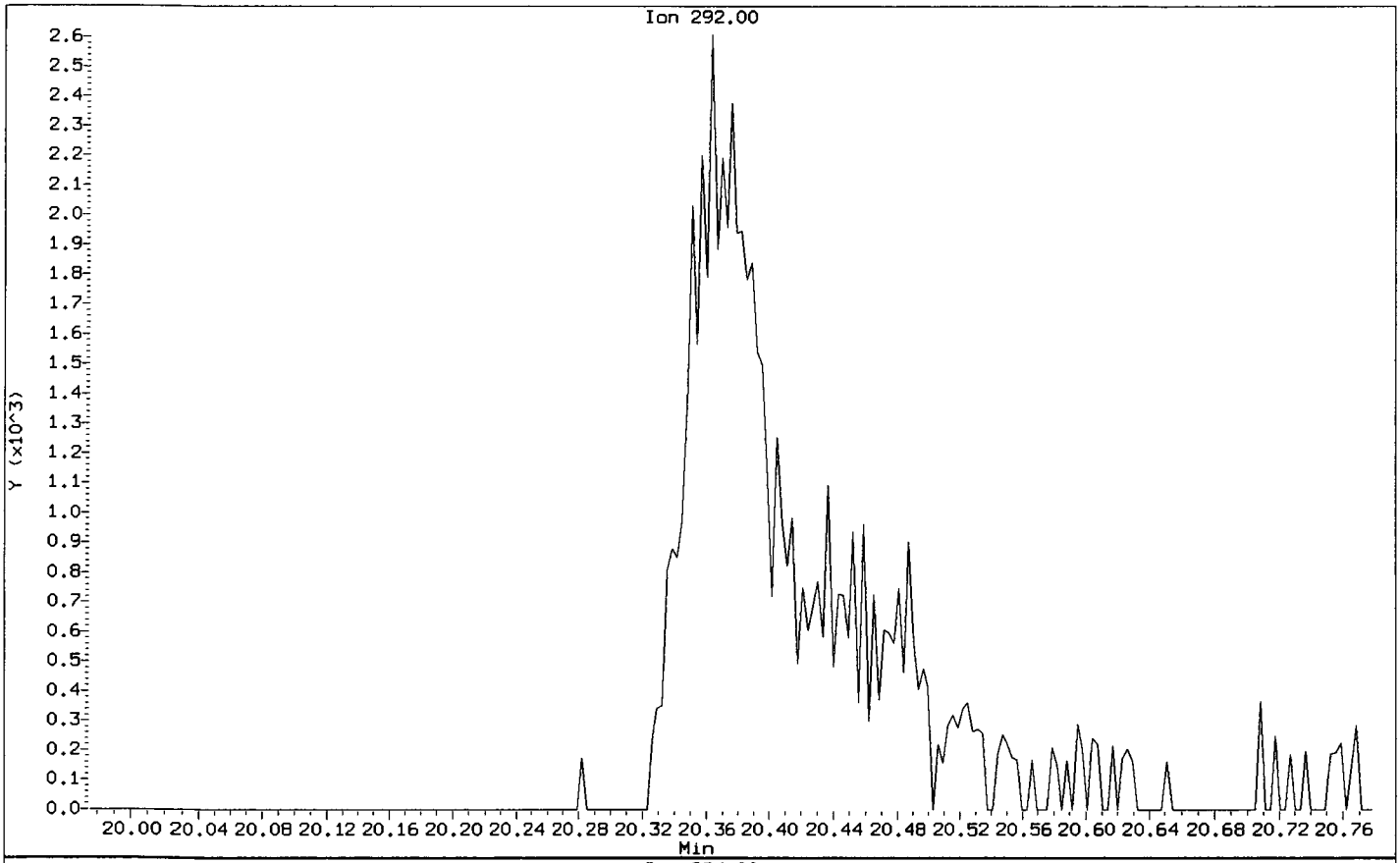
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

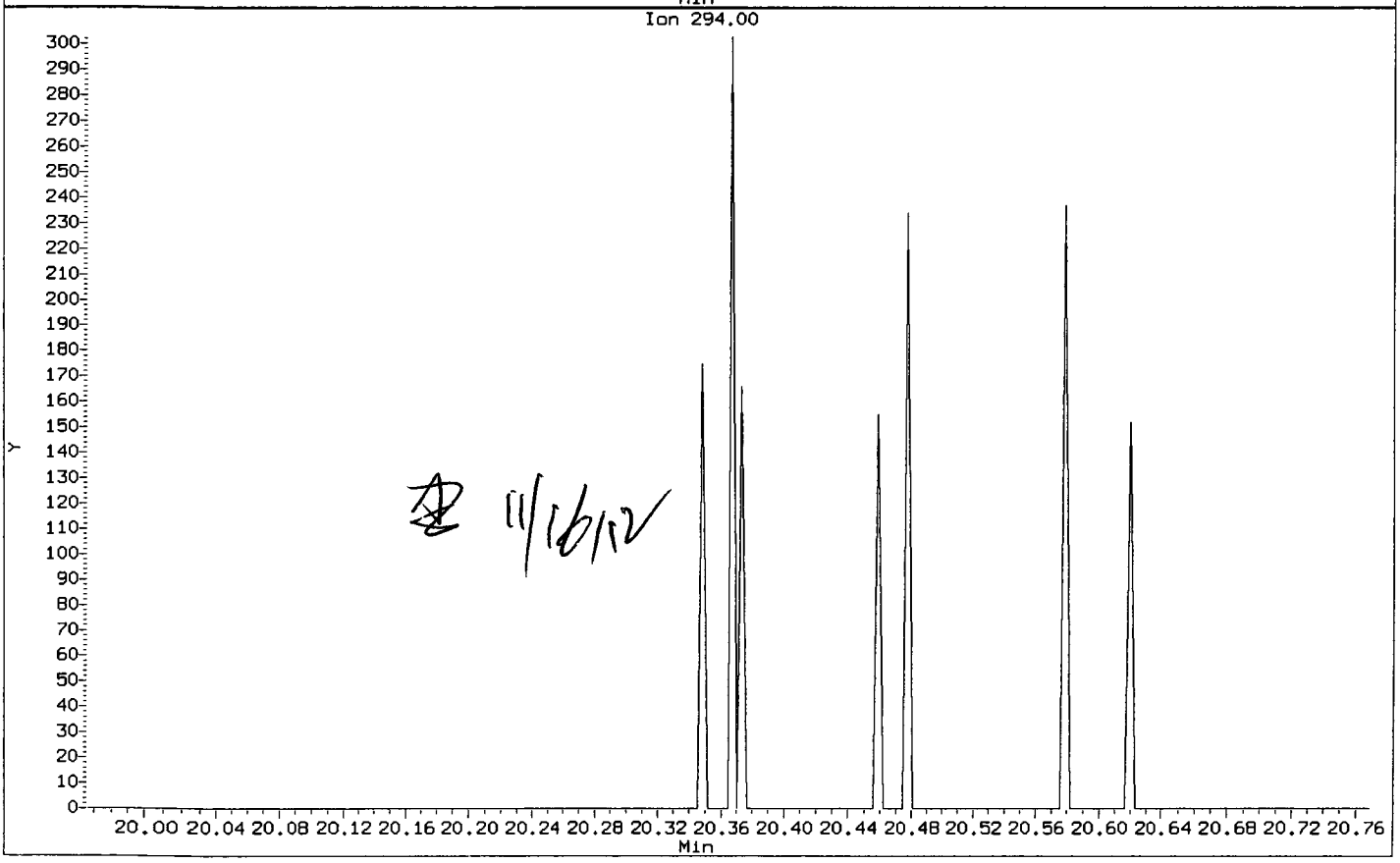
5. Other _____

Analyst: _____ Date: 11/16/12

Data File: /chem3/nt11.i/20121115.b/11151203.d
Injection Date: 15-NOV-2012 19:24
Instrument: nt11.i
Client Sample ID: IC011115

Compound: Dibenzo(a,h)anthracene-d14
CAS Number:

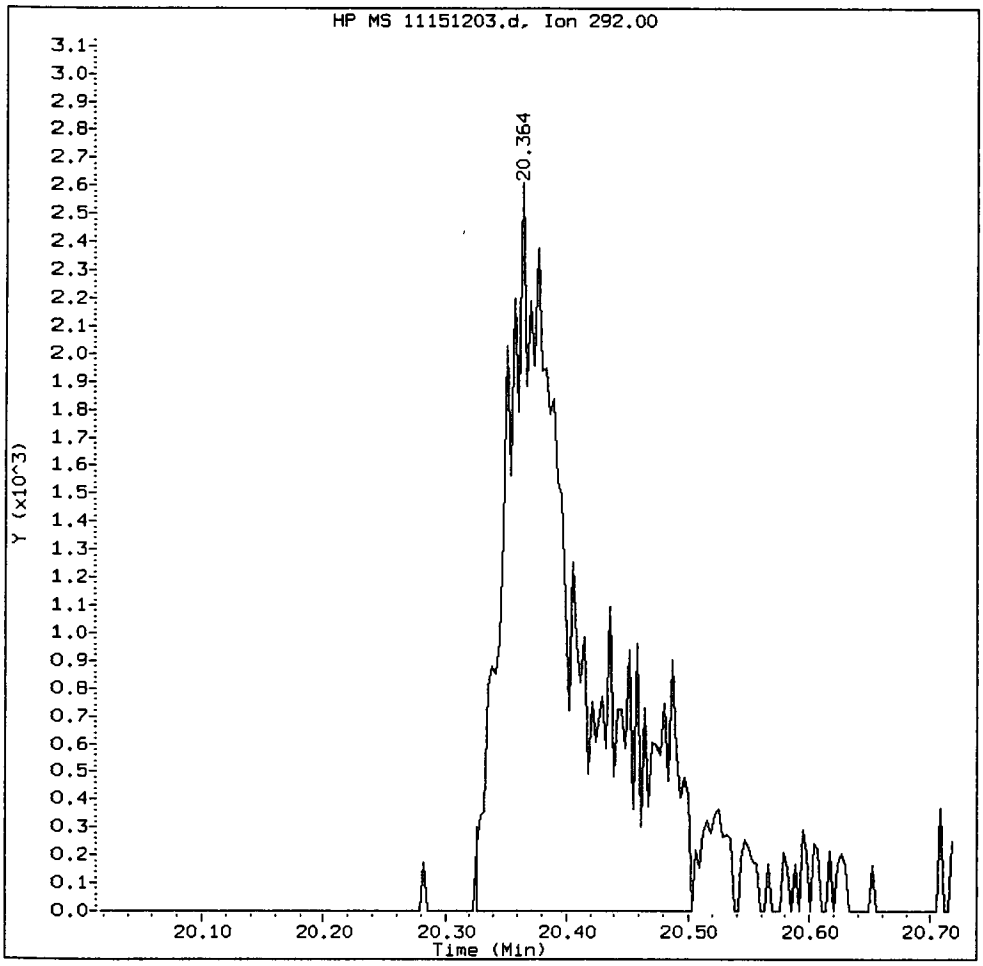




11/16/12

IC011115, /chem3/nt11.i/20121115.b/11151203.d

Dibenzo(a,h)anthracene-d14 Amount: 0.08 Area: 10934



MANUAL INTEGRATION for Dibenzo(a,h)anthracene-d14

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16/12

CO-ELUTION SUMMARY FOR FILE - 11151203.d

Lab ID: IC011115, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 15-NOV-2

RT	CO-ELUTION COMPOUNDS
20.453	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
20.453	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

checked OK

11/16/12

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121115.b/11151204.d
Lab Smp Id: IC051115 Client Smp ID: IC051115
Inj Date : 15-NOV-2012 19:54
Operator : JZ Inst ID: nt11.i
Smp Info : IC051115,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Meth Date : 16-Nov-2012 09:06 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 19:54 Cal File: 11151204.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NEWSIMPNAICL.sub
Target Version: 3.50

11/16/12

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 6 Naphthalene-d8	136	5.470	5.470	(1.000)	502178	2.00000	
7 Naphthalene	128	5.498	5.498	(1.005)	146246	0.50000	0.5449
$ 12 2-Methylnaphthalene-d10	152	6.205	6.205	(1.134)	93847	0.50000	0.5470
14 2-Methylnaphthalene	141	6.252	6.252	(1.143)	82360	0.50000	0.5447
15 1-methylnaphthalene	141	6.445	6.445	(1.178)	77781	0.50000	0.5370
19 Biphenyl	154	6.912	6.912	(0.893)	109708	0.50000	0.5553
20 2,6-Dimethylnaphthalene	156	6.953	6.953	(0.898)	77230	0.50000	0.5487
21 Acenaphthylene	152	7.631	7.631	(0.986)	124528	0.50000	0.5258
* 22 Acenaphthene-d10	164	7.742	7.742	(1.000)	272531	2.00000	
23 Acenaphthene	153	7.789	7.792	(1.006)	82681	0.50000	0.5490
11 Dibenzofuran	168	7.941	7.941	(1.026)	122886	0.50000	0.5570
24 1,6,7-Trimethylnaphthalene	170	8.016	8.016	(1.035)	76864	0.50000	0.5629
25 Fluorene	166	8.417	8.414	(1.087)	93768	0.50000	0.5530
27 Dibenzothiophene	184	9.632	9.635	(0.987)	117165	0.50000	0.5524
* 28 Phenanthrene-d10	188	9.761	9.761	(1.000)	391251	2.00000	
30 Phenanthrene	178	9.796	9.796	(1.004)	129116	0.50000	0.5463
31 Anthracene	178	9.834	9.834	(1.007)	122291	0.50000	0.5390
26 Carbazole	167	10.345	10.345	(1.060)	126266	0.50000	0.5401
33 1-Methylphenanthrene	192	10.544	10.544	(1.080)	93279	0.50000	0.5489
36 Fluoranthene	202	11.450	11.453	(1.173)	129566	0.50000	0.5472
$ 253 Fluoranthene-d10	212	11.418	11.418	(1.170)	119356	0.50000	0.5344
39 Pyrene	202	11.920	11.920	(0.829)	132676	0.50000	0.5316
46 Benzo(a)anthracene	228	14.255	14.255	(0.991)	119918	0.50000	0.5270
* 47 Chrysene-d12	240	14.378	14.378	(1.000)	452865	2.00000	
48 Chrysene	228	14.444	14.444	(1.005)	118406	0.50000	0.5361
51 Benzo(b)fluoranthene	252	16.887	16.893	(0.931)	105243	0.50000	0.5142
52 Benzo(k)fluoranthene	252	16.947	16.950	(0.934)	114001	0.50000	0.5129

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
251	Benzo(j)fluoranthene	252	17.022	17.022	(0.939)	122241	0.50000	0.5212
55	Benzo(e)pyrene	252	17.780	17.780	(0.980)	115621	0.50000	0.5443
54	Benzo(a)pyrene	252	17.906	17.906	(0.987)	111047	0.50000	0.5342
* 56	Perylene-d12	264	18.136	18.139	(1.000)	442240	2.00000	
57	Perylene	252	18.206	18.209	(1.004)	114699	0.50000	0.5320
$ 60	Dibenzo(a,h)anthracene-d14	292	20.364	20.367	(1.123)	69427	0.50000	0.4832(M)
63	Indeno(1,2,3-cd)pyrene	276	20.456	20.459	(1.128)	126692	0.50000	0.5027
62	Dibenzo(a,h)anthracene	278	20.459	20.459	(1.128)	102864	0.50000	0.5011
61	Benzo(g,h,i)perylene	276	21.330	21.333	(1.176)	106268	0.50000	0.4956

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11151204.d
Lab Smp Id: IC051115
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 15-NOV-2012
Calibration Time: 18:53
Client Smp ID: IC051115
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	502178	-2.70
22 Acenaphthene-d10	284255	142128	568510	272531	-4.12
28 Phenanthrene-d10	410660	205330	821320	391251	-4.73
47 Chrysene-d12	467886	233943	935772	452865	-3.21
56 Perylene-d12	472330	236165	944660	442240	-6.37

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.06
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	0.00
47 Chrysene-d12	14.38	13.88	14.88	14.38	-0.02
56 Perylene-d12	18.14	17.64	18.64	18.14	-0.03

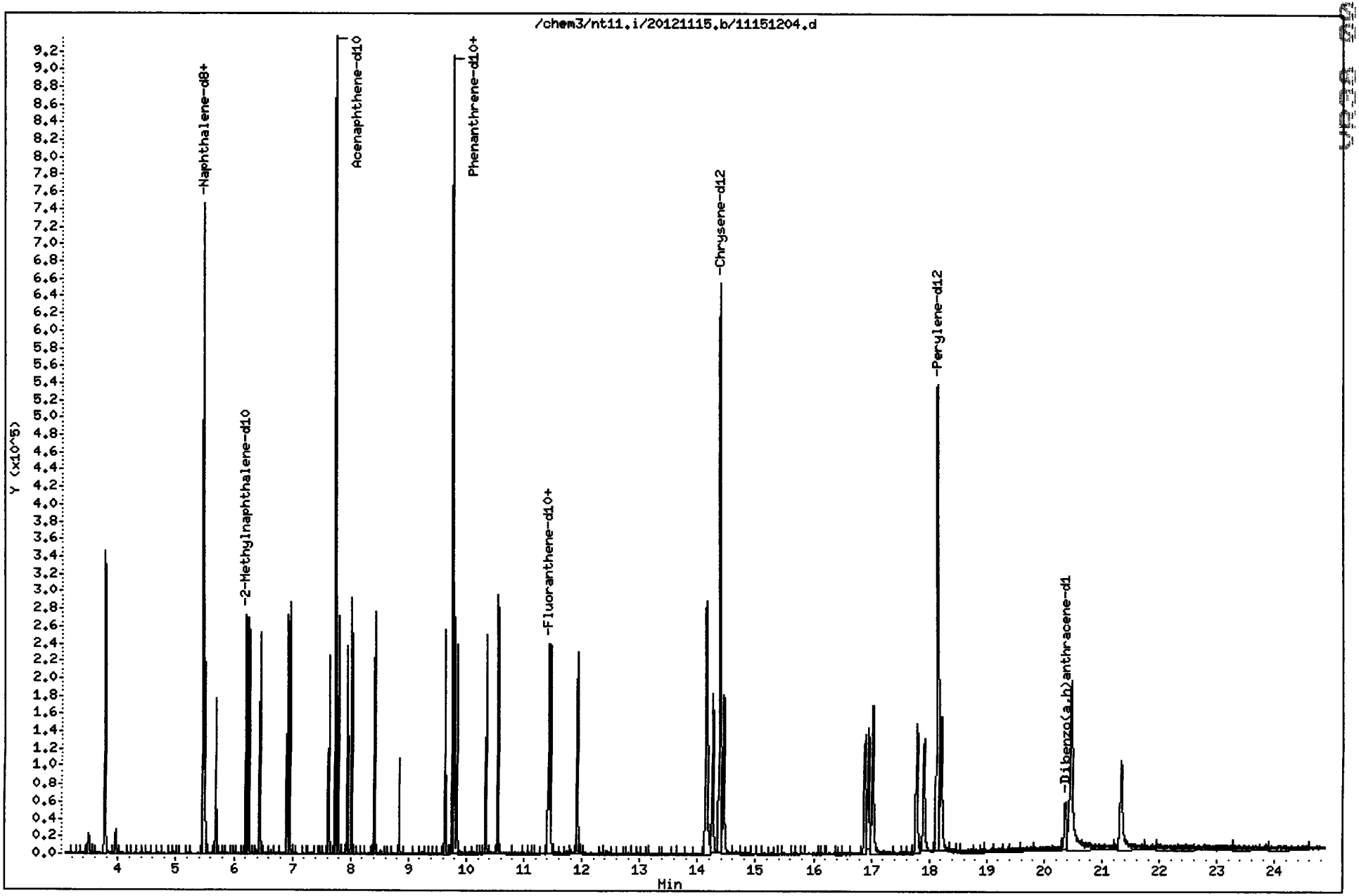
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20121115.b/11151204.d
Date : 15-NOV-2012 19:54
Client ID: IC051115
Sample Info: IC051115,

Instrument: nt11.i

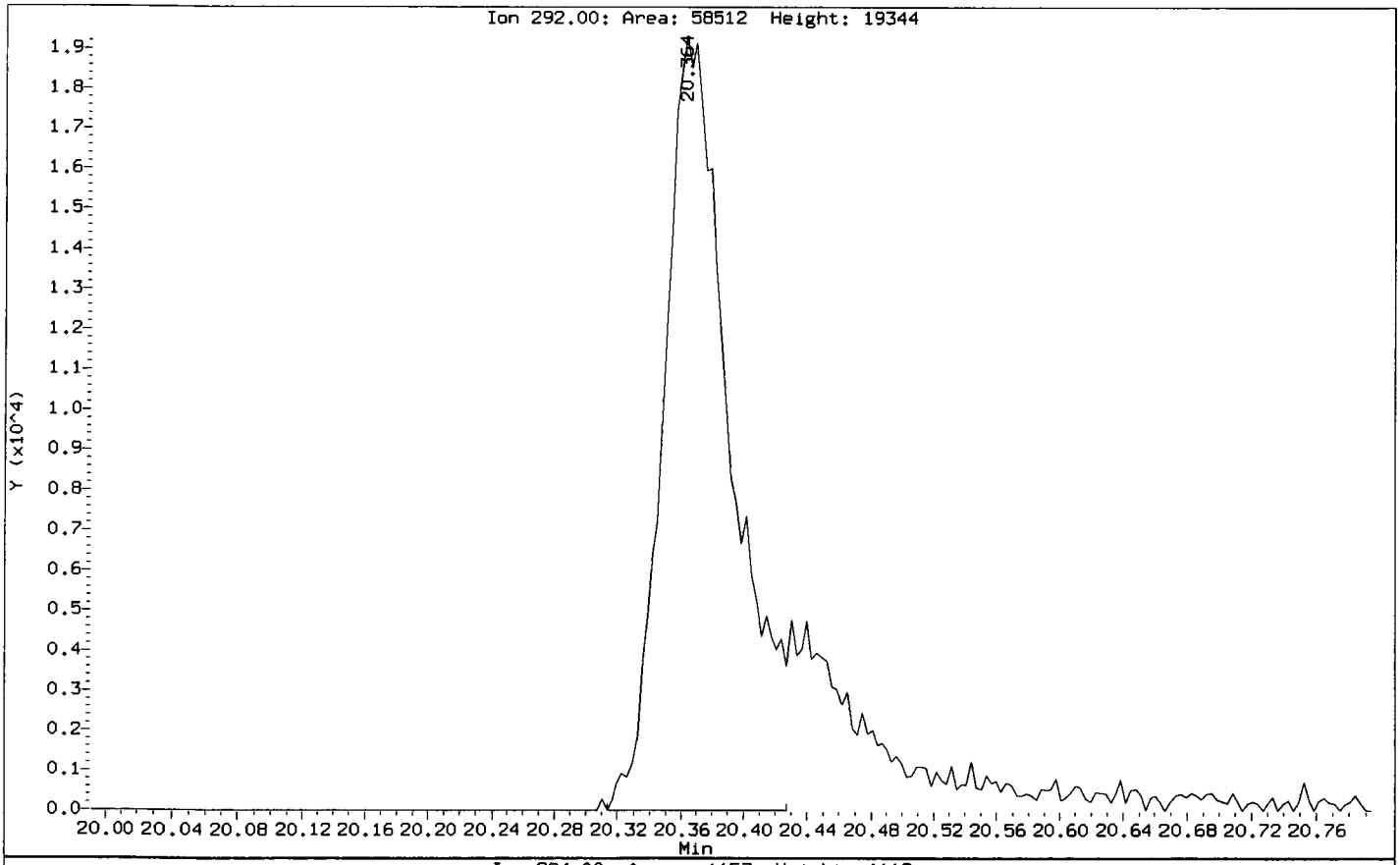
Operator: JZ
Column diameter: 0.25

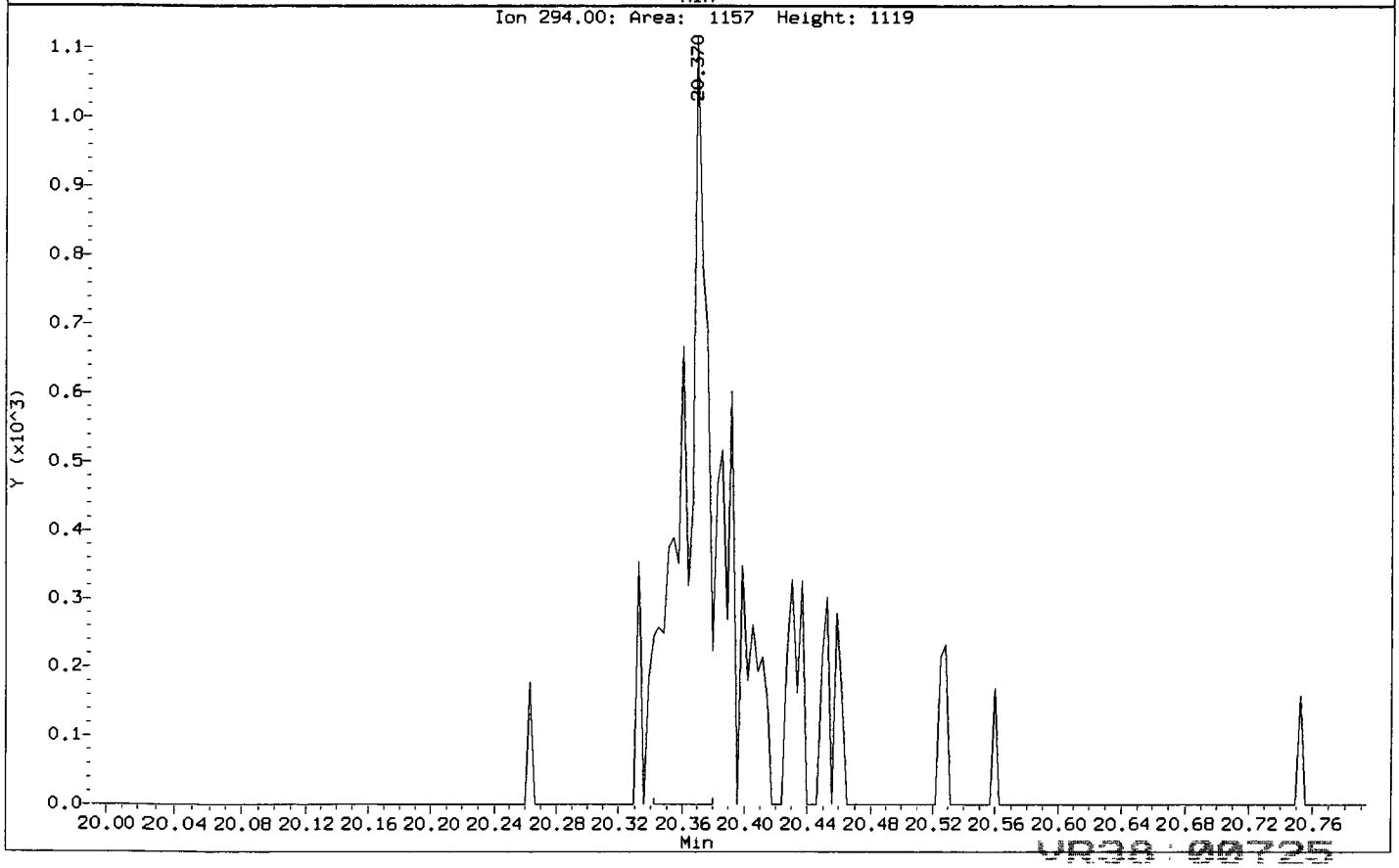
Column phase: ZB-5msi



Data File: /chem3/nt11.i/20121115.b/11151204.d
Injection Date: 15-NOV-2012 19:54
Instrument: nt11.i
Client Sample ID: IC051115

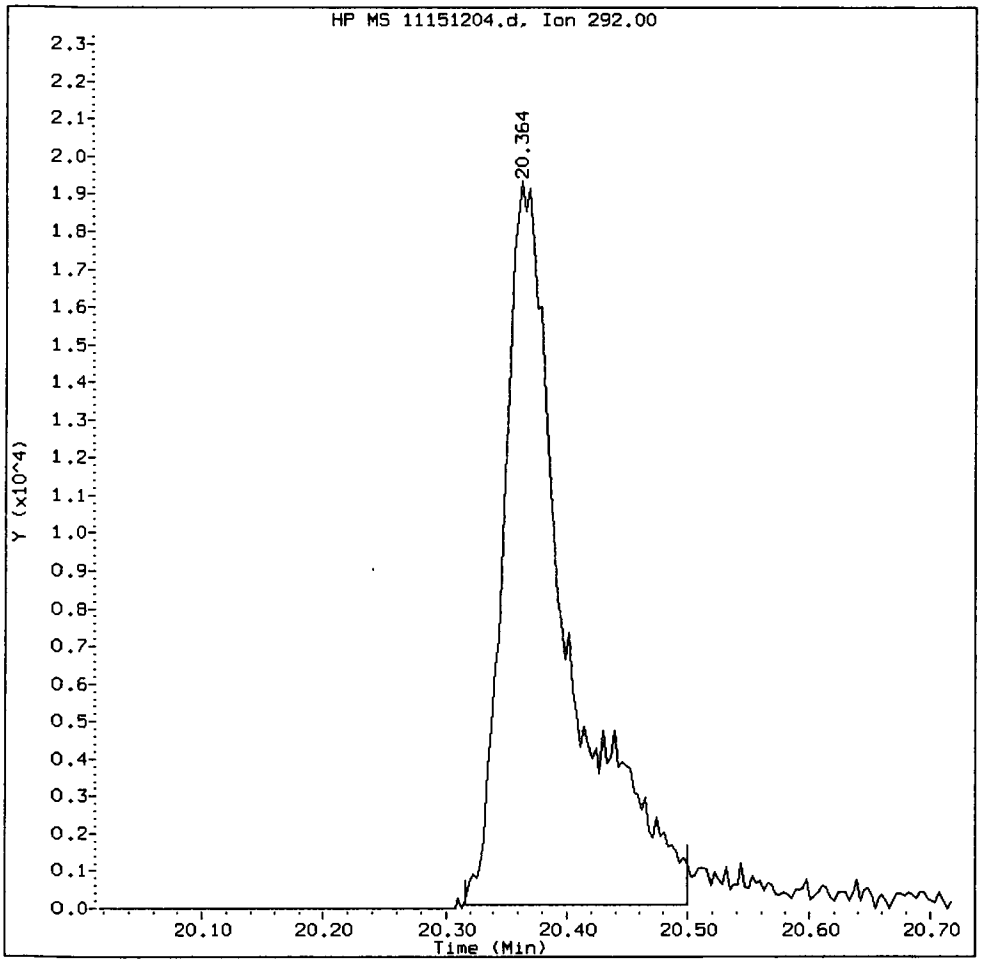
Compound: Dibenzo(a,h)anthracene-d14
CAS Number:





IC051115, /chem3/nt11.i/20121115.b/11151204.d

Dibenzo(a,h)anthracene-d14 Amount: 0.48 Area: 69427



MANUAL INTEGRATION for Dibenzo(a,h)anthracene-d14

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/16/12

CO-ELUTION SUMMARY FOR FILE - 11151204.d

Lab ID: IC051115, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 15-NOV-2

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121115.b/11151205.d
Lab Smp Id: IC11115 Client Smp ID: IC11115
Inj Date : 15-NOV-2012 20:24
Operator : JZ Inst ID: nt11.i
Smp Info : IC11115,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Meth Date : 16-Nov-2012 09:06 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NEWSIMPNAICL.sub
Target Version: 3.50

11/16/12

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 6	Naphthalene-d8	136	5.470	5.470	(1.000)	543154	2.00000	
7	Naphthalene	128	5.498	5.498	(1.005)	288619	1.00000	0.9943
$ 12	2-Methylnaphthalene-d10	152	6.205	6.205	(1.134)	185278	1.00000	0.9984
14	2-Methylnaphthalene	141	6.252	6.252	(1.143)	166046	1.00000	1.015
15	1-methylnaphthalene	141	6.445	6.445	(1.178)	154308	1.00000	0.9850
19	Biphenyl	154	6.912	6.912	(0.893)	215670	1.00000	0.9936
20	2,6-Dimethylnaphthalene	156	6.953	6.953	(0.898)	151954	1.00000	0.9826
21	Acenaphthylene	152	7.631	7.631	(0.986)	259571	1.00000	0.9977
* 22	Acenaphthene-d10	164	7.742	7.742	(1.000)	299409	2.00000	
23	Acenaphthene	153	7.792	7.792	(1.007)	163028	1.00000	0.9853
11	Dibenzofuran	168	7.941	7.941	(1.026)	238577	1.00000	0.9843
24	1,6,7-Trimethylnaphthalene	170	8.016	8.016	(1.035)	148936	1.00000	0.9929
25	Fluorene	166	8.414	8.414	(1.087)	185883	1.00000	0.9978
27	Dibenzothiophene	184	9.635	9.635	(0.987)	231583	1.00000	1.010
* 28	Phenanthrene-d10	188	9.761	9.761	(1.000)	422941	2.00000	
30	Phenanthrene	178	9.796	9.796	(1.004)	260184	1.00000	1.018
31	Anthracene	178	9.834	9.834	(1.007)	246870	1.00000	1.007
26	Carbazole	167	10.345	10.345	(1.060)	253940	1.00000	1.005
33	1-Methylphenanthrene	192	10.544	10.544	(1.080)	186145	1.00000	1.013
36	Fluoranthene	202	11.453	11.453	(1.173)	259718	1.00000	1.015
$ 253	Fluoranthene-d10	212	11.418	11.418	(1.170)	239766	1.00000	0.9930
39	Pyrene	202	11.920	11.920	(0.829)	264352	1.00000	1.000
46	Benzo(a)anthracene	228	14.255	14.255	(0.991)	241343	1.00000	1.001
* 47	Chrysene-d12	240	14.378	14.378	(1.000)	479647	2.00000	
48	Chrysene	228	14.444	14.444	(1.005)	227801	1.00000	0.9738
51	Benzo(b)fluoranthene	252	16.893	16.893	(0.931)	222043	1.00000	1.006
52	Benzo(k)fluoranthene	252	16.950	16.950	(0.934)	237598	1.00000	0.9909

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
251	Benzo(j)fluoranthene	252	17.022	17.022	(0.938)	260131	1.00000	1.028
55	Benzo(e)pyrene	252	17.780	17.780	(0.980)	225573	1.00000	0.9844
54	Benzo(a)pyrene	252	17.906	17.906	(0.987)	224896	1.00000	1.003
* 56	Perylene-d12	264	18.139	18.139	(1.000)	477073	2.00000	
57	Perylene	252	18.209	18.209	(1.004)	229020	1.00000	0.9847
$ 60	Dibenzo(a,h)anthracene-d14	292	20.367	20.367	(1.123)	153126	1.00000	0.9682(M)
63	Indeno(1,2,3-cd)pyrene	276	20.459	20.459	(1.128)	273852	1.00000	1.007
62	Dibenzo(a,h)anthracene	278	20.459	20.459	(1.128)	225284	1.00000	1.017
61	Benzo(g,h,i)perylene	276	21.333	21.333	(1.176)	233076	1.00000	1.008

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11151205.d
Lab Smp Id: IC11115
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 15-NOV-2012
Calibration Time: 18:53
Client Smp ID: IC11115
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	543154	5.24
22 Acenaphthene-d10	284255	142128	568510	299409	5.33
28 Phenanthrene-d10	410660	205330	821320	422941	2.99
47 Chrysene-d12	467886	233943	935772	479647	2.51
56 Perylene-d12	472330	236165	944660	477073	1.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.06
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	0.00
47 Chrysene-d12	14.38	13.88	14.88	14.38	-0.02
56 Perylene-d12	18.14	17.64	18.64	18.14	-0.02

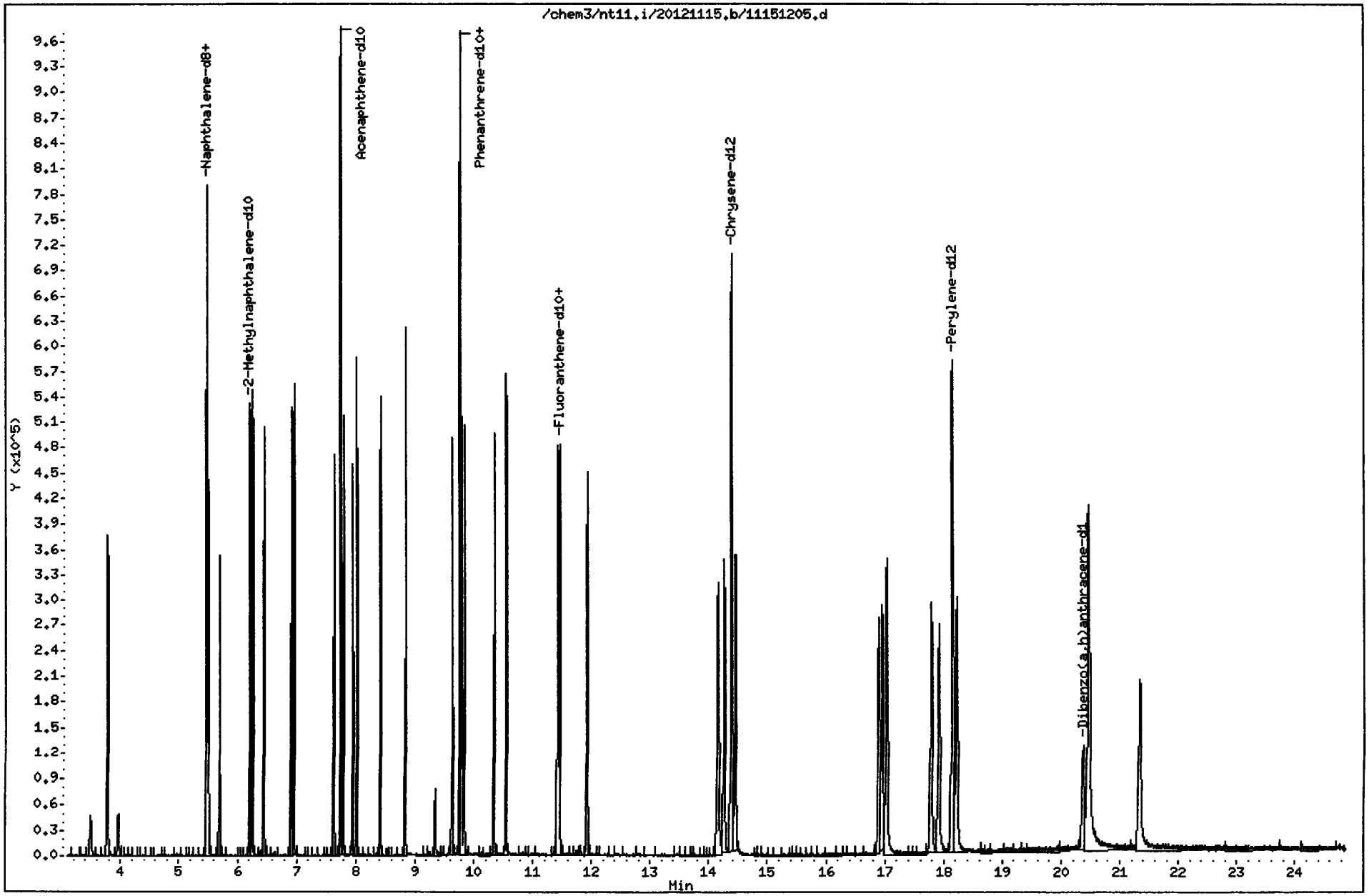
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20121115.b/11151205.d
Date : 15-NOV-2012 20:24
Client ID: IC11115
Sample Info: IC11115,

Instrument: nt11.i

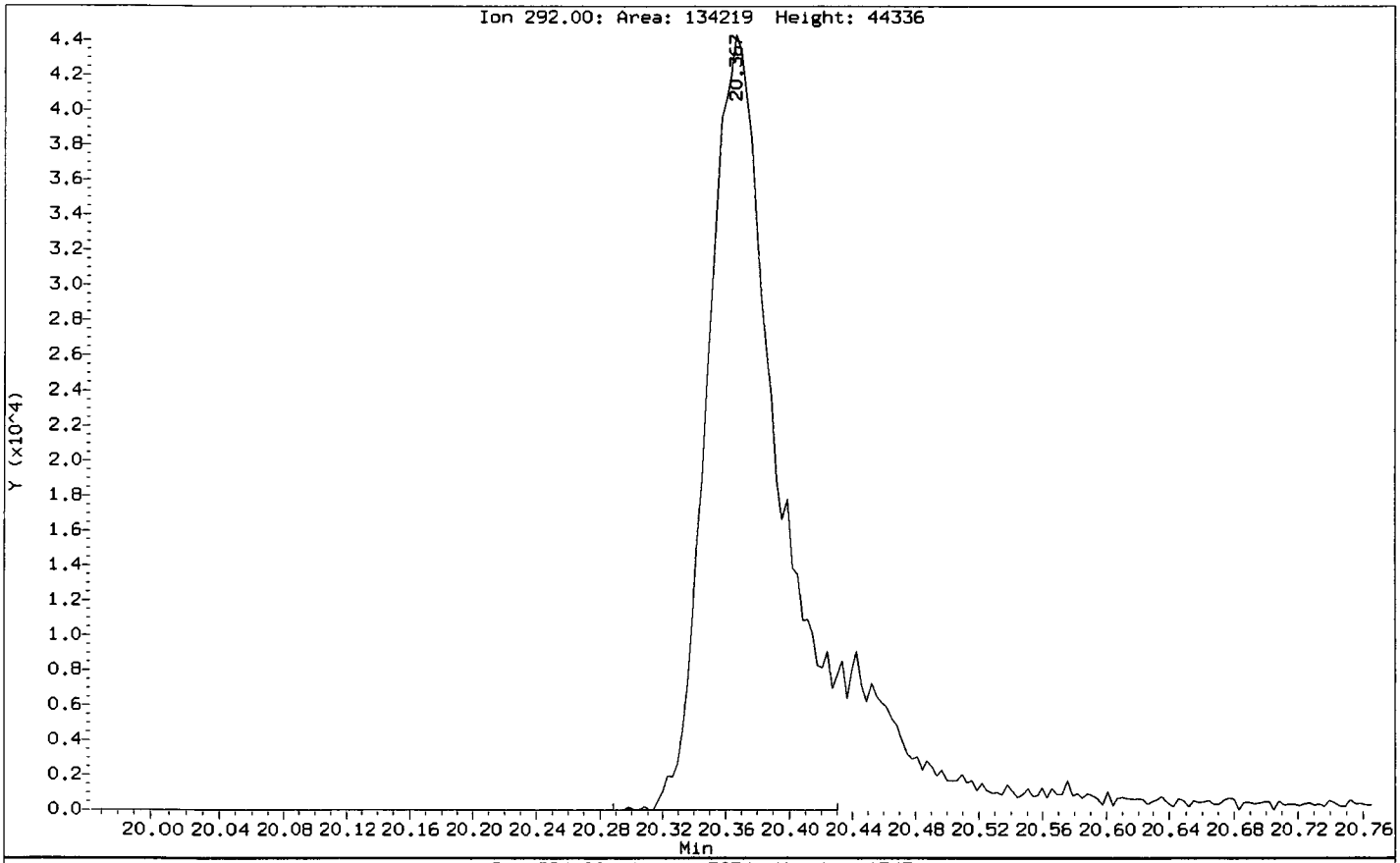
Operator: JZ
Column diameter: 0.25

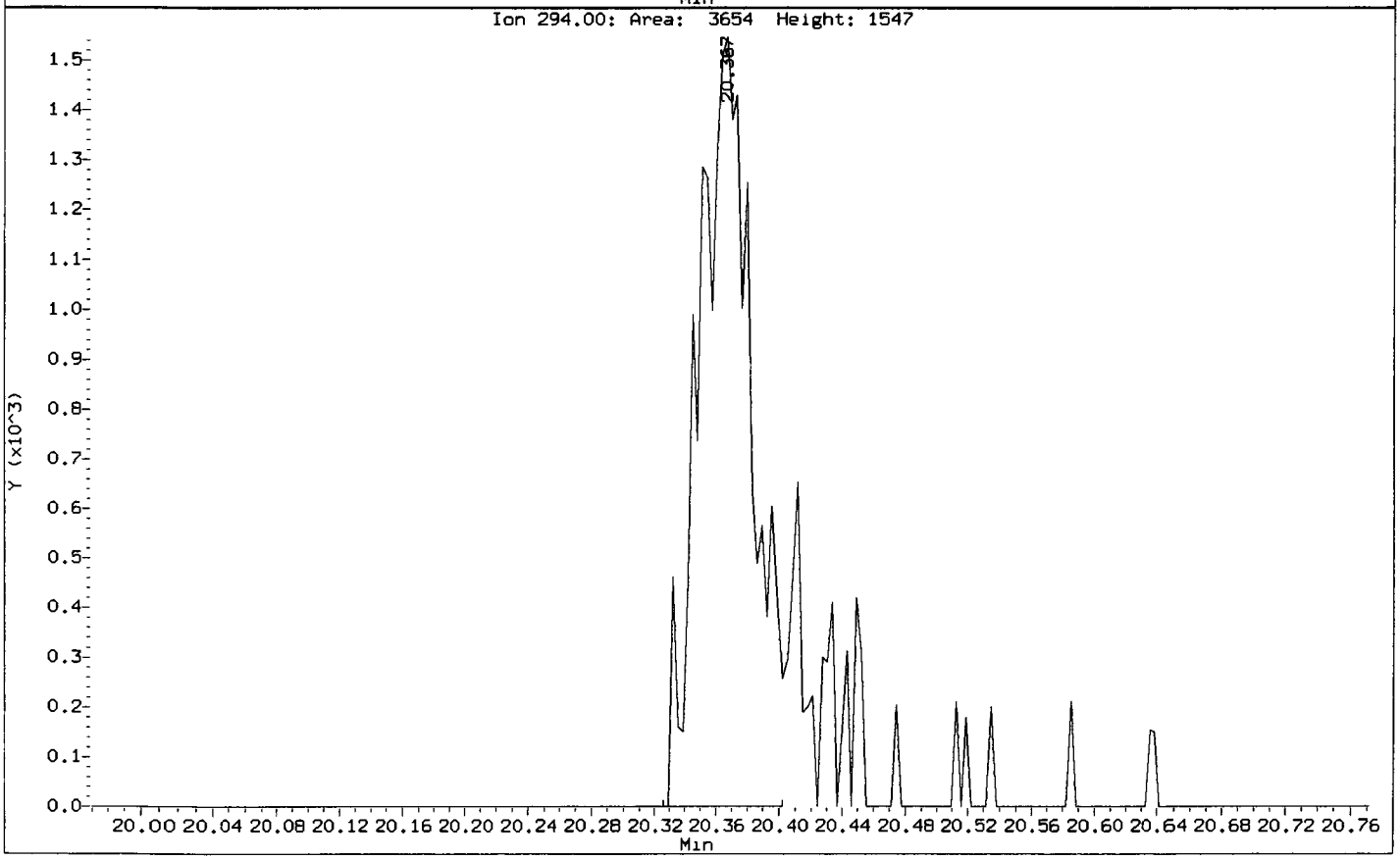
Column phase: ZB-5msi



Data File: /chem3/nt11.i/20121115.b/11151205.d
Injection Date: 15-NOV-2012 20:24
Instrument: nt11.i
Client Sample ID: IC11115

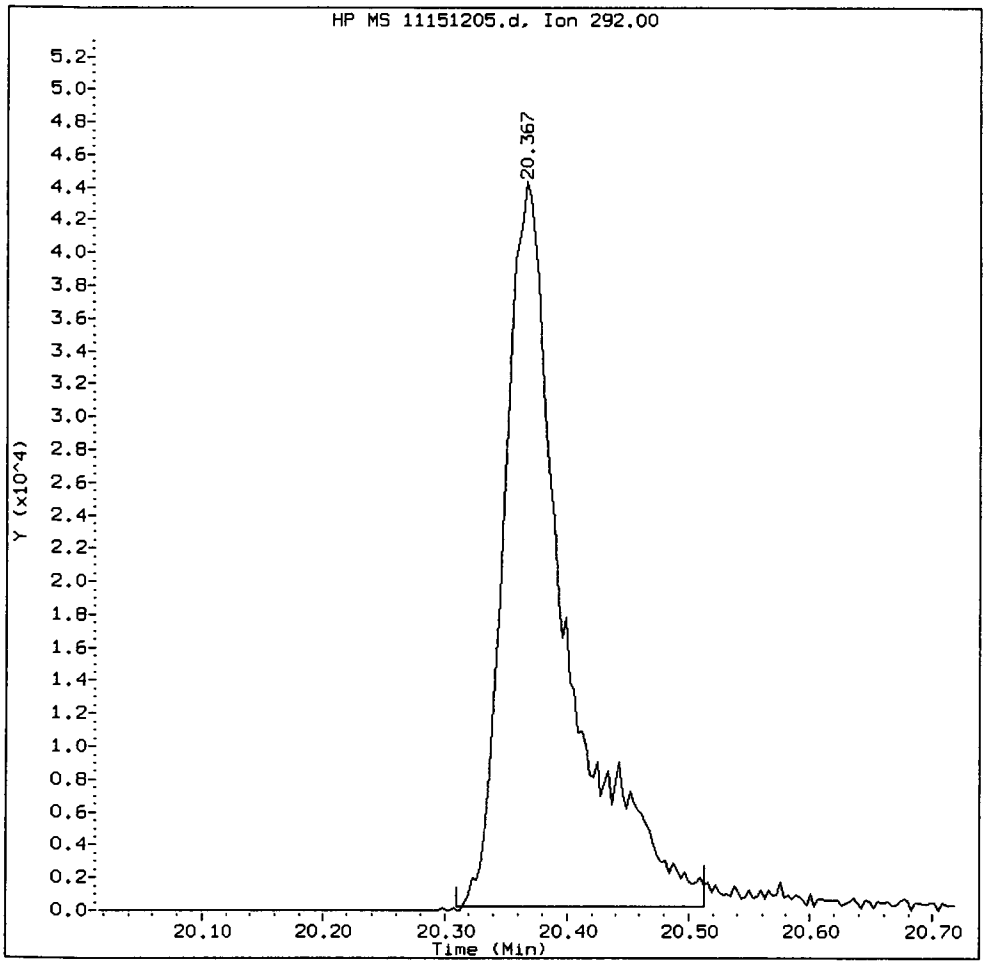
Compound: Dibenzo(a,h)anthracene-d14
CAS Number:





IC11115, /chem3/nt11.i/20121115.b/11151205.d

Dibenzo(a,h)anthracene-d14 Amount: 0.97 Area: 153126



MANUAL INTEGRATION for Dibenzo(a,h)anthracene-d14

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/16/12

CO-ELUTION SUMMARY FOR FILE - 11151205.d

Lab ID: IC11115, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 15-NOV-20

RT	CO-ELUTION COMPOUNDS
20.459	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
20.459	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

checked ok

11/16/12

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121115.b/11151202.d
Lab Smp Id: IC251115 Client Smp ID: IC251115
Inj Date : 15-NOV-2012 18:53
Operator : JZ Inst ID: nt11.i
Smp Info : IC251115
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Meth Date : 16-Nov-2012 09:06 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 18:53 Cal File: 11151202.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NEWSIMPNAICL.sub
Target Version: 3.50

11/16/12

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 6 Naphthalene-d8	136	5.473	5.470	(1.000)	516111	2.00000	
7 Naphthalene	128	5.501	5.498	(1.005)	665359	2.50000	2.500
$ 12 2-Methylnaphthalene-d10	152	6.208	6.205	(1.134)	434526	2.50000	2.500
14 2-Methylnaphthalene	141	6.255	6.252	(1.143)	384325	2.50000	2.500
15 1-methylnaphthalene	141	6.448	6.445	(1.178)	364974	2.50000	2.500
19 Biphenyl	154	6.912	6.912	(0.892)	501181	2.50000	2.500
20 2,6-Dimethylnaphthalene	156	6.956	6.953	(0.898)	363477	2.50000	2.500
21 Acenaphthylene	152	7.631	7.631	(0.985)	633403	2.50000	2.500
* 22 Acenaphthene-d10	164	7.745	7.742	(1.000)	284255	2.00000	
23 Acenaphthene	153	7.792	7.792	(1.006)	378991	2.50000	2.500
11 Dibenzofuran	168	7.944	7.941	(1.026)	561948	2.50000	2.500
24 1,6,7-Trimethylnaphthalene	170	8.016	8.016	(1.035)	346698	2.50000	2.500
25 Fluorene	166	8.417	8.414	(1.087)	445757	2.50000	2.500
27 Dibenzothiophene	184	9.635	9.635	(0.987)	538363	2.50000	2.500
* 28 Phenanthrene-d10	188	9.761	9.761	(1.000)	410660	2.00000	
30 Phenanthrene	178	9.799	9.796	(1.004)	595314	2.50000	2.500
31 Anthracene	178	9.840	9.834	(1.008)	598555	2.50000	2.500
26 Carbazole	167	10.348	10.345	(1.060)	605770	2.50000	2.500
33 1-Methylphenanthrene	192	10.547	10.544	(1.080)	444263	2.50000	2.500
36 Fluoranthene	202	11.456	11.453	(1.174)	617430	2.50000	2.500
$ 253 Fluoranthene-d10	212	11.421	11.418	(1.170)	588653	2.50000	2.500
39 Pyrene	202	11.923	11.920	(0.829)	643727	2.50000	2.500
46 Benzo(a)anthracene	228	14.261	14.255	(0.992)	569683	2.50000	2.500
* 47 Chrysene-d12	240	14.381	14.378	(1.000)	467886	2.00000	
48 Chrysene	228	14.451	14.444	(1.005)	547744	2.50000	2.500
51 Benzo(b)fluoranthene	252	16.896	16.893	(0.931)	540283	2.50000	2.500
52 Benzo(k)fluoranthene	252	16.959	16.950	(0.935)	605121	2.50000	2.500

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
251	Benzo(j)fluoranthene	252	17.032	17.022	(0.939)	617649	2.50000	2.500
55	Benzo(e)pyrene	252	17.789	17.780	(0.981)	559230	2.50000	2.500
54	Benzo(a)pyrene	252	17.915	17.906	(0.987)	566951	2.50000	2.500
* 56	Perylene-d12	264	18.143	18.139	(1.000)	472330	2.00000	
57	Perylene	252	18.215	18.209	(1.004)	562082	2.50000	2.500
$ 60	Dibenzo(a,h)anthracene-d14	292	20.377	20.367	(1.123)	423618	2.50000	2.500
63	Indeno(1,2,3-cd)pyrene	276	20.471	20.459	(1.128)	722667	2.50000	2.500
62	Dibenzo(a,h)anthracene	278	20.468	20.459	(1.128)	586489	2.50000	2.500
61	Benzo(g,h,i)perylene	276	21.342	21.333	(1.176)	572831	2.50000	2.500(M)

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11151202.d
Lab Smp Id: IC251115
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 15-NOV-2012
Calibration Time: 18:53
Client Smp ID: IC251115
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	516111	0.00
22 Acenaphthene-d10	284255	142128	568510	284255	0.00
28 Phenanthrene-d10	410660	205330	821320	410660	0.00
47 Chrysene-d12	467886	233943	935772	467886	0.00
56 Perylene-d12	472330	236165	944660	472330	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	0.00
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	0.00
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	0.00
47 Chrysene-d12	14.38	13.88	14.88	14.38	0.00
56 Perylene-d12	18.14	17.64	18.64	18.14	0.00

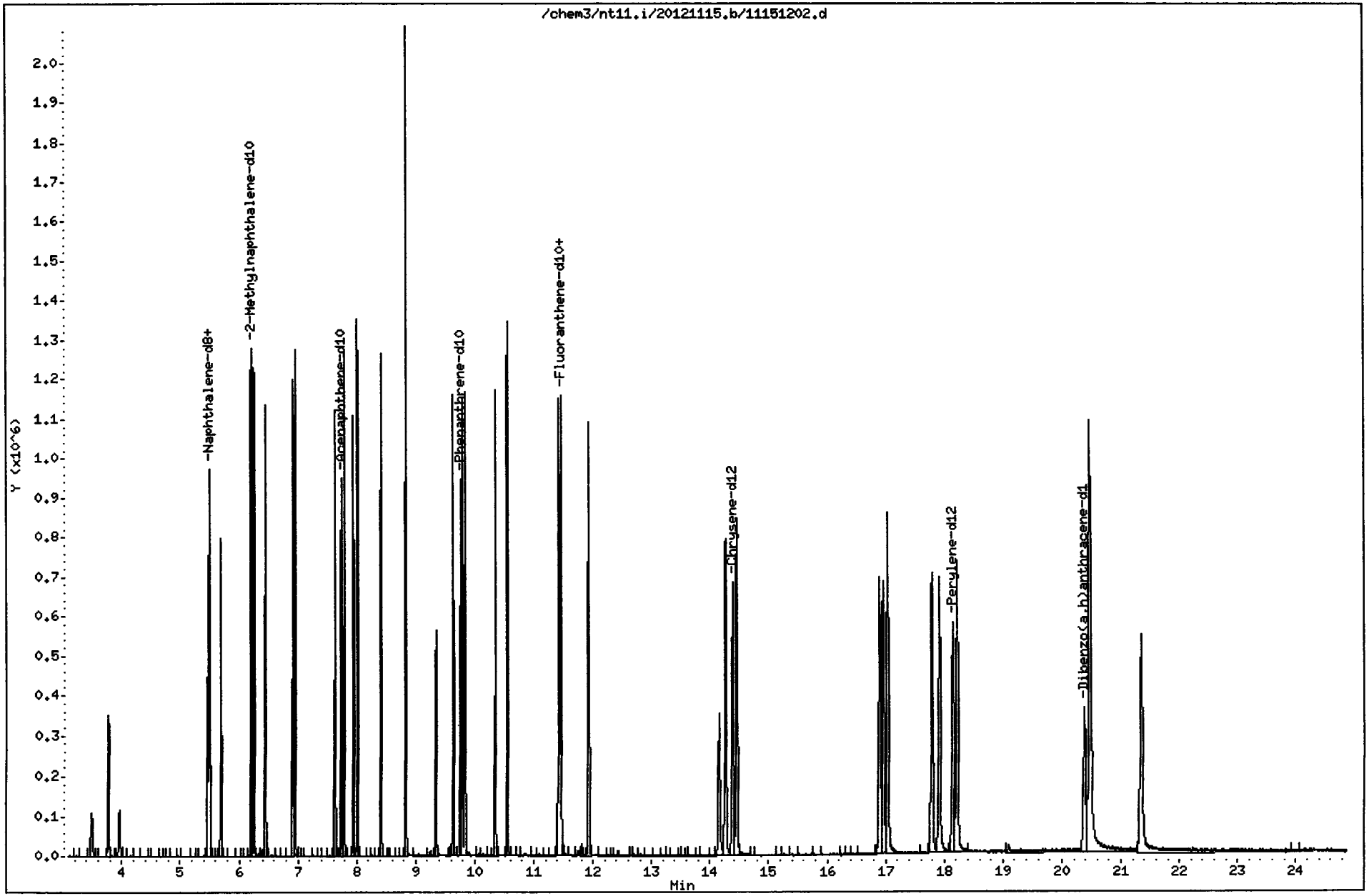
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20121115.b/11151202.d
Date : 15-NOV-2012 18:53
Client ID: IC251115
Sample Info: IC251115

Instrument: nt11.i

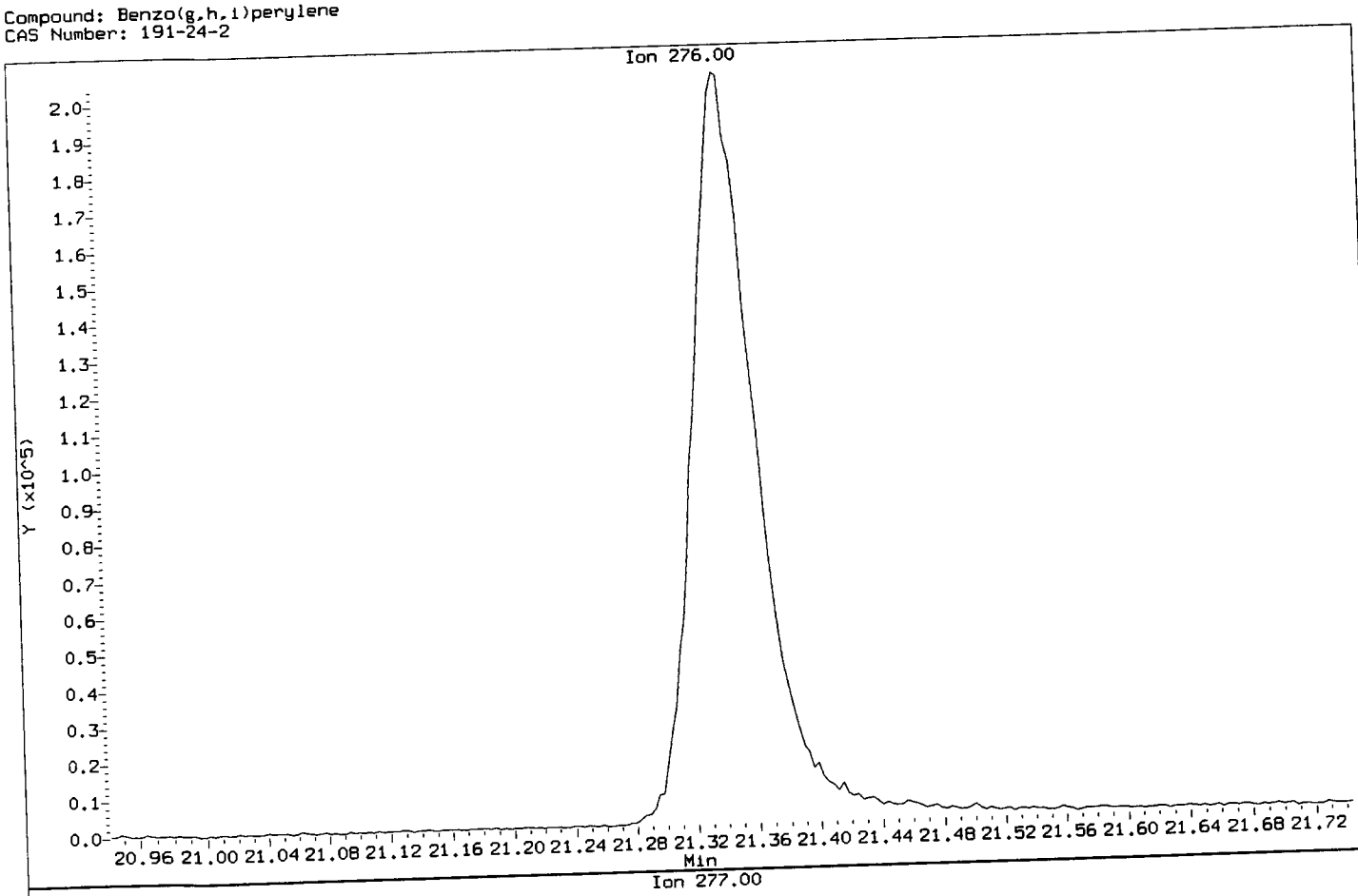
Operator: JZ
Column diameter: 0.25

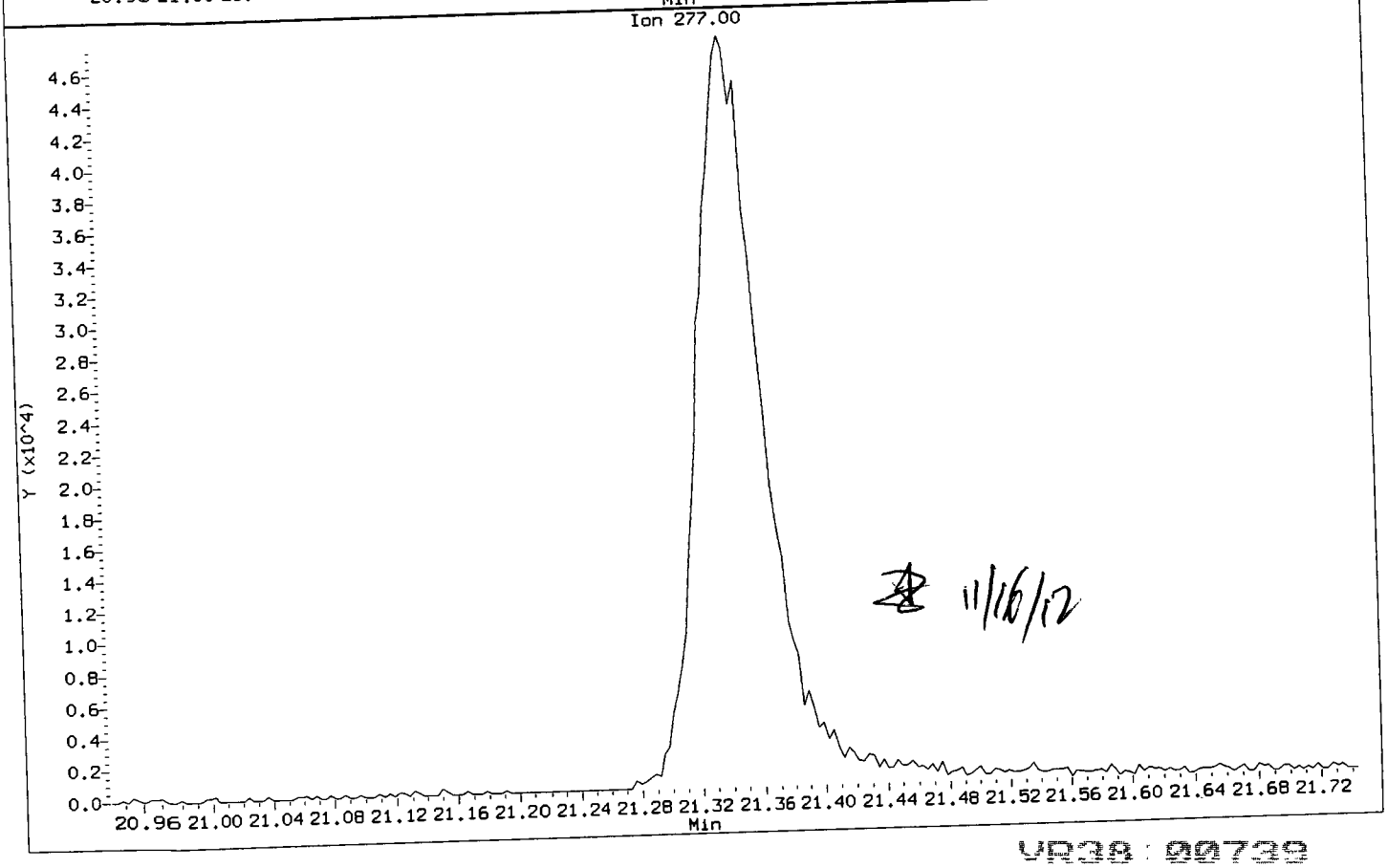
Column phase: ZB-5msi



Data File: /chem3/nt11.i/20121115.b/11151202.d
Injection Date: 15-NOV-2012 18:53
Instrument: nt11.i
Client Sample ID: IC251115

Compound: Benzo(g,h,i)perylene
CAS Number: 191-24-2

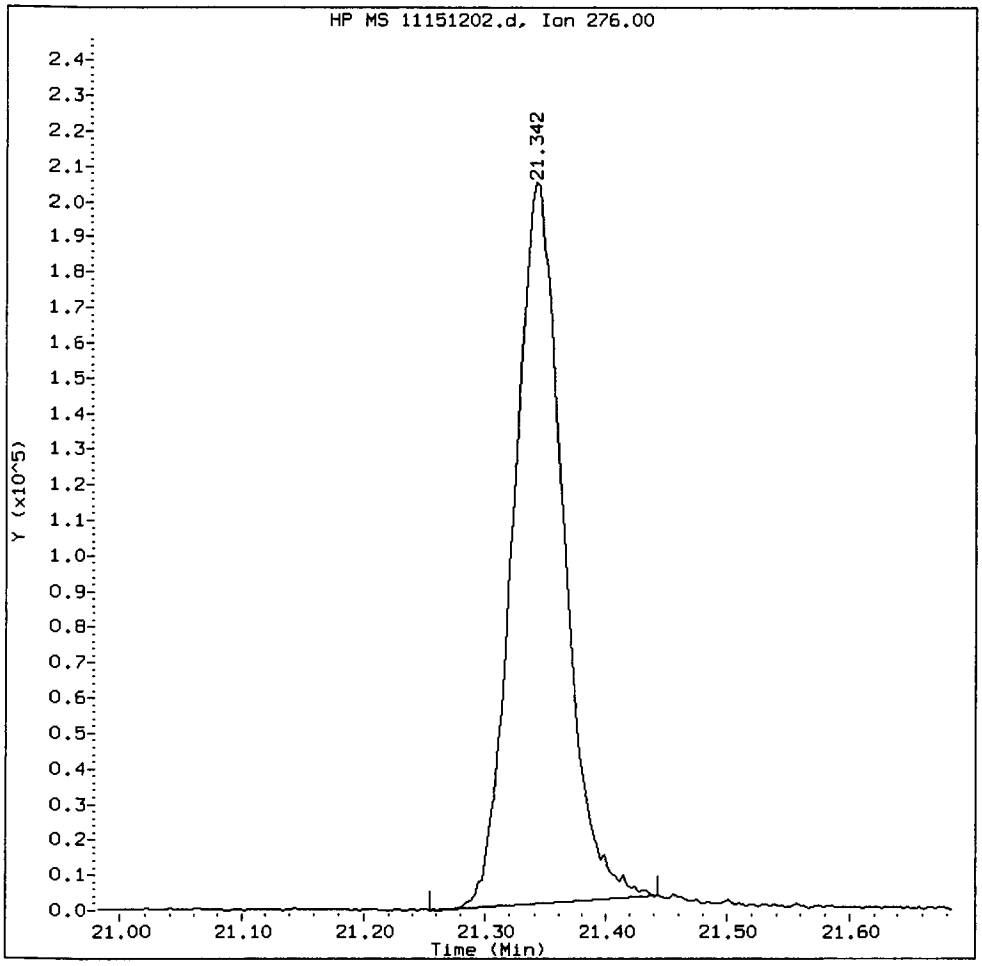




11/16/12

IC251115, /chem3/nt11.i/20121115.b/11151202.d

Benzo(g,h,i)perylene Amount: 2.50 Area: 572831



MANUAL INTEGRATION for Benzo(g,h,i)perylene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/16/12

CO-ELUTION SUMMARY FOR FILE - 11151202.d

Lab ID: IC251115, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 15-NOV-2

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121115.b/11151206.d
Lab Smp Id: IC51115 Client Smp ID: IC51115
Inj Date : 15-NOV-2012 20:54
Operator : JZ Inst ID: nt11.i
Smp Info : IC51115,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Meth Date : 16-Nov-2012 09:06 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:54 Cal File: 11151206.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NEWSIMPNAICL.sub
Target Version: 3.50

11/16/12

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 6 Naphthalene-d8	136	5.470	5.470	(1.000)	544640	2.00000	
7 Naphthalene	128	5.498	5.498	(1.005)	1311416	5.00000	4.404
$ 12 2-Methylnaphthalene-d10	152	6.208	6.205	(1.135)	841637	5.00000	4.411
14 2-Methylnaphthalene	141	6.252	6.252	(1.143)	761460	5.00000	4.548
15 1-methylnaphthalene	141	6.448	6.445	(1.179)	719884	5.00000	4.481
19 Biphenyl	154	6.912	6.912	(0.893)	989028	5.00000	4.386
20 2,6-Dimethylnaphthalene	156	6.956	6.953	(0.898)	714168	5.00000	4.456
21 Acenaphthylene	152	7.631	7.631	(0.986)	1262932	5.00000	4.745
* 22 Acenaphthene-d10	164	7.742	7.742	(1.000)	302706	2.00000	
23 Acenaphthene	153	7.792	7.792	(1.007)	749926	5.00000	4.365
11 Dibenzofuran	168	7.944	7.941	(1.026)	1100908	5.00000	4.372
24 1,6,7-Trimethylnaphthalene	170	8.016	8.016	(1.035)	684801	5.00000	4.391
25 Fluorene	166	8.417	8.414	(1.087)	877192	5.00000	4.562
27 Dibenzothiophene	184	9.635	9.635	(0.987)	1068041	5.00000	4.453
* 28 Phenanthrene-d10	188	9.761	9.761	(1.000)	431003	2.00000	
30 Phenanthrene	178	9.796	9.796	(1.004)	1170468	5.00000	4.366
31 Anthracene	178	9.837	9.834	(1.008)	1179017	5.00000	4.629
26 Carbazole	167	10.348	10.345	(1.060)	1205604	5.00000	4.583
33 1-Methylphenanthrene	192	10.547	10.544	(1.080)	869675	5.00000	4.539
36 Fluoranthene	202	11.456	11.453	(1.174)	1210404	5.00000	4.536
$ 253 Fluoranthene-d10	212	11.421	11.418	(1.170)	1164970	5.00000	4.656
39 Pyrene	202	11.923	11.920	(0.829)	1272149	5.00000	4.583
46 Benzo(a)anthracene	228	14.261	14.255	(0.992)	1144766	5.00000	4.530
* 47 Chrysene-d12	240	14.378	14.378	(1.000)	495359	2.00000	
48 Chrysene	228	14.451	14.444	(1.005)	1113639	5.00000	4.510
51 Benzo(b)fluoranthene	252	16.902	16.893	(0.932)	1103927	5.00000	4.663
52 Benzo(k)fluoranthene	252	16.962	16.950	(0.935)	1218088	5.00000	4.692(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
251	Benzo(j)fluoranthene	252	17.035	17.022	(0.939)	1258282	5.00000	4.590
55	Benzo(e)pyrene	252	17.792	17.780	(0.981)	1130284	5.00000	4.538
54	Benzo(a)pyrene	252	17.919	17.906	(0.988)	1165219	5.00000	4.832
* 56	Perylene-d12	264	18.143	18.139	(1.000)	510632	2.00000	
57	Perylene	252	18.218	18.209	(1.004)	1152789	5.00000	4.548
$ 60	Dibenzo(a,h)anthracene-d14	292	20.380	20.367	(1.123)	920202	5.00000	5.911
63	Indeno(1,2,3-cd)pyrene	276	20.475	20.459	(1.129)	1468831	5.00000	5.079
62	Dibenzo(a,h)anthracene	278	20.471	20.459	(1.128)	1204941	5.00000	5.098
61	Benzo(g,h,i)perylene	276	21.349	21.333	(1.177)	1221377	5.00000	5.017(M)

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11151206.d
Lab Smp Id: IC51115
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 15-NOV-2012
Calibration Time: 18:53
Client Smp ID: IC51115
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	544640	5.53
22 Acenaphthene-d10	284255	142128	568510	302706	6.49
28 Phenanthrene-d10	410660	205330	821320	431003	4.95
47 Chrysene-d12	467886	233943	935772	495359	5.87
56 Perylene-d12	472330	236165	944660	510632	8.11

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.06
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	0.00
47 Chrysene-d12	14.38	13.88	14.88	14.38	-0.02
56 Perylene-d12	18.14	17.64	18.64	18.14	0.00

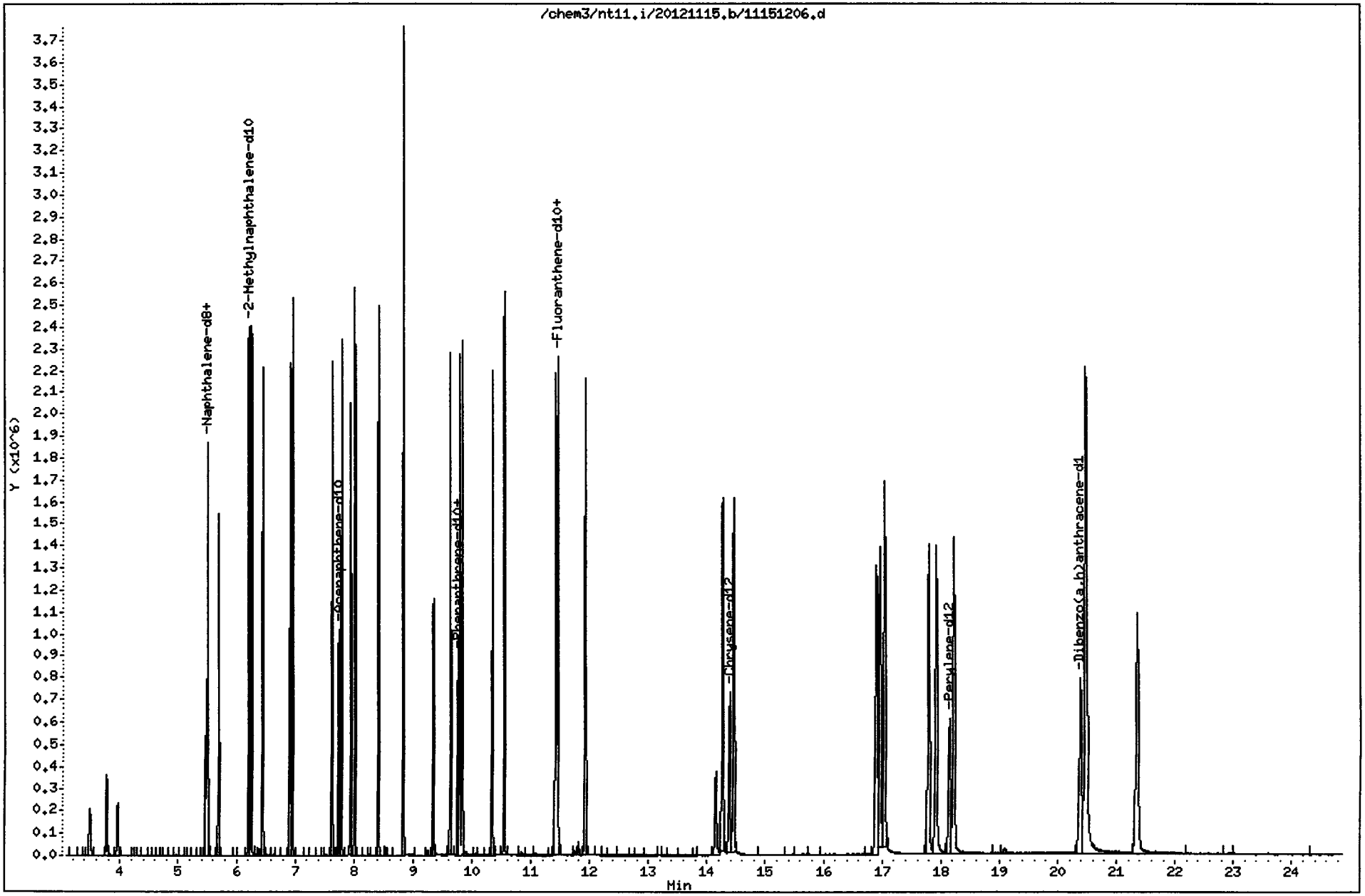
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20121115.b/11151206.d
Date : 15-NOV-2012 20:54
Client ID: IC51115
Sample Info: IC51115,

Instrument: nt11.i

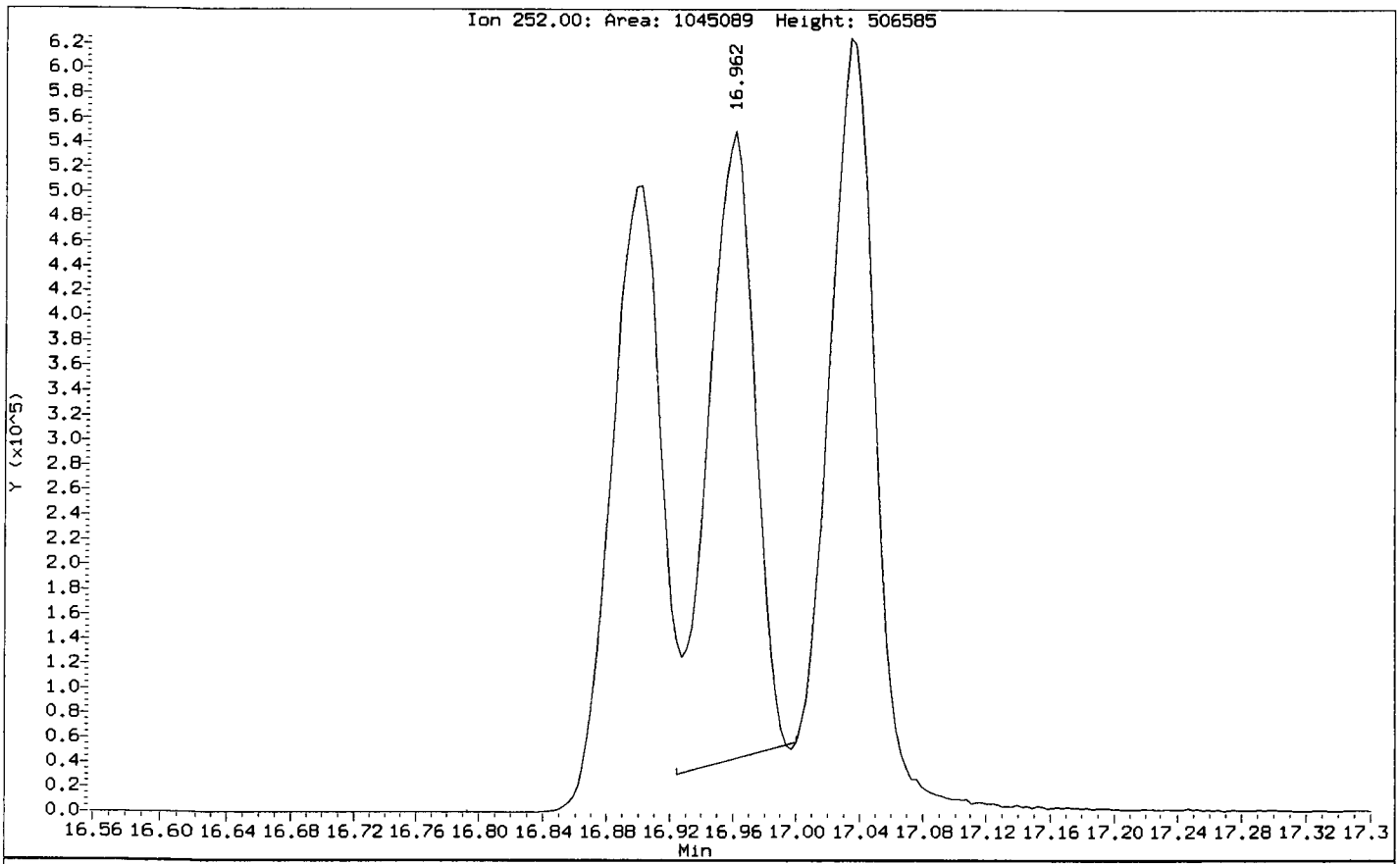
Operator: JZ
Column diameter: 0.25

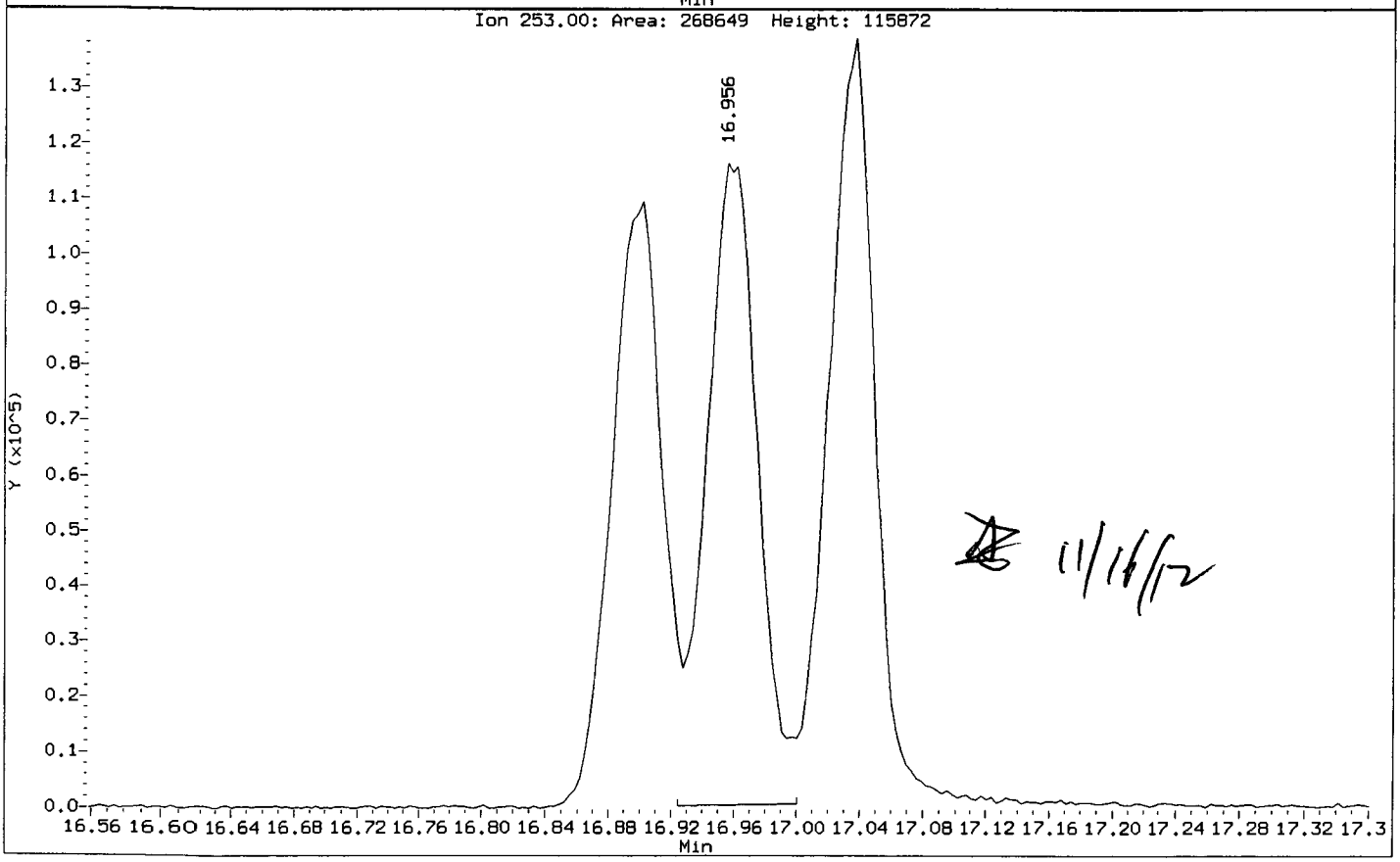
Column phase: ZB-5msi



Data File: /chem3/nt11.i/20121115.b/11151206.d
Injection Date: 15-NOV-2012 20:54
Instrument: nt11.i
Client Sample ID: IC51115

Compound: Benzo(k)fluoranthene
CAS Number: 207-08-9

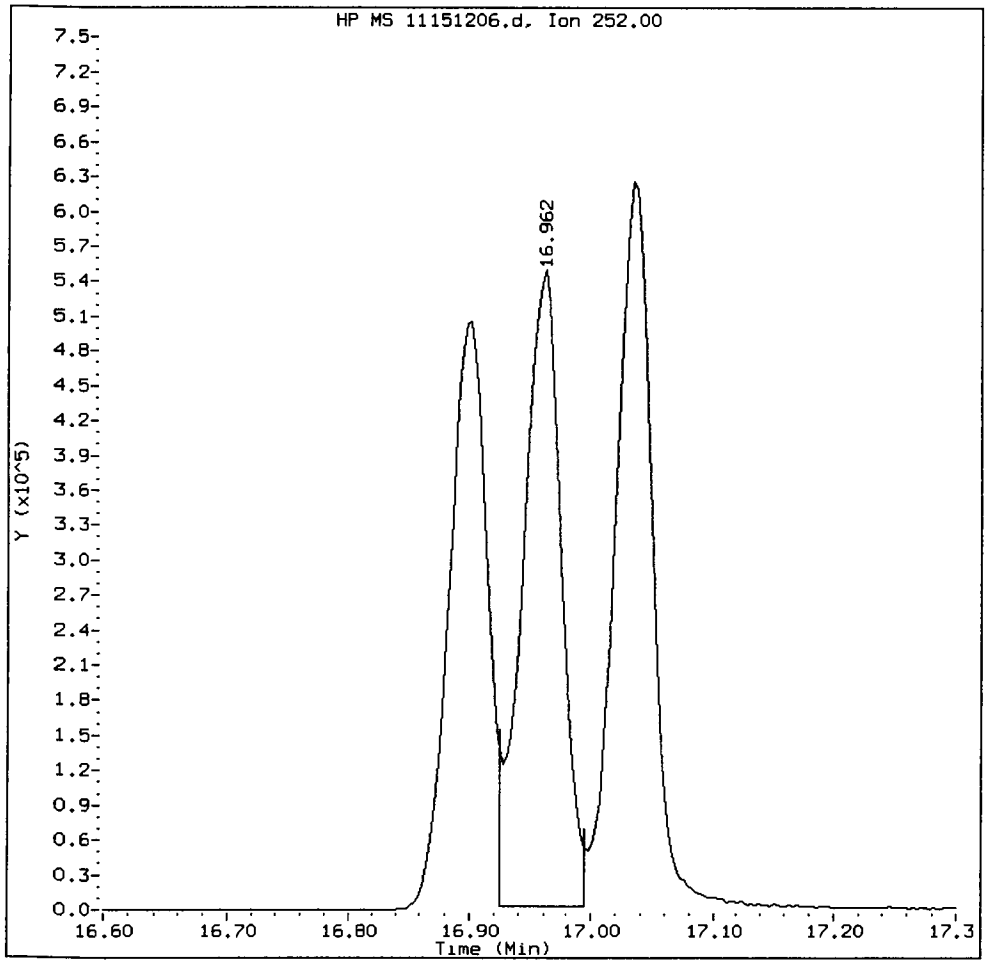




11/16/12

IC51115, /chem3/nt11.i/20121115.b/11151206.d

Benzo(k)fluoranthene Amount: 4.69 Area: 1218088



MANUAL INTEGRATION for Benzo(k)fluoranthene

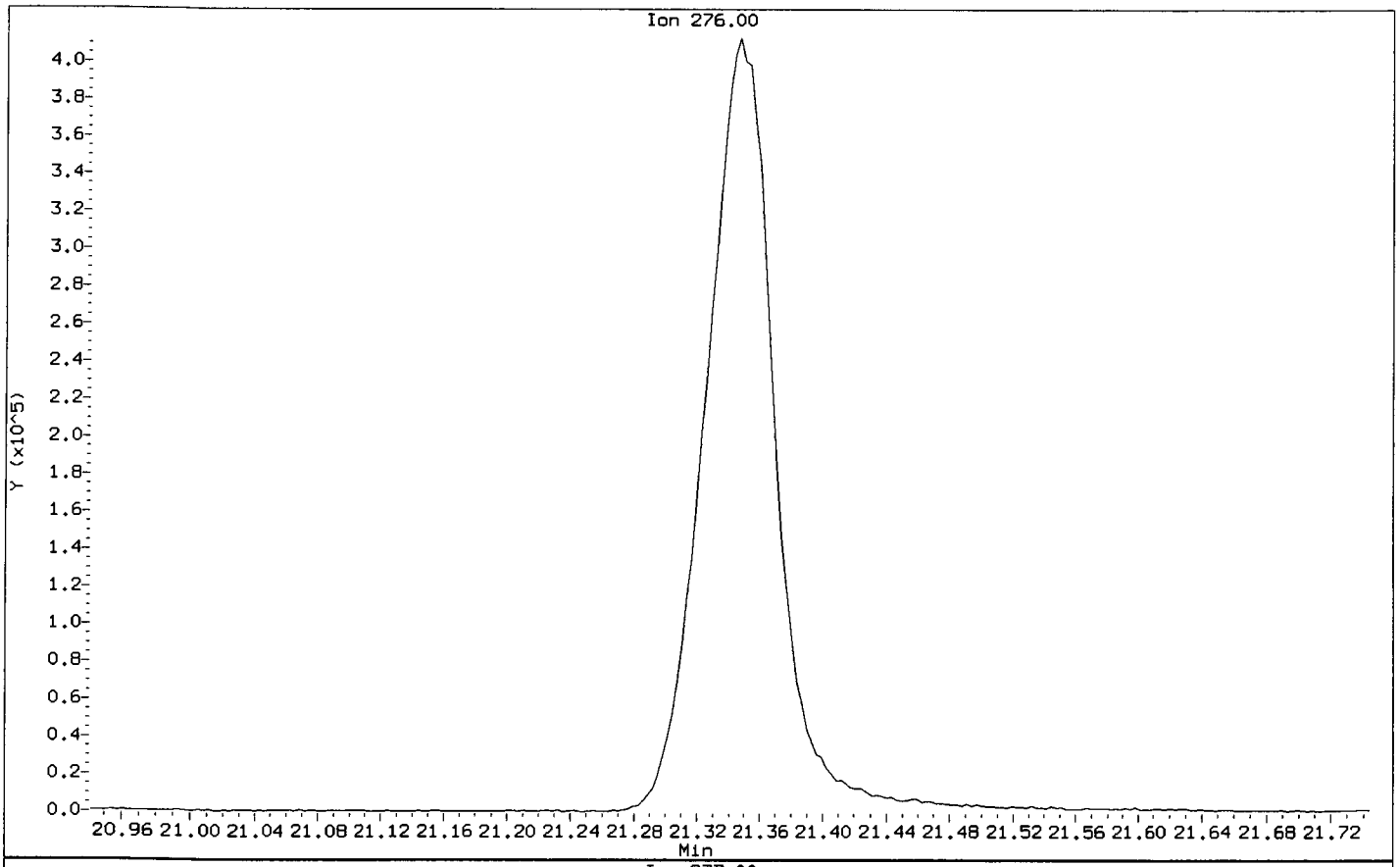
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

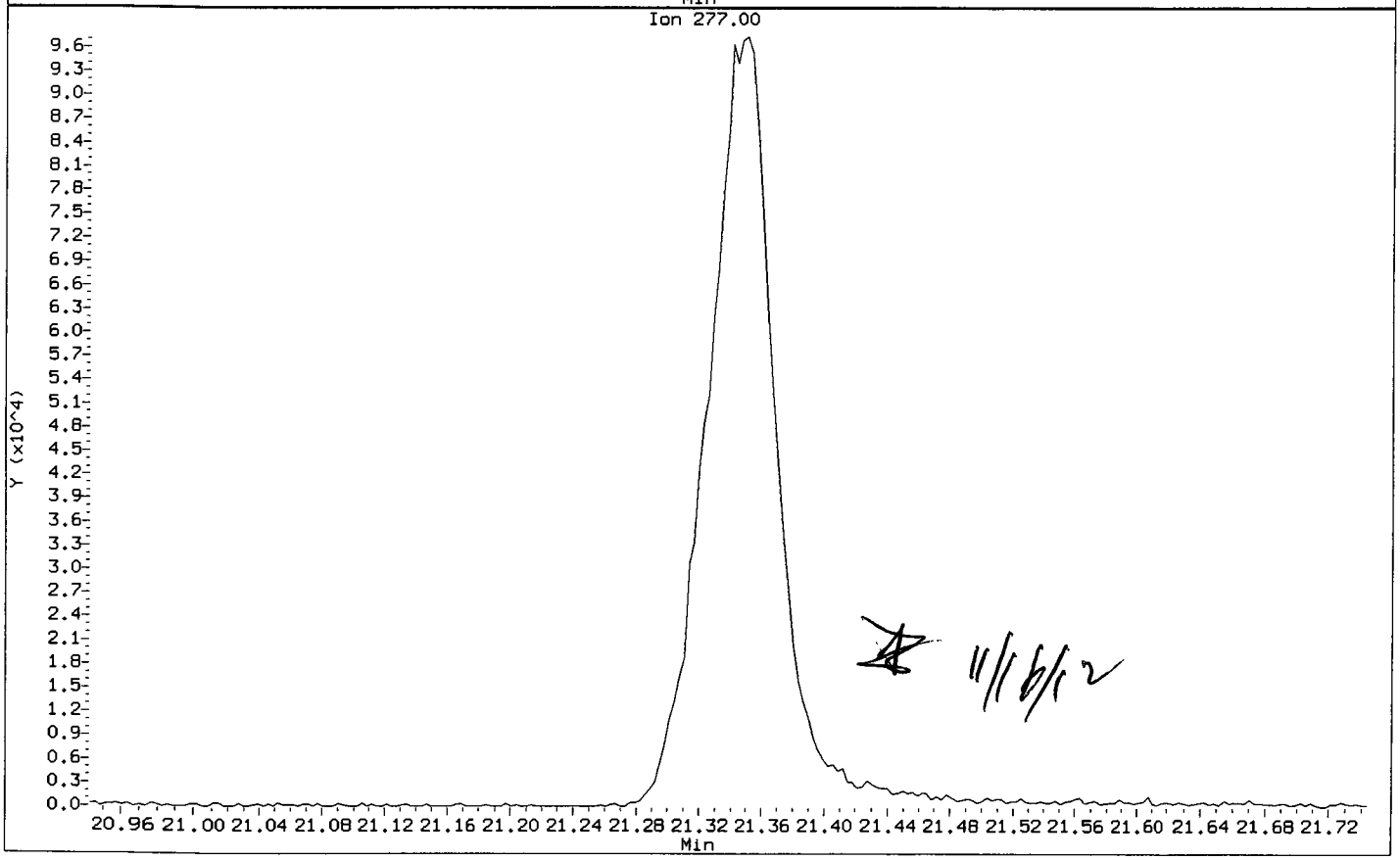
5. Other _____

Analyst: _____ Date: 11/16/12

Data File: /chem3/nt11.i/20121115.b/11151206.d
Injection Date: 15-NOV-2012 20:54
Instrument: nt11.i
Client Sample ID: IC51115

Compound: Benzo(g,h,i)perylene
CAS Number: 191-24-2

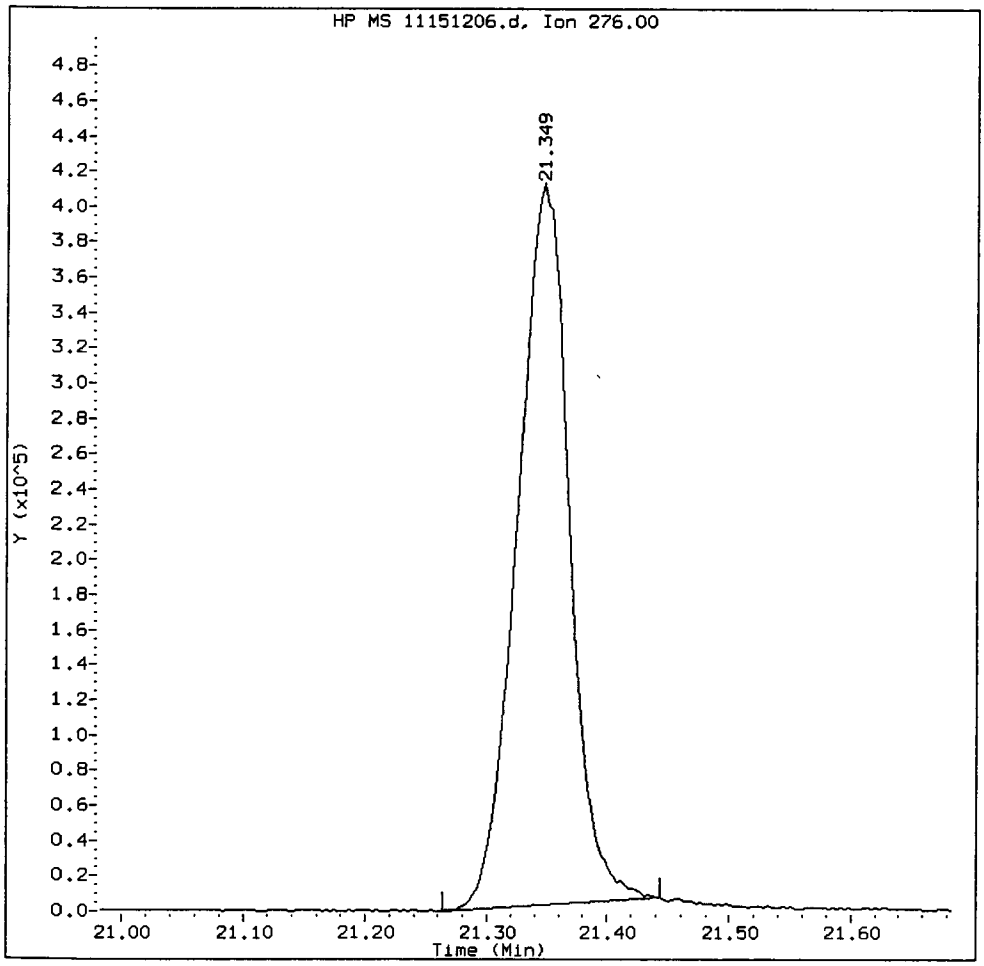




11/16/12

IC51115, /chem3/nt11.i/20121115.b/11151206.d

Benzo(g,h,i)perylene Amount: 5.02 Area: 1221377



MANUAL INTEGRATION for Benzo(g,h,i)perylene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/16/12

CO-ELUTION SUMMARY FOR FILE - 11151206.d

Lab ID: IC51115, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 15-NOV-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121115.b/11151207.d
Lab Smp Id: IC101115 Client Smp ID: IC101115
Inj Date : 15-NOV-2012 21:24
Operator : JZ Inst ID: nt11.i
Smp Info : IC101115,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Meth Date : 16-Nov-2012 09:06 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 21:24 Cal File: 11151207.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NEWSIMPNAICL.sub
Target Version: 3.50

11/16/12

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 6 Naphthalene-d8	136	5.470	5.470	(1.000)	559831	2.00000	
7 Naphthalene	128	5.502	5.498	(1.006)	2647781	10.0000	8.850
$ 12 2-Methylnaphthalene-d10	152	6.208	6.205	(1.135)	1670466	10.0000	8.733
14 2-Methylnaphthalene	141	6.256	6.252	(1.144)	1509183	10.0000	8.953
15 1-methylnaphthalene	141	6.448	6.445	(1.179)	1431274	10.0000	8.864
19 Biphenyl	154	6.915	6.912	(0.893)	1939004	10.0000	8.623
20 2,6-Dimethylnaphthalene	156	6.956	6.953	(0.898)	1400950	10.0000	8.745
21 Acenaphthylene	152	7.635	7.631	(0.986)	2533981	10.0000	9.402
* 22 Acenaphthene-d10	164	7.742	7.742	(1.000)	310166	2.00000	
23 Acenaphthene	153	7.796	7.792	(1.007)	1482694	10.0000	8.651
11 Dibenzofuran	168	7.944	7.941	(1.026)	2165956	10.0000	8.626
24 1,6,7-Trimethylnaphthalene	170	8.020	8.016	(1.036)	1334457	10.0000	8.588
25 Fluorene	166	8.420	8.414	(1.088)	1727146	10.0000	8.950
27 Dibenzothiophene	184	9.639	9.635	(0.987)	2089694	10.0000	8.670
* 28 Phenanthrene-d10	188	9.762	9.761	(1.000)	444629	2.00000	
30 Phenanthrene	178	9.799	9.796	(1.004)	2285367	10.0000	8.509
31 Anthracene	178	9.840	9.834	(1.008)	2332602	10.0000	9.047
26 Carbazole	167	10.352	10.345	(1.060)	2371843	10.0000	8.928
33 1-Methylphenanthrene	192	10.550	10.544	(1.081)	1705664	10.0000	8.831
36 Fluoranthene	202	11.462	11.453	(1.174)	2382669	10.0000	8.855
$ 253 Fluoranthene-d10	212	11.425	11.418	(1.170)	2324424	10.0000	9.157
39 Pyrene	202	11.929	11.920	(0.830)	2536391	10.0000	9.162
46 Benzo(a)anthracene	228	14.268	14.255	(0.992)	2332594	10.0000	9.241
* 47 Chrysene-d12	240	14.381	14.378	(1.000)	502333	2.00000	
48 Chrysene	228	14.460	14.444	(1.005)	2179568	10.0000	8.896(M)
51 Benzo(b)fluoranthene	252	16.909	16.893	(0.932)	2398209	10.0000	9.911
52 Benzo(k)fluoranthene	252	16.975	16.950	(0.935)	2477735	10.0000	9.428(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
251	Benzo(j)fluoranthene	252	17.051	17.022	(0.940)	2600379	10.0000	9.379
55	Benzo(e)pyrene	252	17.805	17.780	(0.981)	2315497	10.0000	9.220
54	Benzo(a)pyrene	252	17.931	17.906	(0.988)	2401633	10.0000	9.771
* 56	Perylene-d12	264	18.146	18.139	(1.000)	522850	2.00000	
57	Perylene	252	18.231	18.209	(1.005)	2316715	10.0000	9.089(M)
$ 60	Dibenzo(a,h)anthracene-d14	292	20.393	20.367	(1.124)	1965096	10.0000	11.87
63	Indeno(1,2,3-cd)pyrene	276	20.500	20.459	(1.130)	3073609	10.0000	10.31
62	Dibenzo(a,h)anthracene	278	20.497	20.459	(1.130)	2460774	10.0000	10.14
61	Benzo(g,h,i)perylene	276	21.374	21.333	(1.178)	2745901	10.0000	10.83

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11151207.d
Lab Smp Id: IC101115
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121115.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 15-NOV-2012
Calibration Time: 18:53
Client Smp ID: IC101115
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	559831	8.47
22 Acenaphthene-d10	284255	142128	568510	310166	9.12
28 Phenanthrene-d10	410660	205330	821320	444629	8.27
47 Chrysene-d12	467886	233943	935772	502333	7.36
56 Perylene-d12	472330	236165	944660	522850	10.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.05
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	0.00
47 Chrysene-d12	14.38	13.88	14.88	14.38	0.00
56 Perylene-d12	18.14	17.64	18.64	18.15	0.02

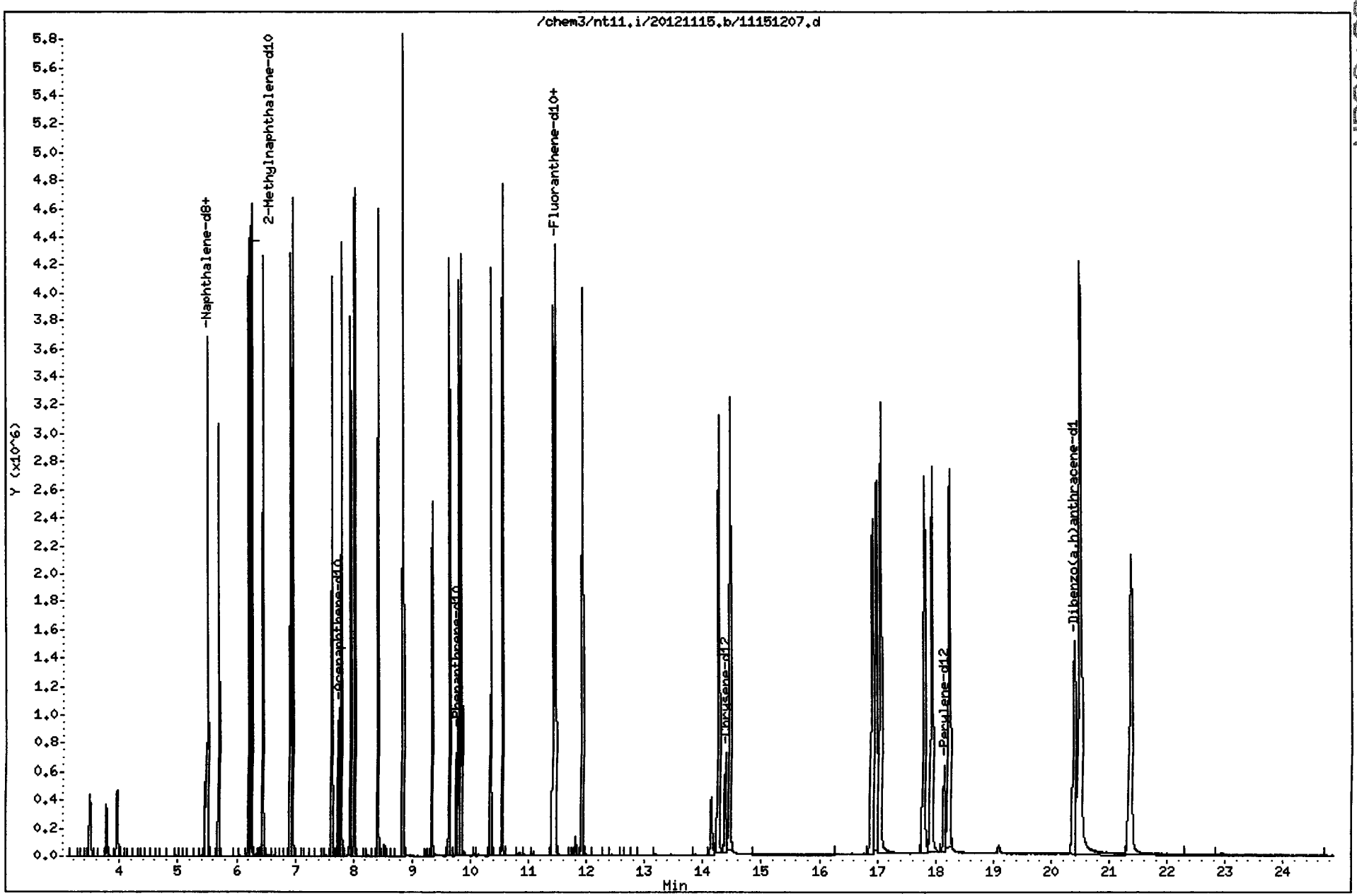
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20121115.b/11151207.d
Date : 15-NOV-2012 21:24
Client ID: IC101115
Sample Info: IC101115,

Instrument: nt11.i

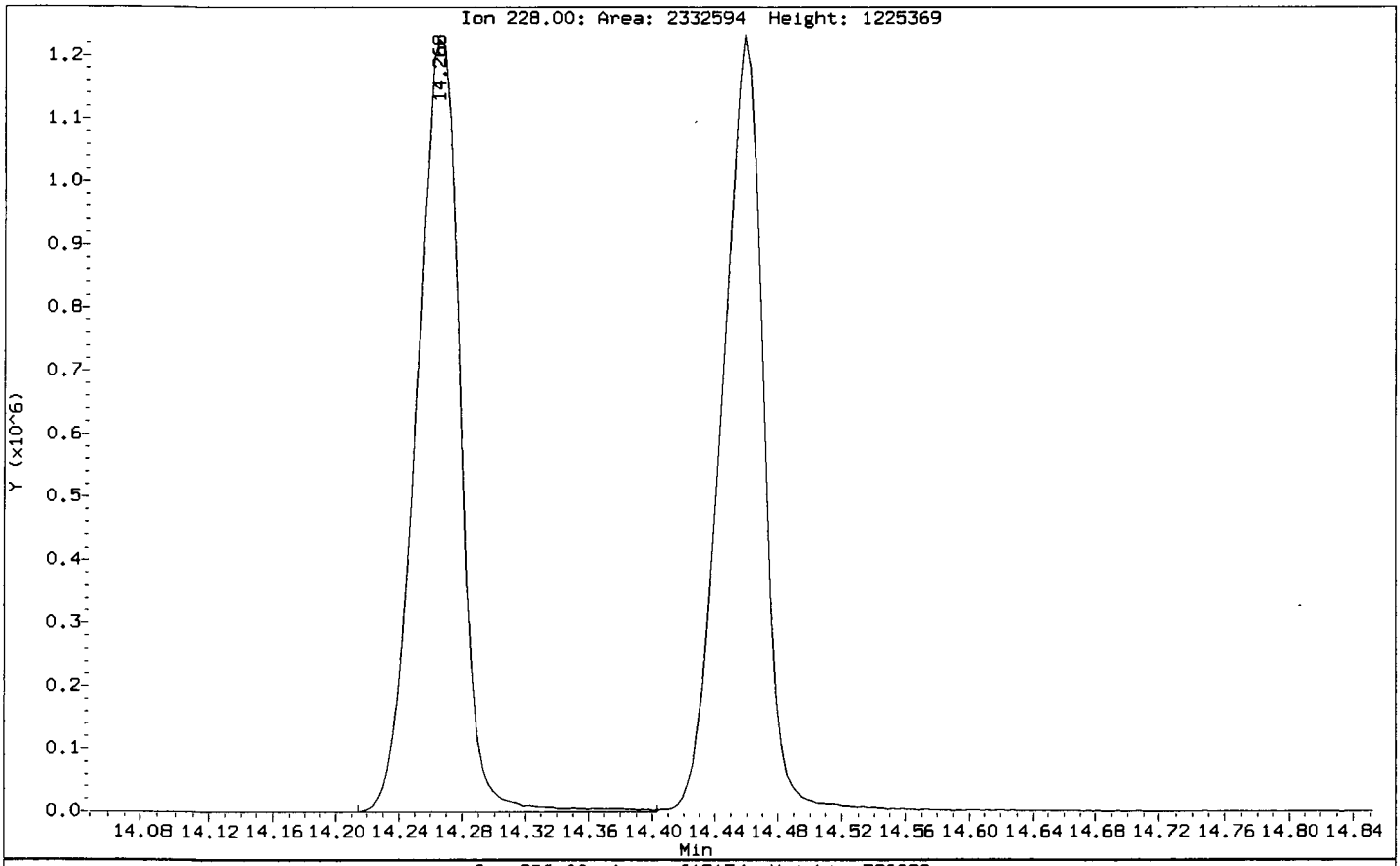
Operator: JZ
Column diameter: 0.25

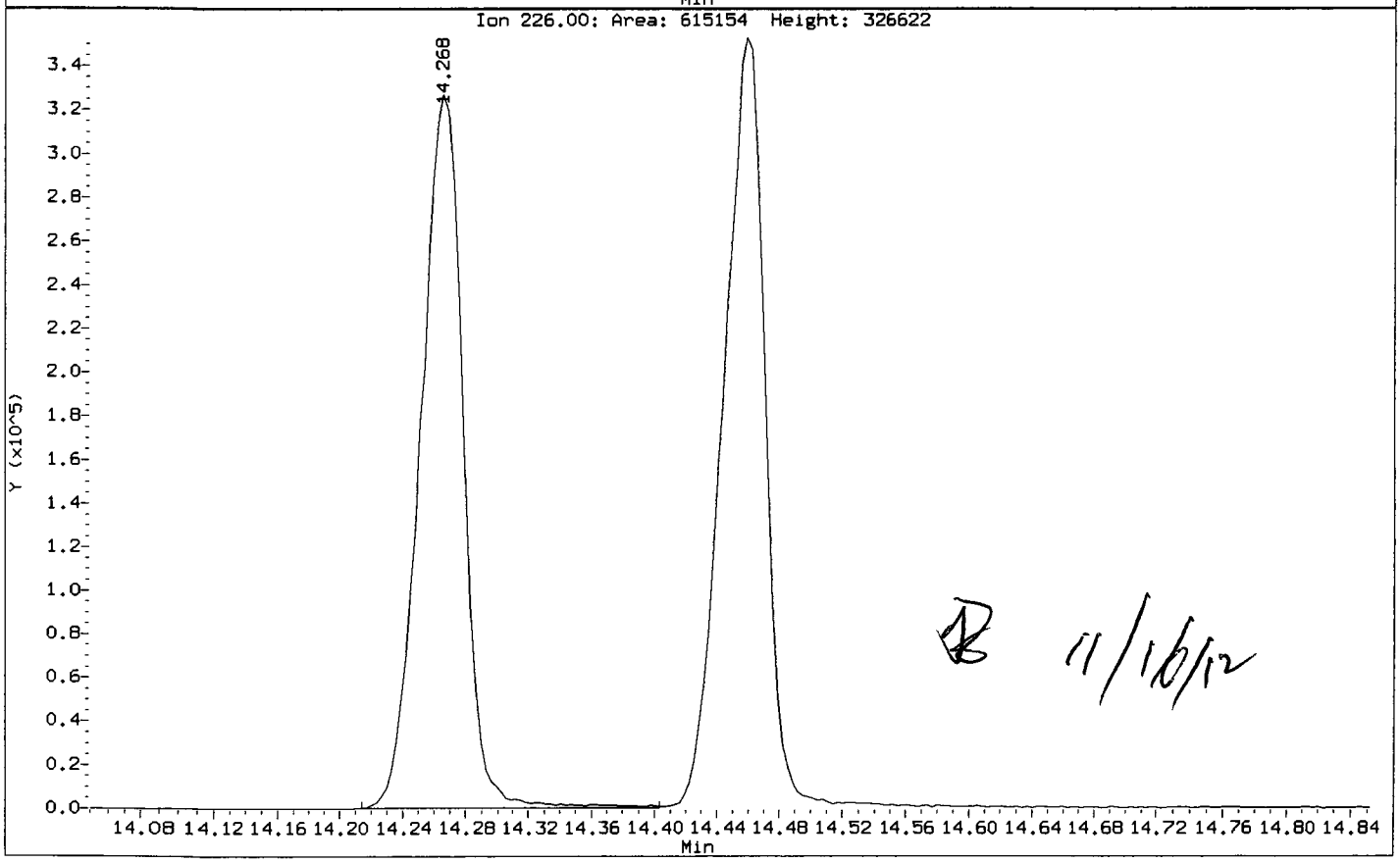
Column phase: ZB-5msi



Data File: /chem3/nt11.i/20121115.b/11151207.d
Injection Date: 15-NOV-2012 21:24
Instrument: nt11.i
Client Sample ID: IC101115

Compound: Chrysene
CAS Number: 218-01-9

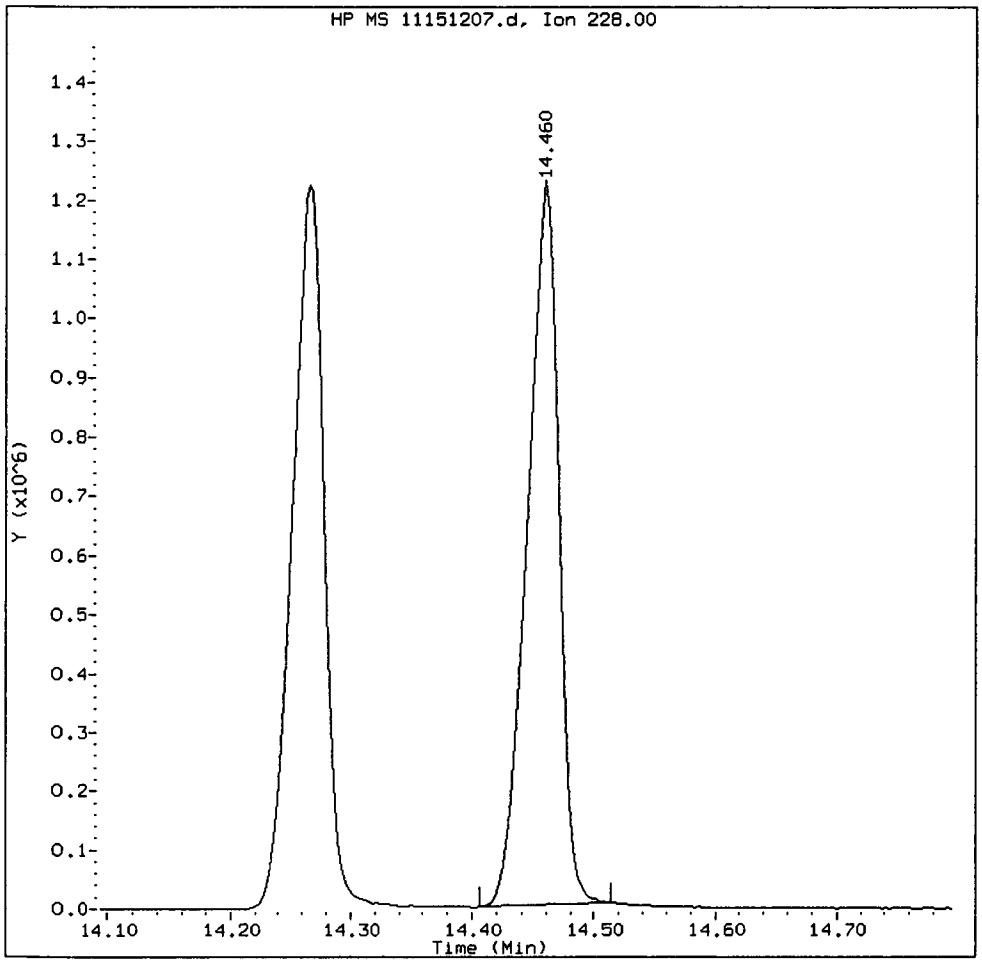




11/16/12

IC101115, /chem3/nt11.i/20121115.b/11151207.d

Chrysene Amount: 8.90 Area: 2179568



MANUAL INTEGRATION for Chrysene

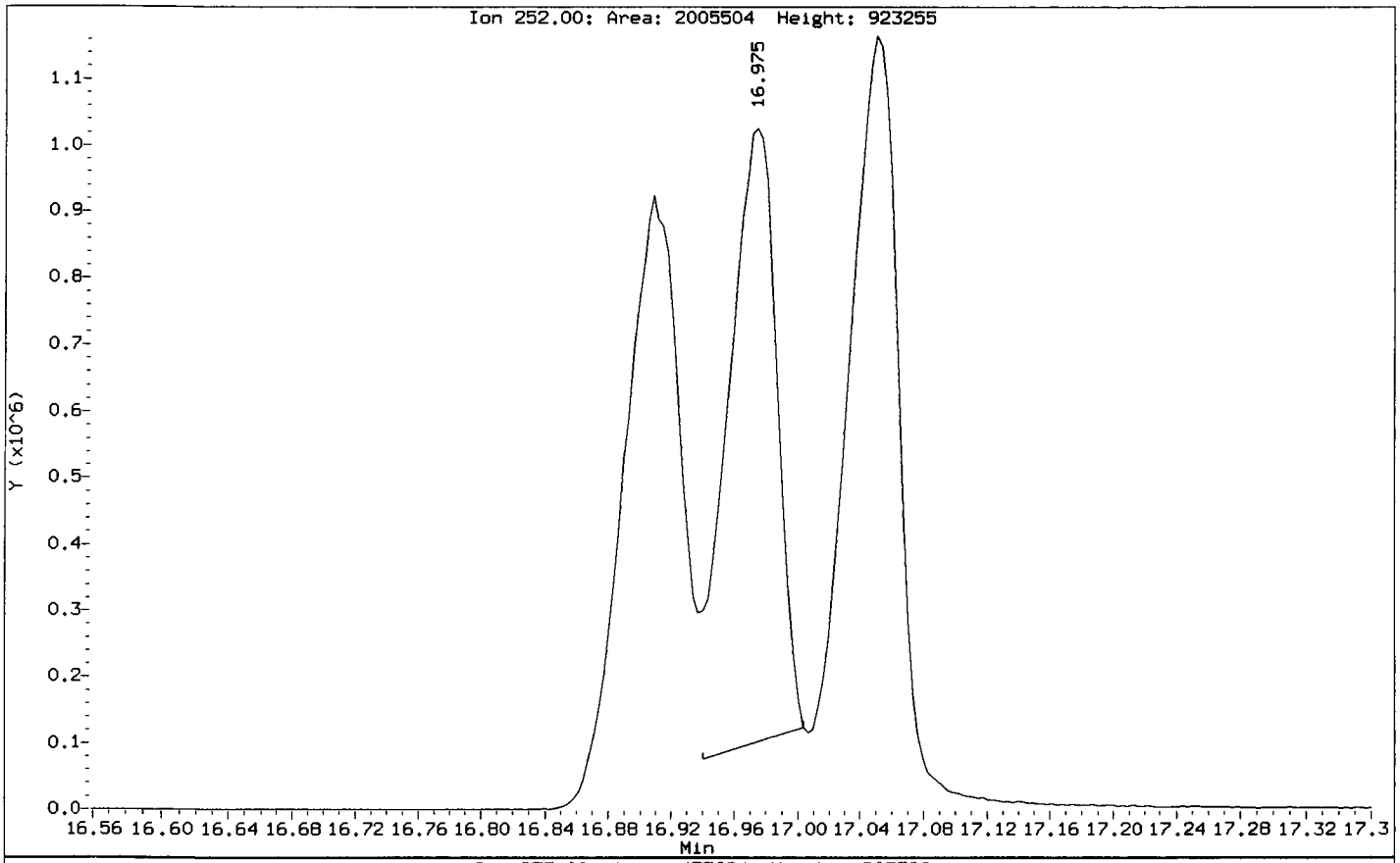
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

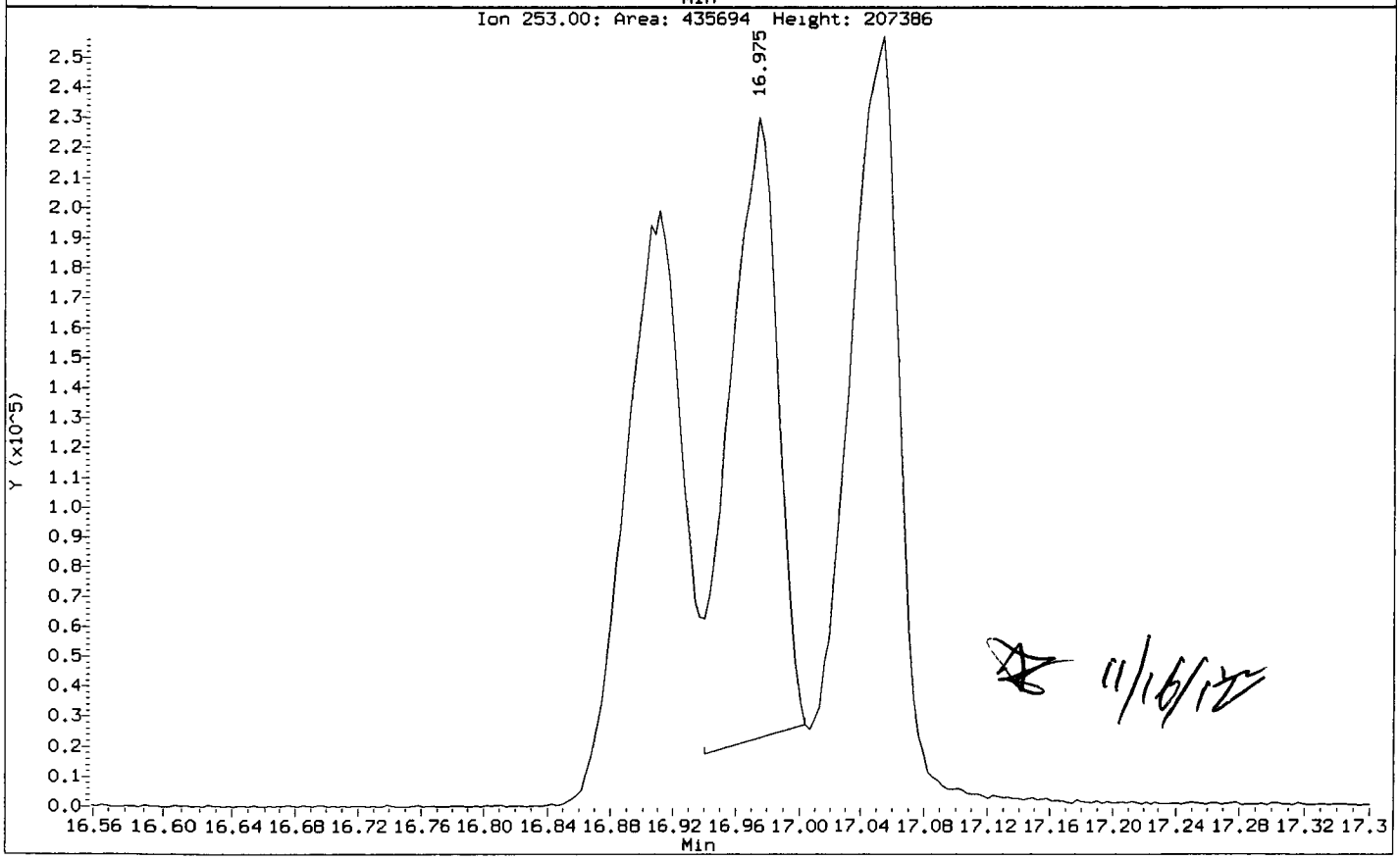
5. Other _____

Analyst: _____ Date: 1/16/12

Data File: /chem3/nt11.i/20121115.b/11151207.d
Injection Date: 15-NOV-2012 21:24
Instrument: nt11.i
Client Sample ID: IC101115

Compound: Benzo(k)fluoranthene
CAS Number: 207-08-9

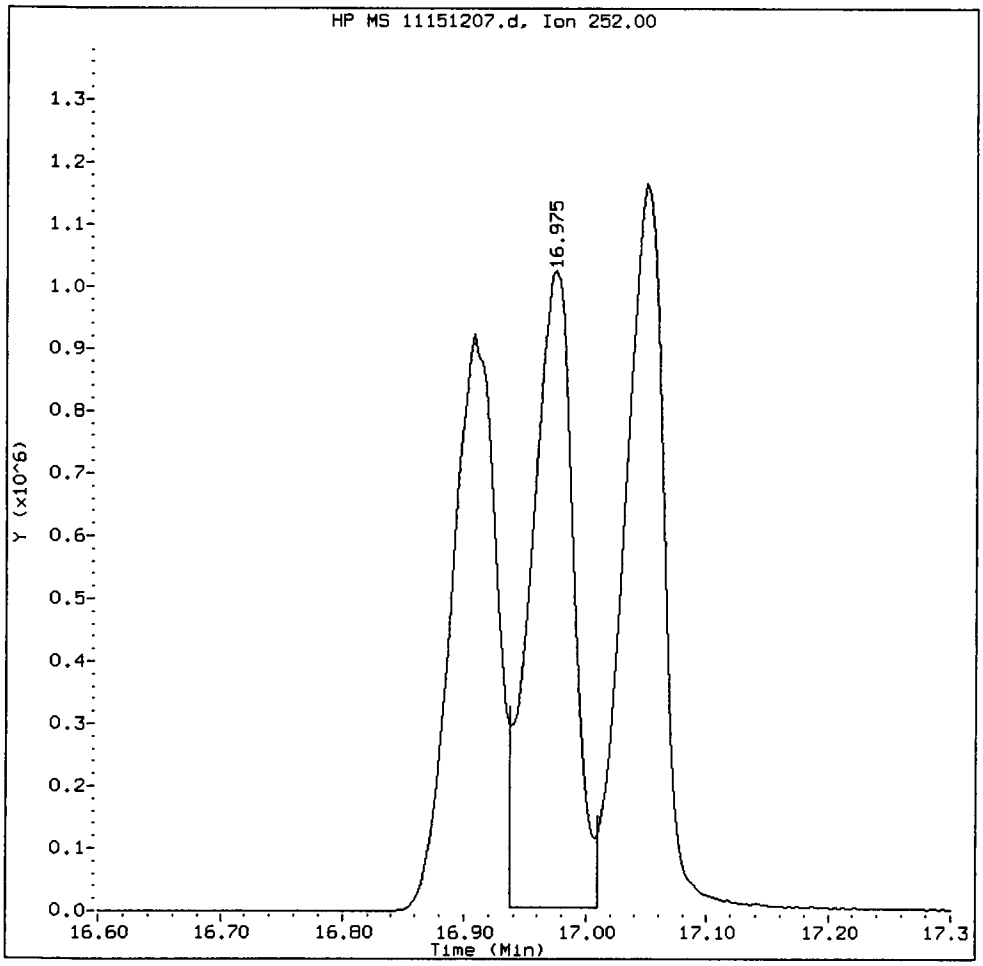




11/16/12

IC101115, /chem3/nt11.i/20121115.b/11151207.d

Benzo(k)fluoranthene Amount: 9.43 Area: 2477735



MANUAL INTEGRATION for Benzo(k)fluoranthene

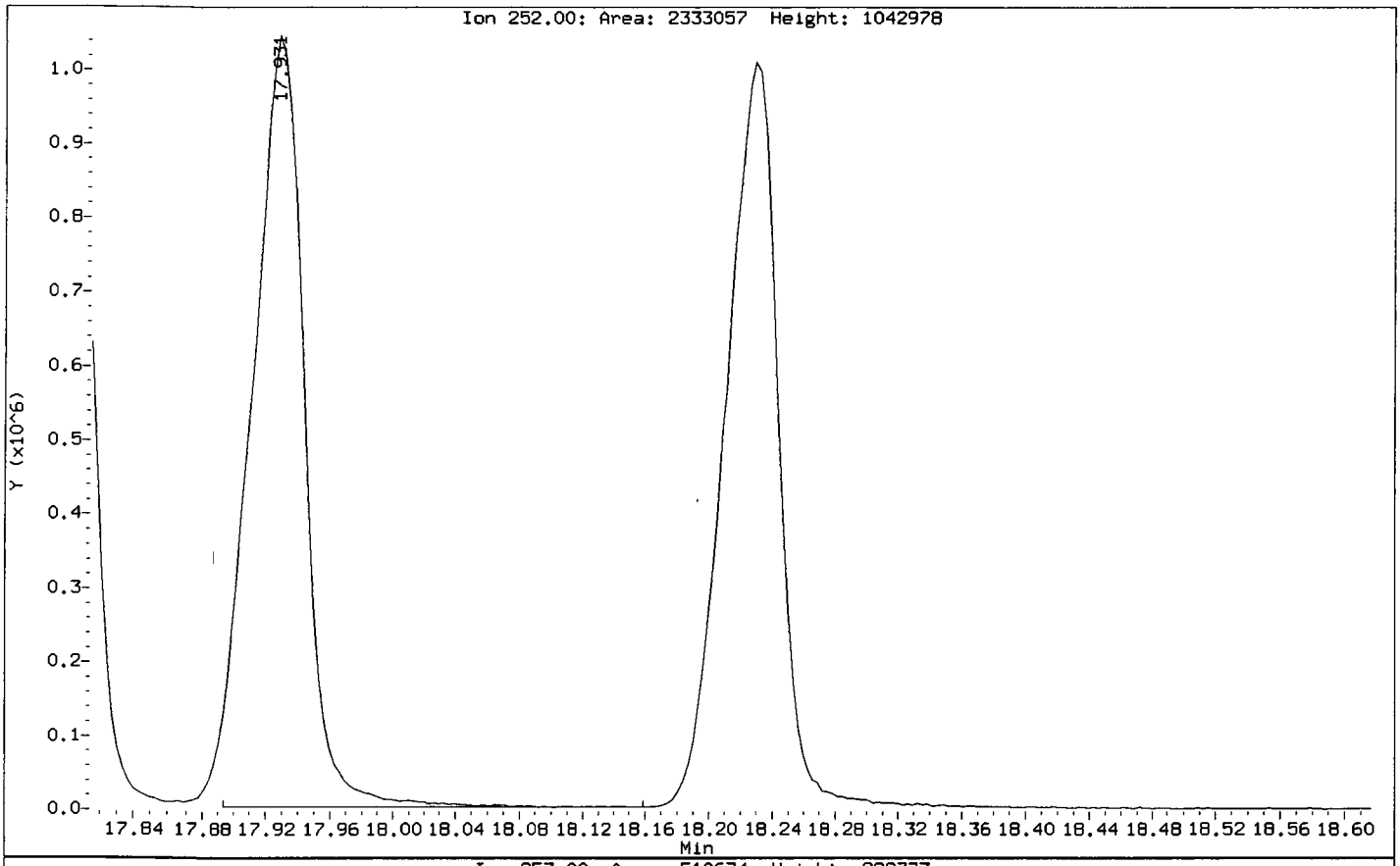
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

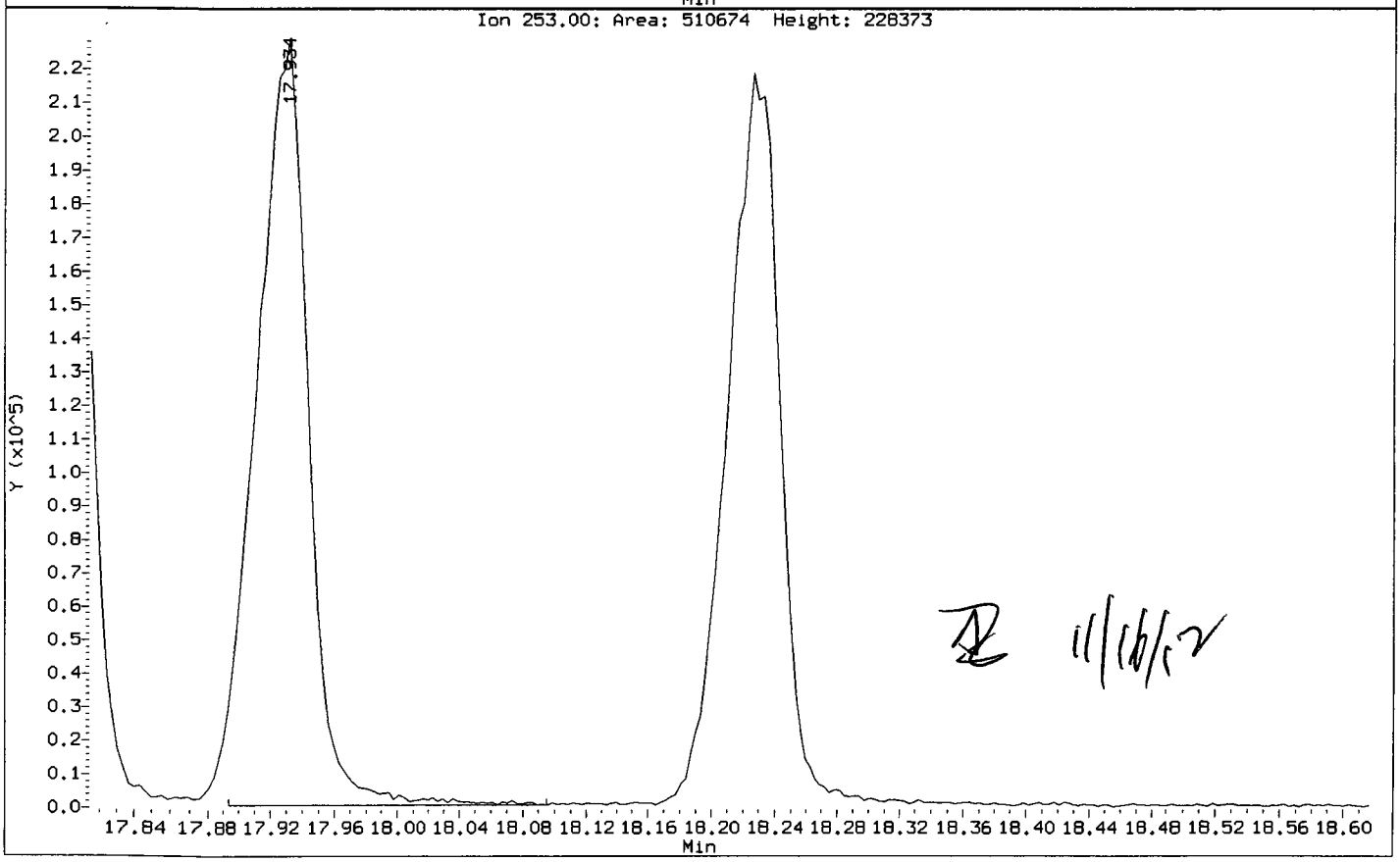
5. Other _____

Analyst: _____ Date: 11/16/12

Data File: /chem3/nt11.i/20121115.b/11151207.d
Injection Date: 15-NOV-2012 21:24
Instrument: nt11.i
Client Sample ID: IC101115

Compound: Perylene
CAS Number:

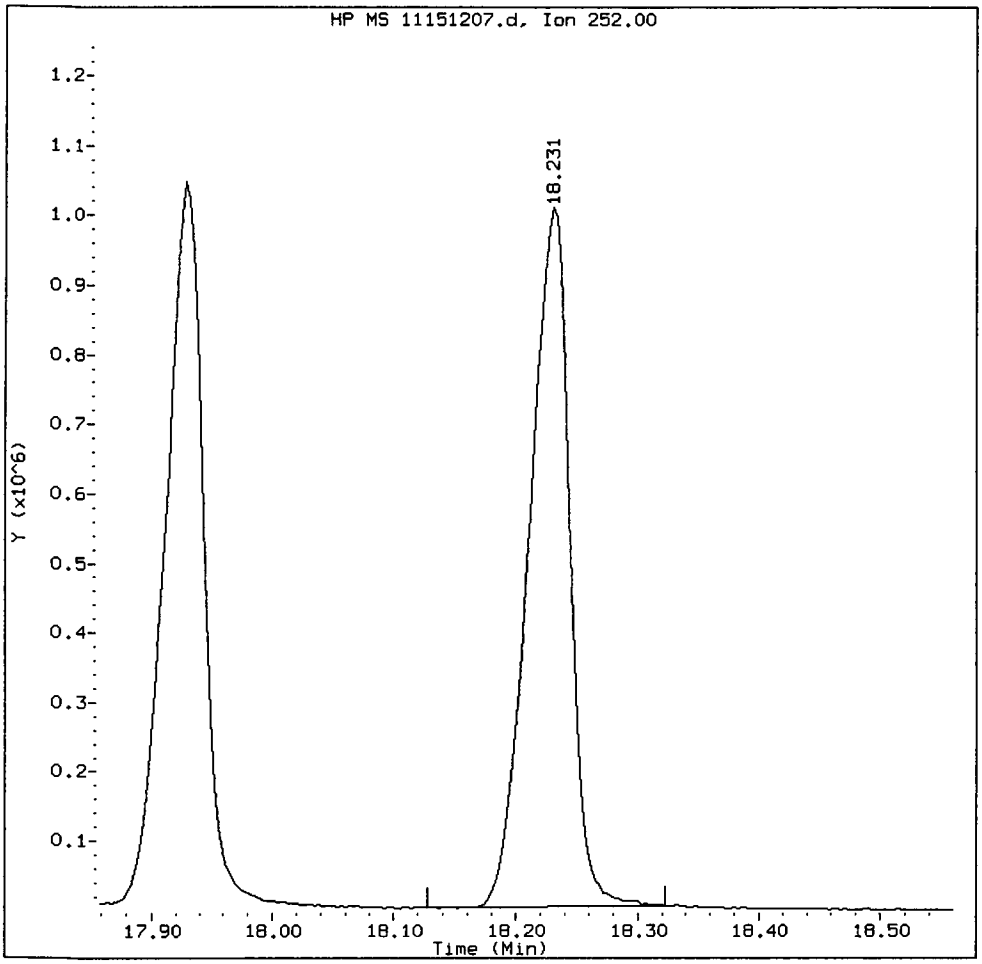




11/16/12

IC101115, /chem3/nt11.i/20121115.b/11151207.d

Perylene Amount: 9.09 Area: 2316715



MANUAL INTEGRATION for Perylene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/16/12

CO-ELUTION SUMMARY FOR FILE - 11151207.d

Lab ID: IC101115, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 15-NOV-2

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121116.b/11161202.d
Lab Smp Id: ICV1115 Client Smp ID: ICV1115
Inj Date : 16-NOV-2012 08:51
Operator : JZ Inst ID: nt11.i
Smp Info : ICV1115
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121116.b/FSIMPNA111512.m
Meth Date : 16-Nov-2012 14:29 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnaf.sub
Target Version: 3.50

D 11/16/12

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

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

MSS added in

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
* 6 Naphthalene-d8	136	5.473	5.473	(1.000)	553949	2.00000	
7 Naphthalene	128	5.501	5.501	(1.005)	707447	2.38963	2.390
$ 12 2-Methylnaphthalene-d10	152	Compound Not Detected.					
14 2-Methylnaphthalene	141	6.256	6.256	(1.143)	407552	2.44331	2.443
15 1-methylnaphthalene	141	6.448	6.448	(1.178)	387966	2.42832	2.428
21 Acenaphthylene	152	7.635	7.631	(0.986)	667076	2.51549	2.515
* 22 Acenaphthene-d10	164	7.745	7.742	(1.000)	305185	2.00000	
23 Acenaphthene	153	7.795	7.792	(1.007)	369135	2.18883	2.189
11 Dibenzofuran	168	7.947	7.944	(1.026)	591418	2.39381	2.394
25 Fluorene	166	8.420	8.417	(1.087)	464166	2.44453	2.445
* 28 Phenanthrene-d10	188	9.765	9.761	(1.000)	428464	2.00000	
30 Phenanthrene	178	9.799	9.796	(1.004)	624942	2.41463	2.415
31 Anthracene	178	9.840	9.837	(1.008)	606429	2.44076	2.441
36 Fluoranthene	202	11.459	11.456	(1.174)	638802	2.46350	2.463
$ 253 Fluoranthene-d10	212	Compound Not Detected.					
39 Pyrene	202	11.929	11.923	(0.829)	669509	2.53704	2.537

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	46 Benzo(a)anthracene	228	14.268	14.258	(0.992)	597696	2.48392	2.484
*	47 Chrysene-d12	240	14.387	14.381	(1.000)	478871	2.00000	
	48 Chrysene	228	14.457	14.454	(1.005)	582904	2.49582	2.496
	51 Benzo(b)fluoranthene	252	16.902	16.896	(0.931)	578883	2.59265	2.593
	52 Benzo(k)fluoranthene	252	16.962	16.956	(0.935)	607872	2.50683	2.507
	251 Benzo(j)fluoranthene	252	17.038	17.032	(0.939)	558823	2.18425	2.184
	54 Benzo(a)pyrene	252	17.922	17.912	(0.987)	584905	2.57903	2.579
*	56 Perylene-d12	264	18.149	18.143	(1.000)	482446	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.471	20.468	(1.128)	717401	2.60919	2.609
$	60 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	62 Dibenzo(a,h)anthracene	278	20.475	20.465	(1.128)	585573	2.61501	2.615
	61 Benzo(g,h,i)perylene	276	21.352	21.342	(1.176)	633441	2.70805	2.708
	57 Perylene	252	18.225	18.215	(1.004)	580168	2.46677	2.467

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11161202.d
Lab Smp Id: ICV1115
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121116.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 16-NOV-2012
Calibration Time: 09:23
Client Smp ID: ICV1115
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	553949	7.33
22 Acenaphthene-d10	284255	142128	568510	305185	7.36
28 Phenanthrene-d10	410660	205330	821320	428464	4.34
47 Chrysene-d12	467886	233943	935772	478871	2.35
56 Perylene-d12	472330	236165	944660	482446	2.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	0.00
22 Acenaphthene-d10	7.74	7.24	8.24	7.75	0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	0.03
47 Chrysene-d12	14.38	13.88	14.88	14.39	0.04
56 Perylene-d12	18.14	17.64	18.64	18.15	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:
Sample Matrix: LIQUID
Lab Smp Id: ICV1115
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcsw.spk
Sublist File: pnaf.sub
Method File: /chem3/nt11.i/20121116.b/FSIMPNA111512.m
Misc Info: 12-

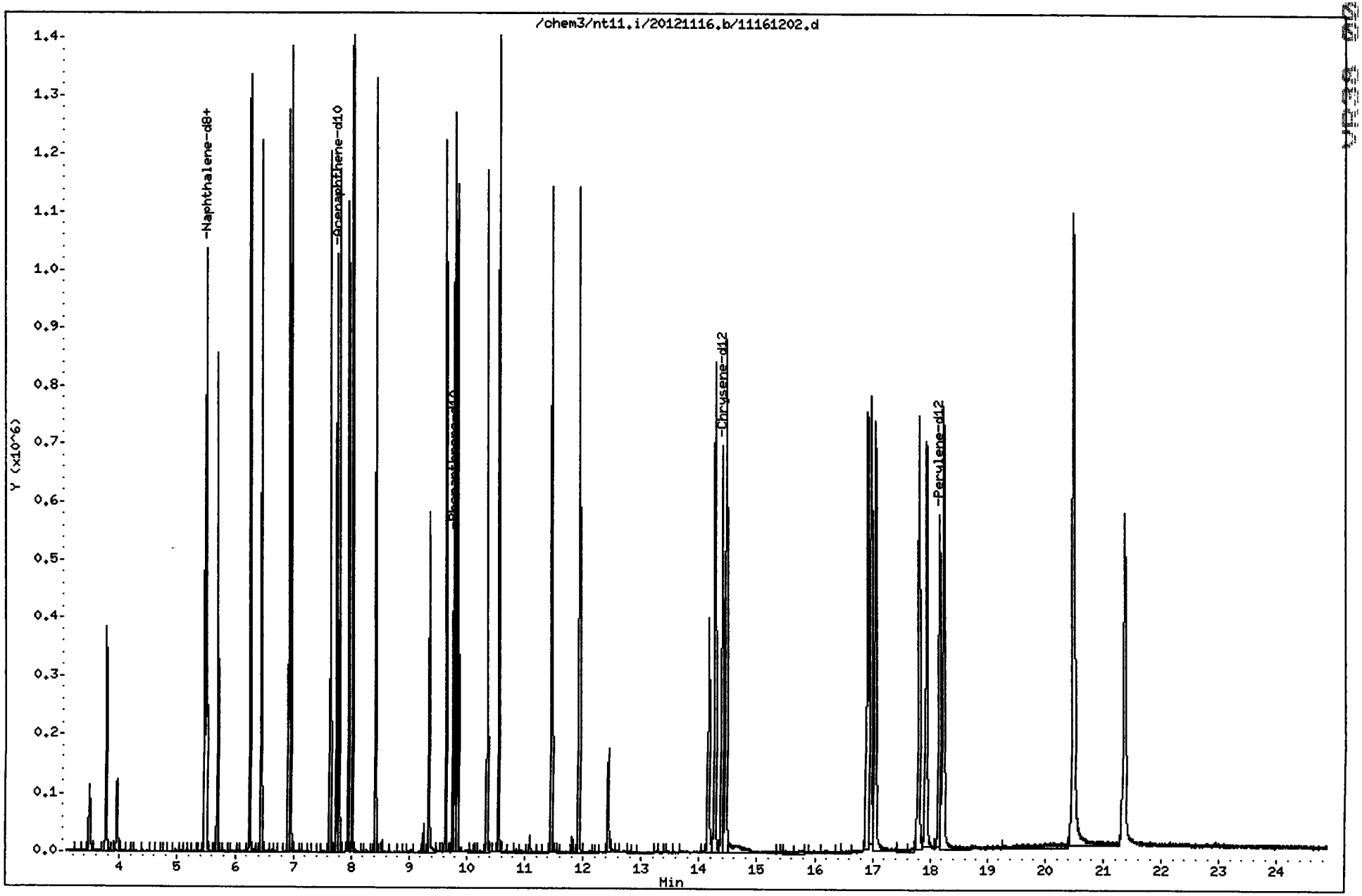
Client SDG: 20121116
Fraction: SV
Client Smp ID: ICV1115
Operator: JZ
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 Naphthalene	2.499	2.390	95.62	37-100
14 2-Methylnaphthalen	2.499	2.443	97.77	34-107
15 1-methylnaphthalen	2.499	2.428	97.17	30-160
21 Acenaphthylene	2.499	2.515	100.66	32-104
23 Acenaphthene	2.499	2.189	87.59	40-102
11 Dibenzofuran	2.499	2.394	95.79	44-104
25 Fluorene	2.499	2.445	97.82	43-114
30 Phenanthrene	2.499	2.415	96.62	43-116
31 Anthracene	2.499	2.441	97.67	30-121
36 Fluoranthene	2.499	2.463	98.58	46-138
39 Pyrene	2.499	2.537	101.52	47-124
46 Benzo(a)anthracene	2.499	2.484	99.40	38-134
48 Chrysene	2.499	2.496	99.87	52-112
51 Benzo(b)fluoranthe	2.499	2.593	103.75	49-123
52 Benzo(k)fluoranthe	2.499	2.507	100.31	50-127
54 Benzo(a)pyrene	2.499	2.579	103.20	24-118
63 Indeno(1,2,3-cd)py	2.499	2.609	104.41	32-123
62 Dibenzo(a,h)anthra	2.499	2.615	104.64	30-127
61 Benzo(g,h,i)peryle	2.499	2.708	108.37	26-124
57 Perylene	2.499	2.467	98.71	30-160

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 12 2-Methylnaphthale	2.499	0.000	*	33-107
$ 253 Fluoranthene-d10	2.499	0.000	*	40-140
$ 60 Dibenzo(a,h)anthr	2.499	0.000	*	10-142

Data File: /chem3/nt11.i/20121116.b/11161202.d
Date : 16-NOV-2012 08:51
Client ID: ICV1115
Sample Info: ICV1115
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - 11161202.d

Lab ID: ICV1115, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 16-NOV-2C

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

SIM PAH Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: VR38 Client ID: ~~Anchor QEA, LLC.~~

ARI SOP: (**801S**(SIM-PNA)) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): ~~Sim PNA~~

Instrument: NT-2 NT-4 NT-6 NT-8 (NT11)

Curve Date: 11/14/12 Analysis Start Date: 11/19, ~~20~~/12

DFTPP Tune Meets Criteria?	(YES) / NO	Internal Standard Meets Criteria?	(YES) / NO
DDT Breakdown <20%?	(YES) / NO / NA	Method Blank In Control?	(YES) / NO
Peak Tailing Factor ≤2?	(YES) / NO / NA	LCS / LCSD Recovery In Control?	(YES) / NO
ICal acceptable?	(YES) / NO	CCal acceptable?	(YES) / NO
Q flag applied?	YES / (NO)	Q flag applied?	YES / (NO)
Surrogate Recovery in Control?	(YES) / NO	Special Analysis Criteria Met?	YES / NO / (NA)
Manual Integrations for ICal?	(YES) / NO	Manual Integrations for Samples?	(Yes) / NO

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

11/19: Samples A-K + MB/LCS + MS/MSD

11/20: Dilution for Sample D.

Forms included.

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 11/20/12

Reviewer: _____ **Date:** 11/21/12

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 11/19/12 Analysis: SIMPAH Analyst: [illegible]

GC Program: SIMPAH35 Column No: 14123 Column Type: BXi-125i/MS

Instrument Tune (.U or .CT.): 120327 EM Voltage: 2400

Calibration File: 11191202 Curve Date: 11/14/12 Injection Vol.: 1µl

IS/SS	Ical/Ccal	LCS/ICV
1998-3	2020-1	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt11.i/20121119.b

	Time	Filename	LabID	ClientId	DF								
1	1207	11191201.d	DFTPP1119	DFTPP1119	1	NO ISTDS FOUND							
2	1225	11191202.d	CC1119	CC1119	1	5.47	582036	7.74	321776	9.76	464307	14.39	534705	18.15	532104
3	1255	11191203.d	VR88D	ICS-DOF-MW4-	1	5.47	634053	7.74	352665	9.76	502615	14.38	556710	18.14	455881
4	1325	11191204.d	VR88E	ICS-DOF-MW5-	1	5.46	589232	7.74	328564	9.76	465478	14.38	513187	18.14	437745
5	1355	11191205.d	VS14A	ICS-DOF-MW6-	1	5.47	557648	7.75	307705	9.76	453878	14.38	498910	18.14	329247
6	1425	11191206.d	VS14B	ICS-DOF-MW7-	1	5.47	677108	7.74	338947	9.77	480593	14.38	540754	18.14	457099
7	1455	11191207.d	VS14C	ICS-DOF-MW8-	1	5.47	550064	7.75	316363	9.77	473424	14.40	524692	18.16	388908
8	1525	11191208.d	VS14D	ICS-SA-MW2-G	1	5.47	633537	7.74	347602	9.76	470090	14.39	543631	18.14	555647
9	1555	11191209.d	VS14E	ICS-DUP-GW-1	1	5.47	651024	7.75	346861	9.76	502781	14.38	581050	18.14	424911
10	1626	11191210.d	VS14B	ICS-DOF-MW7-	10	5.47	603792	7.74	333205	9.76	473769	14.38	529544	18.14	513126
11	1656	11191211.d	VR38MBS1	VR38MBS1	1	5.46	622986	7.74	346823	9.76	492267	14.38	559332	18.14	563336
12	1726	11191212.d	VR38LCSS1	VR38LCSS1	1	5.47	649092	7.74	356276	9.76	512960	14.38	577811	18.14	587089
13	1756	11191213.d	VR38A	HT-01-S-C-12	1	5.47	647311	7.74	358664	9.76	505083	14.38	552833	18.14	573370
14	1826	11191214.d	VR38B	HT-02-S-C-12	1	5.47	647233	7.74	360943	9.76	500516	14.38	557560	18.14	584411
15	1856	11191215.d	VR38C	HT-03-S-C-12	1	5.46	619522	7.74	348394	9.76	484343	14.39	528056	18.15	574060
16	1926	11191216.d	VR38D	HT-04-S-C-12	1	5.47	598661	7.74	328034	9.77	444689	14.41	433081	18.16	411616
17	1956	11191217.d	VR38E	HT-05-S-C-12	1	5.46	656966	7.74	362341	9.76	511781	14.38	573928	18.14	577426
18	2026	11191218.d	VR38F	HT-08-S-C-12	1	5.46	644239	7.74	358881	9.76	502206	14.38	541910	18.16	571706
19	2056	11191219.d	VR38G	HT-09-S-C-12	1	5.46	656246	7.74	361274	9.76	498232	14.39	568350	18.16	545303
20	2126	11191220.d	VR38H	HT-10-S-LFP-	1	5.46	626390	7.74	352406	9.76	494684	14.38	556793	18.14	532427
21	2156	11191221.d	VR38HMS	HT-10-S-LFP-	1	5.47	649774	7.74	364637	9.76	507442	14.38	576292	18.15	529037
22	2226	11191222.d	VR38HMSD	HT-10-S-LFP-	1	5.47	663747	7.74	368497	9.76	521171	14.38	580978	18.14	538804
23	2256	11191223.d	VR38I	HT-11-S-LFP-	1	5.46	641651	7.74	352250	9.76	510678	14.38	574808	18.14	530683
24	2326	11191224.d	VR38J	HT-06-S-E-12	1	5.47	662707	7.74	368944	9.76	516393	14.38	579501	18.14	495919
25	2356	11191225.d	VR38K	HT-07-S-E-12	1	5.47	687317	7.74	380338	9.76	535730	14.39	591980	18.15	463981

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 StarLIMS

[signature] 11/20/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt11.i/20121119.b

ARI Job No.: CC11 Method: FSIMPNA111512.m Instrument: nt11.i Date: 19-NOV-2012

11/20/12

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1225	11191202.d	CC1119	CC1119	1	Dibenzo(a,h)anthracene,
1656	11191211.d	VR38MBS1	VR38MBS1	1	NO MANUAL INTEGRATION
1726	11191212.d	VR38LCSS1	VR38LCSS1	1	NO MANUAL INTEGRATION
1756	11191213.d	VR38A	HT-01-S-C-	1	NO MANUAL INTEGRATION
1826	11191214.d	VR38B	HT-02-S-C-	1	Benzo(k)fluoranthene, Benzo(j)fluoranthene,
1856	11191215.d	VR38C	HT-03-S-C-	1	NO MANUAL INTEGRATION
1926	11191216.d	VR38D	HT-04-S-C-	1	Phenanthrene, Anthracene,
1956	11191217.d	VR38E	HT-05-S-C-	1	Benzo(j)fluoranthene,
2026	11191218.d	VR38F	HT-08-S-C-	1	NO MANUAL INTEGRATION
2056	11191219.d	VR38G	HT-09-S-C-	1	NO MANUAL INTEGRATION
2126	11191220.d	VR38H	HT-10-S-LF	1	NO MANUAL INTEGRATION
2156	11191221.d	VR38HMS	HT-10-S-LF	1	NO MANUAL INTEGRATION
2226	11191222.d	VR38HMSD	HT-10-S-LF	1	NO MANUAL INTEGRATION
2256	11191223.d	VR38I	HT-11-S-LF	1	NO MANUAL INTEGRATION
2326	11191224.d	VR38J	HT-06-S-E-	1	NO MANUAL INTEGRATION
2356	11191225.d	VR38K	HT-07-S-E-	1	NO MANUAL INTEGRATION

Q-FLAG SUMMARY FOR DATABATCH - /chem3/nt11.i/20121119.b

Instrument: nt11.i Date: 19-NOV-2012 Method: FSIMPNA111512.m

INITIAL CAL: 15-NOV-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 19-NOV-2012

Compound	%D
NO Q-FLAGS	

11/19/12

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt11.i
Lab File ID: 11191202.d
Analysis Type:
Lab Sample ID: CC1119
Method: /chem3/nt11.i/20121119.b/FSIMPNA111512.m

Injection Date: 19-NOV-2012 12:25
Init. Cal. Date(s): 15-NOV-2012 15-NOV-2012
Init. Cal. Times: 18:53 21:24
Quant Type: ISTD

11/19/12

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
7 Naphthalene	1.06886	1.02094	0.100	-4.48347	20.00000	Averaged
$ 12 2-Methylnaphthalene-d10	0.68335	0.66575	0.100	-2.57548	20.00000	Averaged
14 2-Methylnaphthalene	0.60223	0.59825	0.100	-0.66160	20.00000	Averaged
15 1-methylnaphthalene	0.57683	0.56163	0.100	-2.63583	20.00000	Averaged
21 Acenaphthylene	1.73788	1.78741	0.100	2.84994	20.00000	Averaged
23 Acenaphthene	1.10520	1.06540	0.100	-3.60063	20.00000	Averaged
11 Dibenzofuran	1.61909	1.56179	0.100	-3.53944	20.00000	Averaged
25 Fluorene	1.24435	1.25095	0.100	0.52990	20.00000	Averaged
30 Phenanthrene	1.20811	1.16742	0.100	-3.36801	20.00000	Averaged
31 Anthracene	1.15976	1.18537	0.100	2.20816	20.00000	Averaged
36 Fluoranthene	1.21040	1.20944	0.100	-0.07896	20.00000	Averaged
39 Pyrene	1.10215	1.09306	0.100	-0.82443	20.00000	Averaged
46 Benzo(a)anthracene	1.00497	0.98662	0.100	-1.82576	20.00000	Averaged
48 Chrysene	0.97543	0.93631	0.100	-4.01080	20.00000	Averaged
51 Benzo(b)fluoranthene	0.92561	0.96917	0.100	4.70599	20.00000	Averaged
52 Benzo(k)fluoranthene	1.00524	1.04398	0.100	3.85393	20.00000	Averaged
251 Benzo(j)fluoranthene	1.06060	1.08739	0.100	2.52566	20.00000	Averaged
54 Benzo(a)pyrene	0.94018	0.96023	0.100	2.13311	20.00000	Averaged
63 Indeno(1,2,3-cd)pyrene	1.13982	1.03619	0.100	-9.09197	20.00000	Averaged
$ 60 Dibenzo(a,h)anthracene-d14	0.66304	0.60164	0.100	-9.26050	20.00000	Averaged
62 Dibenzo(a,h)anthracene	0.92830	0.80144	0.100	-13.66590	20.00000	Averaged
61 Benzo(g,h,i)perylene	0.96969	0.86590	0.100	-10.70276	20.00000	Averaged
57 Perylene	0.97501	0.93741	0.100	-3.85573	20.00000	Averaged

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191202.d
Lab Smp Id: CC1119 Client Smp ID: CC1119
Inj Date : 19-NOV-2012 12:25
Operator : JZ Inst ID: nt11.i
Smp Info : CC1119
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 19-Nov-2012 15:23 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

AMOUNTS 11/19/12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	6 Naphthalene-d8	136	5.473	5.473	(1.000)	582036	2.00000	
	7 Naphthalene	128	5.501	5.501	(1.005)	742781	2.50000	2.388
$	12 2-Methylnaphthalene-d10	152	6.208	6.208	(1.134)	484361	2.50000	2.436
	14 2-Methylnaphthalene	141	6.255	6.255	(1.143)	435253	2.50000	2.483
	15 1-methylnaphthalene	141	6.448	6.448	(1.178)	408608	2.50000	2.434
	21 Acenaphthylene	152	7.634	7.634	(0.986)	718931	2.50000	2.571
*	22 Acenaphthene-d10	164	7.745	7.745	(1.000)	321776	2.00000	
	23 Acenaphthene	153	7.795	7.795	(1.007)	428527	2.50000	2.410
	11 Dibenzofuran	168	7.947	7.947	(1.026)	628182	2.50000	2.412
	25 Fluorene	166	8.420	8.420	(1.087)	503156	2.50000	2.513
*	28 Phenanthrene-d10	188	9.764	9.764	(1.000)	464307	2.00000	
	30 Phenanthrene	178	9.802	9.802	(1.004)	677550	2.50000	2.416
	31 Anthracene	178	9.840	9.840	(1.008)	687971	2.50000	2.555
	36 Fluoranthene	202	11.459	11.459	(1.174)	701942	2.50000	2.498
	39 Pyrene	202	11.926	11.926	(0.829)	730584	2.50000	2.479
	46 Benzo(a)anthracene	228	14.268	14.268	(0.992)	659441	2.50000	2.454
*	47 Chrysene-d12	240	14.387	14.387	(1.000)	534705	2.00000	
	48 Chrysene	228	14.457	14.457	(1.005)	625809	2.50000	2.400
	51 Benzo(b)fluoranthene	252	16.906	16.906	(0.931)	644624	2.50000	2.618
	52 Benzo(k)fluoranthene	252	16.966	16.966	(0.935)	694382	2.50000	2.596
	251 Benzo(j)fluoranthene	252	17.038	17.038	(0.939)	723255	2.50000	2.563
	54 Benzo(a)pyrene	252	17.922	17.922	(0.987)	638681	2.50000	2.553
*	56 Perylene-d12	264	18.152	18.152	(1.000)	532104	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.478	20.478	(1.128)	689200	2.50000	2.273
$	60 Dibenzo(a,h)anthracene-d14	292	20.380	20.380	(1.123)	400168	2.50000	2.268
	62 Dibenzo(a,h)anthracene	278	20.475	20.475	(1.128)	533062	2.50000	2.158(M)
	61 Benzo(g,h,i)perylene	276	21.355	21.355	(1.176)	575938	2.50000	2.232

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
57 Perylene	252	18.225	18.225	(1.004)	623501	2.50000	2.404

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191202.d
Lab Smp Id: CC1119
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: CC1119
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	582036	12.77
22 Acenaphthene-d10	284255	142128	568510	321776	13.20
28 Phenanthrene-d10	410660	205330	821320	464307	13.06
47 Chrysene-d12	467886	233943	935772	534705	14.28
56 Perylene-d12	472330	236165	944660	532104	12.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	0.00
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	0.00
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	0.00
47 Chrysene-d12	14.39	13.89	14.89	14.39	0.00
56 Perylene-d12	18.15	17.65	18.65	18.15	0.00

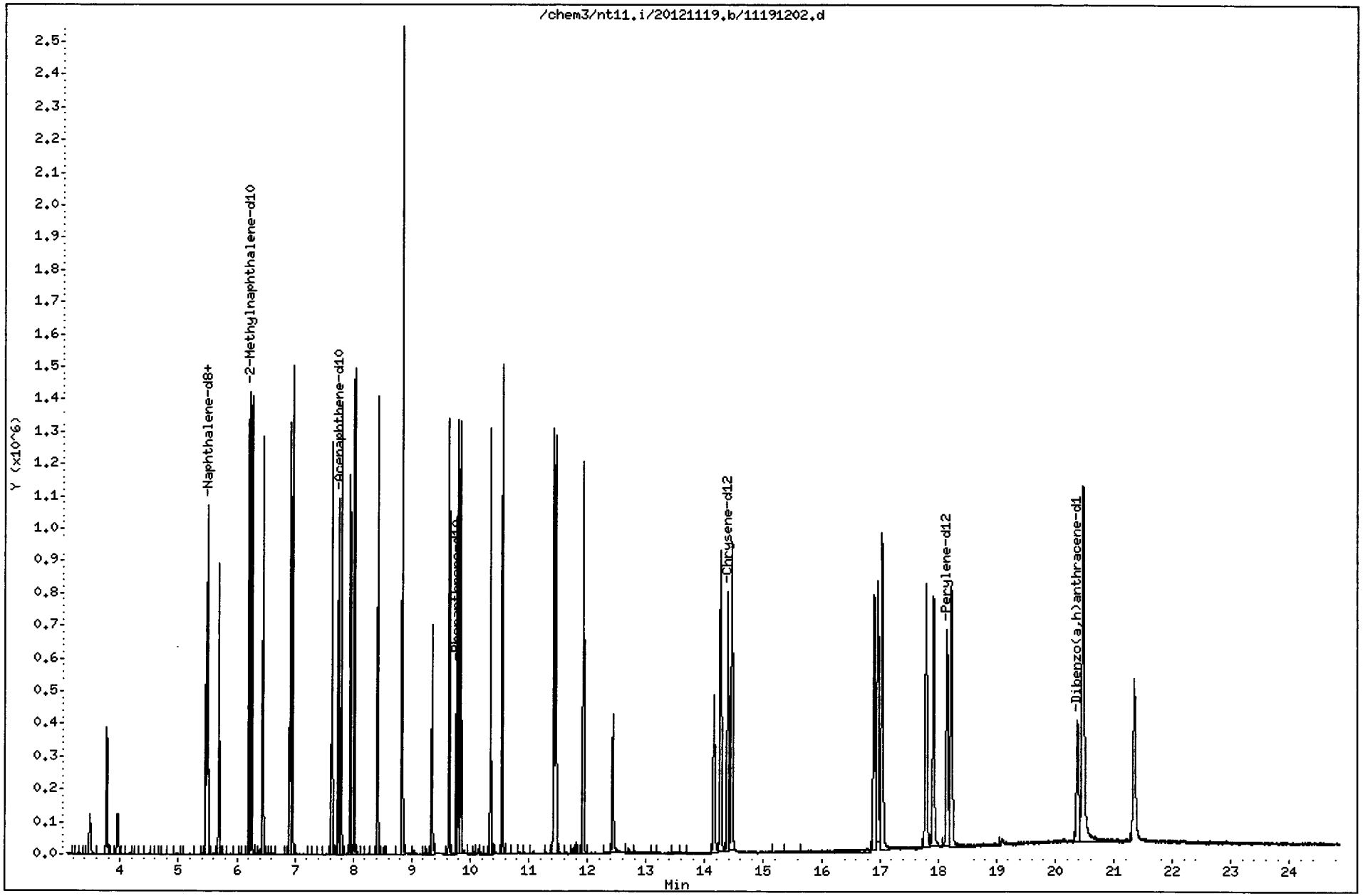
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20121119.b/11191202.d
Date : 19-NOV-2012 12:25
Client ID: CC1119
Sample Info: CC1119

Instrument: nt11.i

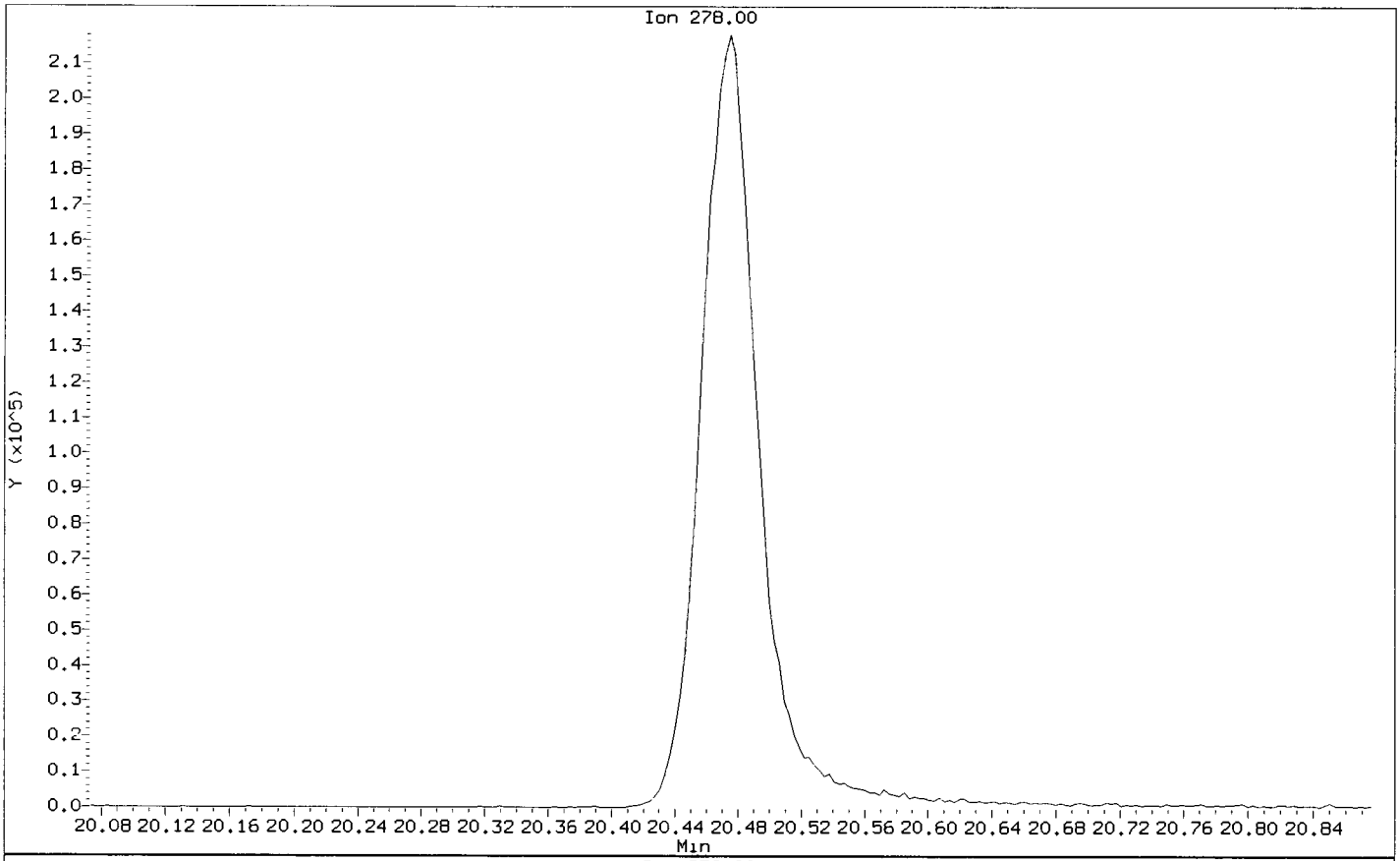
Operator: JZ
Column diameter: 0.25

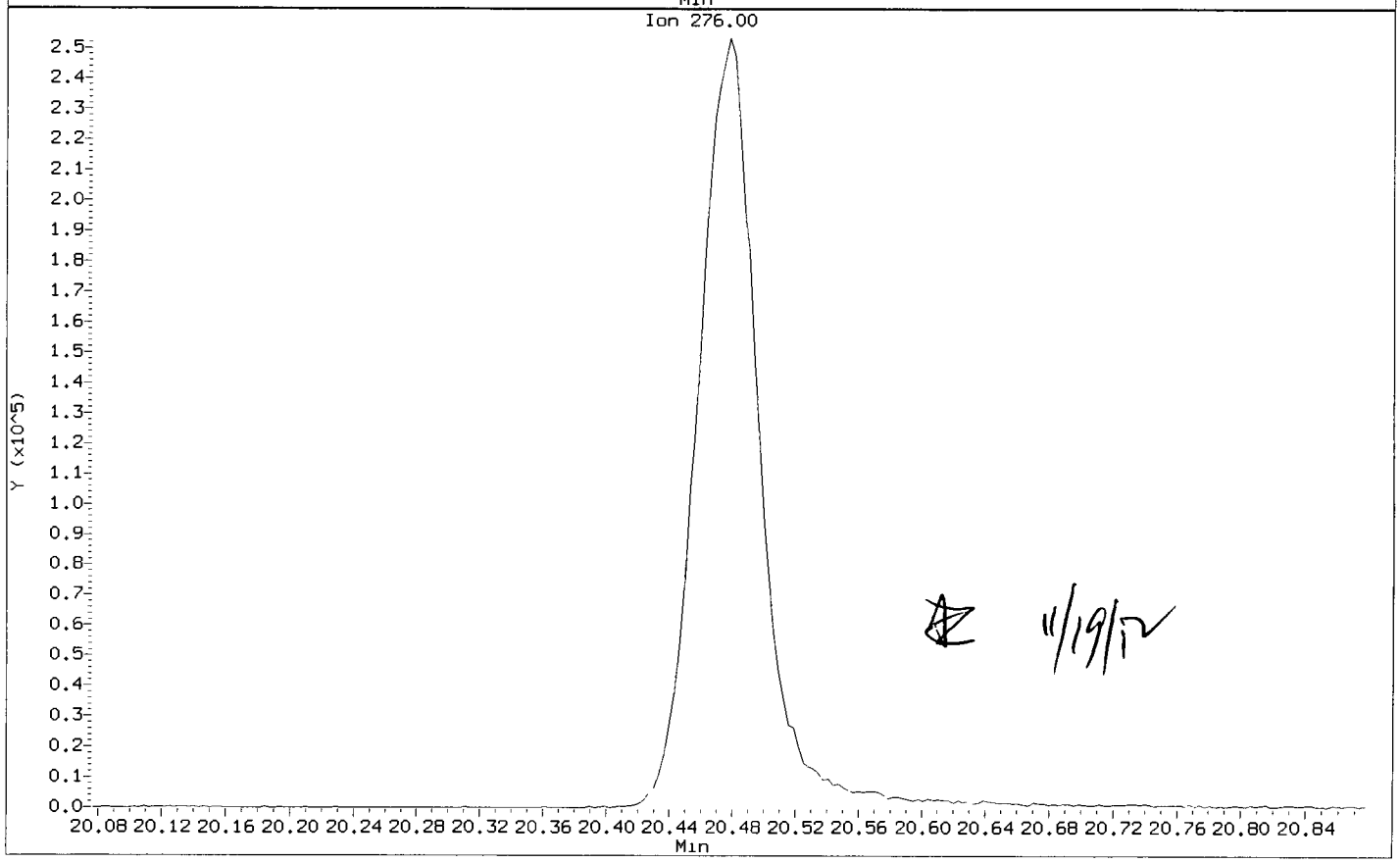
Column phase: ZB-5msi



Data File: /chem3/nt11.i/20121119.b/11191202.d
Injection Date: 19-NOV-2012 12:25
Instrument: nt11.i
Client Sample ID: CC1119

Compound: Dibenzo(a,h)anthracene
CAS Number: 53-70-3

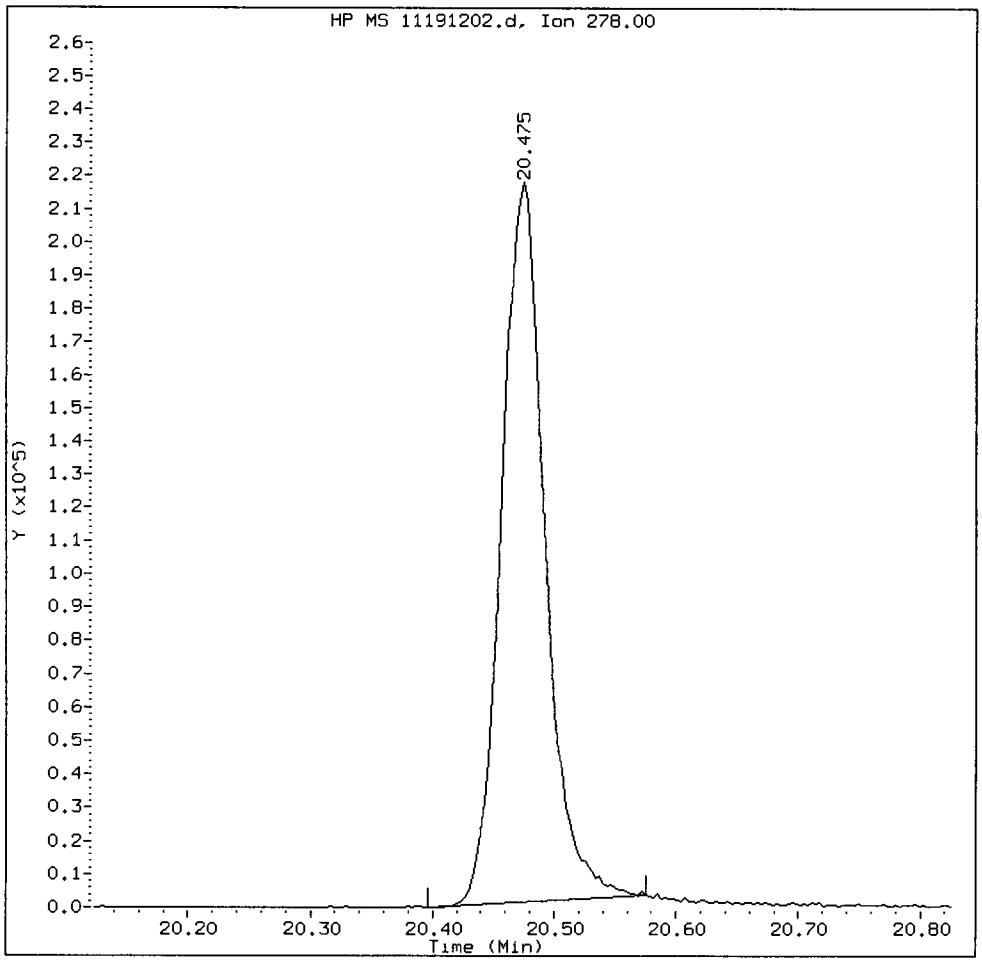




11/19/12

CC1119, /chem3/nt11.i/20121119.b/11191202.d

Dibenzo(a,h)anthracene Amount: 2.16 Area: 533062



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/19/12

CO-ELUTION SUMMARY FOR FILE - 11191202.d

Lab ID: CC1119, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-201

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem3/nt11.i/20121119.b/tune.b/11191201.d

Date : 19-NOV-2012 12:07

Client ID: DFTPP1119

Instrument: nt11.i

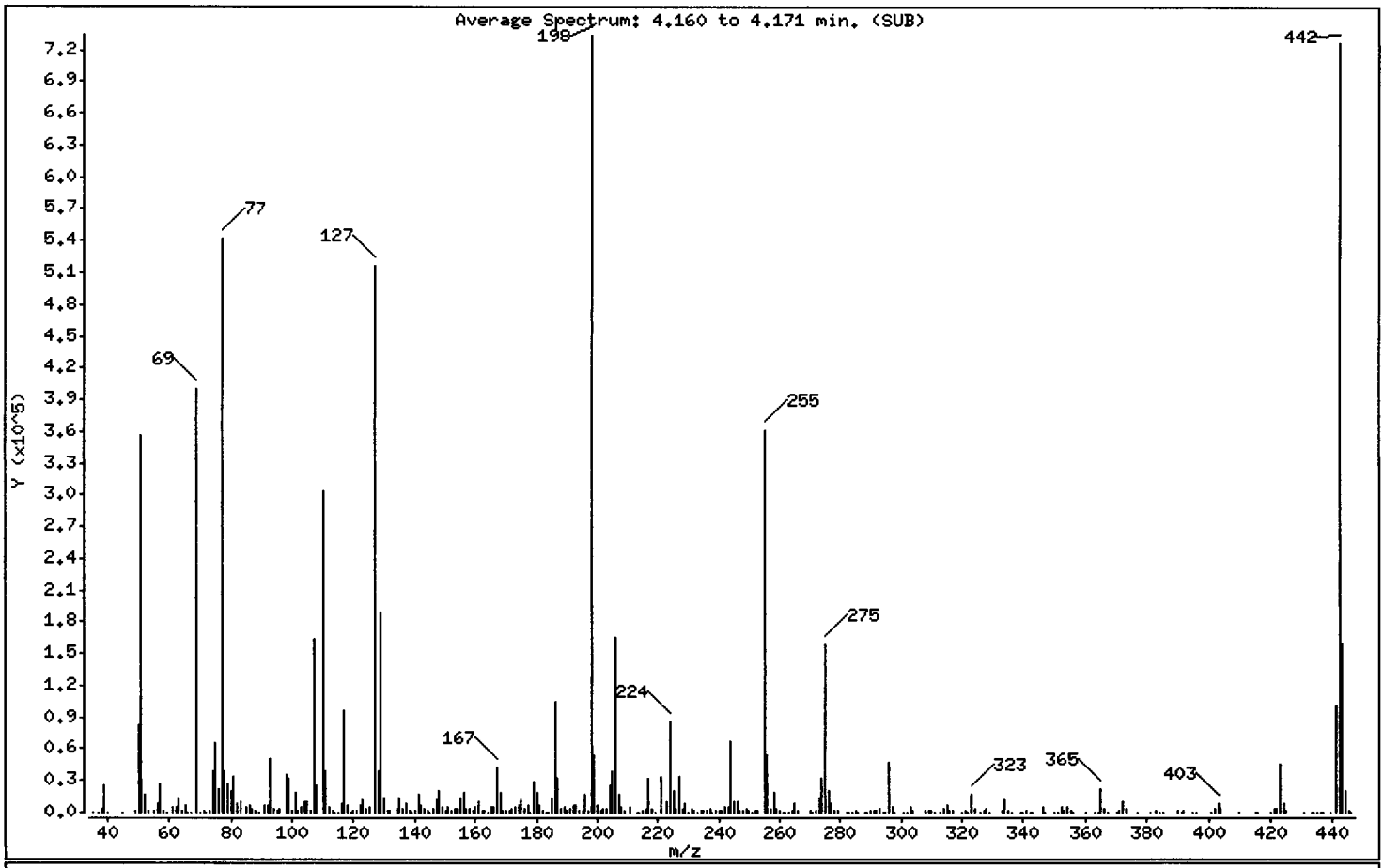
Sample Info: DFTPP1119

Operator: JZ

Column phase: Rxi-17silms

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	48.43
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	54.47
70	Less than 2.00% of mass 69	0.11 (0.21)
127	10.00 - 80.00% of mass 198	70.44
197	Less than 2.00% of mass 198	0.25
199	5.00 - 9.00% of mass 198	7.37
275	10.00 - 60.00% of mass 198	21.61
365	Greater than 1.00% of mass 198	3.03
441	0.01 - 24.00% of mass 442	13.84 (13.96)
442	50.00 - 200.00% of mass 198	99.18
443	15.00 - 24.00% of mass 442	21.84 (22.02)

Data File: /chem3/nt11.i/20121119.b/tune.b/11191201.d

Date : 19-NOV-2012 12:07

Client ID: DFTPP1119 Instrument: nt11.i

Sample Info: DFTPP1119

Operator: JZ

Column phase: Rxi-17silms Column diameter: 0.25

Data File: 11191201.d
Spectrum: Average Spectrum: 4.160 to 4.171 min. (SUB)
Location of Maximum: 198.00
Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	317	131.00	2291	216.00	3656	313.00	583
37.00	461	132.00	1140	217.00	31544	314.00	3461
38.00	4121	134.00	3455	218.00	4196	315.00	7077
39.00	25320	135.00	14315	219.00	10	316.00	1686
40.00	202	136.00	3941	221.00	33864	317.00	846
41.00	839	137.00	8101	223.00	10538	320.00	243
45.00	789	138.00	1552	224.00	86216	321.00	1714
48.00	547	139.00	155	225.00	20864	322.00	555
49.00	1293	140.00	2411	226.00	2783	323.00	16528
50.00	82304	141.00	17336	227.00	33520	324.00	2721
51.00	355776	142.00	6987	228.00	3712	326.00	574
52.00	16057	143.00	4119	229.00	8585	327.00	2404
53.00	1142	144.00	1599	230.00	589	328.00	2646
55.00	1061	145.00	540	231.00	3230	329.00	750
56.00	9181	146.00	3640	232.00	956	333.00	1950
57.00	27128	147.00	11235	233.00	199	334.00	11261
58.00	2074	148.00	20432	234.00	1579	335.00	2303
59.00	262	149.00	4833	235.00	2481	336.00	631
61.00	4616	150.00	2525	236.00	1087	339.00	456
62.00	4610	151.00	5507	237.00	3814	340.00	183
63.00	13873	152.00	952	238.00	627	341.00	1638
64.00	1778	153.00	3495	239.00	1427	342.00	447
65.00	7149	154.00	3907	240.00	1102	343.00	256
66.00	550	155.00	13718	241.00	1674	346.00	4411
67.00	340	156.00	19264	242.00	4416	347.00	557
69.00	400128	157.00	3568	243.00	4512	350.00	213
70.00	843	158.00	2779	244.00	67616	351.00	644
71.00	962	159.00	1622	245.00	9799	352.00	4524
72.00	203	160.00	5516	246.00	10309	353.00	2369
73.00	886	161.00	9362	247.00	1456	354.00	4917
74.00	39368	162.00	2165	248.00	1047	355.00	1960
75.00	66304	163.00	1184	249.00	3129	356.00	482
76.00	22184	164.00	675	250.00	1201	360.00	305
77.00	541376	165.00	5547	251.00	161	363.00	245
78.00	39304	166.00	4459	252.00	2101	364.00	181

Date : 19-NOV-2012 12:07

Client ID: DFTPP1119 Instrument: nt11.i

Sample Info: DFTPP1119

Operator: JZ

Column phase: Rxi-17silms Column diameter: 0.25

Data File: 11191201.d
Spectrum: Average Spectrum: 4.160 to 4.171 min. (SUB)
Location of Maximum: 198.00
Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	27624	167.00	41928	253.00	1824	365.00	22240
80.00	20336	168.00	18272	255.00	360896	366.00	3363
81.00	33280	169.00	2244	256.00	53704	367.00	176
82.00	9044	170.00	1530	257.00	2594	370.00	670
83.00	9364	171.00	1562	258.00	18504	371.00	1161
85.00	4812	172.00	2576	259.00	2782	372.00	9719
86.00	6300	173.00	4378	260.00	918	373.00	3361
87.00	2790	174.00	7427	261.00	393	377.00	4
88.00	1194	175.00	12362	262.00	240	381.00	180
89.00	810	176.00	4155	263.00	706	383.00	1842
91.00	7140	177.00	6210	264.00	917	384.00	347
92.00	6659	178.00	701	265.00	7619	385.00	602
93.00	50896	179.00	28600	266.00	2298	390.00	1890
94.00	3176	180.00	18896	270.00	1265	391.00	320
95.00	1265	181.00	7021	271.00	843	392.00	909
96.00	4052	182.00	2037	272.00	901	395.00	377
98.00	36248	183.00	250	273.00	13740	396.00	530
99.00	32160	184.00	428	274.00	32048	401.00	663
100.00	1786	185.00	13564	275.00	158720	402.00	3972
101.00	17840	186.00	105320	276.00	21080	403.00	8917
102.00	1558	187.00	32336	277.00	8931	404.00	2589
103.00	5679	188.00	2658	278.00	1581	410.00	754
104.00	10377	189.00	4458	279.00	972	415.00	384
105.00	9433	190.00	1240	282.00	608	416.00	171
106.00	2437	191.00	2902	283.00	370	420.00	174
107.00	164352	192.00	6379	284.00	728	421.00	4022
108.00	25776	193.00	6996	285.00	1783	422.00	2971
110.00	303936	194.00	1391	286.00	6	423.00	44856
111.00	39424	195.00	1560	288.00	183	424.00	9016
112.00	4863	196.00	17216	289.00	636	425.00	1622
113.00	1387	197.00	1809	290.00	878	431.00	412
114.00	549	198.00	734592	291.00	856	433.00	228
115.00	836	199.00	54136	292.00	1402	434.00	174
116.00	7863	200.00	5917	293.00	3127	435.00	499
117.00	96280	201.00	1817	294.00	614	436.00	333

Data File: /chem3/nt11.i/20121119.b/tune.b/11191201.d

Date : 19-NOV-2012 12:07

Client ID: DFTPP1119

Instrument: nt11.i

Sample Info: DFTPP1119

Operator: JZ

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: 11191201.d
Spectrum: Average Spectrum: 4.160 to 4.171 min. (SUB)
Location of Maximum: 198.00
Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	7262	202.00	3388	295.00	341	437.00	168
119.00	698	203.00	3581	296.00	47808	439.00	169
120.00	2265	204.00	24560	297.00	4270	441.00	101696
121.00	1102	205.00	38104	298.00	325	442.00	728576
122.00	6212	206.00	165376	301.00	461	443.00	160384
123.00	11862	207.00	17208	302.00	18	444.00	20656
124.00	4030	208.00	4581	303.00	5149	445.00	955
125.00	5532	209.00	2308	304.00	1255	446.00	203
127.00	517440	211.00	5558	308.00	1497		
128.00	38816	213.00	412	309.00	871		
129.00	188928	214.00	244	310.00	1348		
130.00	13873	215.00	2360	311.00	187		

Data File: /chem3/nt11.i/20121119.b/tune.b/11191201.d

Date : 19-NOV-2012 12:07

Client ID: DFTPP1119

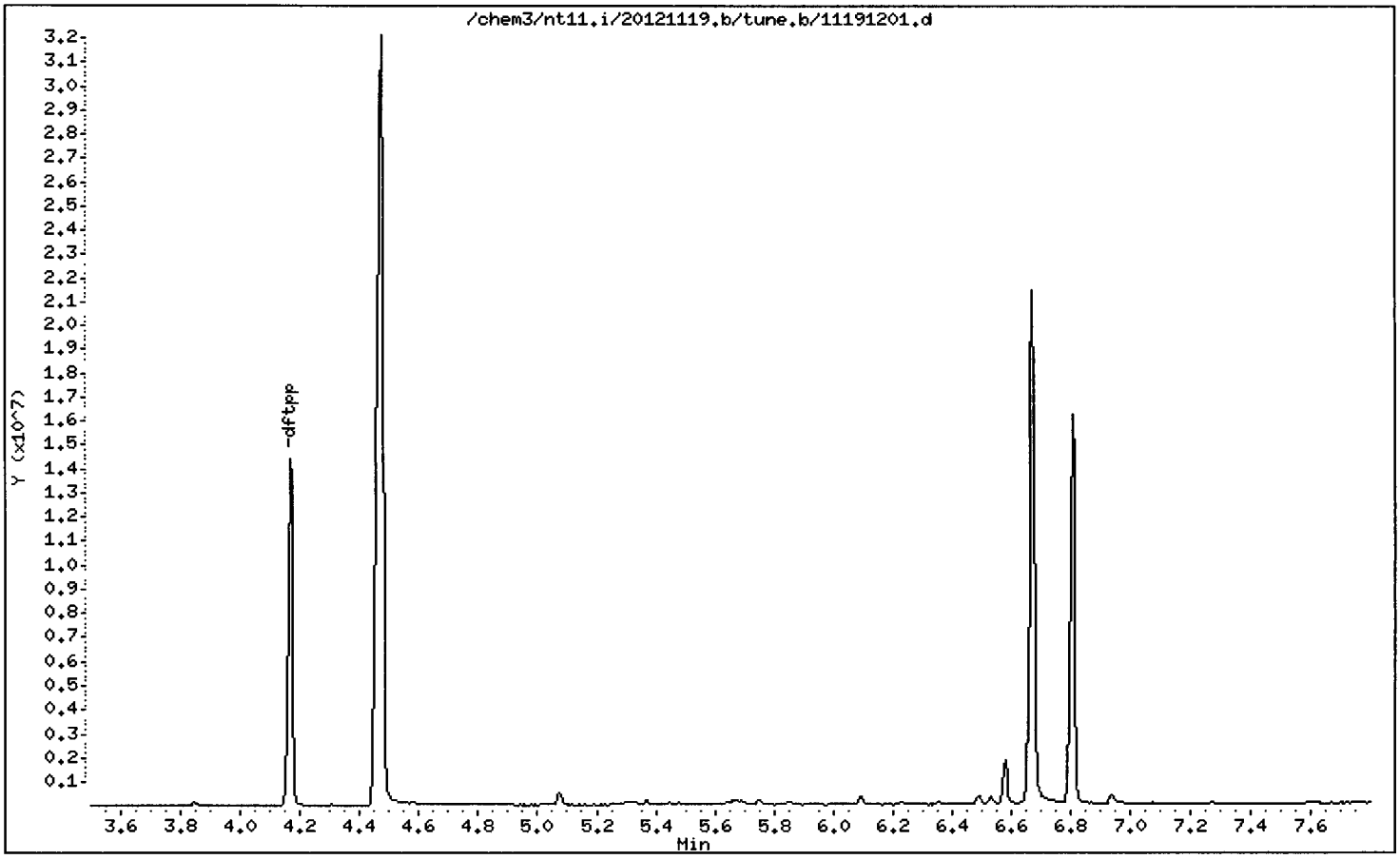
Instrument: nt11.i

Sample Info: DFTPP1119

Operator: JZ

Column phase: Rxi-17silms

Column diameter: 0.25



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20121119.b/ddt.b/11191201.d ARI ID: DDT1119
Method: /chem3/nt11.i/20121119.b/ddt.b/sw846ddt.m Misc: 12-
Analysis Date: 19-NOV-2012 12:07 Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	4.475	6243179
Benzidine	6.671	9489799
4,4'-DDE	6.094	30116
4,4'-DDD	6.580	322142
4,4'-DDT	6.805	3101040

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

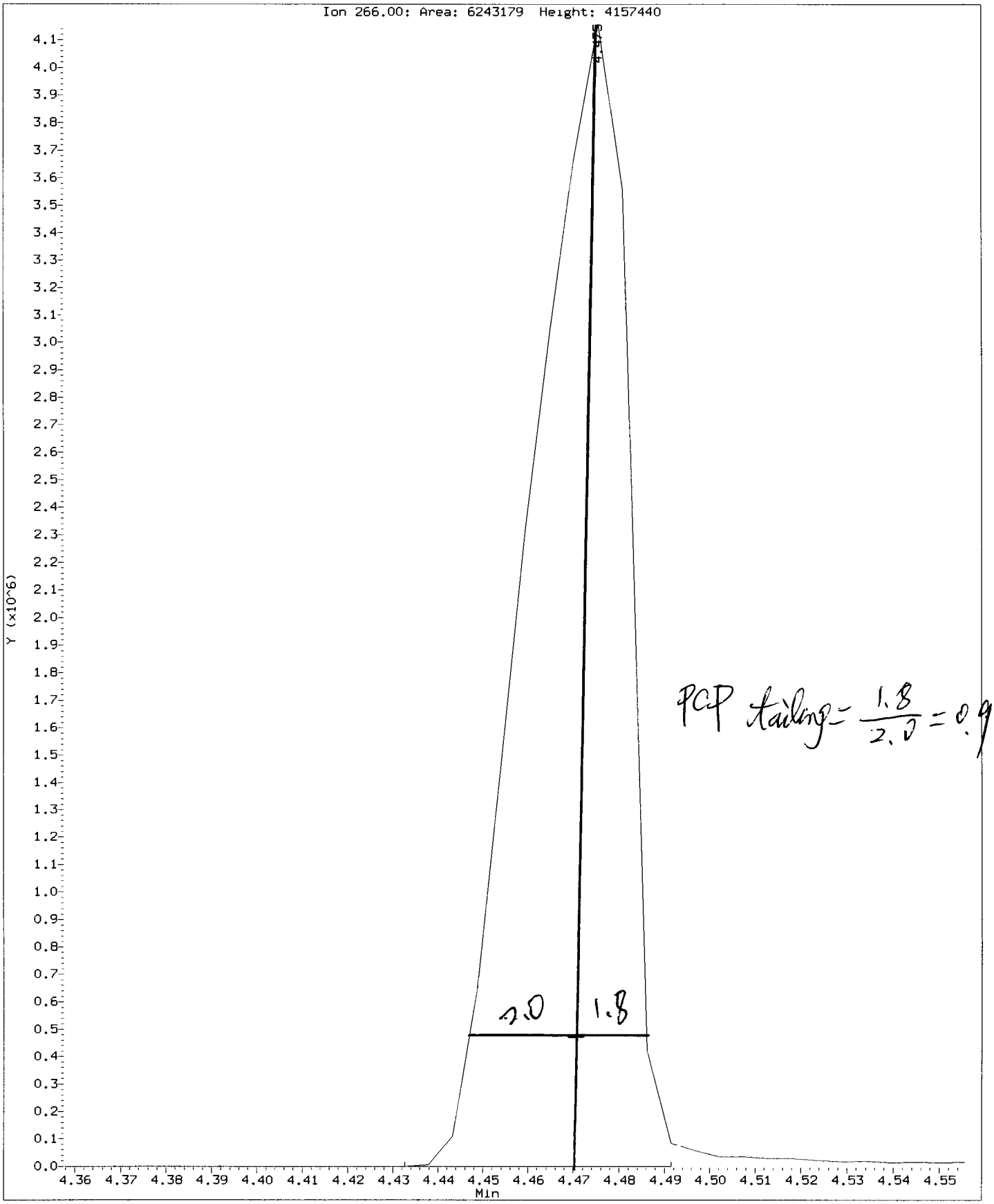
$$\text{DDT Percent Breakdown} = \frac{(\ 30116 + 322142) * 100}{(\ 30116 + 322142 + 3101040)}$$

DDT Percent Breakdown = 10.2 %

11/19/12

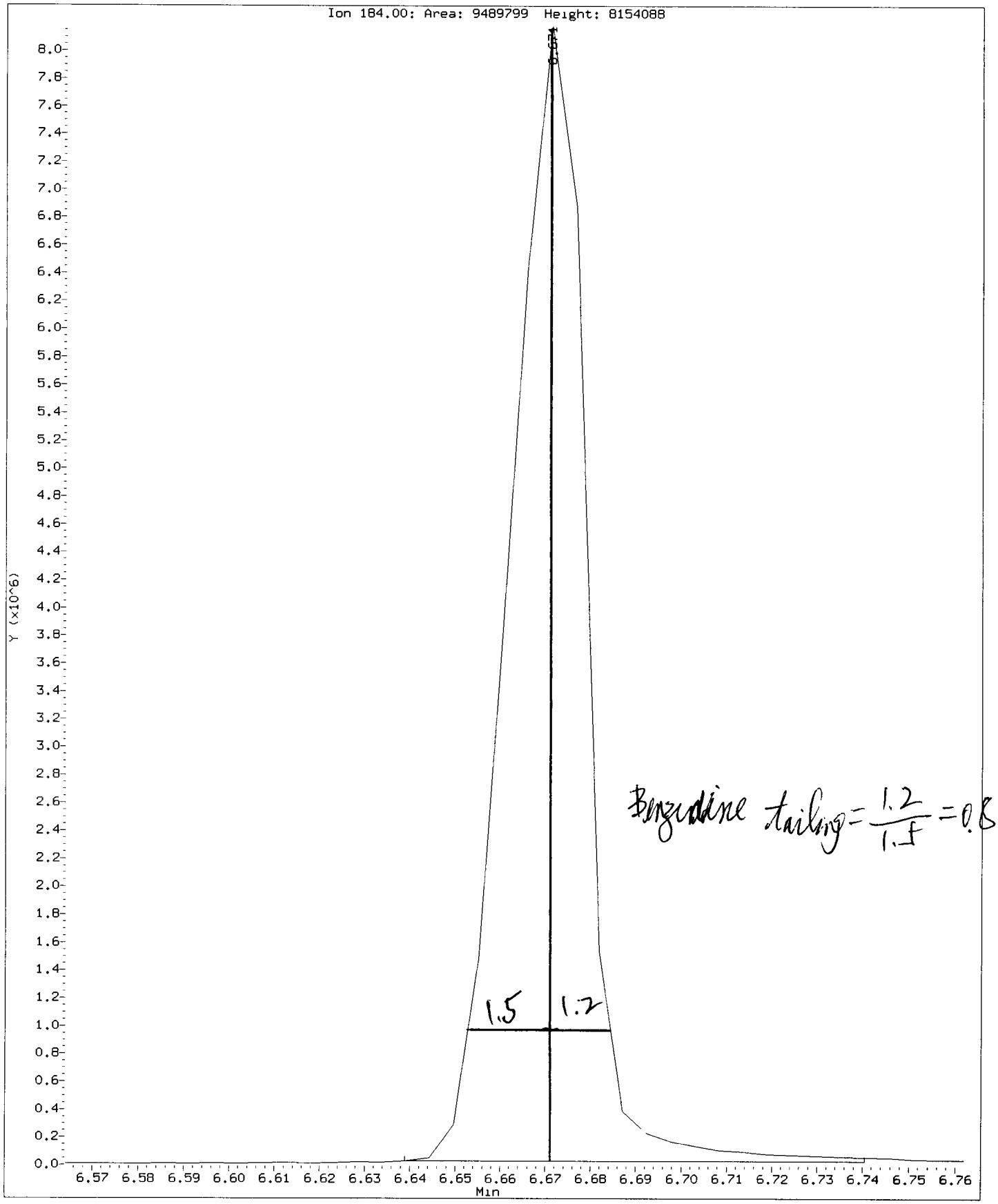
Data File: /chem3/nt11.i/20121119.b/ddt.b/11191201.d
Injection Date: 19-NOV-2012 12:07
Instrument: nt11.i
Client Sample ID: DDT1119

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt11.i/20121119.b/ddt.b/11191201.d
Injection Date: 19-NOV-2012 12:07
Instrument: nt11.i
Client Sample ID: DDT1119

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191213.d
Lab Smp Id: VR38A Client Smp ID: HT-01-S-C-121106
Inj Date : 19-NOV-2012 17:56
Operator : JZ Inst ID: nt11.i
Smp Info : VR38A
Misc Info : 12-22267
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 15:42 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/21/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	13.74000	Weight of sample extracted (g)
M	20.50000	% 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)
*	6 Naphthalene-d8	136	5.467	5.473	(1.000)	647311	2.00000	
	7 Naphthalene	128	Compound Not Detected.					
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.134)	354887	1.60460	73.45
	14 2-Methylnaphthalene	141	Compound Not Detected.					
	15 1-methylnaphthalene	141	Compound Not Detected.					
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	358664	2.00000	
	23 Acenaphthene	153	Compound Not Detected.					
	11 Dibenzofuran	168	Compound Not Detected.					
	25 Fluorene	166	Compound Not Detected.					
*	28 Phenanthrene-d10	188	9.762	9.764	(1.000)	505083	2.00000	
	30 Phenanthrene	178	9.793	9.802	(1.003)	20863	0.06838	3.130
	31 Anthracene	178	Compound Not Detected.					
	36 Fluoranthene	202	11.456	11.459	(1.174)	28530	0.09333	4.272
	39 Pyrene	202	11.929	11.926	(0.830)	20139	0.06610	3.026
	46 Benzo(a)anthracene	228	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
*	47 Chrysene-d12	240	14.378	14.387	(1.000)	552833	2.00000	
	48 Chrysene	228	Compound Not Detected.					
	51 Benzo(b)fluoranthene	252	16.890	16.906	(0.931)	8432	0.03178	1.454
	52 Benzo(k)fluoranthene	252	Compound Not Detected.					
	251 Benzo(j)fluoranthene	252	Compound Not Detected.					
	54 Benzo(a)pyrene	252	Compound Not Detected.					
*	56 Perylene-d12	264	18.140	18.152	(1.000)	573370	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	60 Dibenzo(a,h)anthracene-d14	292	20.367	20.380	(1.123)	548491	2.88553	132.1
	62 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	61 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	57 Perylene	252	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191213.d
Lab Smp Id: VR38A
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22267

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-01-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	647311	25.42
22 Acenaphthene-d10	284255	142128	568510	358664	26.18
28 Phenanthrene-d10	410660	205330	821320	505083	22.99
47 Chrysene-d12	467886	233943	935772	552833	18.16
56 Perylene-d12	472330	236165	944660	573370	21.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.11
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.06
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.07

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.

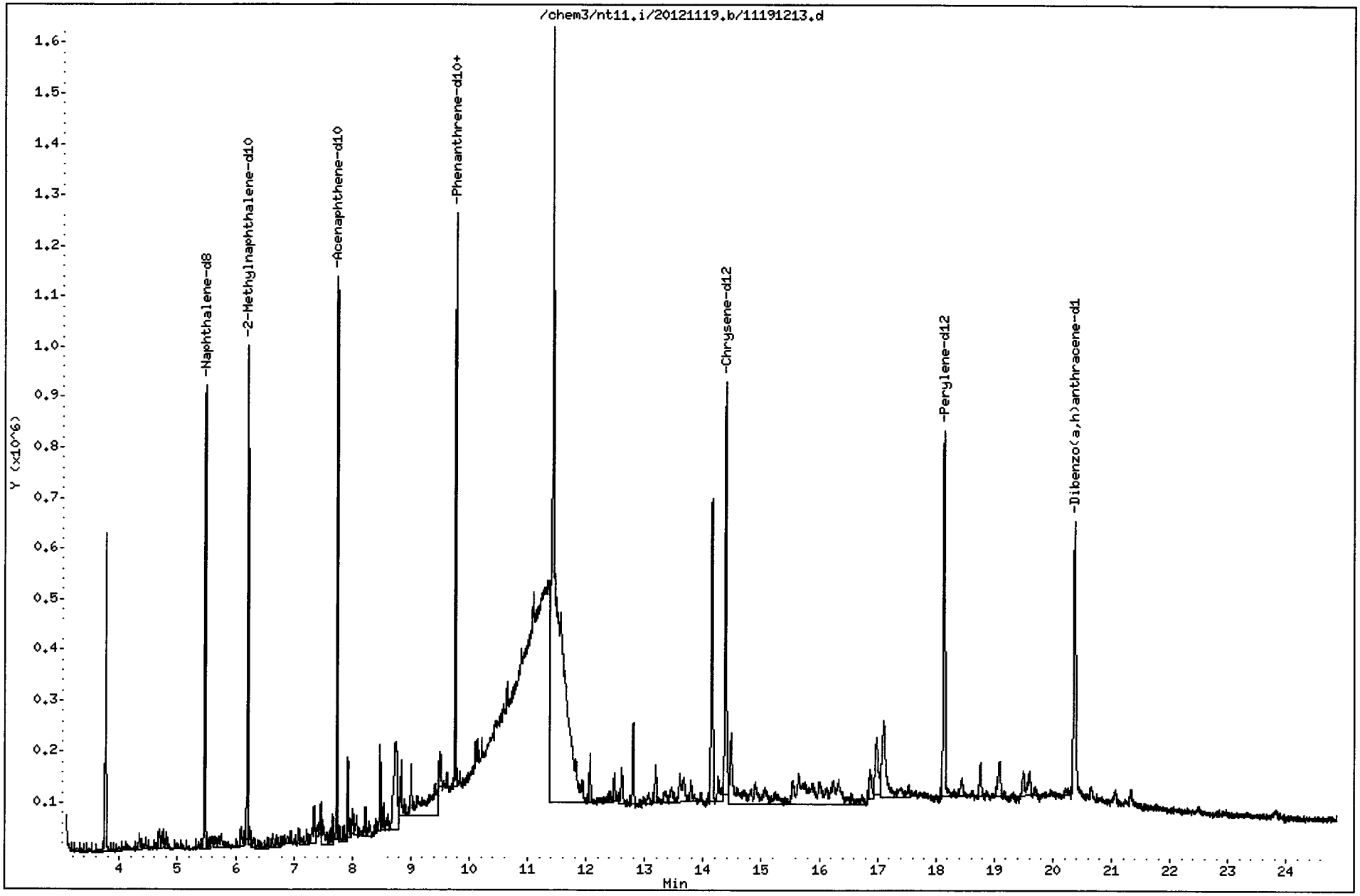
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38A Client Smp ID: HT-01-S-C-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22267

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	137.3	73.45	53.49	34-100
$ 60 Dibenzo(a,h)anthra	137.3	132.1	96.18	10-117

Data File: /chem3/nt11.i/20121119.b/11191213.d
Date : 19-NOV-2012 17:56
Client ID: HT-01-S-C-121106
Sample Info: VR38A
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191213.d

Date : 19-NOV-2012 17:56

Client ID: HT-01-S-C-121106

Instrument: nt11.i

Sample Info: VR38A

Volume Injected (uL): 1.0

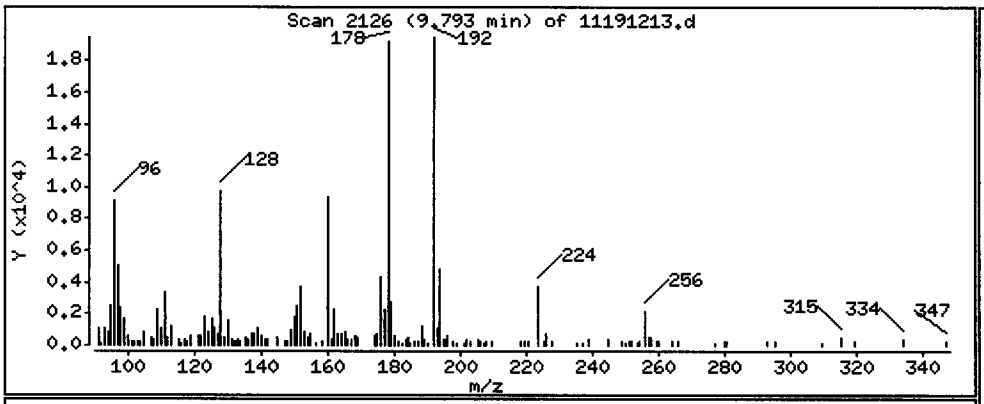
Operator: JZ

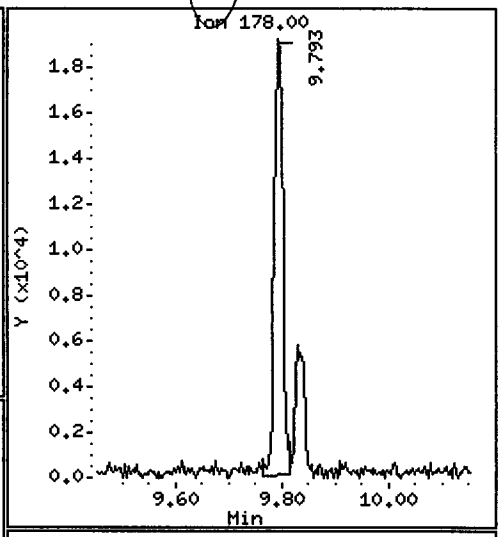
Column phase: ZB-5msi

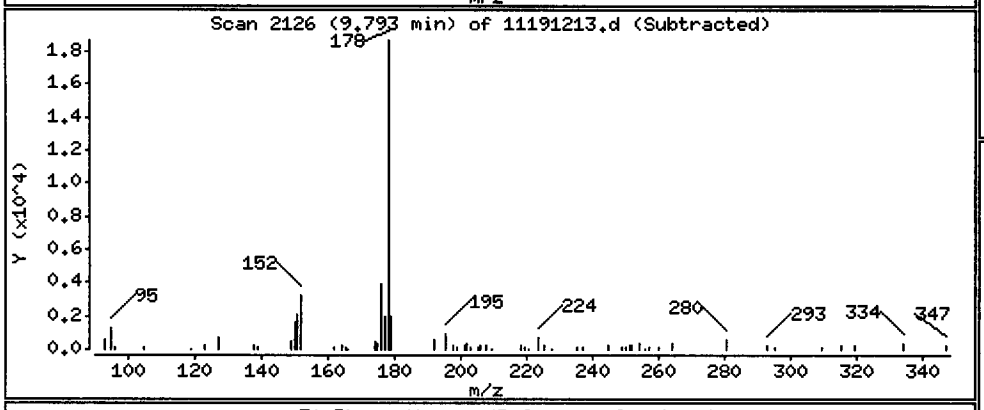
Column diameter: 0.25

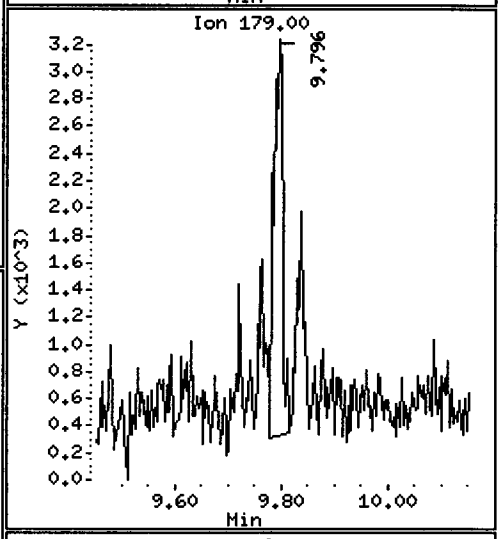
30 Phenanthrene

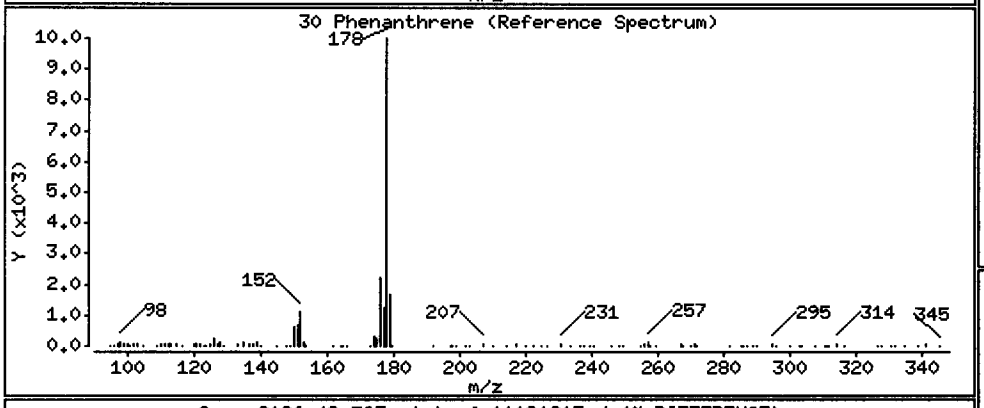
Concentration: 3.130 ug/kg

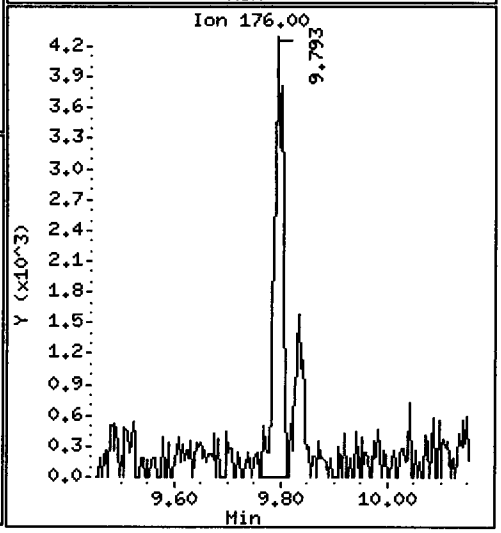


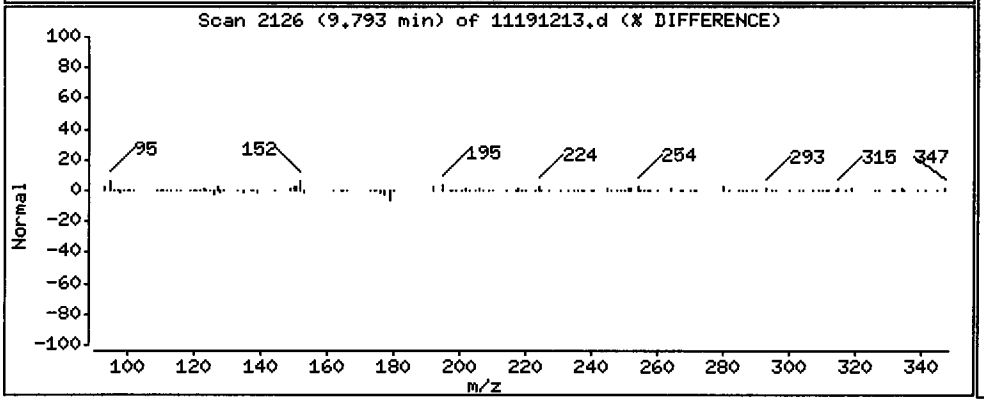












Data File: /chem3/nt11.i/20121119.b/11191213.d

Date : 19-NOV-2012 17:56

Client ID: HT-01-S-C-121106

Instrument: nt11.i

Sample Info: VR38A

Volume Injected (uL): 1.0

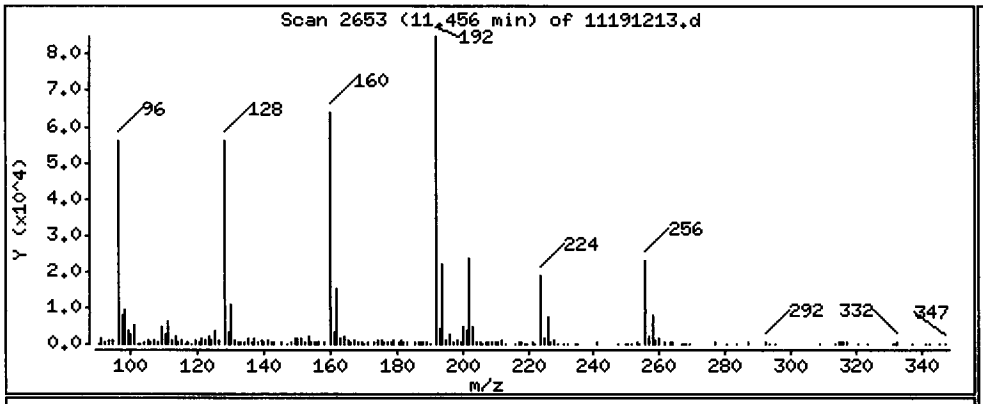
Operator: JZ

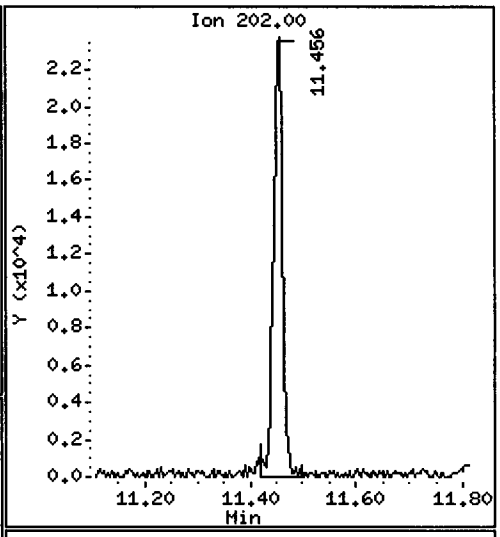
Column phase: ZB-5msi

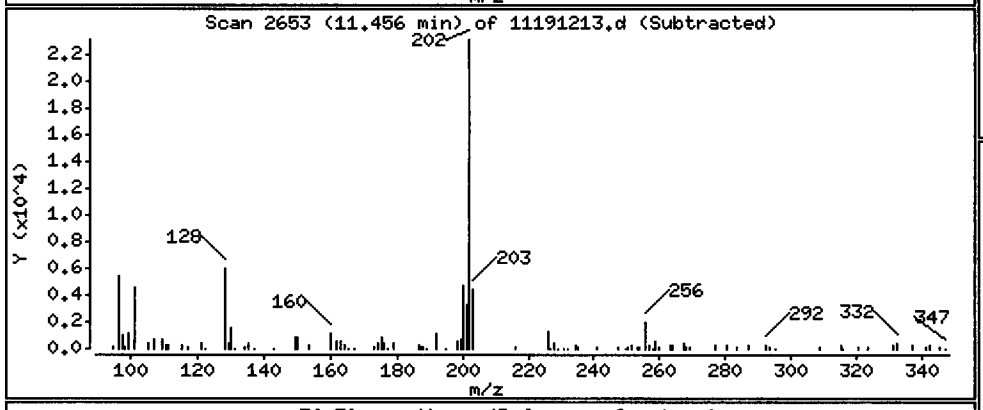
Column diameter: 0.25

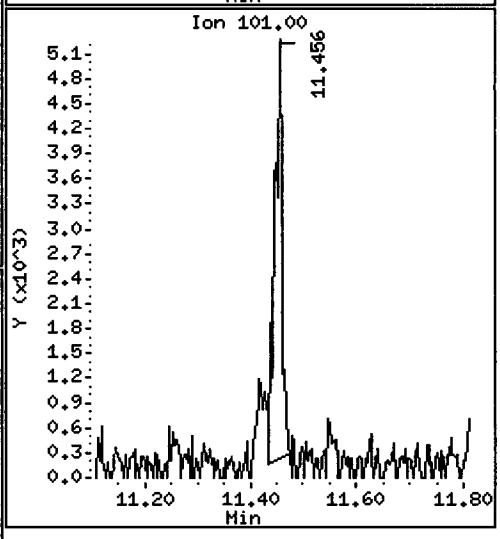
36 Fluoranthene

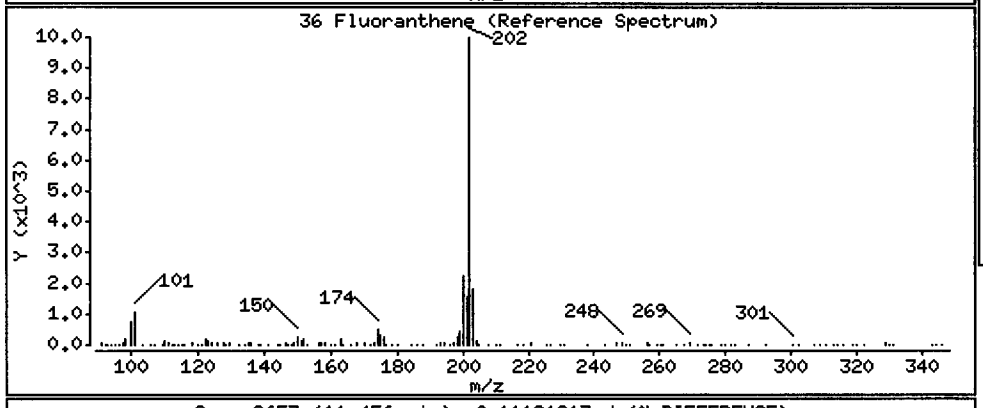
Concentration: 4.272 ug/kg

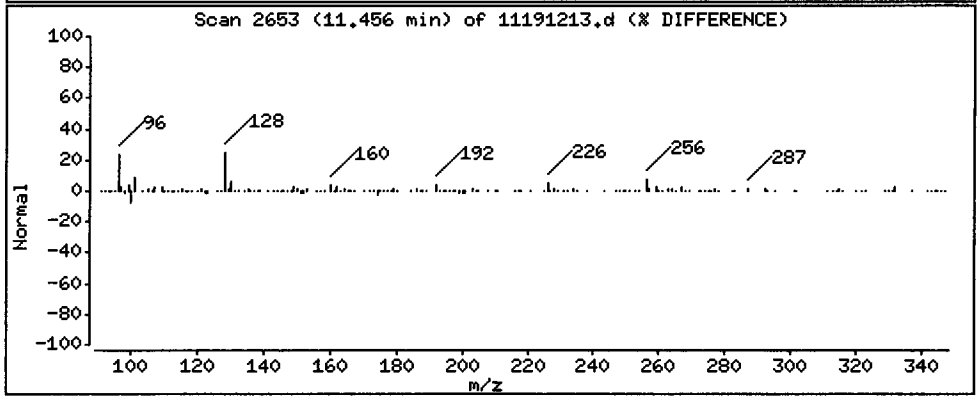












Data File: /chem3/nt11.i/20121119.b/11191213.d

Date : 19-NOV-2012 17:56

Client ID: HT-01-S-C-121106

Instrument: nt11.i

Sample Info: VR38A

Volume Injected (uL): 1.0

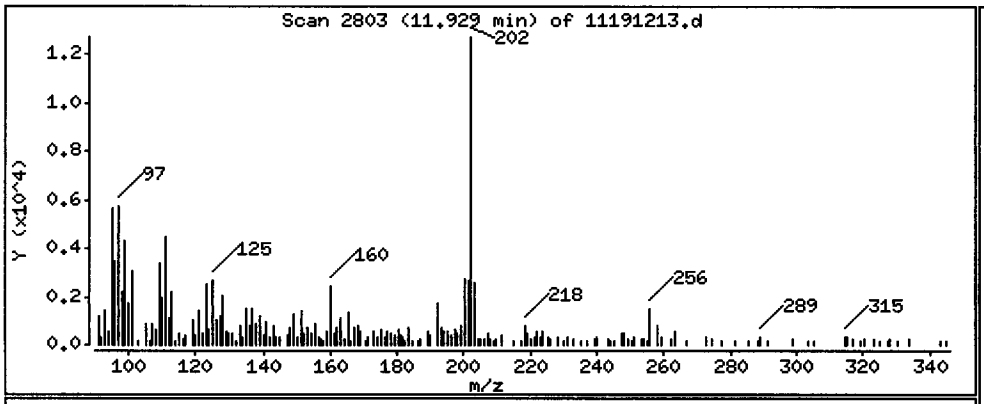
Operator: JZ

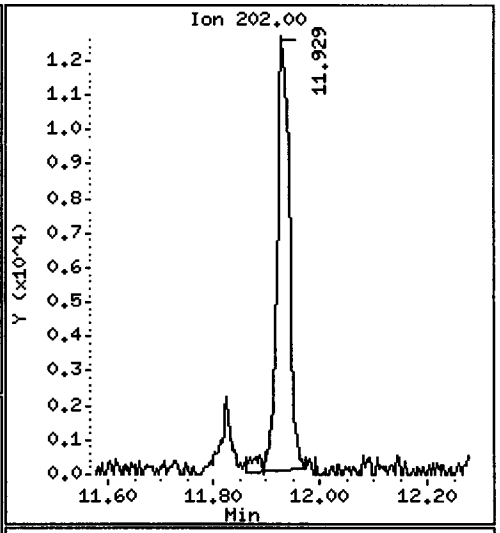
Column phase: ZB-5msi

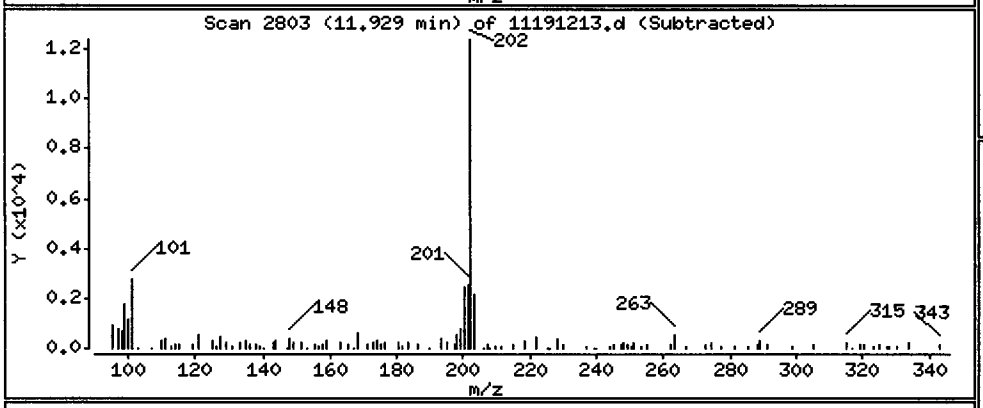
Column diameter: 0.25

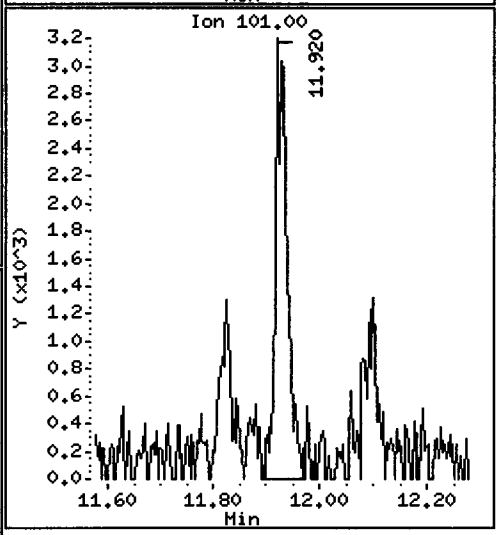
39 Pyrene

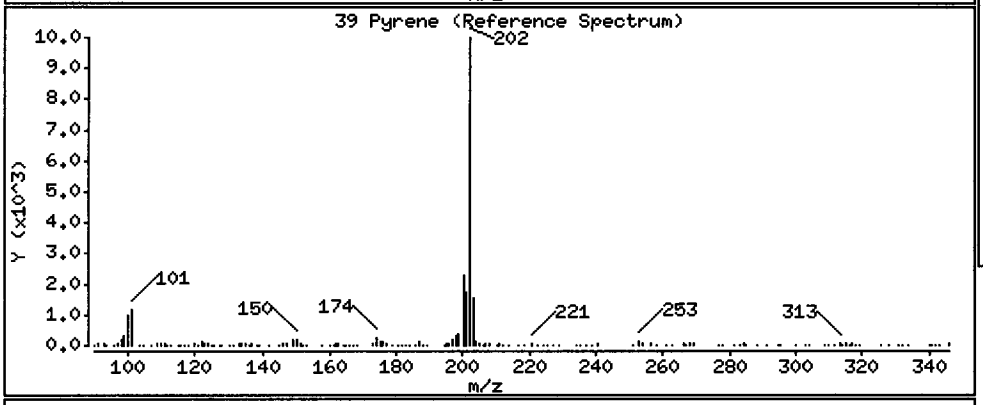
Concentration: 3.026 ug/kg

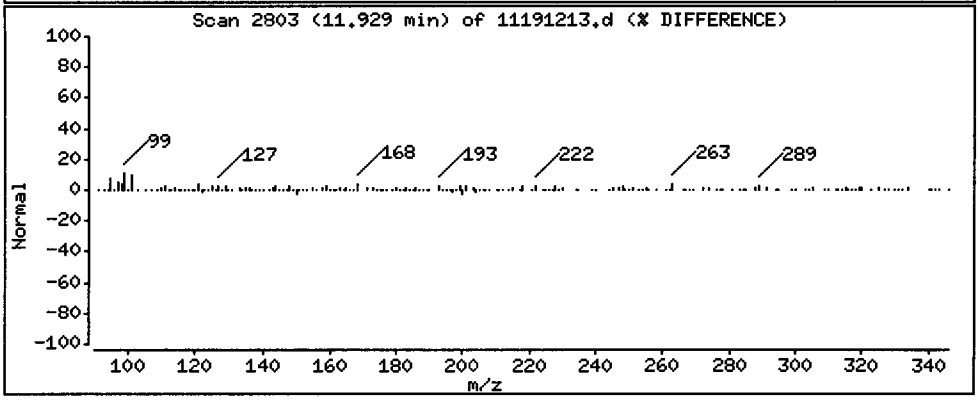












Data File: /chem3/nt11.i/20121119.b/11191213.d

Date : 19-NOV-2012 17:56

Client ID: HT-01-S-C-121106

Instrument: nt11.i

Sample Info: VR38A

Volume Injected (uL): 1.0

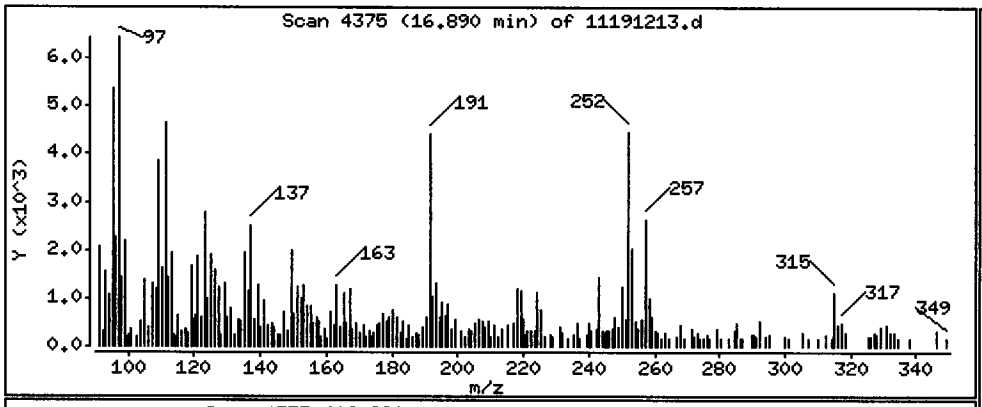
Operator: JZ

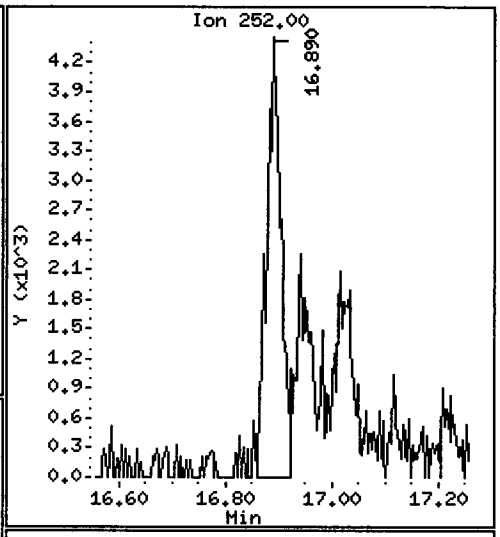
Column phase: ZB-5msi

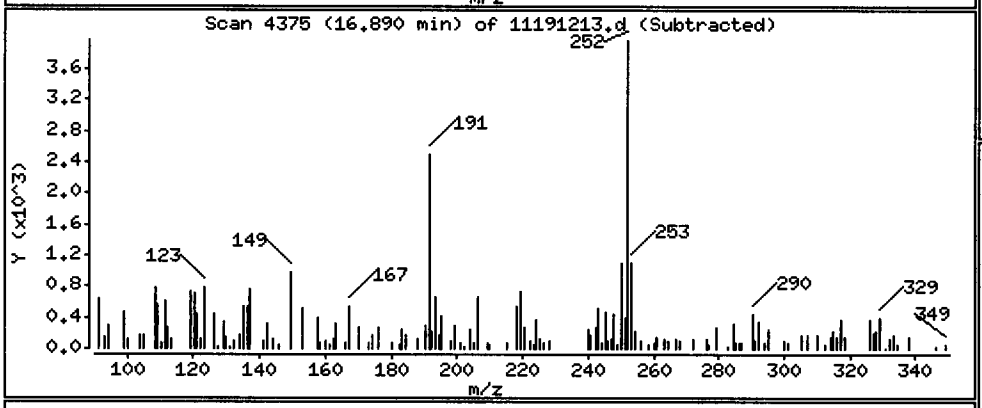
Column diameter: 0.25

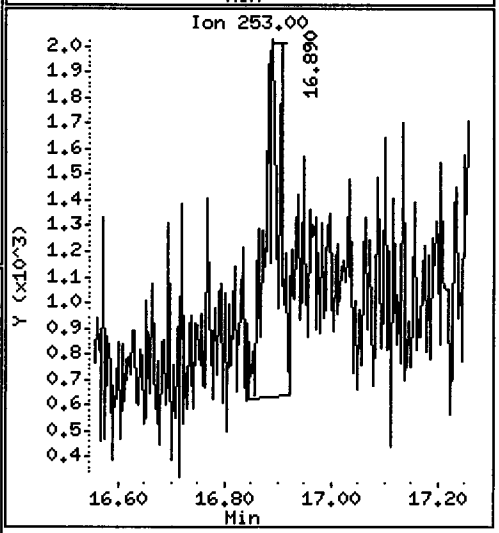
51 Benzo(b)fluoranthene

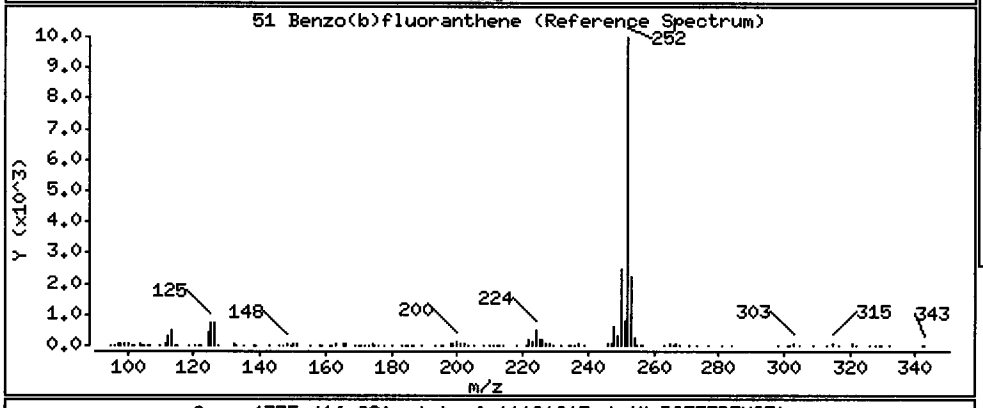
Concentration: 1.455 ug/kg

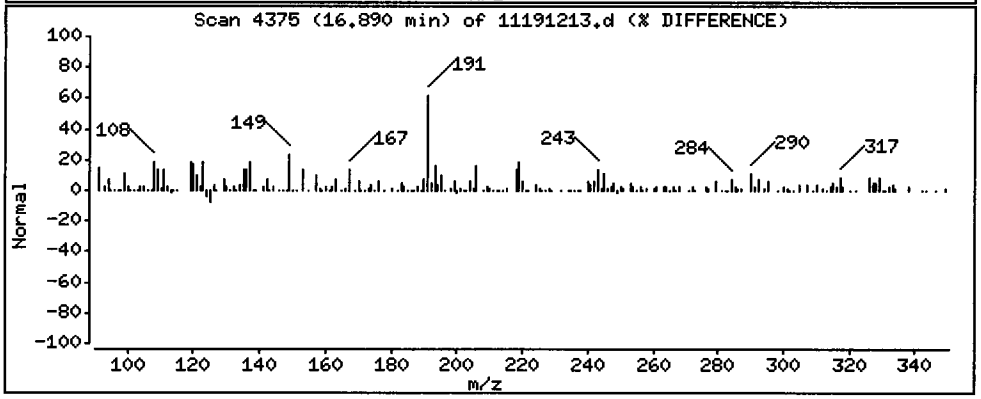












CO-ELUTION SUMMARY FOR FILE - 11191213.d

Lab ID: VR38A, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191214.d
Lab Smp Id: VR38B Client Smp ID: HT-02-S-C-121106
Inj Date : 19-NOV-2012 18:26
Operator : JZ Inst ID: nt11.i
Smp Info : VR38B
Misc Info : 12-22268
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 19-Nov-2012 19:22 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) */ CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.17000	Weight of sample extracted (g)
M	15.60000	% 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)
*	6 Naphthalene-d8	136	5.467	5.473	(1.000)	647233	2.00000	
	7 Naphthalene	128	5.495	5.501	(1.005)	48216	0.13939	6.785
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.134)	364092	1.64642	80.15
	14 2-Methylnaphthalene	141	6.249	6.255	(1.143)	16130	0.08276	4.029
	15 1-methylnaphthalene	141	6.442	6.448	(1.178)	9575	0.05129	2.497
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	360943	2.00000	
	23 Acenaphthene	153	7.789	7.795	(1.007)	12607	0.06321	3.077
	11 Dibenzofuran	168	7.941	7.947	(1.026)	33088	0.11324	5.512
	25 Fluorene	166	8.417	8.420	(1.088)	27021	0.12032	5.857
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	500516	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	121604	0.40221	19.58
	31 Anthracene	178	9.834	9.840	(1.007)	27341	0.09420	4.586
	36 Fluoranthene	202	11.453	11.459	(1.173)	151216	0.49921	24.30
	39 Pyrene	202	11.933	11.926	(0.830)	117588	0.38270	18.63

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
46	Benzo(a)anthracene	228	14.255	14.268	(0.991)	34868	0.12445	6.058
* 47	Chrysene-d12	240	14.378	14.387	(1.000)	557560	2.00000	
48	Chrysene	228	14.444	14.457	(1.005)	44710	0.16442	8.004
51	Benzo(b)fluoranthene	252	16.890	16.906	(0.931)	25688	0.09498	4.623
52	Benzo(k)fluoranthene	252	16.944	16.966	(0.934)	13164	0.04482	2.182(M)
251	Benzo(j)fluoranthene	252	17.029	17.038	(0.939)	13706	0.04423	2.153(M)
54	Benzo(a)pyrene	252	17.900	17.922	(0.987)	18502	0.06735	3.278
* 56	Perylene-d12	264	18.140	18.152	(1.000)	584411	2.00000	
63	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$ 60	Dibenzo(a,h)anthracene-d14	292	20.367	20.380	(1.123)	538409	2.77897	135.3
62	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
61	Benzo(g,h,i)perylene	276	21.333	21.355	(1.176)	16717	0.05900	2.872
57	Perylene	252	18.209	18.225	(1.004)	43782	0.15367	7.481

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191214.d
Lab Smp Id: VR38B
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22268

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-02-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	647233	25.41
22 Acenaphthene-d10	284255	142128	568510	360943	26.98
28 Phenanthrene-d10	410660	205330	821320	500516	21.88
47 Chrysene-d12	467886	233943	935772	557560	19.17
56 Perylene-d12	472330	236165	944660	584411	23.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.11
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.06
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.07

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.

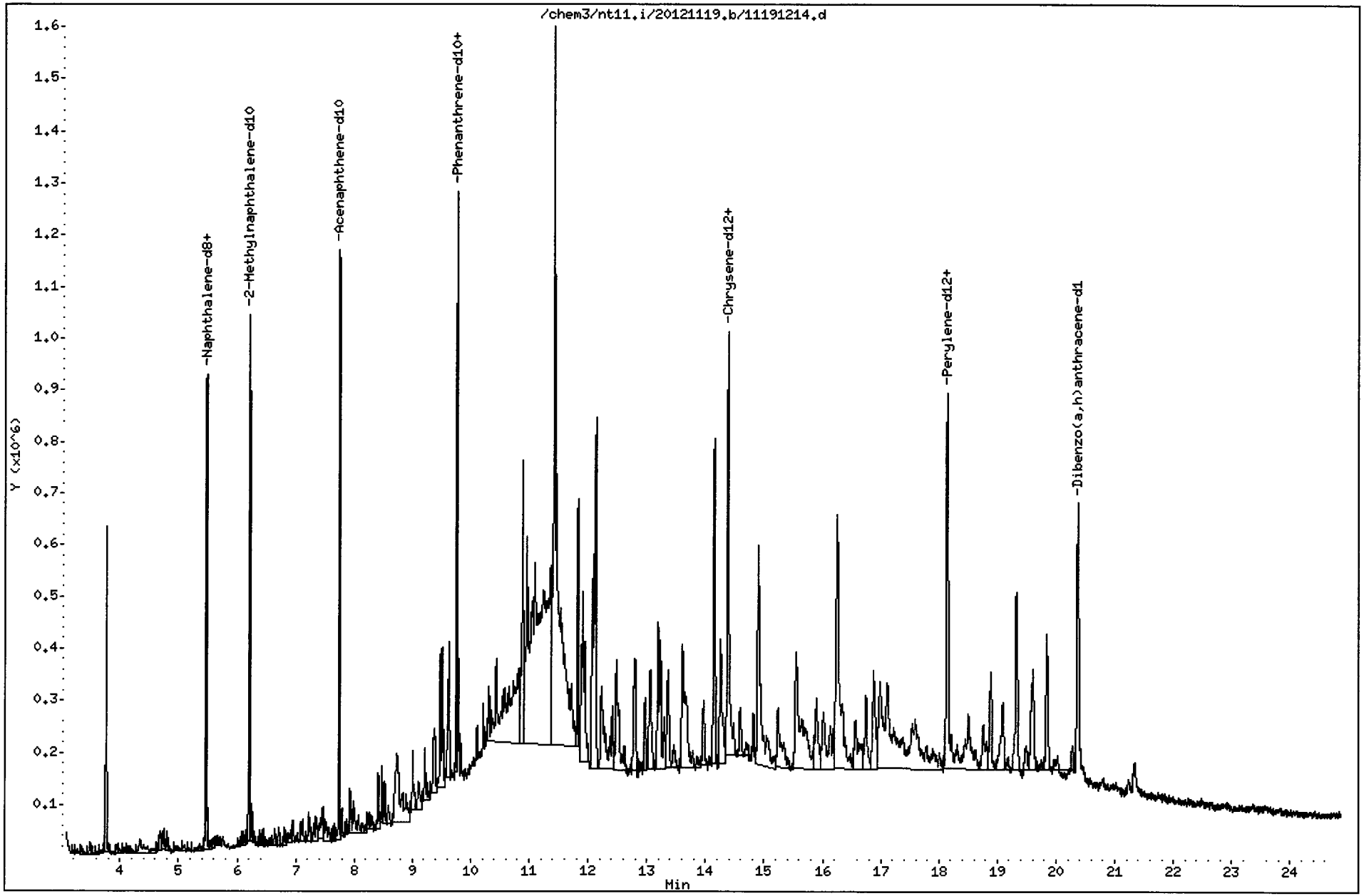
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38B Client Smp ID: HT-02-S-C-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22268

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	146.0	80.15	54.88	34-100
$ 60 Dibenzo(a,h)anthra	146.0	135.3	92.63	10-117

Data File: /chem3/nt11.i/20121119.b/11191214.d
Date : 19-NOV-2012 18:26
Client ID: HT-02-S-C-121106
Sample Info: VR38B
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

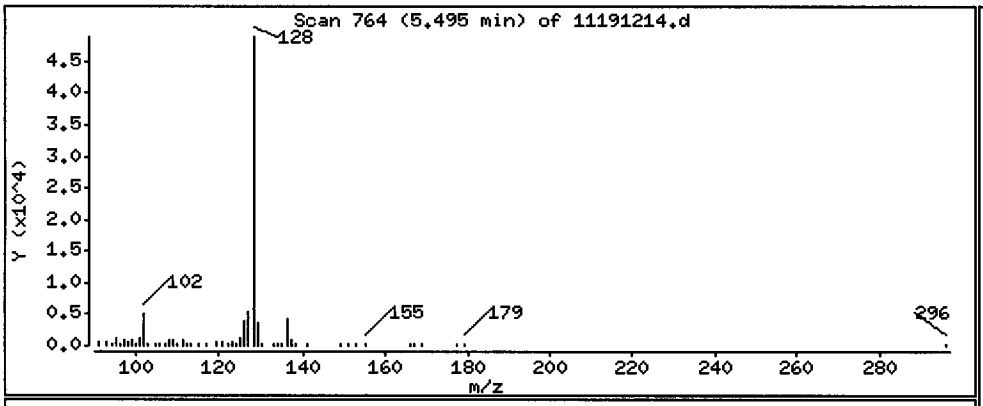
Operator: JZ

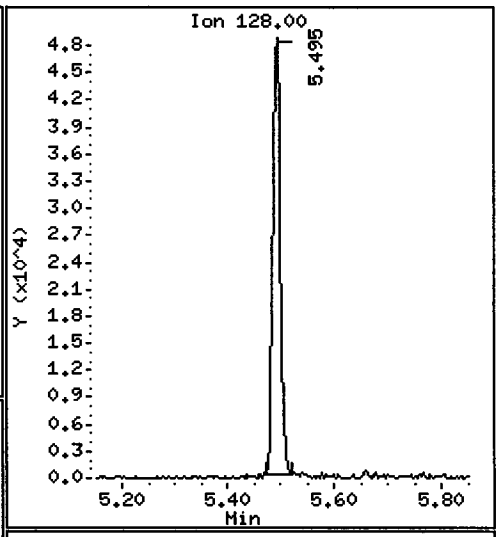
Column phase: ZB-5msi

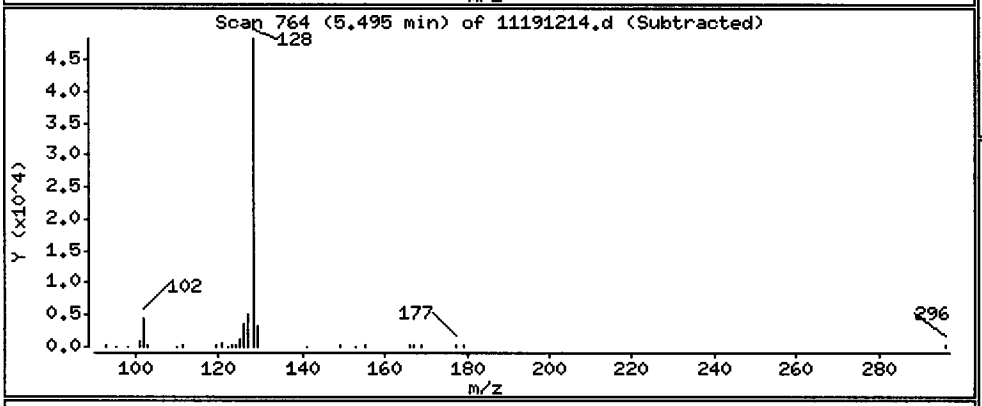
Column diameter: 0.25

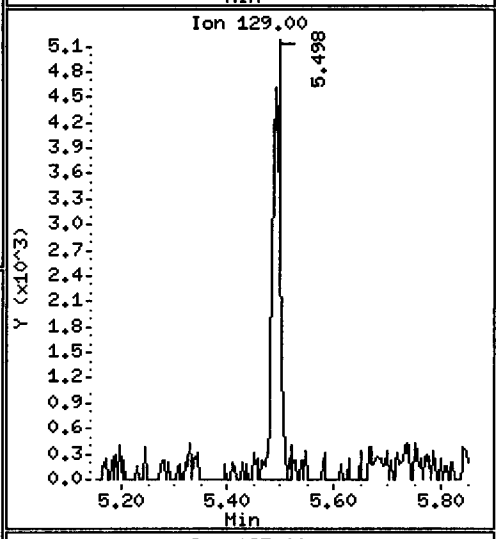
7 Naphthalene

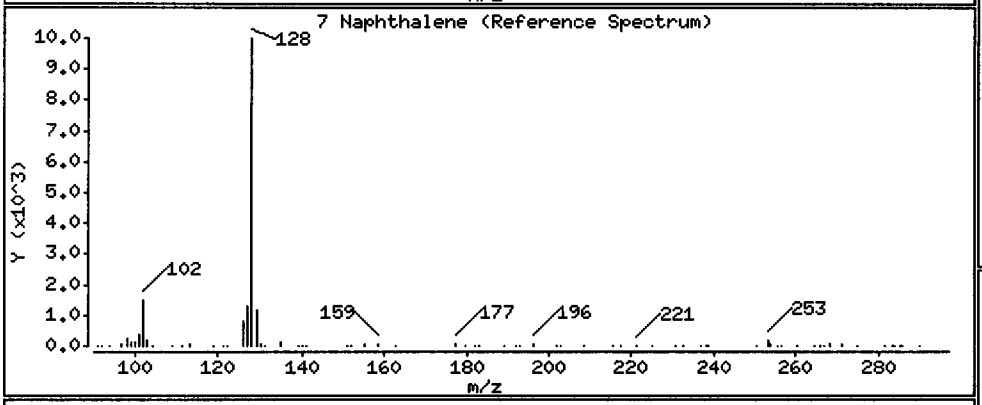
Concentration: 6.785 ug/kg

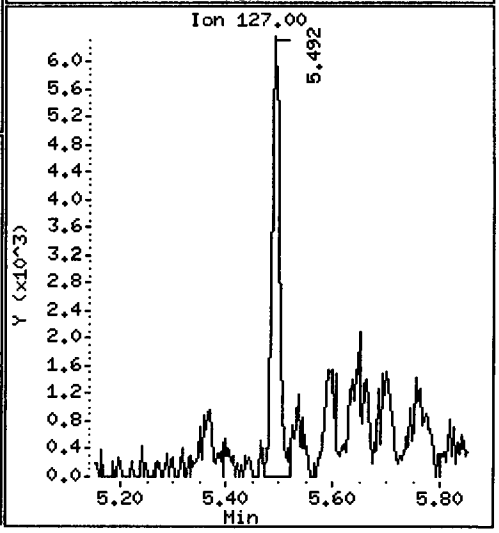


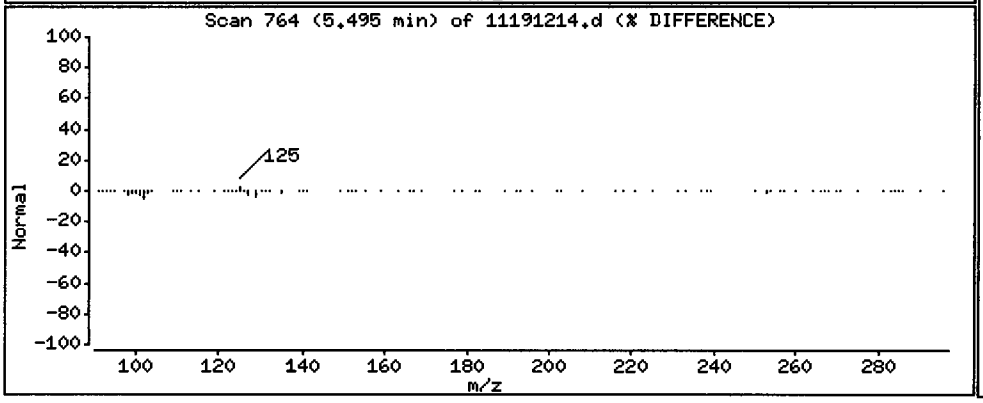












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

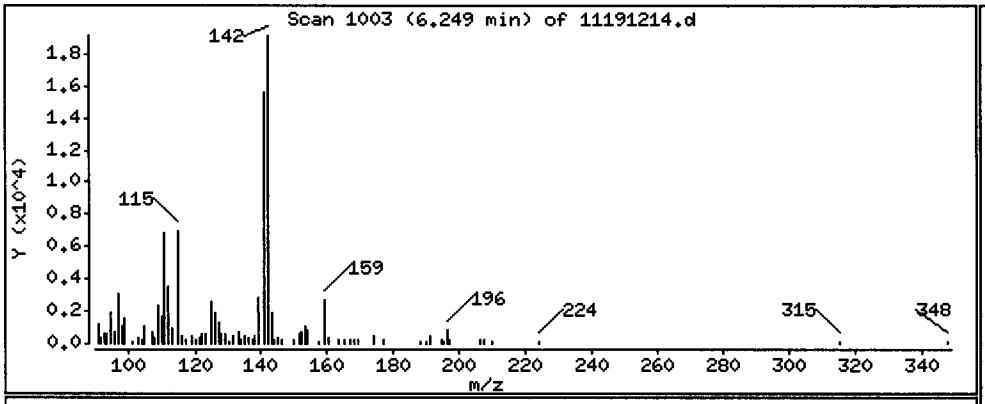
Operator: JZ

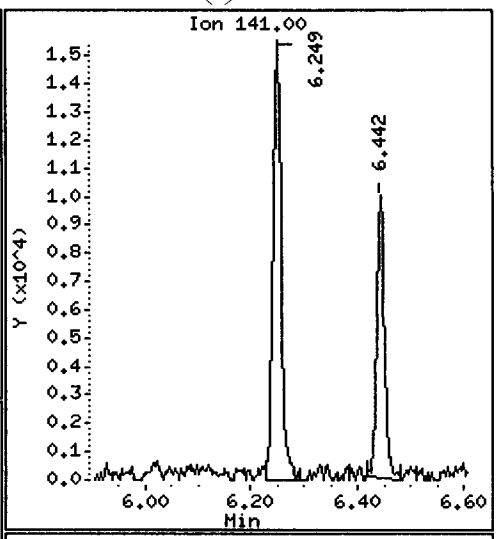
Column phase: ZB-5msi

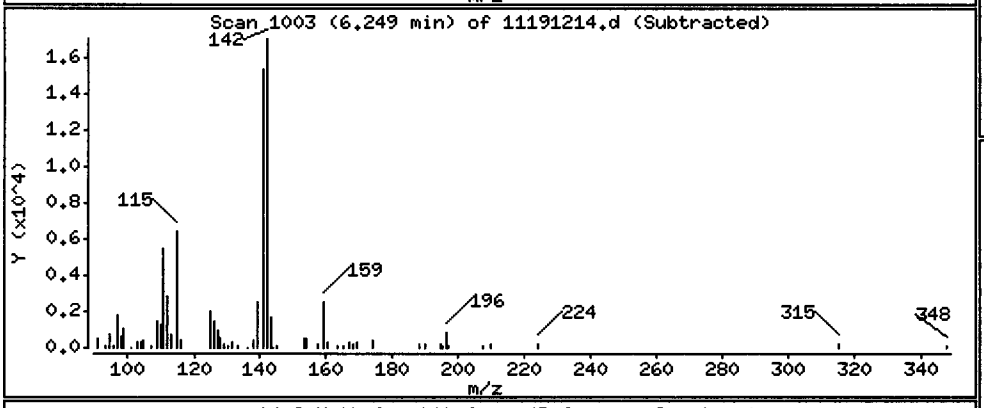
Column diameter: 0.25

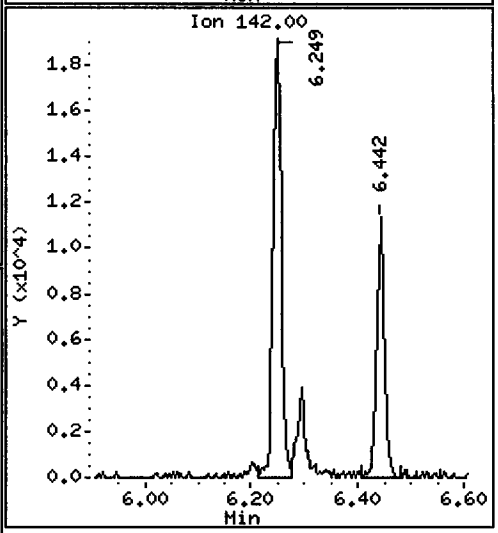
14 2-Methylnaphthalene

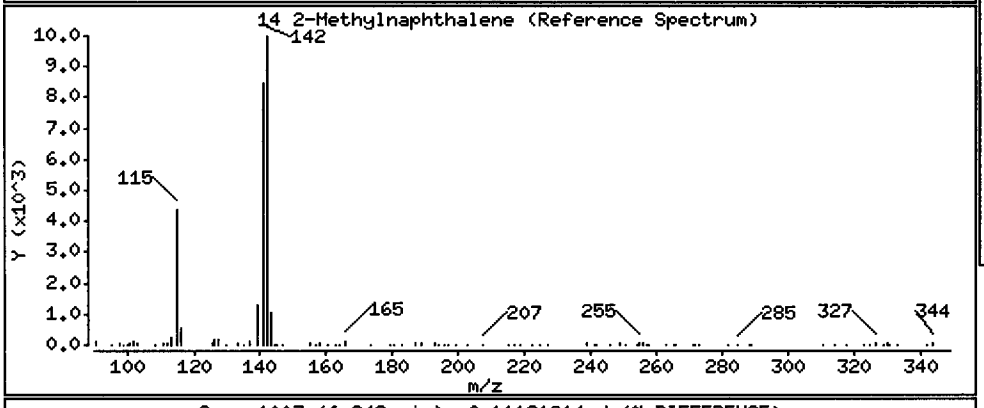
Concentration: 4.029 ug/kg

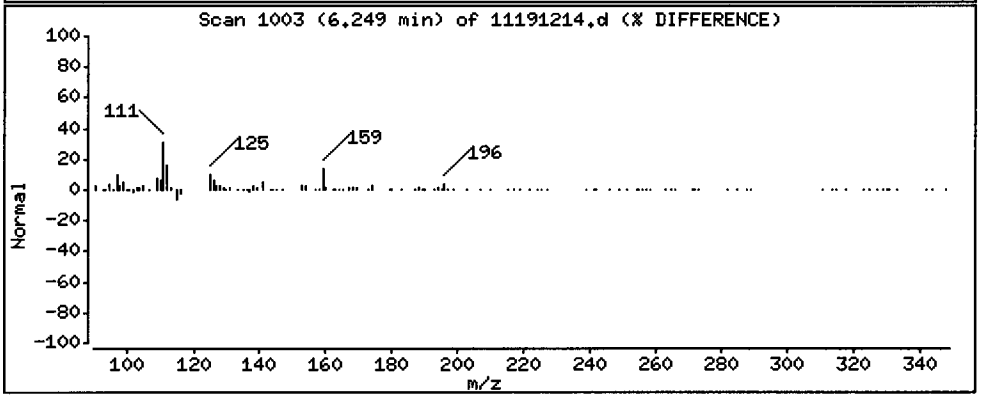












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

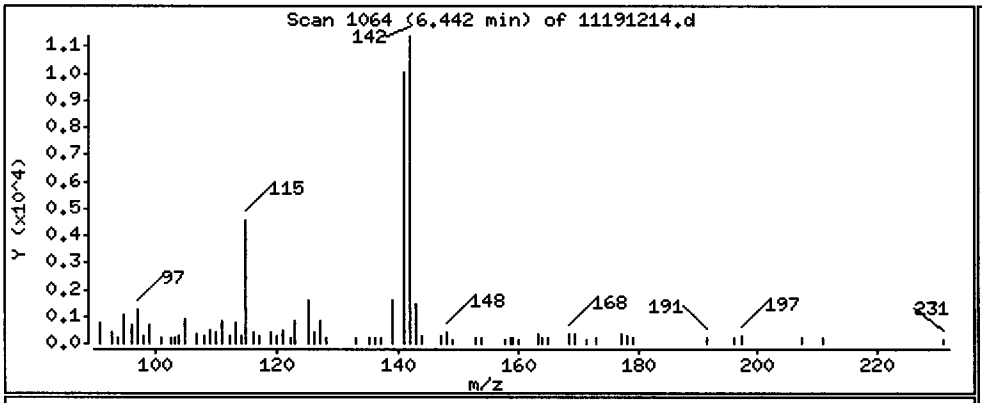
Operator: JZ

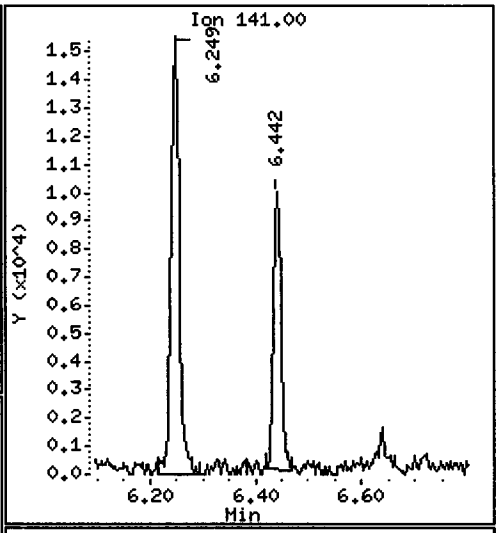
Column phase: ZB-5msi

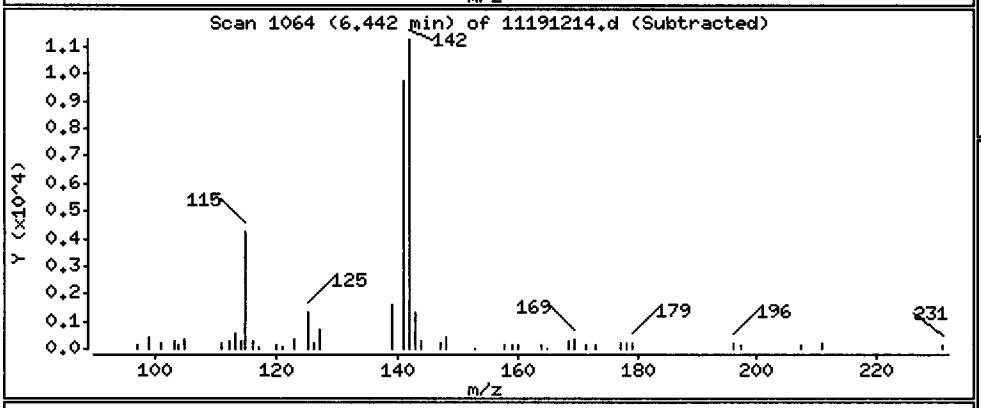
Column diameter: 0.25

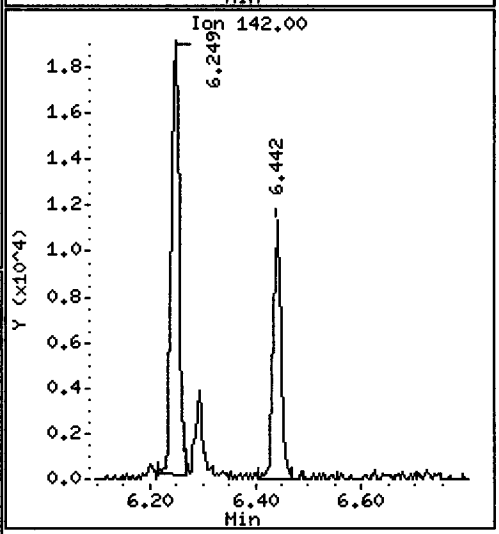
15 1-methylnaphthalene

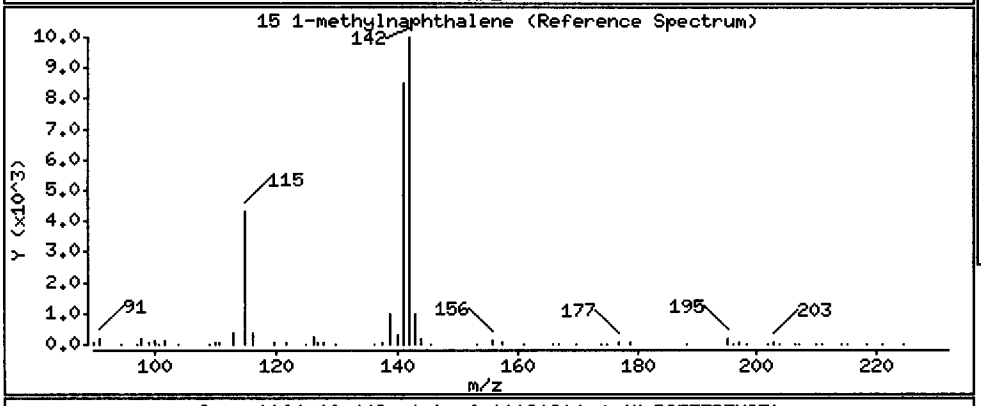
Concentration: 2.497 ug/kg

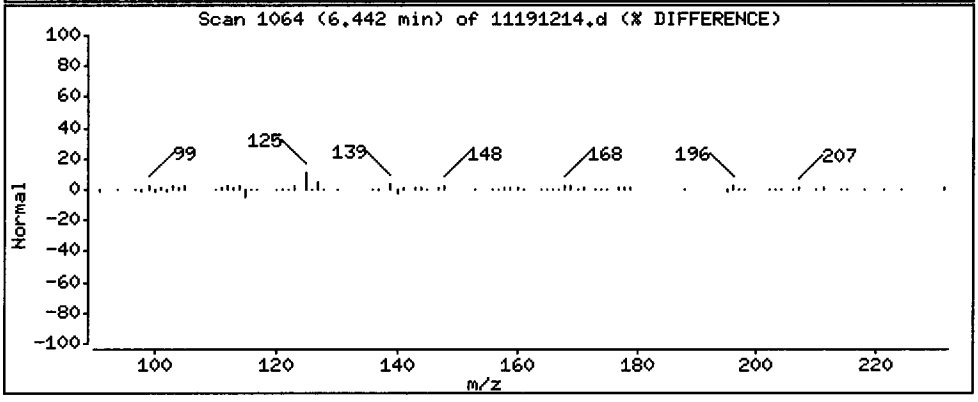












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

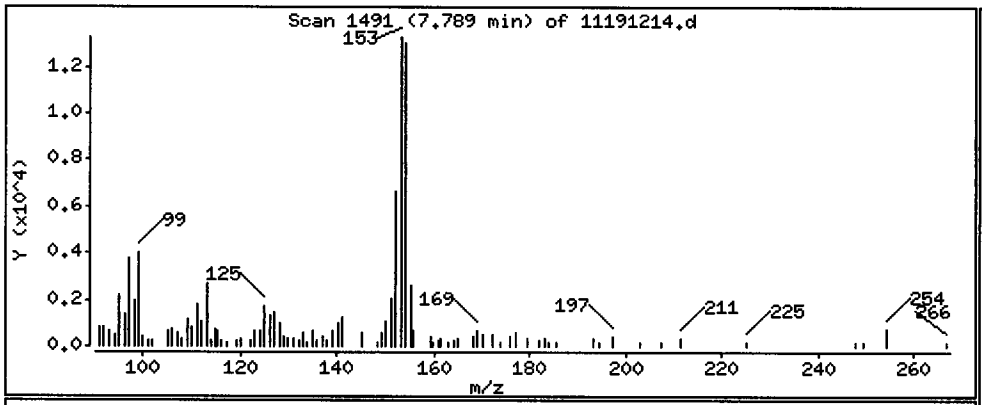
Operator: JZ

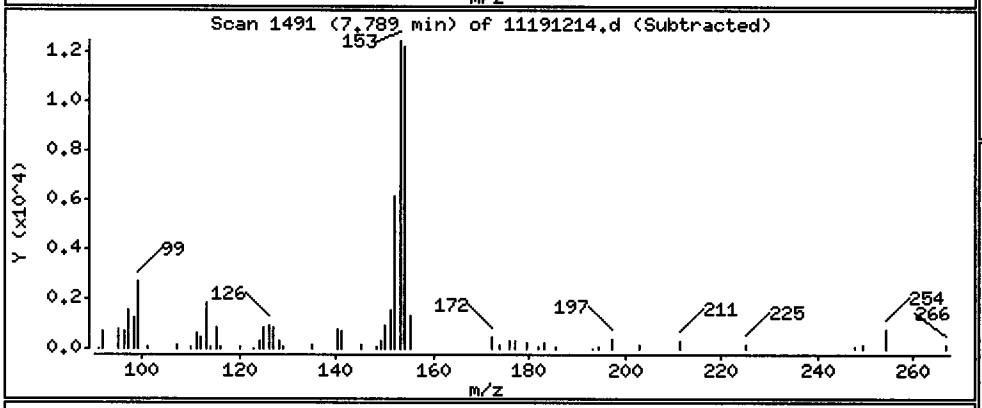
Column phase: ZB-5msi

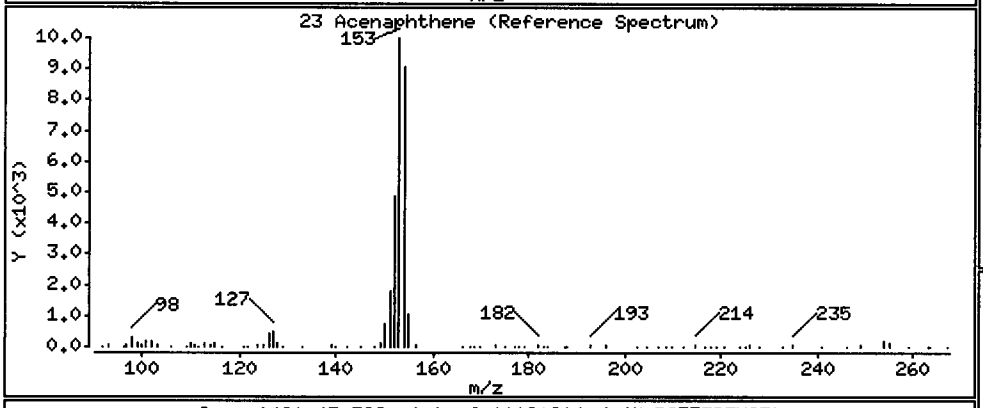
Column diameter: 0.25

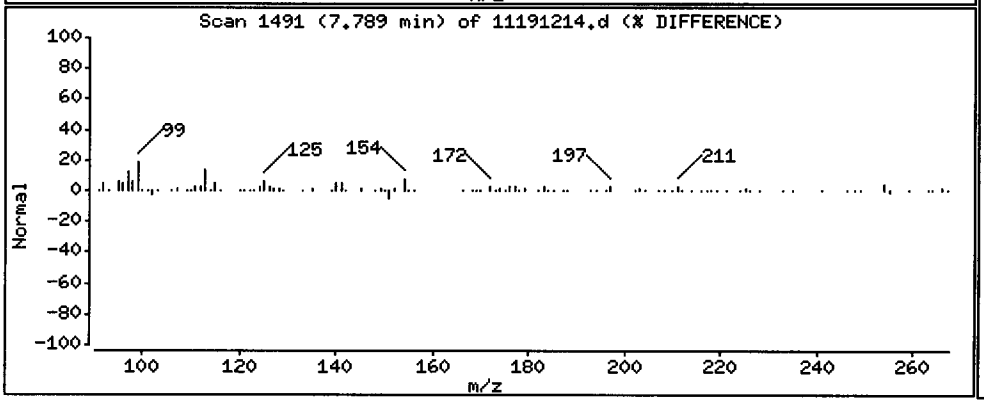
23 Acenaphthene

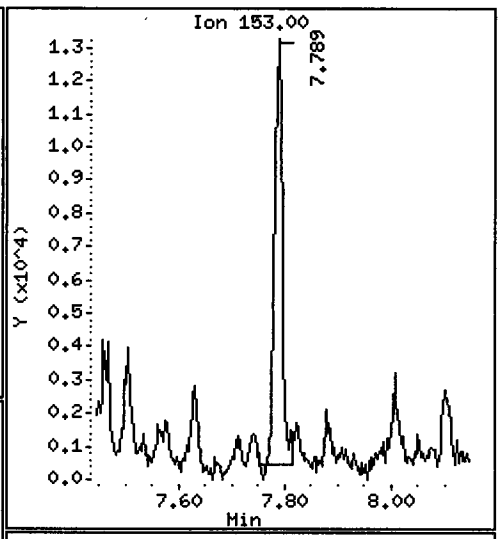
Concentration: 3.077 ug/kg

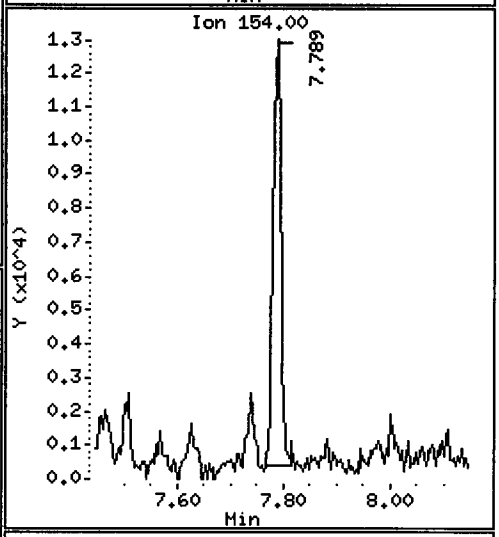


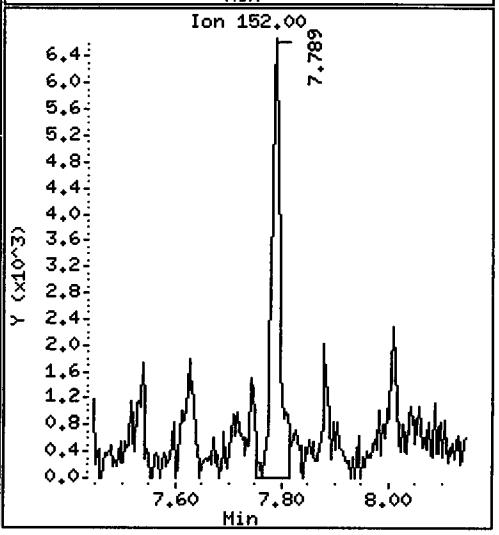












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

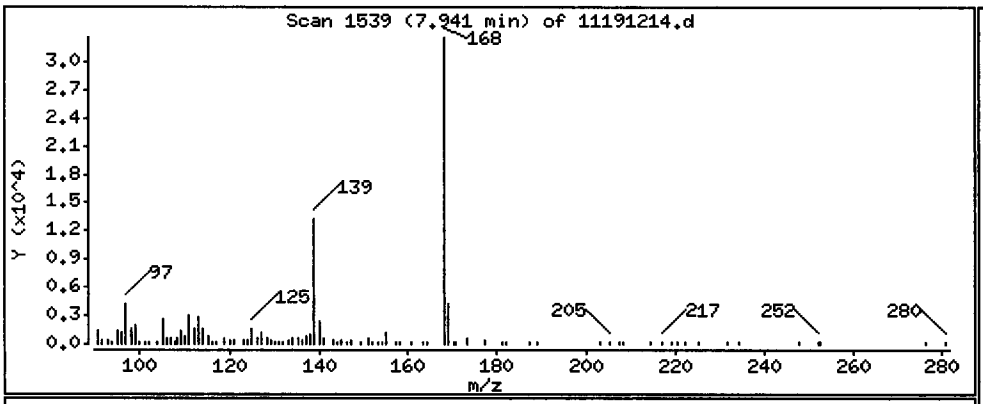
Operator: JZ

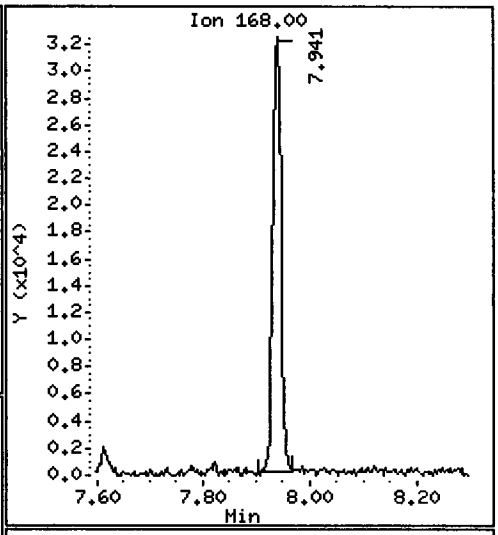
Column phase: ZB-5msi

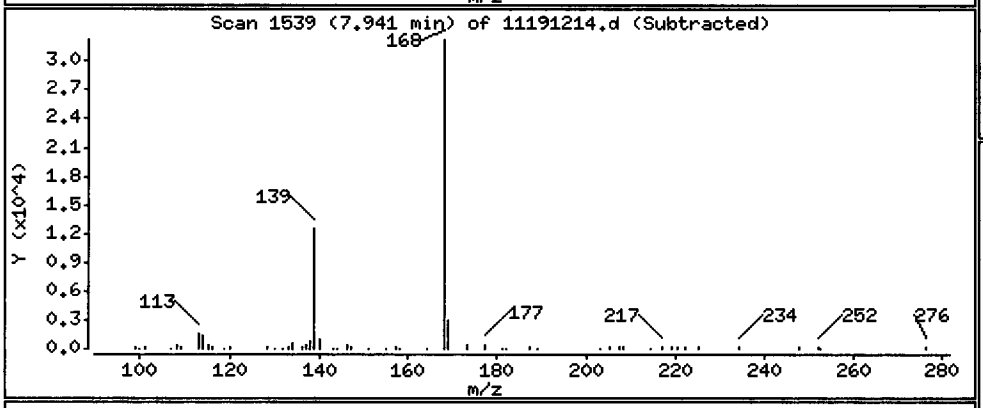
Column diameter: 0.25

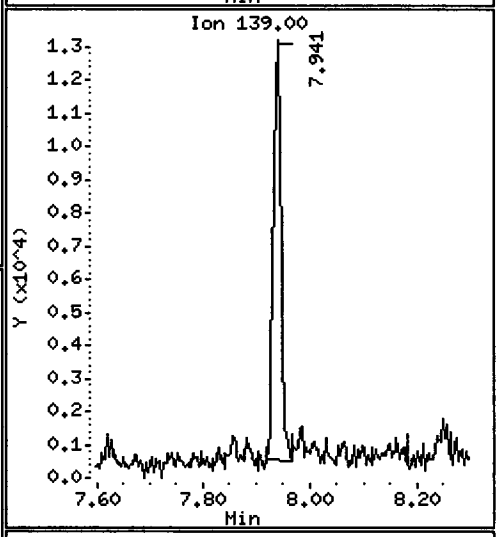
11 Dibenzofuran

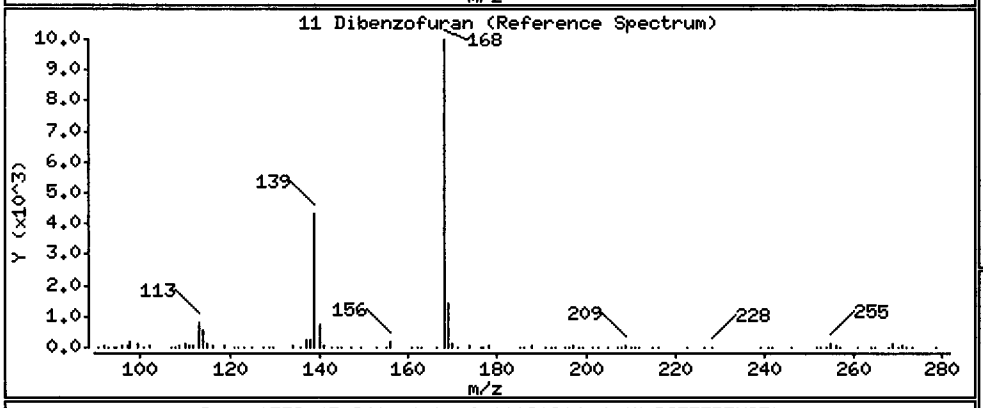
Concentration: 5.512 ug/kg

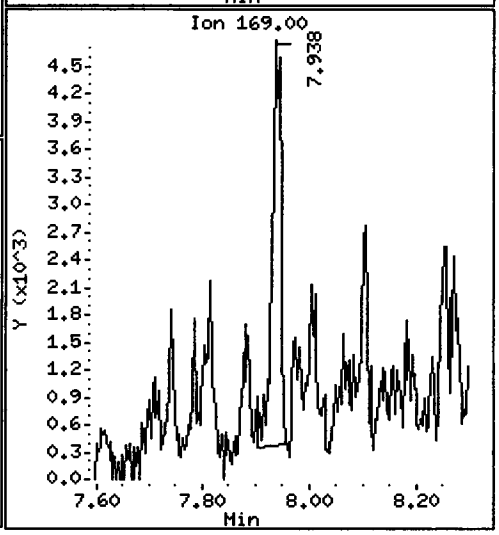


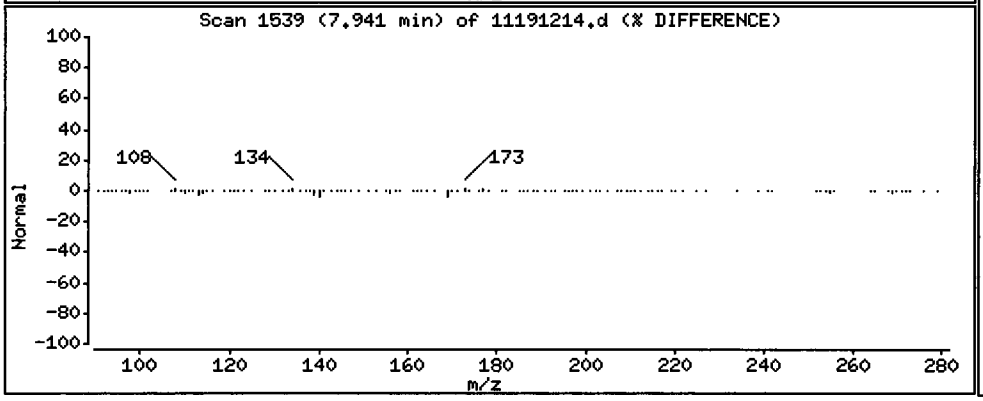












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

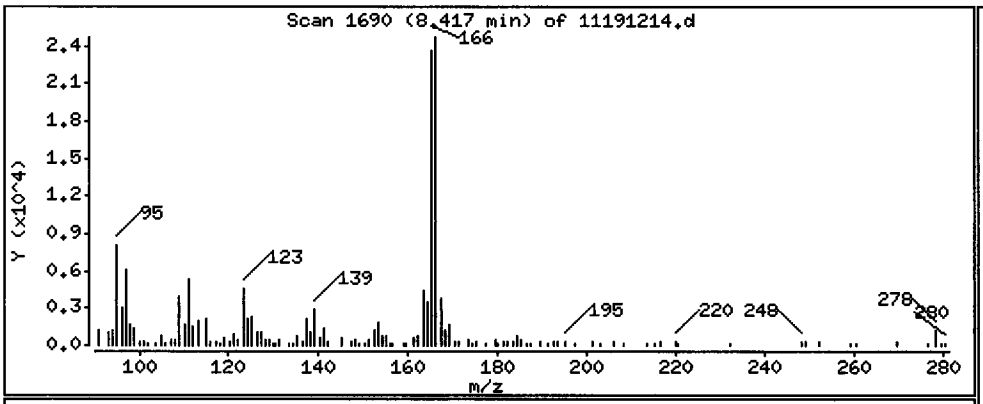
Operator: JZ

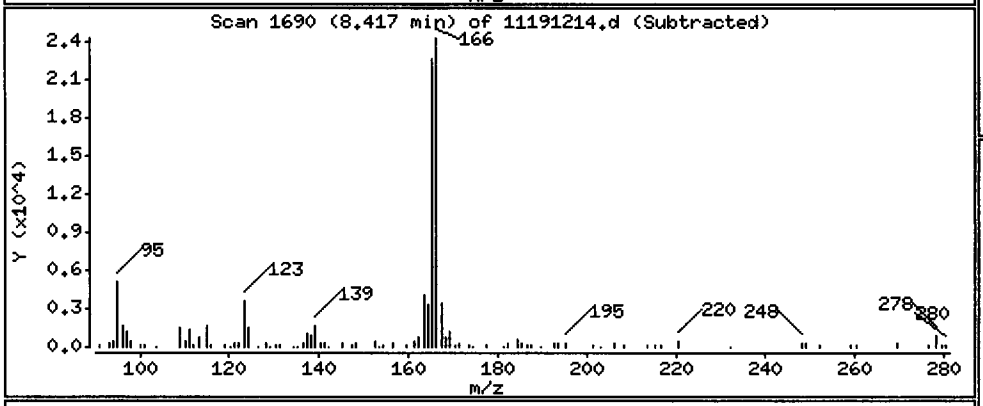
Column phase: ZB-5msi

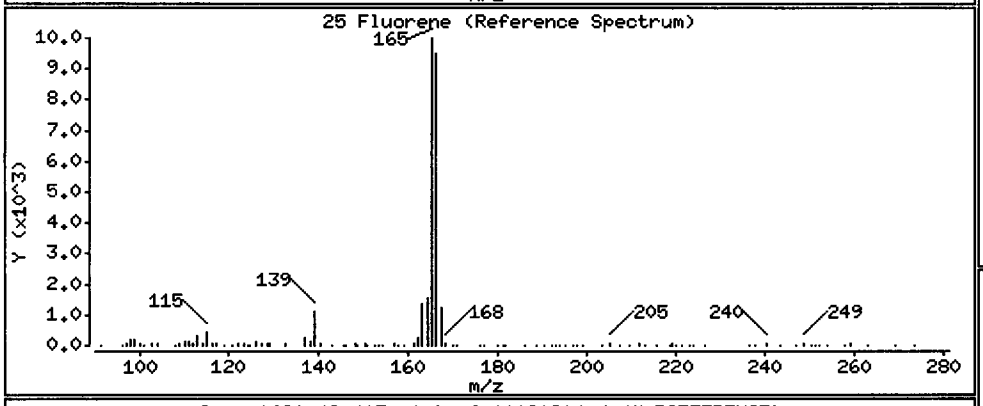
Column diameter: 0.25

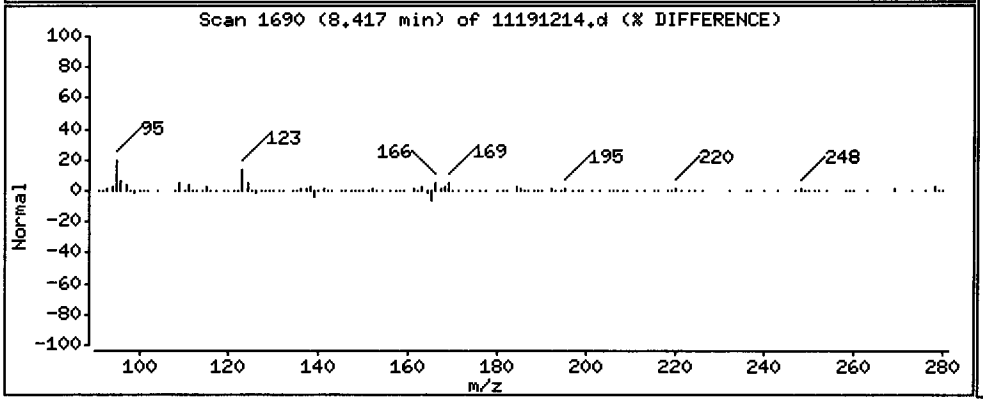
25 Fluorene

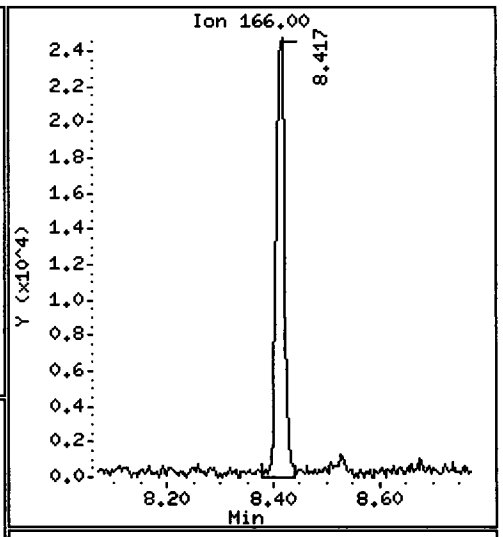
Concentration: 5.857 ug/kg

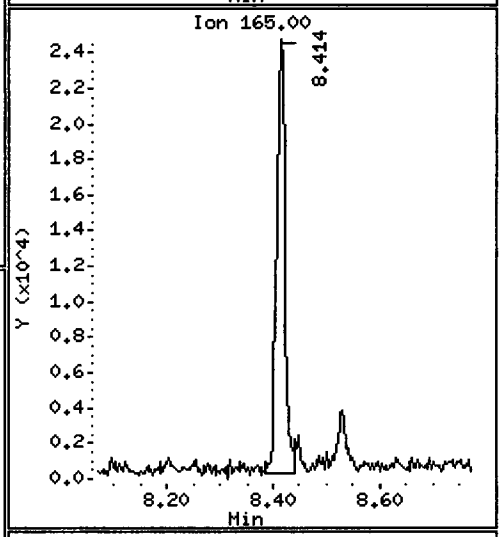


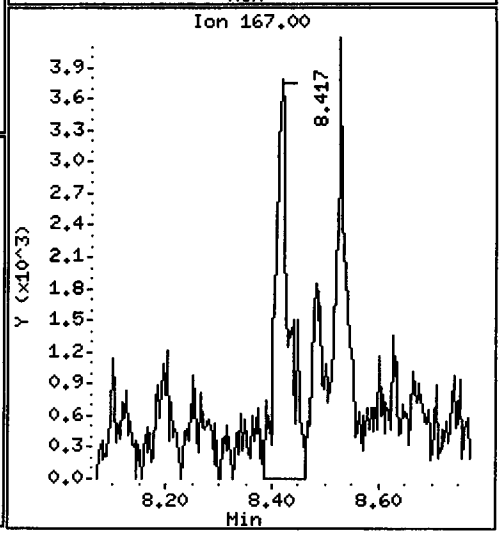












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

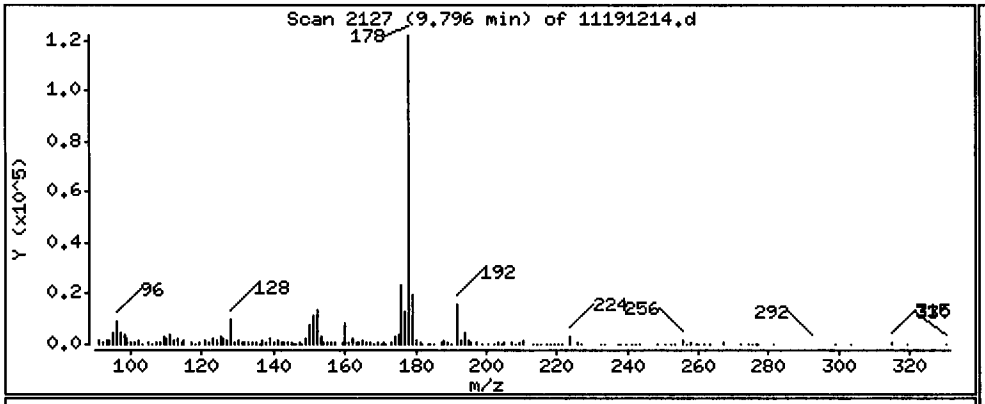
Operator: JZ

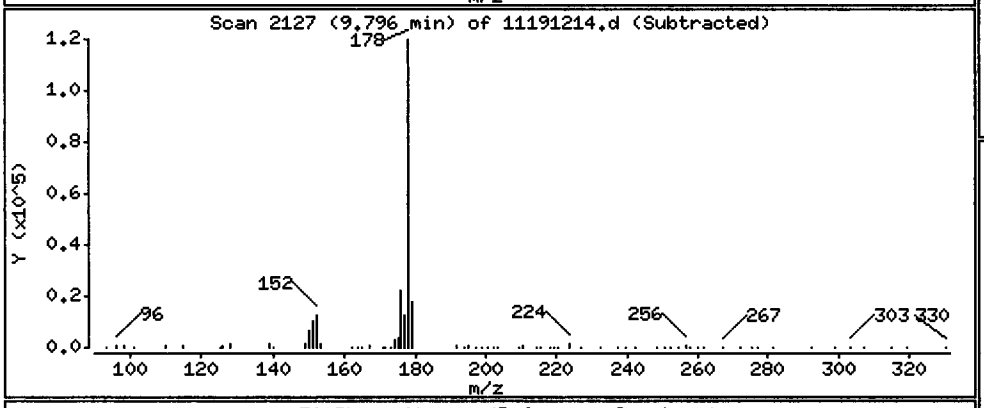
Column phase: ZB-5msi

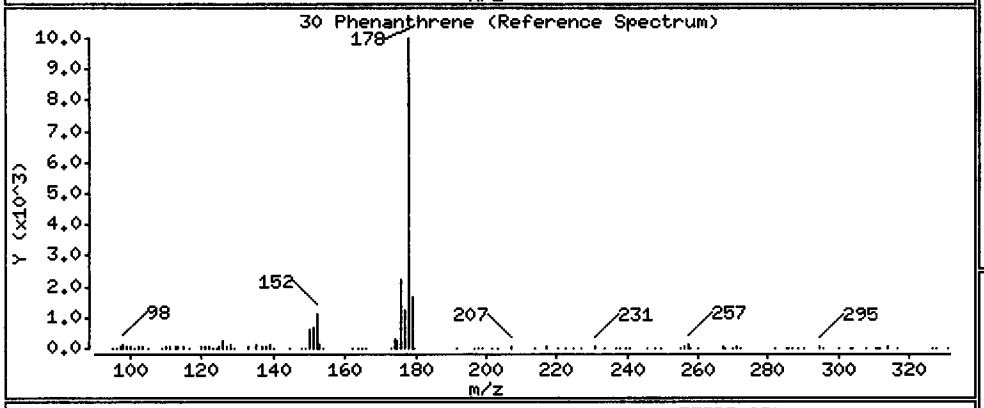
Column diameter: 0.25

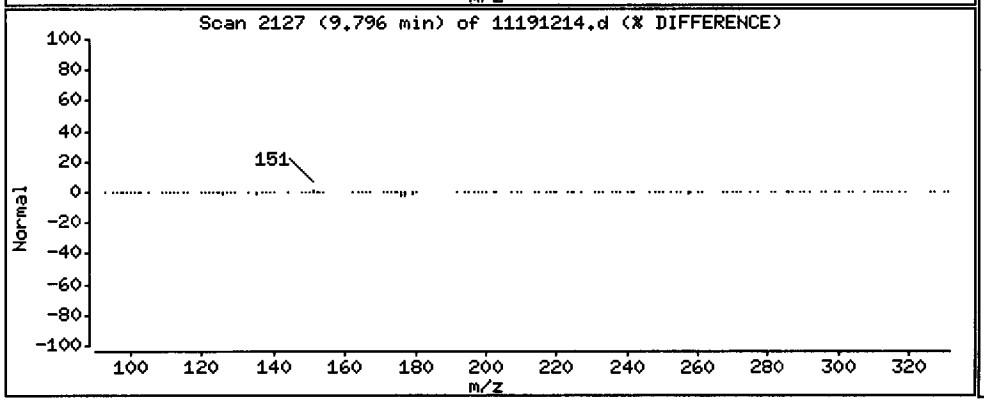
30 Phenanthrene

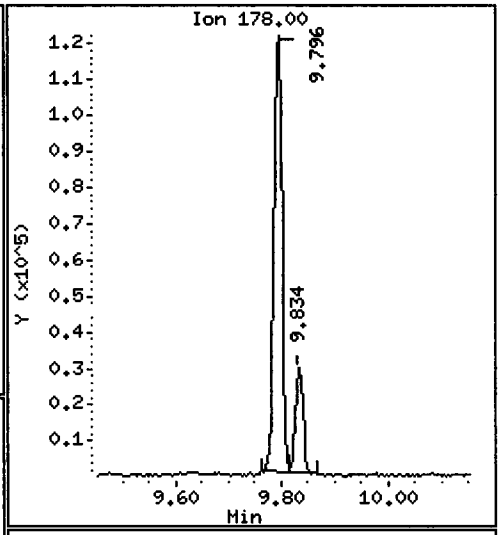
Concentration: 19.58 ug/kg

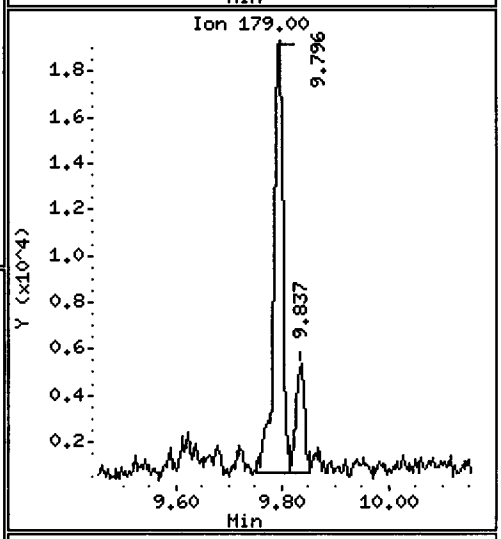


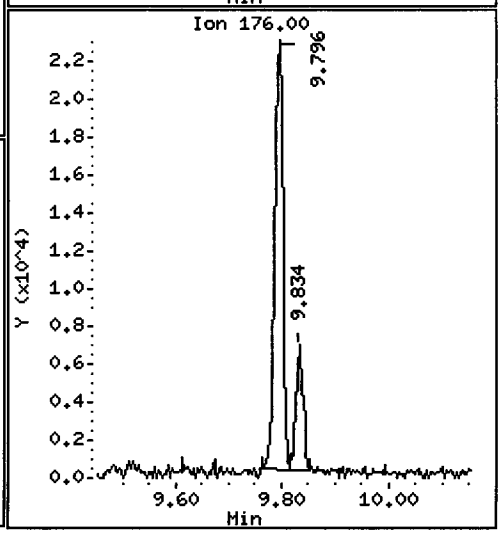












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

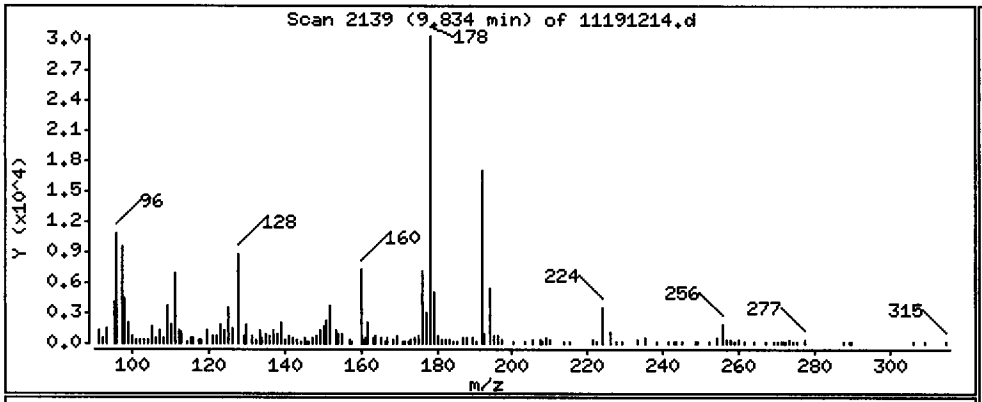
Operator: JZ

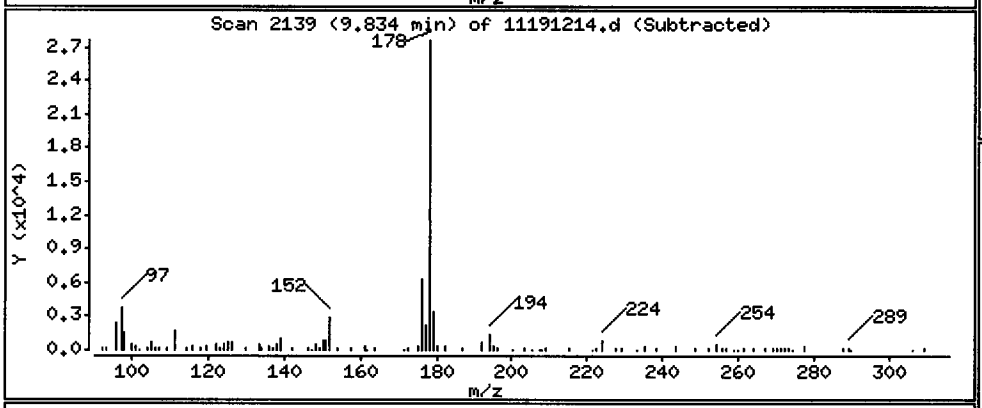
Column phase: ZB-5msi

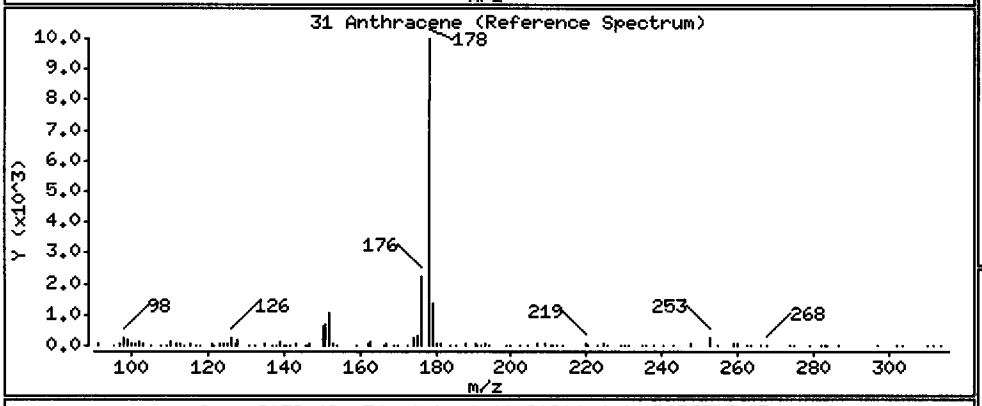
Column diameter: 0.25

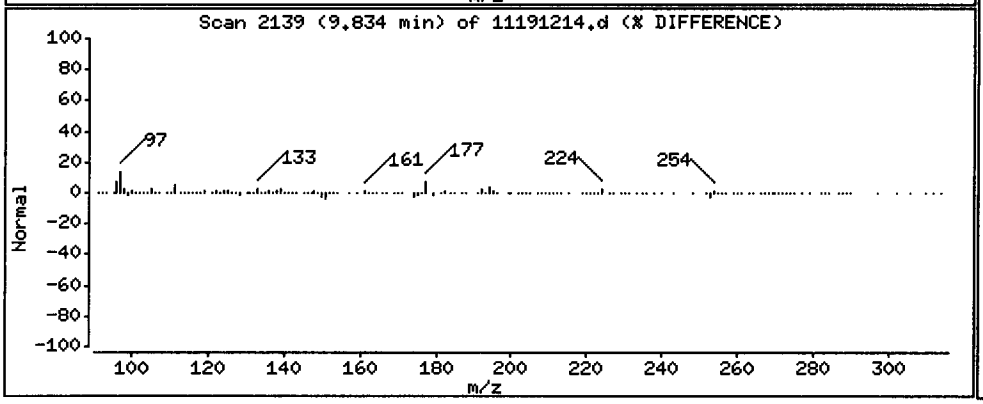
31 Anthracene

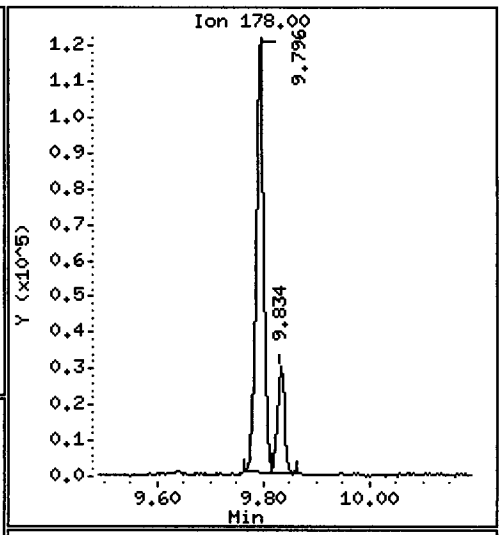
Concentration: 4.586 ug/kg

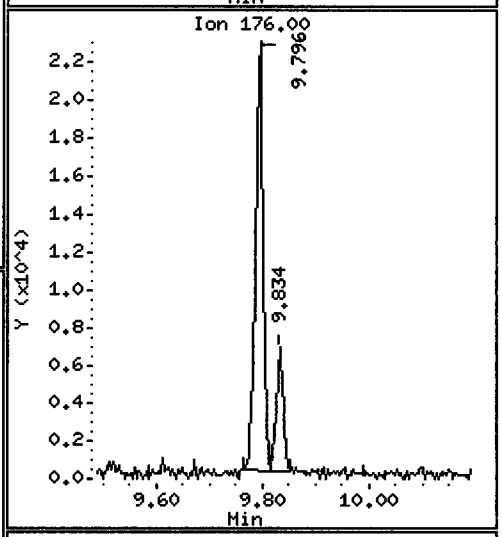


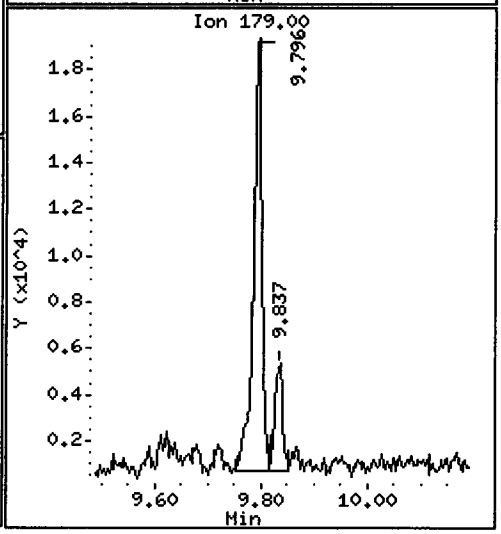












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

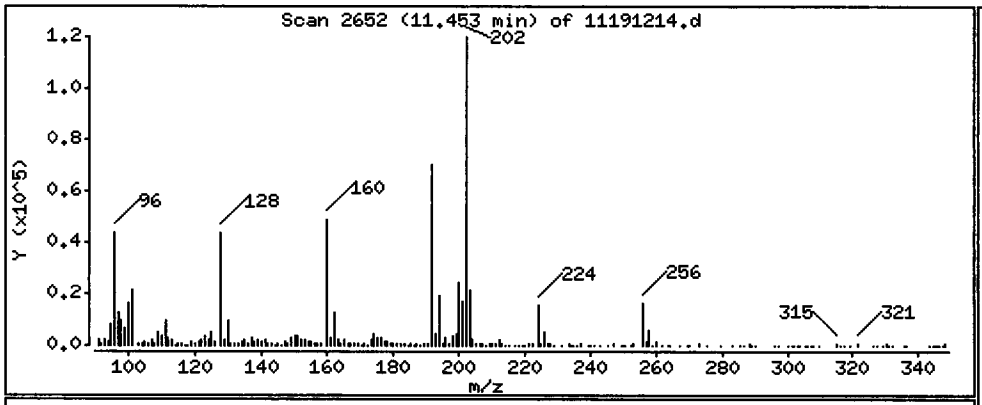
Operator: JZ

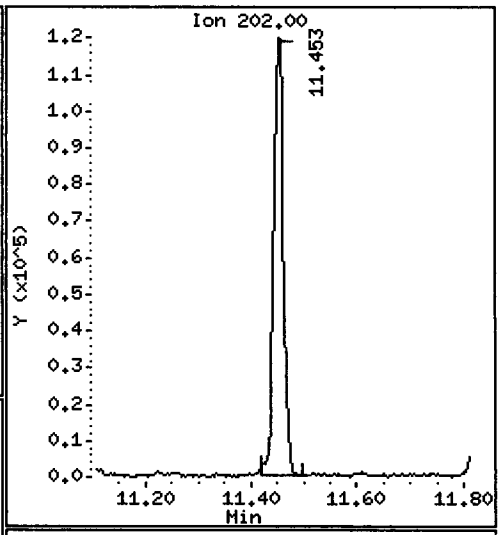
Column phase: ZB-5msi

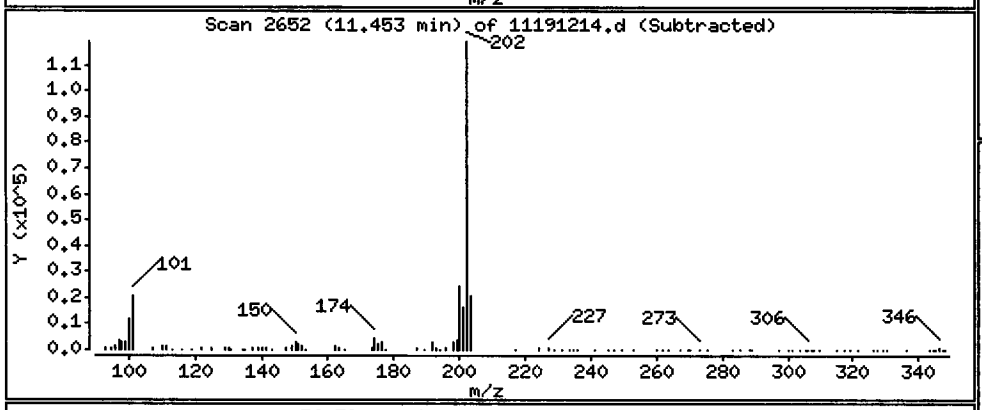
Column diameter: 0.25

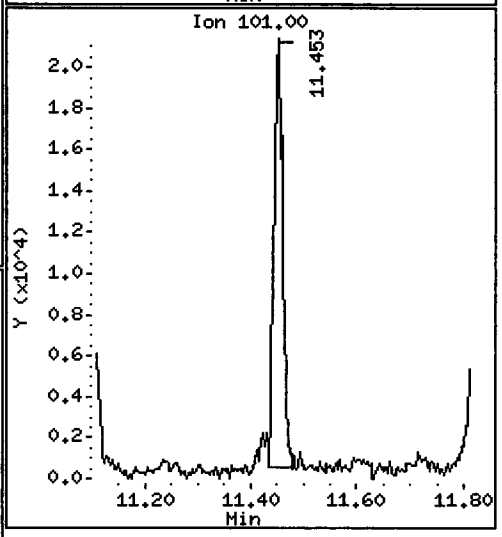
36 Fluoranthene

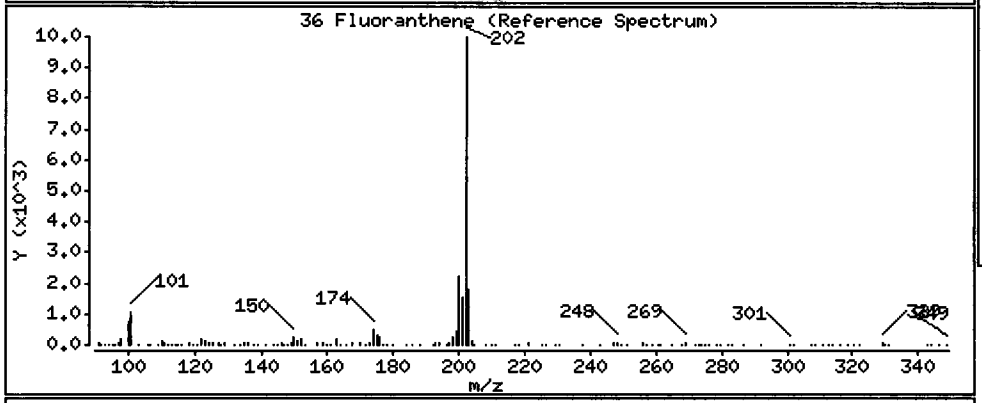
Concentration: 24.30 ug/kg

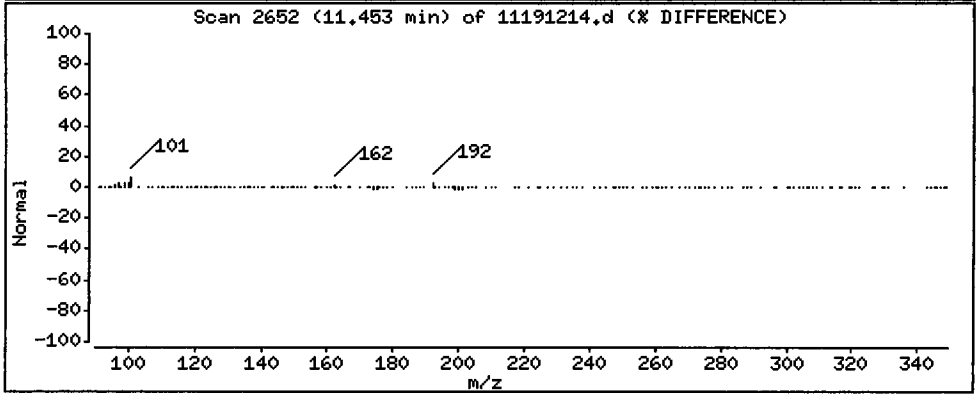












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

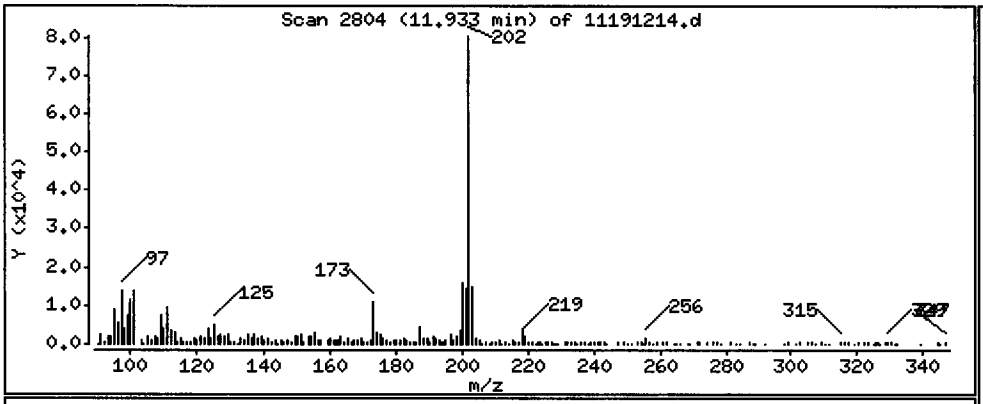
Operator: JZ

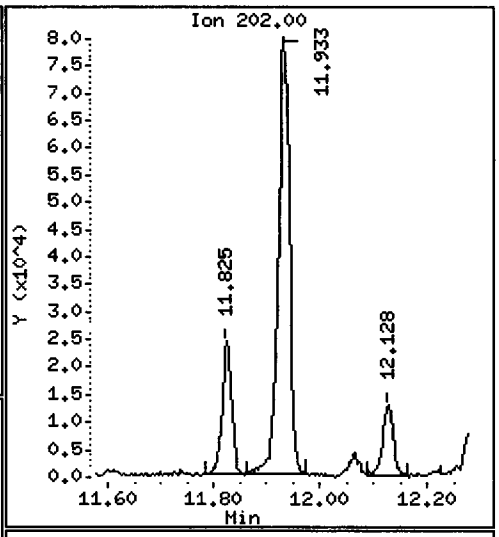
Column phase: ZB-5msi

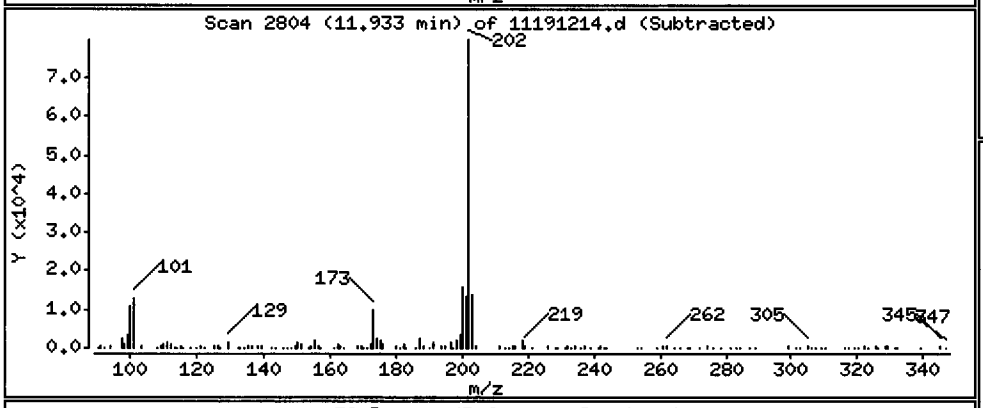
Column diameter: 0.25

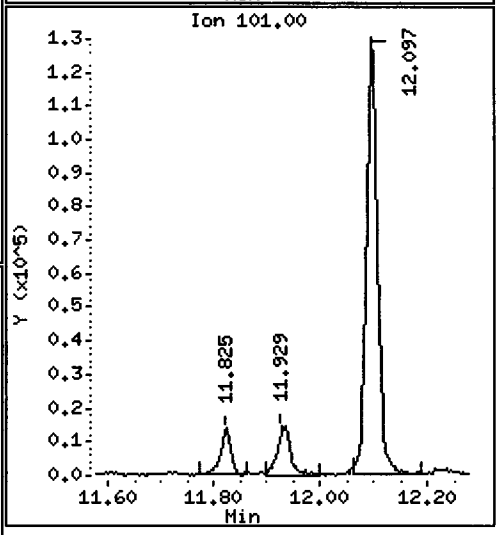
39 Pyrene

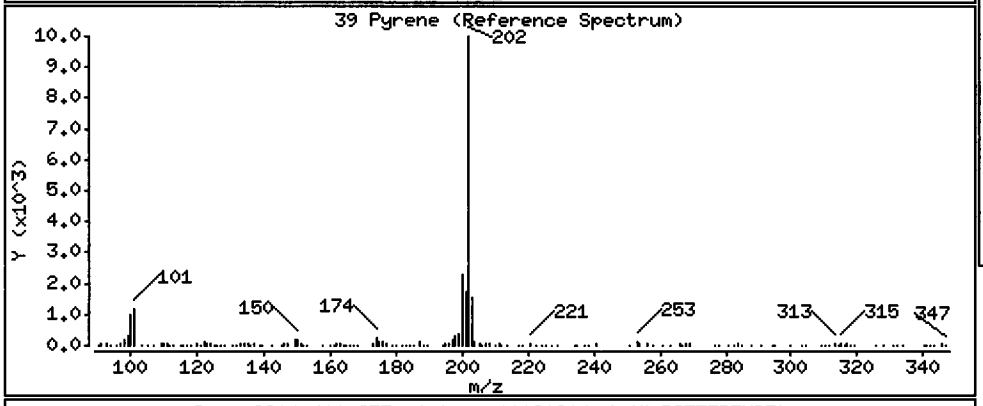
Concentration: 18.63 ug/kg

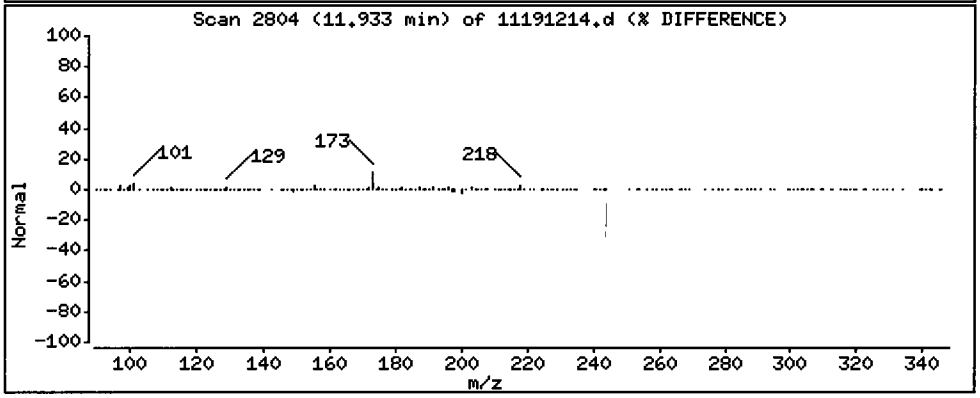












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

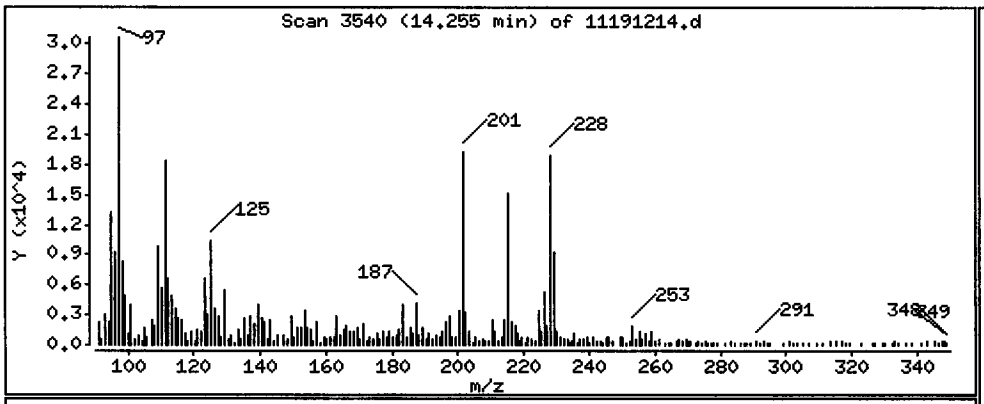
Client ID: HT-02-S-C-121106 Instrument: nt11.i

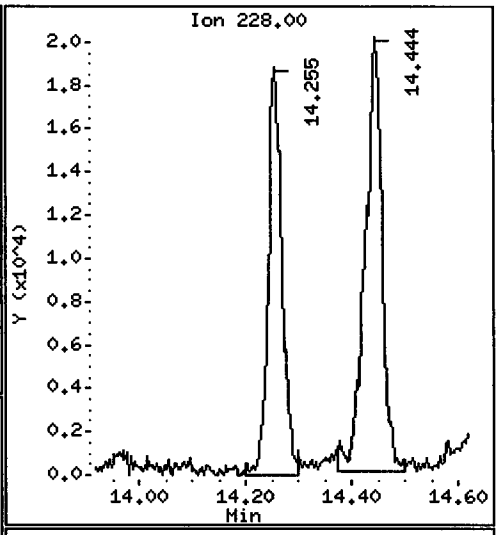
Sample Info: VR38B

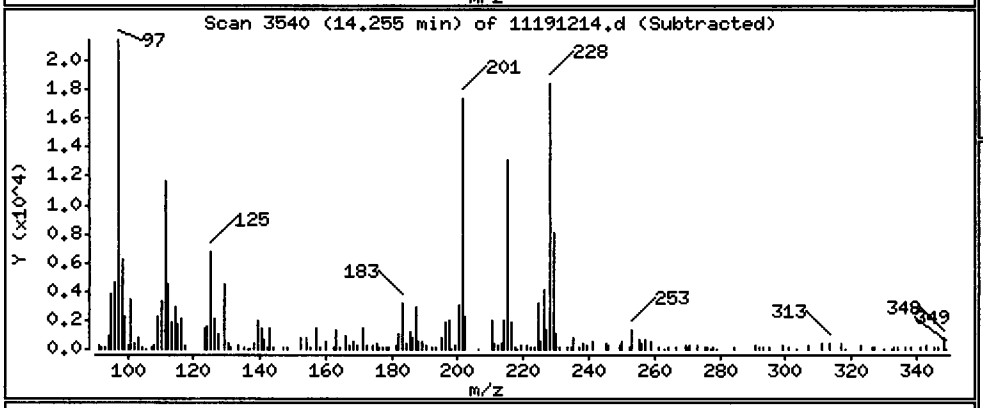
Volume Injected (uL): 1.0 Operator: JZ

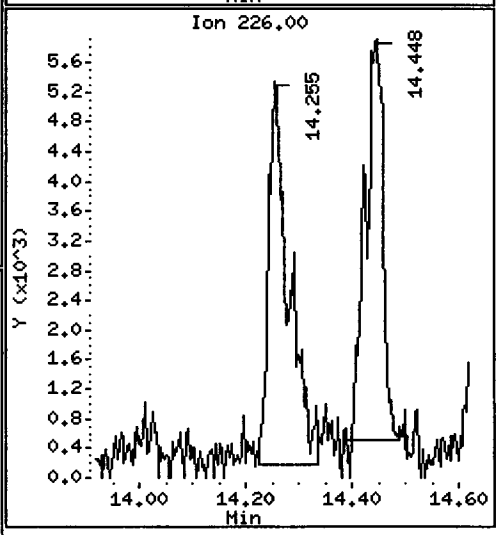
Column phase: ZB-5msi Column diameter: 0.25

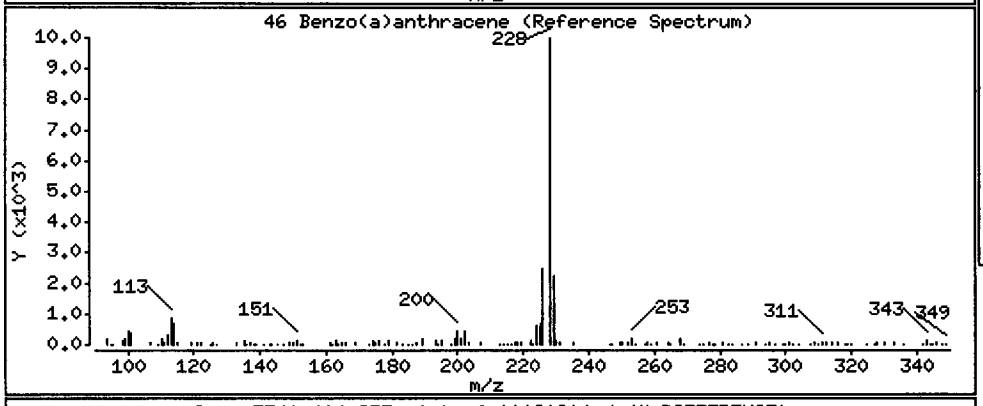
46 Benzo(a)anthracene Concentration: 6.058 ug/kg

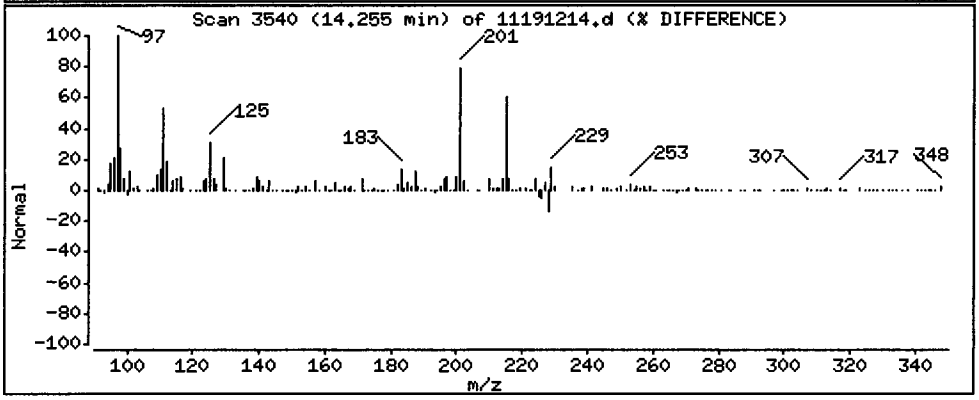












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

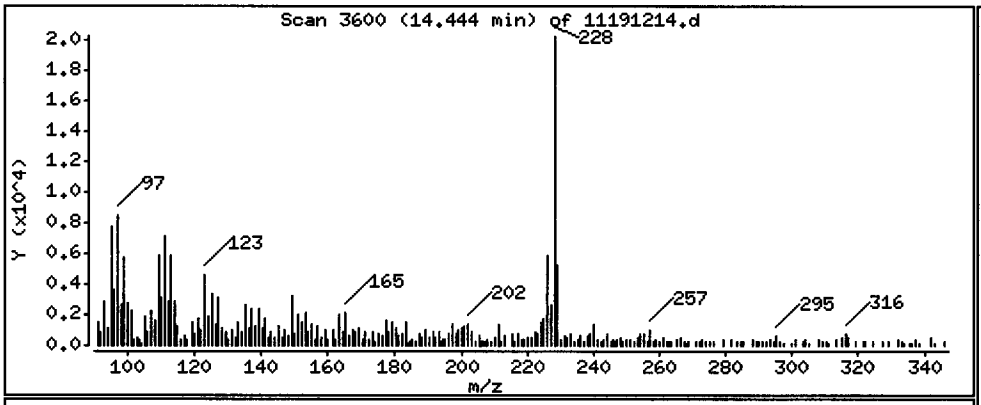
Operator: JZ

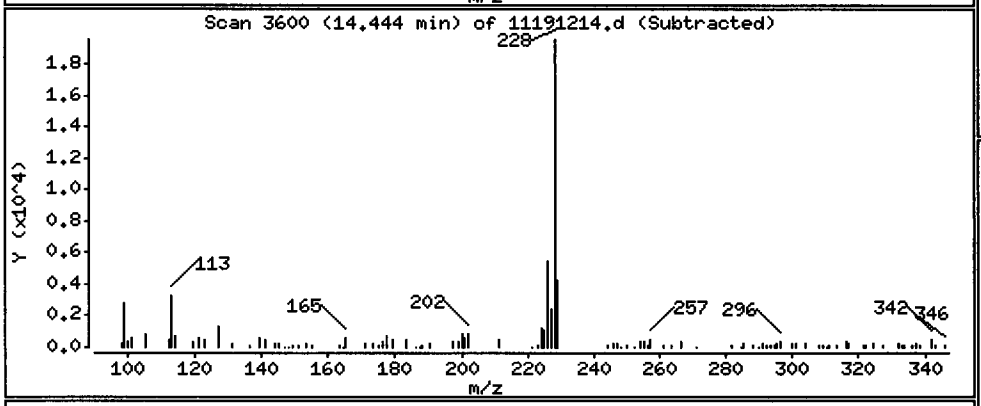
Column phase: ZB-5msi

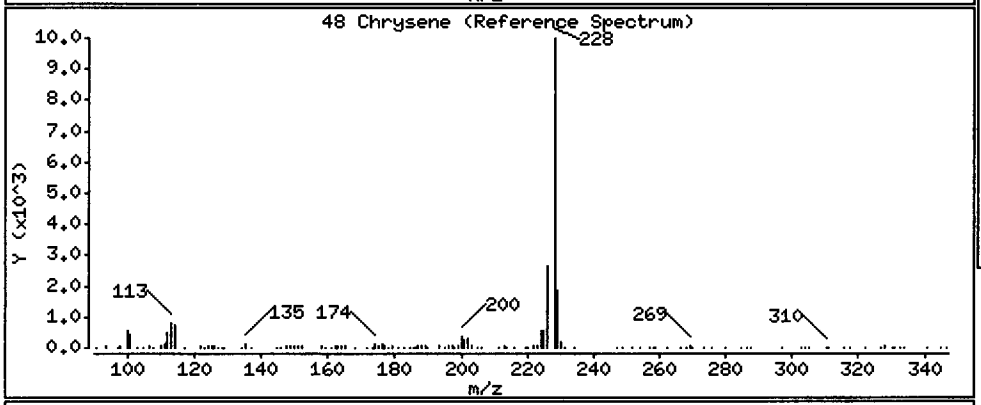
Column diameter: 0.25

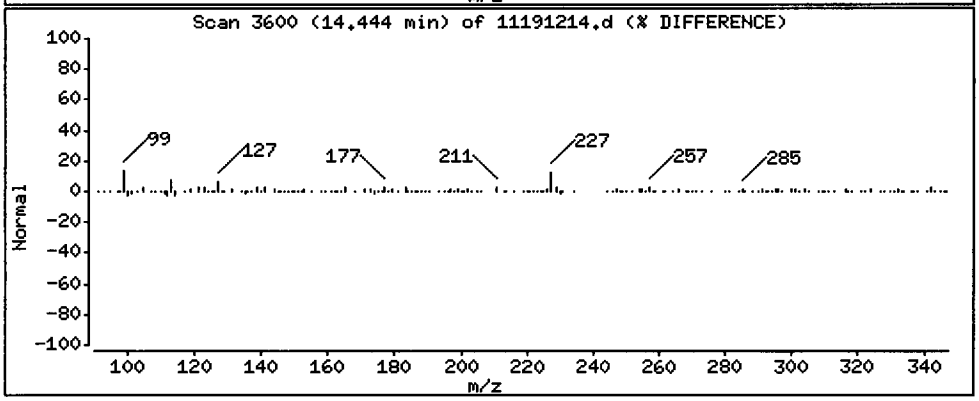
48 Chrysene

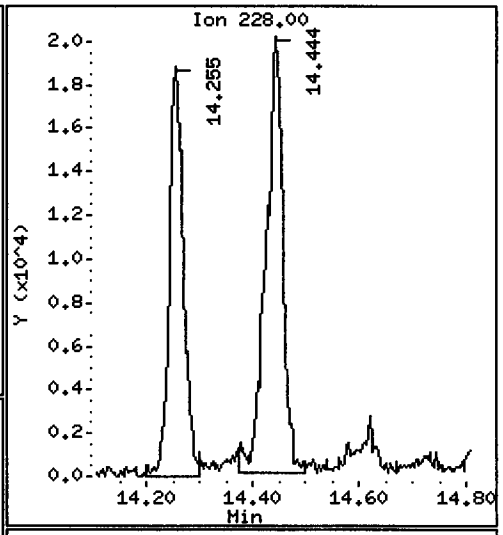
Concentration: 8.004 ug/kg

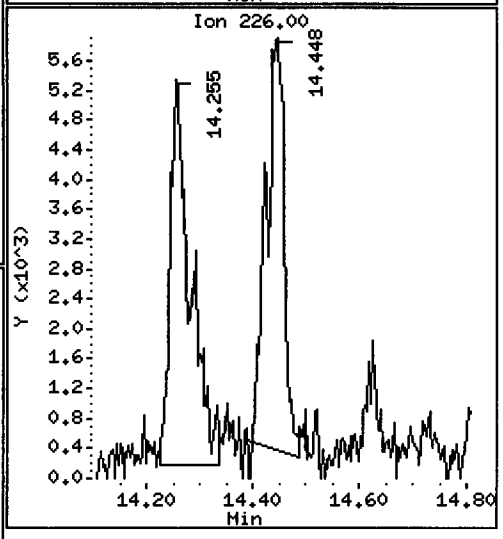












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

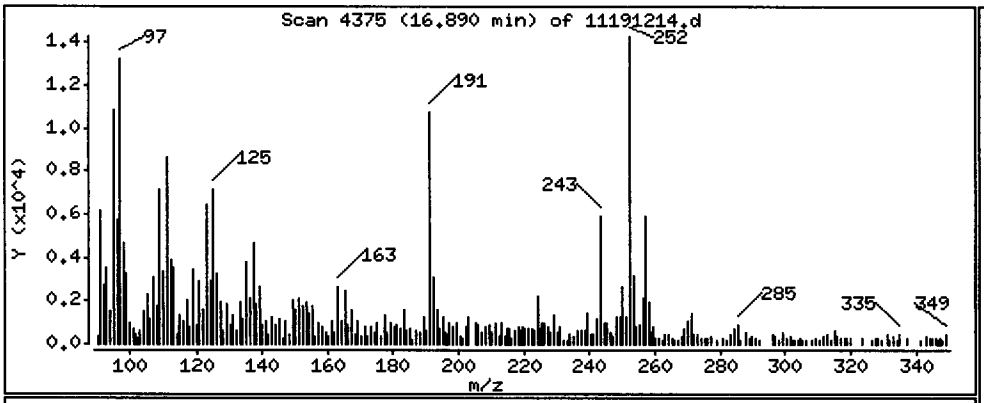
Operator: JZ

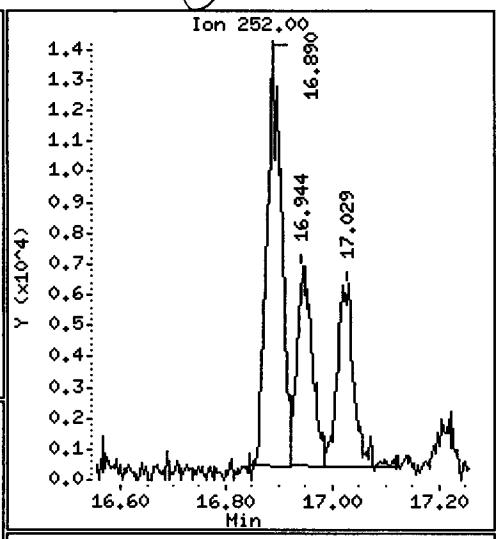
Column phase: ZB-5msi

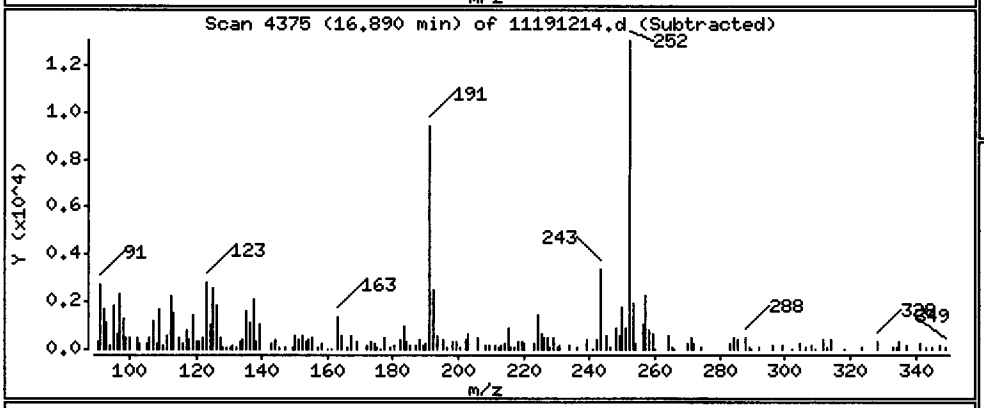
Column diameter: 0.25

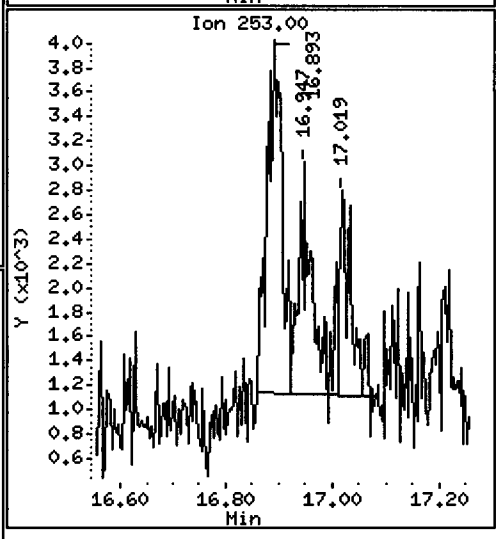
51 Benzo(b)fluoranthene

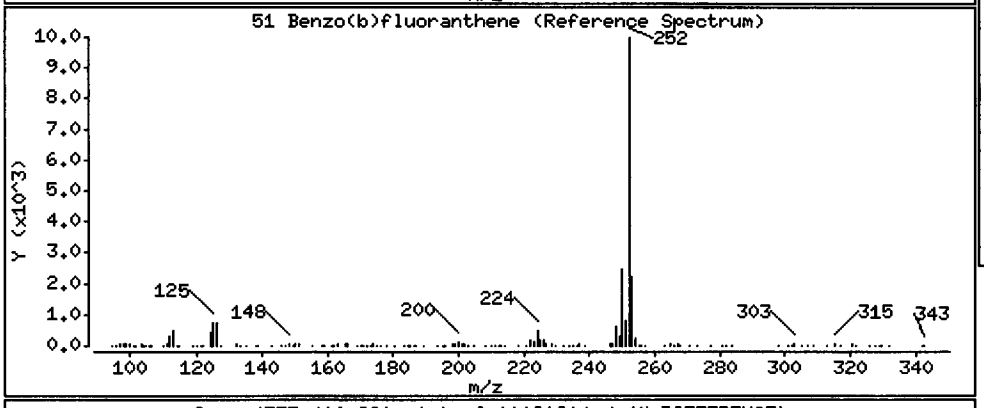
Concentration: 4.623 ug/kg

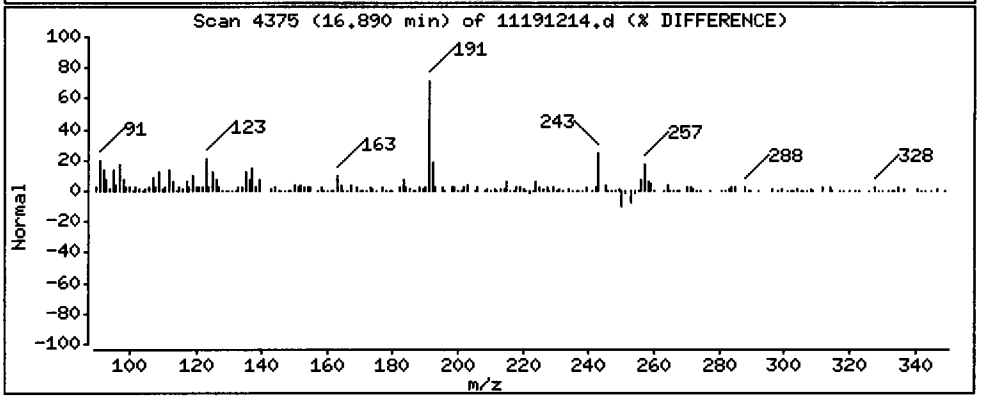






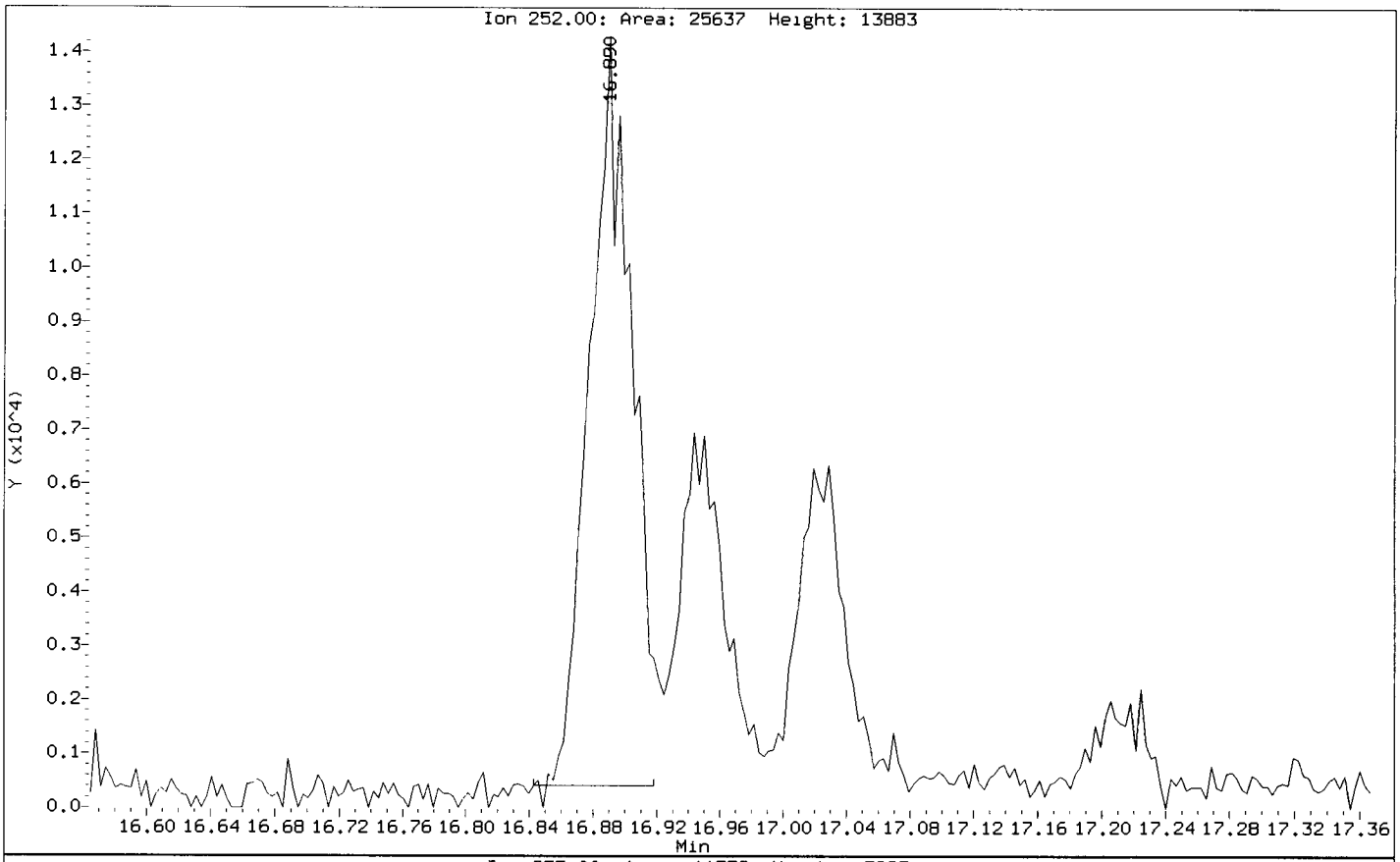


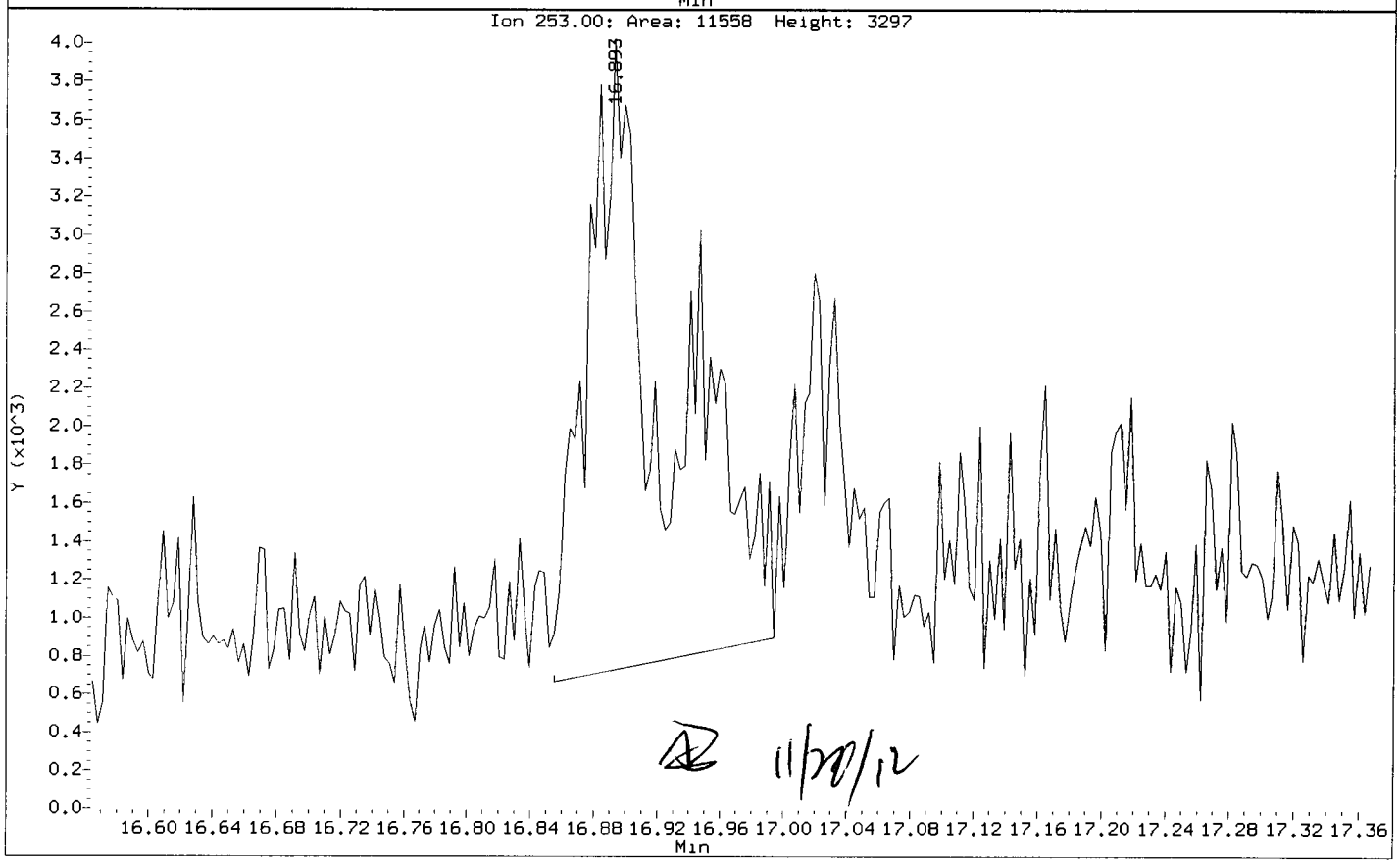




Data File: /chem3/nt11.i/20121119.b/11191214.d
Injection Date: 19-NOV-2012 18:26
Instrument: nt11.i
Client Sample ID: HT-02-S-C-121106

Compound: Benzo(k)fluoranthene
CAS Number: 207-08-9

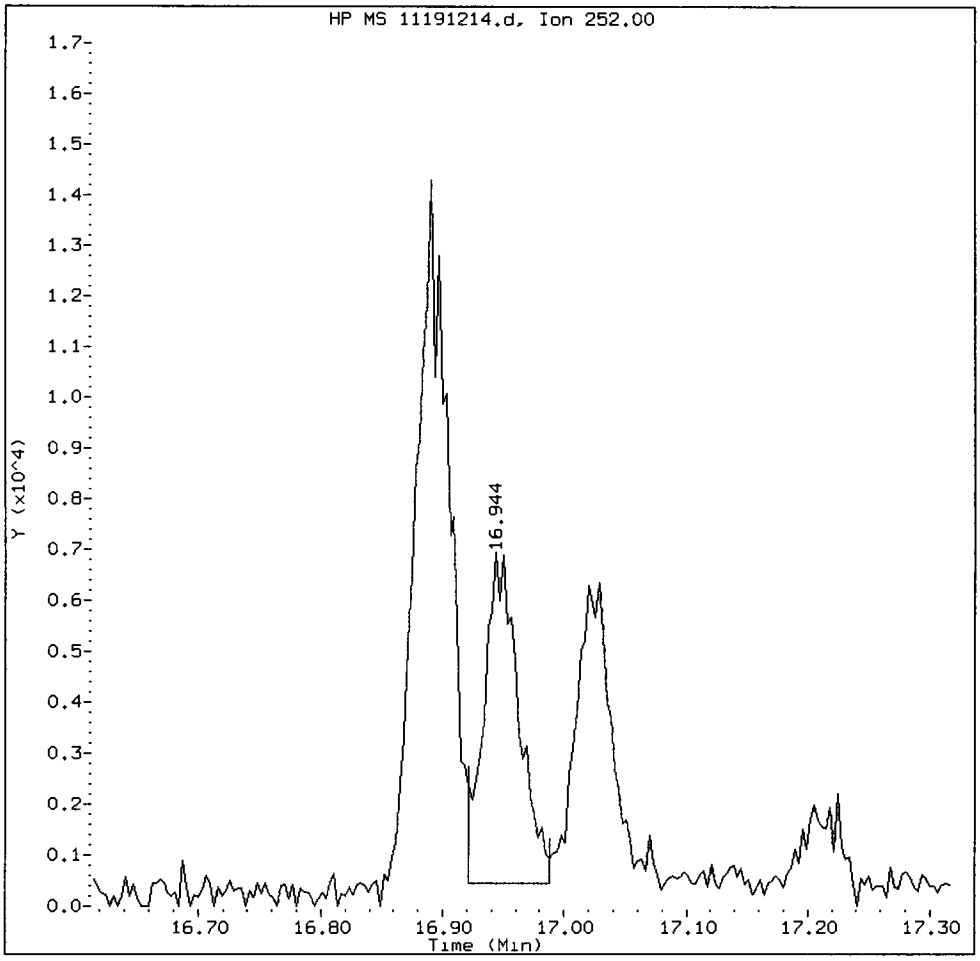




11/20/12

VR38B, /chem3/nt11.i/20121119.b/11191214.d

Benzo(k)fluoranthene Amount: 0.04 Area: 13164



MANUAL INTEGRATION for Benzo(k)fluoranthene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/20/12

Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

Operator: JZ

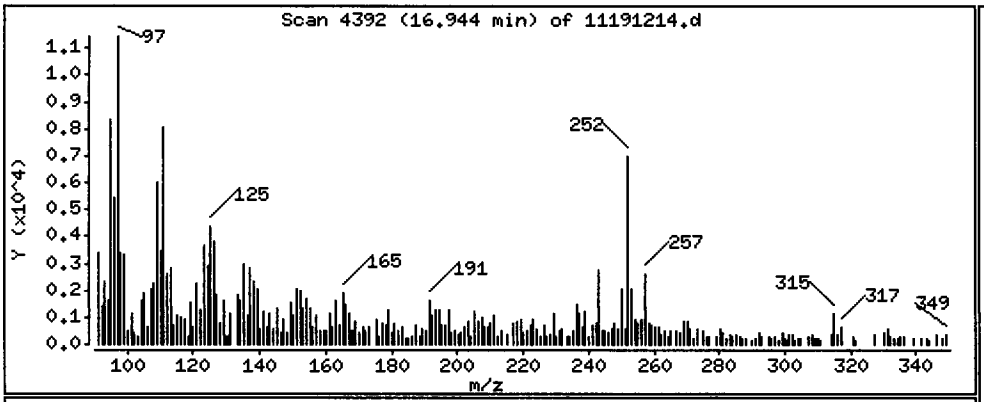
Column phase: ZB-5msi

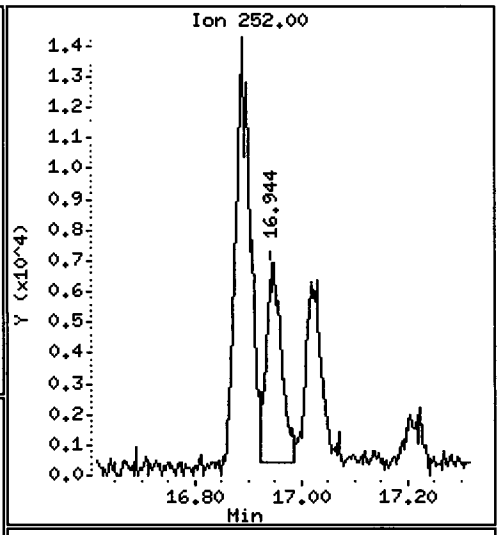
Column diameter: 0.25

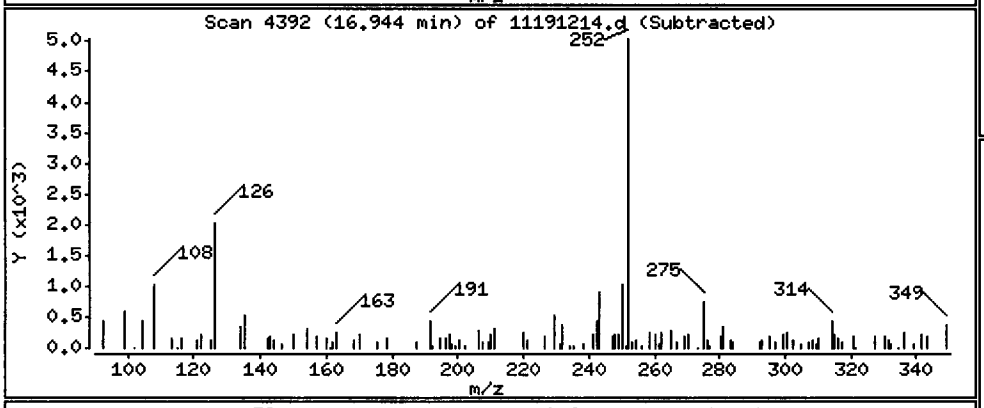
52 Benzo(k)fluoranthene

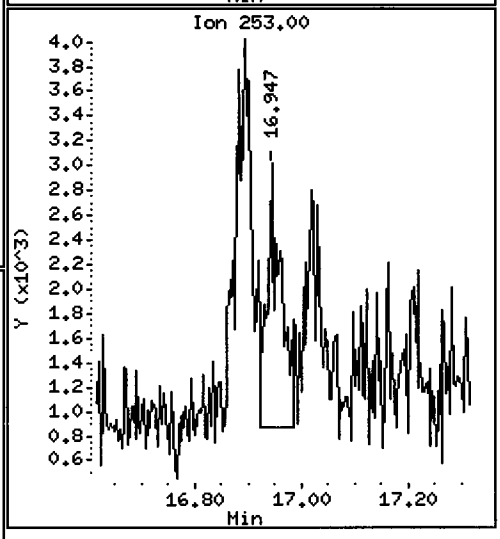
Concentration: 2.182 ug/kg

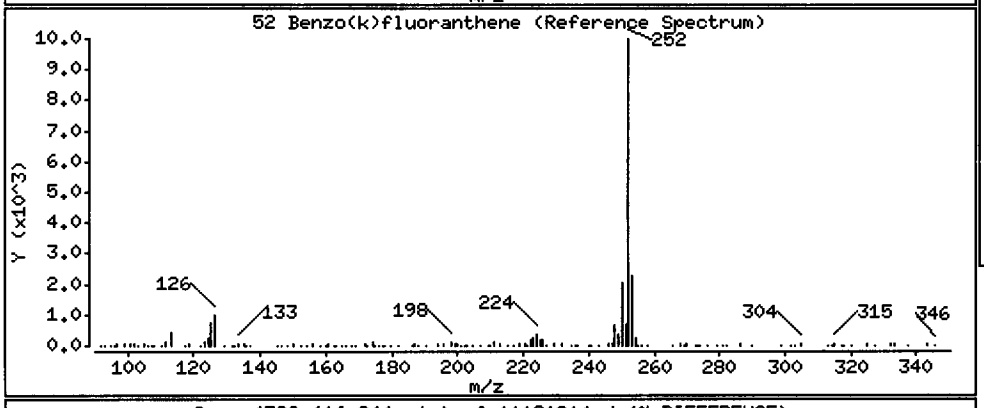
EURL

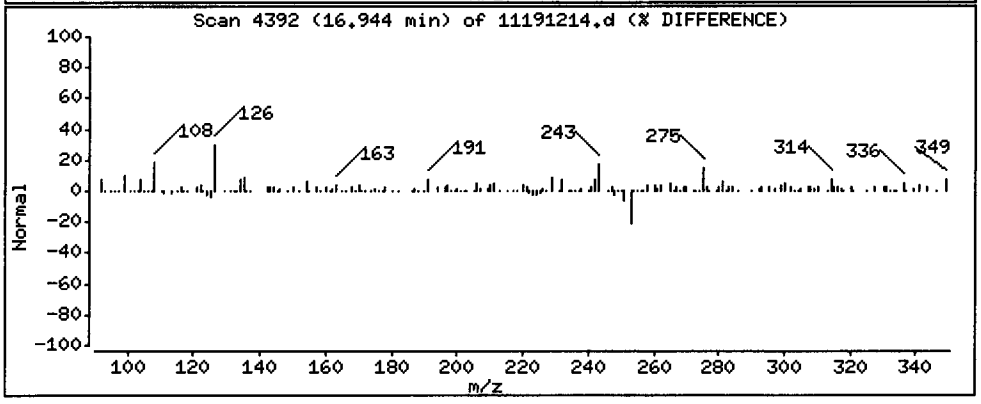






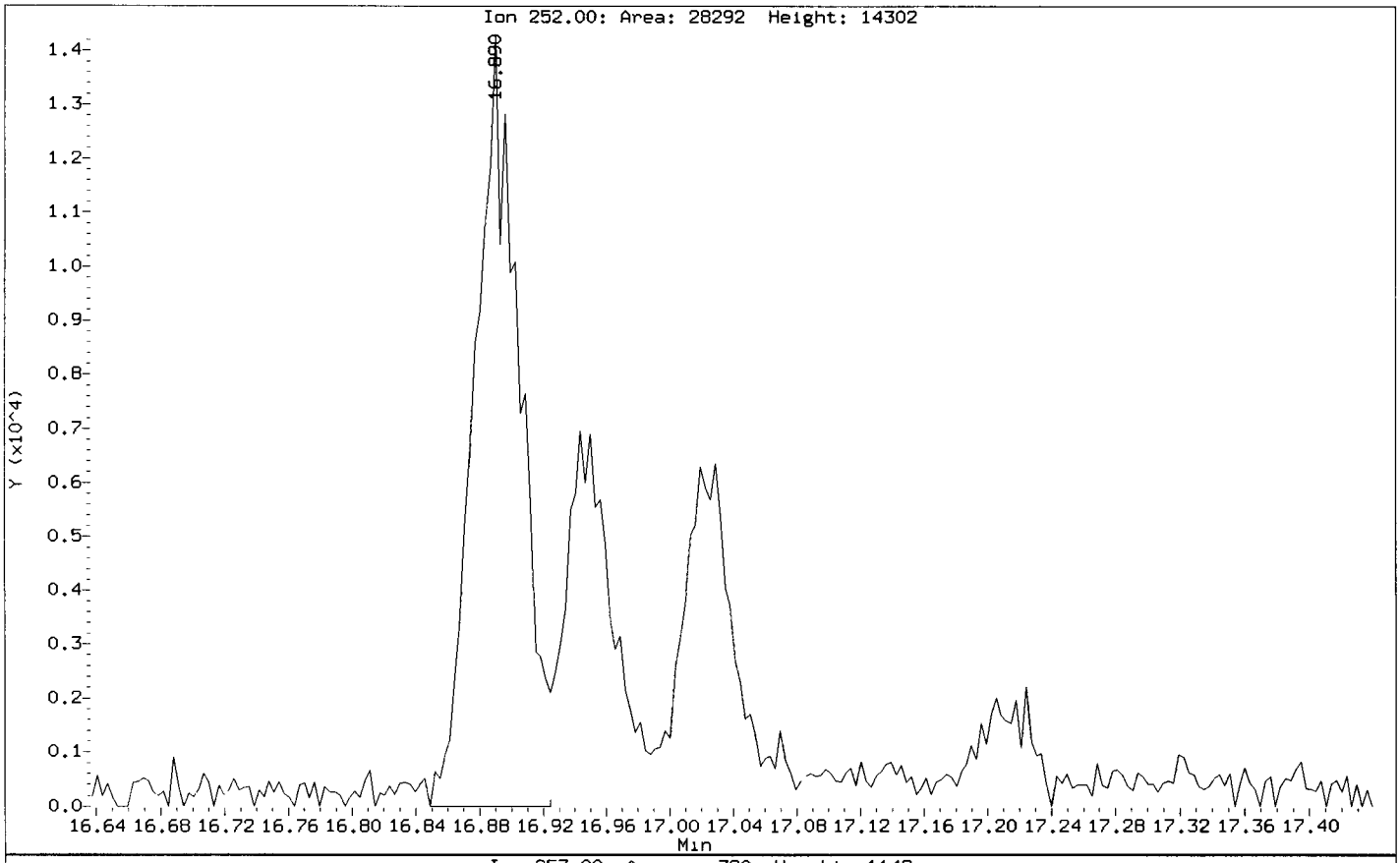


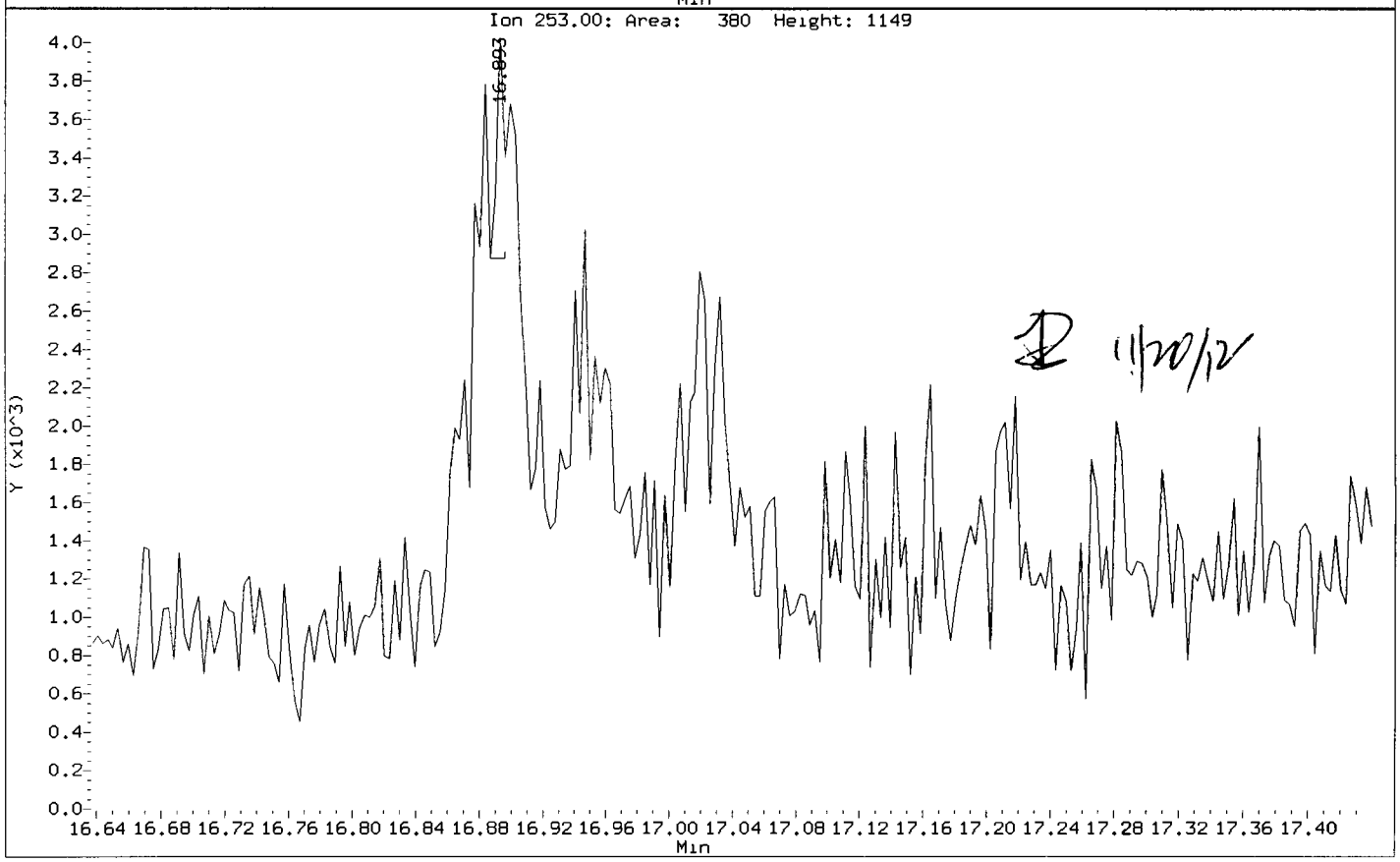




Data File: /chem3/nt11.i/20121119.b/11191214.d
Injection Date: 19-NOV-2012 18:26
Instrument: nt11.i
Client Sample ID: HT-02-S-C-121106

Compound: Benzo(j)fluoranthene
CAS Number:

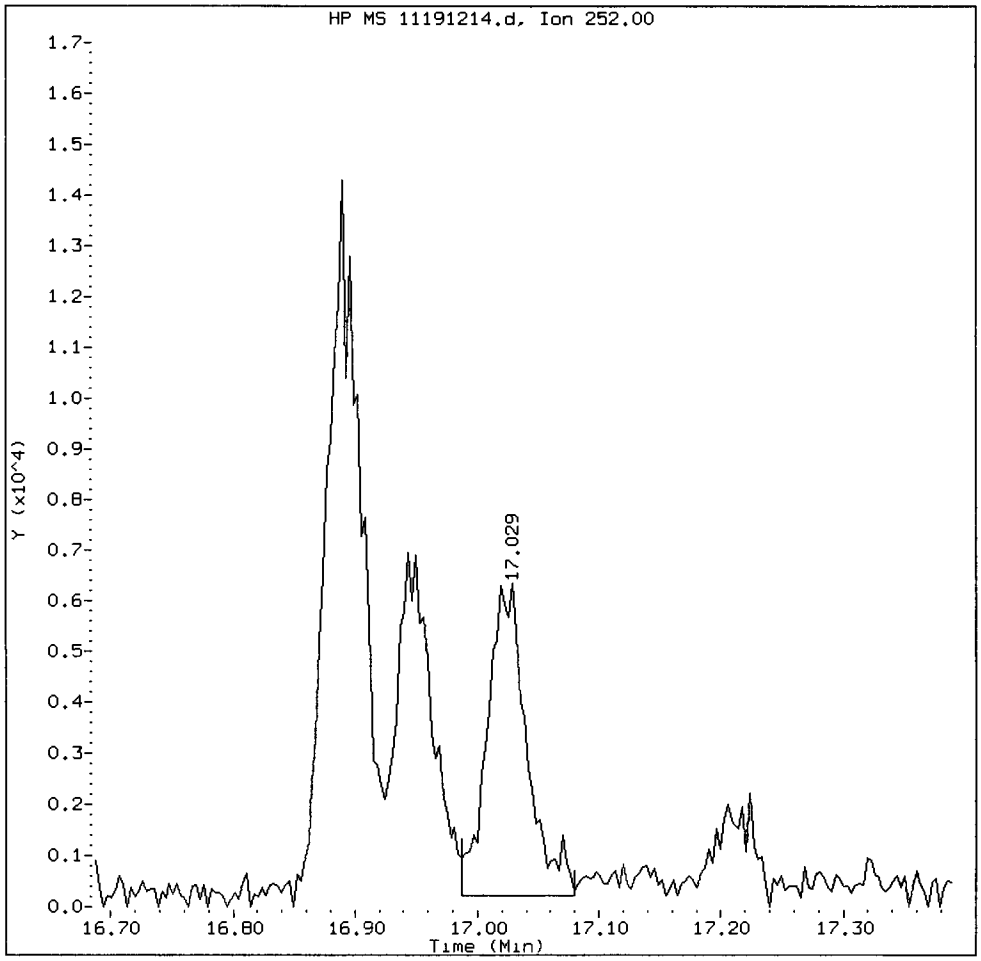




11/20/12

VR38B, /chem3/nt11.i/20121119.b/11191214.d

Benzo(j)fluoranthene Amount: 0.04 Area: 13706



MANUAL INTEGRATION for Benzo(j)fluoranthene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/20/12

Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

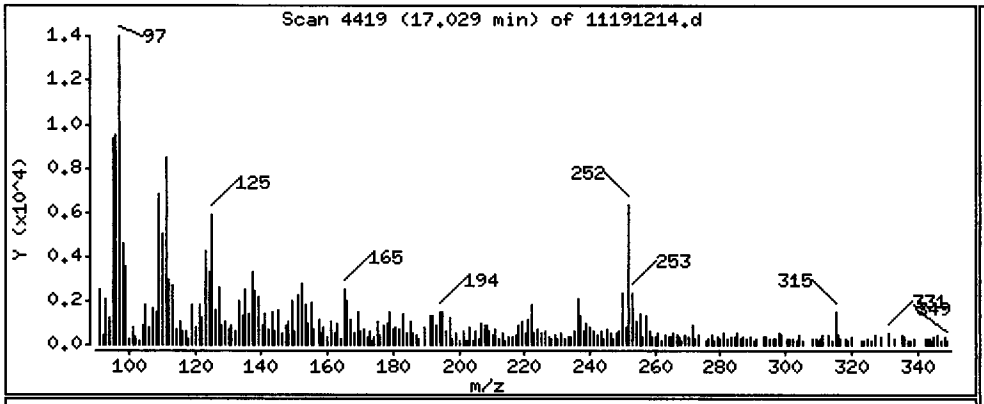
Operator: JZ

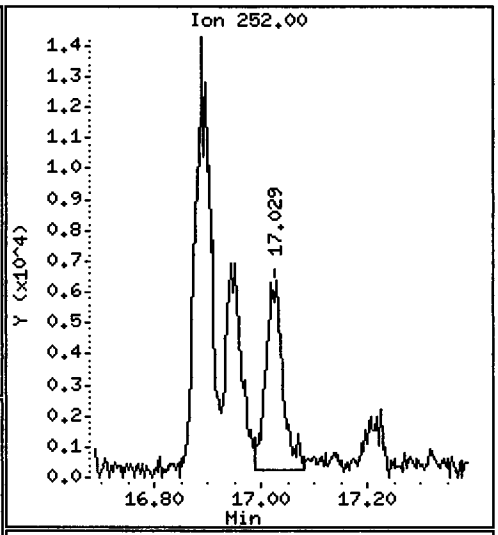
Column phase: ZB-5msi

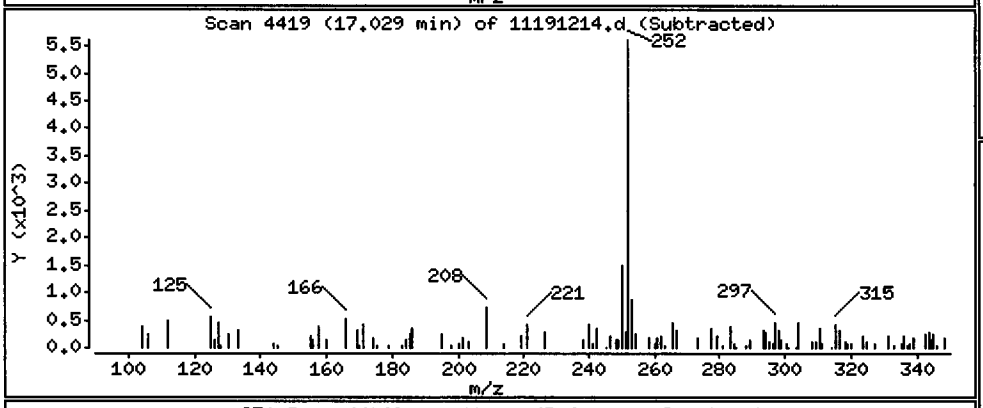
Column diameter: 0.25

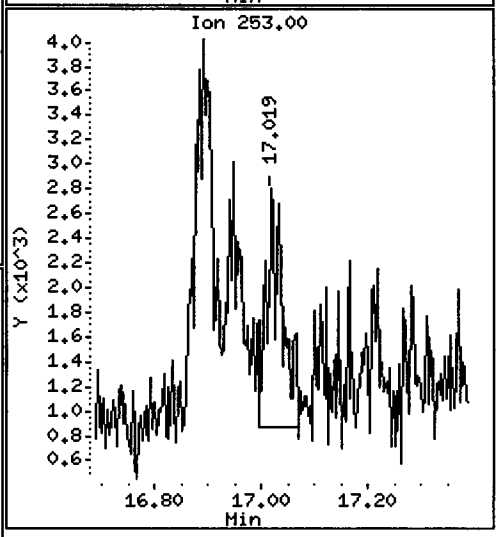
251 Benzo(j)fluoranthene

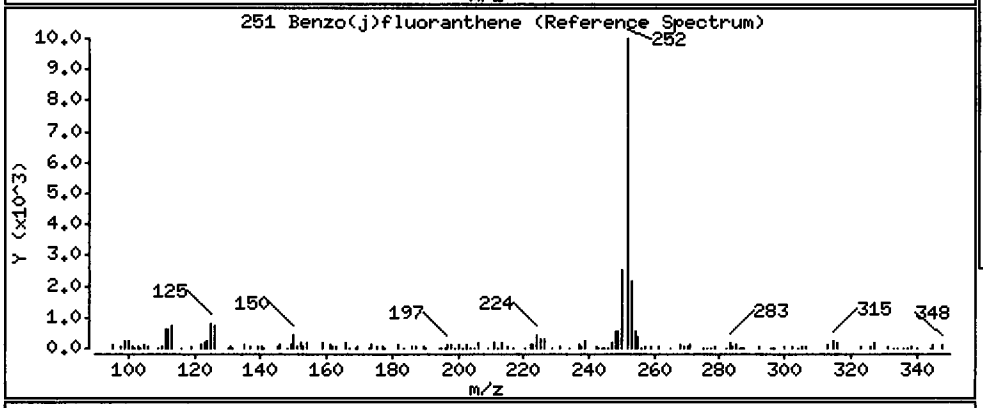
Concentration: 2.153 ug/kg

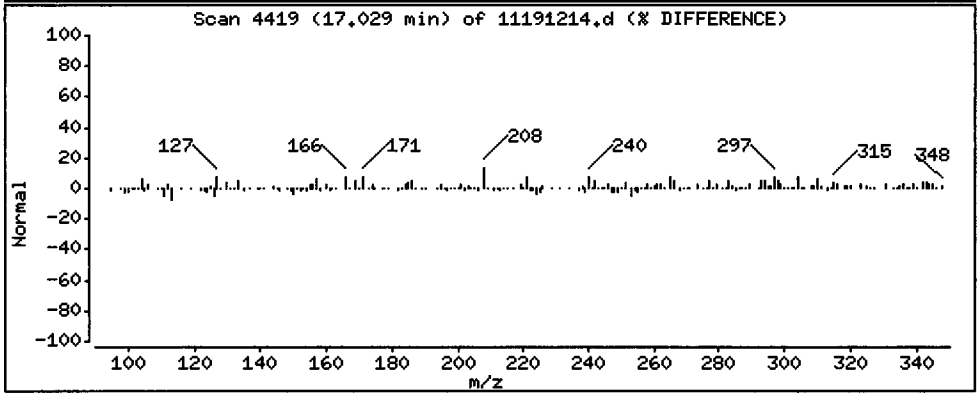












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

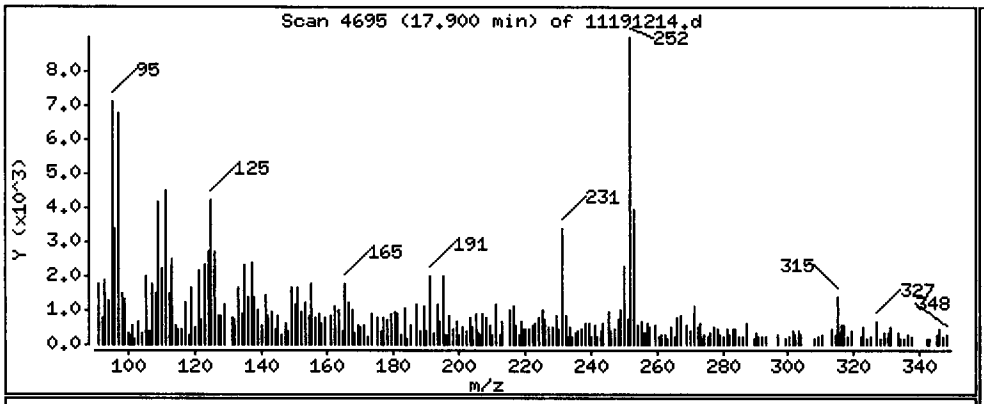
Operator: JZ

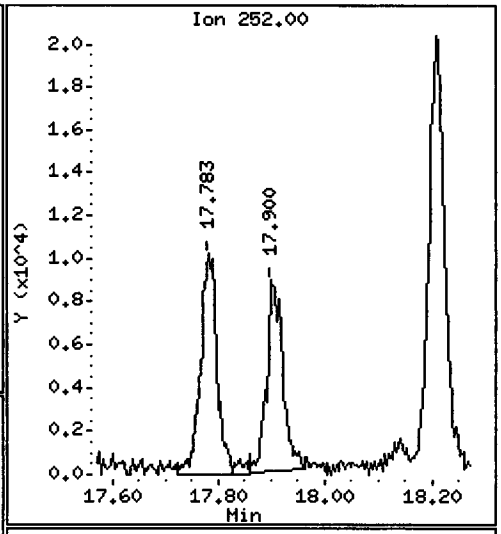
Column phase: ZB-5msi

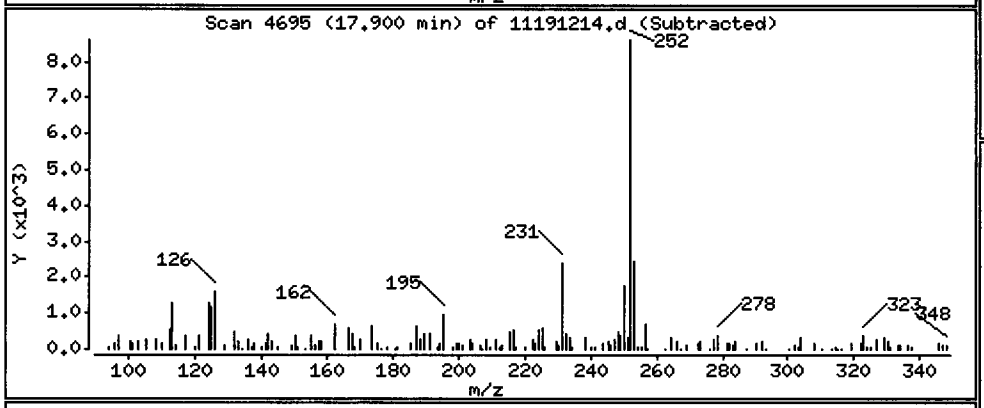
Column diameter: 0.25

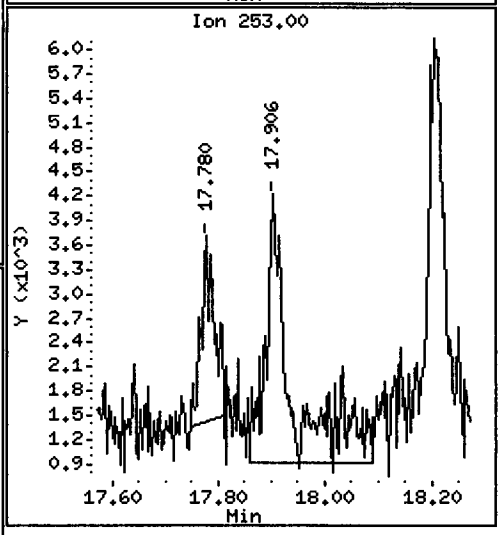
54 Benzo(a)pyrene

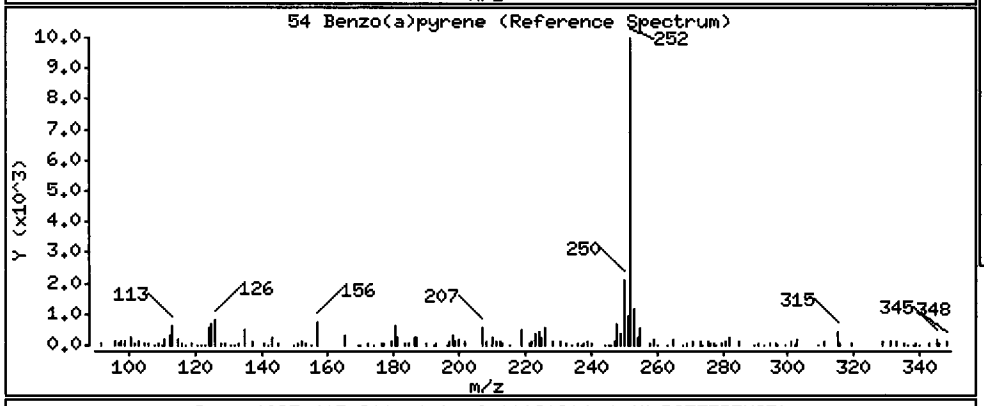
Concentration: 3.278 ug/kg

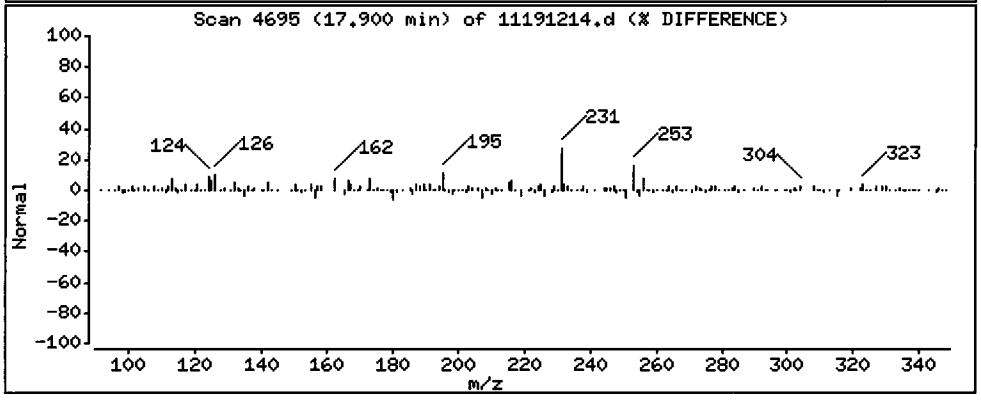












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

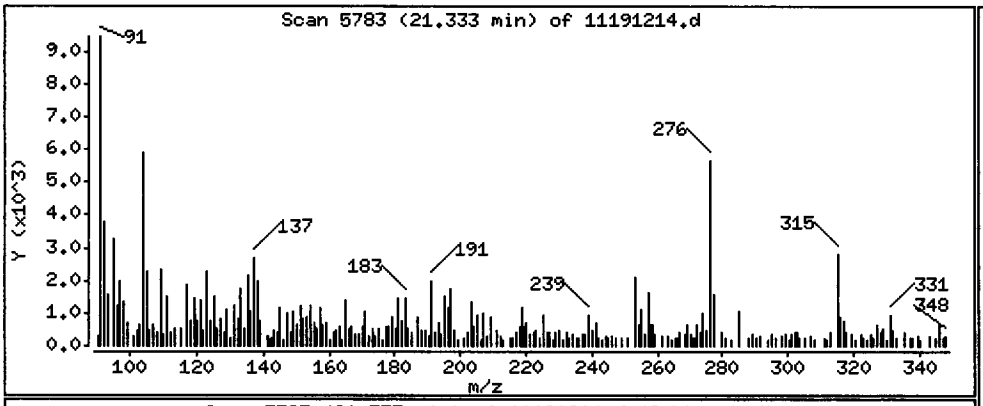
Operator: JZ

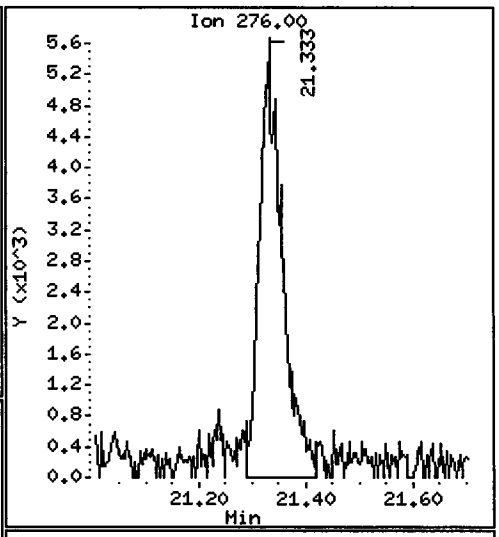
Column phase: ZB-5msi

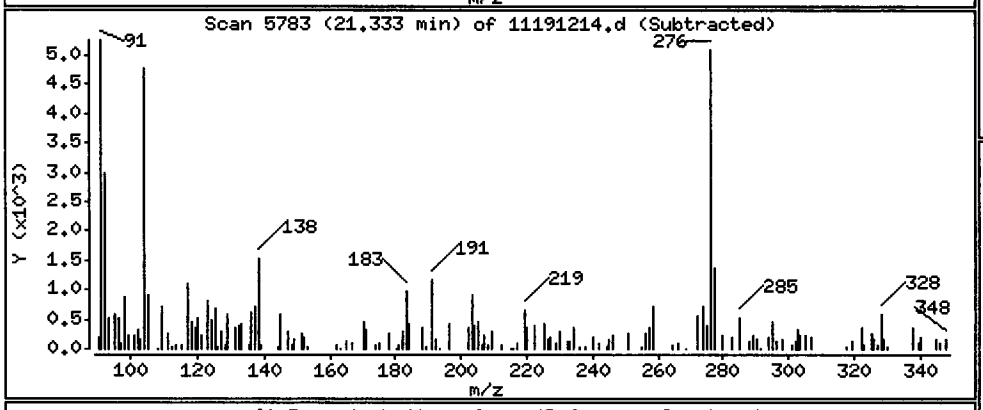
Column diameter: 0.25

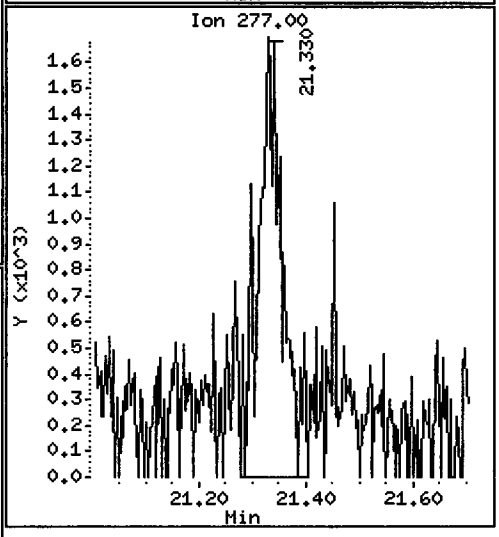
61 Benzo(g,h,i)perylene

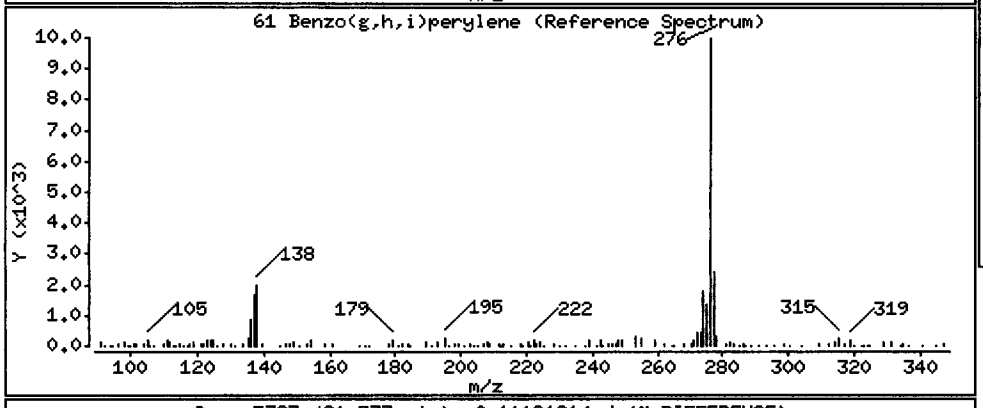
Concentration: 2.872 ug/kg

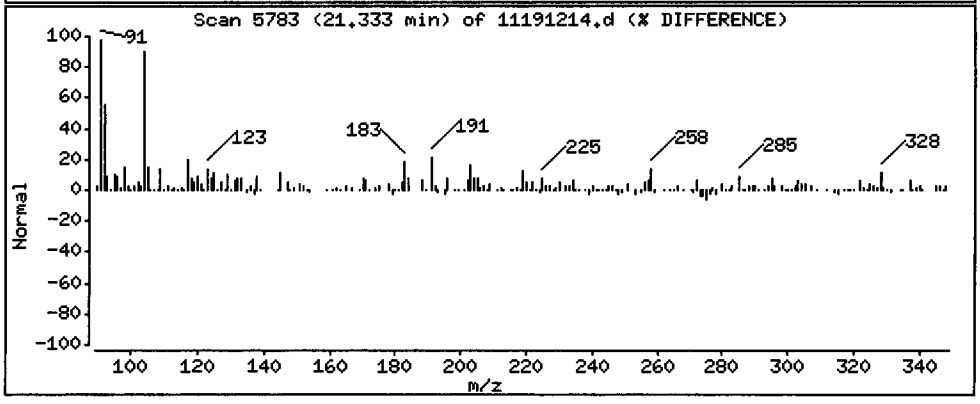












Data File: /chem3/nt11.i/20121119.b/11191214.d

Date : 19-NOV-2012 18:26

Client ID: HT-02-S-C-121106

Instrument: nt11.i

Sample Info: VR38B

Volume Injected (uL): 1.0

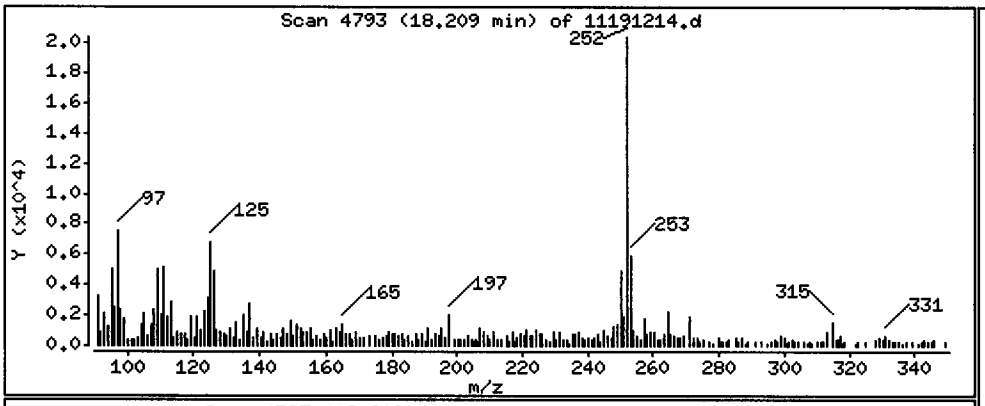
Operator: JZ

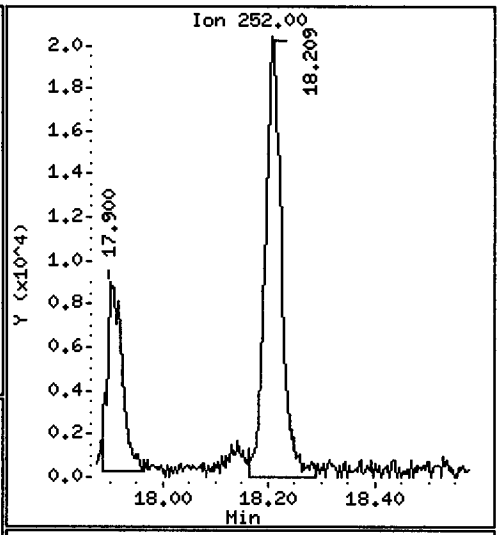
Column phase: ZB-5msi

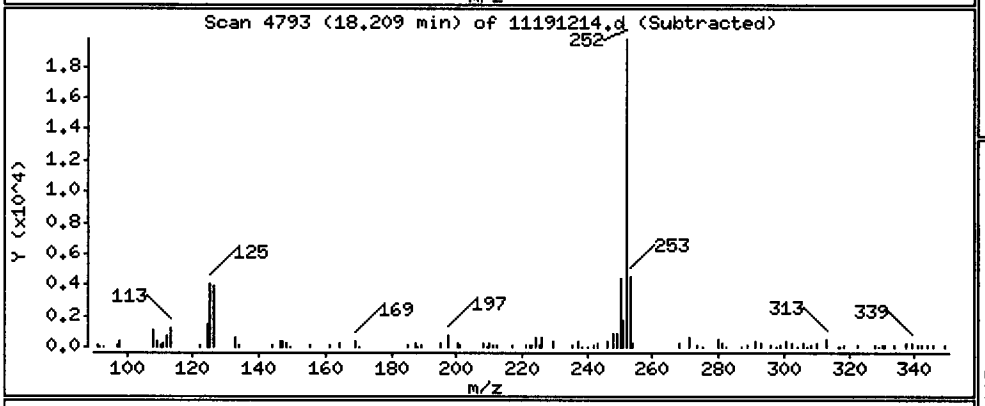
Column diameter: 0.25

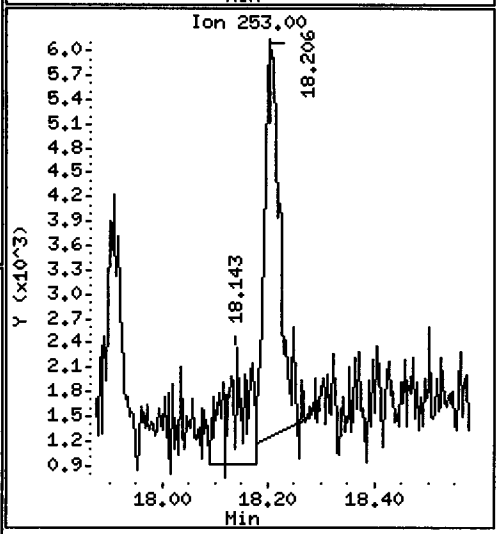
57 Perylene

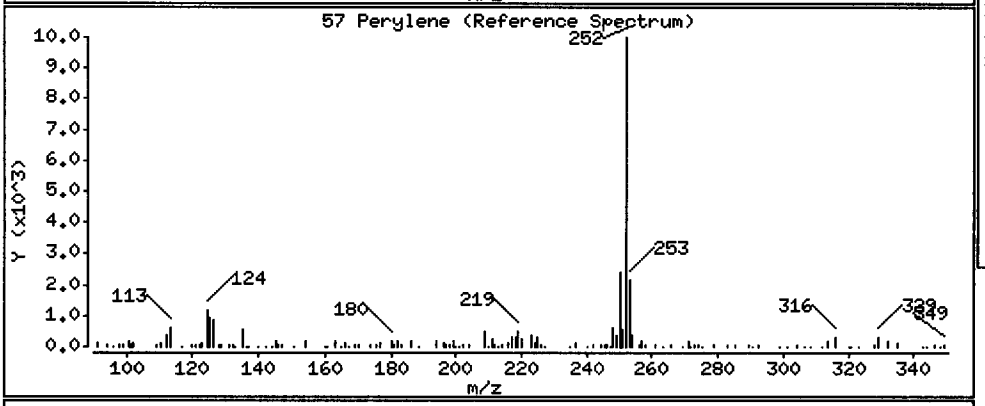
Concentration: 7.481 ug/kg

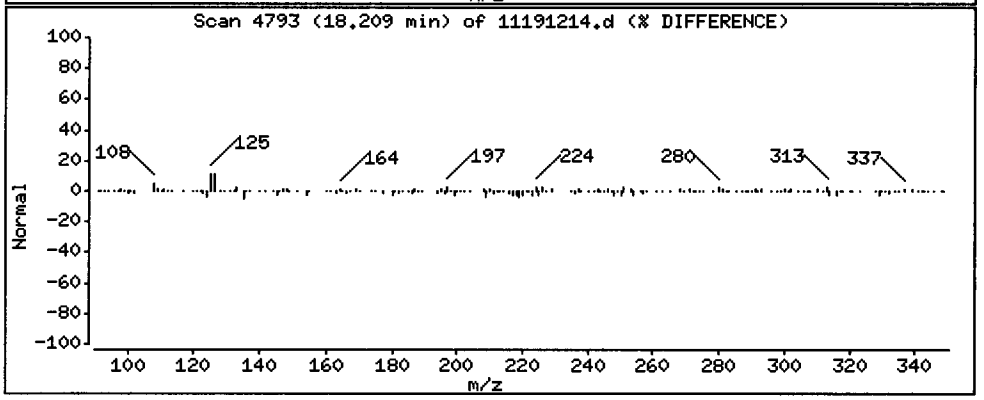












CO-ELUTION SUMMARY FOR FILE - 11191214.d

Lab ID: VR38B, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191215.d
Lab Smp Id: VR38C Client Smp ID: HT-03-S-C-121106
Inj Date : 19-NOV-2012 18:56
Operator : JZ Inst ID: nt11.i
Smp Info : VR38C
Misc Info : 12-22269
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 11:18 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	14.20000	Weight of sample extracted (g)
M	26.20000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
*	6 Naphthalene-d8	136	5.464	5.473	(1.000)	619522	2.00000	
	7 Naphthalene	128	5.492	5.501	(1.005)	531138	1.60420	76.54
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.135)	355977	1.68172	80.24
	14 2-Methylnaphthalene	141	6.249	6.255	(1.144)	165700	0.88824	42.38
	15 1-methylnaphthalene	141	6.442	6.448	(1.179)	92859	0.51970	24.80
	21 Acenaphthylene	152	7.628	7.634	(0.986)	21927	0.07243	3.456
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	348394	2.00000	
	23 Acenaphthene	153	7.789	7.795	(1.007)	198630	1.03172	49.23
	11 Dibenzofuran	168	7.941	7.947	(1.026)	330950	1.17341	55.99
	25 Fluorene	166	8.414	8.420	(1.087)	314017	1.44867	69.12
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	484343	2.00000	
	30 Phenanthrene	178	9.799	9.802	(1.004)	1300004	4.44341	212.0
	31 Anthracene	178	9.837	9.840	(1.008)	318611	1.13441	54.12
	36 Fluoranthene	202	11.465	11.459	(1.175)	1267696	4.32477	206.3
	39 Pyrene	202	11.945	11.926	(0.830)	997635	3.42831	163.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.268	14.268	(0.992)	332720	1.25393	59.83
*	47 Chrysene-d12	240	14.388	14.387	(1.000)	528056	2.00000	
	48 Chrysene	228	14.454	14.457	(1.005)	479718	1.86269	88.87
	51 Benzo(b)fluoranthene	252	16.903	16.906	(0.931)	333114	1.25383	59.82
	52 Benzo(k)fluoranthene	252	16.959	16.966	(0.934)	186138	0.64512	30.78
	251 Benzo(j)fluoranthene	252	17.035	17.038	(0.939)	156859	0.51526	24.58
	54 Benzo(a)pyrene	252	17.922	17.922	(0.987)	255802	0.94791	45.23
*	56 Perylene-d12	264	18.149	18.152	(1.000)	574060	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.484	20.478	(1.129)	158646	0.48491	23.14
$	60 Dibenzo(a,h)anthracene-d14	292	20.386	20.380	(1.123)	466704	2.45231	117.0
	62 Dibenzo(a,h)anthracene	278	20.475	20.475	(1.128)	38869	0.14588	6.960
	61 Benzo(g,h,i)perylene	276	21.349	21.355	(1.176)	154768	0.55606	26.53
	57 Perylene	252	18.218	18.225	(1.004)	265168	0.94752	45.21

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191215.d
Lab Smp Id: VR38C
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22269

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-03-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	619522	20.04
22 Acenaphthene-d10	284255	142128	568510	348394	22.56
28 Phenanthrene-d10	410660	205330	821320	484343	17.94
47 Chrysene-d12	467886	233943	935772	528056	12.86
56 Perylene-d12	472330	236165	944660	574060	21.54

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.46	-0.17
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.39	0.00
56 Perylene-d12	18.15	17.65	18.65	18.15	-0.02

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.

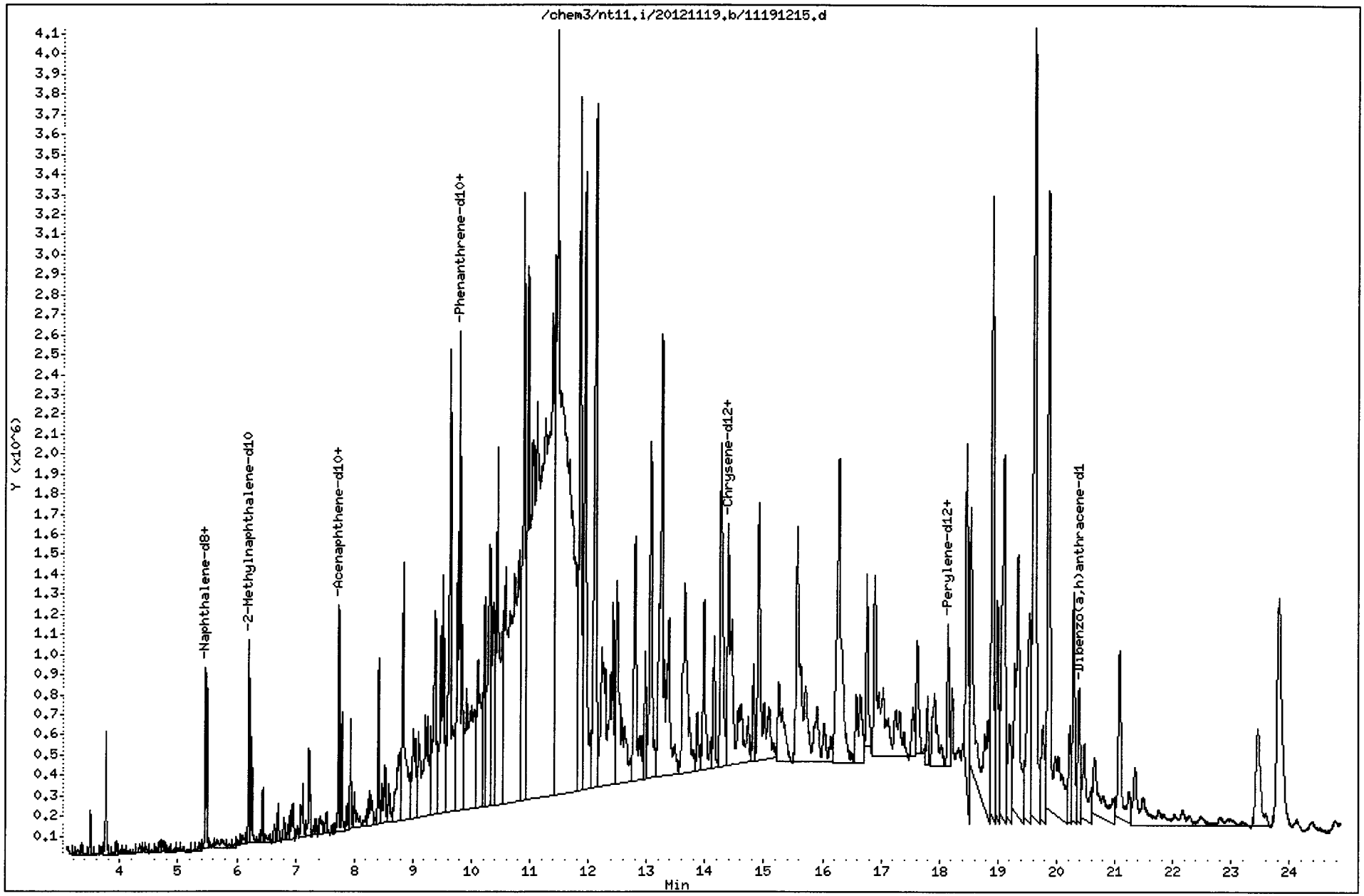
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38C Client Smp ID: HT-03-S-C-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22269

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	143.1	80.24	56.06	34-100
$ 60 Dibenzo(a,h)anthra	143.1	117.0	81.74	10-117

Data File: /chem3/nt11.i/20121119.b/11191215.d
Date : 19-NOV-2012 18:56
Client ID: HT-03-S-C-121106
Sample Info: VR38C
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

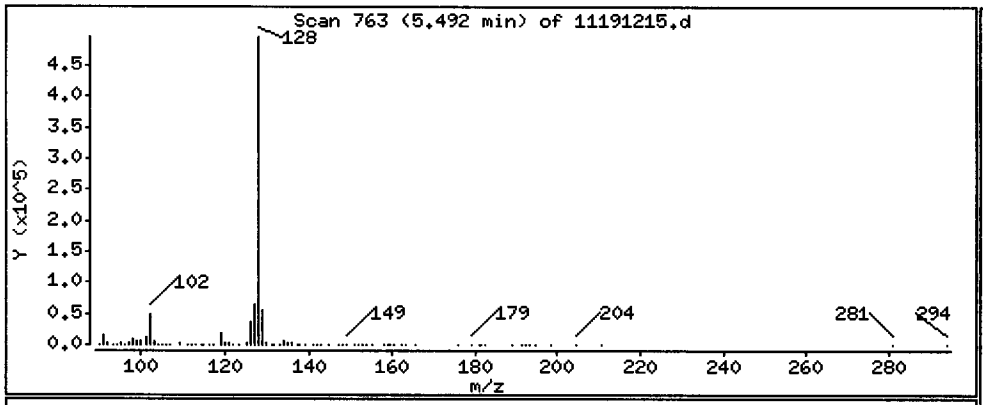
Operator: JZ

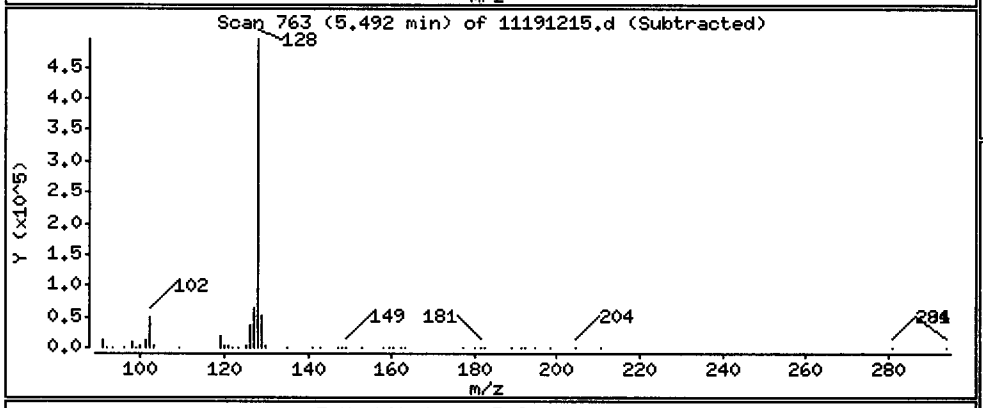
Column phase: ZB-5msi

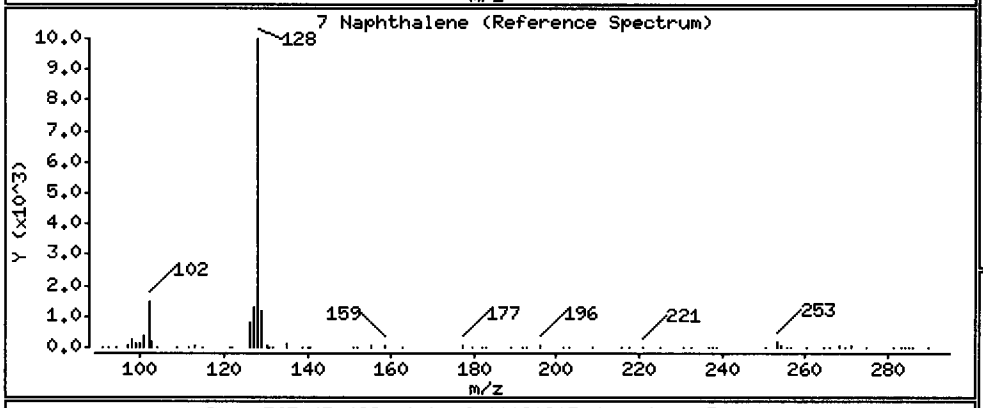
Column diameter: 0.25

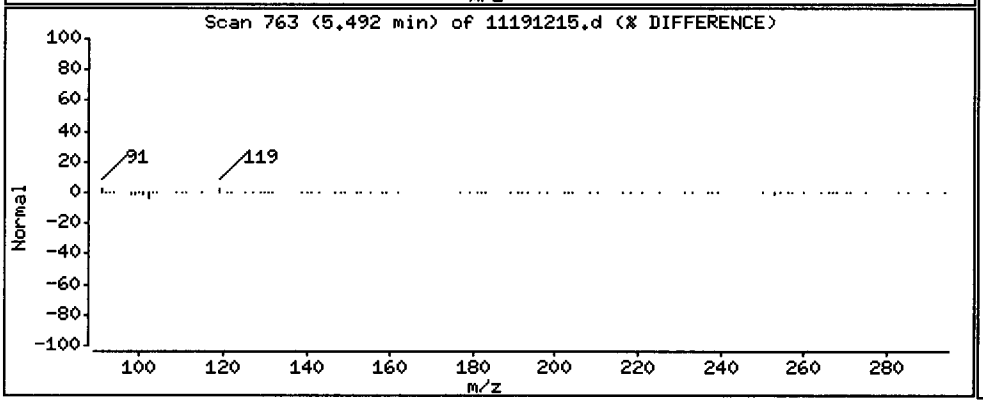
7 Naphthalene

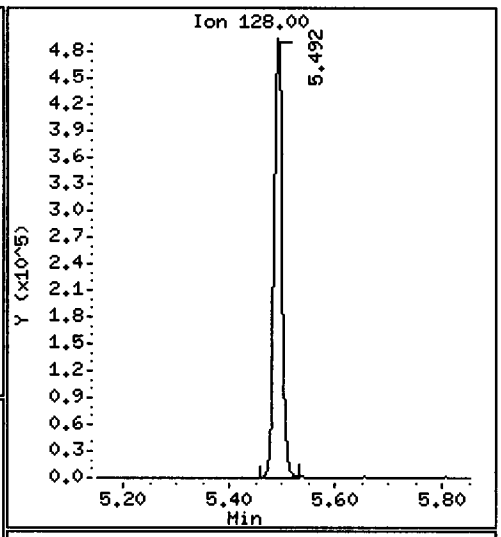
Concentration: 76.54 ug/kg

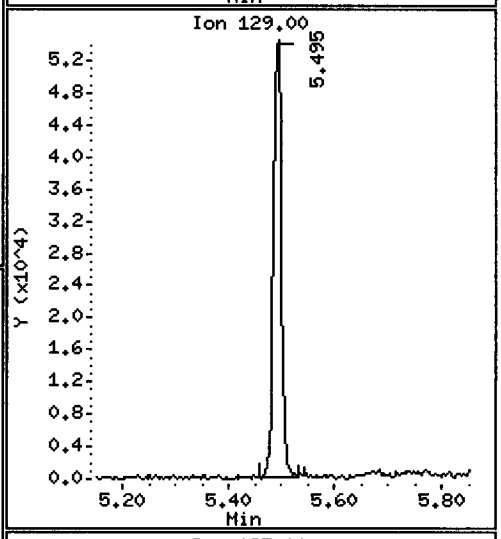


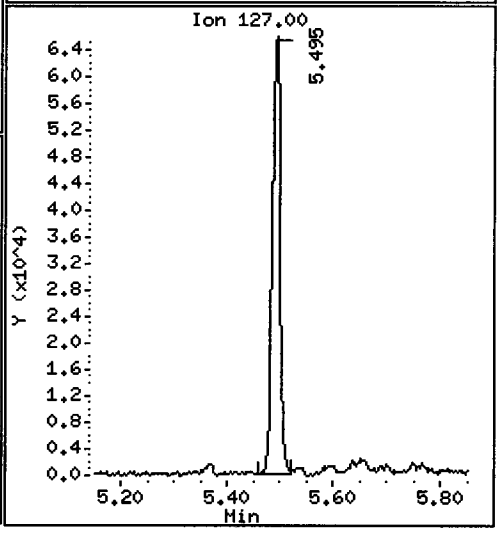












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

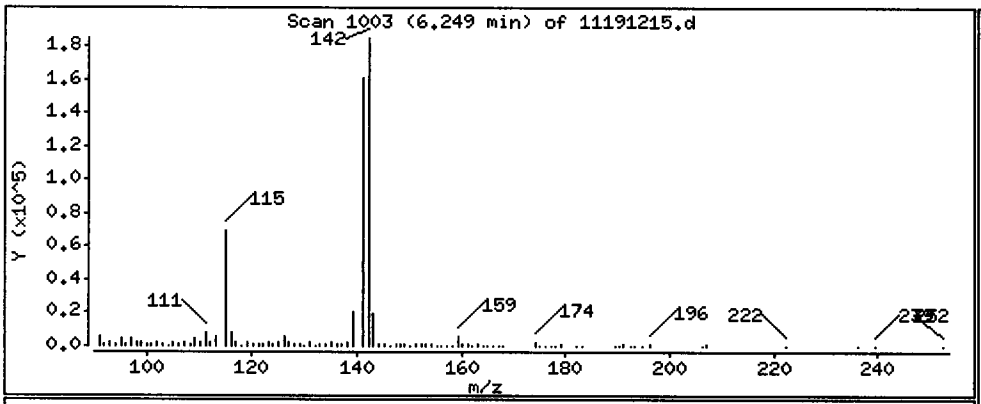
Client ID: HT-03-S-C-121106 Instrument: nt11.i

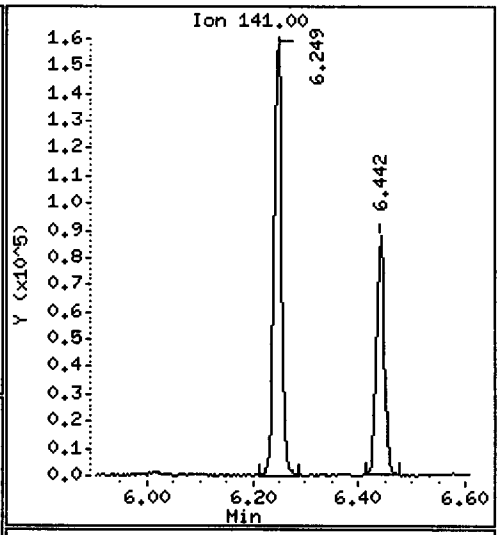
Sample Info: VR38C

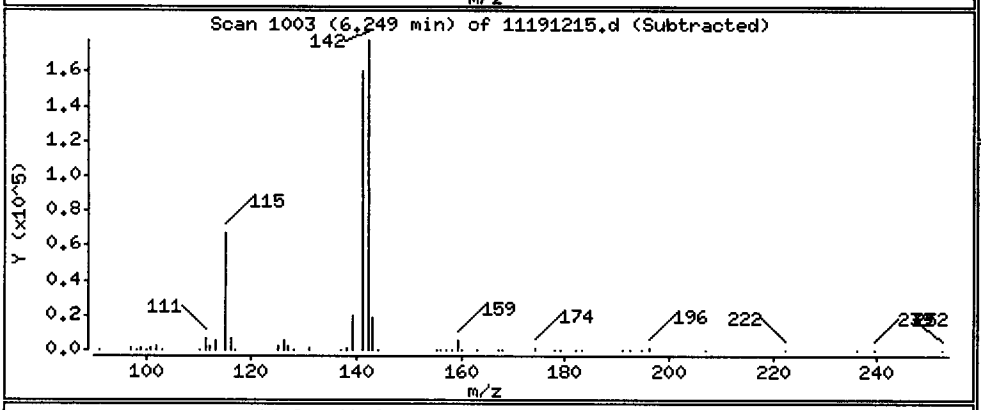
Volume Injected (uL): 1.0 Operator: JZ

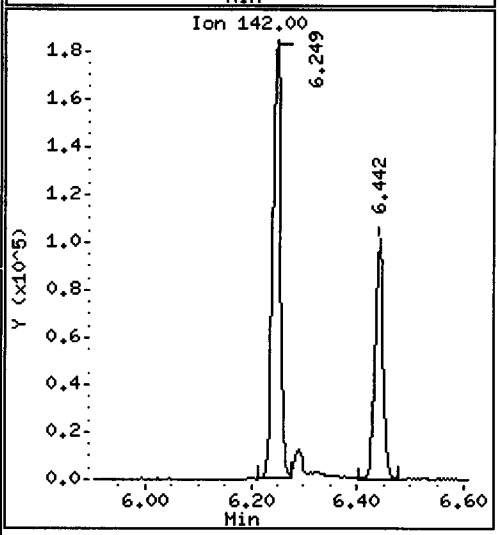
Column phase: ZB-5msi Column diameter: 0.25

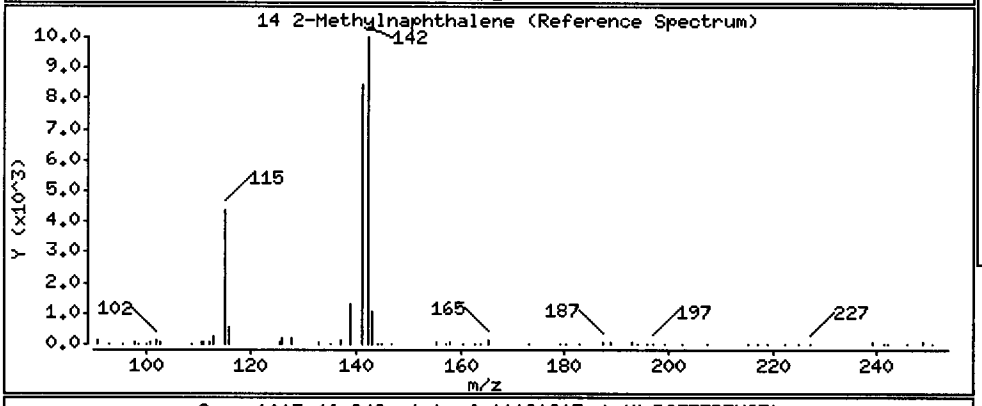
14 2-Methylnaphthalene Concentration: 42.38 ug/kg

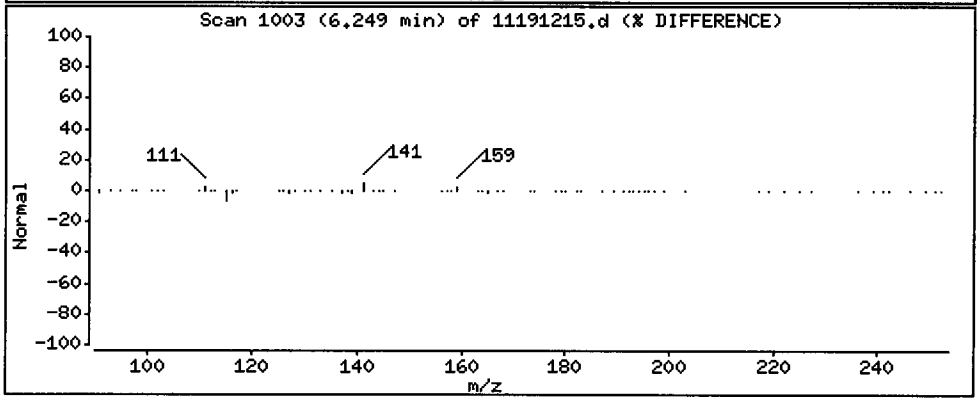












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

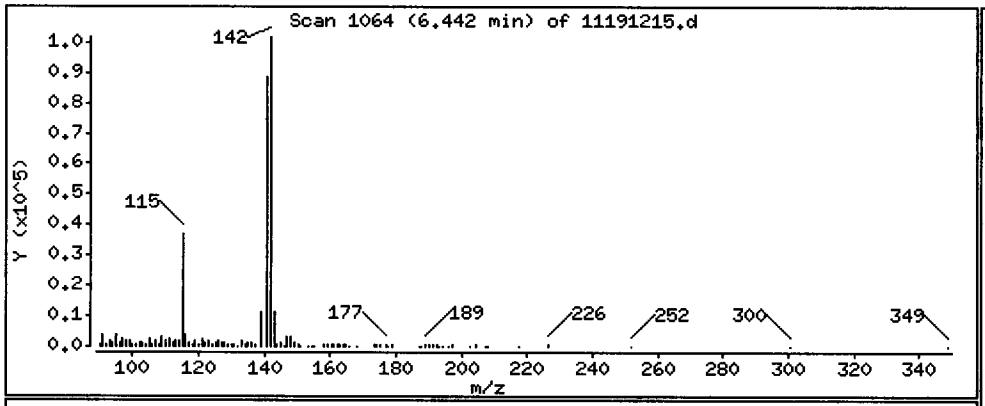
Operator: JZ

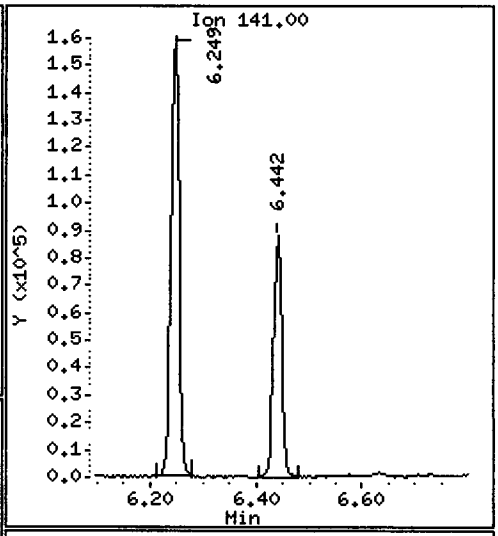
Column phase: ZB-5msi

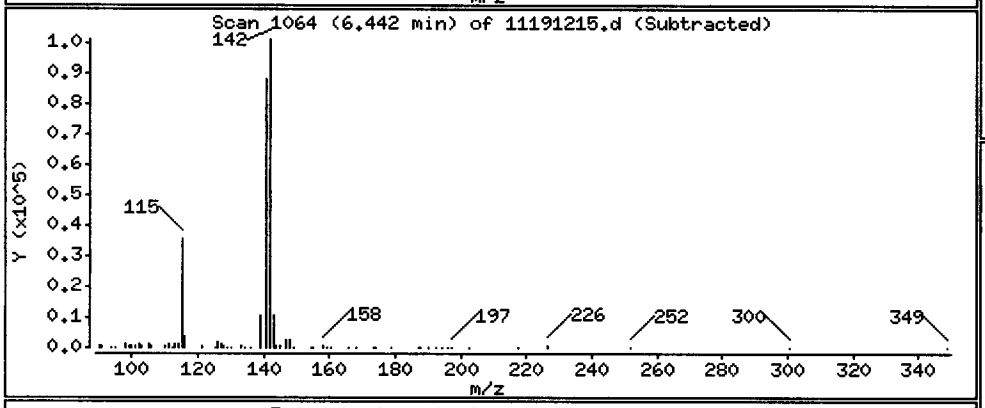
Column diameter: 0.25

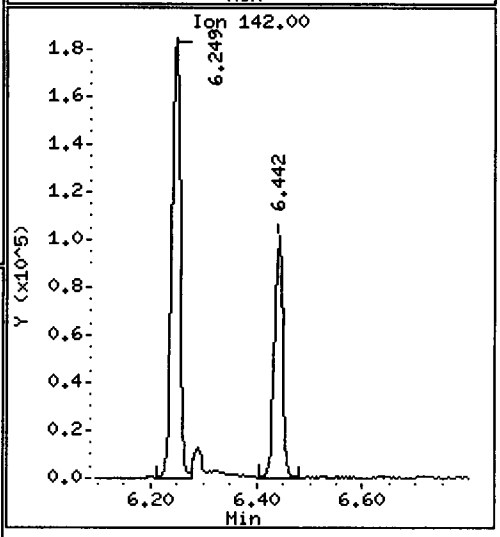
15 1-methylnaphthalene

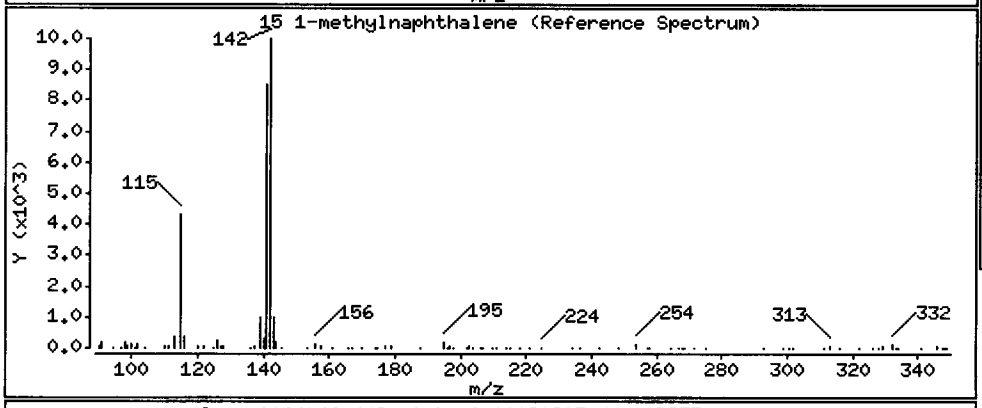
Concentration: 24.80 ug/kg

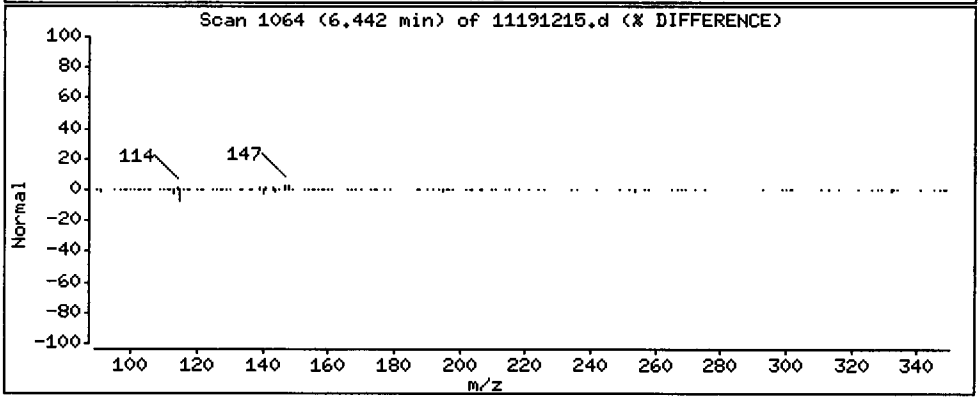












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

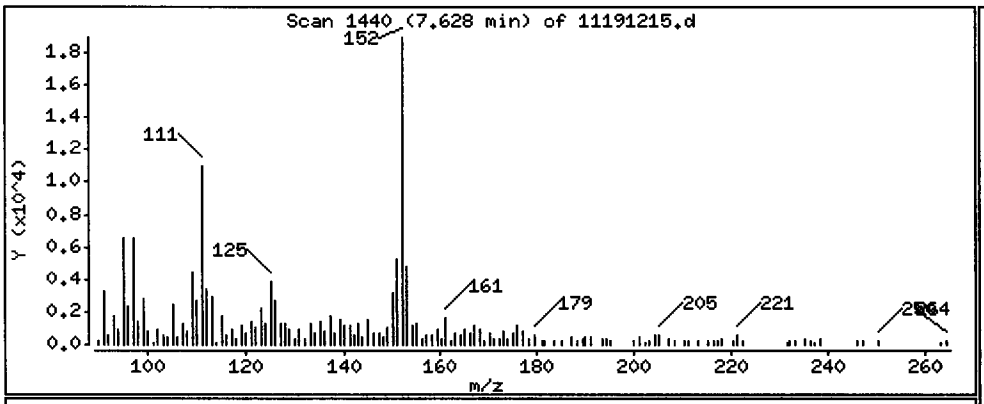
Operator: JZ

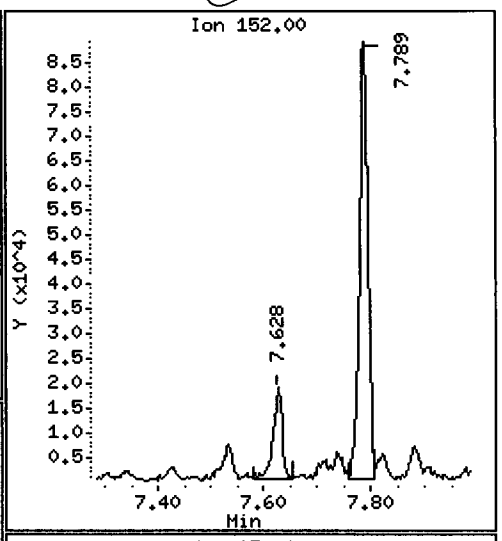
Column phase: ZB-5msi

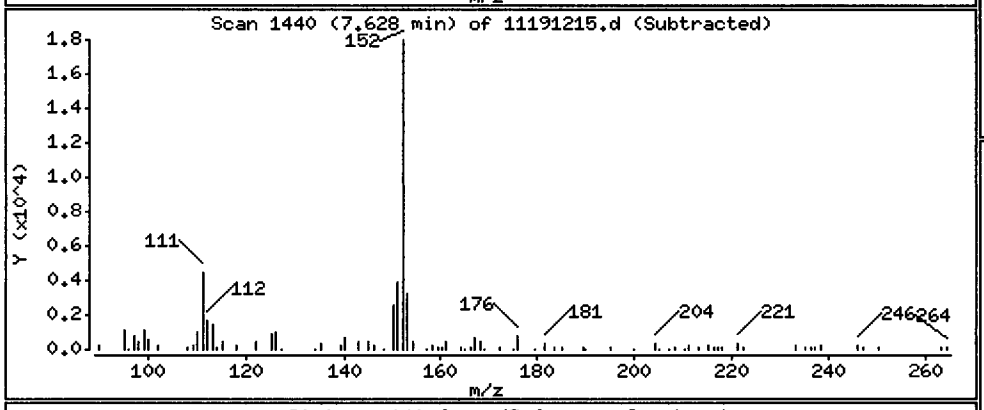
Column diameter: 0.25

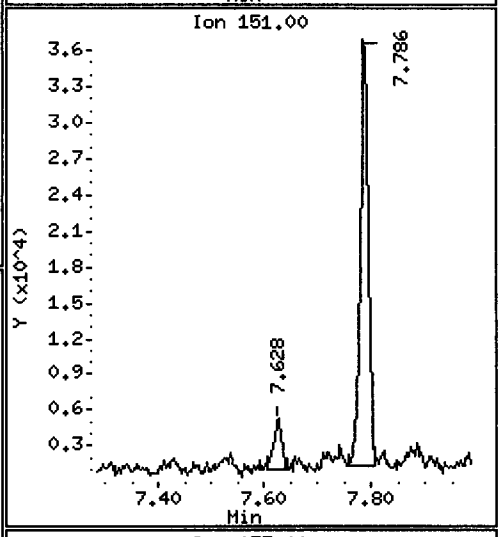
21 Acenaphthylene

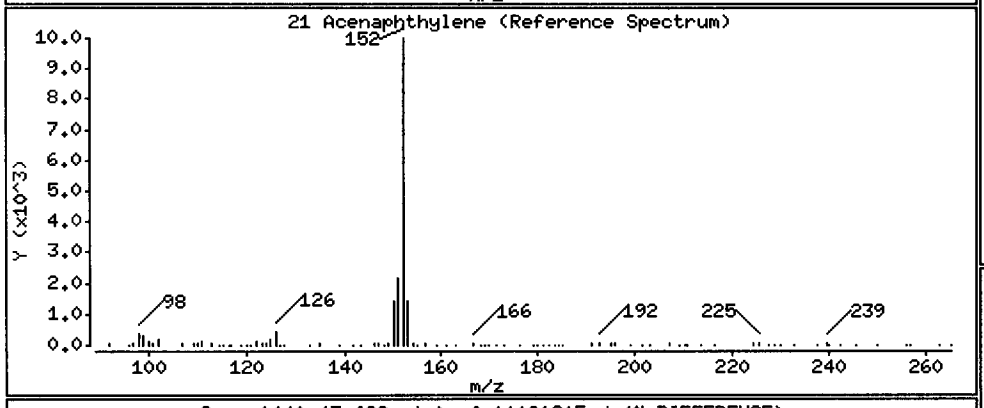
Concentration: 3.456 ug/kg

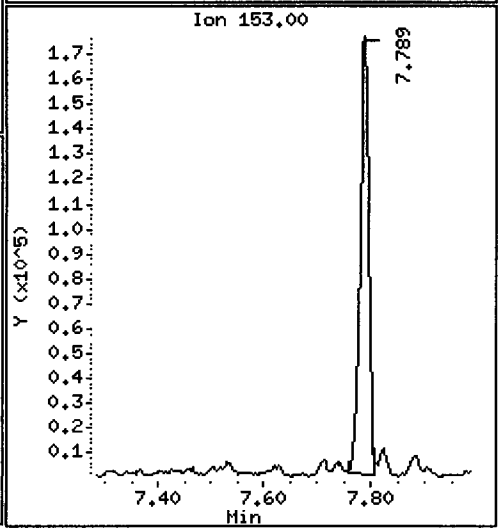


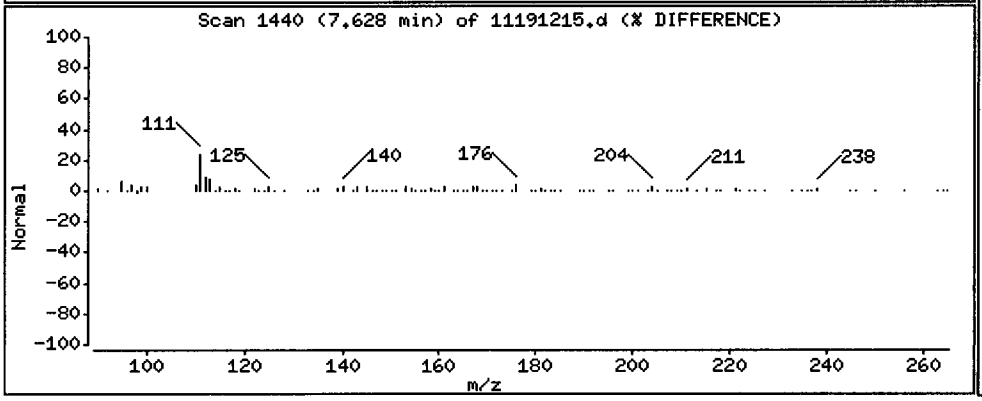












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

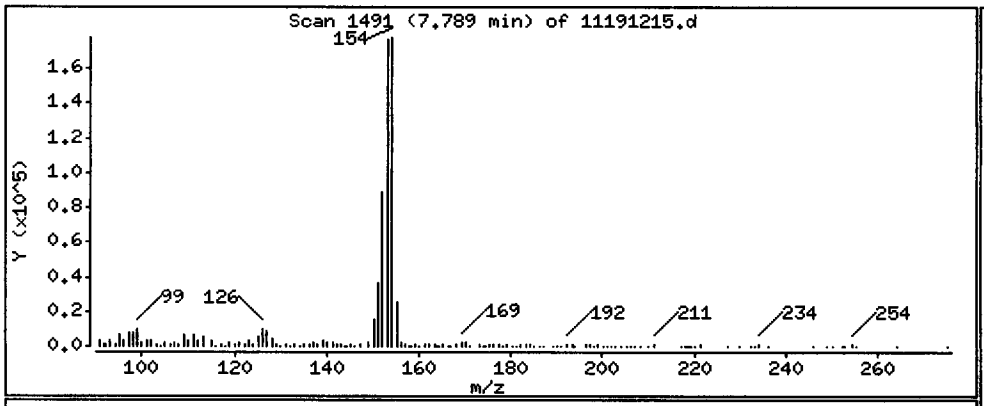
Operator: JZ

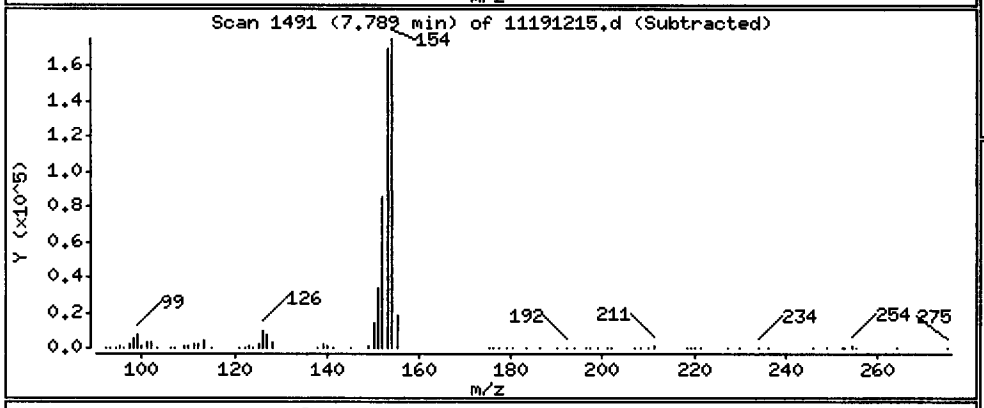
Column phase: ZB-5msi

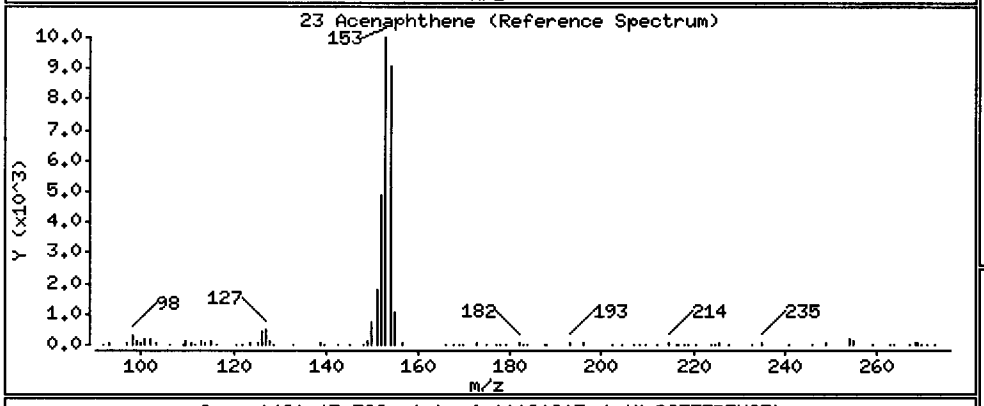
Column diameter: 0.25

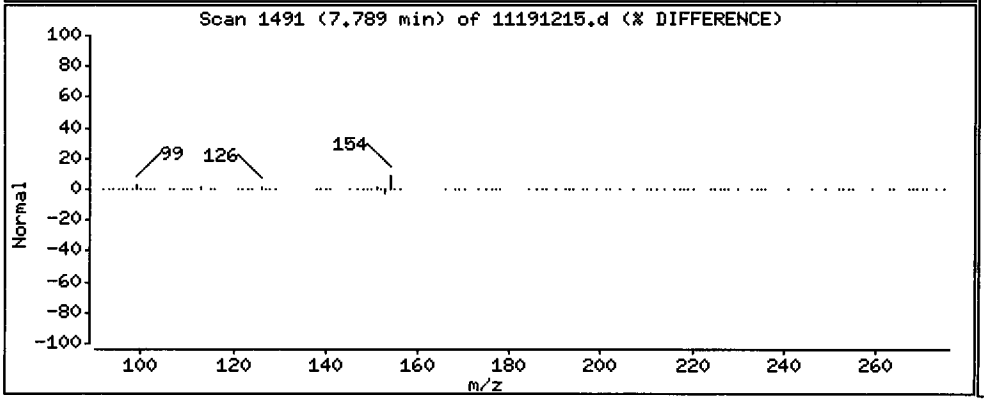
23 Acenaphthene

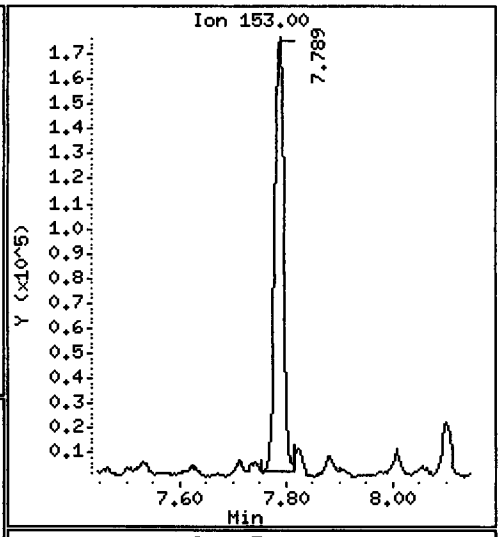
Concentration: 49.23 ug/kg

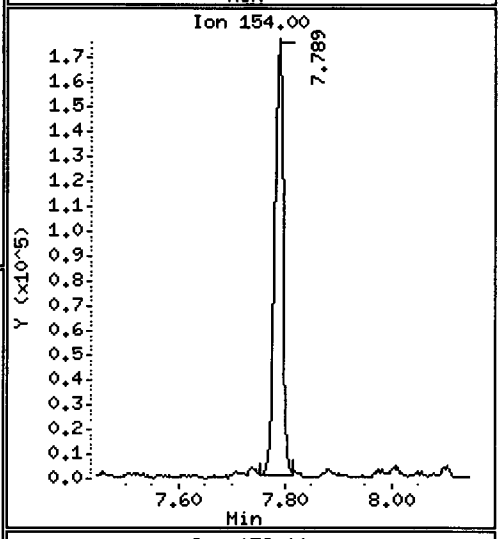


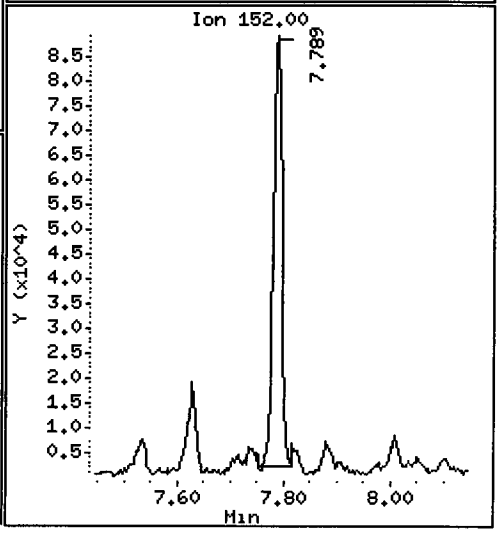












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

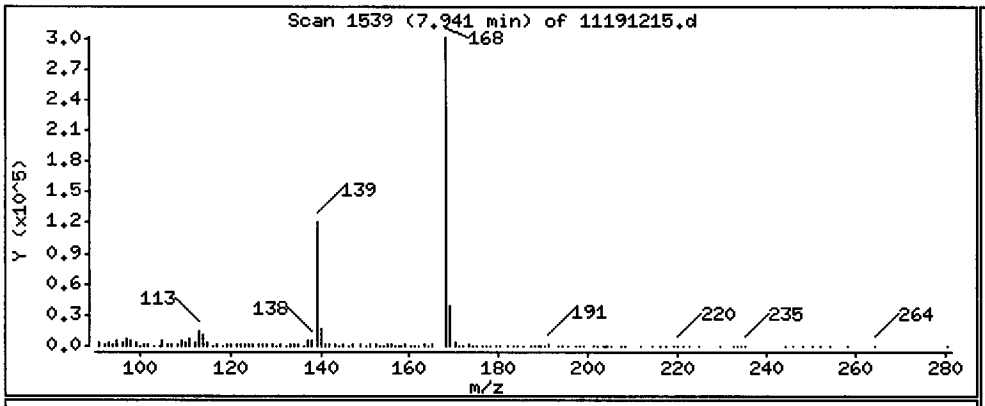
Operator: JZ

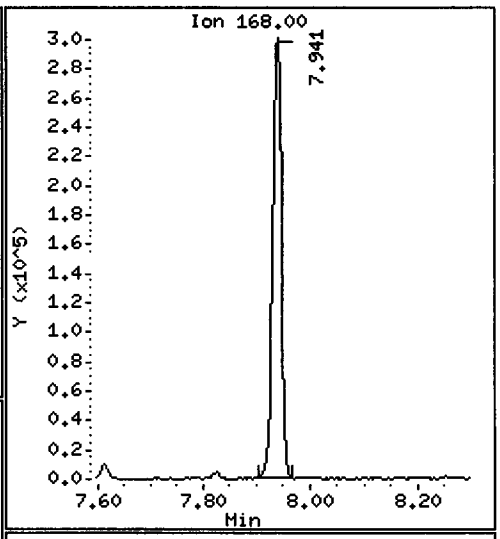
Column phase: ZB-5msi

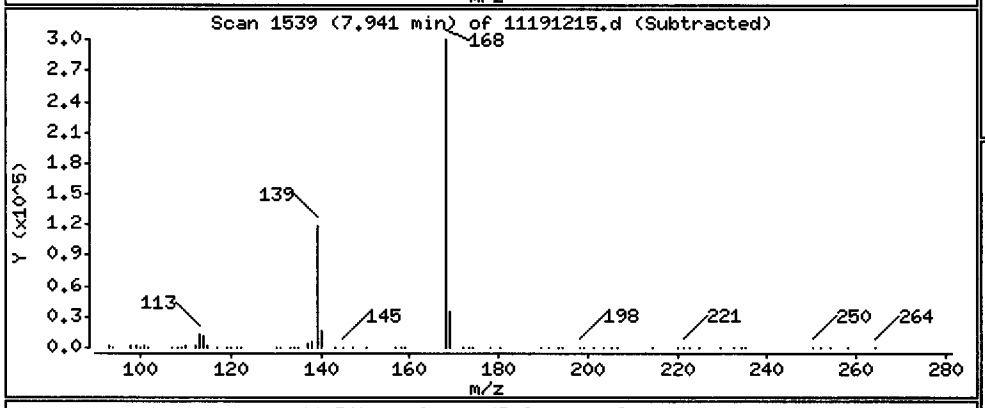
Column diameter: 0.25

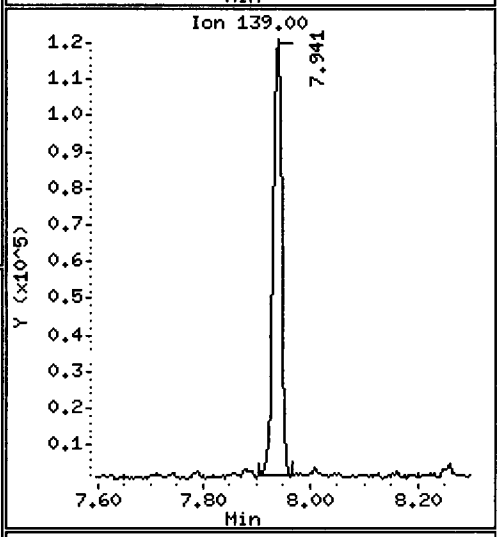
11 Dibenzofuran

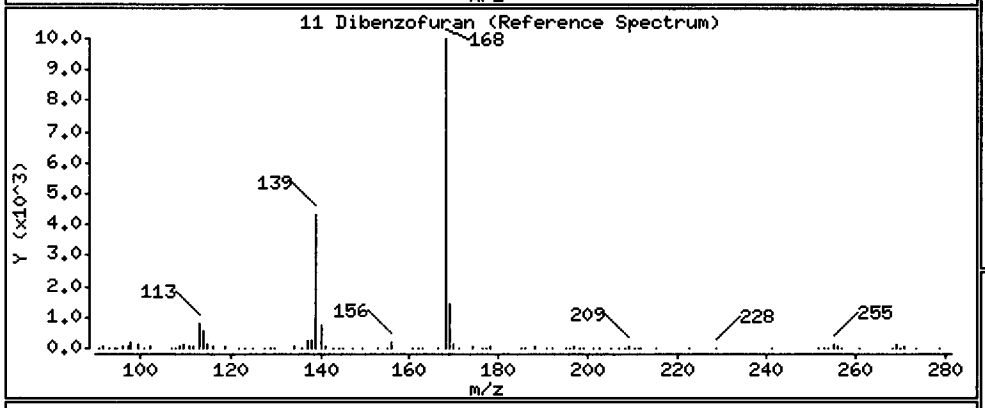
Concentration: 55.99 ug/kg

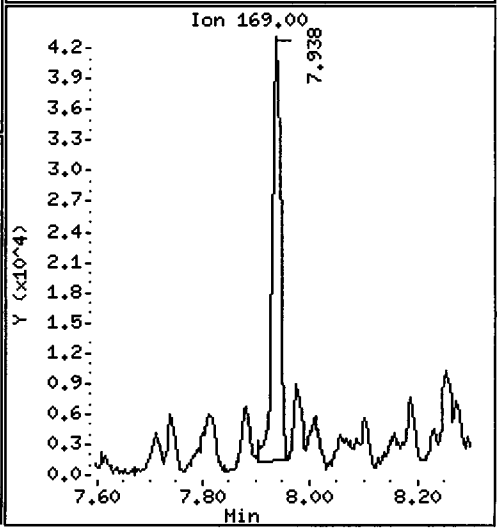


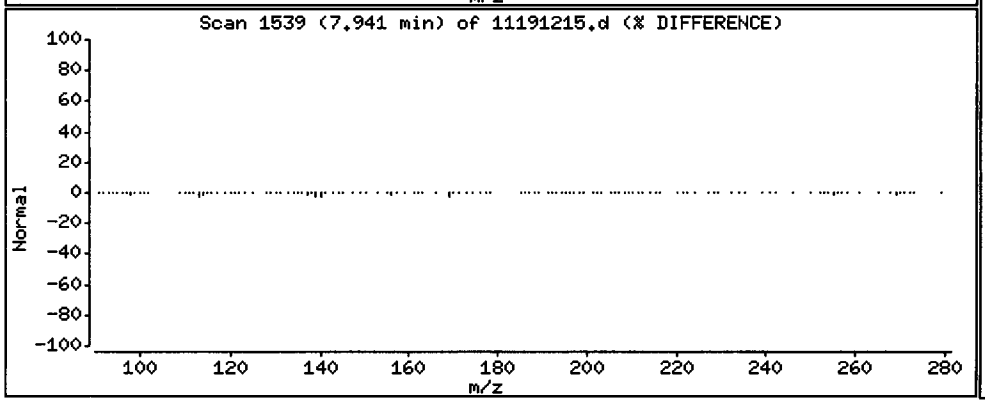












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

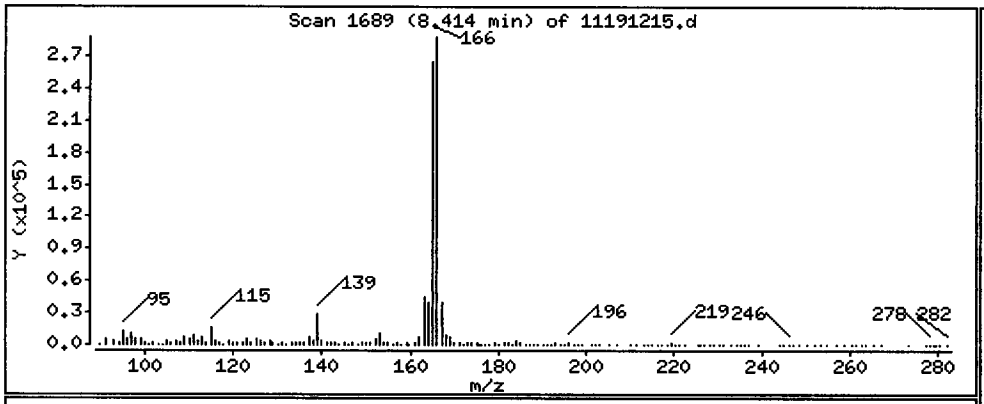
Operator: JZ

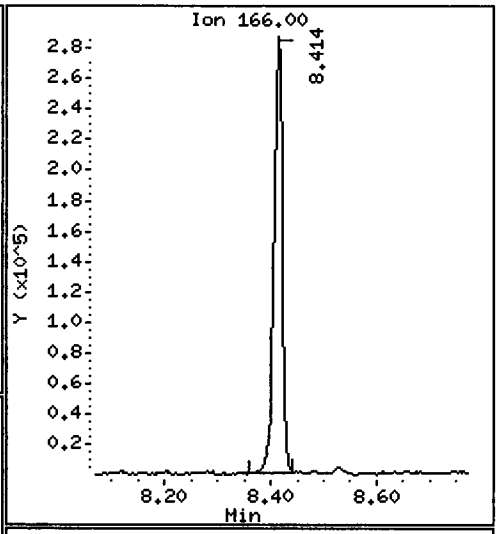
Column phase: ZB-5msi

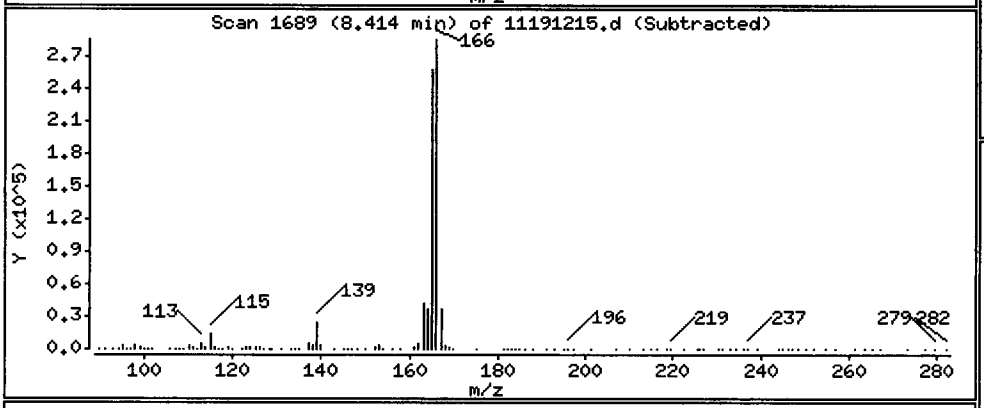
Column diameter: 0.25

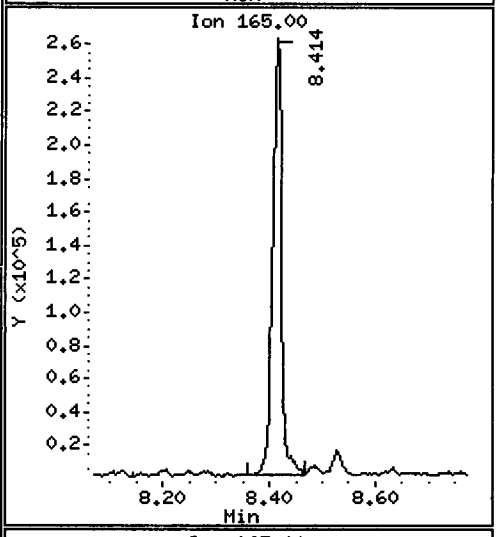
25 Fluorene

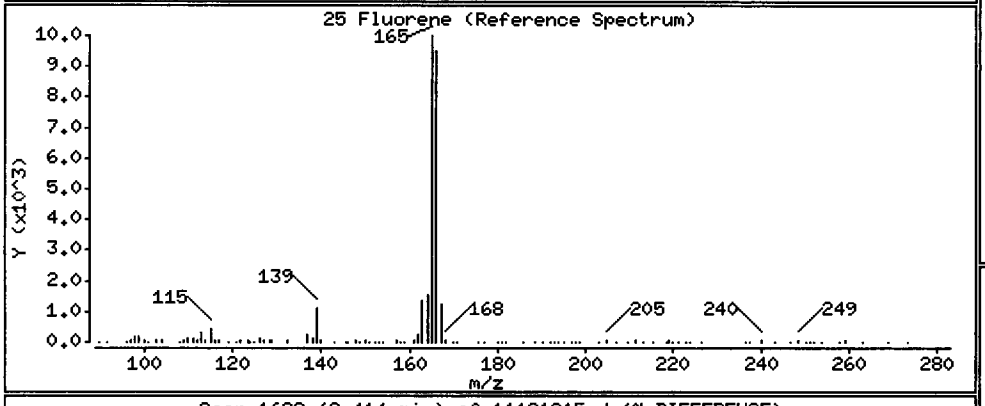
Concentration: 69.12 ug/kg

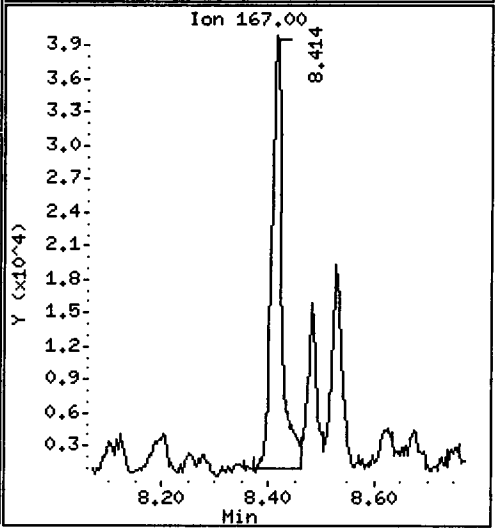


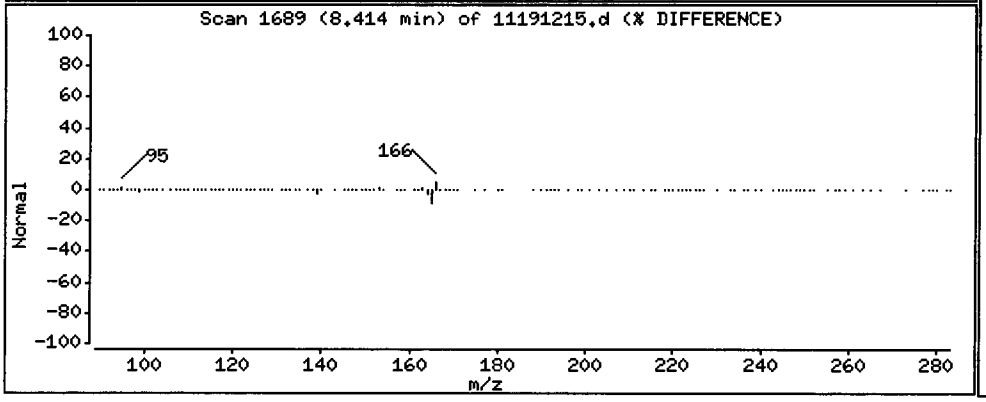












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

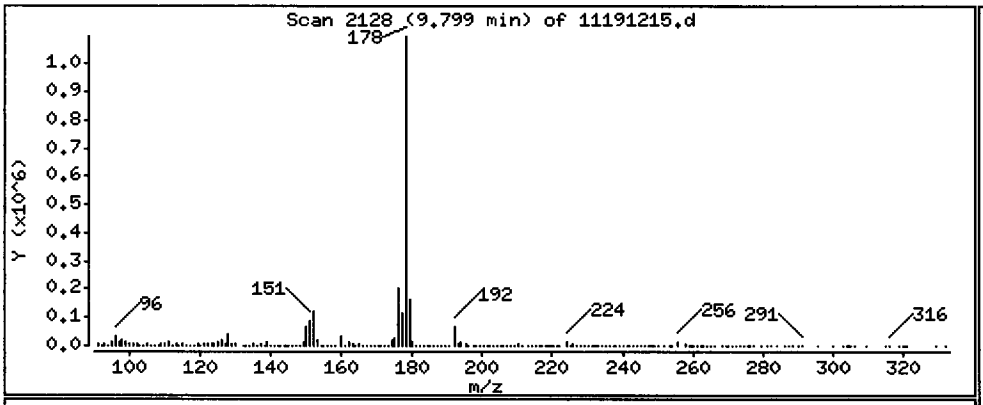
Operator: JZ

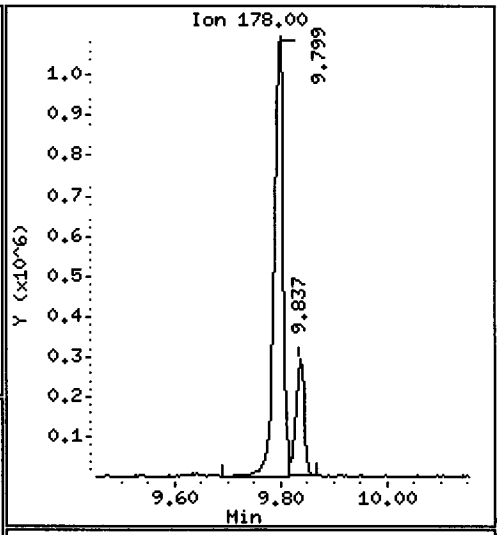
Column phase: ZB-5msi

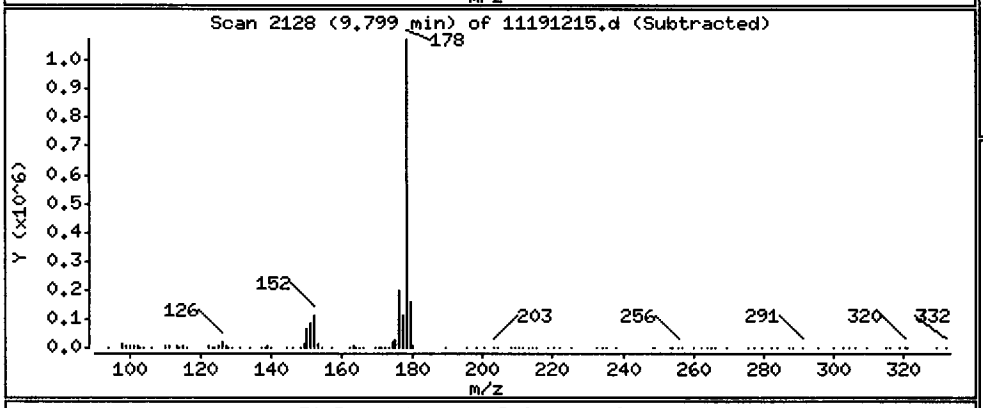
Column diameter: 0.25

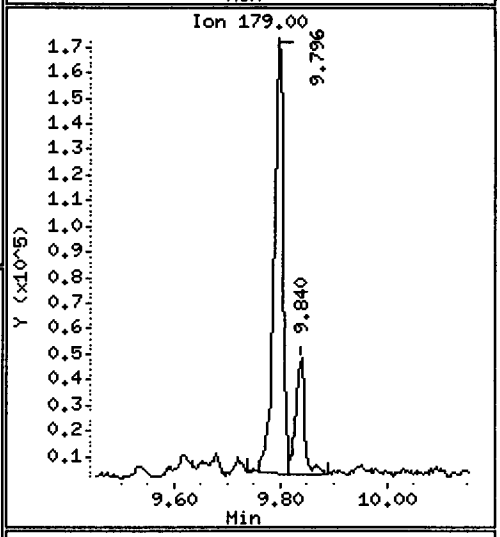
30 Phenanthrene

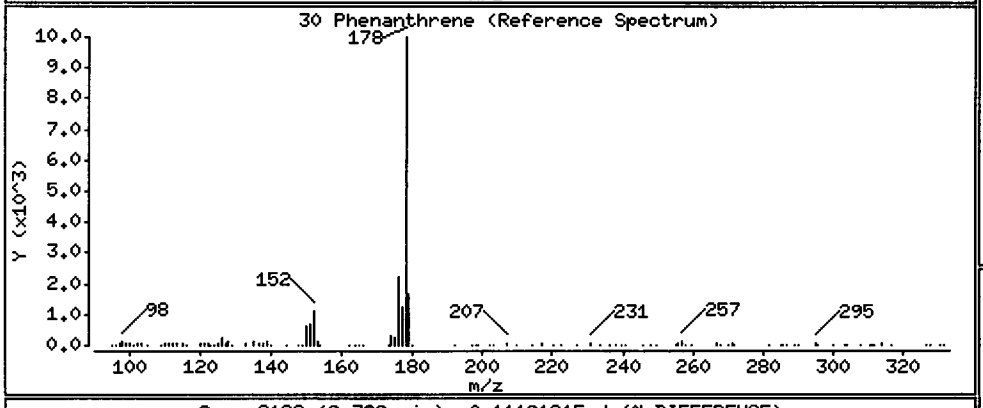
Concentration: 212.0 ug/kg

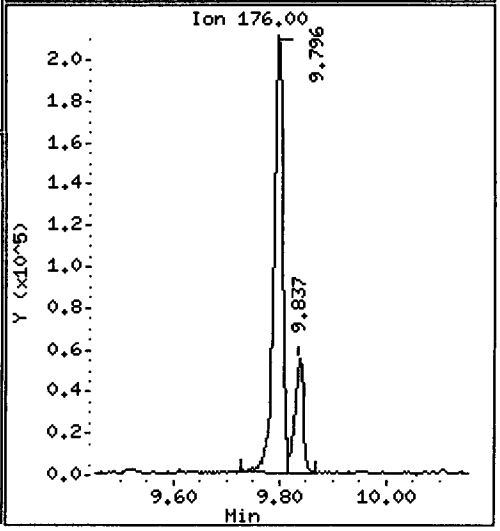


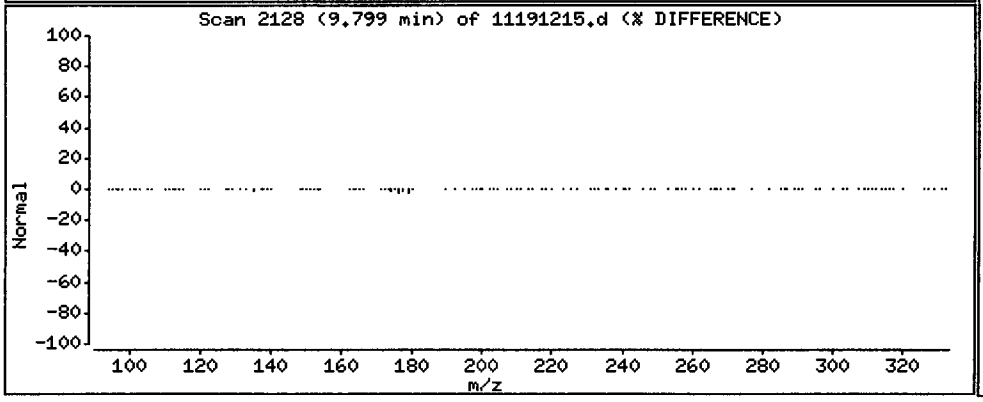












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

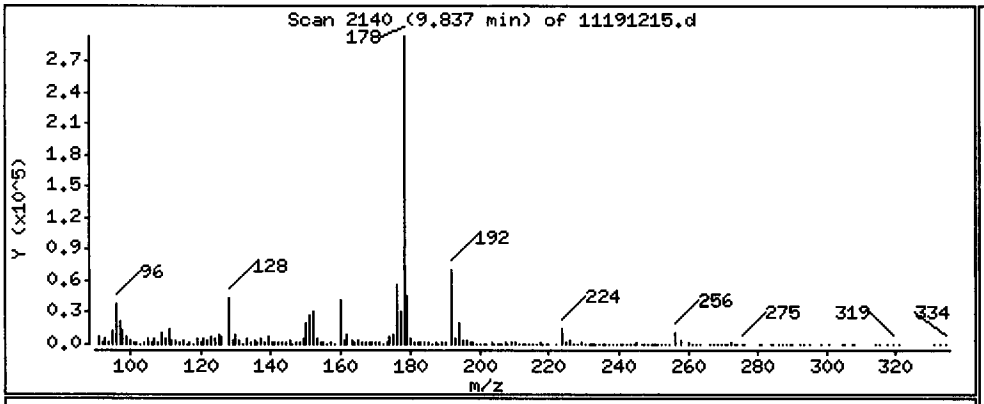
Operator: JZ

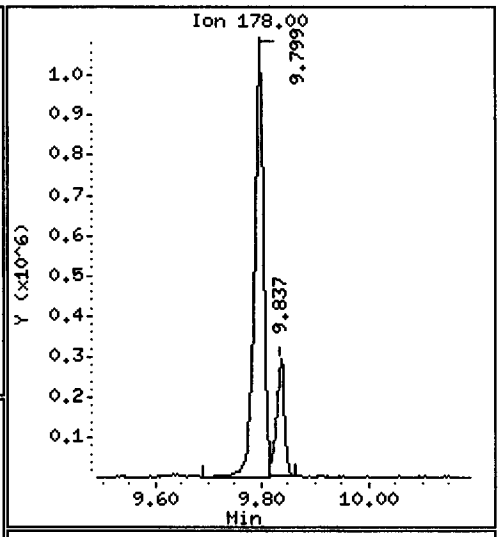
Column phase: ZB-5msi

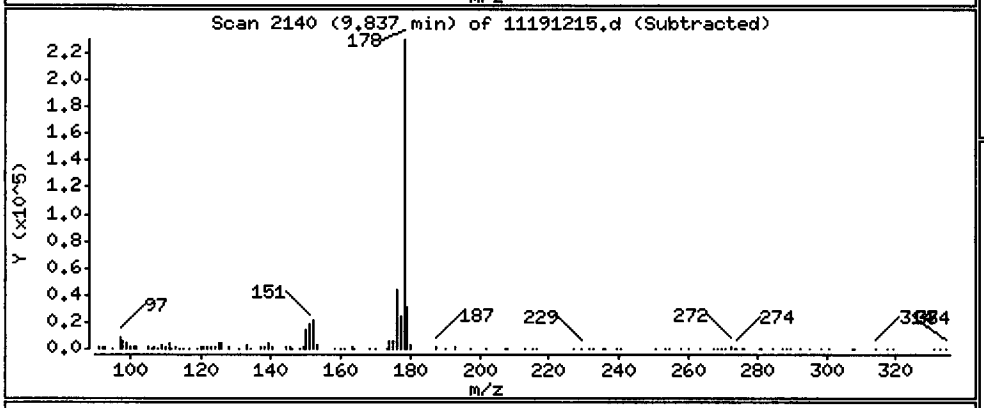
Column diameter: 0.25

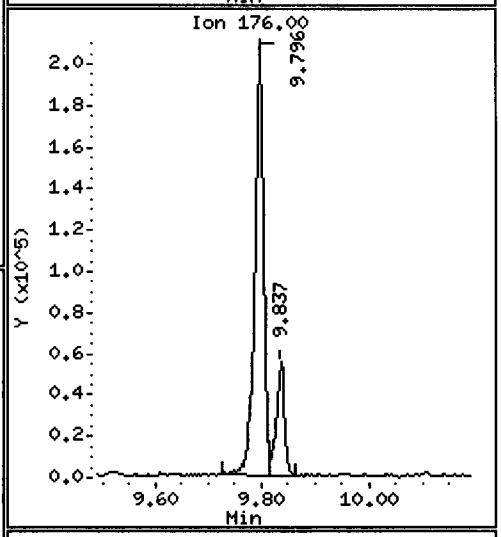
31 Anthracene

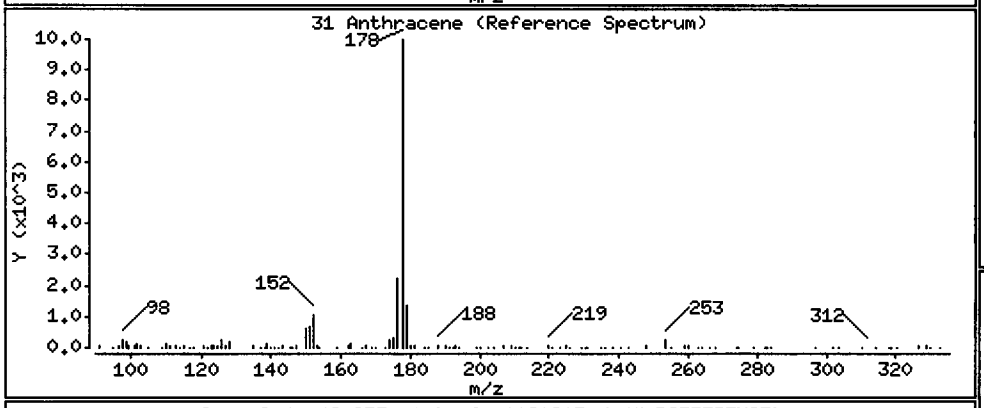
Concentration: 54.12 ug/kg

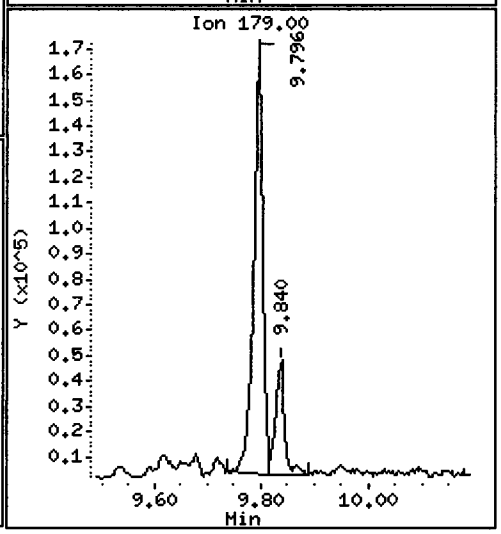


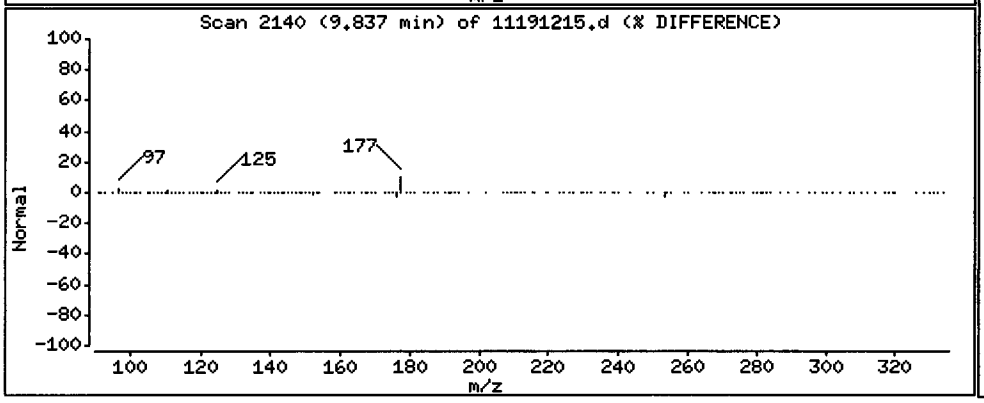












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

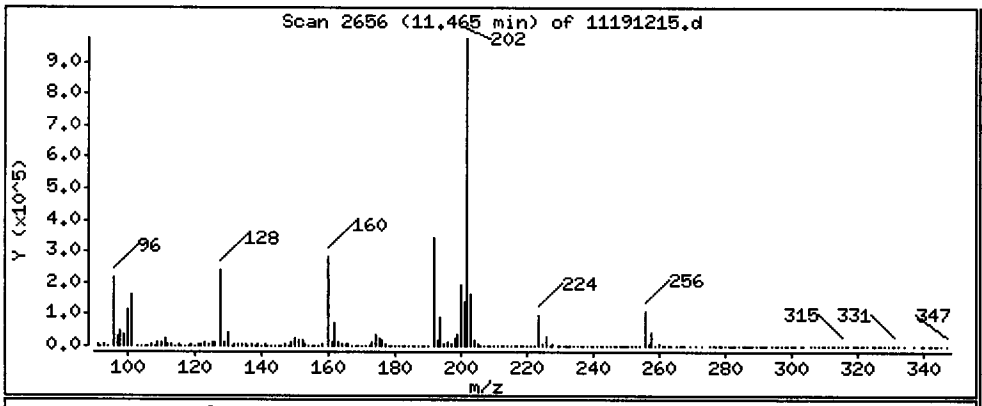
Operator: JZ

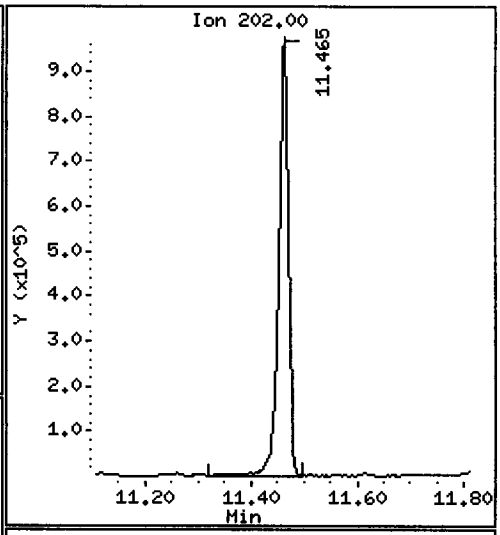
Column phase: ZB-5msi

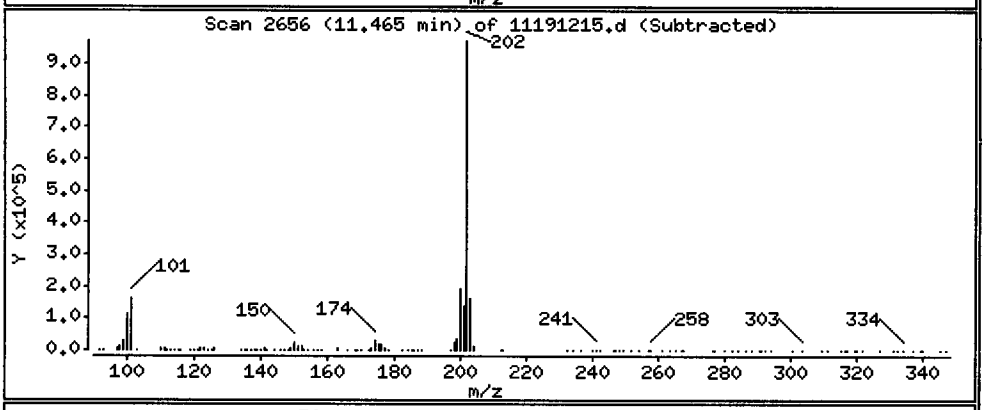
Column diameter: 0.25

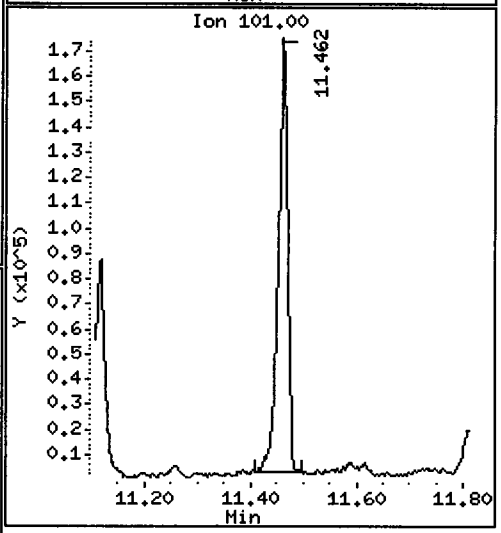
36 Fluoranthene

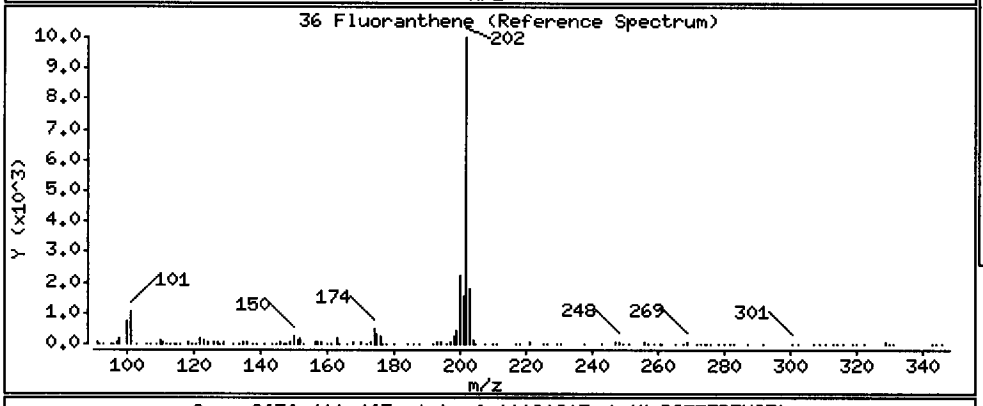
Concentration: 206.3 ug/kg

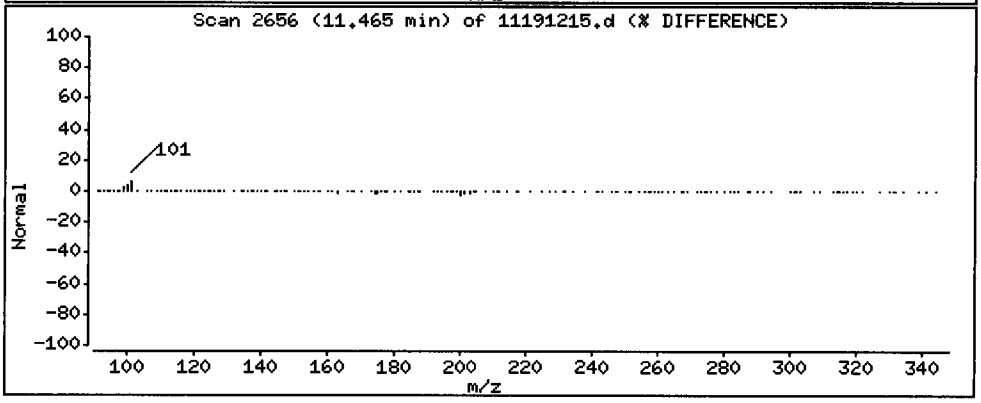












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

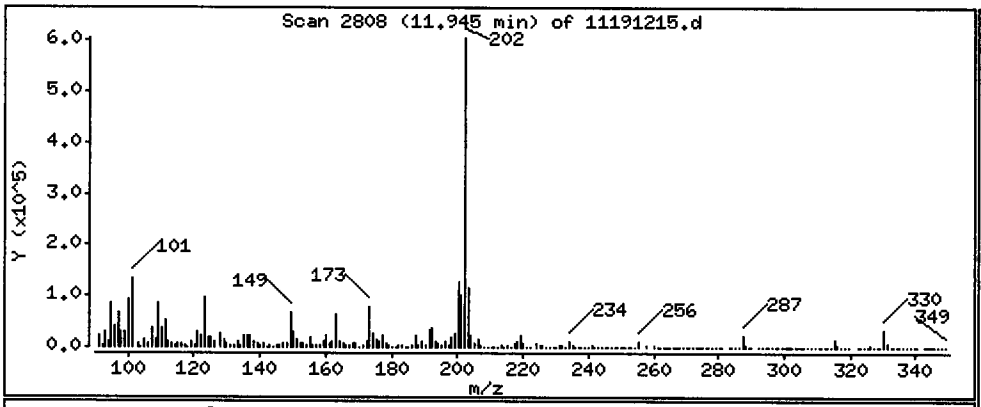
Operator: JZ

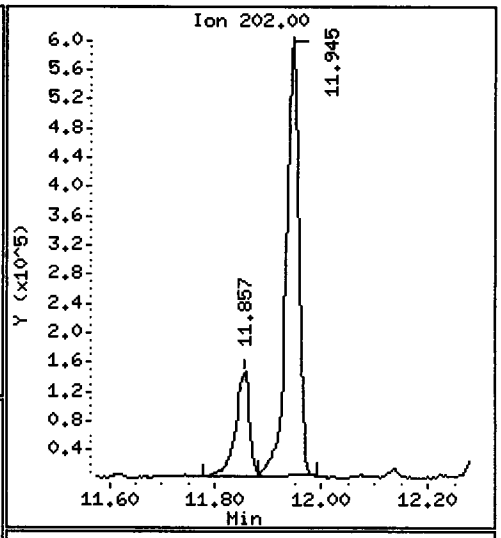
Column phase: ZB-5msi

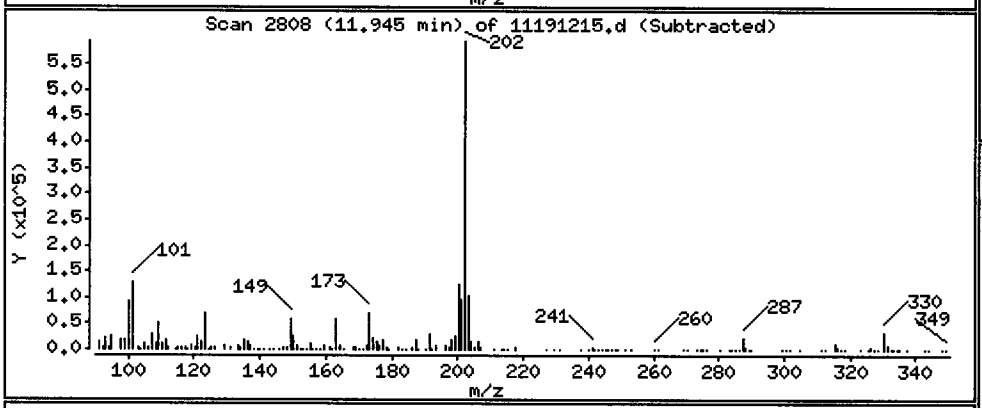
Column diameter: 0.25

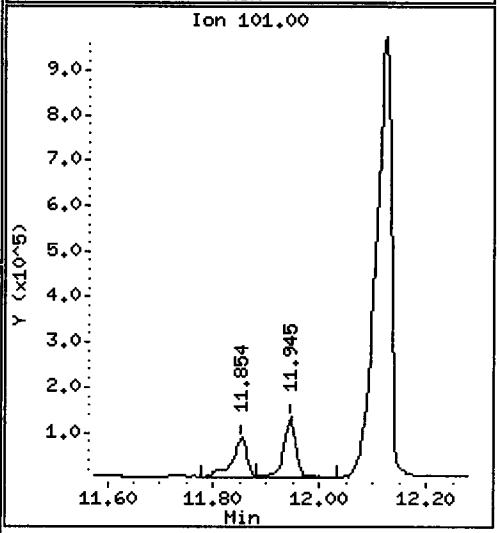
39 Pyrene

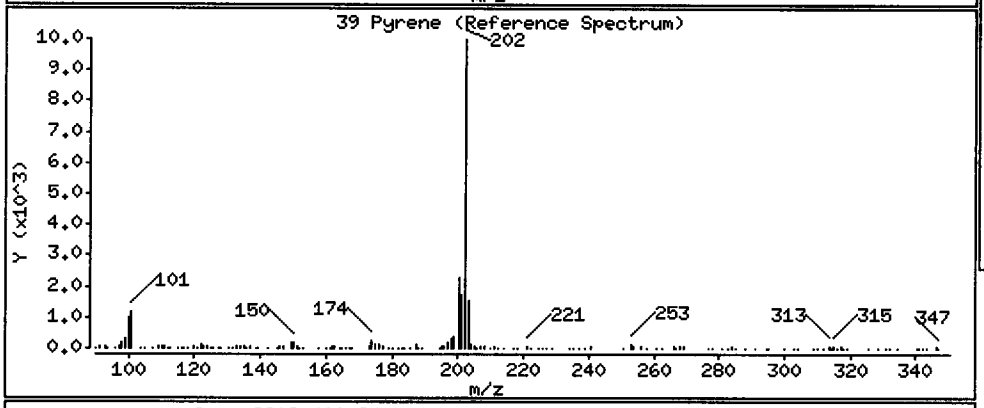
Concentration: 163.6 ug/kg

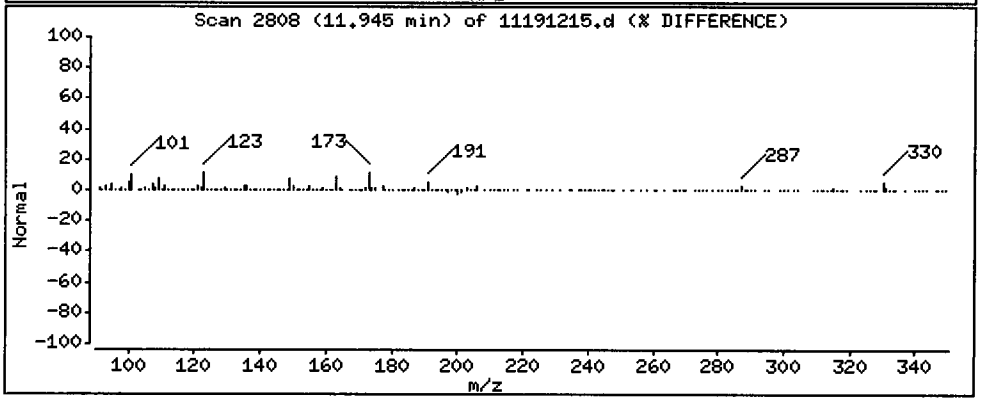












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

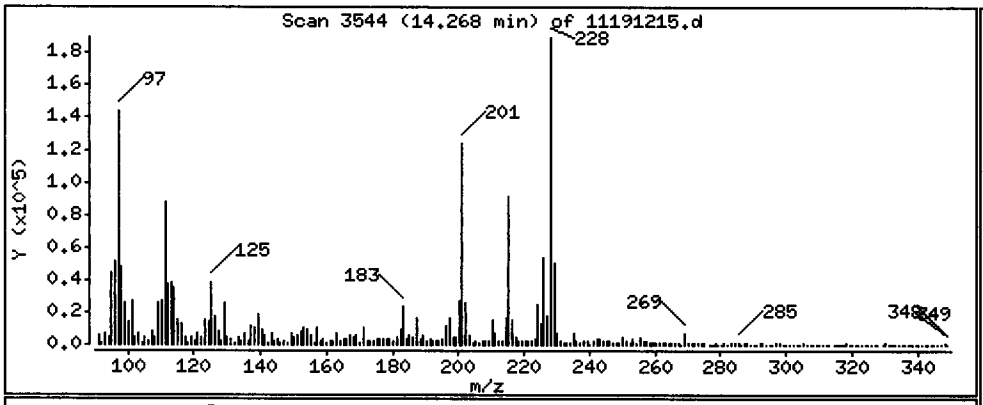
Operator: JZ

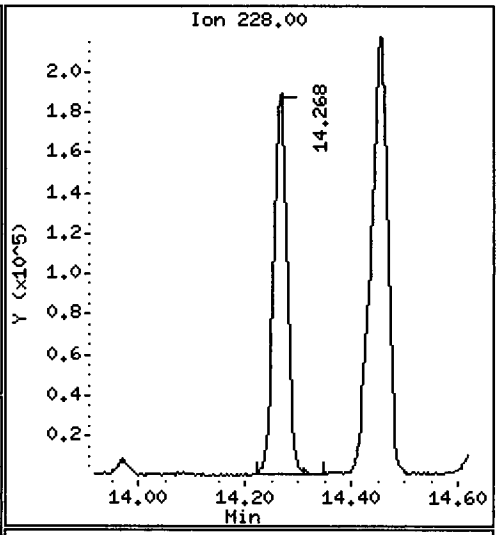
Column phase: ZB-5msi

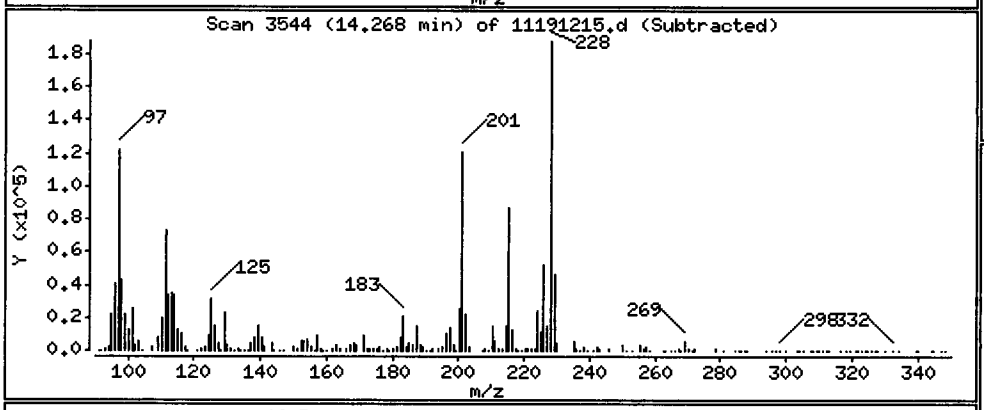
Column diameter: 0.25

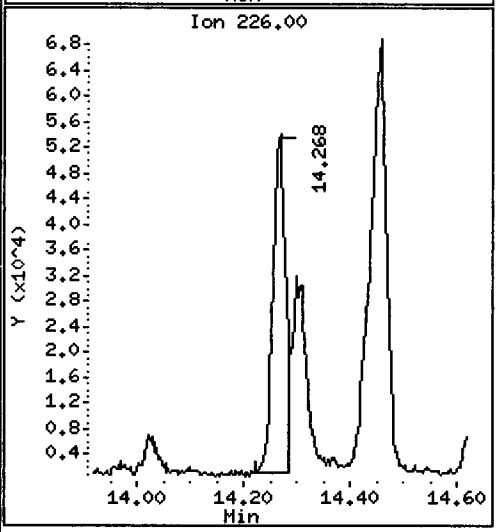
46 Benzo(a)anthracene

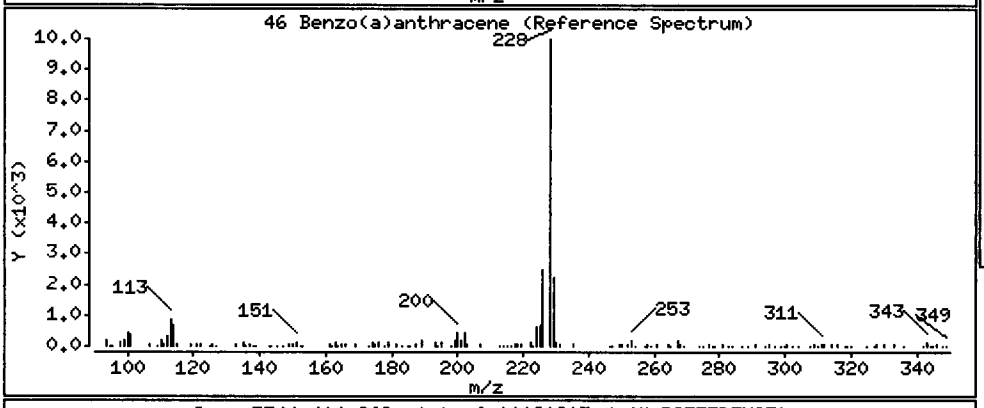
Concentration: 59.83 ug/kg

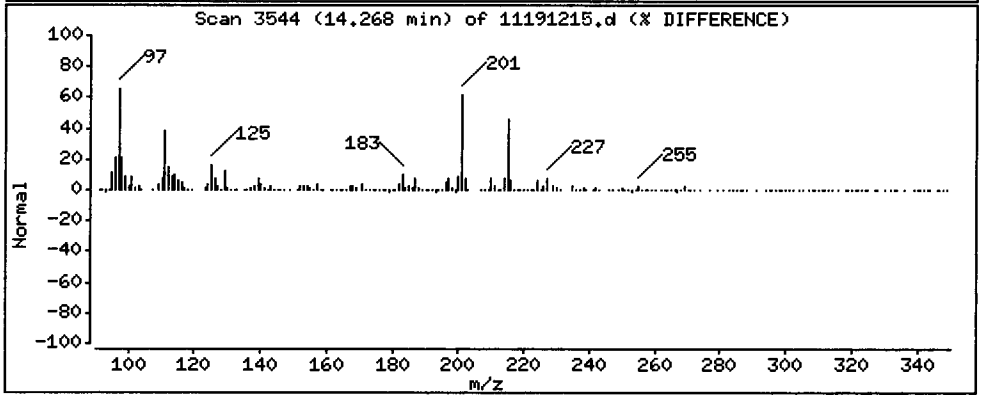












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

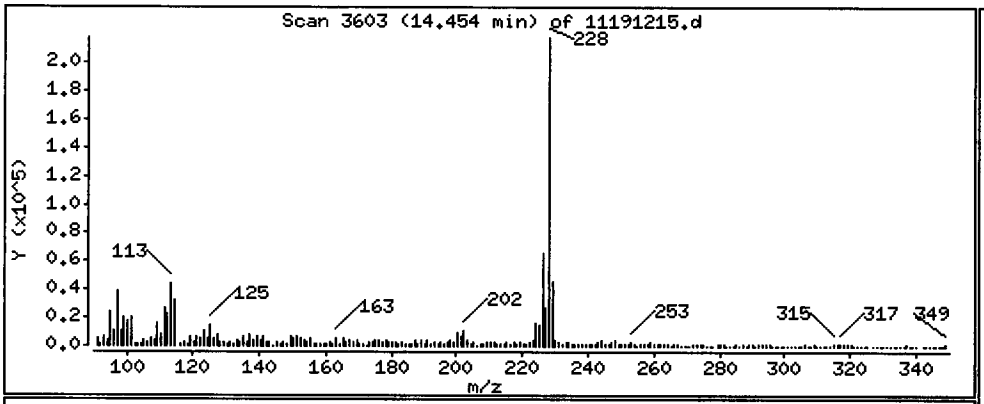
Operator: JZ

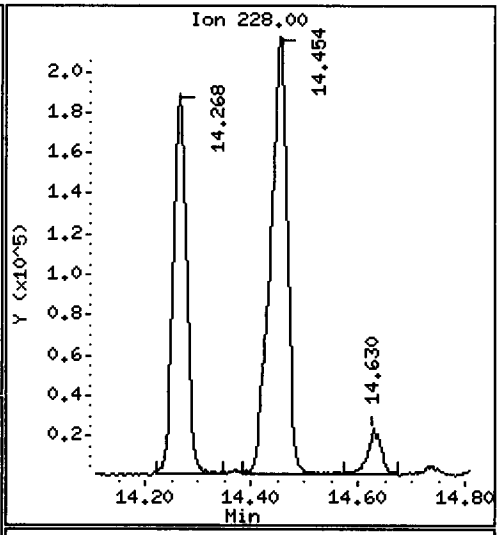
Column phase: ZB-5msi

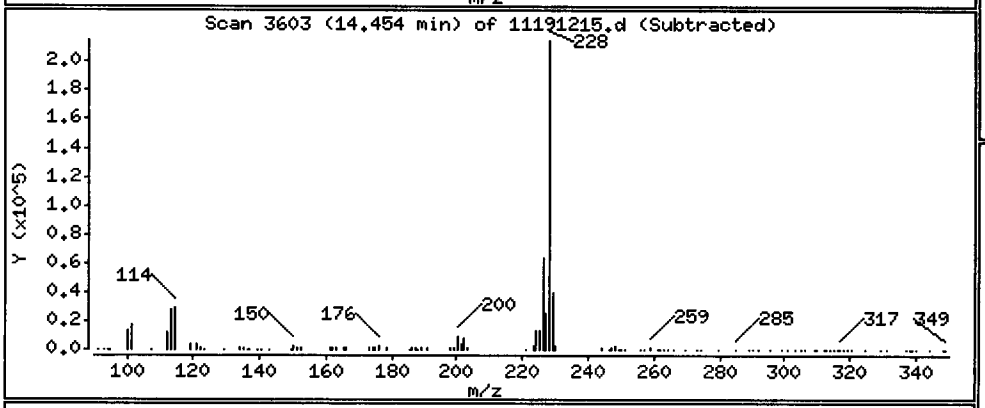
Column diameter: 0.25

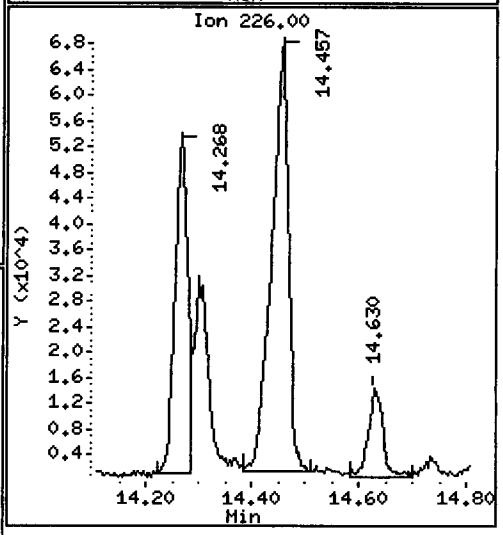
48 Chrysene

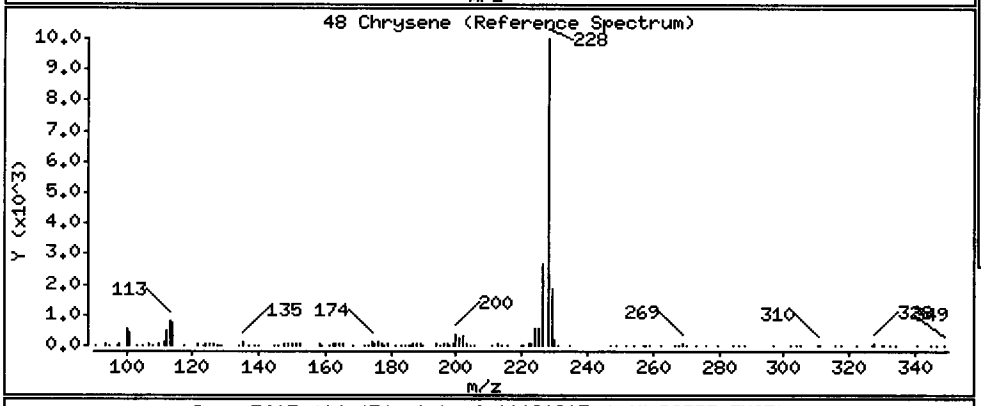
Concentration: 88.87 ug/kg

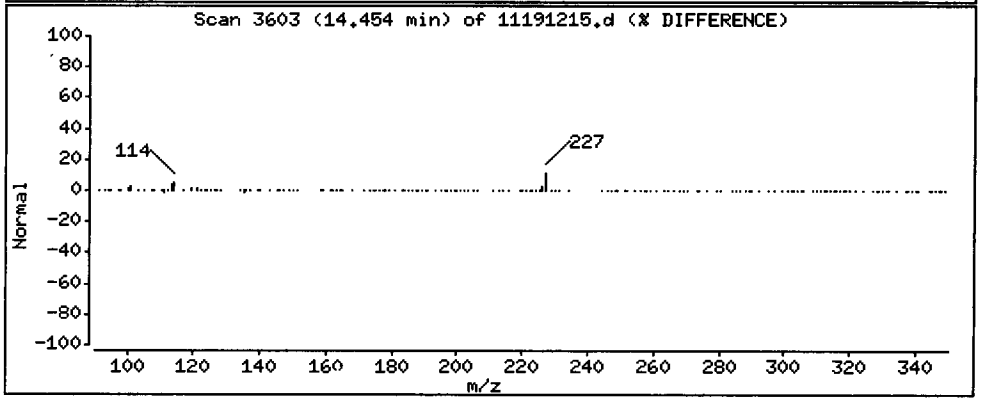












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

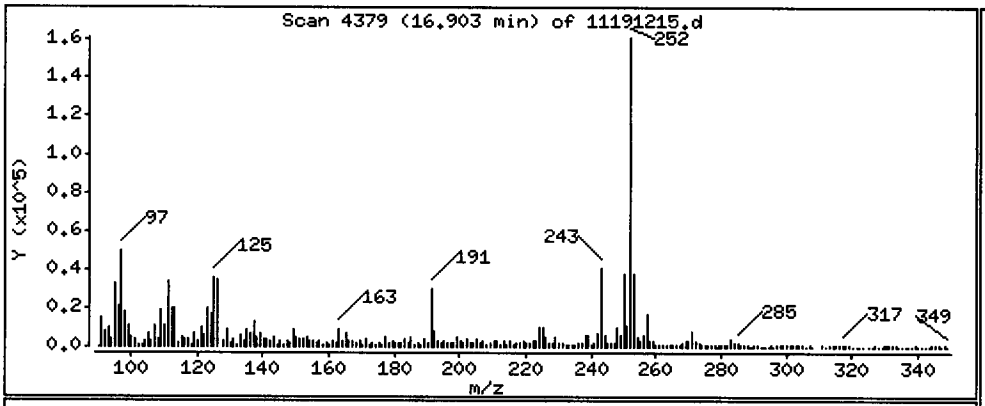
Operator: JZ

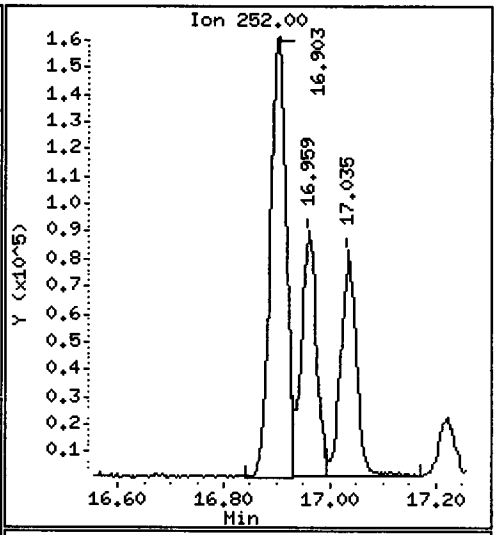
Column phase: ZB-5msi

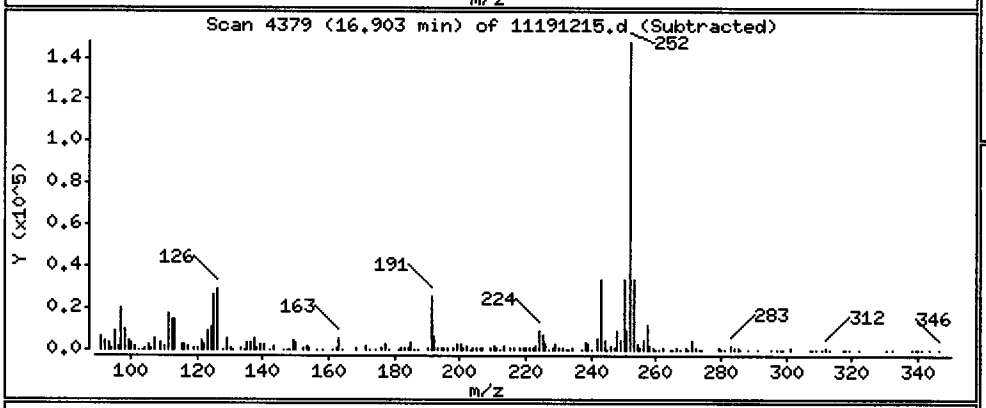
Column diameter: 0.25

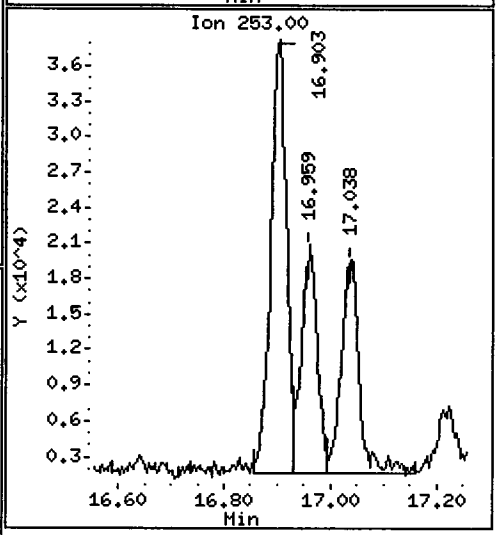
51 Benzo(b)fluoranthene

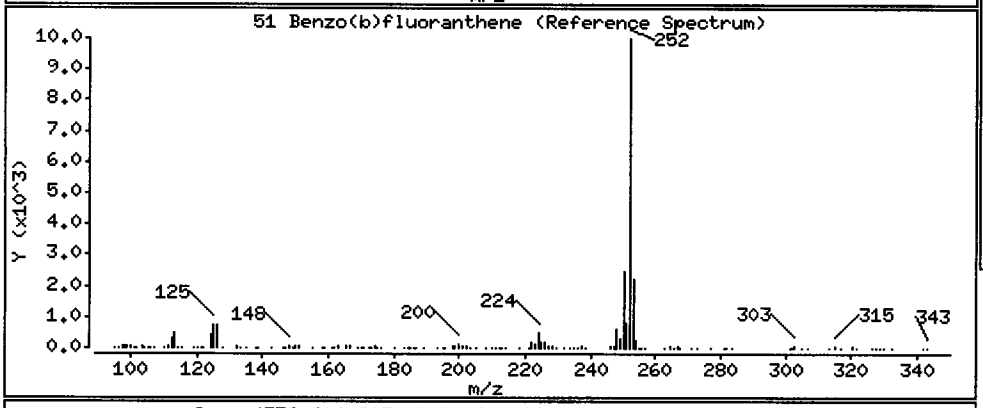
Concentration: 59.82 ug/kg

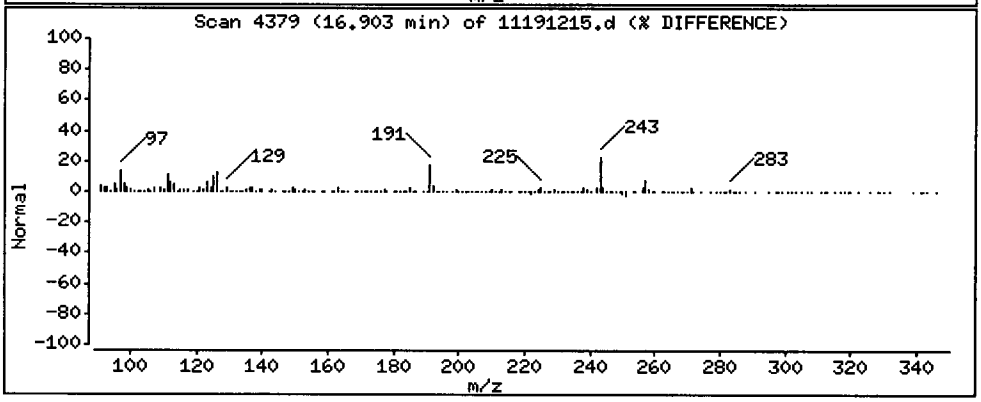












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

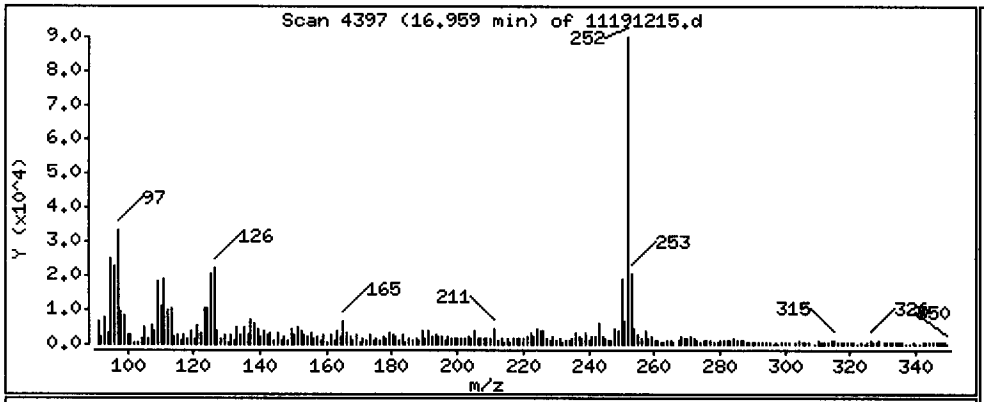
Operator: JZ

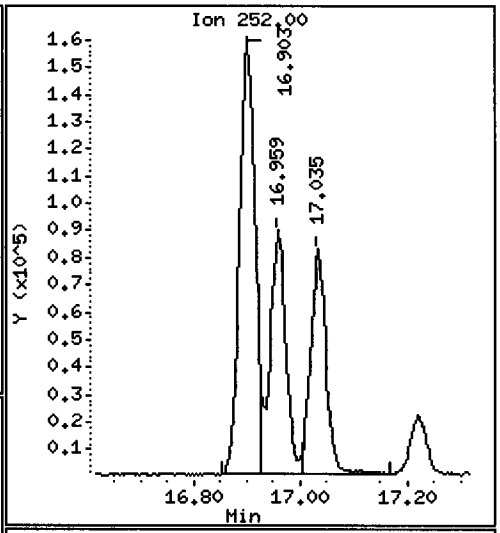
Column phase: ZB-5msi

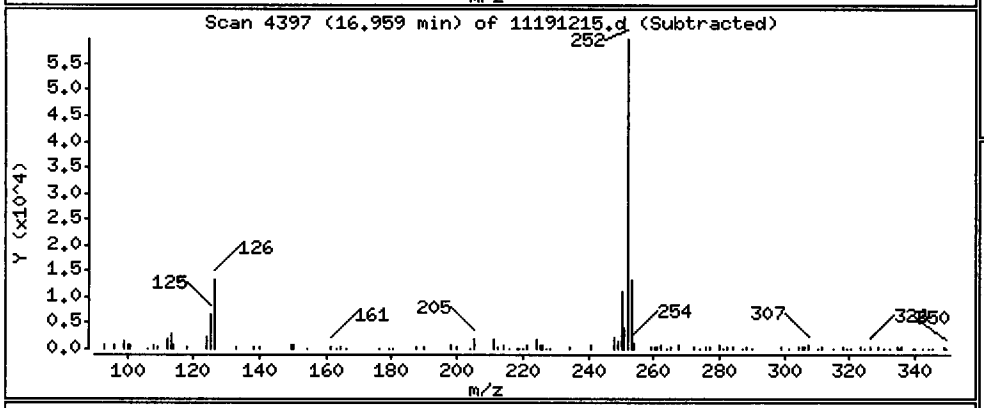
Column diameter: 0.25

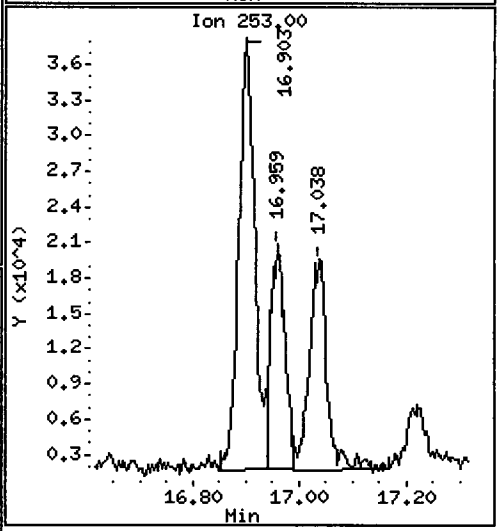
52 Benzo(k)fluoranthene

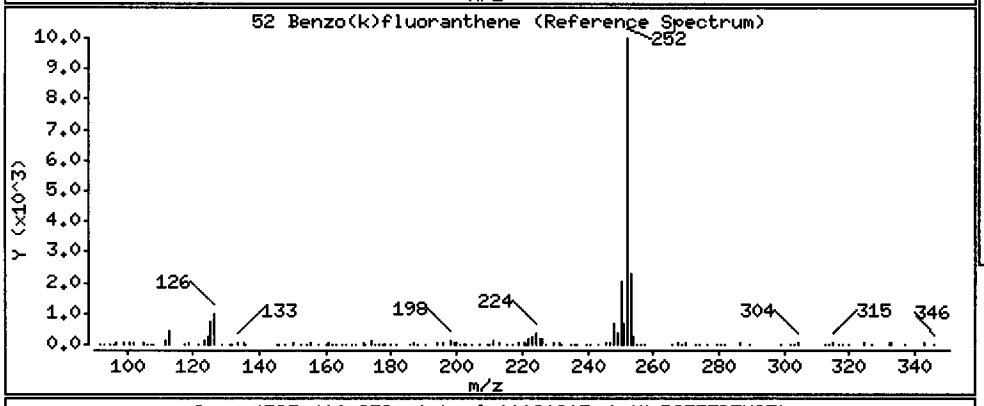
Concentration: 30.78 ug/kg

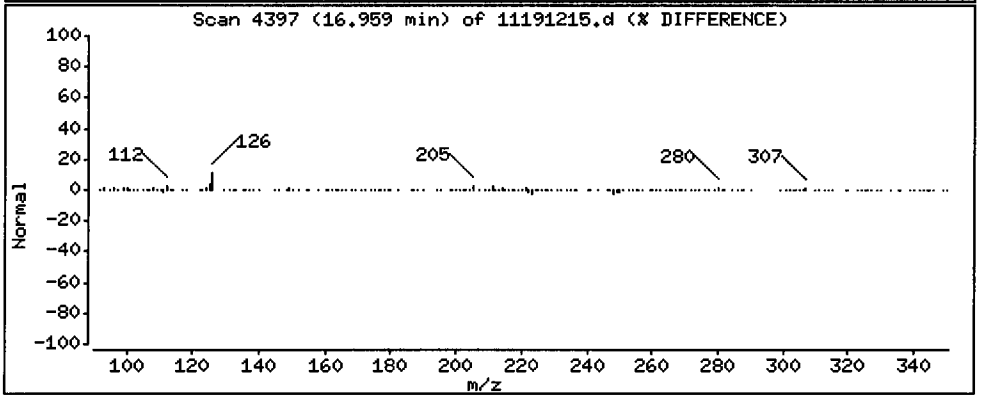












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

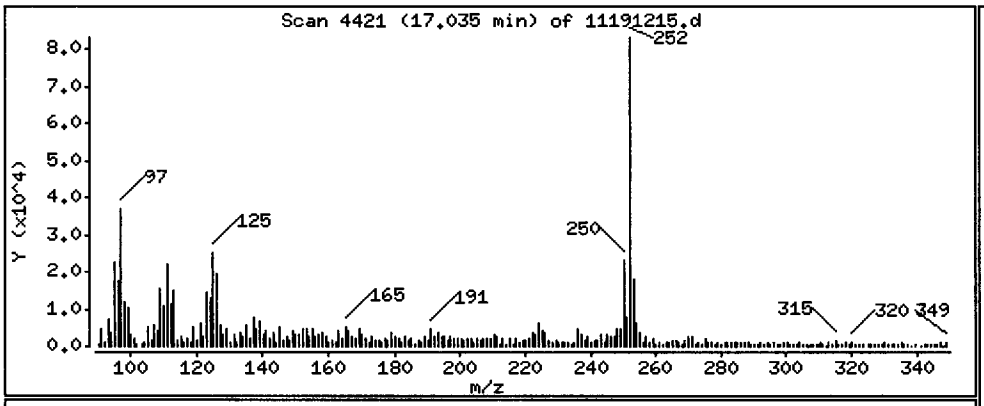
Client ID: HT-03-S-C-121106 Instrument: nt11.i

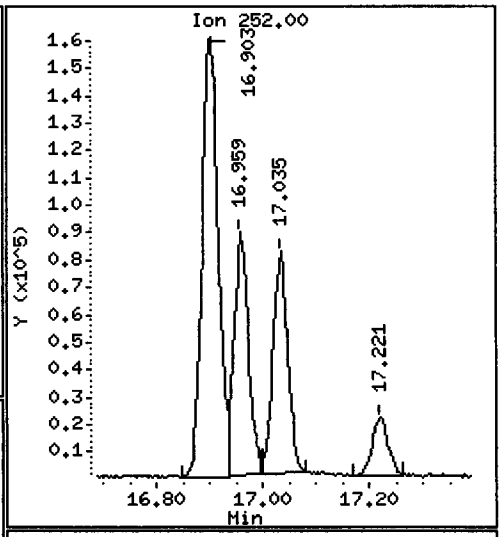
Sample Info: VR38C

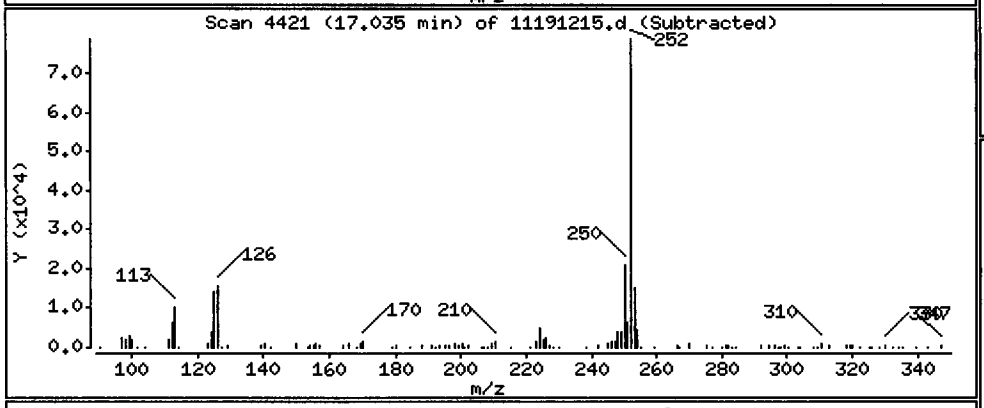
Volume Injected (uL): 1.0 Operator: JZ

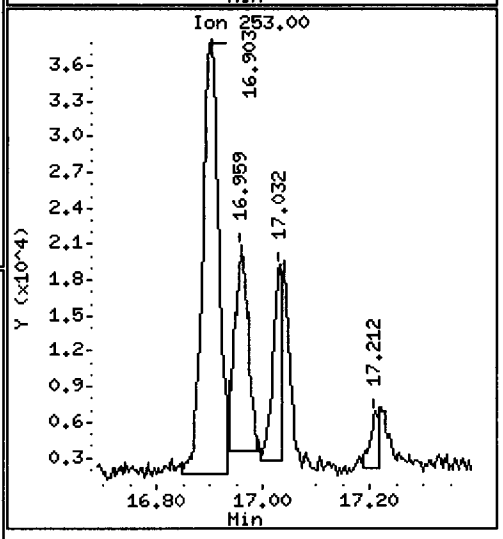
Column phase: ZB-5msi Column diameter: 0.25

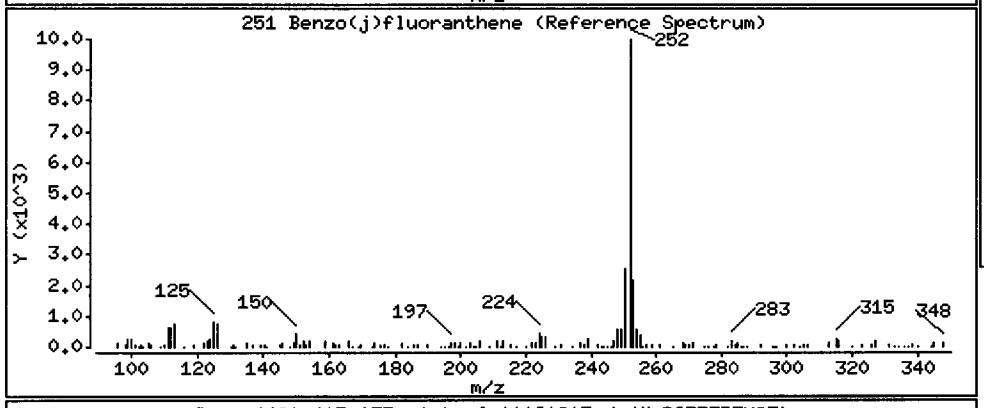
251 Benzo(j)fluoranthene Concentration: 24.58 ug/kg

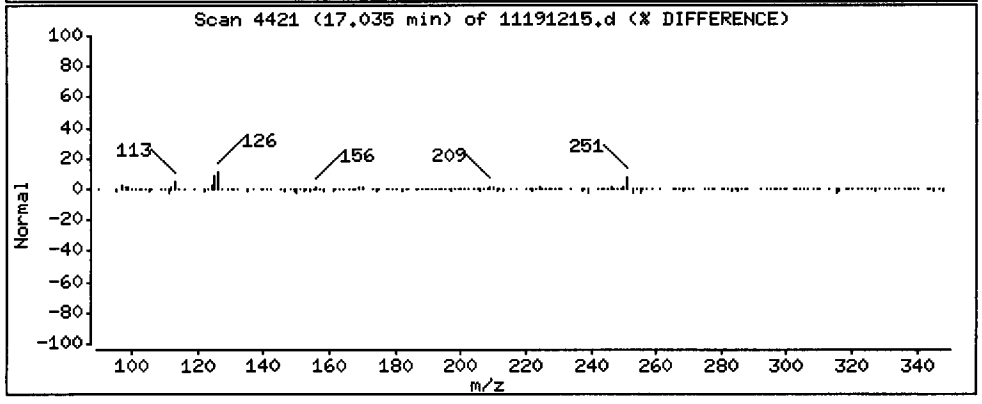












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

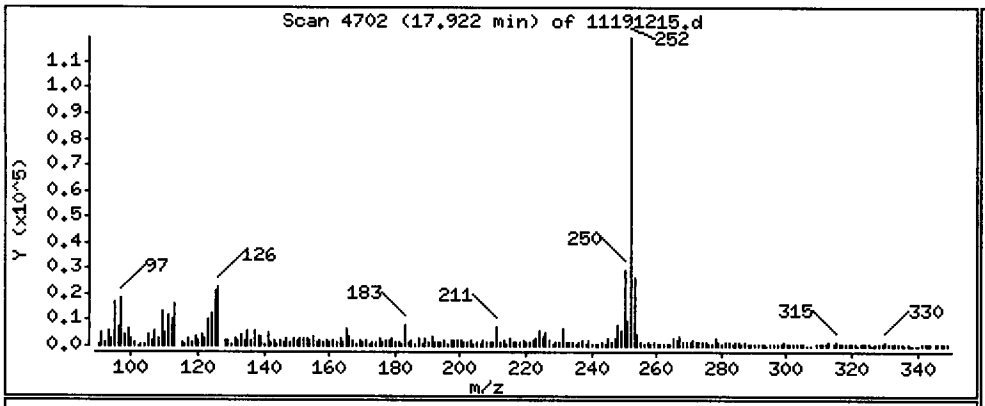
Operator: JZ

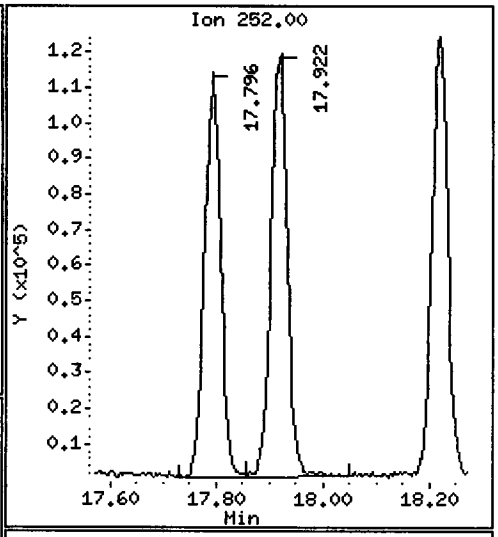
Column phase: ZB-5msi

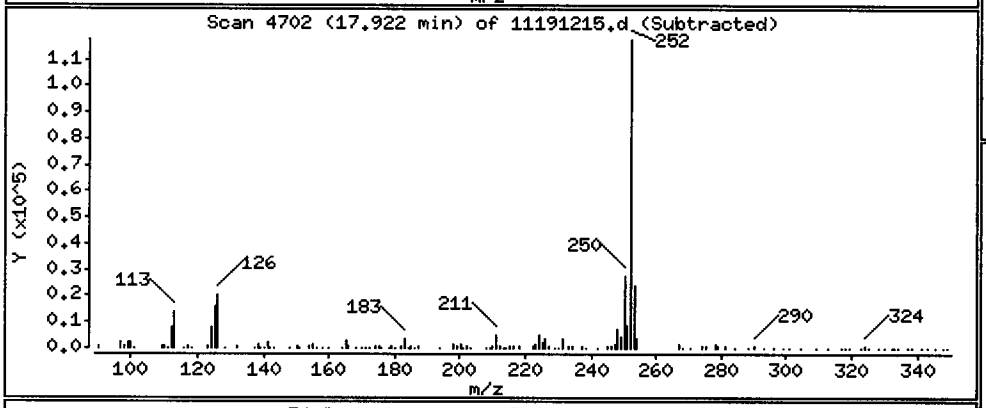
Column diameter: 0.25

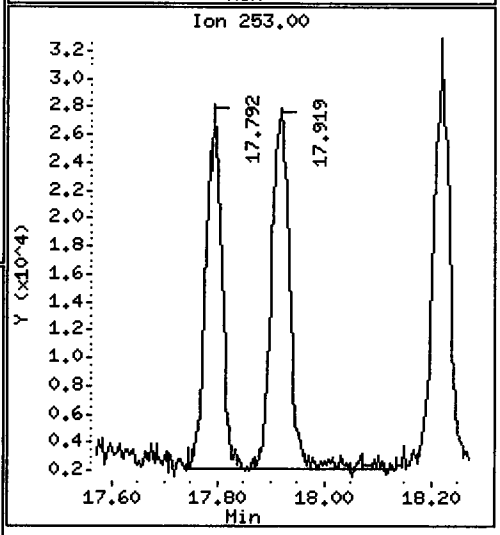
54 Benzo(a)pyrene

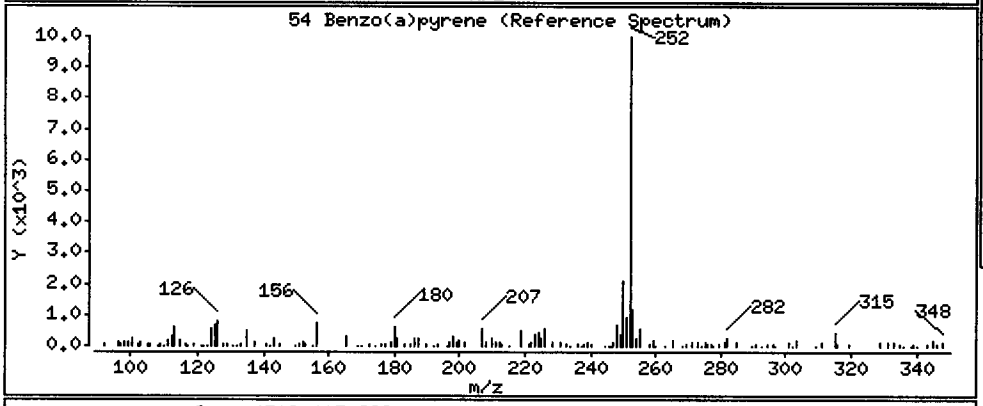
Concentration: 45.23 ug/kg

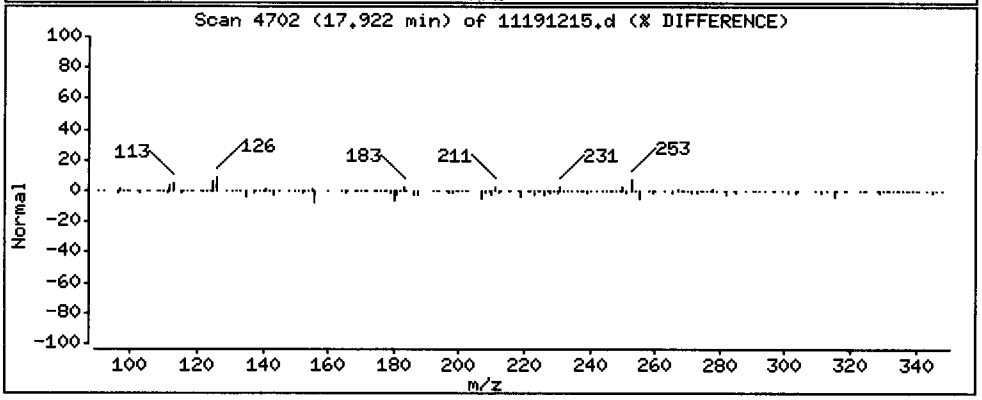












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

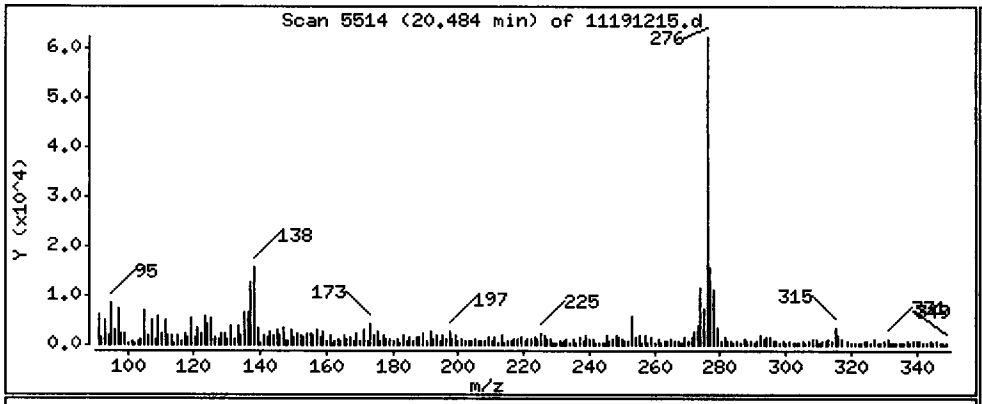
Operator: JZ

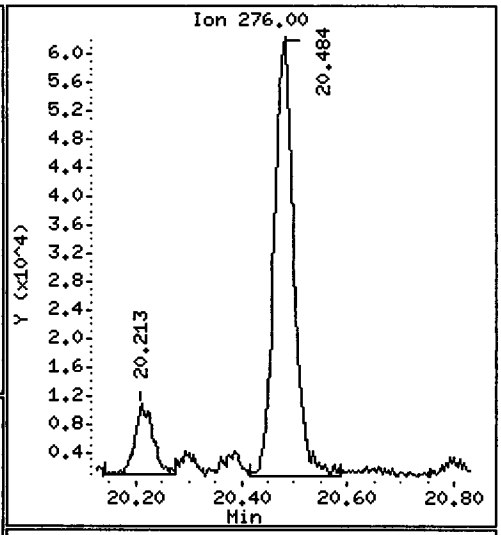
Column phase: ZB-5msi

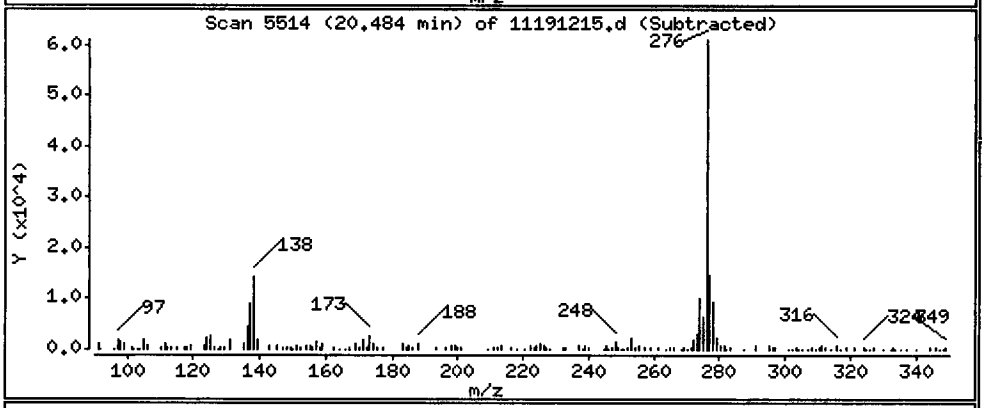
Column diameter: 0.25

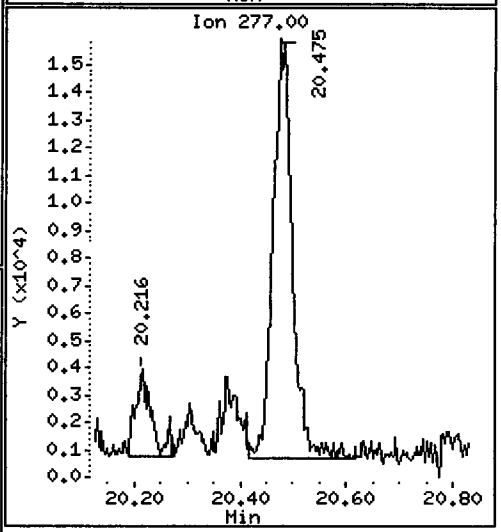
63 Indeno(1,2,3-cd)pyrene

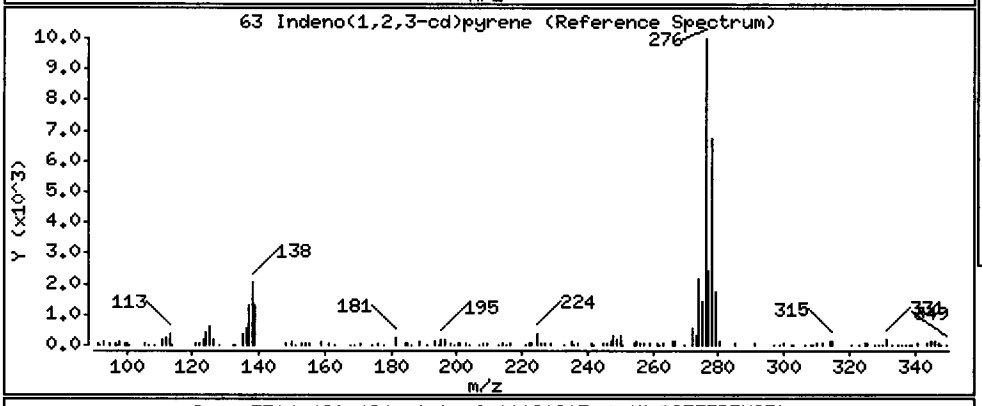
Concentration: 23.14 ug/kg

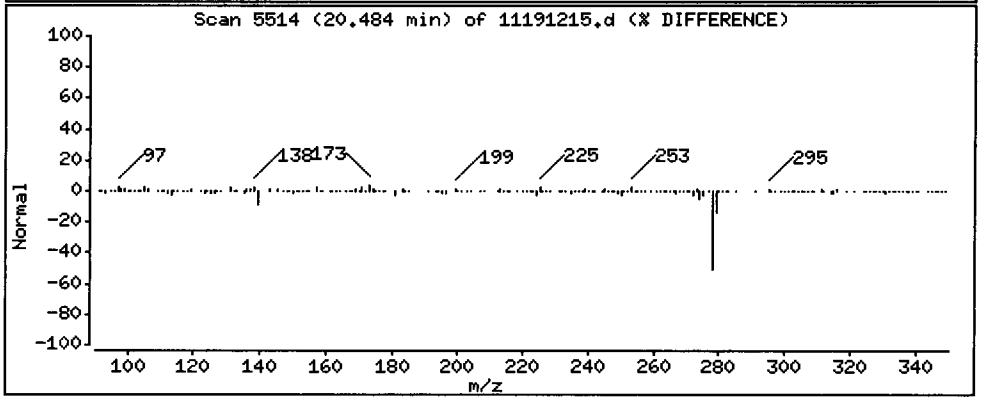












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

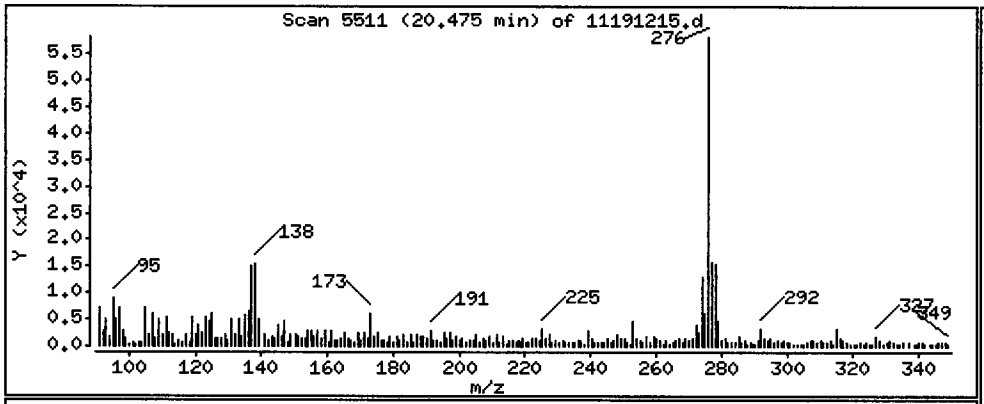
Operator: JZ

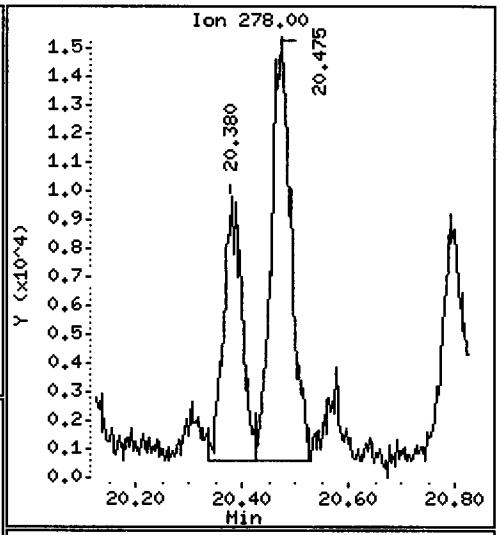
Column phase: ZB-5msi

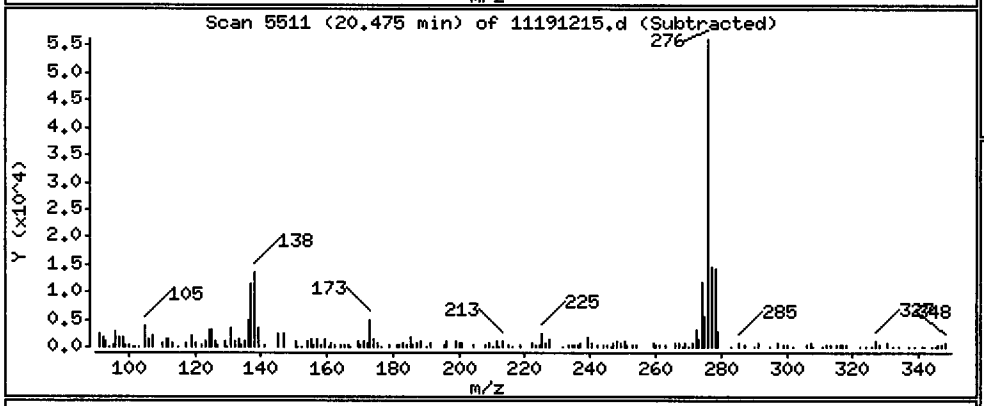
Column diameter: 0.25

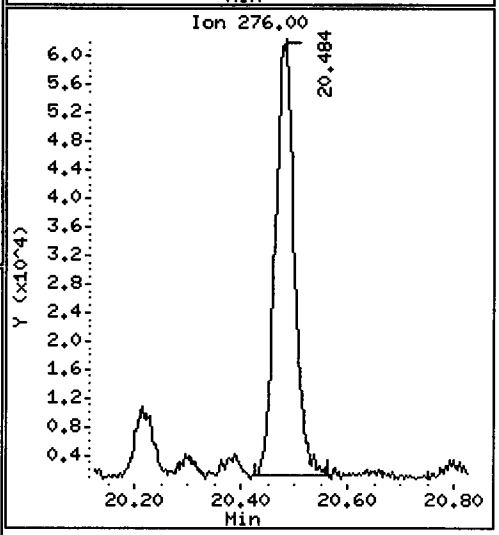
62 Dibenzo(a,h)anthracene

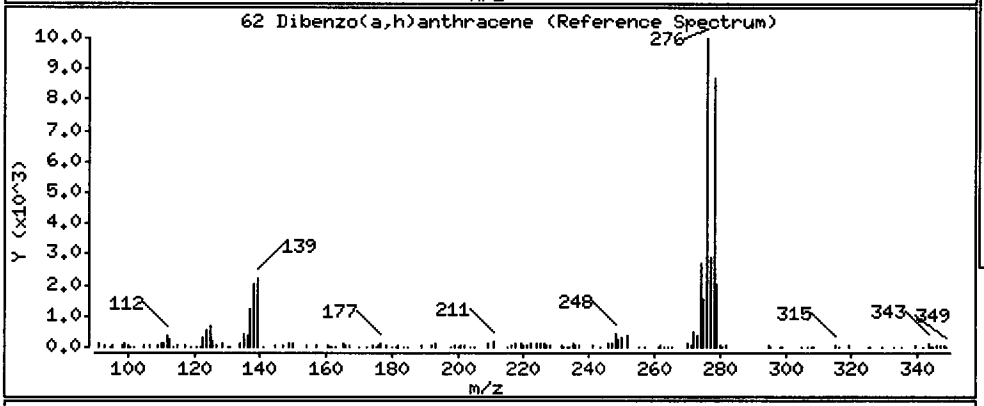
Concentration: 6.960 ug/kg

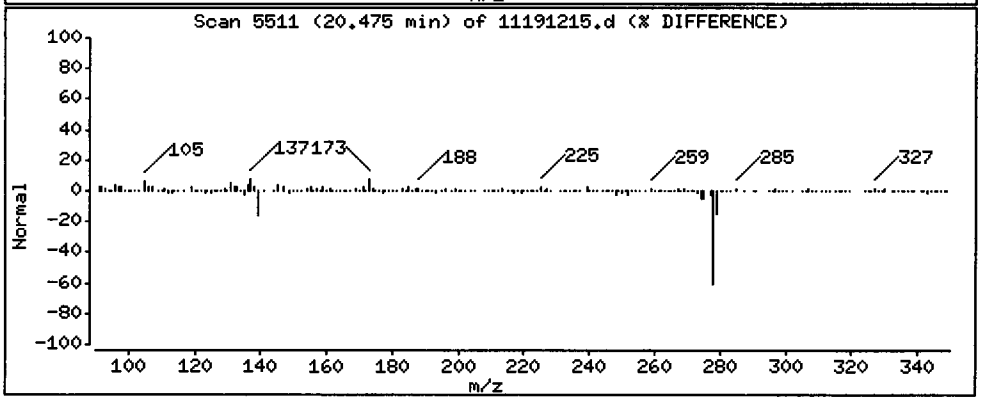












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

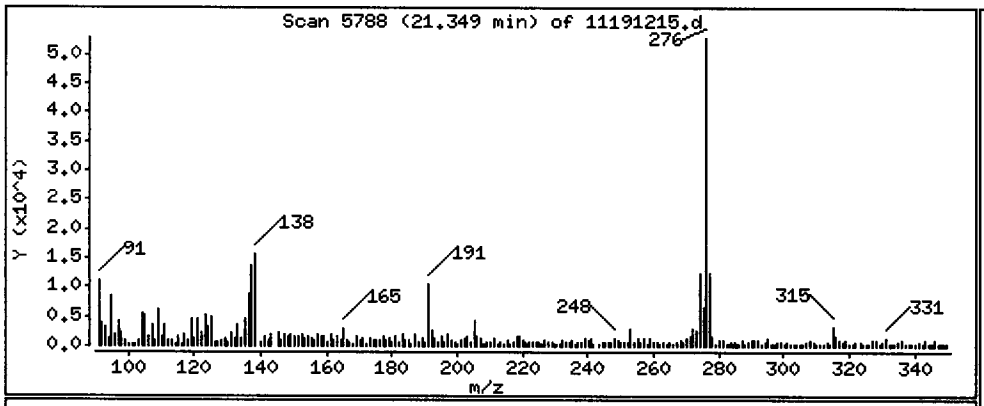
Operator: JZ

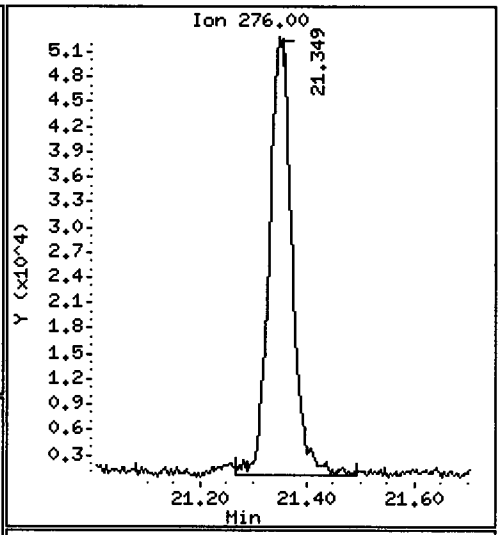
Column phase: ZB-5msi

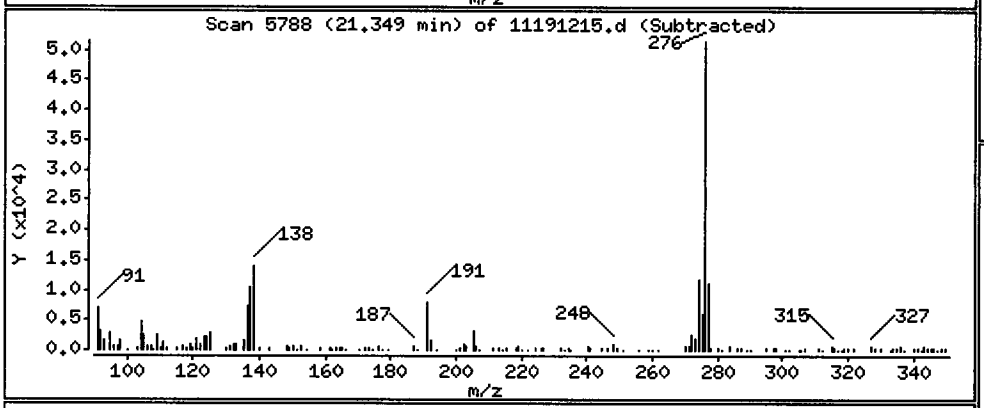
Column diameter: 0.25

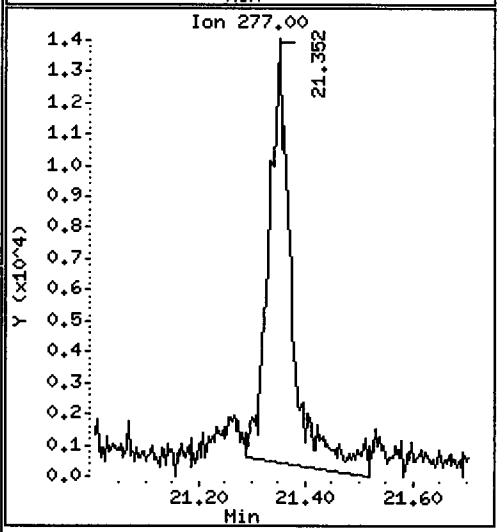
61 Benzo(g,h,i)perylene

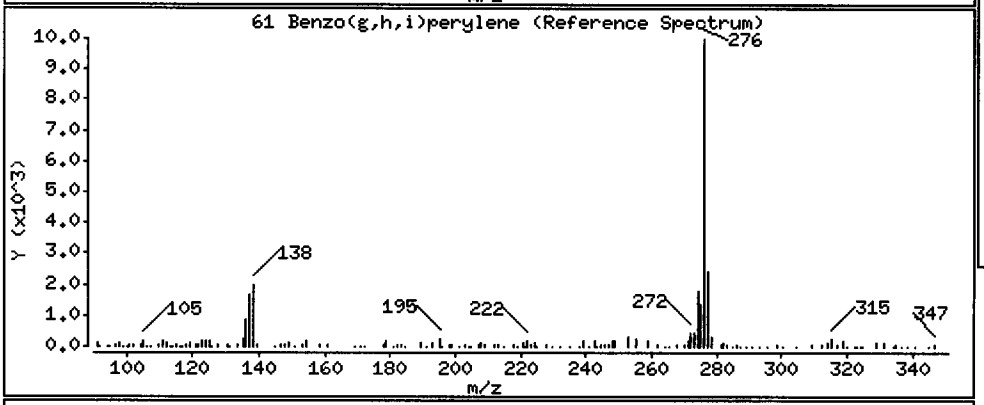
Concentration: 26.53 ug/kg

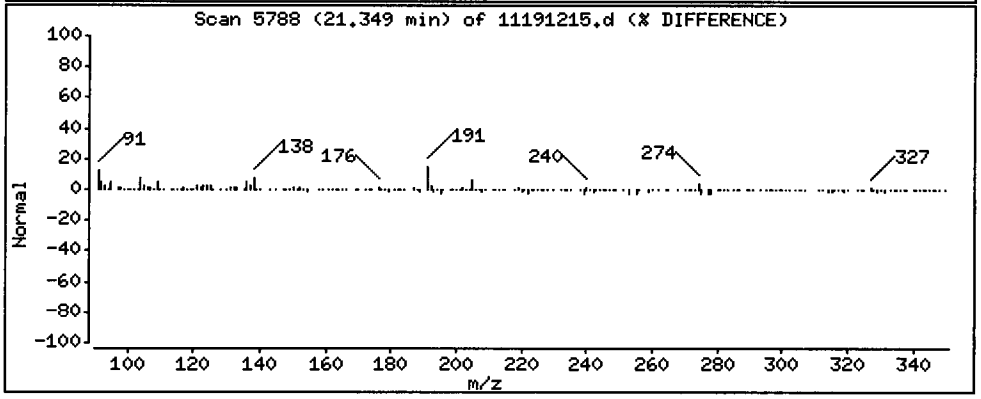












Data File: /chem3/nt11.i/20121119.b/11191215.d

Date : 19-NOV-2012 18:56

Client ID: HT-03-S-C-121106

Instrument: nt11.i

Sample Info: VR38C

Volume Injected (uL): 1.0

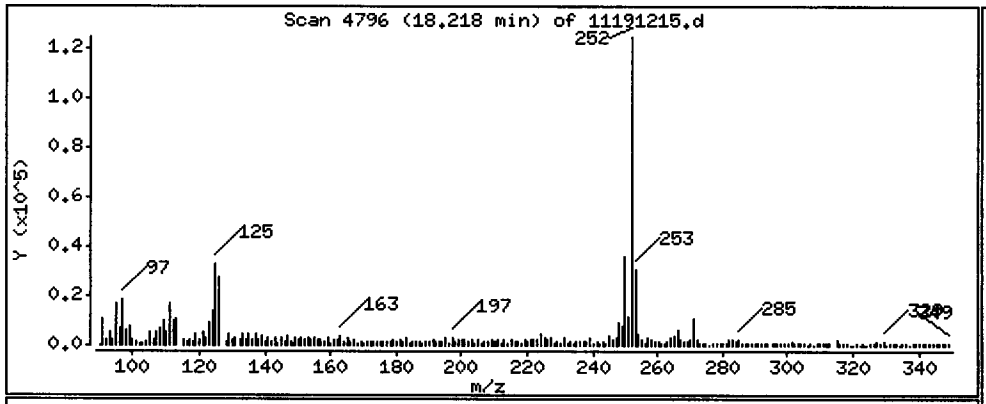
Operator: JZ

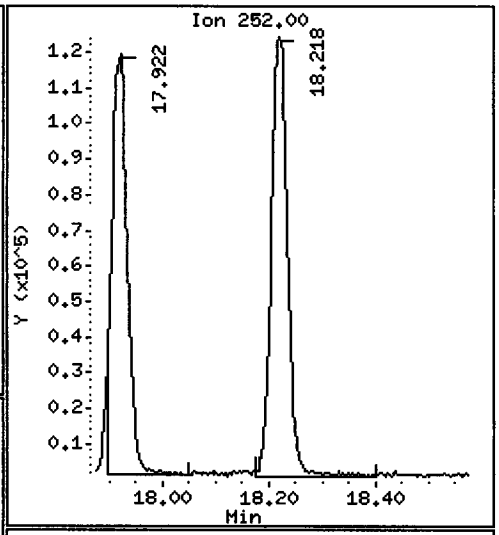
Column phase: ZB-5msi

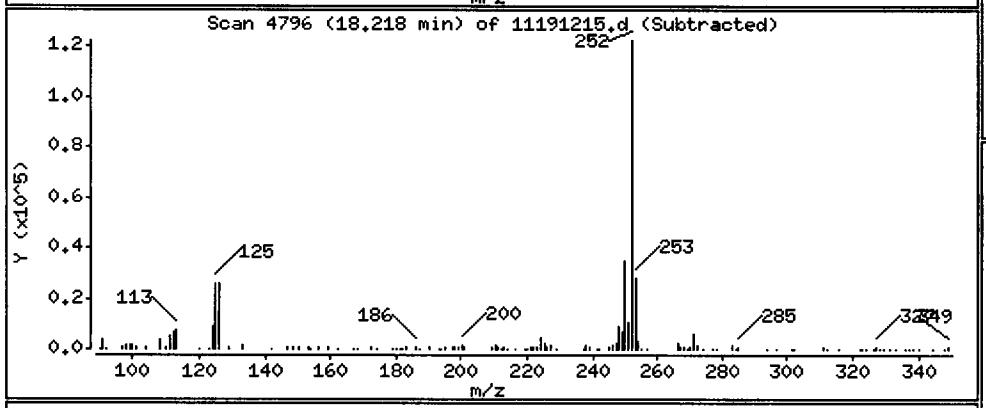
Column diameter: 0.25

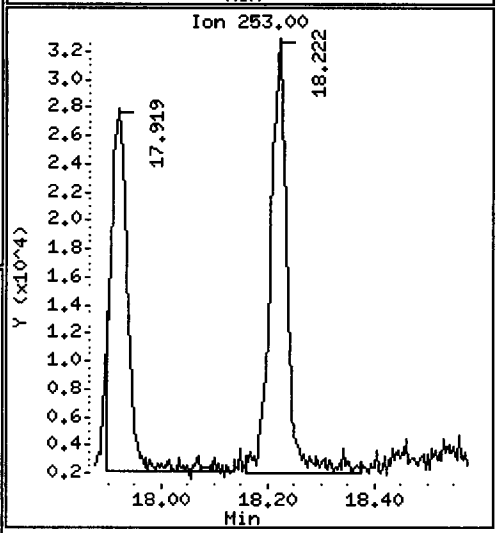
57 Perylene

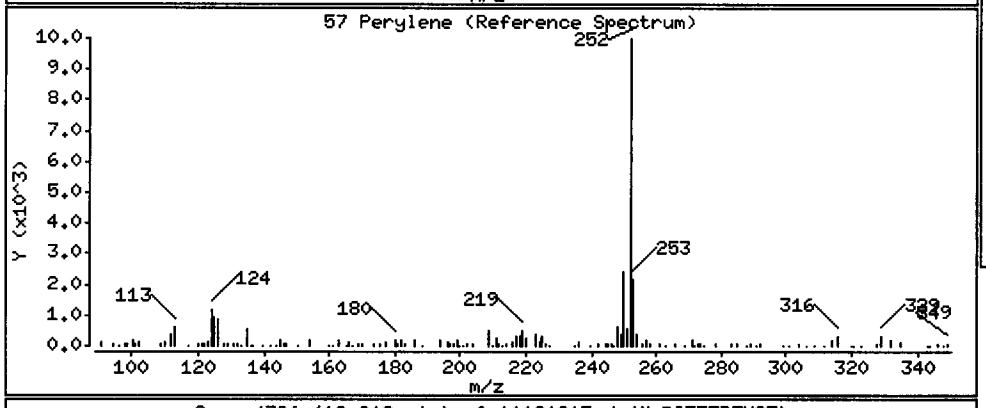
Concentration: 45.21 ug/kg

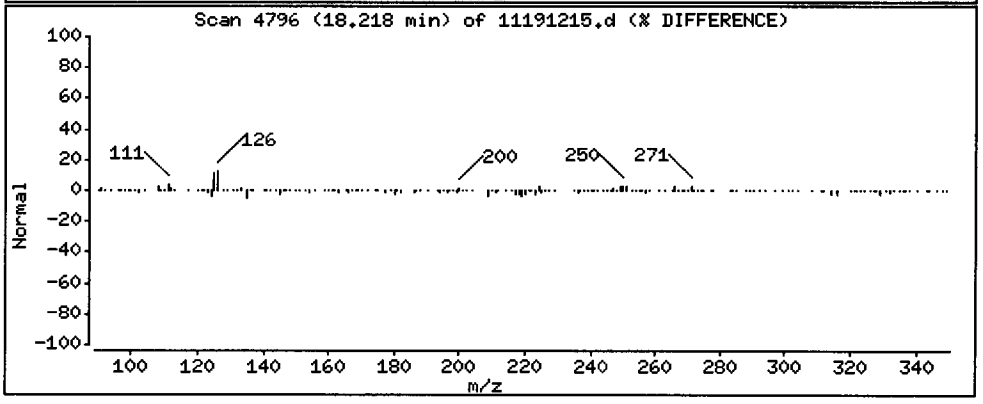












CO-ELUTION SUMMARY FOR FILE - 11191215.d

Lab ID: VR38C, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191216.d
Lab Smp Id: VR38D Client Smp ID: HT-04-S-C-121106
Inj Date : 19-NOV-2012 19:26
Operator : JZ Inst ID: nt11.i
Smp Info : VR38D
Misc Info : 12-22270
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 11:18 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

AZ 11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	17.07000	Weight of sample extracted (g)
M	40.70000	% 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)
*	6 Naphthalene-d8	136	5.467	5.473	(1.000)	598661	2.00000	
	7 Naphthalene	128	5.498	5.501	(1.006)	1882904	5.88511	290.7
$	12 2-Methylnaphthalene-d10	152	6.205	6.208	(1.135)	354399	1.73261	85.58
	14 2-Methylnaphthalene	141	6.252	6.255	(1.144)	668828	3.71021	183.3
	15 1-methylnaphthalene	141	6.445	6.448	(1.179)	253957	1.47083	72.65
	21 Acenaphthylene	152	7.631	7.634	(0.986)	112576	0.39495	19.51
*	22 Acenaphthene-d10	164	7.742	7.745	(1.000)	328034	2.00000	
	23 Acenaphthene	153	7.792	7.795	(1.007)	407289	2.24685	111.0
	11 Dibenzofuran	168	7.947	7.947	(1.026)	1099617	4.14076	204.5
	25 Fluorene	166	8.420	8.420	(1.088)	847830	4.15409	205.2
*	28 Phenanthrene-d10	188	9.768	9.764	(1.000)	444689	2.00000	
	30 Phenanthrene	178	9.809	9.802	(1.004)	3612040	13.4469	664.2(M)
	31 Anthracene	178	9.847	9.840	(1.008)	981430	3.80595	188.0(M)
	36 Fluoranthene	202	11.481	11.459	(1.175)	4107688	15.2631	753.9 E
	39 Pyrene	202	11.964	11.926	(0.830)	2706202	11.3391	560.1 E

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.290	14.268	(0.992)	1464829	6.73122	332.5
*	47 Chrysene-d12	240	14.409	14.387	(1.000)	433081	2.00000	
	48 Chrysene	228	14.482	14.457	(1.005)	2063753	9.77065	482.6
	51 Benzo(b)fluoranthene	252	16.924	16.906	(0.932)	1103885	5.79473	286.2
	52 Benzo(k)fluoranthene	252	16.984	16.966	(0.935)	599746	2.89892	143.2
	251 Benzo(j)fluoranthene	252	17.057	17.038	(0.939)	524621	2.40343	118.7
	54 Benzo(a)pyrene	252	17.941	17.922	(0.988)	825352	4.26546	210.7
*	56 Perylene-d12	264	18.165	18.152	(1.000)	411616	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.500	20.478	(1.129)	325611	1.38803	68.56
$	60 Dibenzo(a,h)anthracene-d14	292	20.408	20.380	(1.123)	255987	1.87593	92.66
	62 Dibenzo(a,h)anthracene	278	20.490	20.475	(1.128)	89876	0.47043	23.24
	61 Benzo(g,h,i)perylene	276	21.371	21.355	(1.177)	297908	1.49276	73.73
	57 Perylene	252	18.237	18.225	(1.004)	640145	3.19013	157.6

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191216.d
Lab Smp Id: VR38D
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22270

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-04-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	598661	15.99
22 Acenaphthene-d10	284255	142128	568510	328034	15.40
28 Phenanthrene-d10	410660	205330	821320	444689	8.29
47 Chrysene-d12	467886	233943	935772	433081	-7.44
56 Perylene-d12	472330	236165	944660	411616	-12.85

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.12
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.77	0.03
47 Chrysene-d12	14.39	13.89	14.89	14.41	0.15
56 Perylene-d12	18.15	17.65	18.65	18.16	0.07

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.

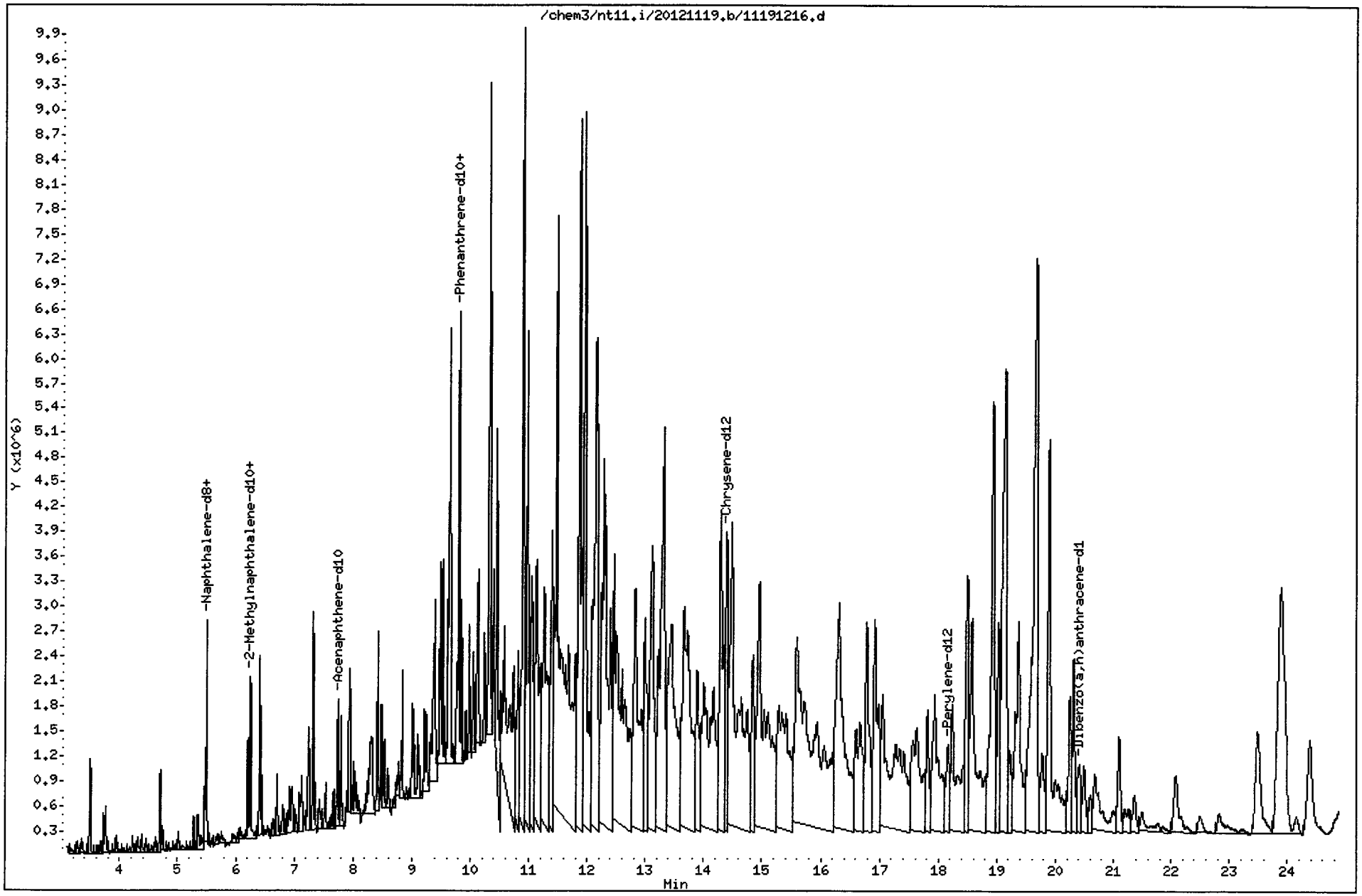
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38D Client Smp ID: HT-04-S-C-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22270

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	148.2	85.58	57.75	34-100
$ 60 Dibenzo(a,h)anthra	148.2	92.66	62.53	10-117

Data File: /chem3/nt11.i/20121119.b/11191216.d
Date : 19-NOV-2012 19:26
Client ID: HT-04-S-C-121106
Sample Info: VR38D
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

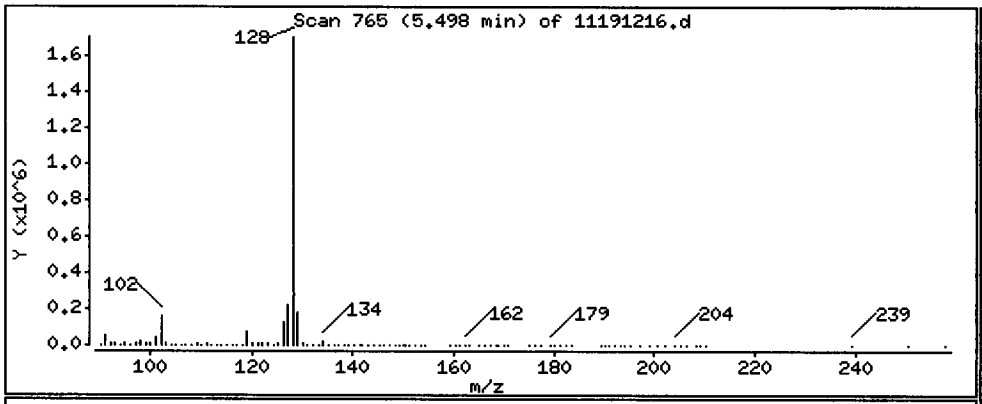
Operator: JZ

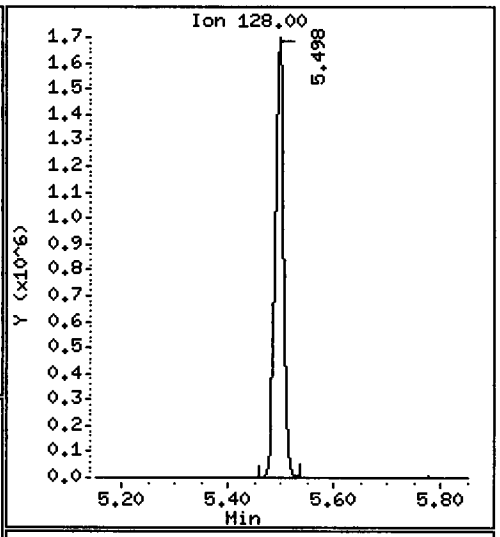
Column phase: ZB-5msi

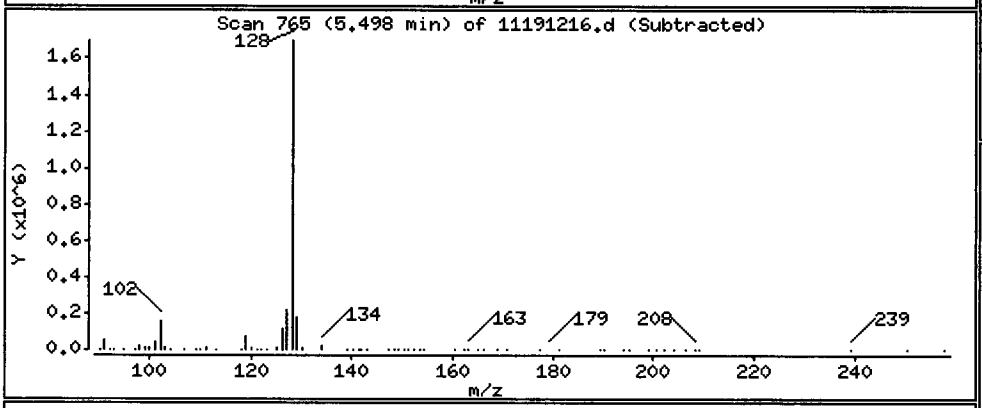
Column diameter: 0.25

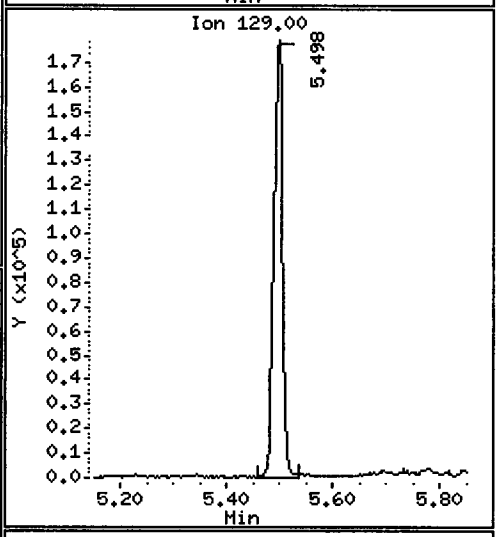
7 Naphthalene

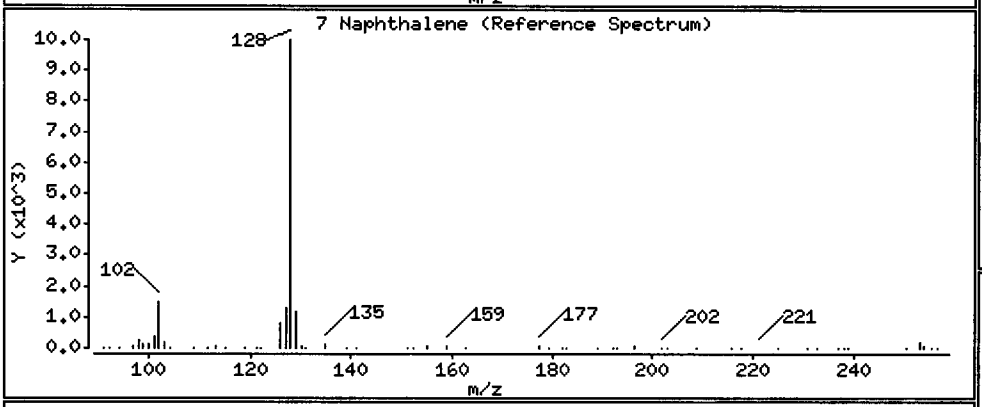
Concentration: 290.7 ug/kg

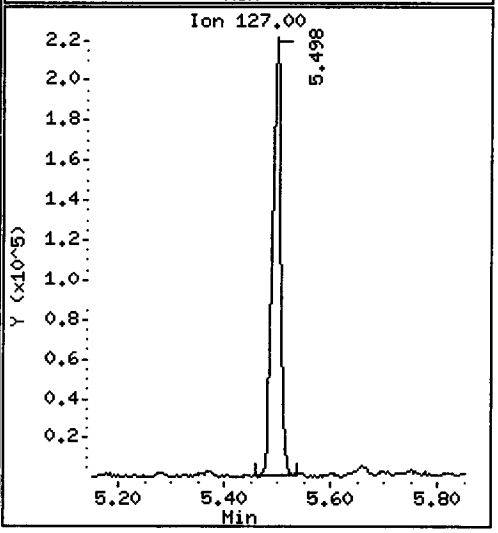


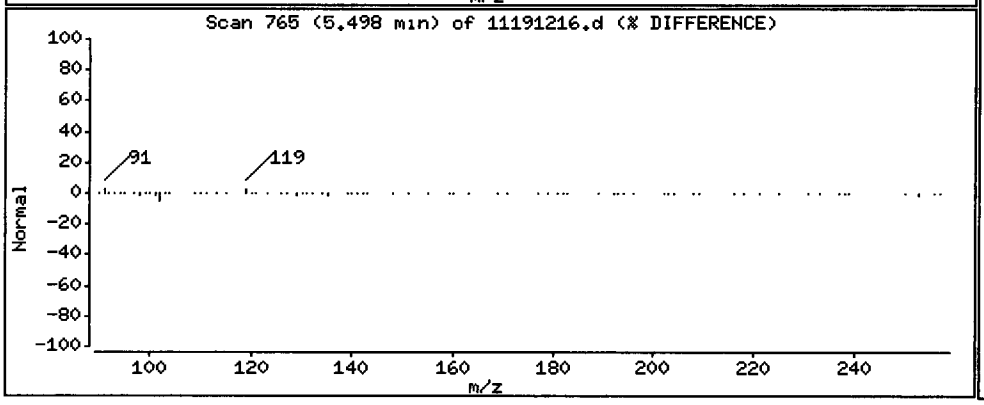












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

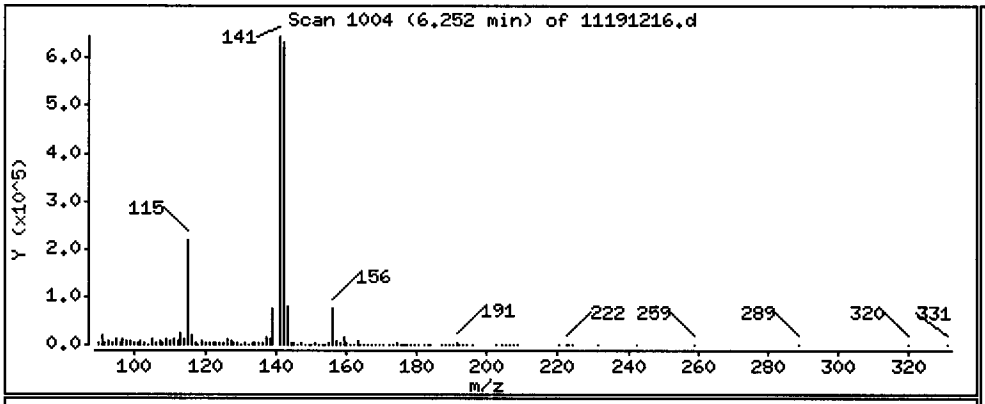
Client ID: HT-04-S-C-121106 Instrument: nt11.i

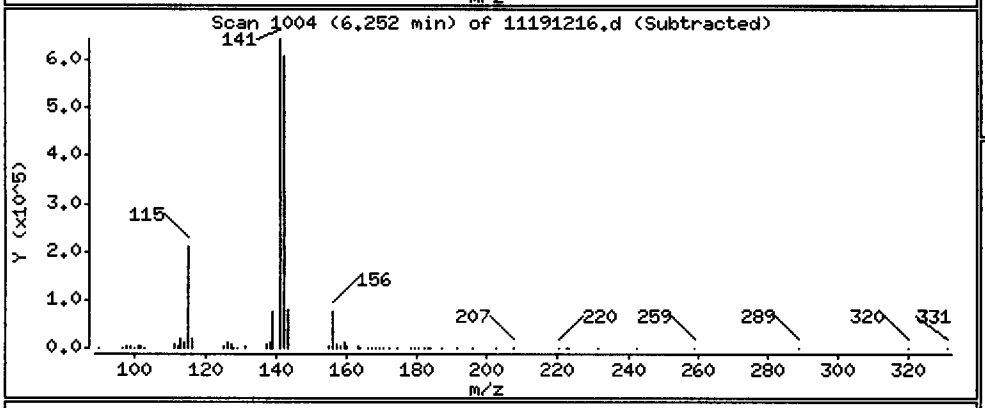
Sample Info: VR38D

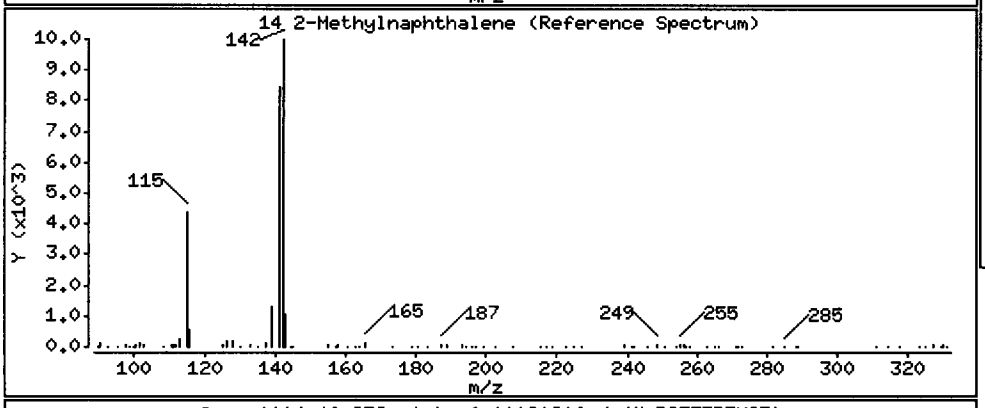
Volume Injected (uL): 1.0 Operator: JZ

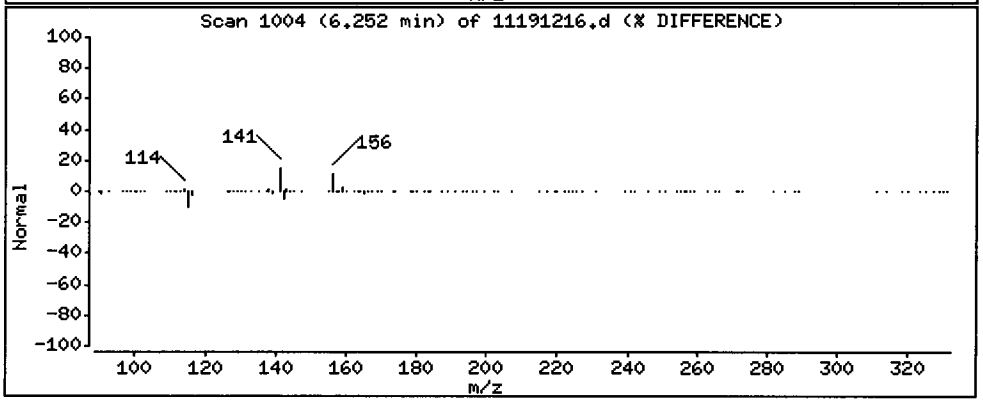
Column phase: ZB-5msi Column diameter: 0.25

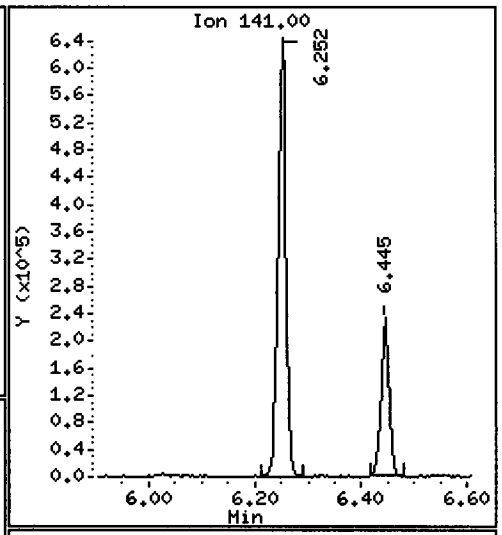
14 2-Methylnaphthalene Concentration: 183.3 ug/kg

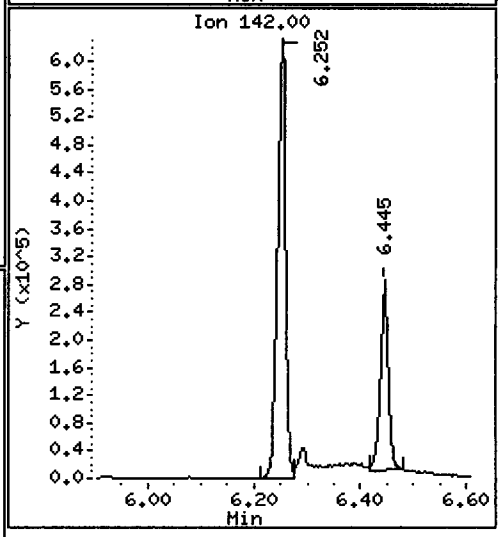












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

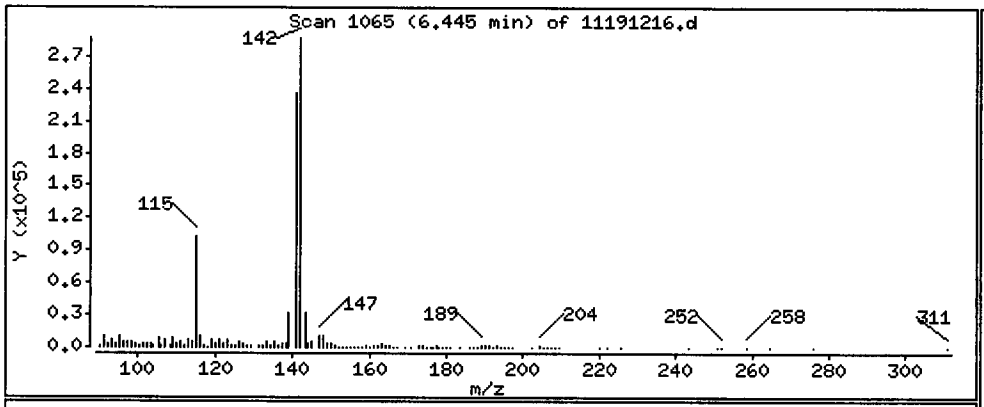
Operator: JZ

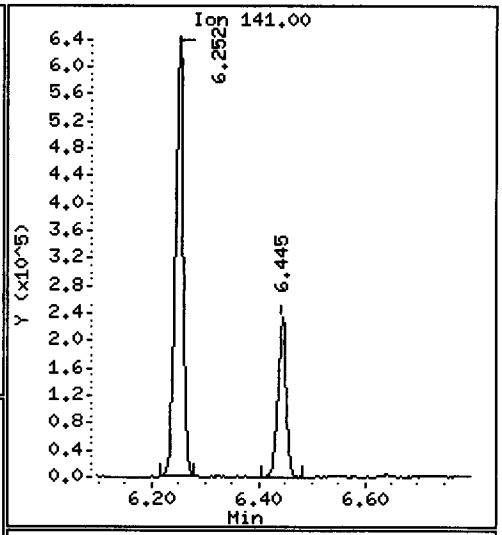
Column phase: ZB-5msi

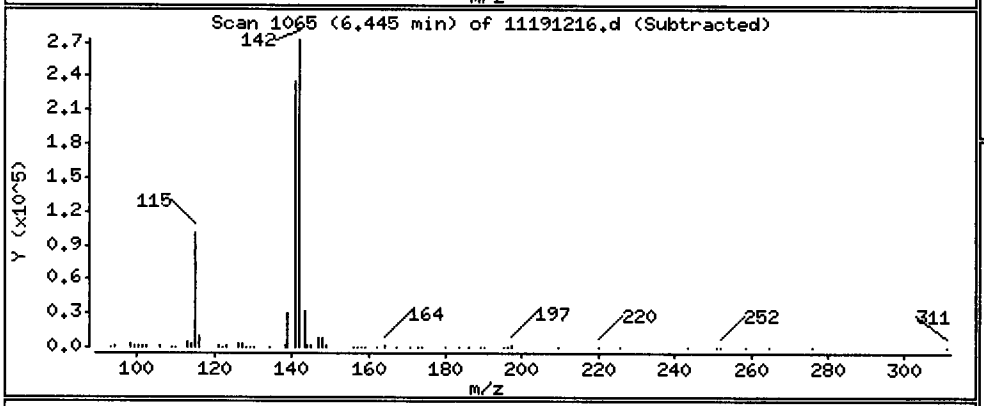
Column diameter: 0.25

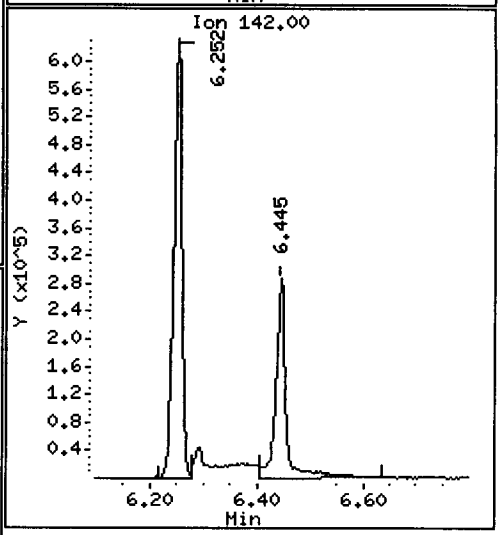
15 1-methylnaphthalene

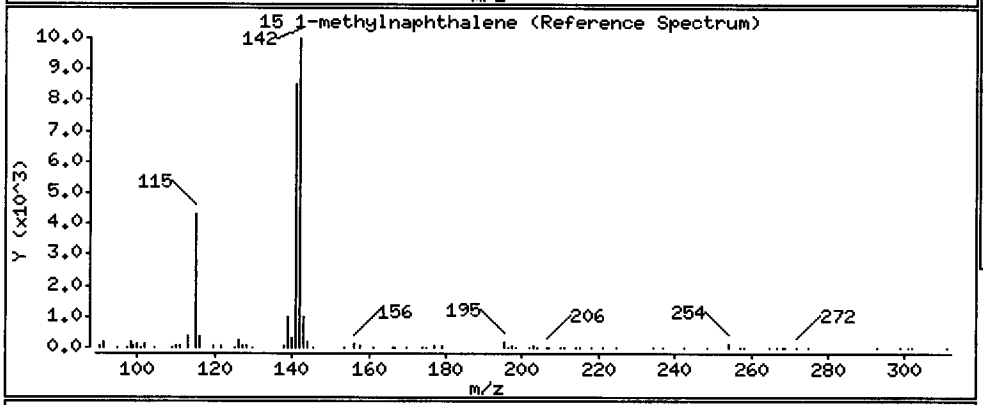
Concentration: 72.65 ug/kg

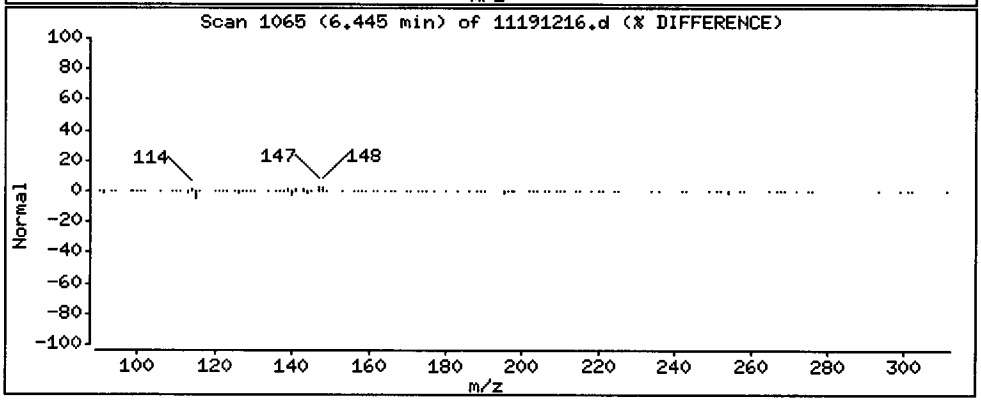












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

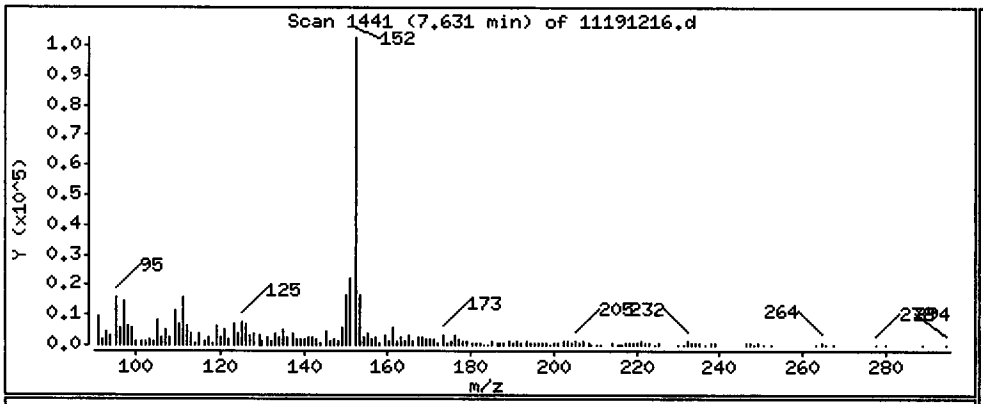
Operator: JZ

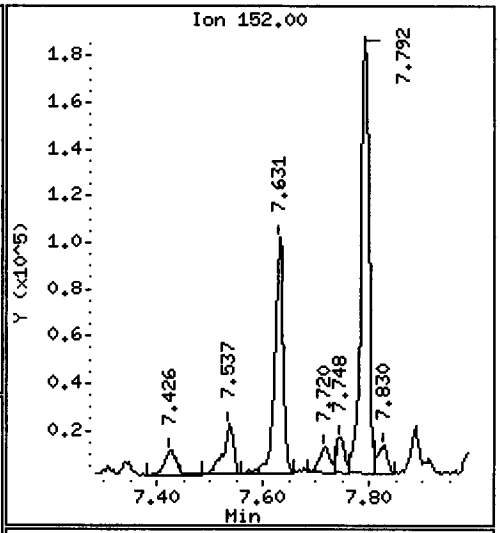
Column phase: ZB-5msi

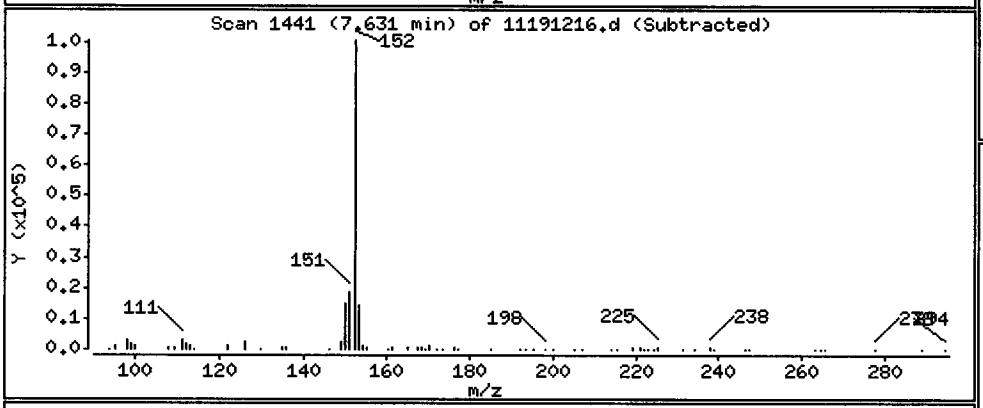
Column diameter: 0.25

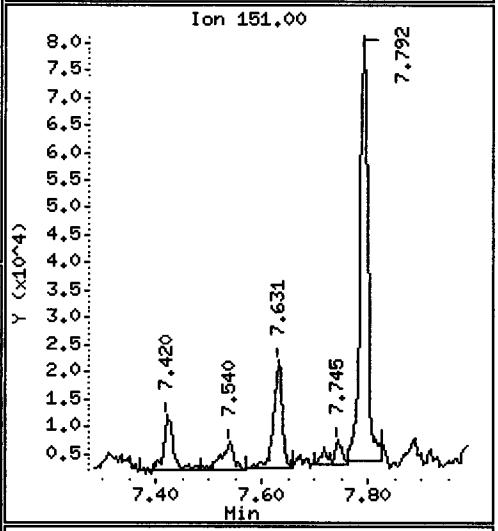
21 Acenaphthylene

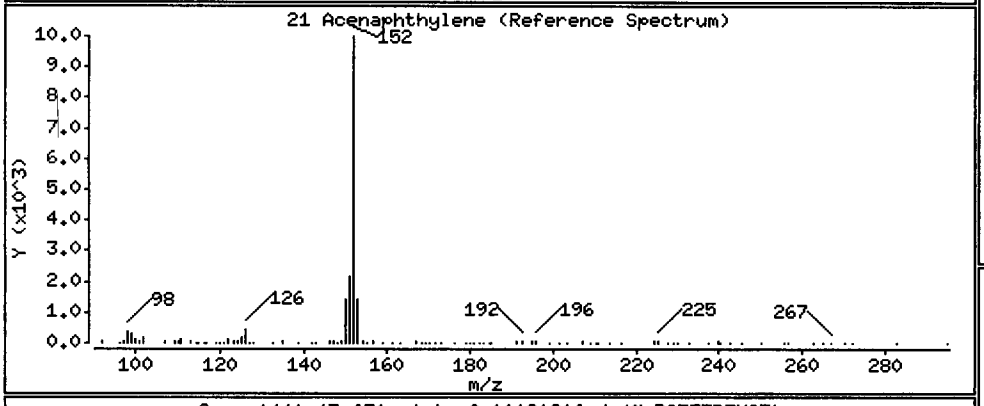
Concentration: 19.51 ug/kg

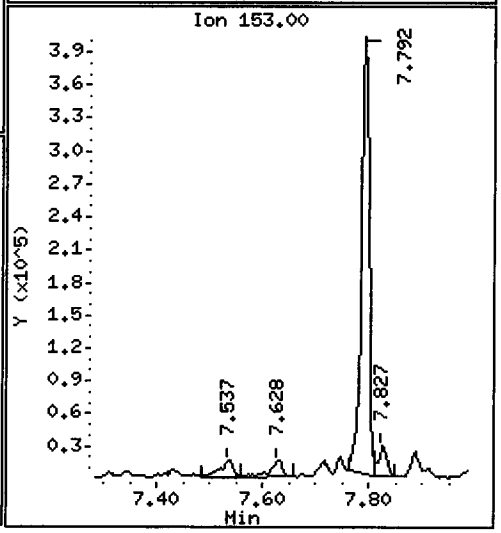


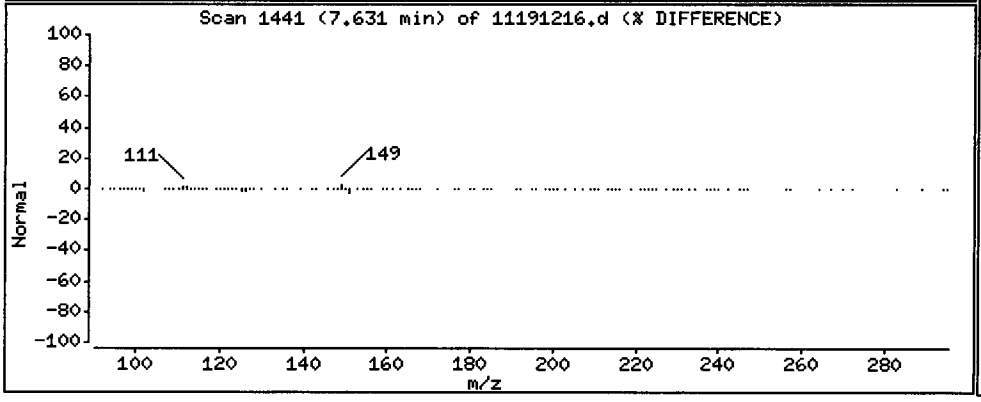












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

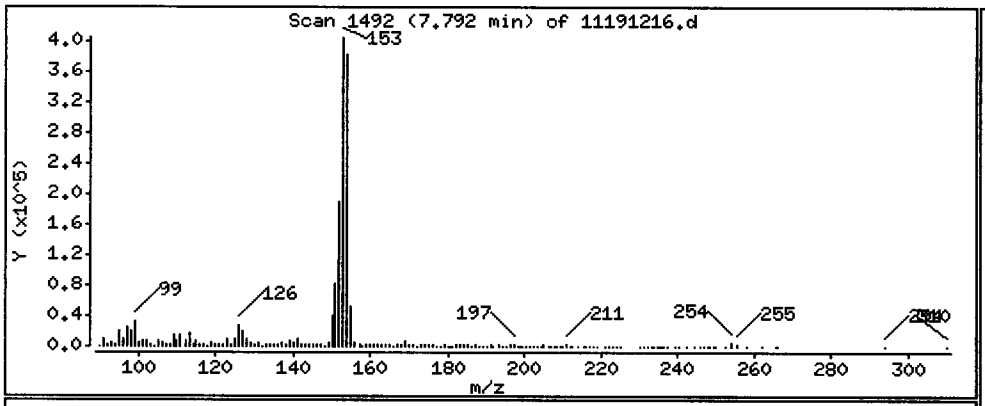
Operator: JZ

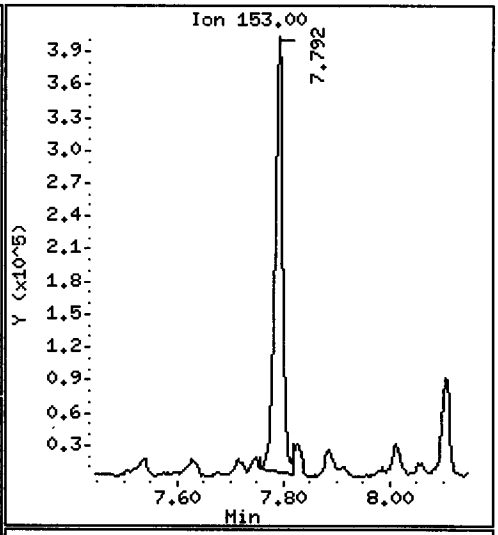
Column phase: ZB-5msi

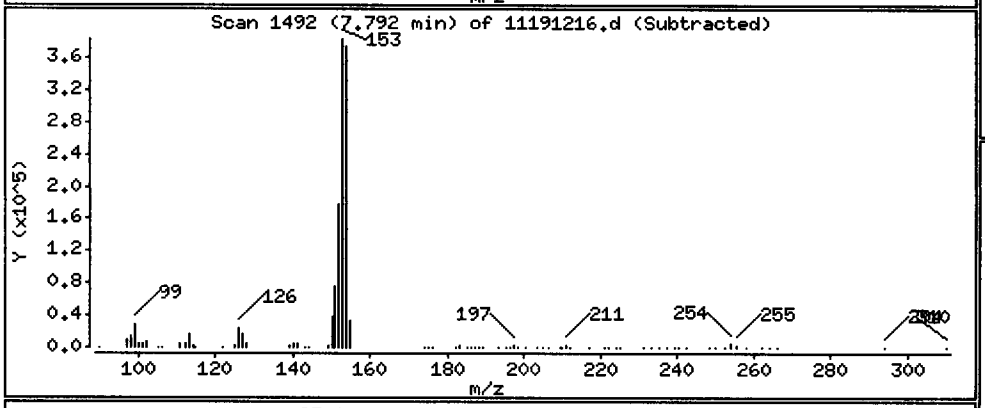
Column diameter: 0.25

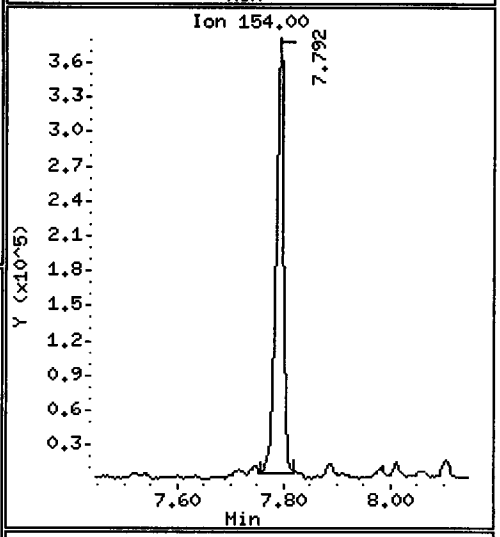
23 Acenaphthene

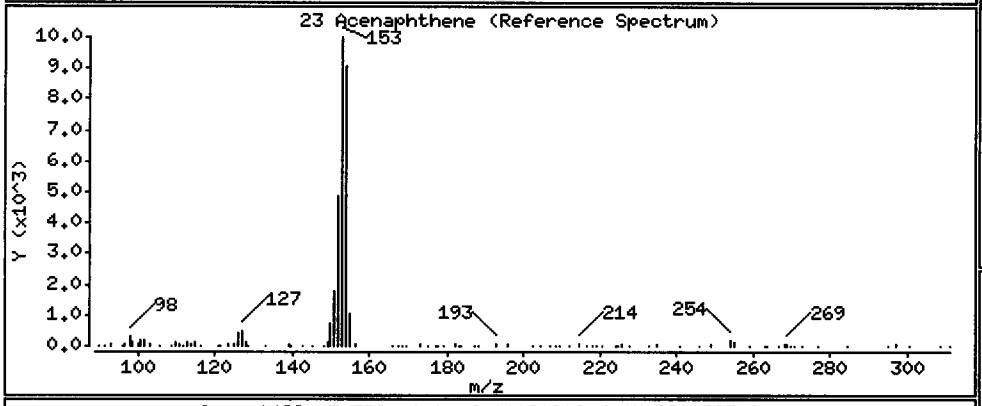
Concentration: 111.0 ug/kg

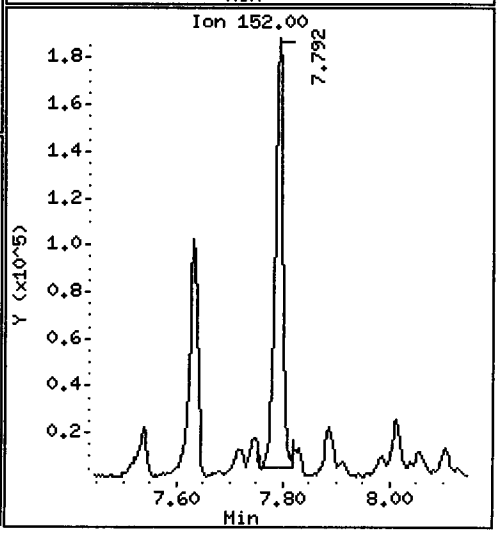


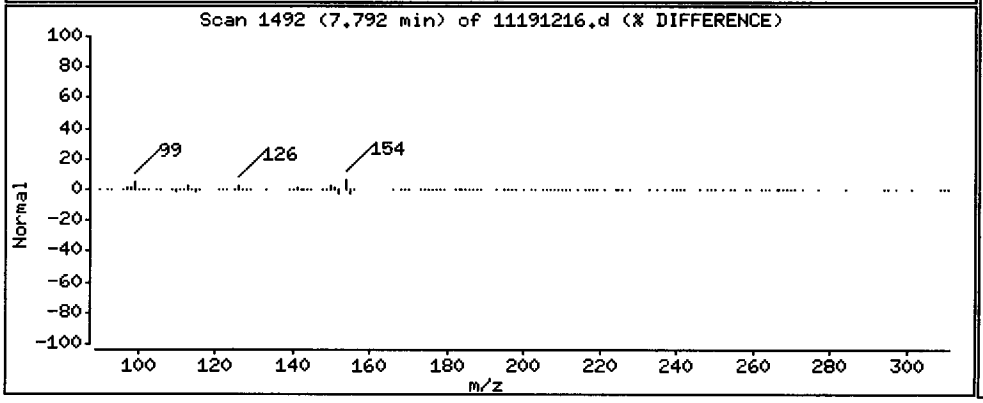












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

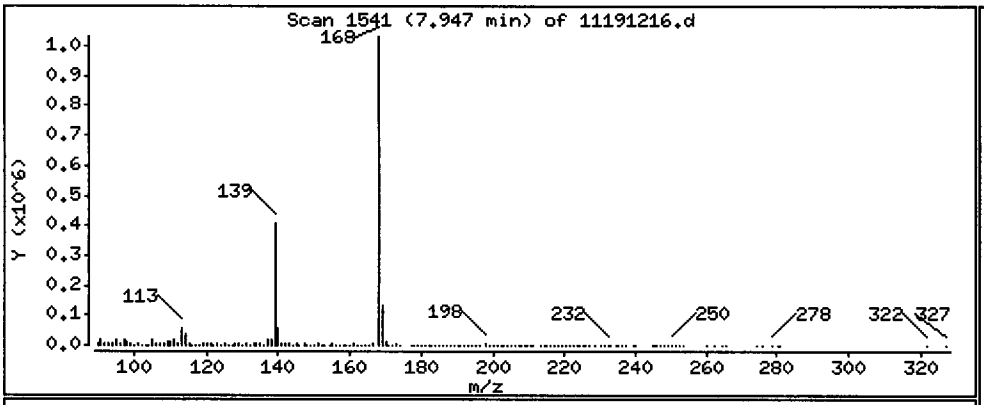
Operator: JZ

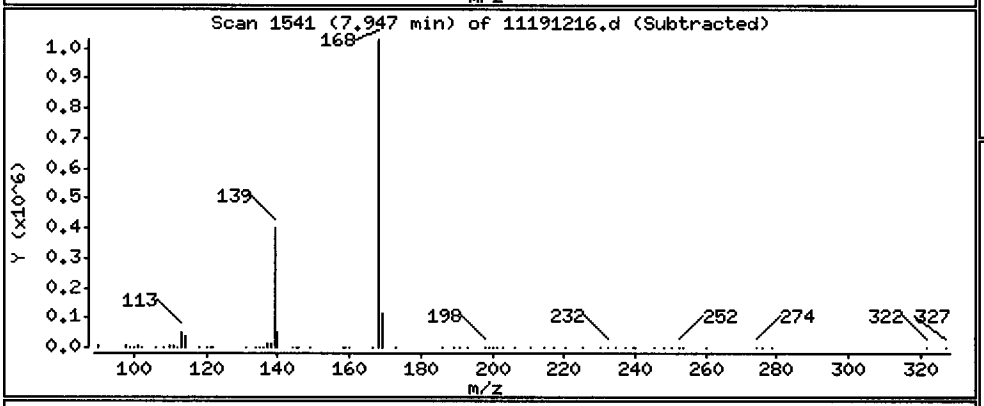
Column phase: ZB-5msi

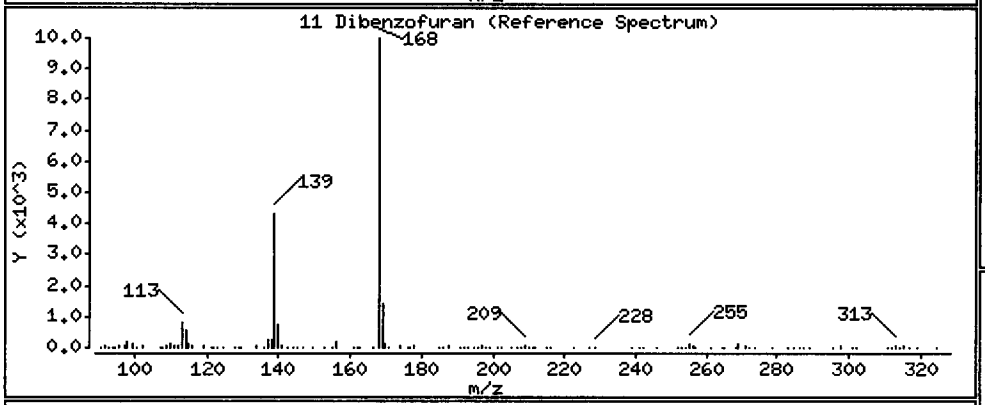
Column diameter: 0.25

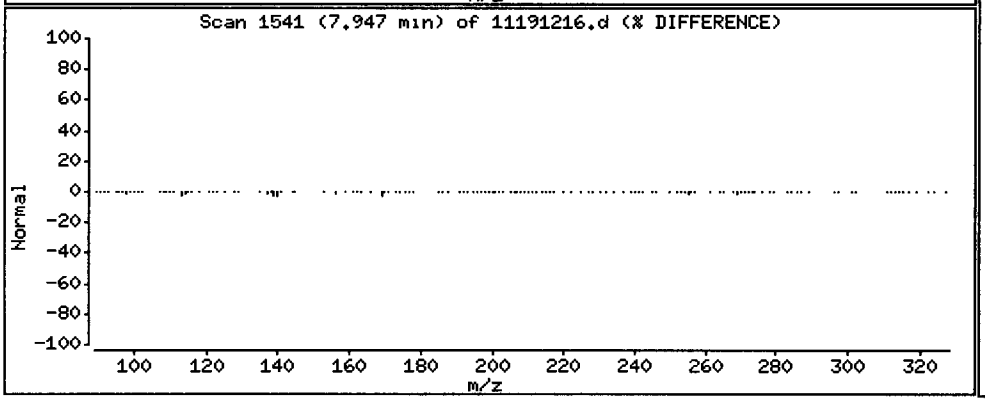
11 Dibenzofuran

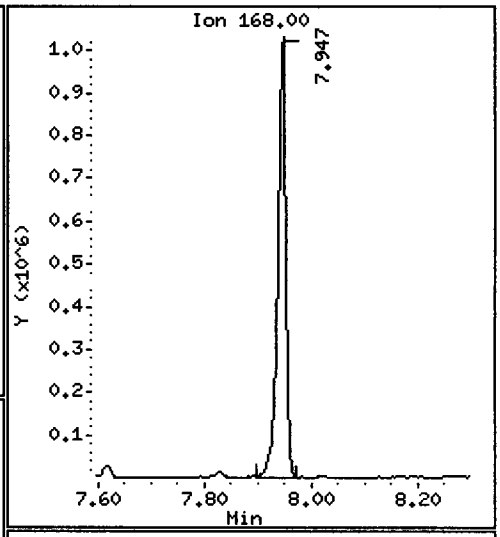
Concentration: 204.5 ug/kg

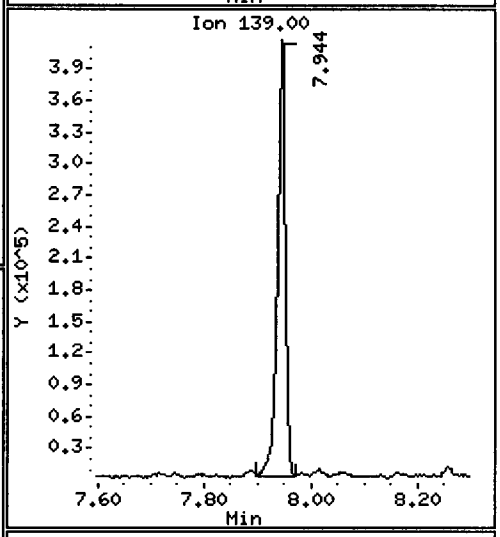


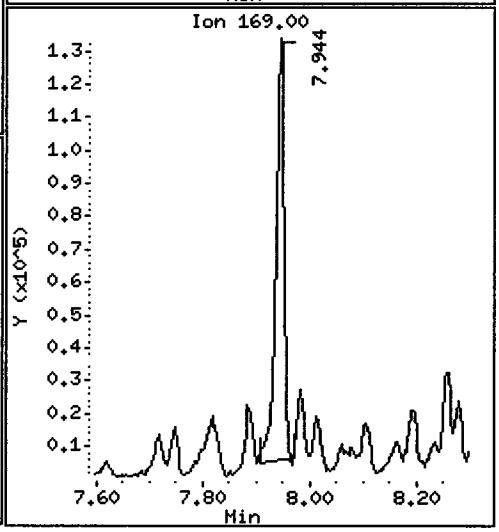












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

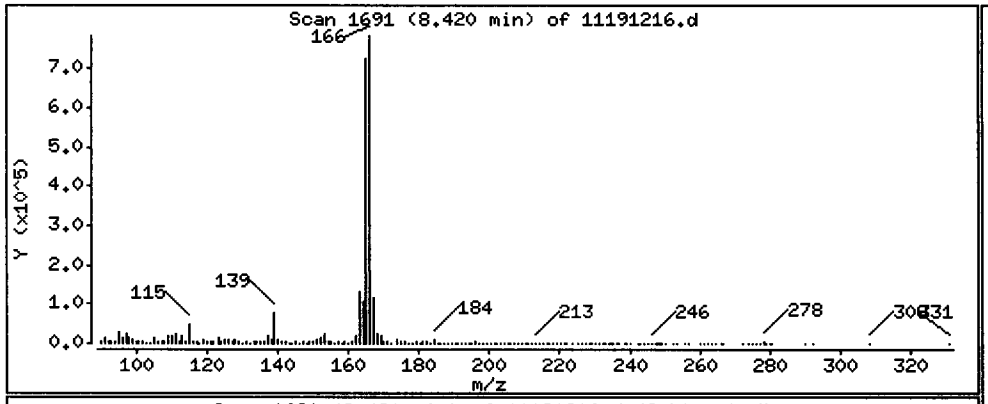
Operator: JZ

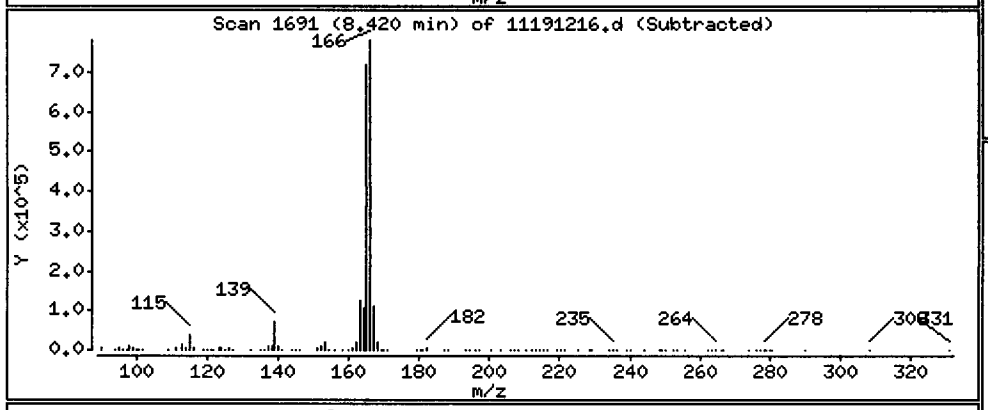
Column phase: ZB-5msi

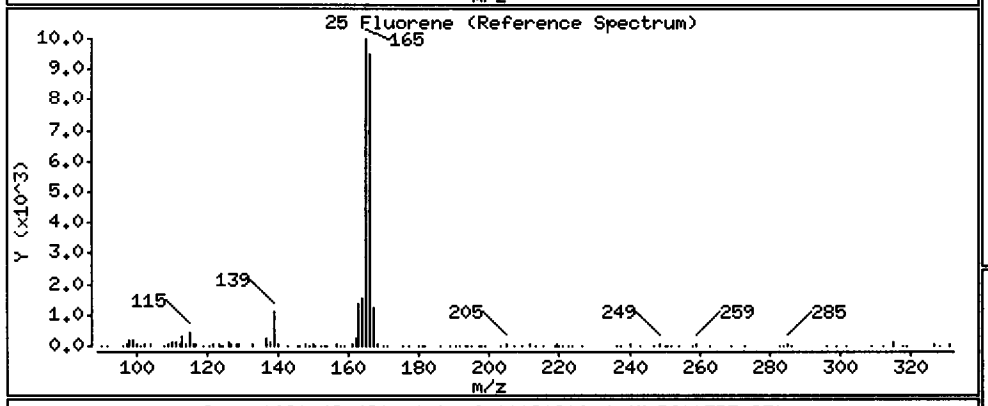
Column diameter: 0.25

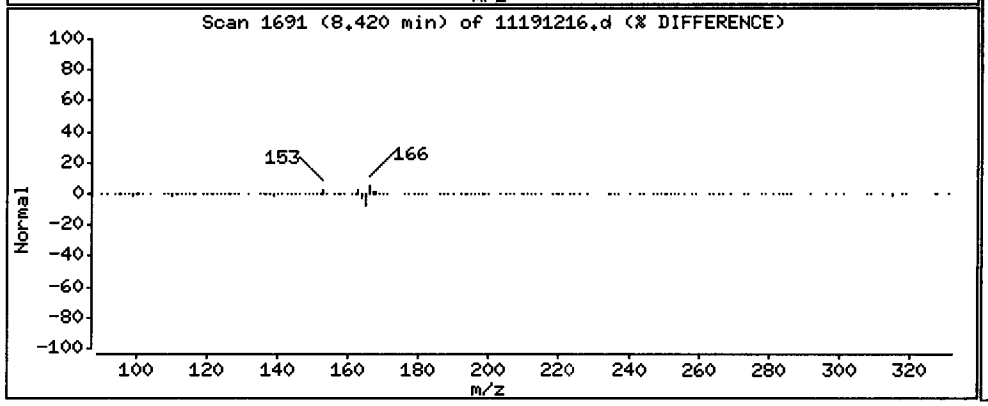
25 Fluorene

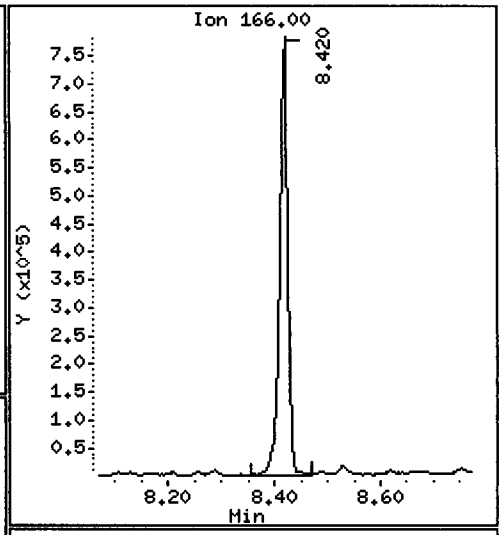
Concentration: 205.2 ug/kg

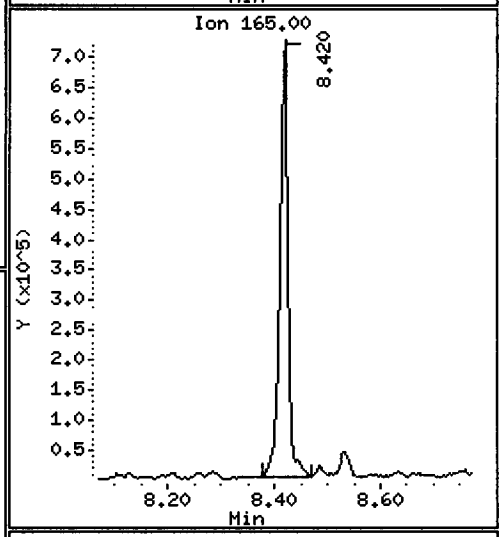


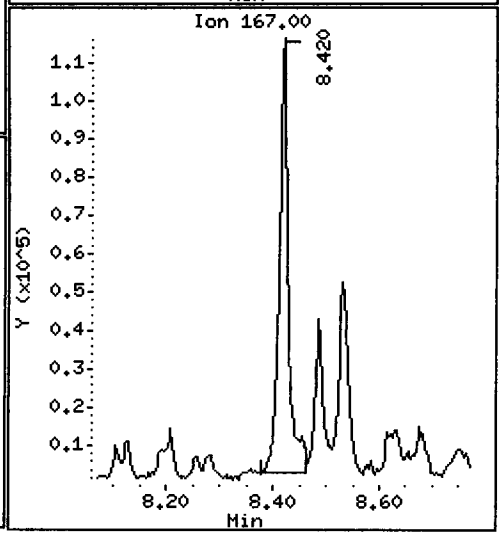






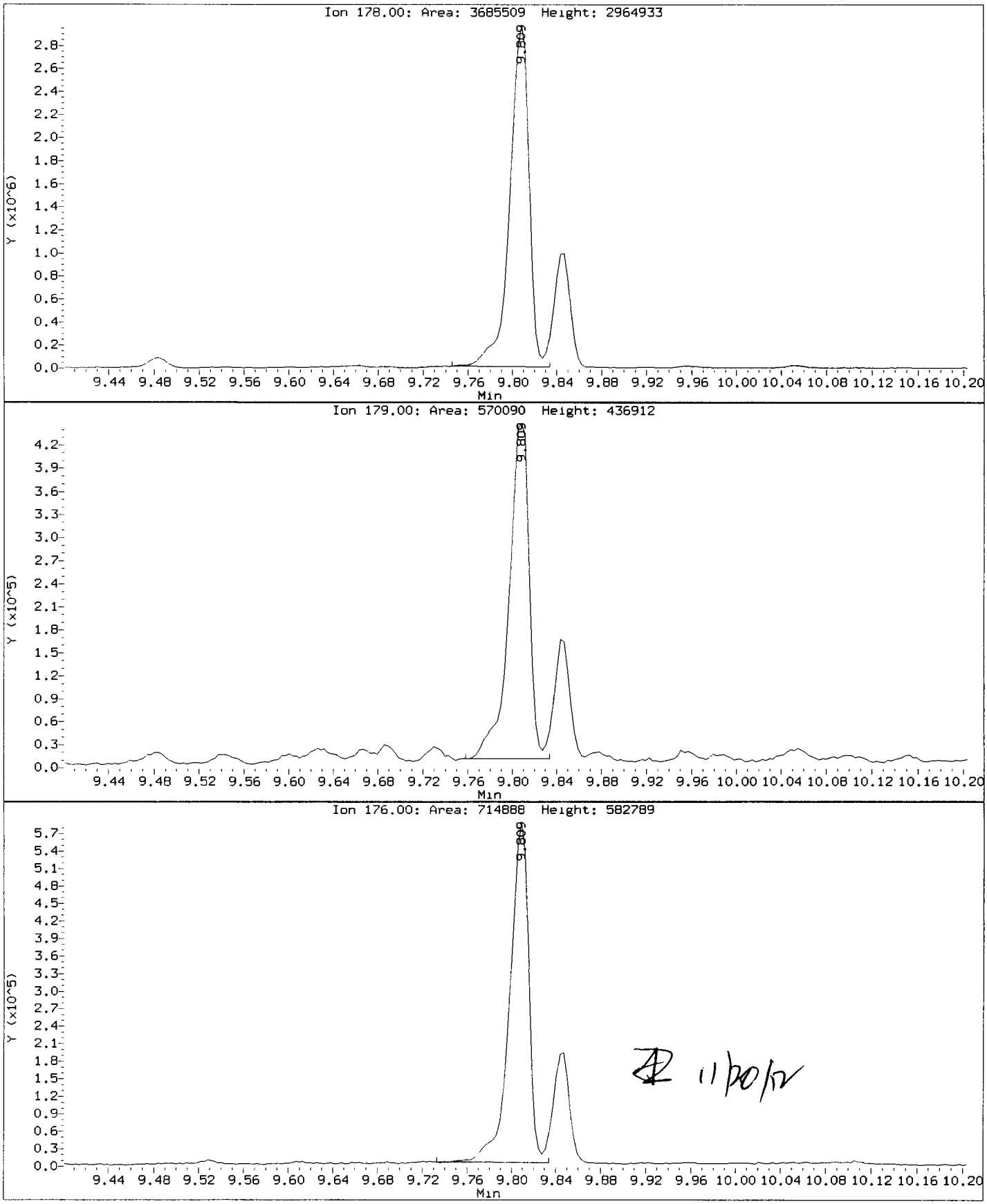






Data File: /chem3/nt11.i/20121119.b/11191216.d
Injection Date: 19-NOV-2012 19:26
Instrument: nt11.i
Client Sample ID: HT-04-S-C-121106

Compound: Phenanthrene
CAS Number: 85-01-8

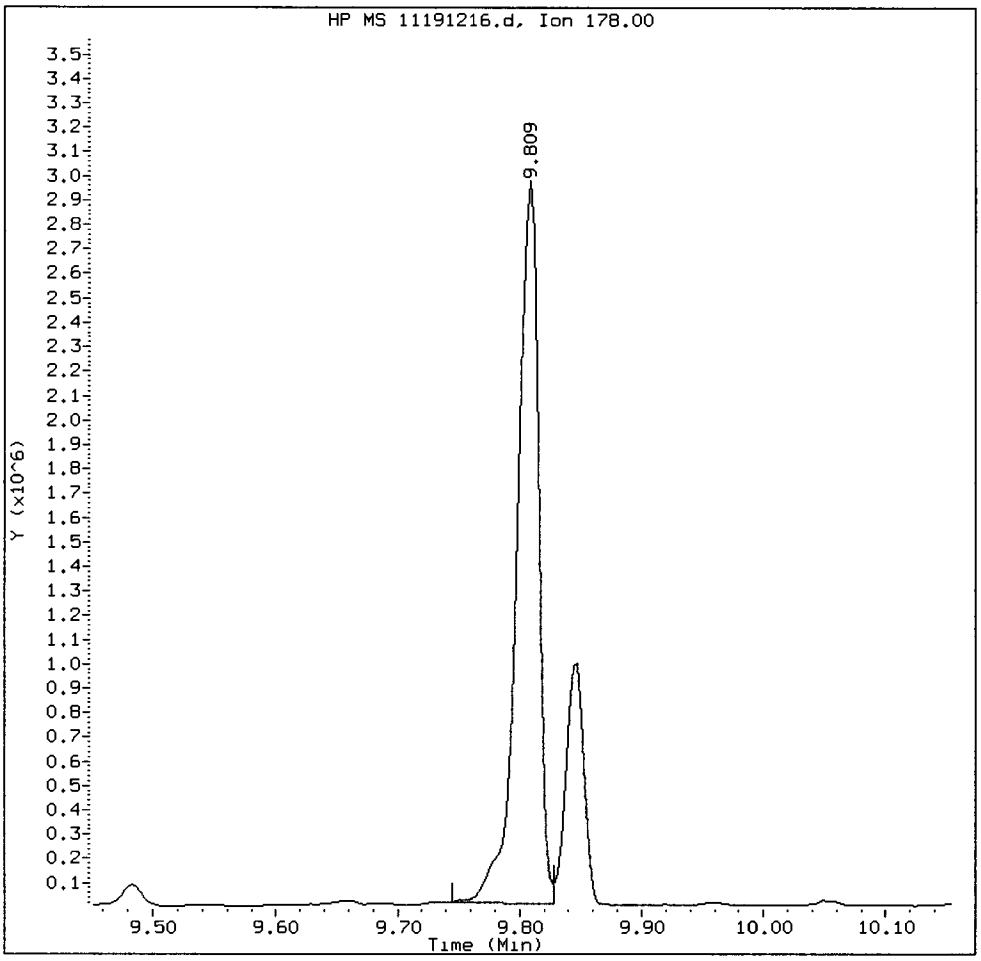


11/20/12

VP08 : 00856

VR38D, /chem3/nt11.i/20121119.b/11191216.d

Phenanthrene Amount: 13.45 Area: 3612040



MANUAL INTEGRATION for Phenanthrene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/20/12

Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

Operator: JZ

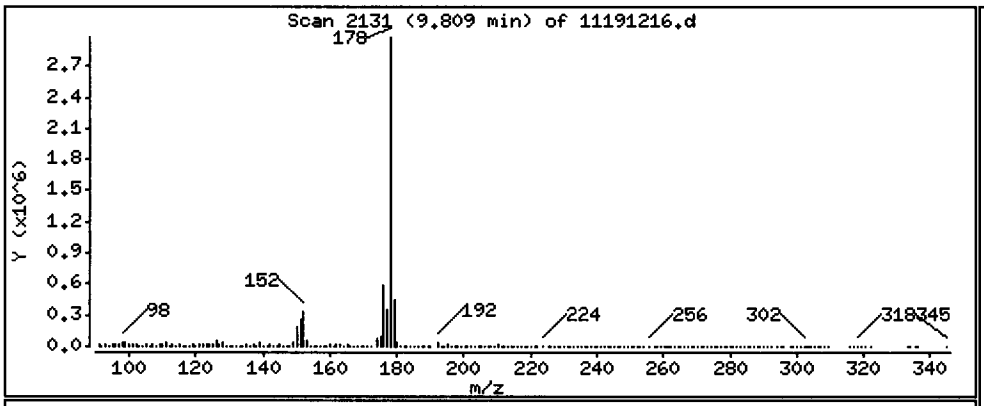
Column phase: ZB-5msi

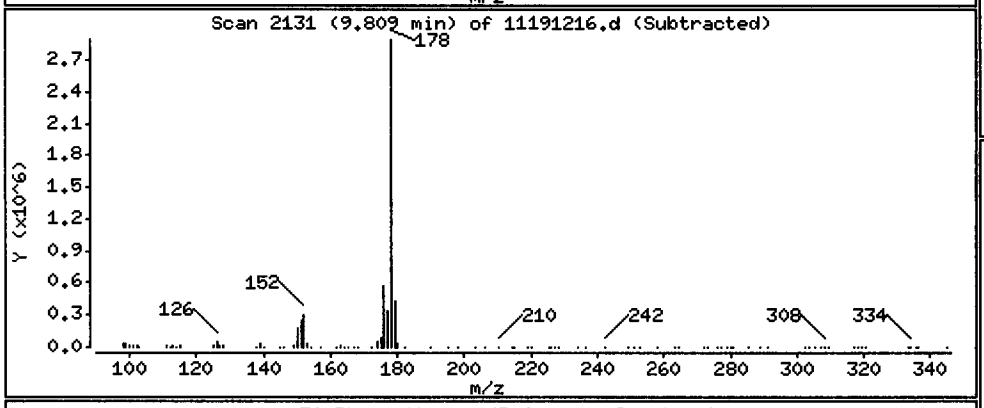
Column diameter: 0.25

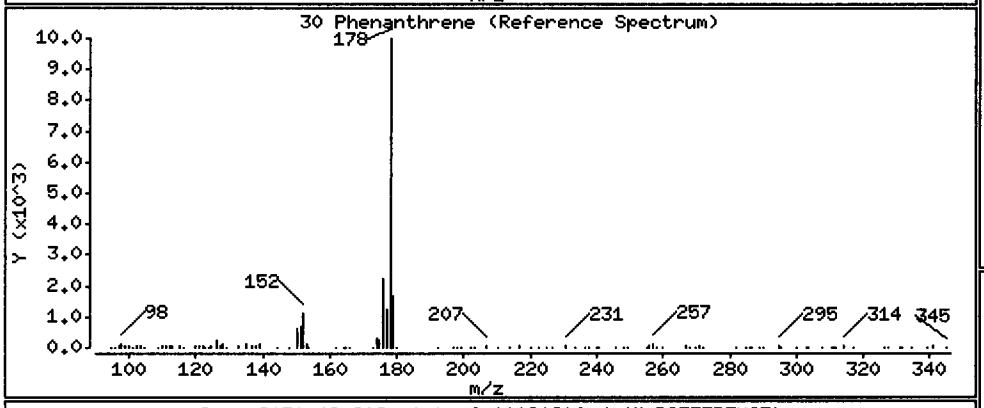
E

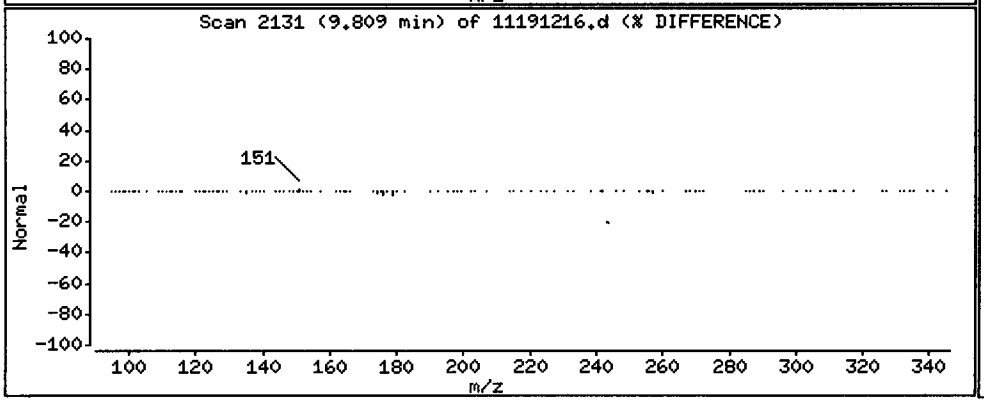
30 Phenanthrene

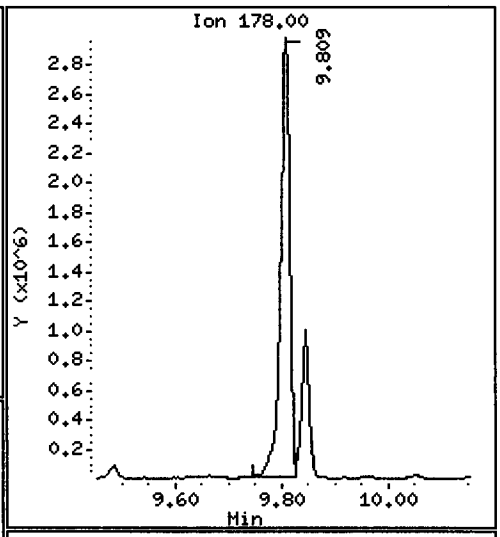
Concentration: 664.2 ug/kg

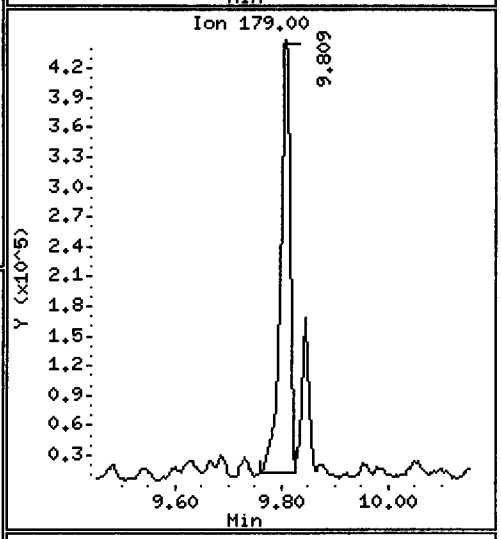


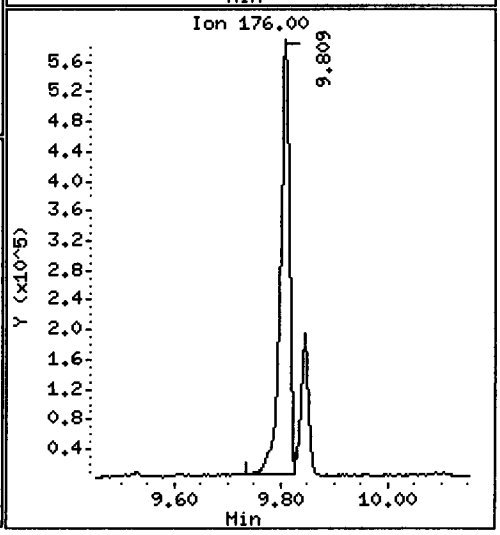






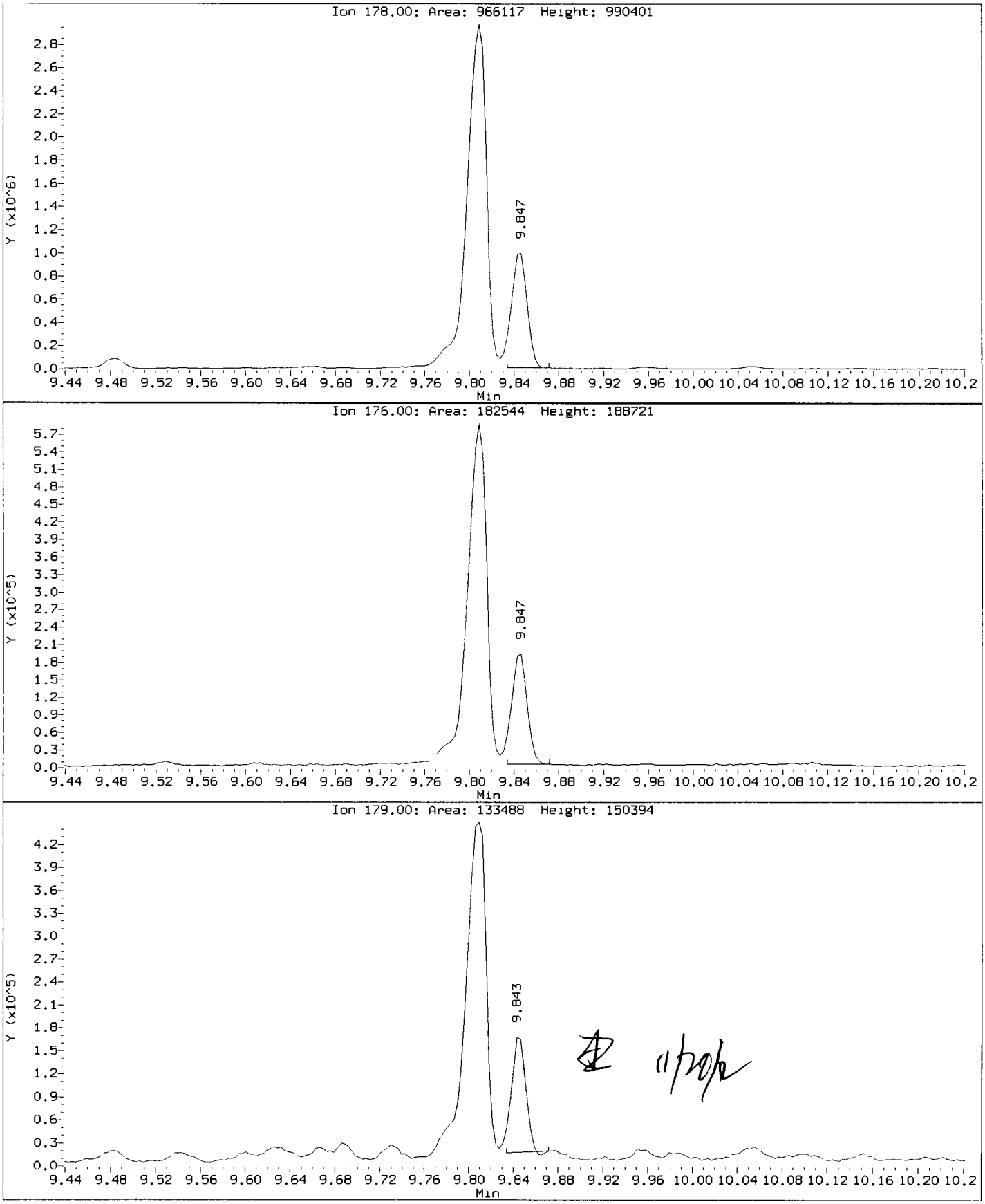






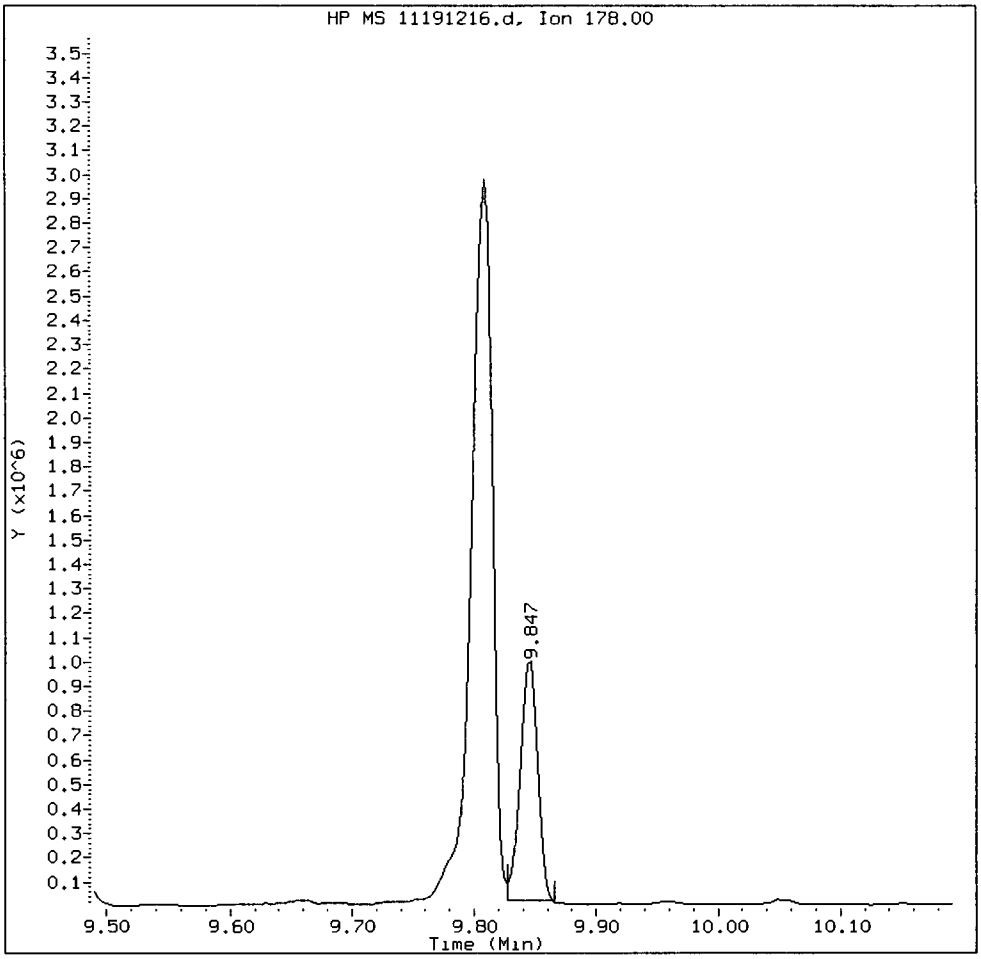
Data File: /chem3/nt11.i/20121119.b/11191216.d
Injection Date: 19-NOV-2012 19:26
Instrument: nt11.i
Client Sample ID: HT-04-S-C-121106

Compound: Anthracene
CAS Number: 120-12-7



VR38D, /chem3/nt11.i/20121119.b/11191216.d

Anthracene Amount: 3.81 Area: 981430



MANUAL INTEGRATION for Anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 1/20/12

Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

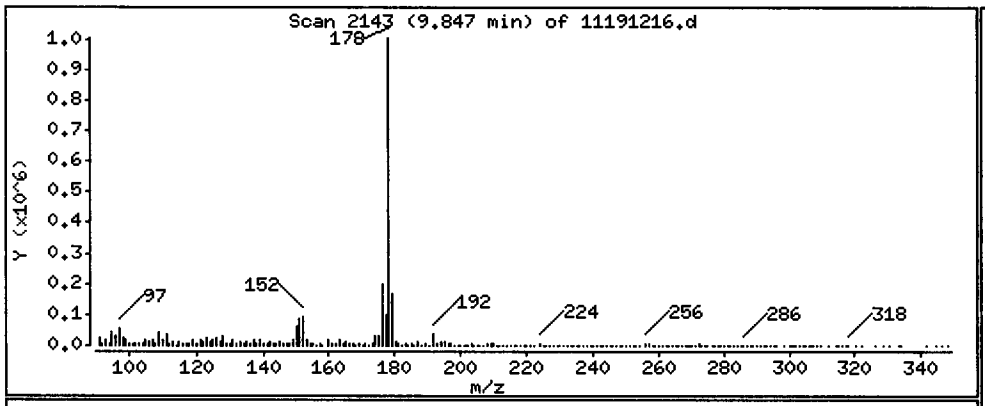
Operator: JZ

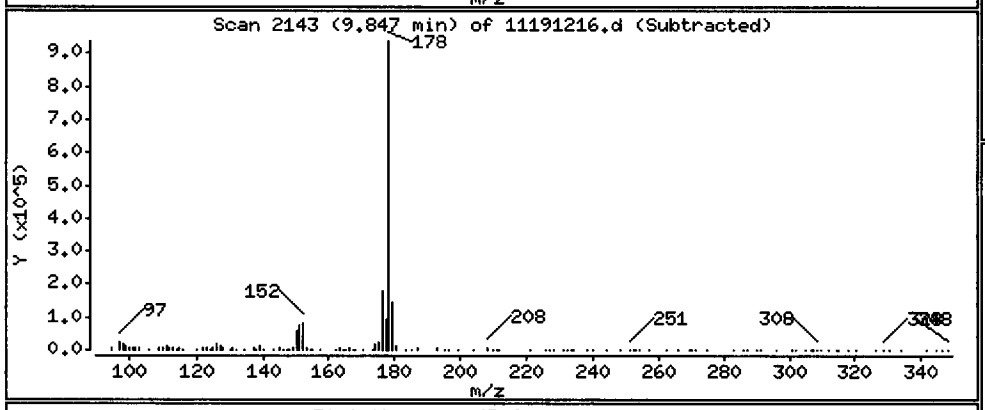
Column phase: ZB-5msi

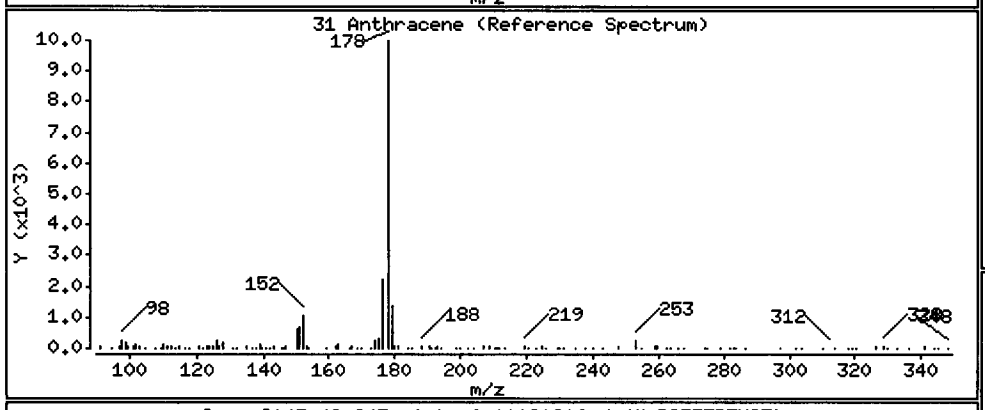
Column diameter: 0.25

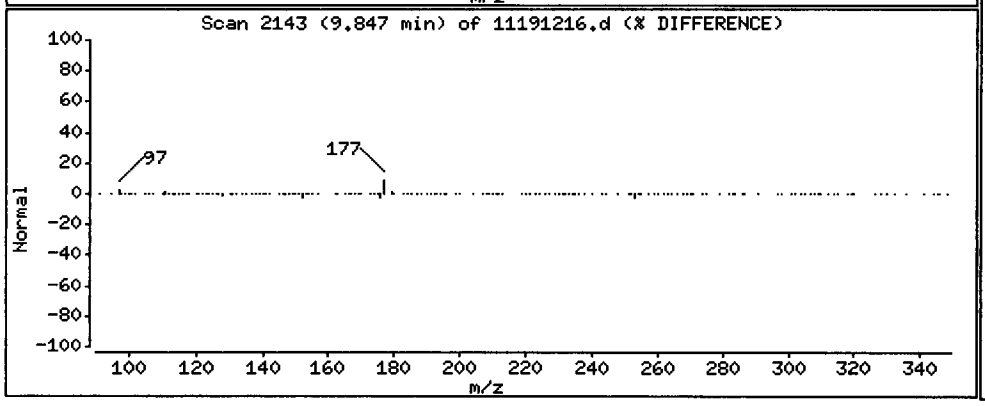
31 Anthracene

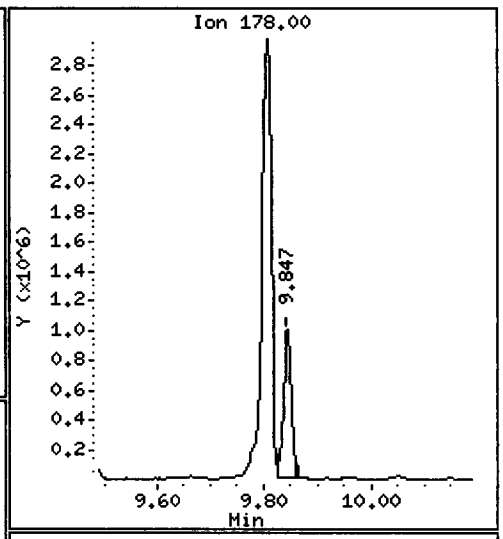
Concentration: 188.0 ug/kg

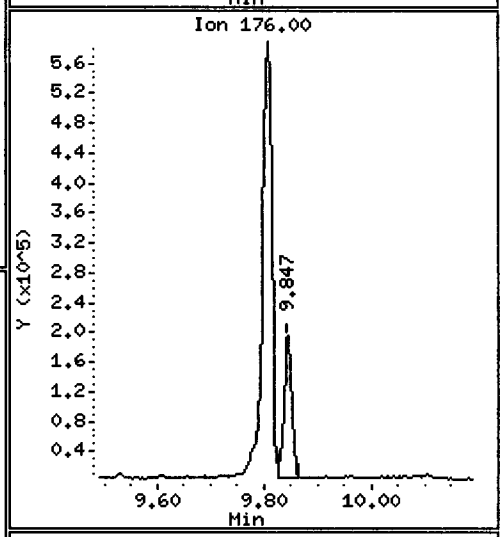


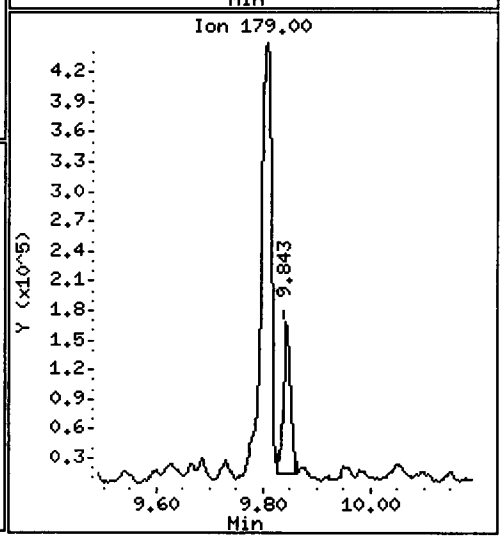












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

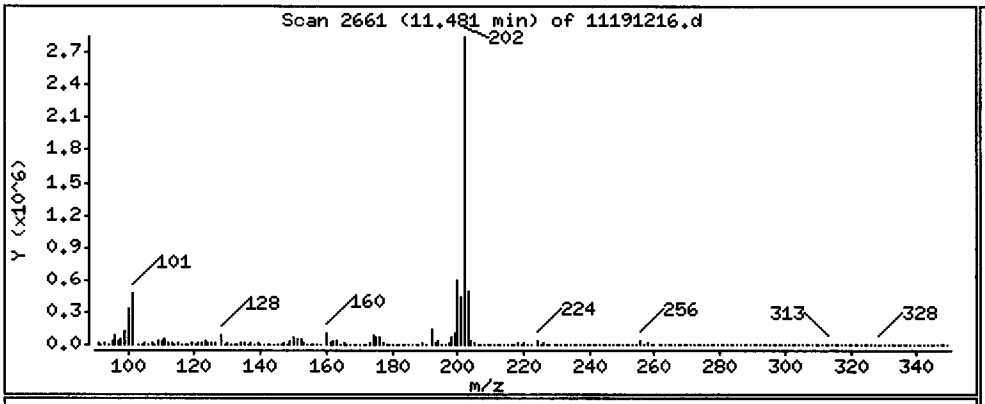
Operator: JZ

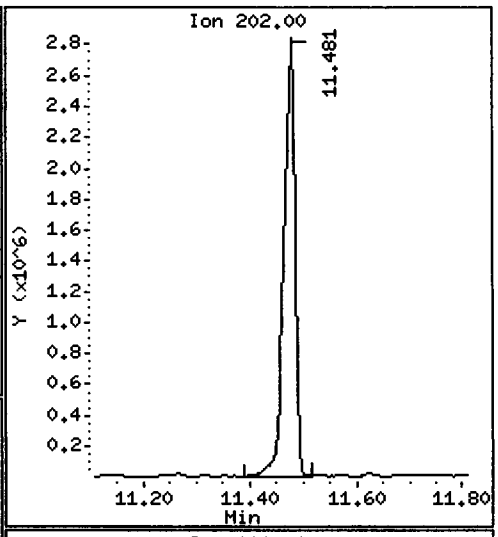
Column phase: ZB-5msi

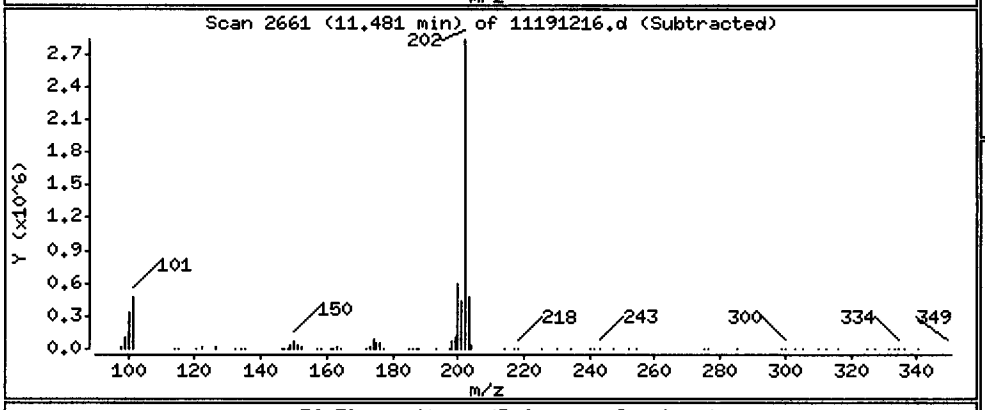
Column diameter: 0.25

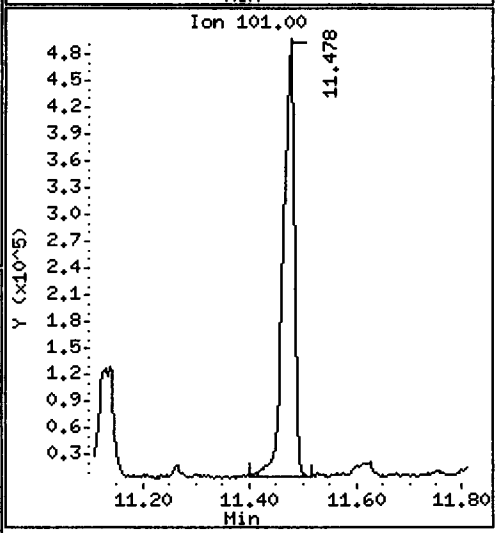
36 Fluoranthene

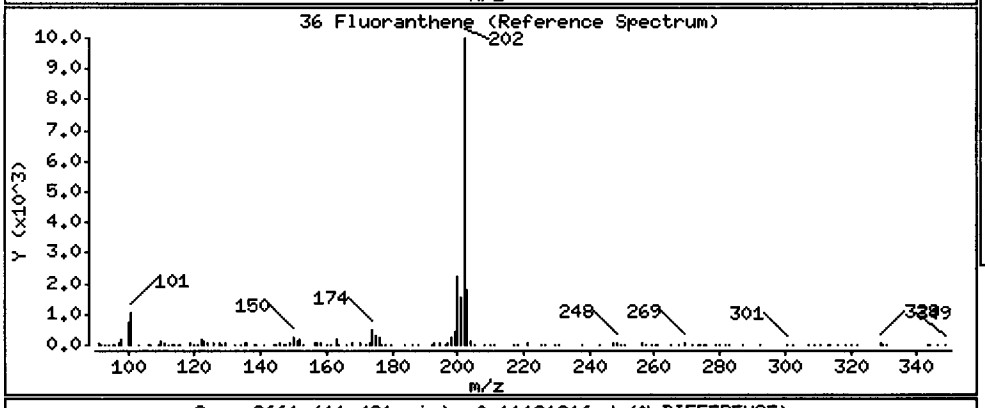
Concentration: 753.9 ug/kg

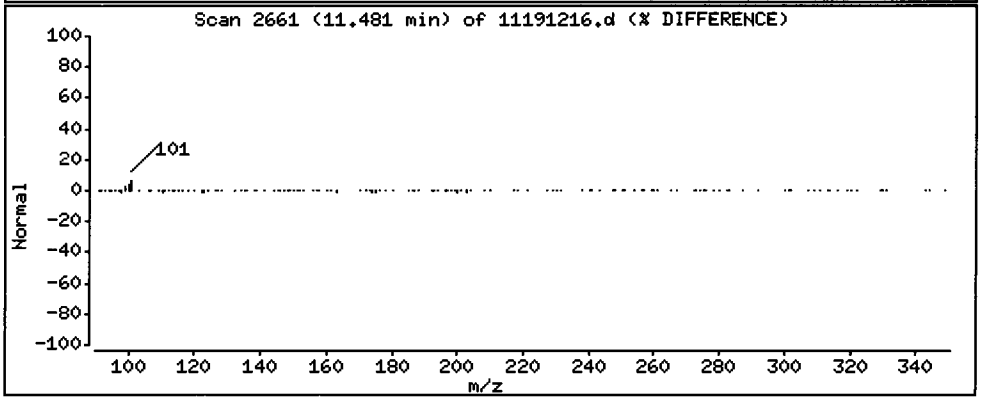












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

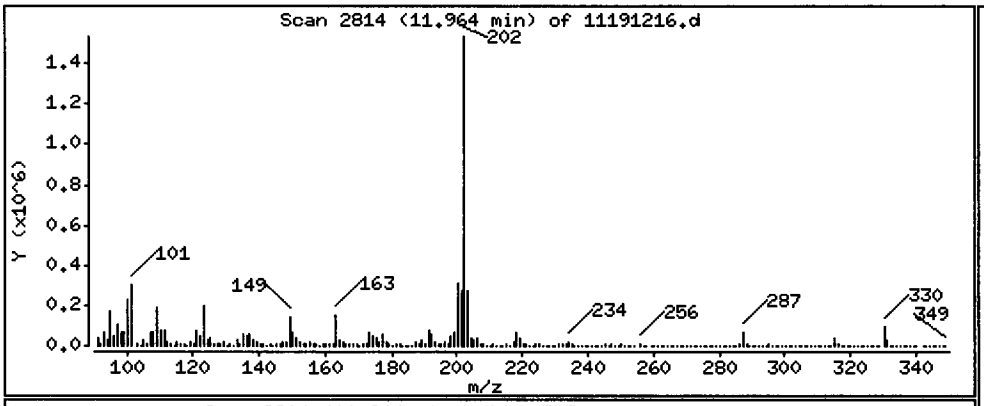
Operator: JZ

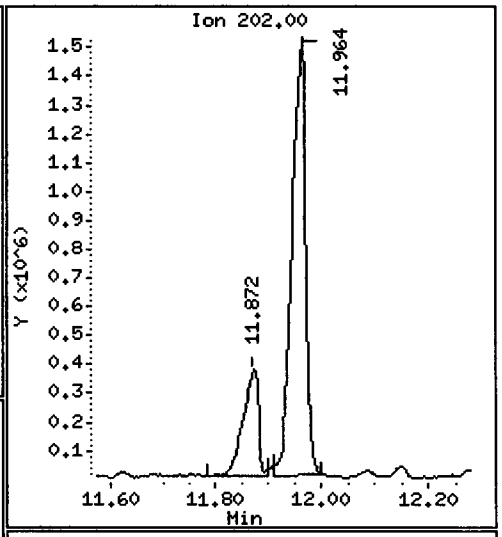
Column phase: ZB-5msi

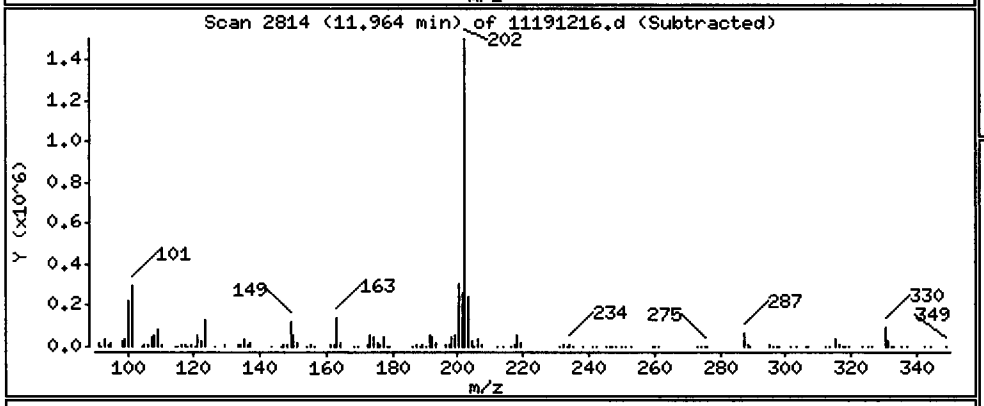
Column diameter: 0.25

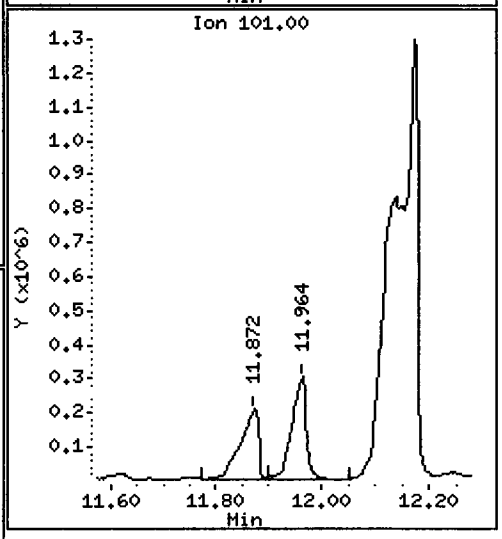
39 Pyrene

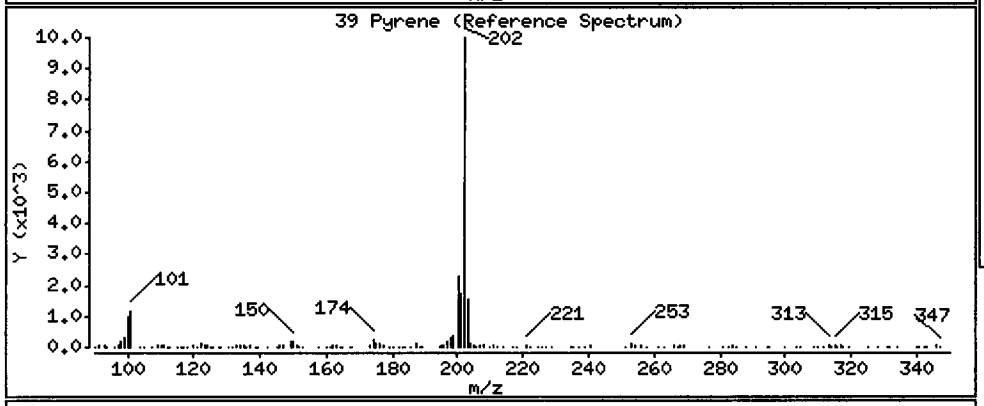
Concentration: 560.1 ug/kg

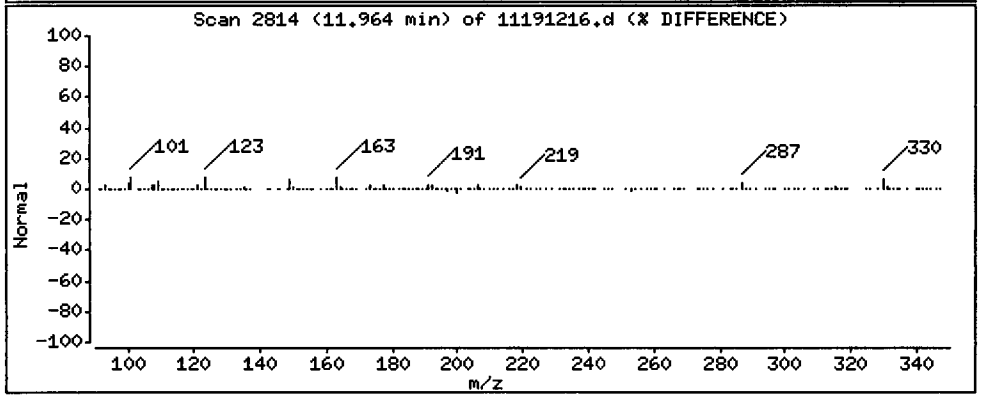












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

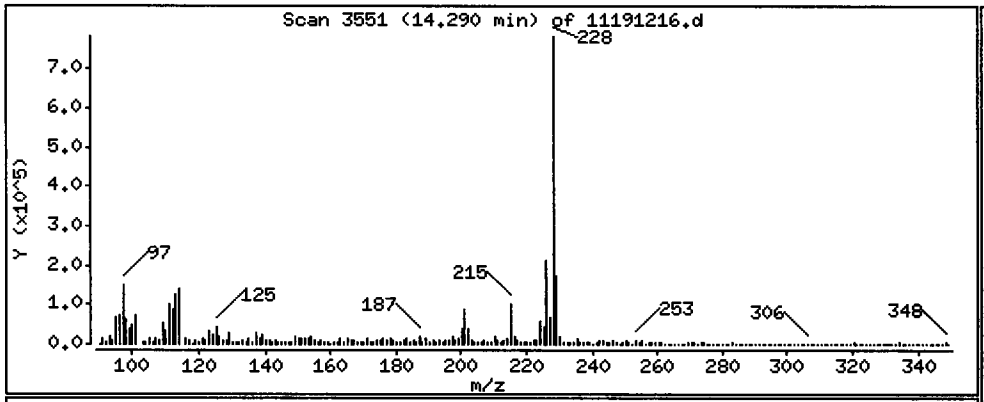
Operator: JZ

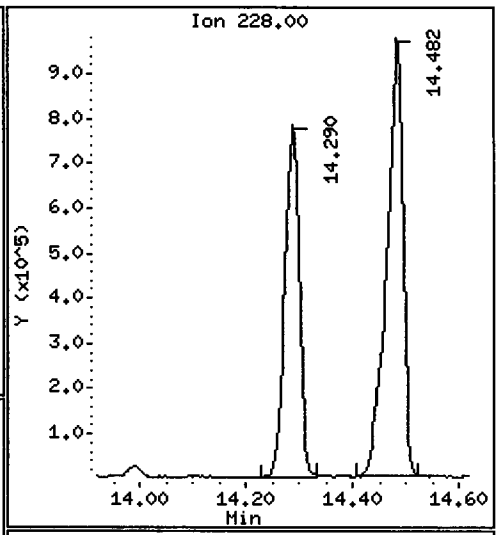
Column phase: ZB-5msi

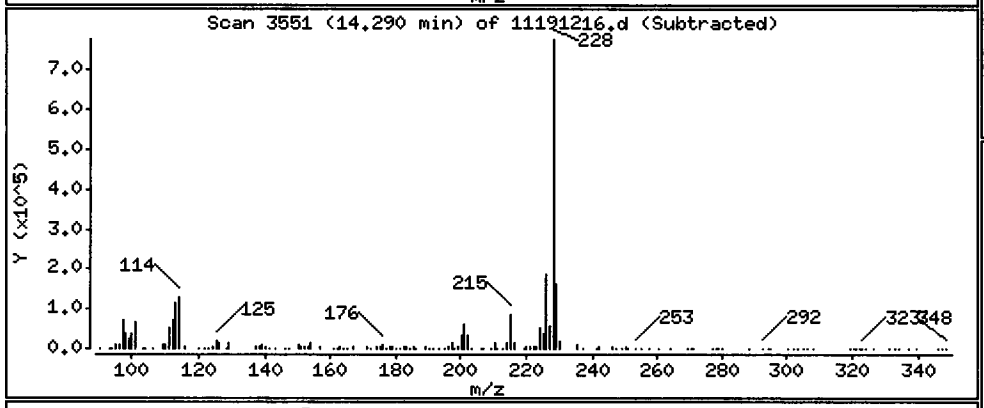
Column diameter: 0.25

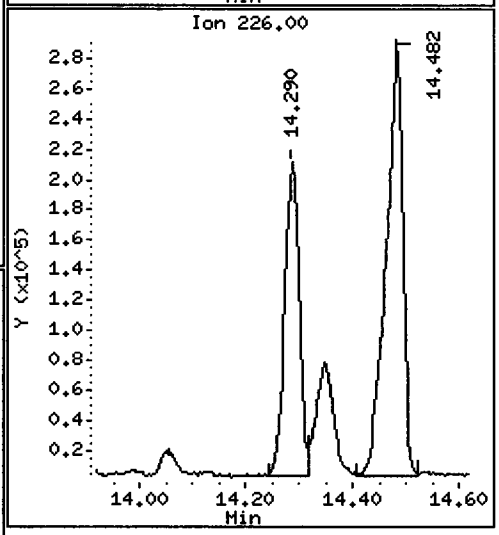
46 Benzo(a)anthracene

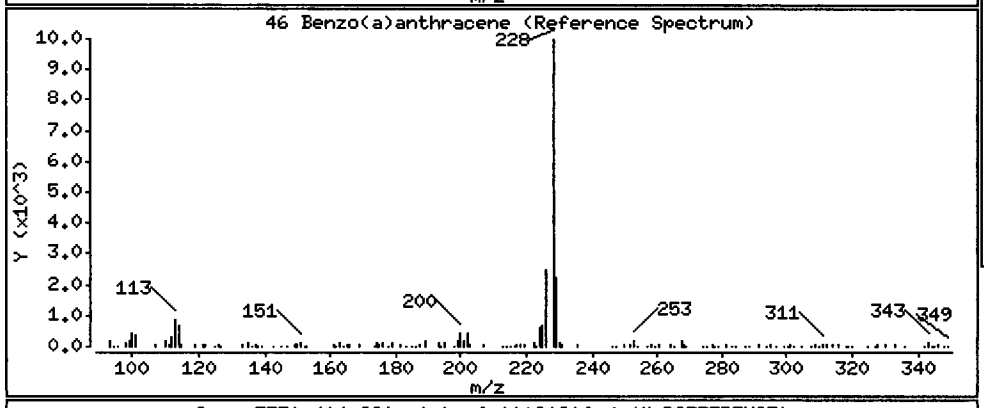
Concentration: 332.5 ug/kg

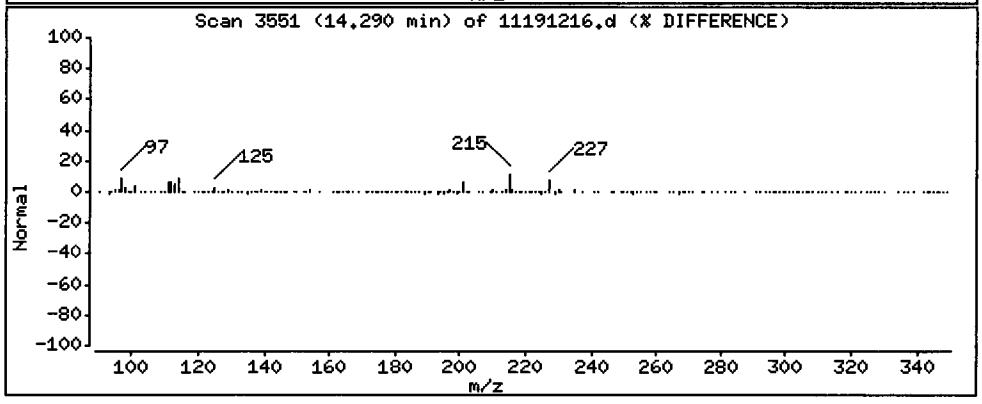












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

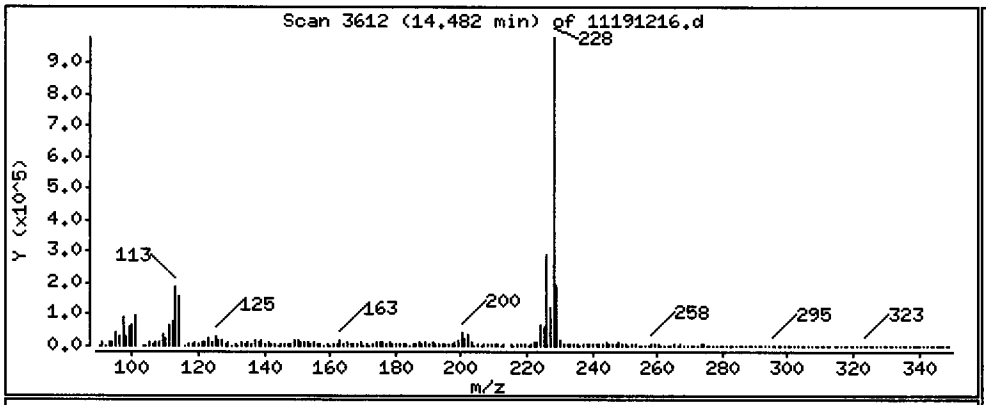
Operator: JZ

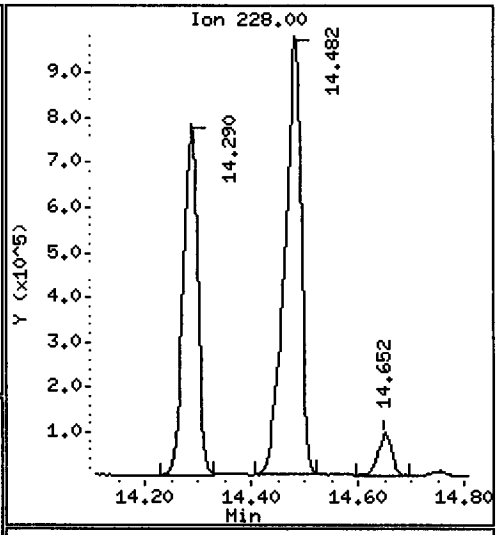
Column phase: ZB-5msi

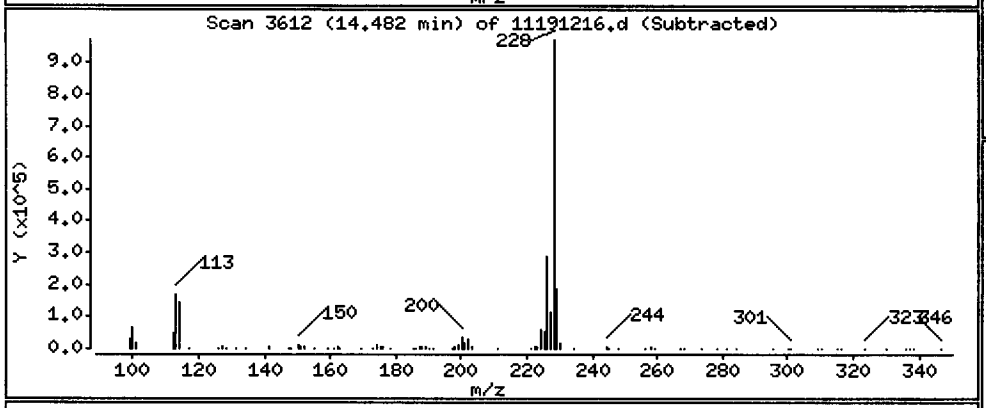
Column diameter: 0.25

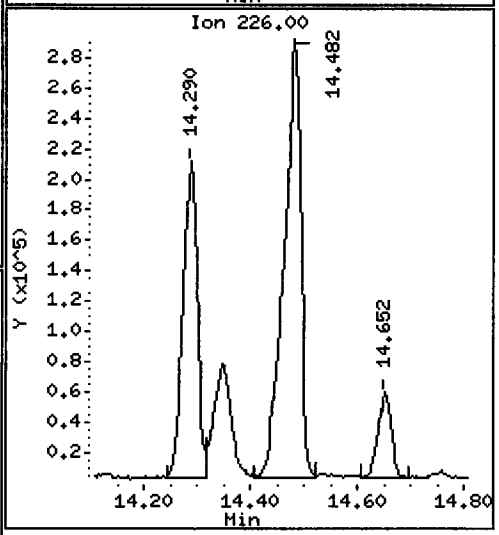
48 Chrysene

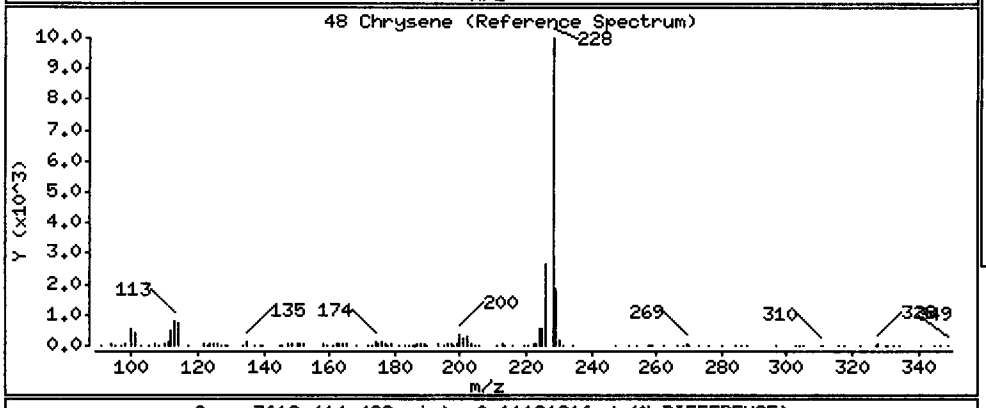
Concentration: 482.6 ug/kg

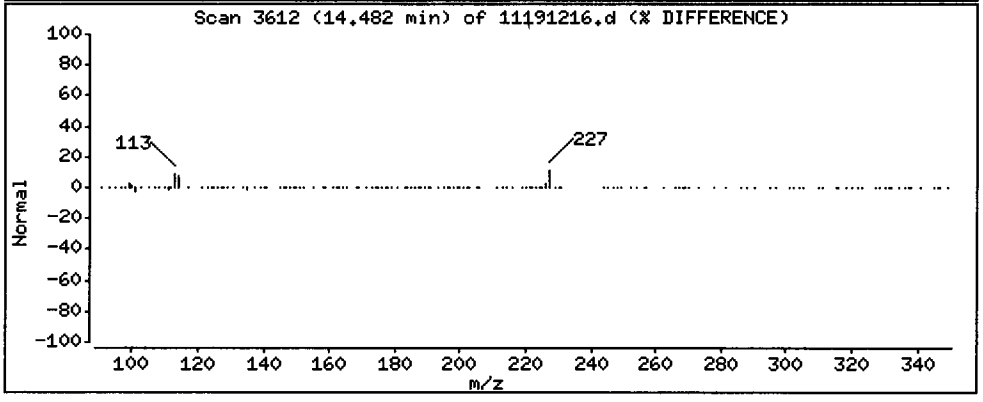












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

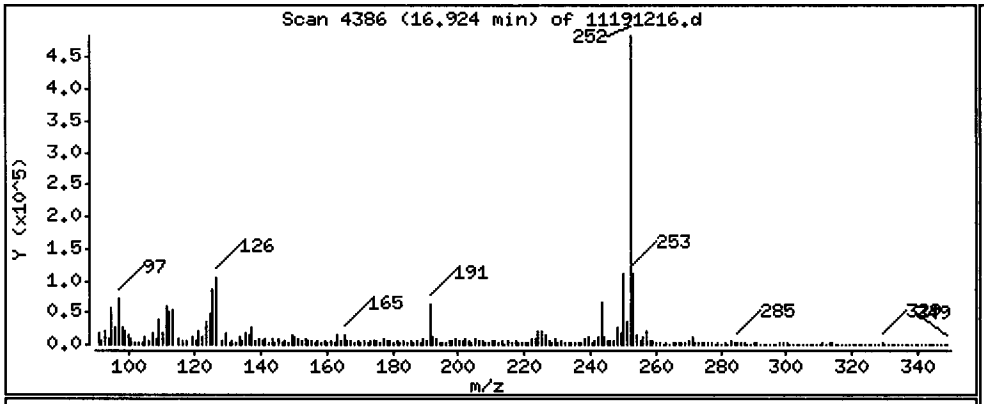
Operator: JZ

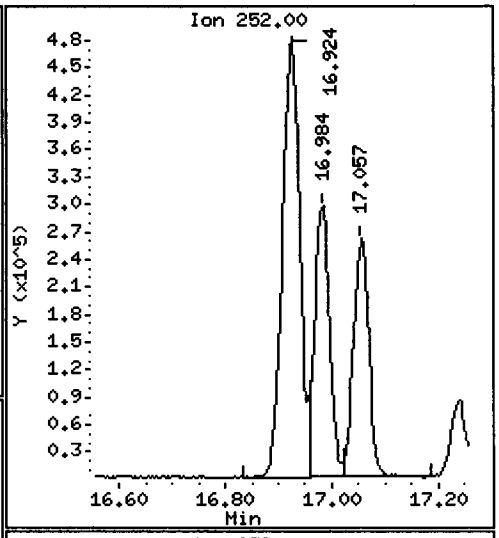
Column phase: ZB-5msi

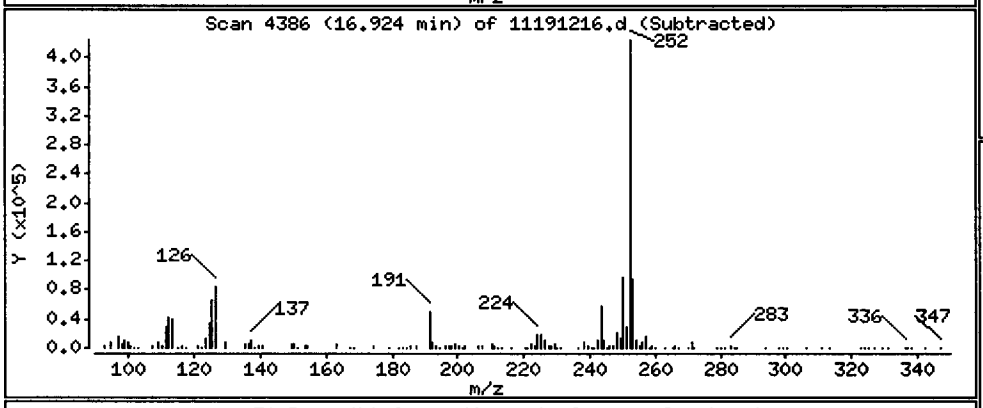
Column diameter: 0.25

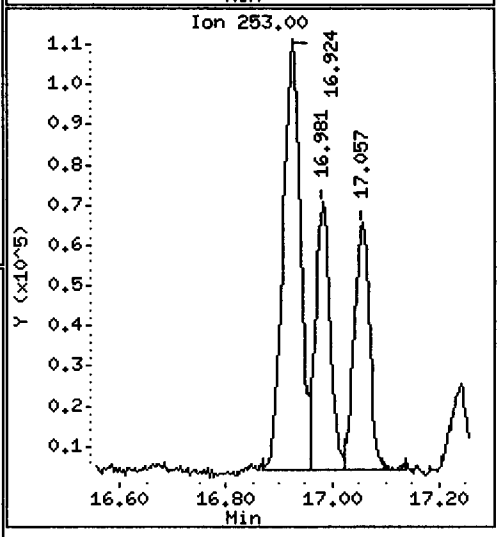
51 Benzo(b)fluoranthene

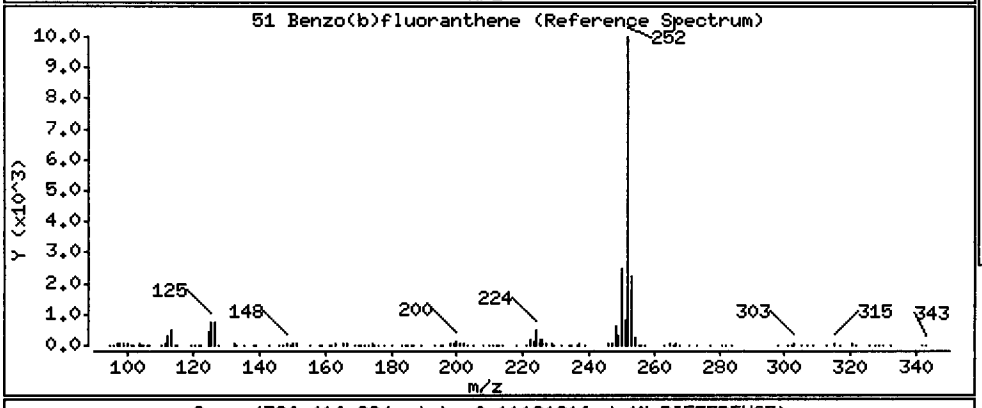
Concentration: 286.2 ug/kg

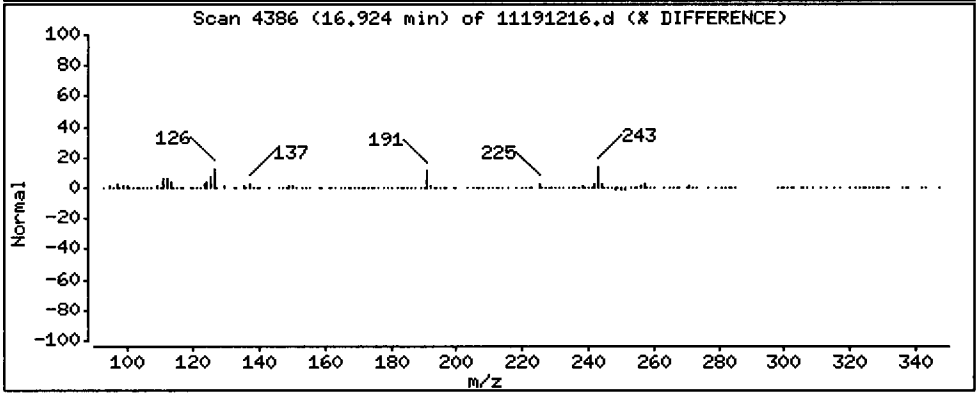












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

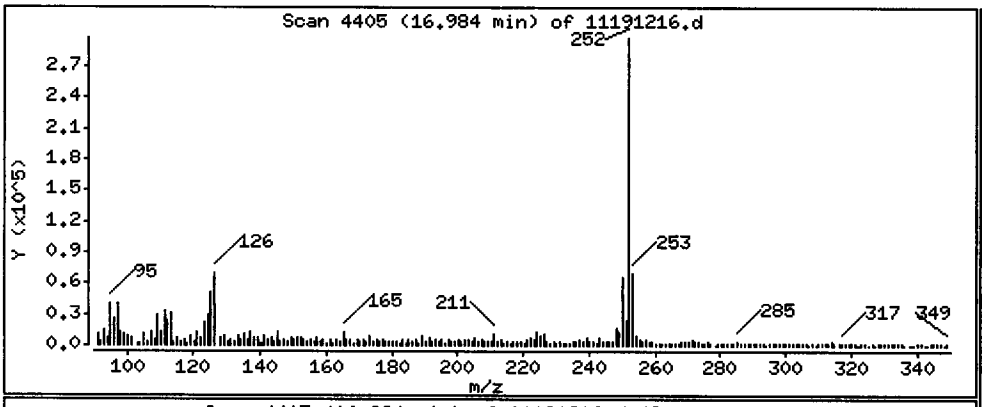
Operator: JZ

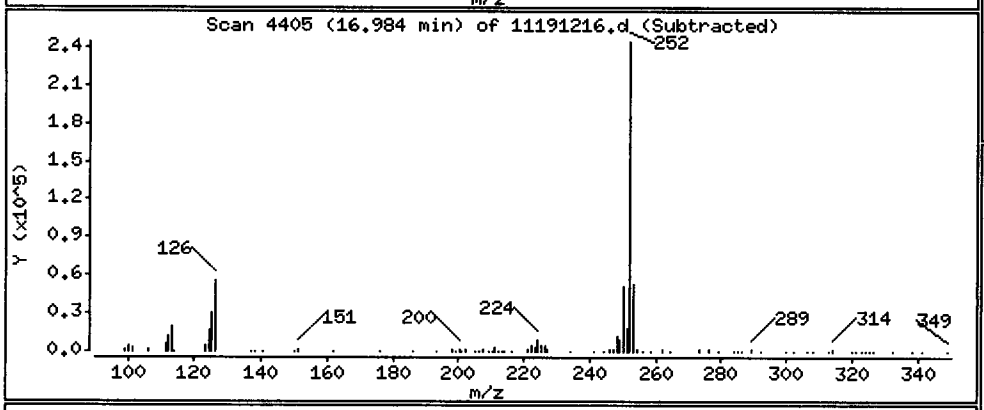
Column phase: ZB-5msi

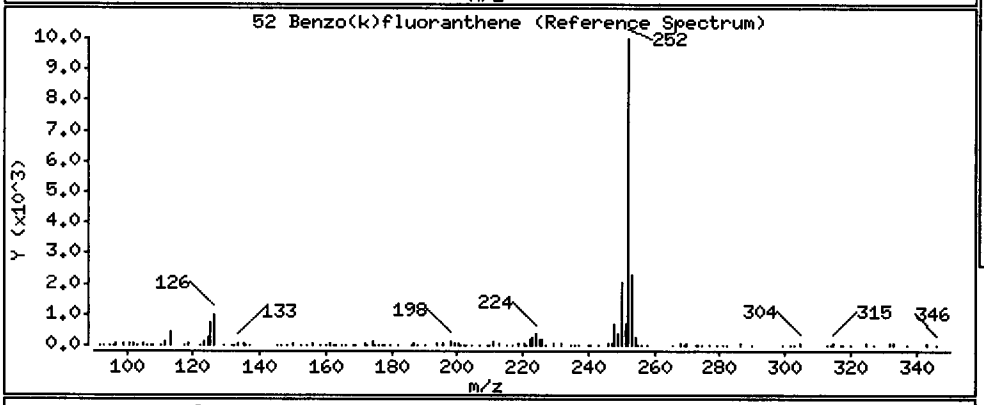
Column diameter: 0.25

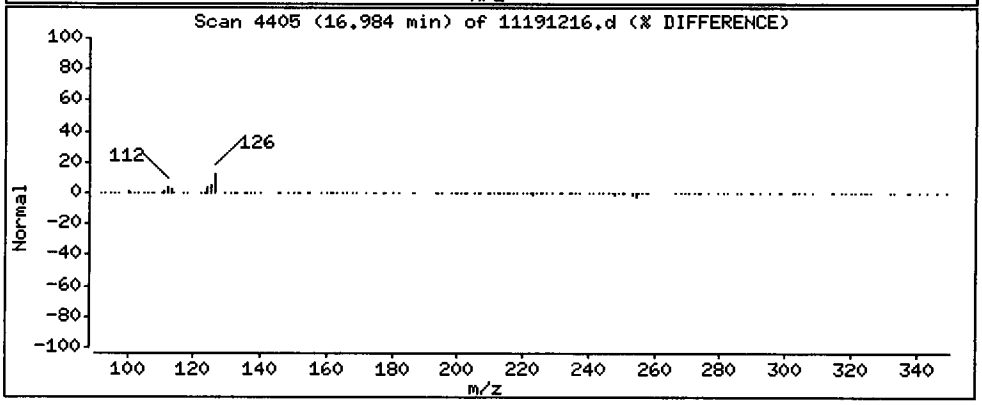
52 Benzo(k)fluoranthene

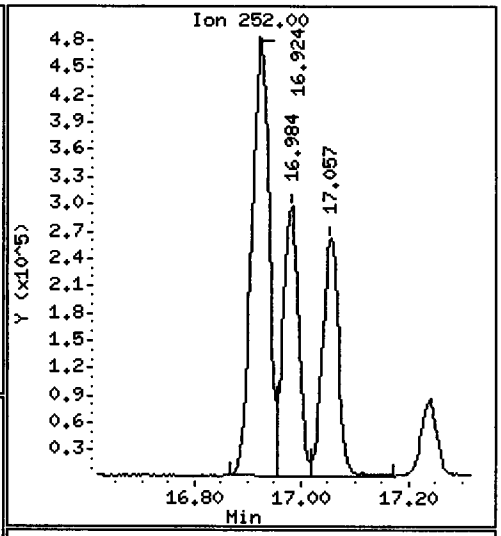
Concentration: 143.2 ug/kg

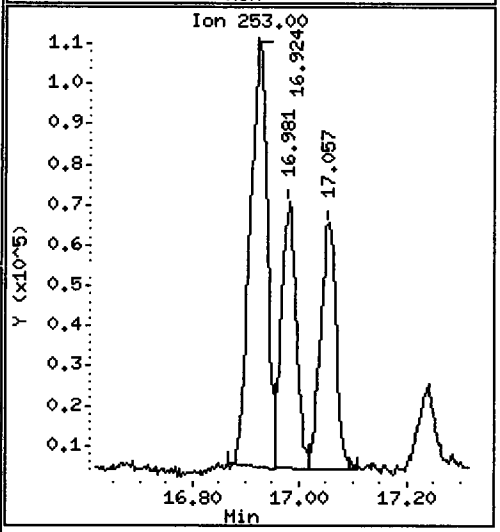












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

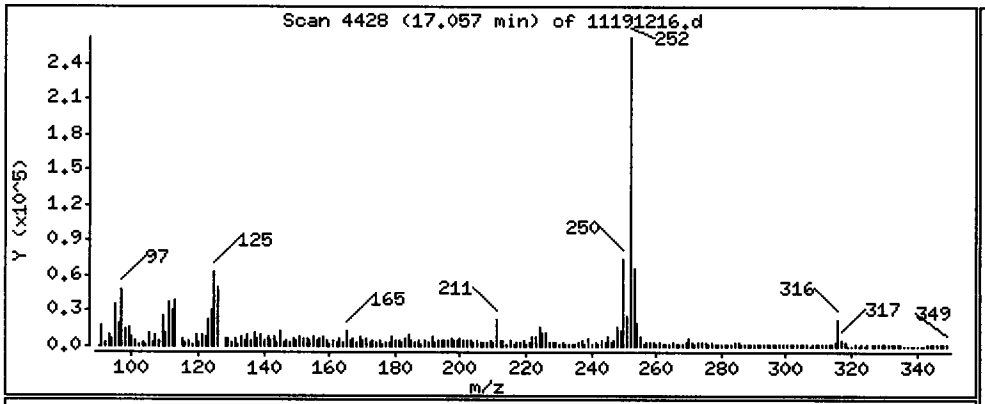
Operator: JZ

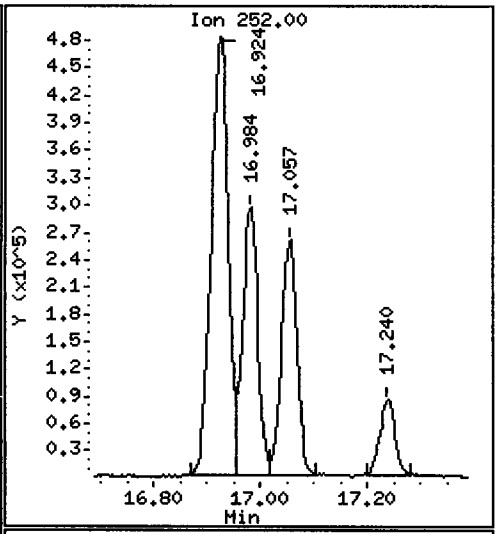
Column phase: ZB-5msi

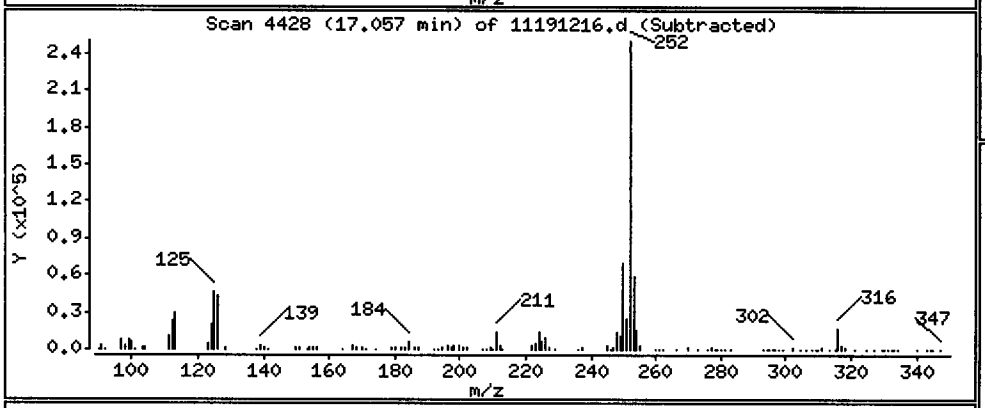
Column diameter: 0.25

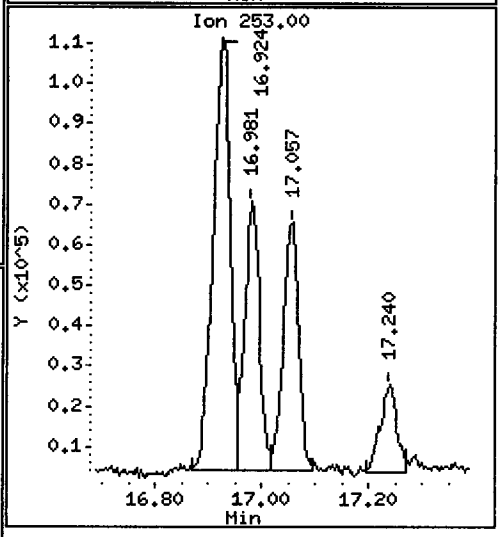
251 Benzo(j)fluoranthene

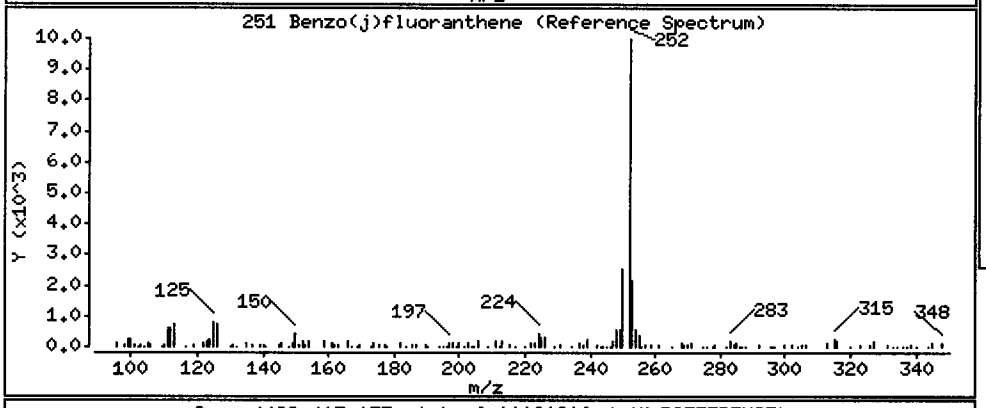
Concentration: 118.7 ug/kg

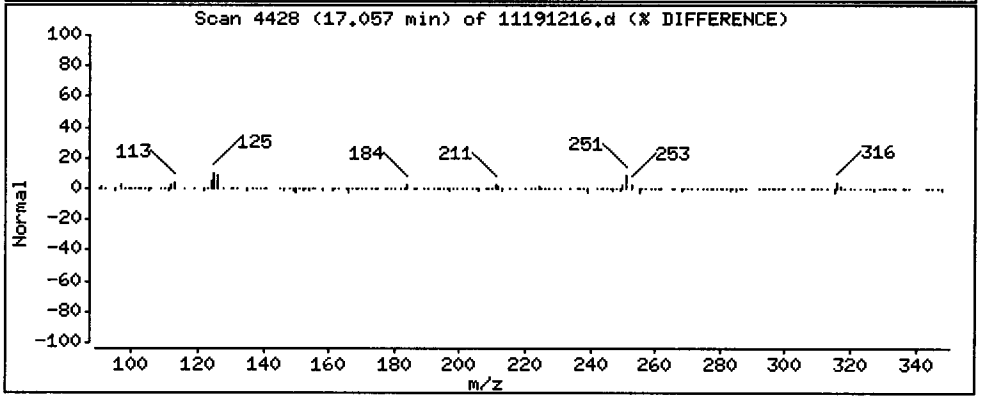












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

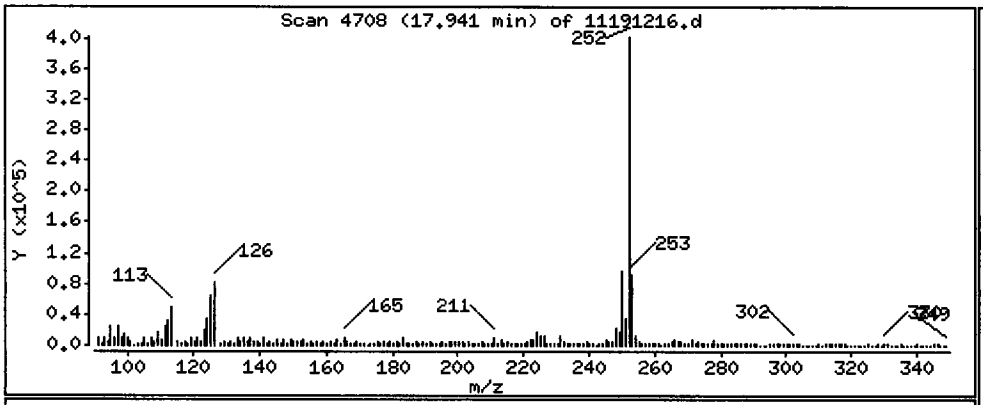
Operator: JZ

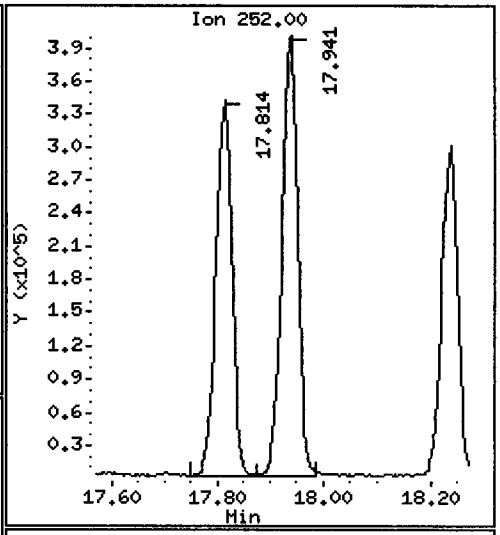
Column phase: ZB-5msi

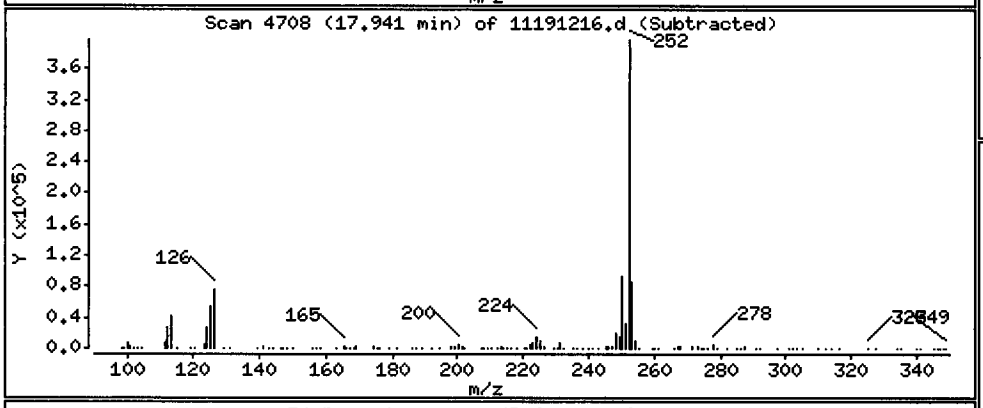
Column diameter: 0.25

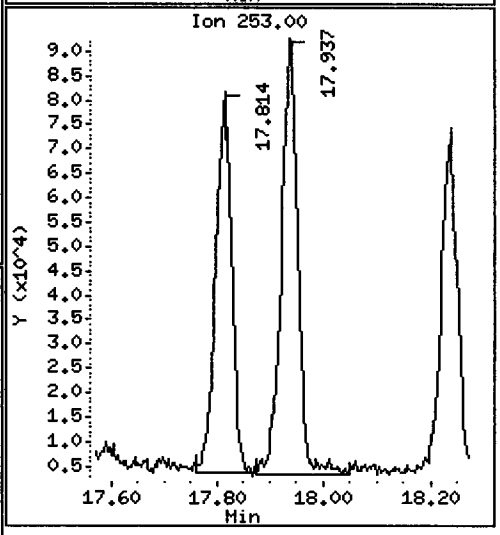
54 Benzo(a)pyrene

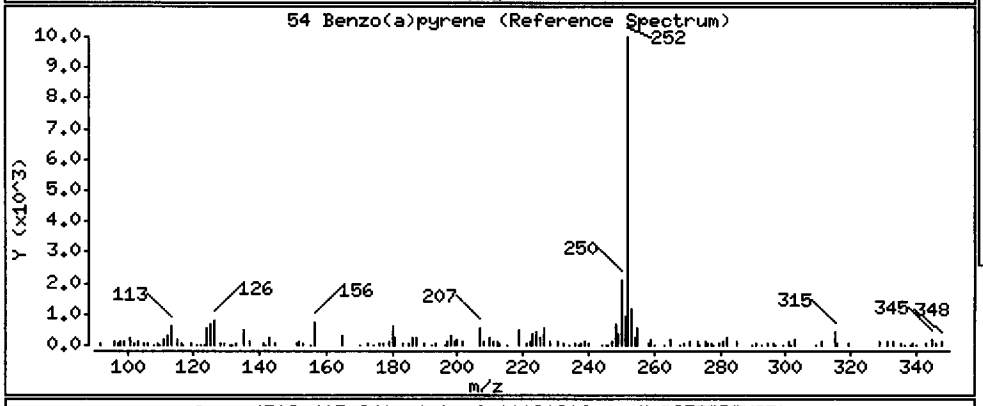
Concentration: 210.7 ug/kg

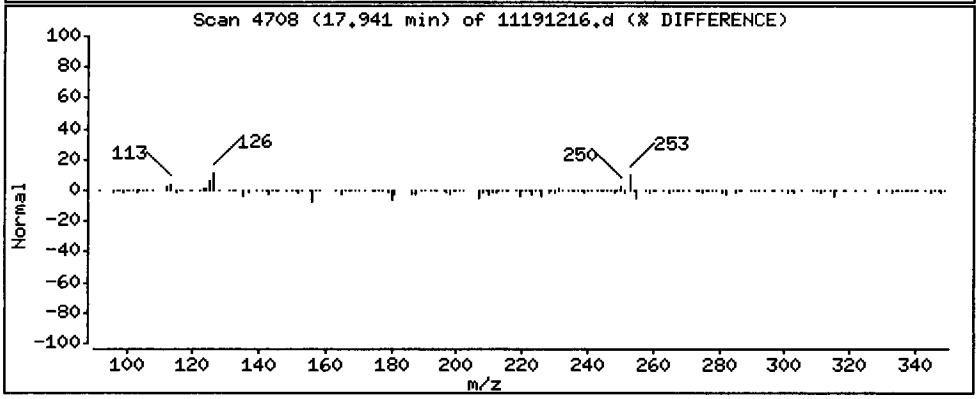












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

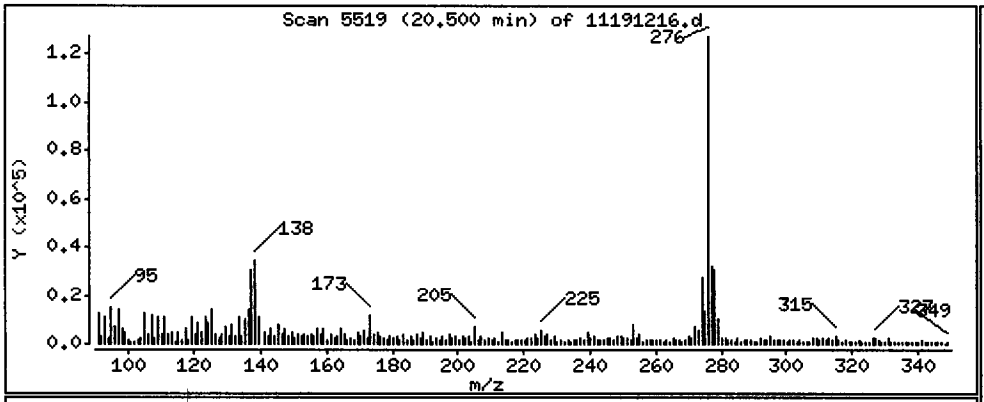
Operator: JZ

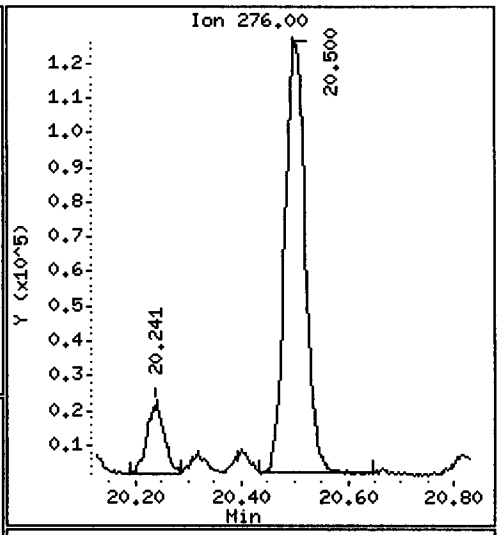
Column phase: ZB-5msi

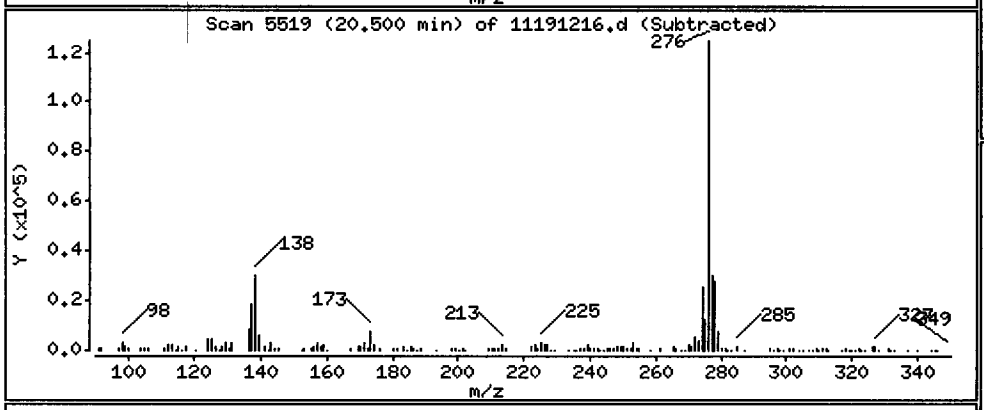
Column diameter: 0.25

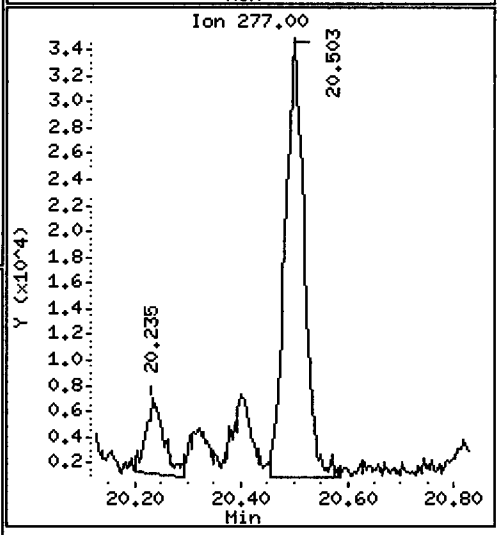
63 Indeno(1,2,3-cd)pyrene

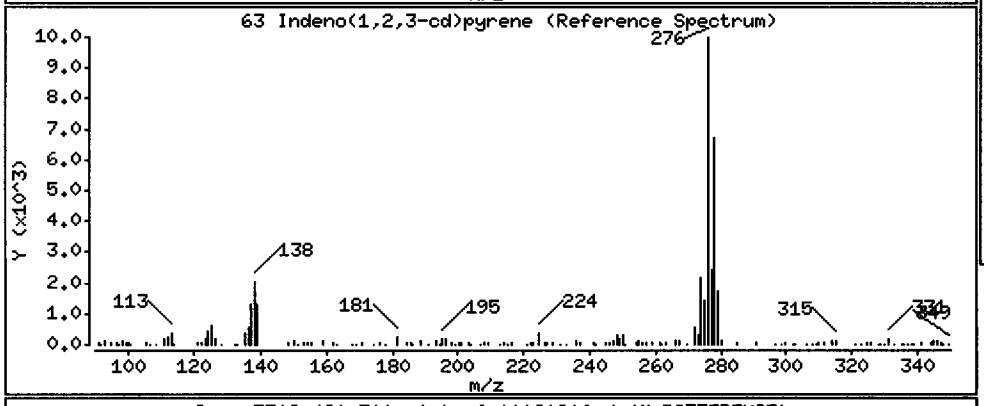
Concentration: 68.56 ug/kg

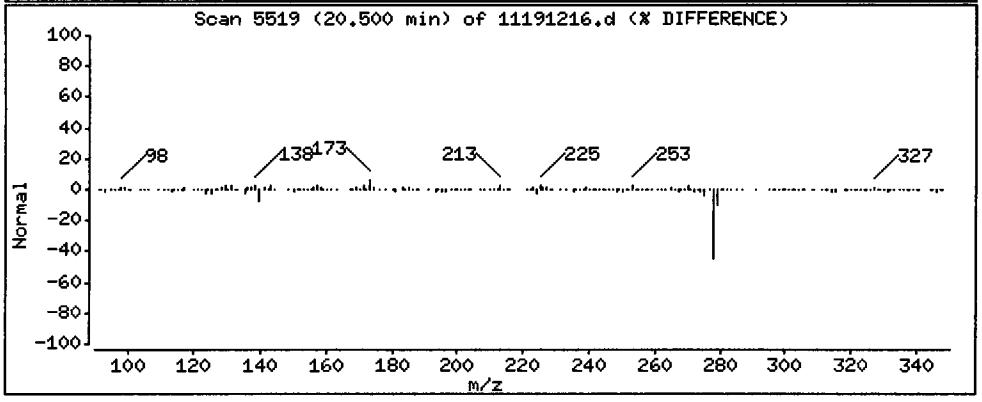












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

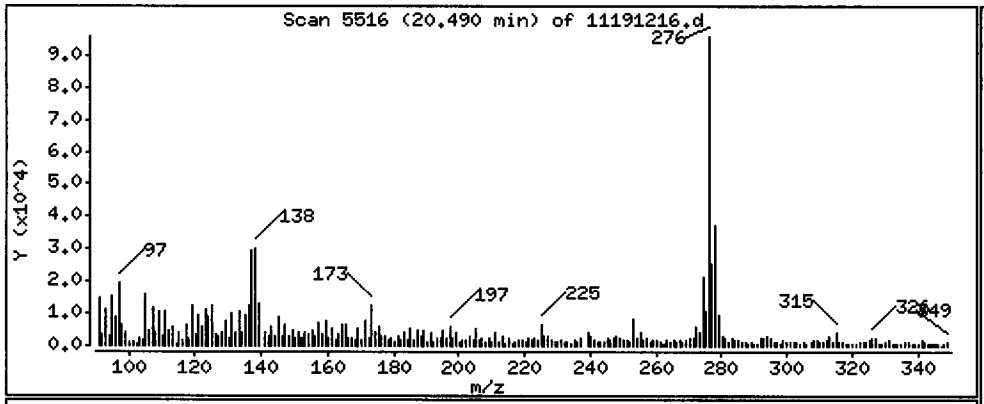
Operator: JZ

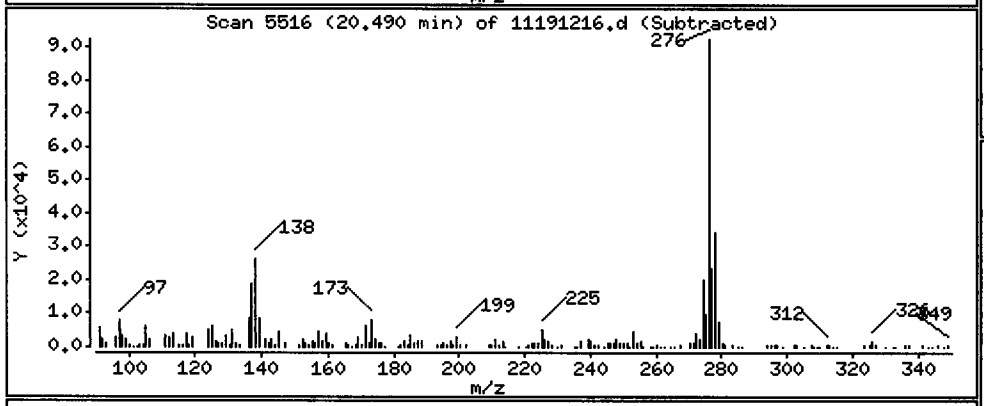
Column phase: ZB-5msi

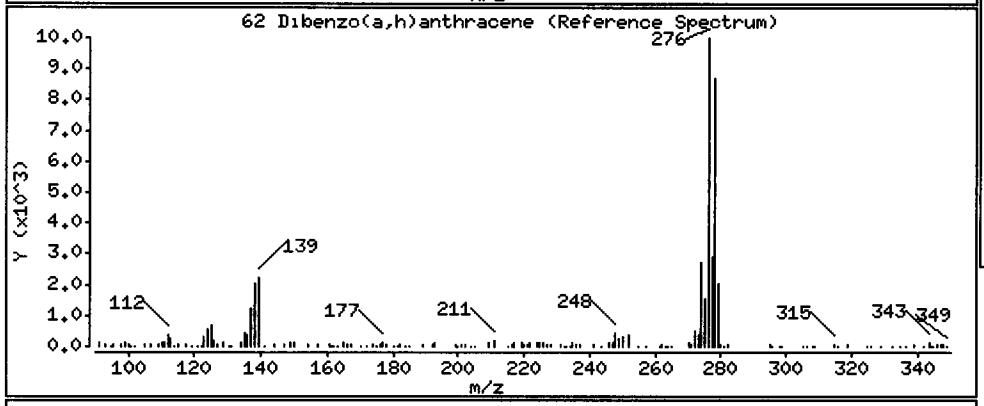
Column diameter: 0.25

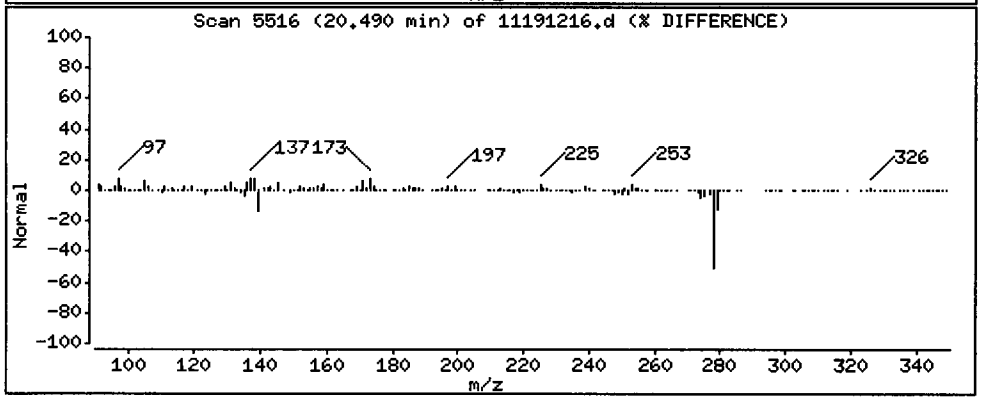
62 Dibenzo(a,h)anthracene

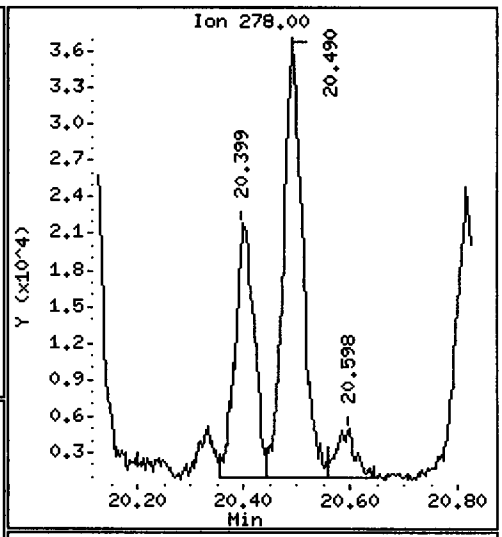
Concentration: 23.24 ug/kg

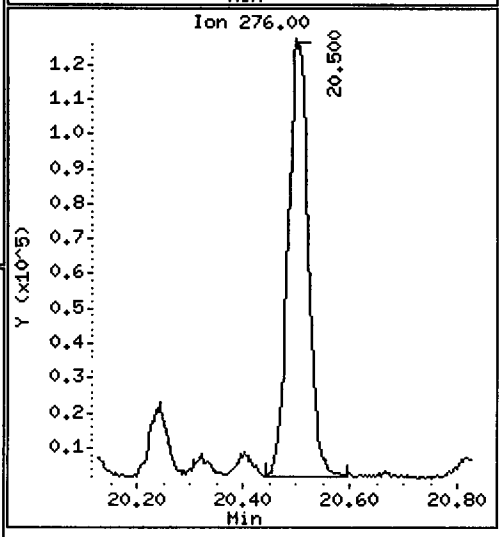












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

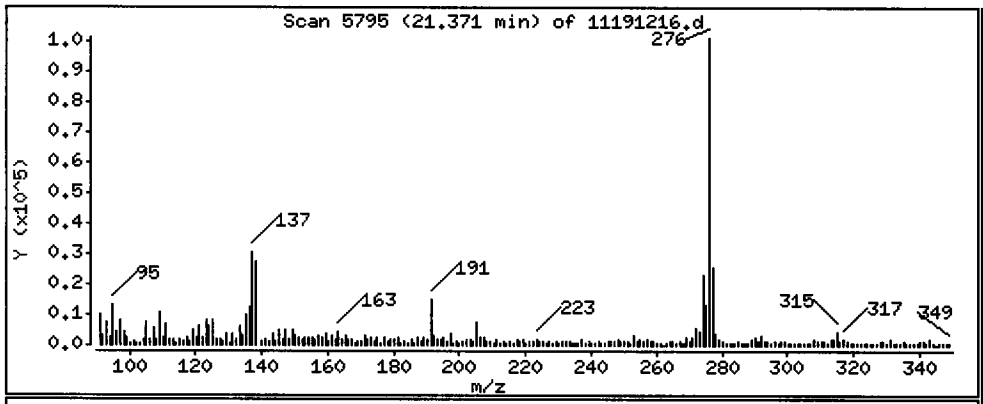
Operator: JZ

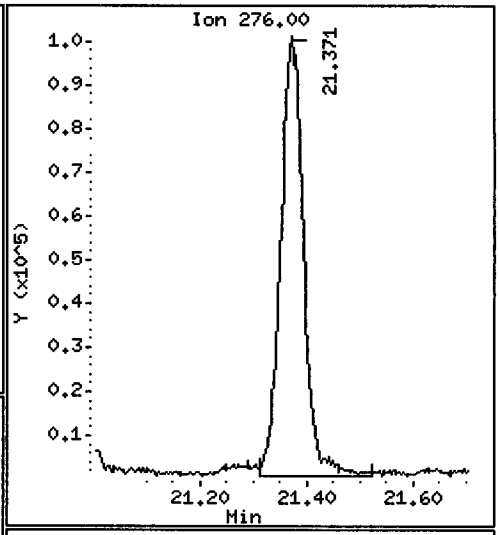
Column phase: ZB-5msi

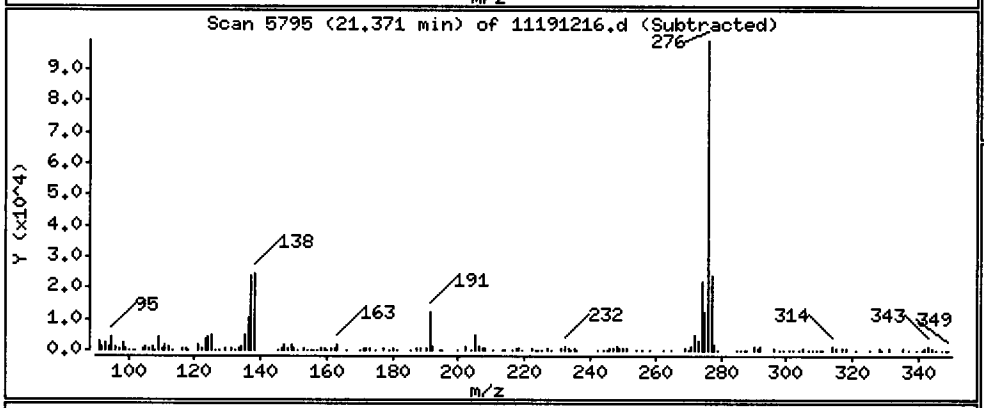
Column diameter: 0.25

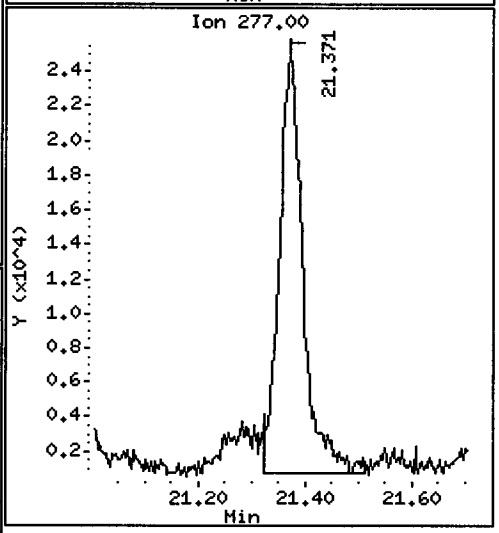
61 Benzo(g,h,i)perylene

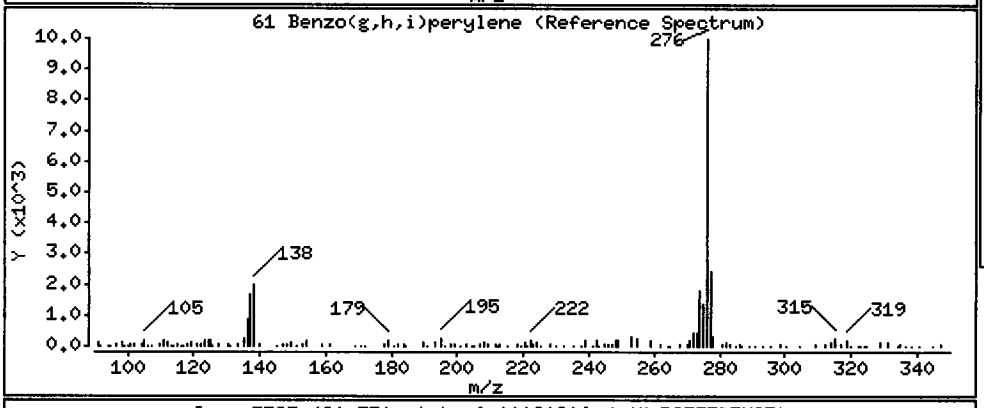
Concentration: 73.73 ug/kg

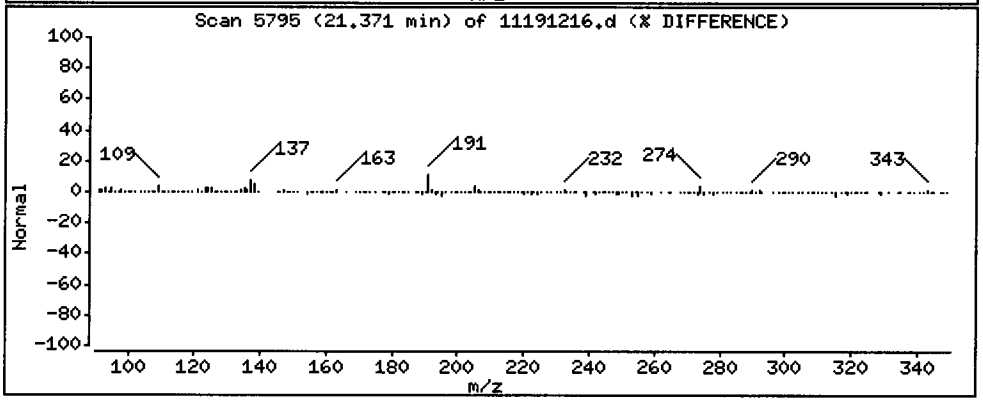












Data File: /chem3/nt11.i/20121119.b/11191216.d

Date : 19-NOV-2012 19:26

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D

Volume Injected (uL): 1.0

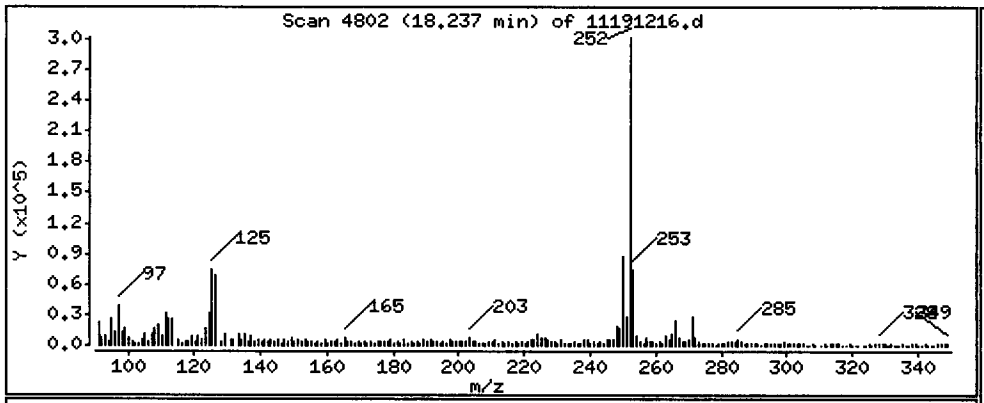
Operator: JZ

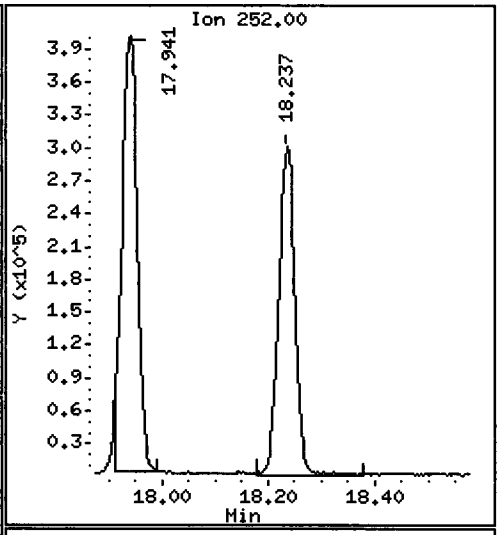
Column phase: ZB-5msi

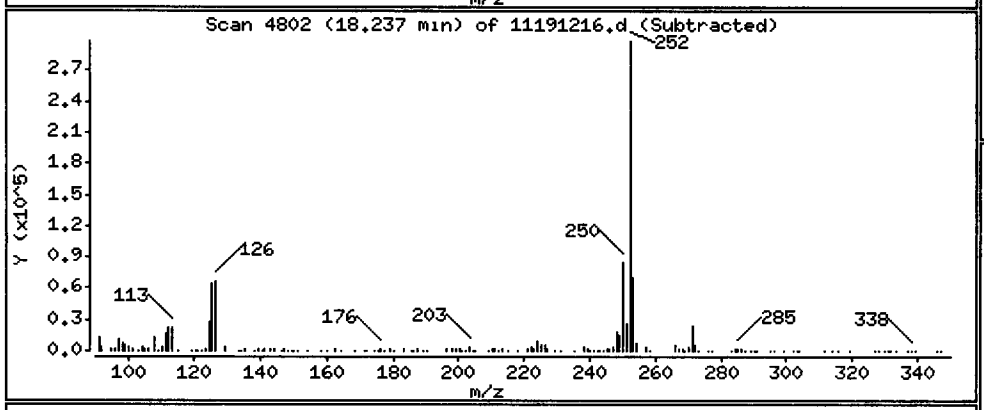
Column diameter: 0.25

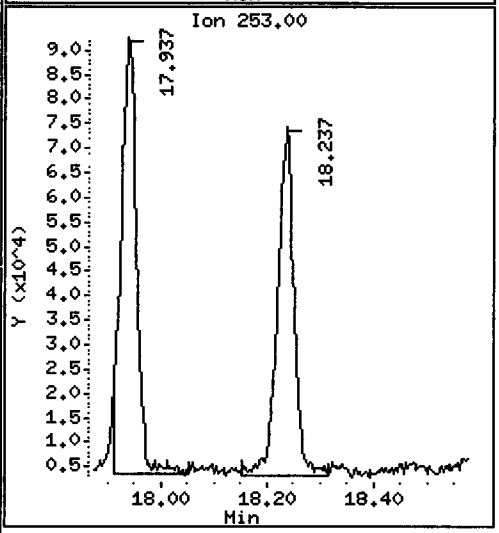
57 Perylene

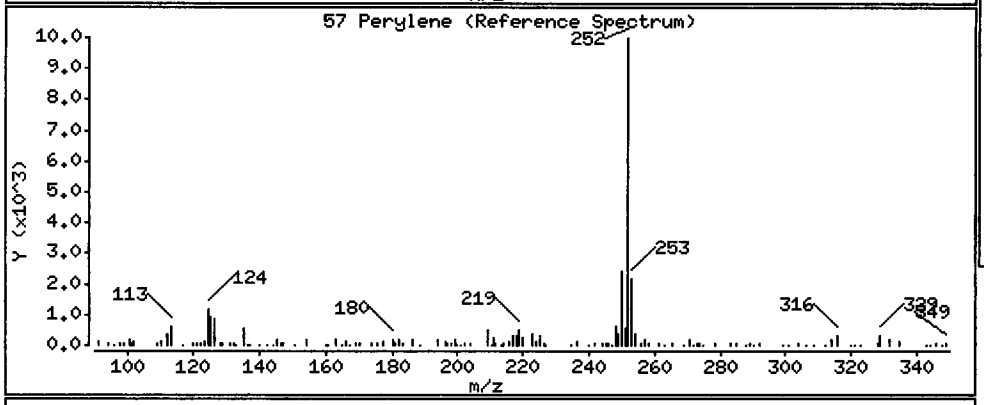
Concentration: 157.6 ug/kg

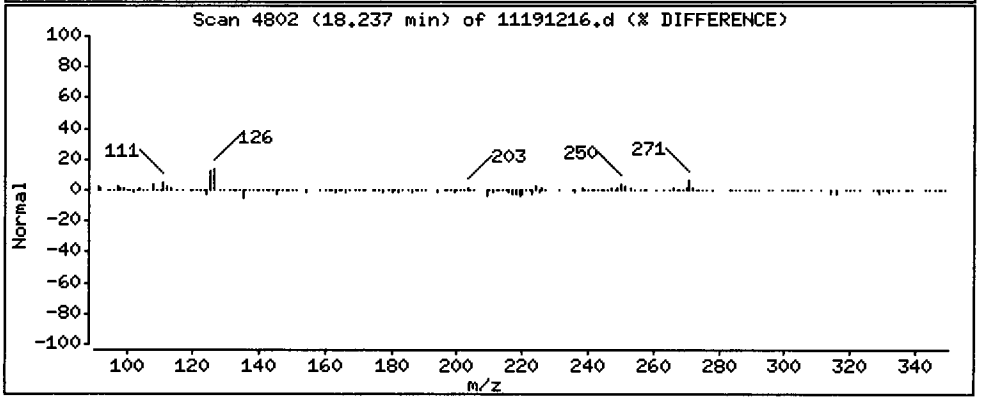












CO-ELUTION SUMMARY FOR FILE - 11191216.d

Lab ID: VR38D, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191217.d
Lab Smp Id: VR38E Client Smp ID: HT-05-S-C-121106
Inj Date : 19-NOV-2012 19:56
Operator : JZ Inst ID: nt11.i
Smp Info : VR38E
Misc Info : 12-22271
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 11:18 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	13.17000	Weight of sample extracted (g)
M	18.40000	% 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)
*	6 Naphthalene-d8	136	5.464	5.473	(1.000)	656966	2.00000	
	7 Naphthalene	128	5.495	5.501	(1.006)	19512	0.05557	2.586
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.135)	350551	1.56170	72.66
	14 2-Methylnaphthalene	141	Compound Not Detected.					
	15 1-methylnaphthalene	141	Compound Not Detected.					
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.742	7.745	(1.000)	362341	2.00000	
	23 Acenaphthene	153	Compound Not Detected.					
	11 Dibenzofuran	168	Compound Not Detected.					
	25 Fluorene	166	8.414	8.420	(1.087)	11675	0.05179	2.409
*	28 Phenanthrene-d10	188	9.762	9.764	(1.000)	511781	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	53591	0.17335	8.065
	31 Anthracene	178	9.834	9.840	(1.007)	24009	0.08090	3.764
	36 Fluoranthene	202	11.456	11.459	(1.174)	148758	0.48028	22.35
	39 Pyrene	202	11.939	11.926	(0.830)	124184	0.39264	18.27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
46	Benzo(a)anthracene	228	14.255	14.268	(0.991)	65209	0.22611	10.52
* 47	Chrysene-d12	240	14.381	14.387	(1.000)	573928	2.00000	
48	Chrysene	228	14.448	14.457	(1.005)	110557	0.39497	18.38
51	Benzo(b)fluoranthene	252	16.890	16.906	(0.931)	52251	0.19552	9.097
52	Benzo(k)fluoranthene	252	16.953	16.966	(0.935)	27283	0.09401	4.374
251	Benzo(j)fluoranthene	252	17.019	17.038	(0.938)	18775	0.06131	2.853(M)
54	Benzo(a)pyrene	252	17.912	17.922	(0.987)	33433	0.12317	5.730
* 56	Perylene-d12	264	18.140	18.152	(1.000)	577426	2.00000	
63	Indeno(1,2,3-cd)pyrene	276	20.459	20.478	(1.128)	20162	0.06127	2.851
$ 60	Dibenzo(a,h)anthracene-d14	292	20.367	20.380	(1.123)	486533	2.54160	118.2
62	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
61	Benzo(g,h,i)perylene	276	21.343	21.355	(1.177)	19155	0.06842	3.183
57	Perylene	252	18.209	18.225	(1.004)	25449	0.09041	4.206

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191217.d
Lab Smp Id: VR38E
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22271

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-05-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	656966	27.29
22 Acenaphthene-d10	284255	142128	568510	362341	27.47
28 Phenanthrene-d10	410660	205330	821320	511781	24.62
47 Chrysene-d12	467886	233943	935772	573928	22.66
56 Perylene-d12	472330	236165	944660	577426	22.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.46	-0.17
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.04
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.07

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.

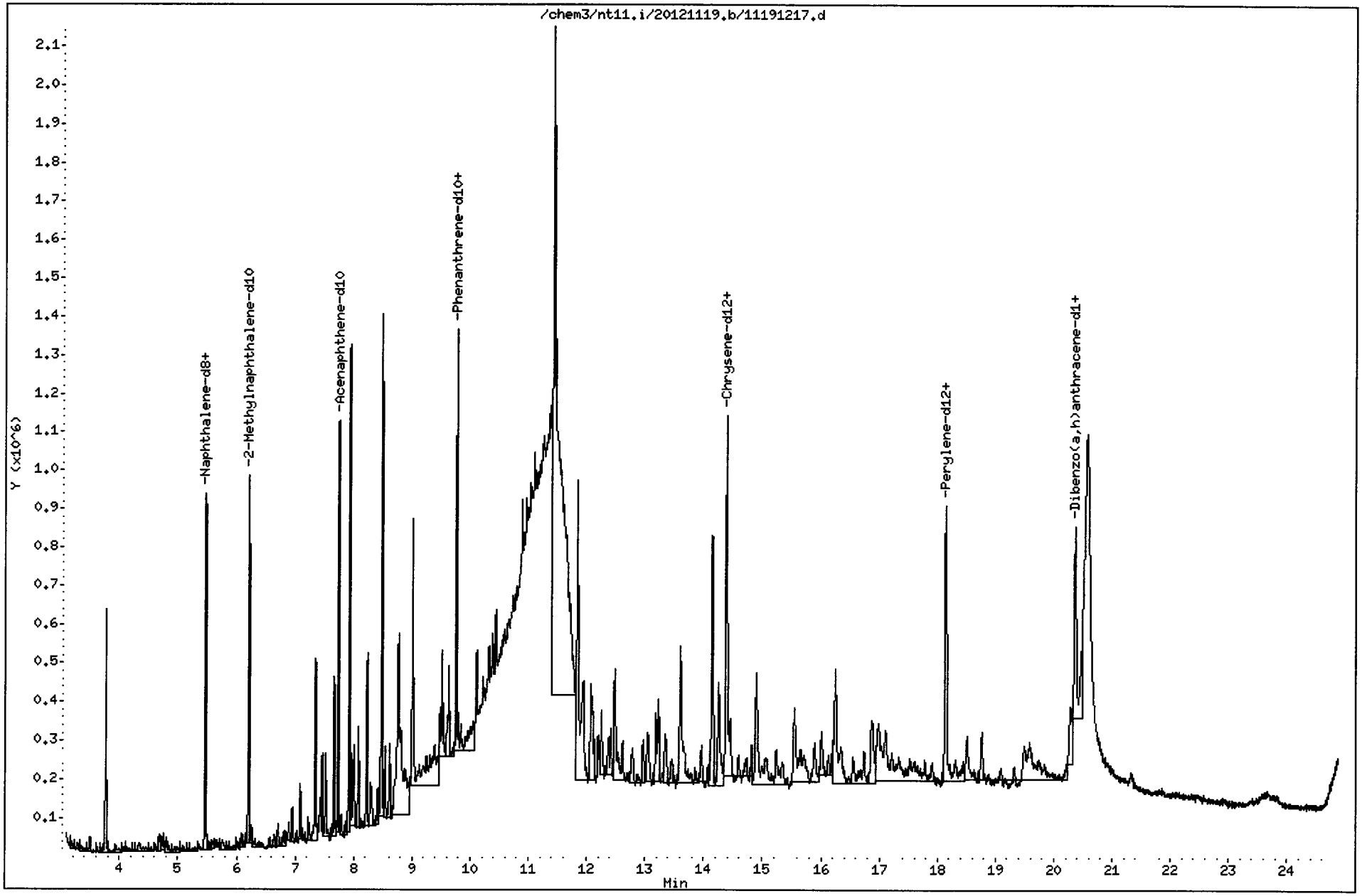
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38E Client Smp ID: HT-05-S-C-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22271

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	139.6	72.66	52.06	34-100
$ 60 Dibenzo(a,h)anthra	139.6	118.2	84.72	10-117

Data File: /chem3/nt11.i/20121119.b/11191217.d
Date : 19-NOV-2012 19:56
Client ID: HT-05-S-C-121106
Sample Info: VR38E
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

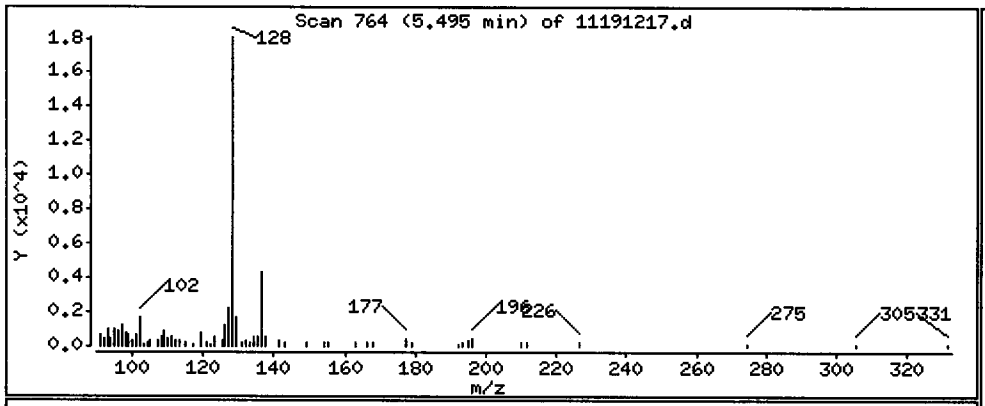
Operator: JZ

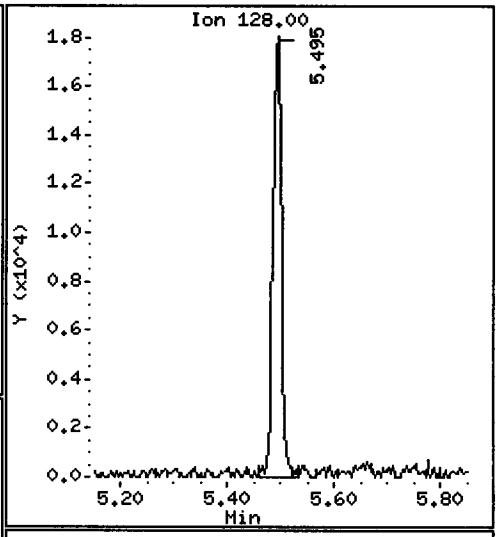
Column phase: ZB-5msi

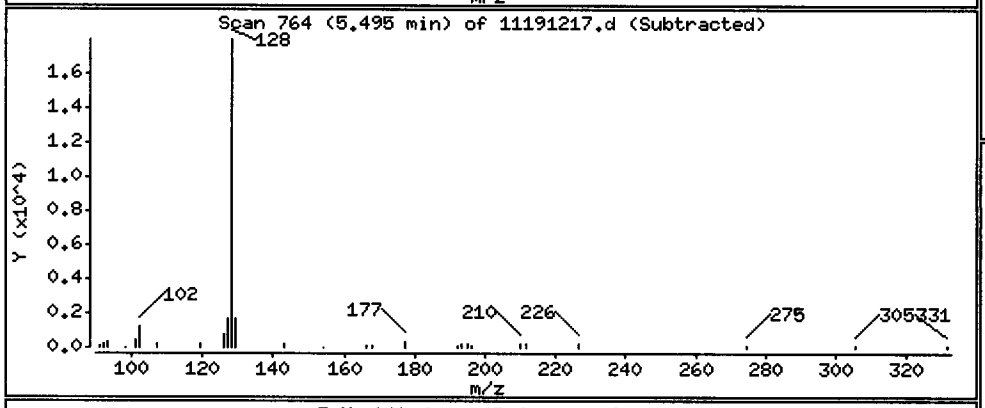
Column diameter: 0.25

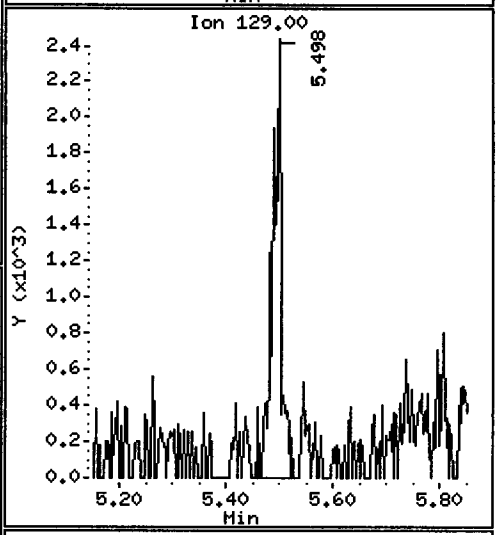
7 Naphthalene

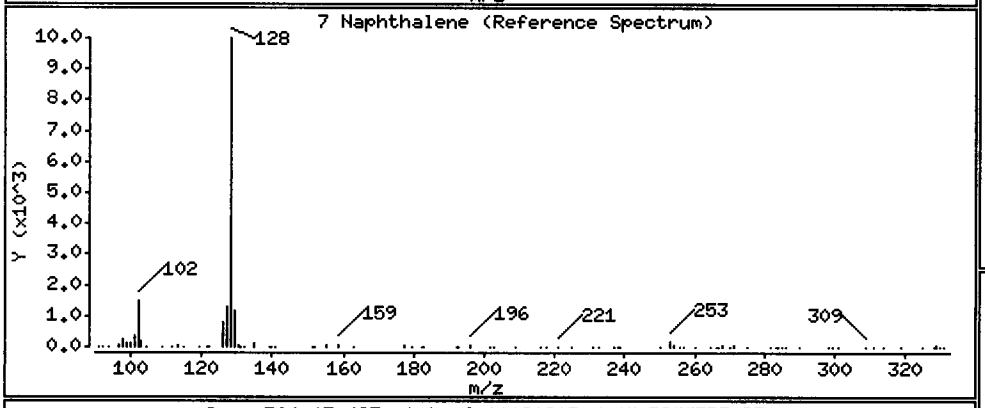
Concentration: 2.586 ug/kg

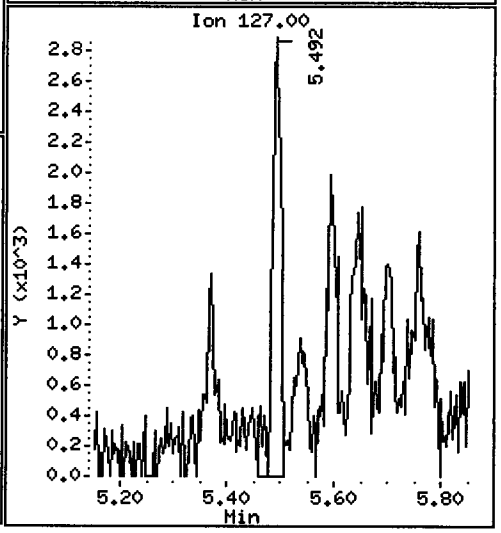


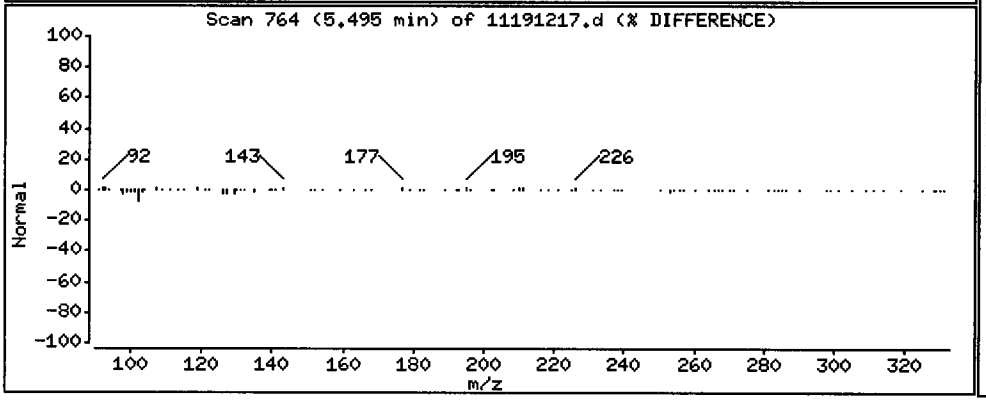












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

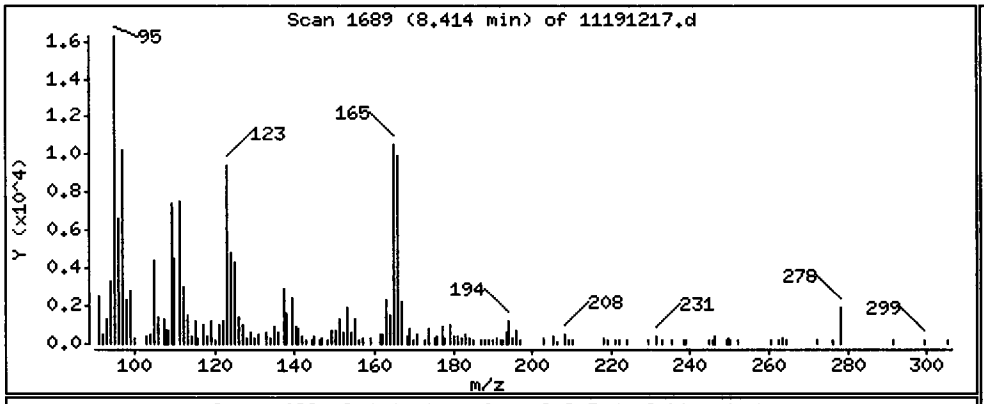
Operator: JZ

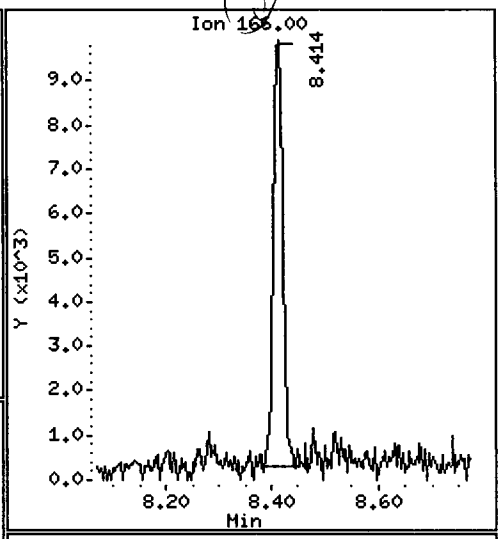
Column phase: ZB-5msi

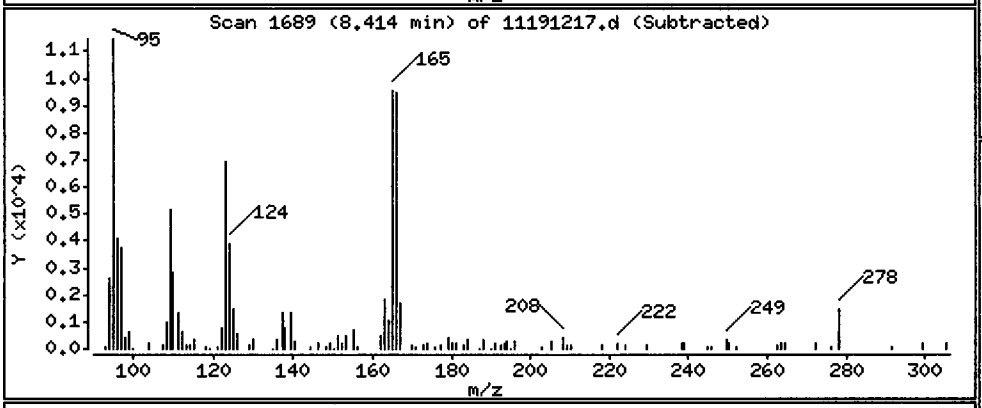
Column diameter: 0.25

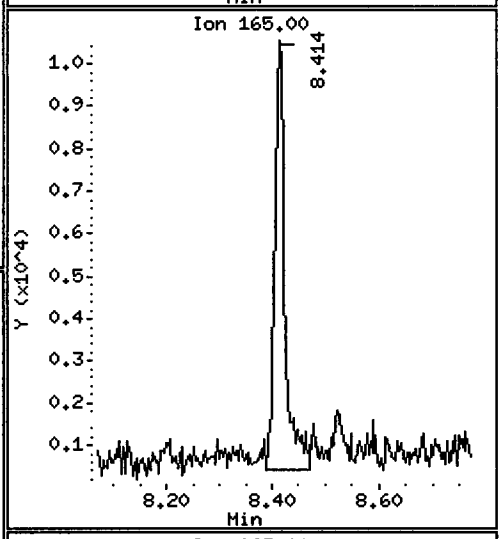
25 Fluorene

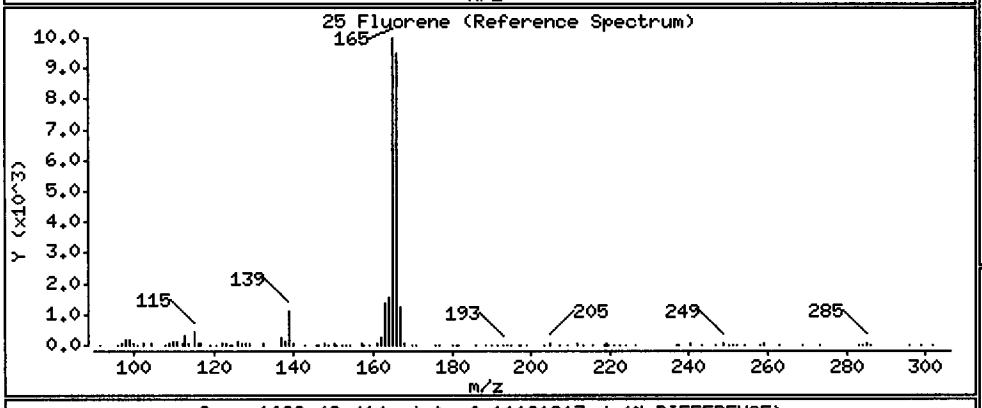
Concentration: 2.409 ug/kg

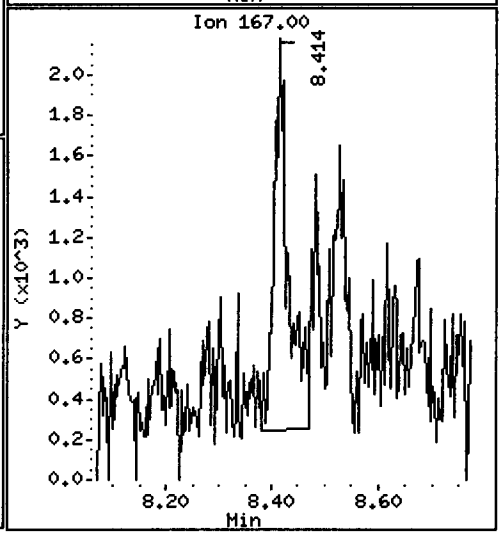


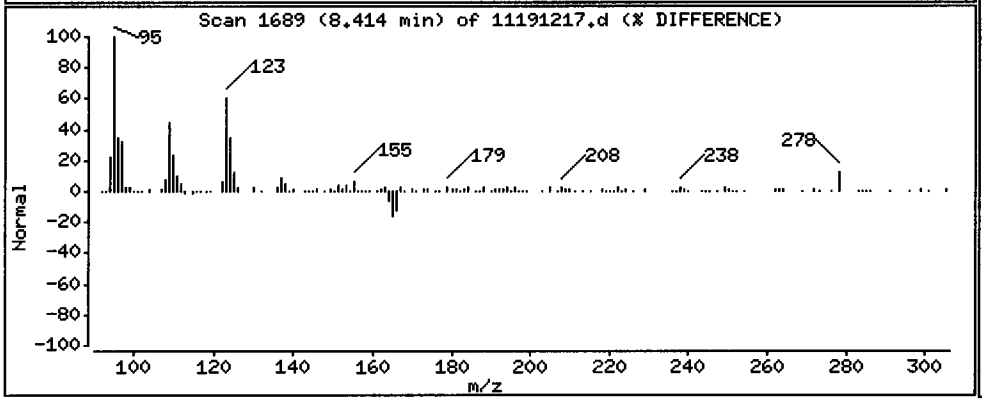












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

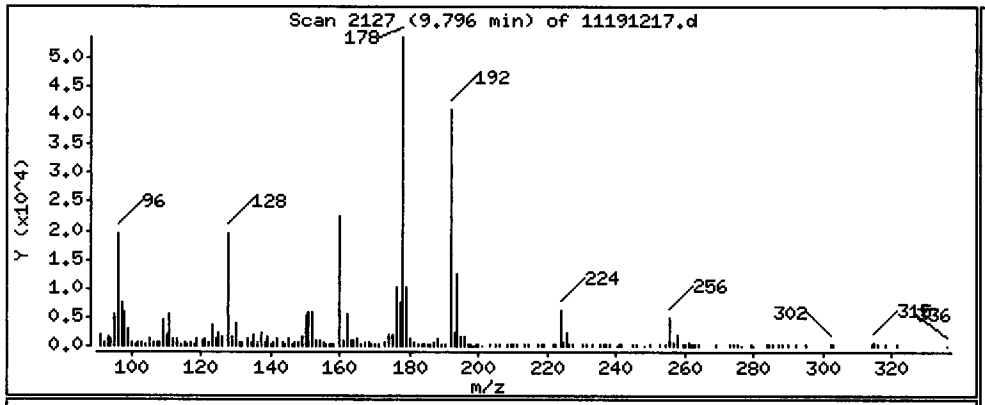
Operator: JZ

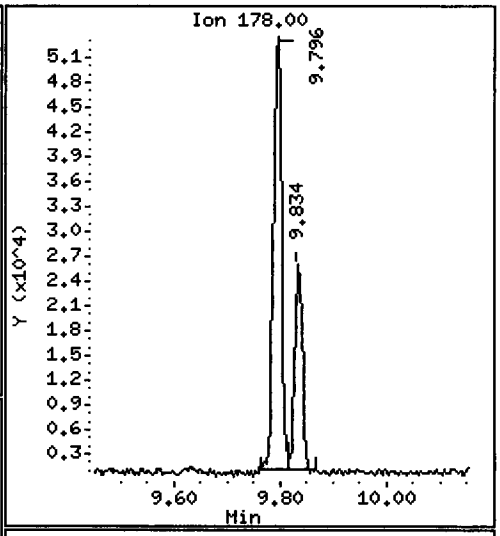
Column phase: ZB-5msi

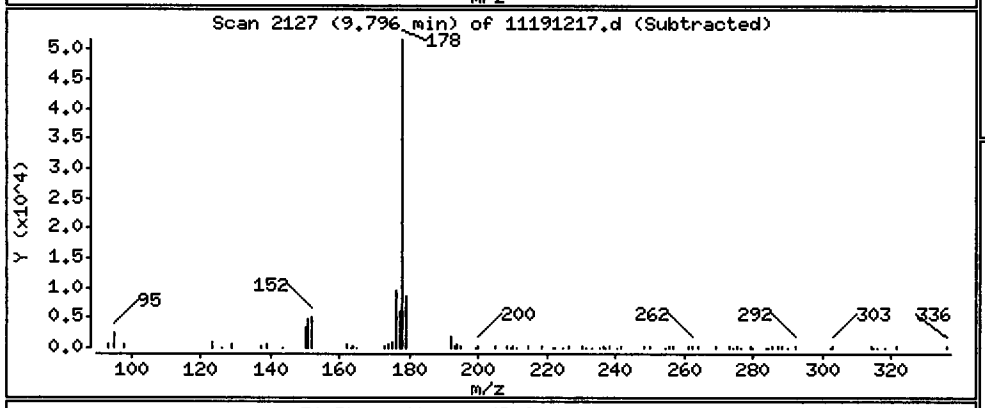
Column diameter: 0.25

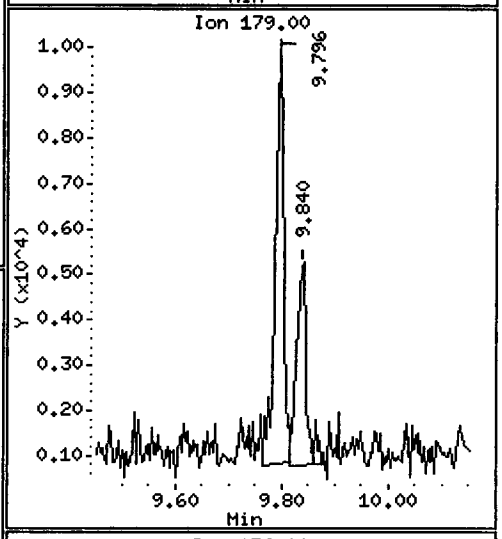
30 Phenanthrene

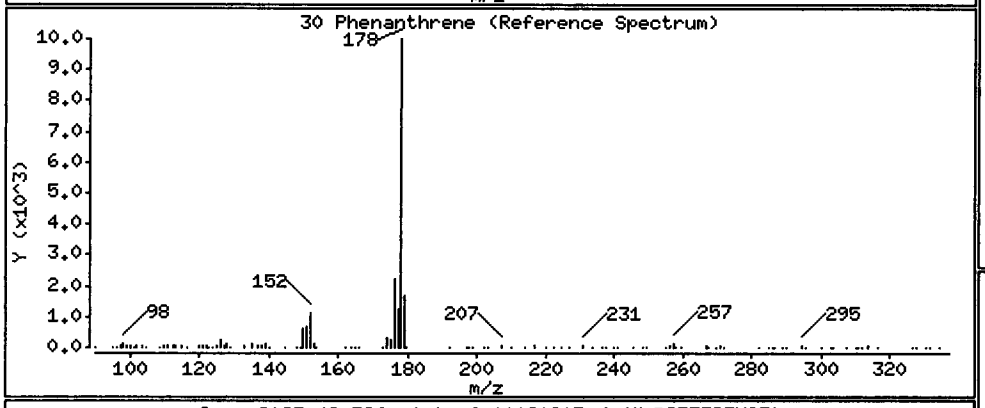
Concentration: 8.065 ug/kg

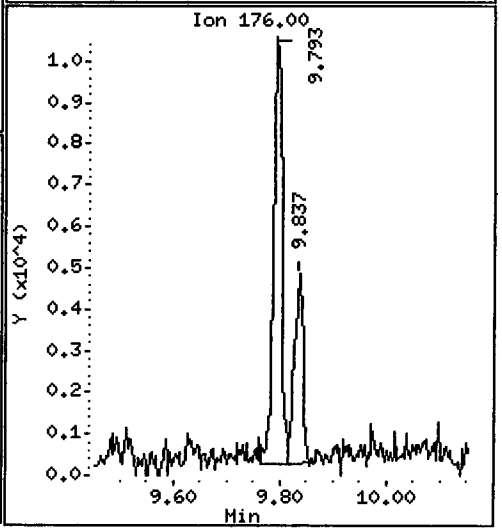


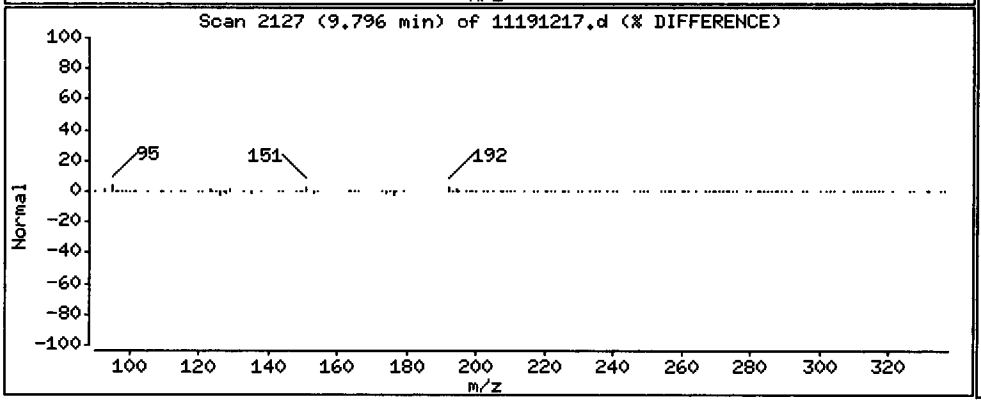












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

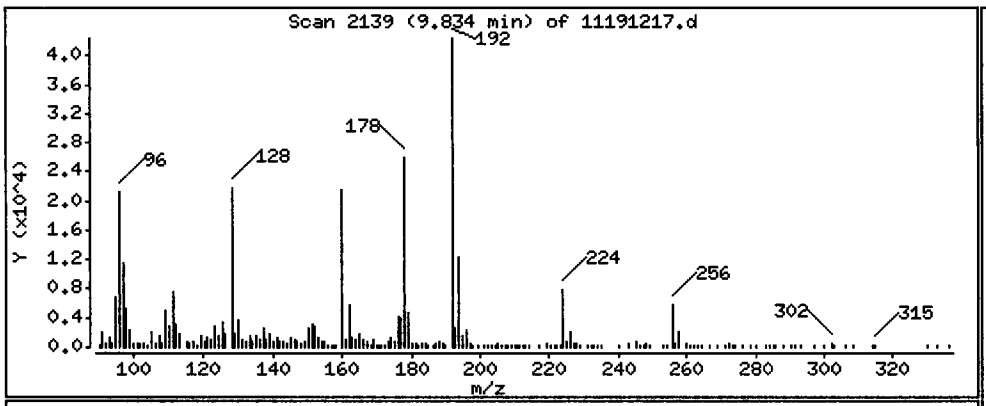
Operator: JZ

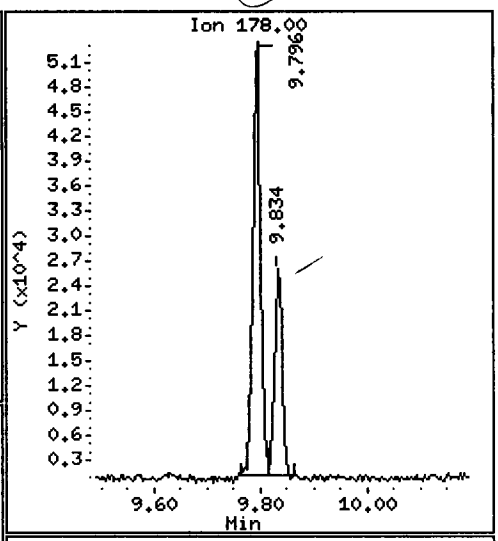
Column phase: ZB-5msi

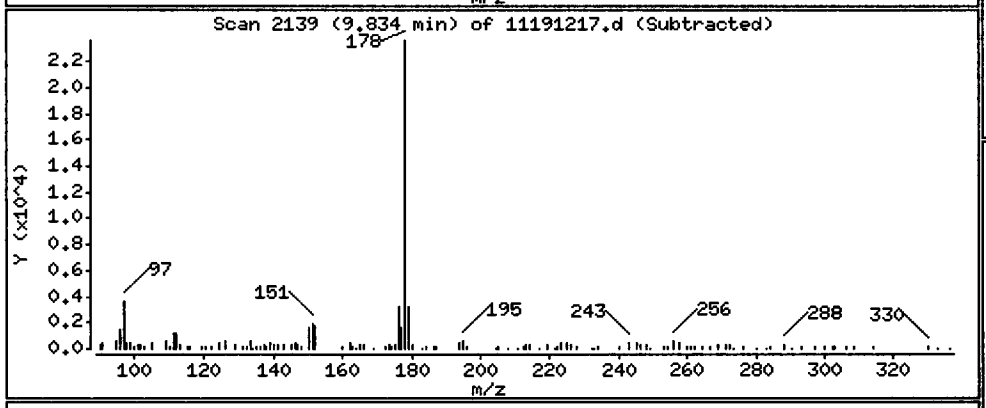
Column diameter: 0.25

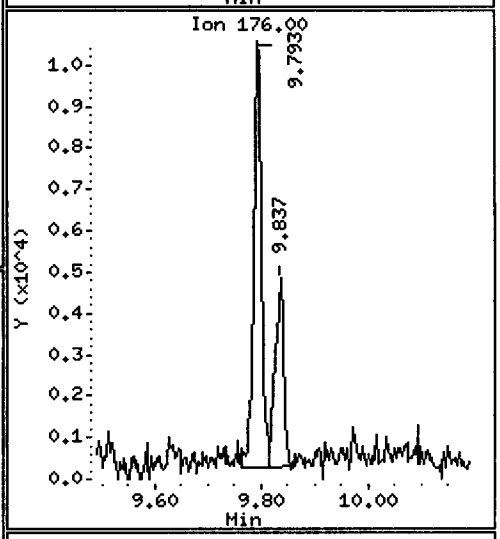
31 Anthracene

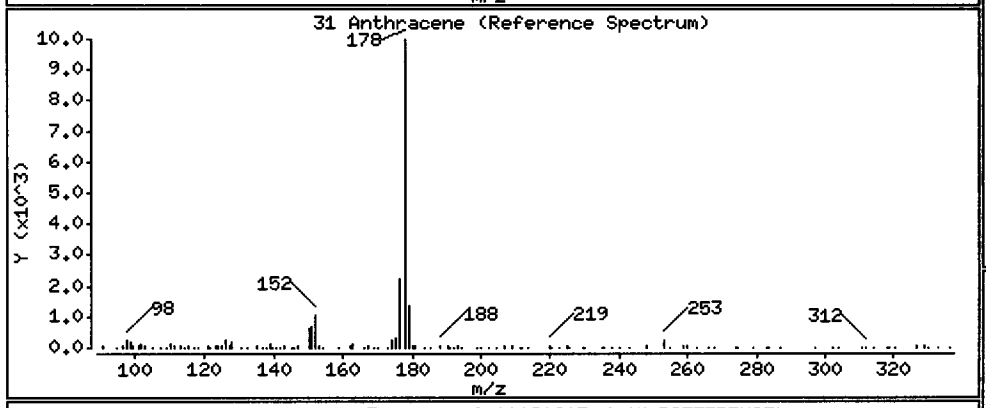
Concentration: 3.764 ug/kg

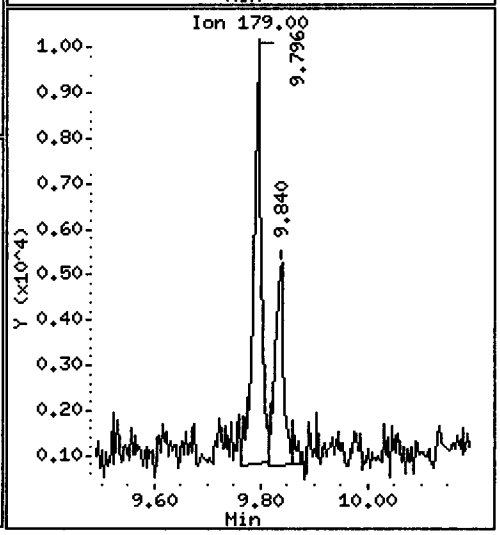


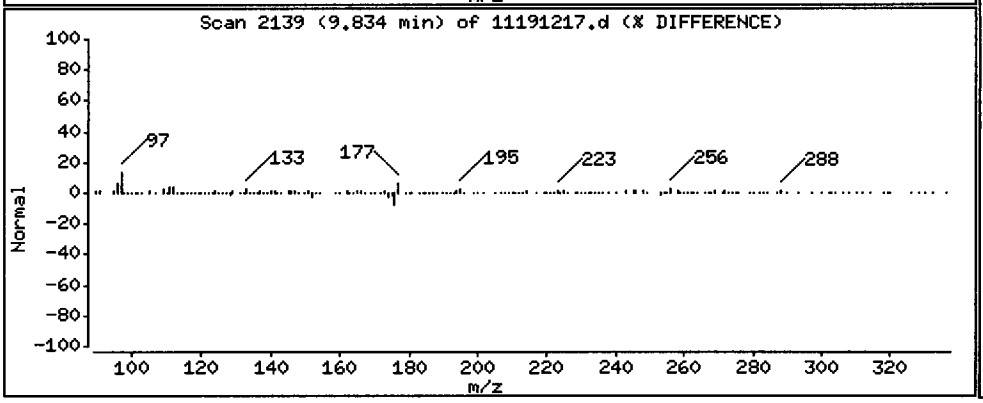












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

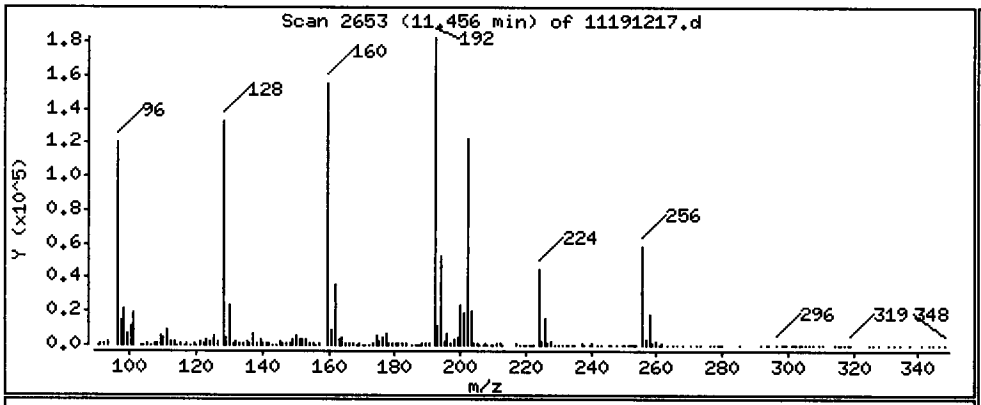
Operator: JZ

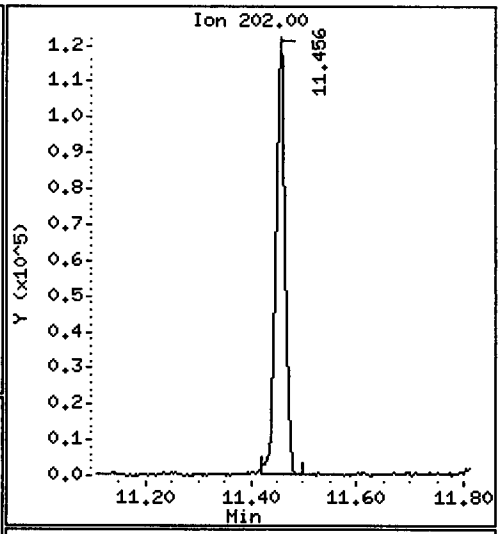
Column phase: ZB-5msi

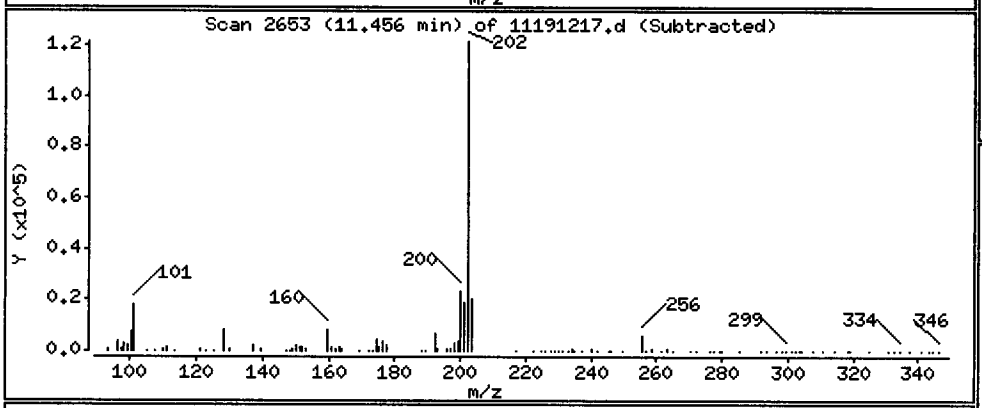
Column diameter: 0.25

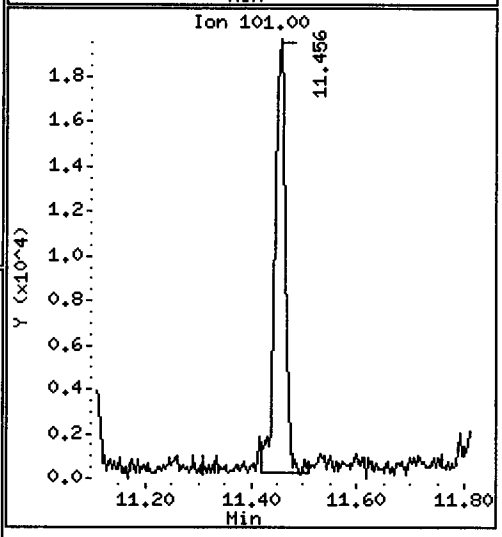
36 Fluoranthene

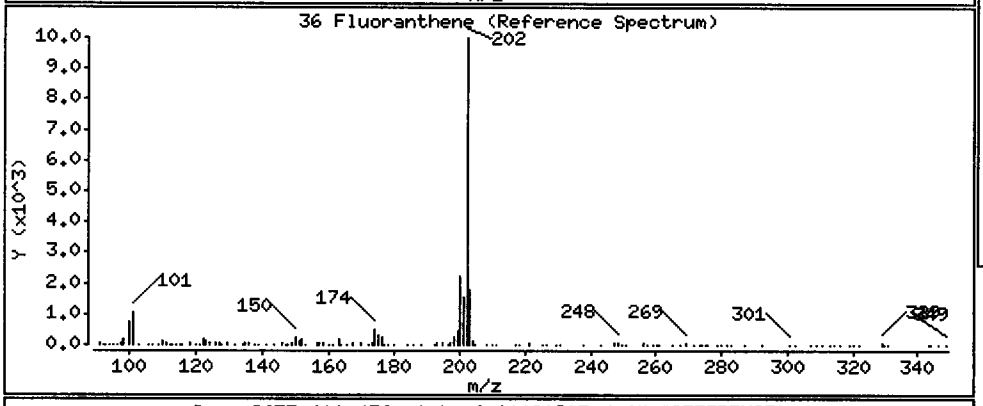
Concentration: 22.35 ug/kg

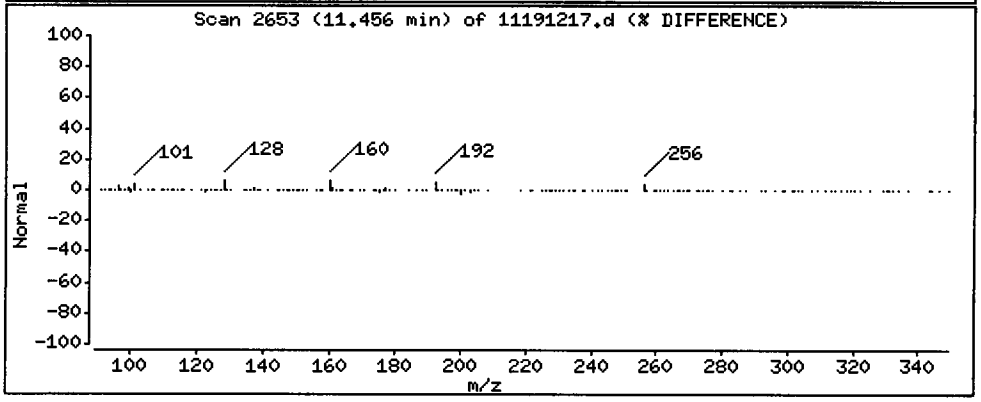












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

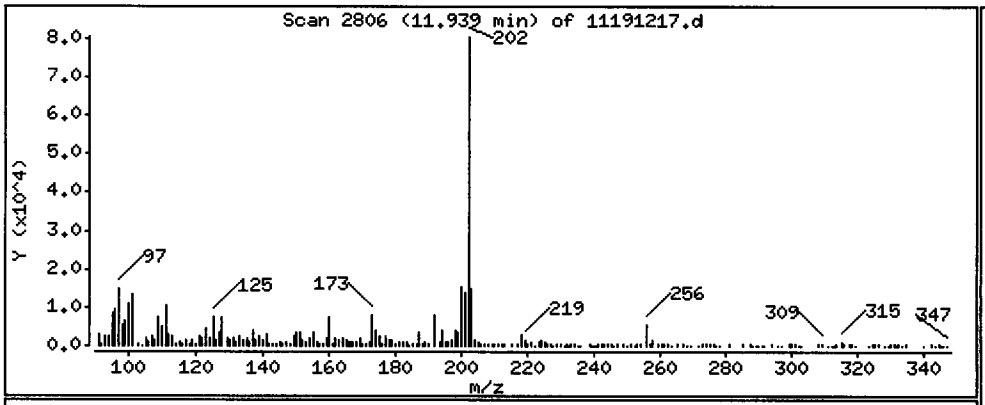
Operator: JZ

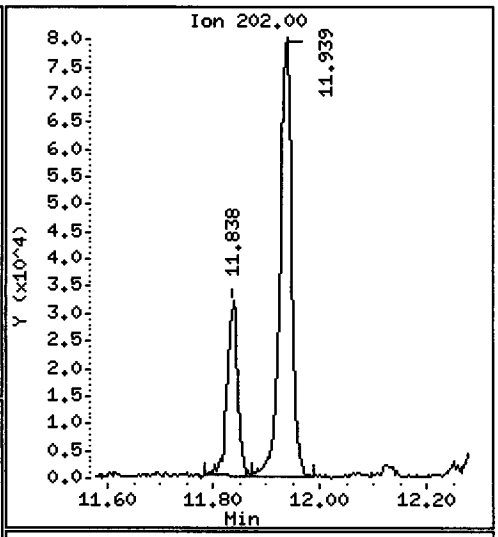
Column phase: ZB-5msi

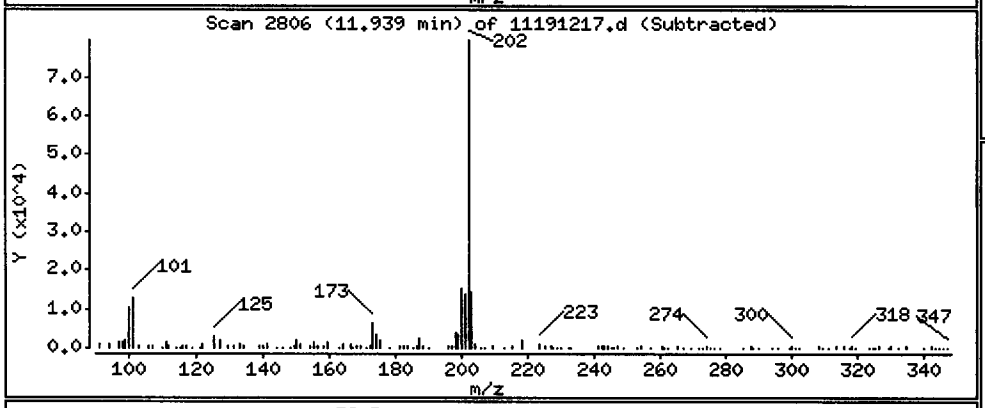
Column diameter: 0.25

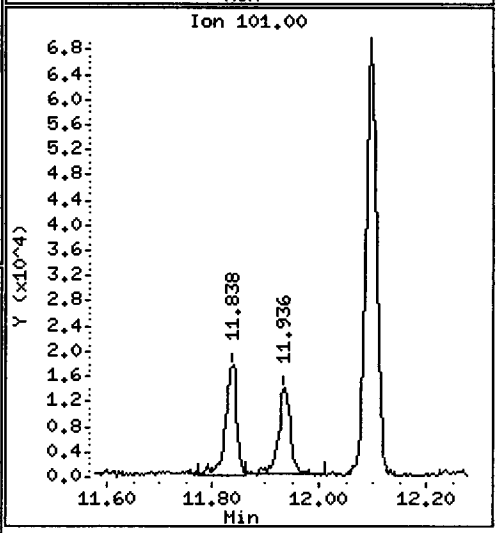
39 Pyrene

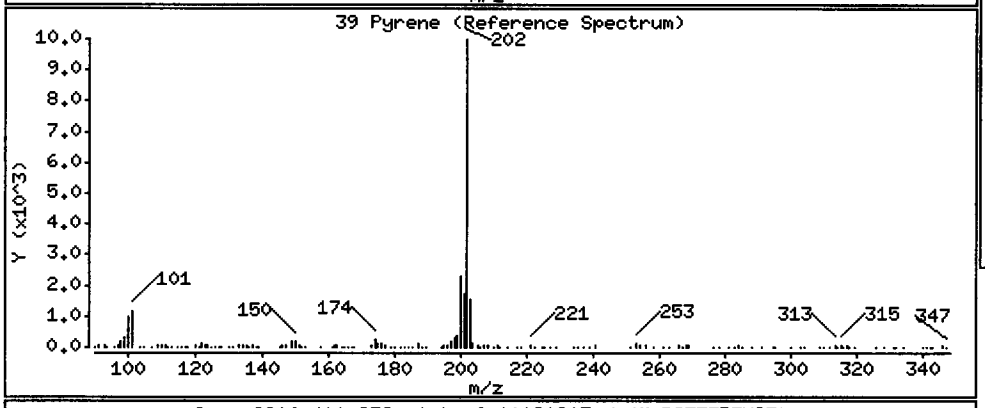
Concentration: 18.27 ug/kg

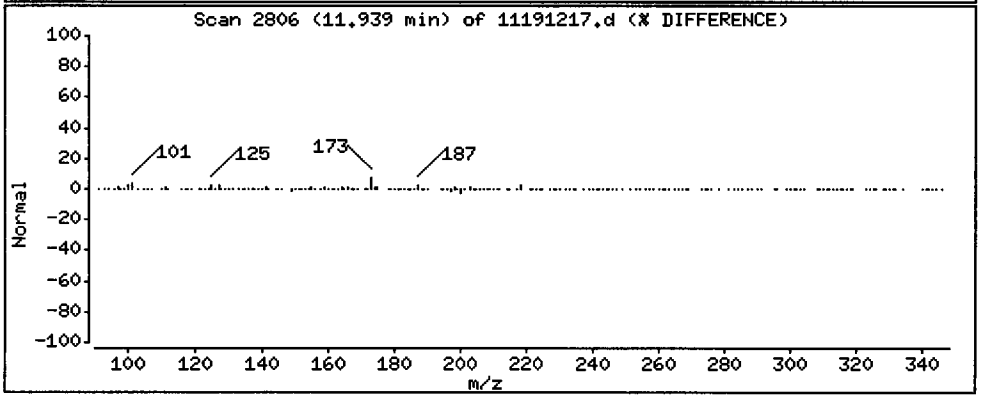












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

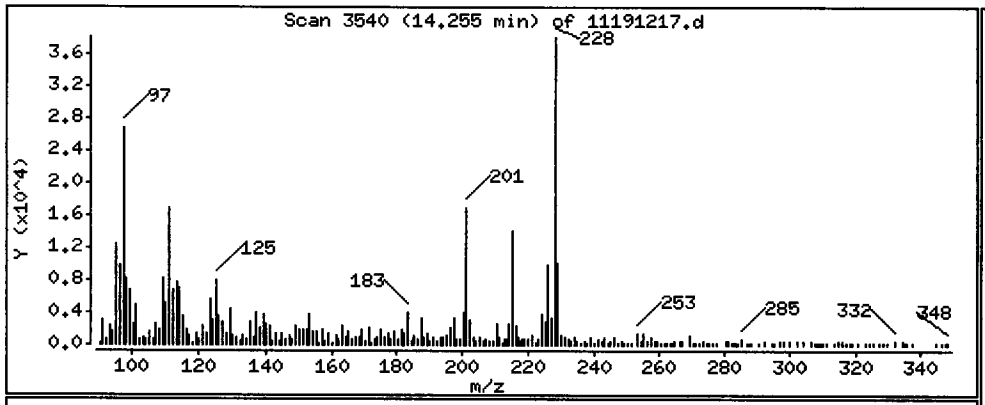
Operator: JZ

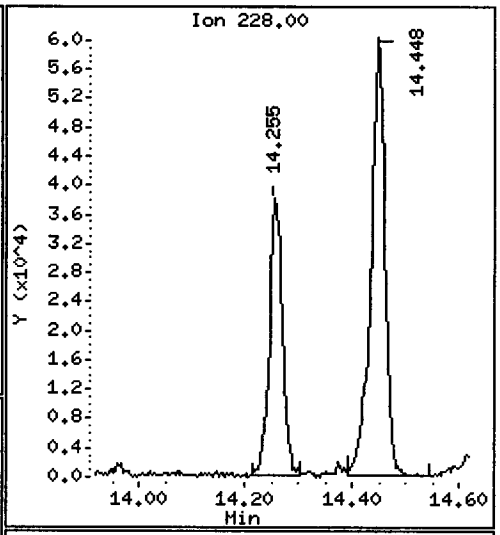
Column phase: ZB-5msi

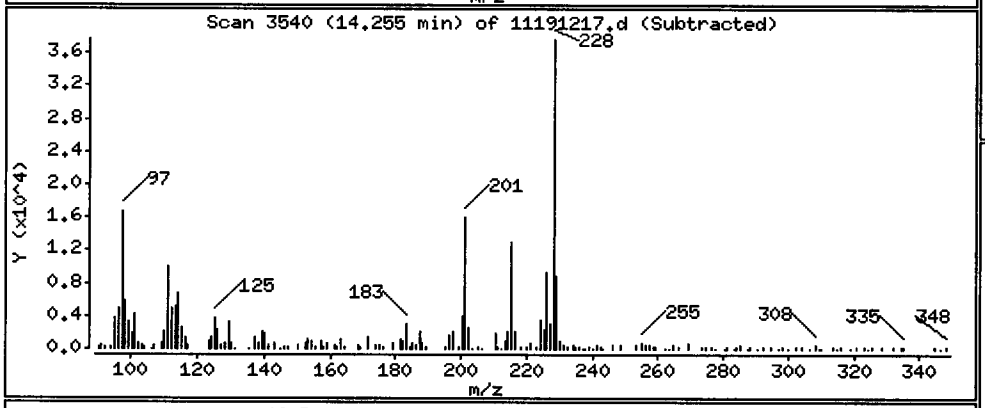
Column diameter: 0.25

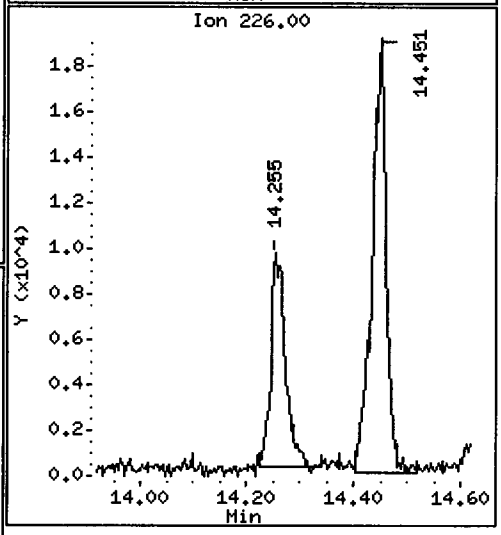
46 Benzo(a)anthracene

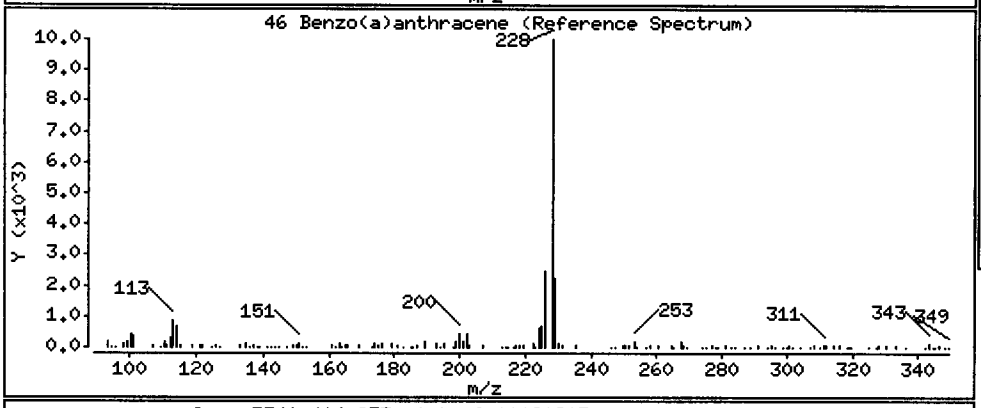
Concentration: 10.52 ug/kg

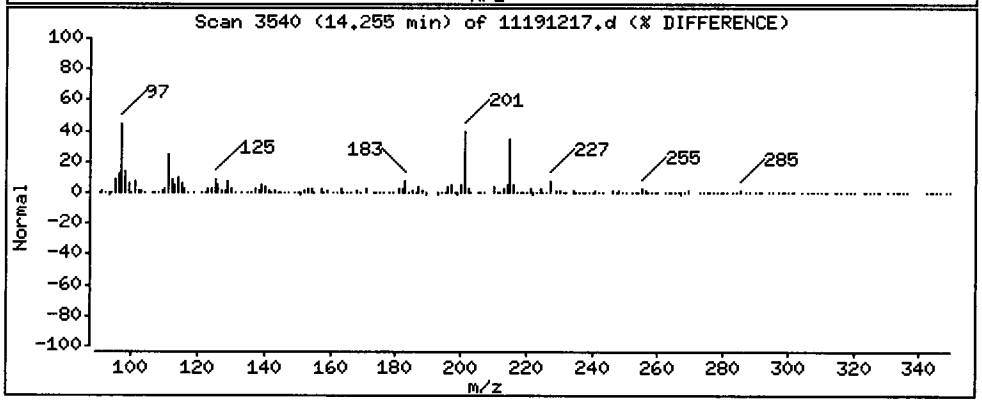












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

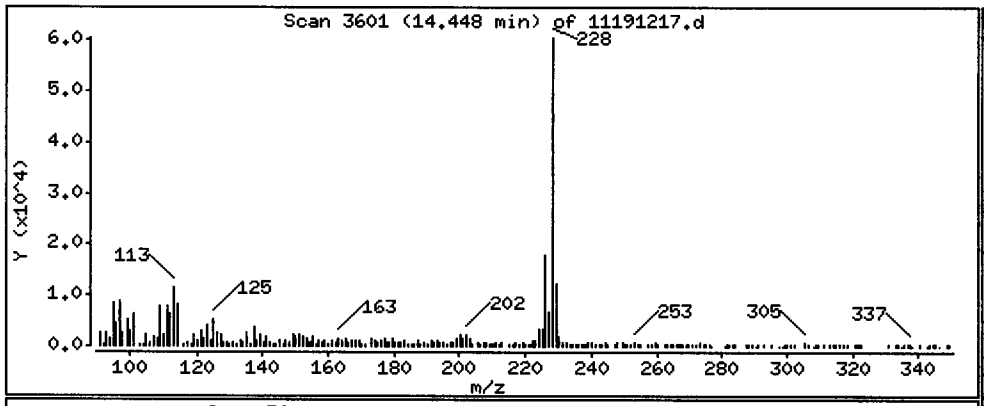
Operator: JZ

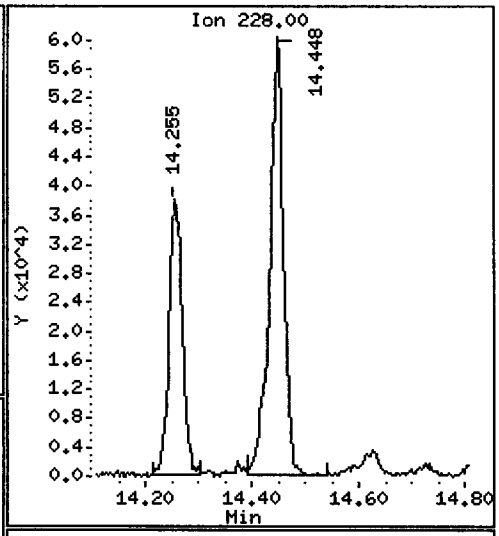
Column phase: ZB-5ms1

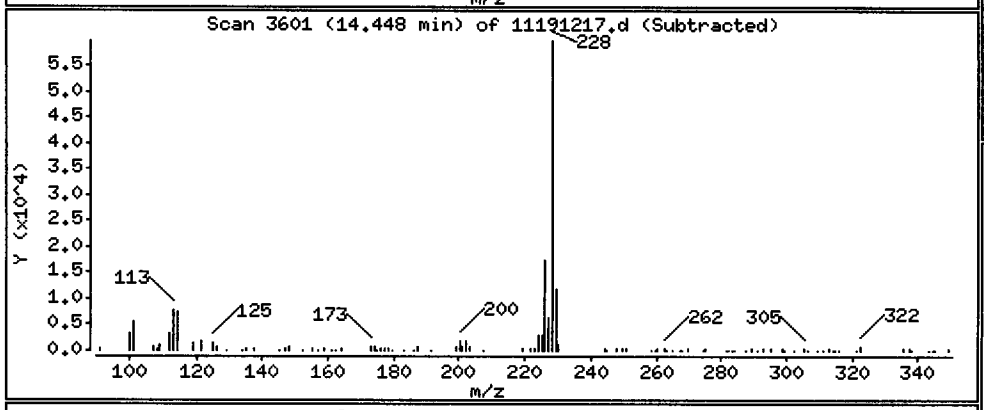
Column diameter: 0.25

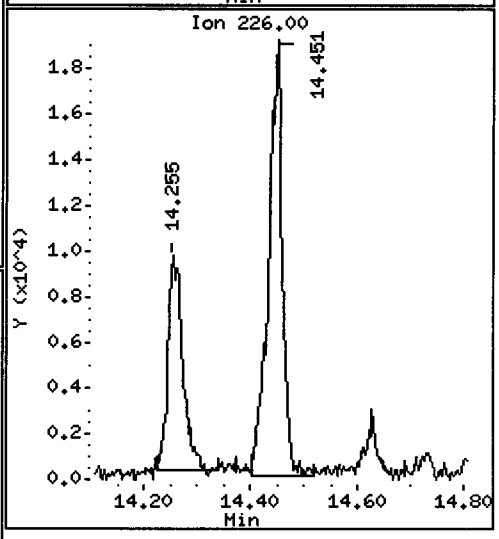
48 Chrysene

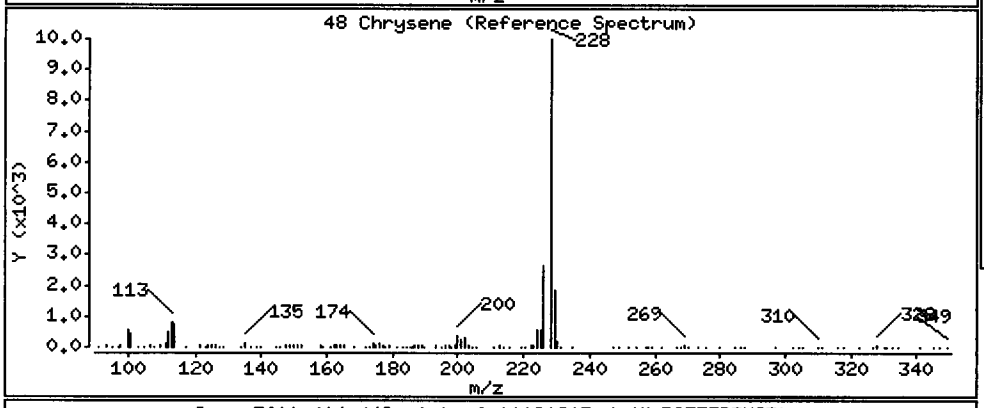
Concentration: 18.38 ug/kg

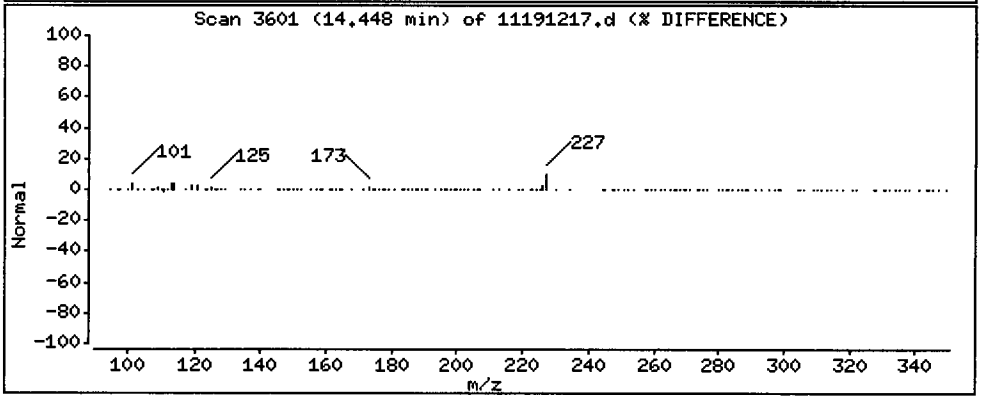












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

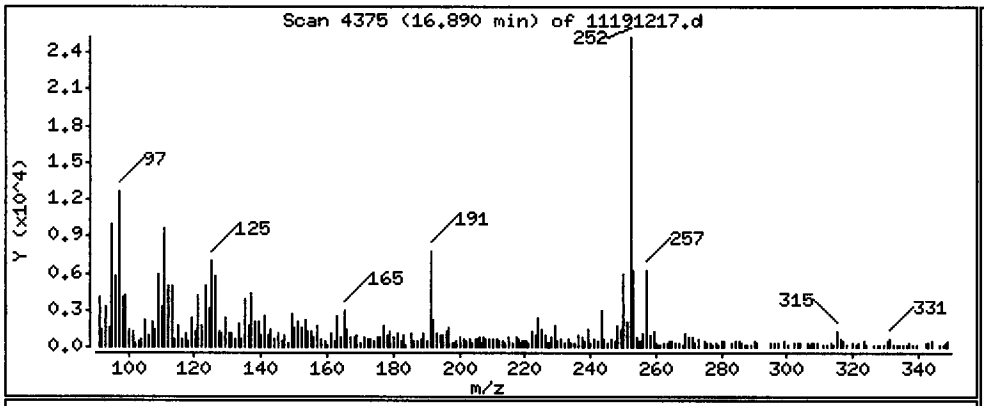
Operator: JZ

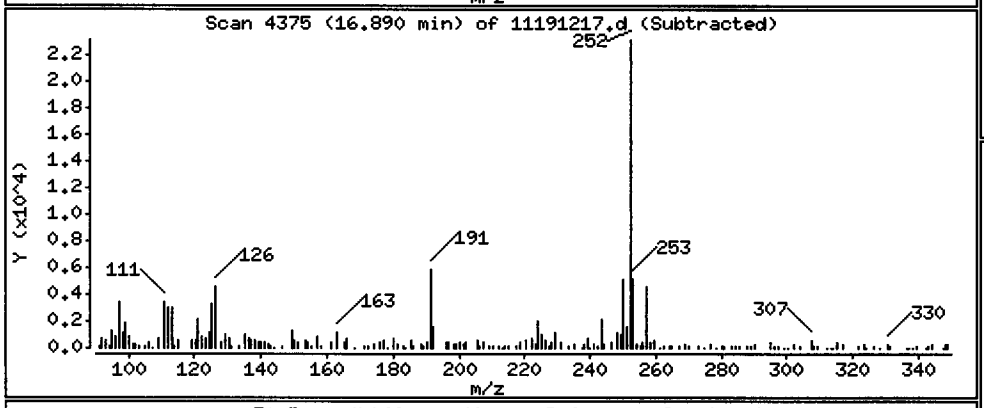
Column phase: ZB-5msi

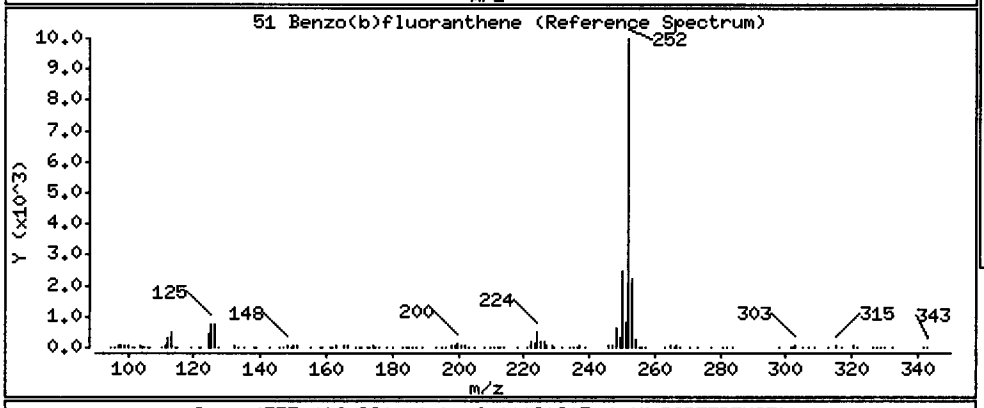
Column diameter: 0.25

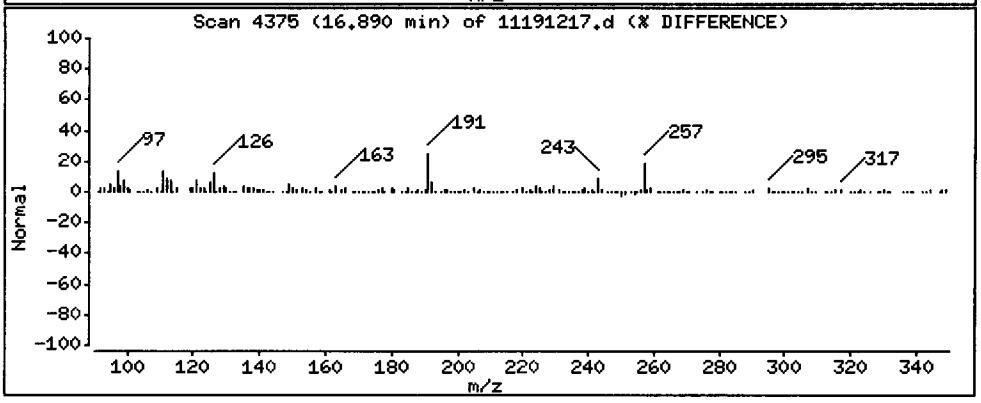
51 Benzo(b)fluoranthene

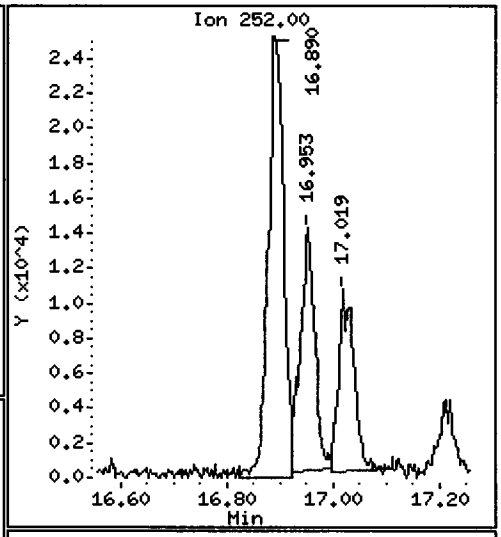
Concentration: 9.097 ug/kg

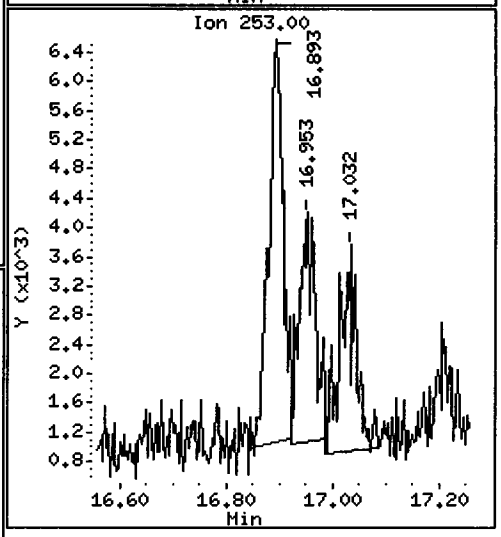












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

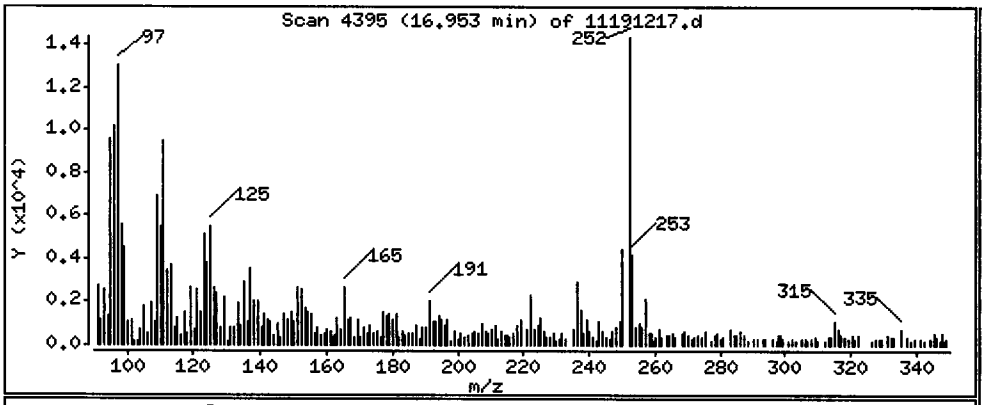
Operator: JZ

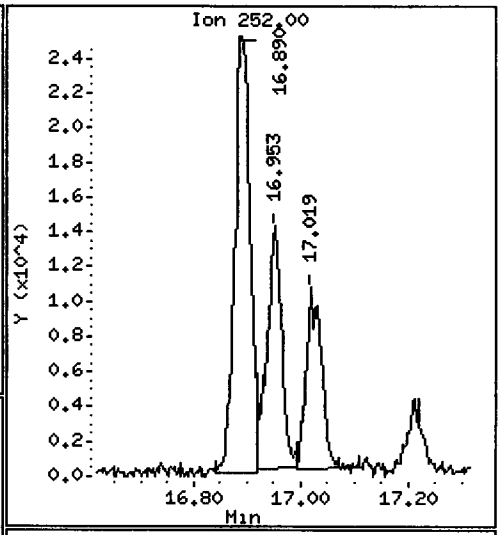
Column phase: ZB-5msi

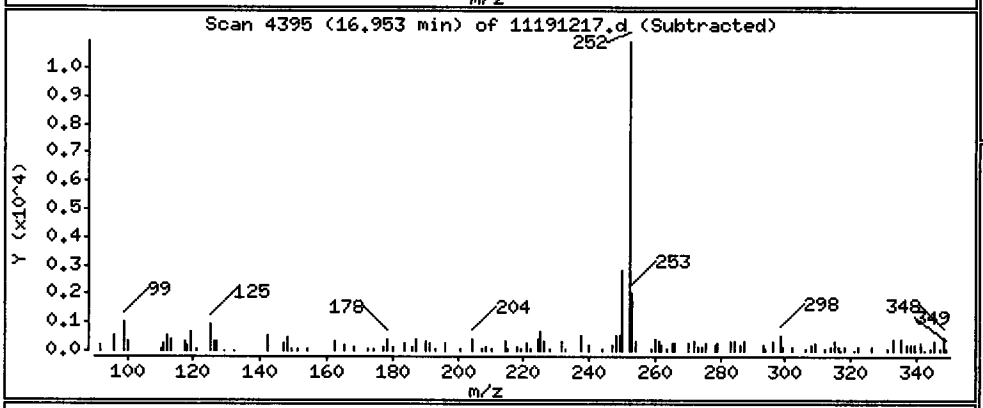
Column diameter: 0.25

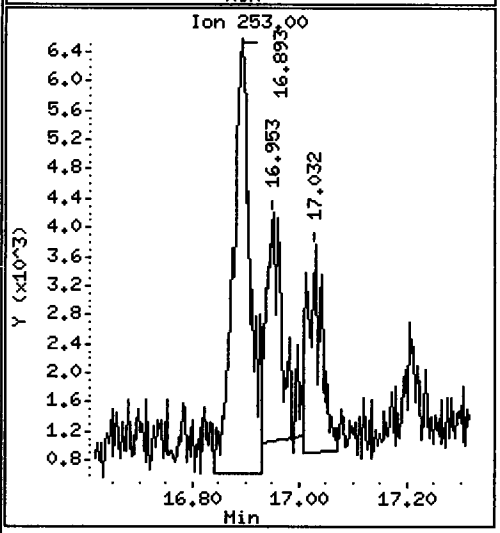
52 Benzo(k)fluoranthene

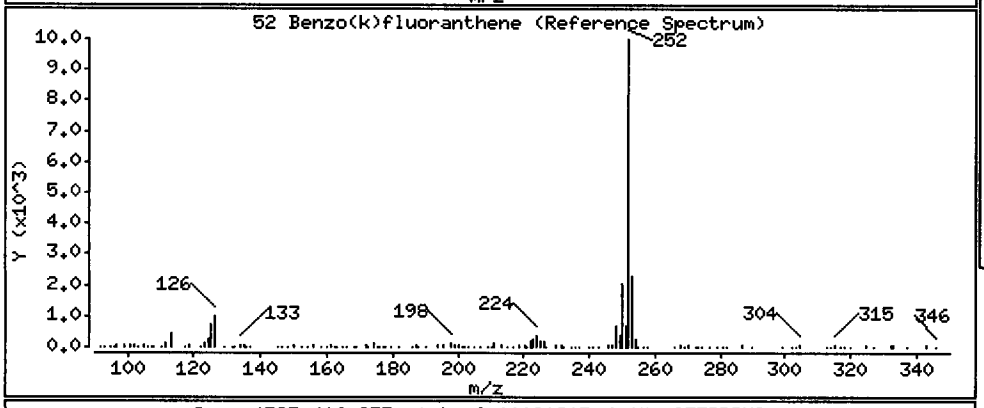
Concentration: 4.374 ug/kg

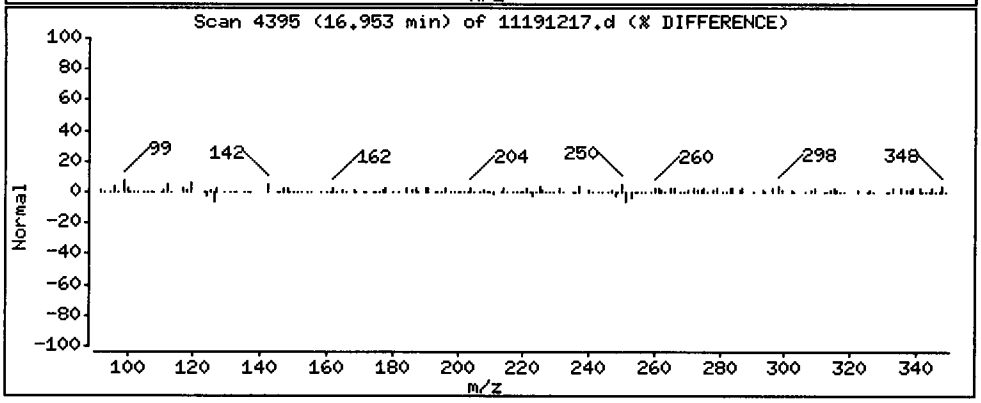






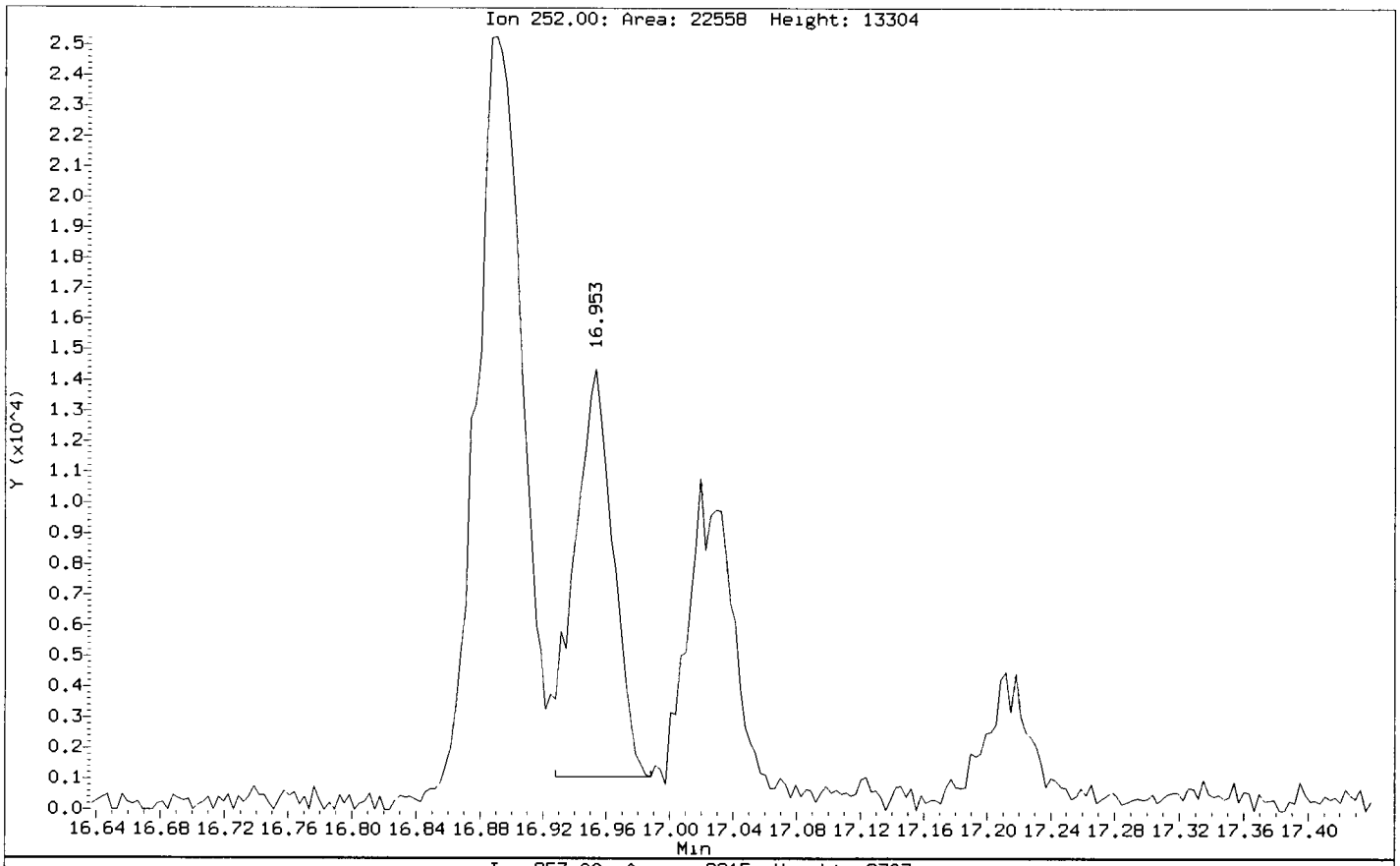


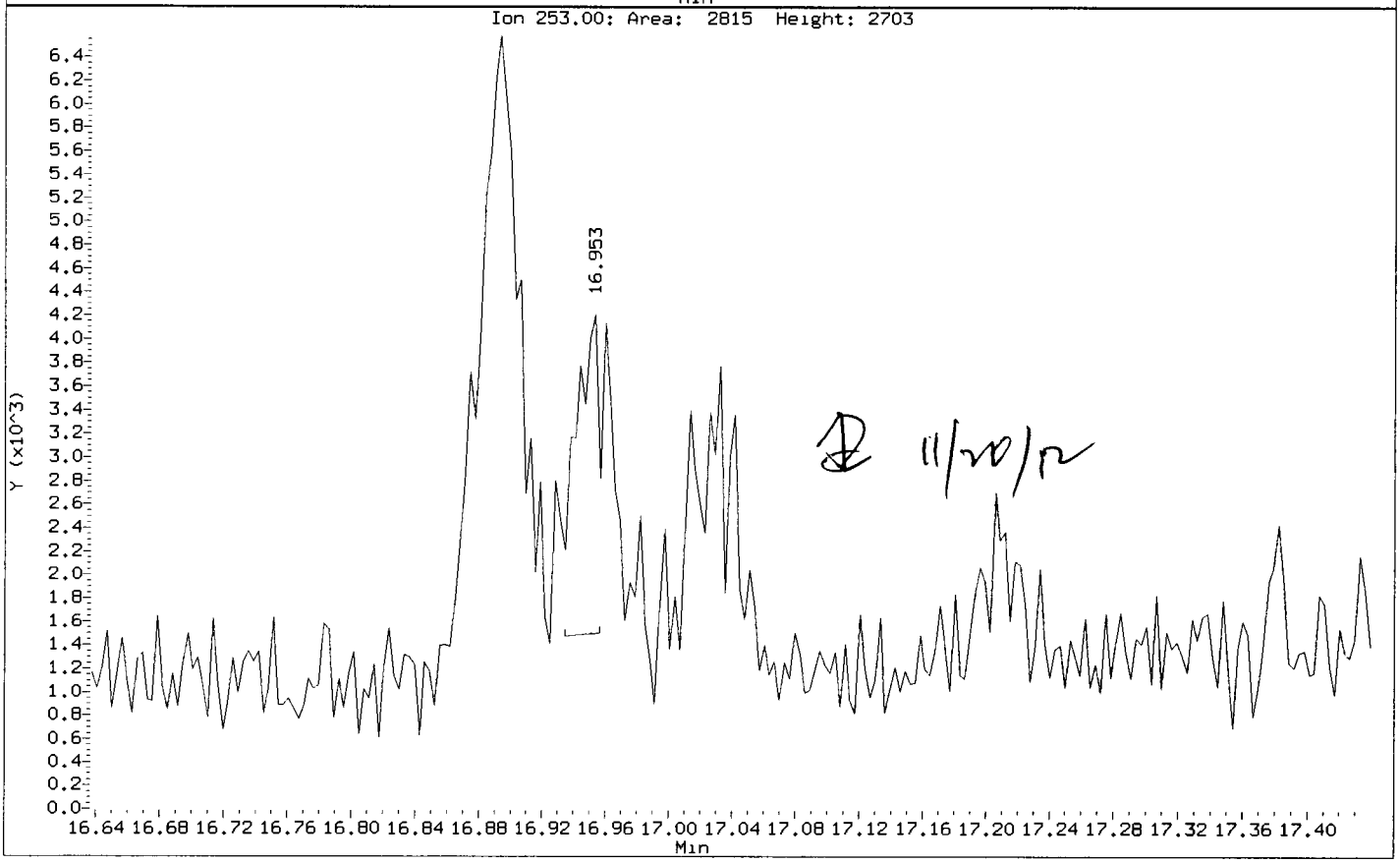




Data File: /chem3/nt11.i/20121119.b/11191217.d
Injection Date: 19-NOV-2012 19:56
Instrument: nt11.i
Client Sample ID: HT-05-S-C-121106

Compound: Benzo(j)fluoranthene
CAS Number:

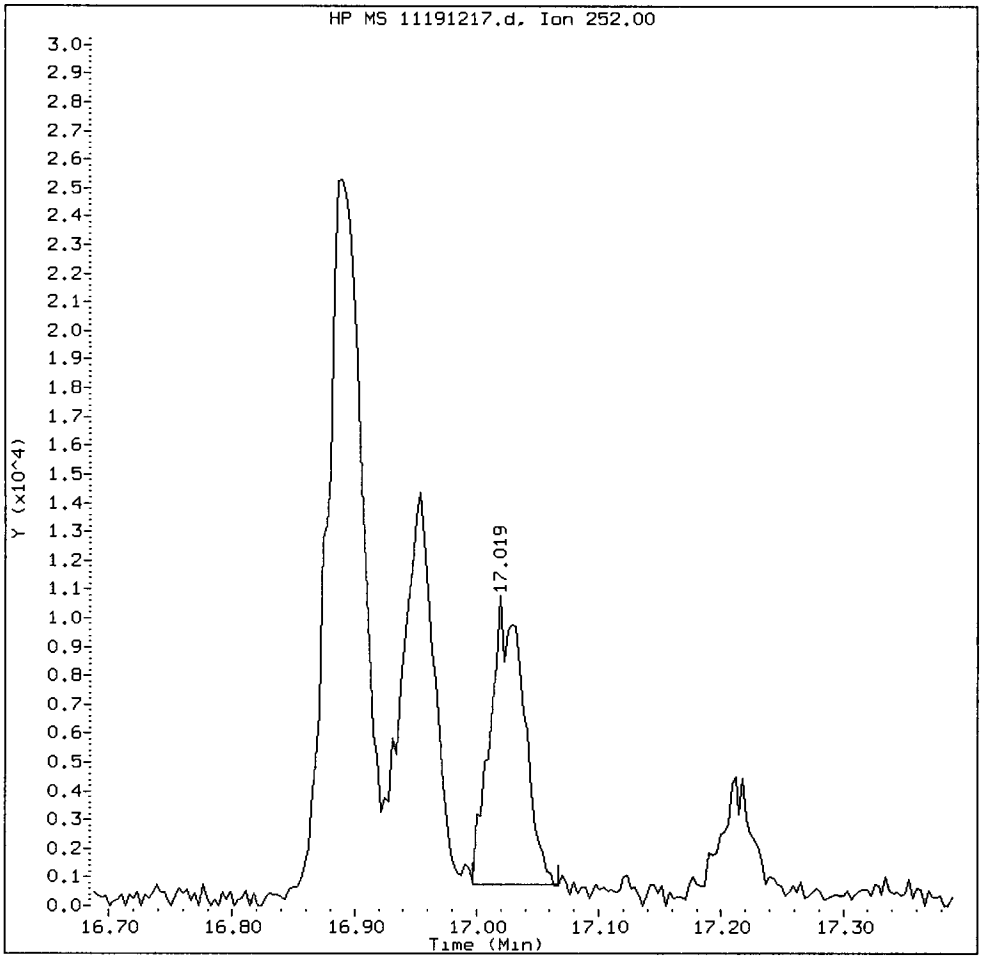




11/20/12

VR38E, /chem3/nt11.i/20121119.b/11191217.d

Benzo(j)fluoranthene Amount: 0.06 Area: 18775



MANUAL INTEGRATION for Benzo(j)fluoranthene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 11/20/12

Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

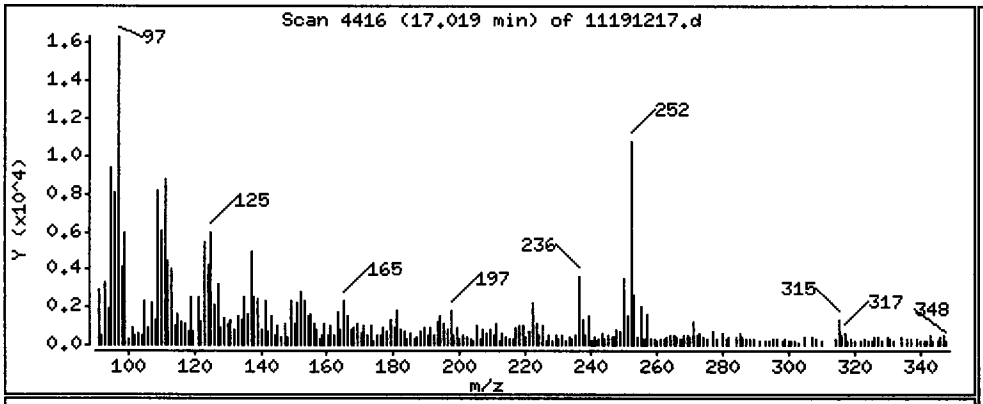
Operator: JZ

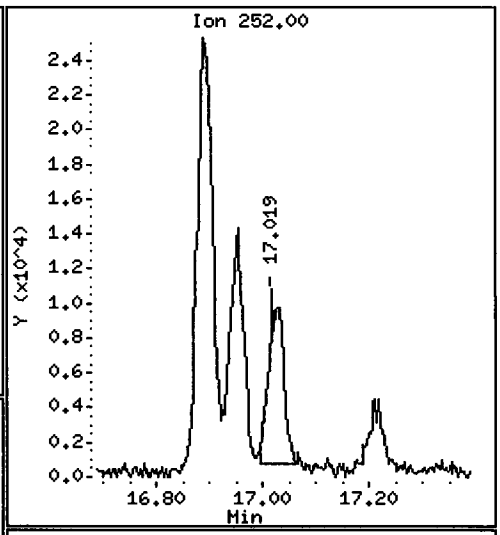
Column phase: ZB-5msi

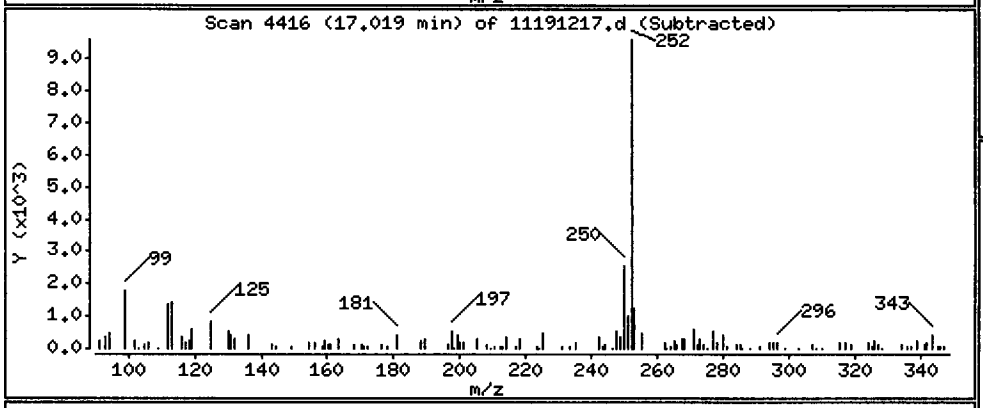
Column diameter: 0.25

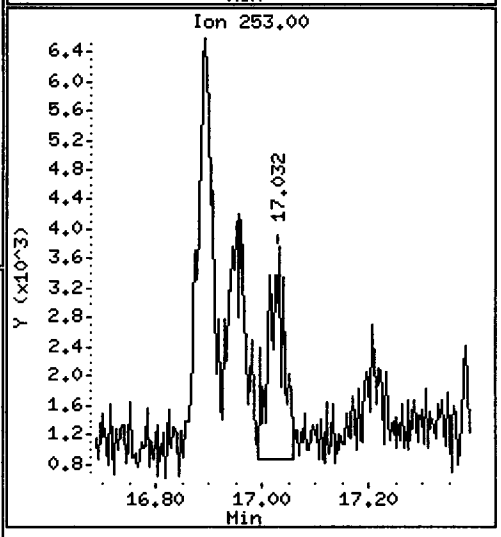
251 Benzo(j)fluoranthene

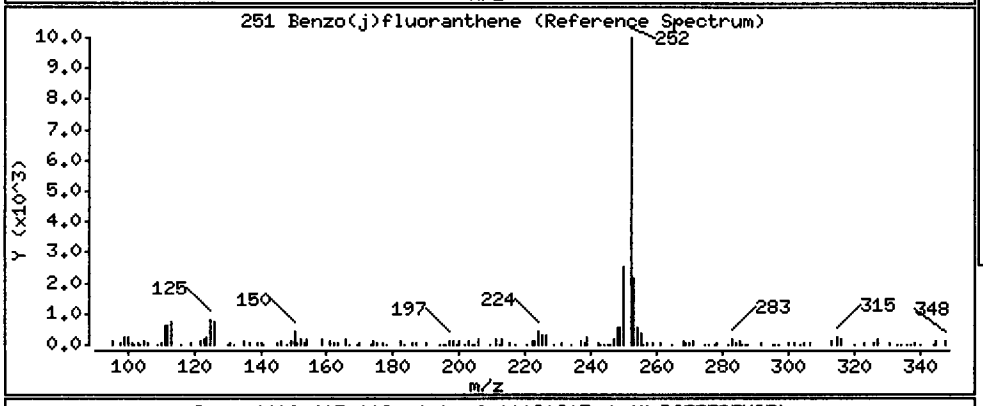
Concentration: 2.853 ug/kg

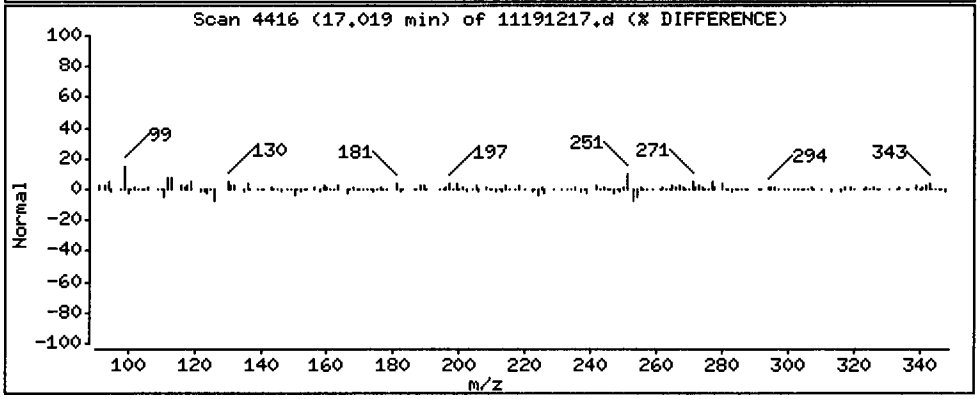












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

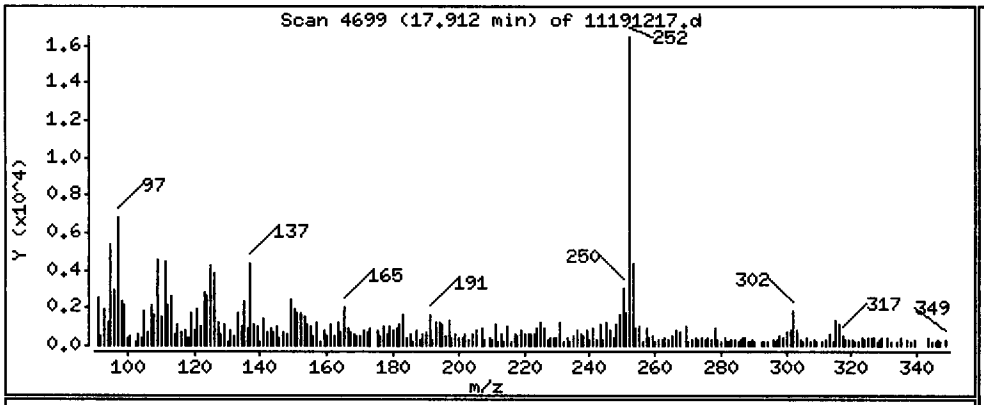
Operator: JZ

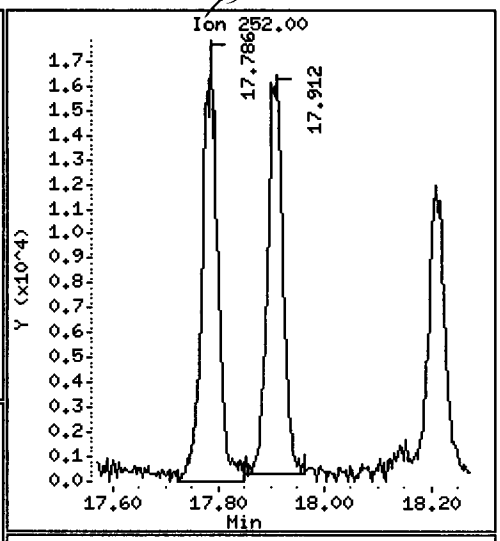
Column phase: ZB-5msi

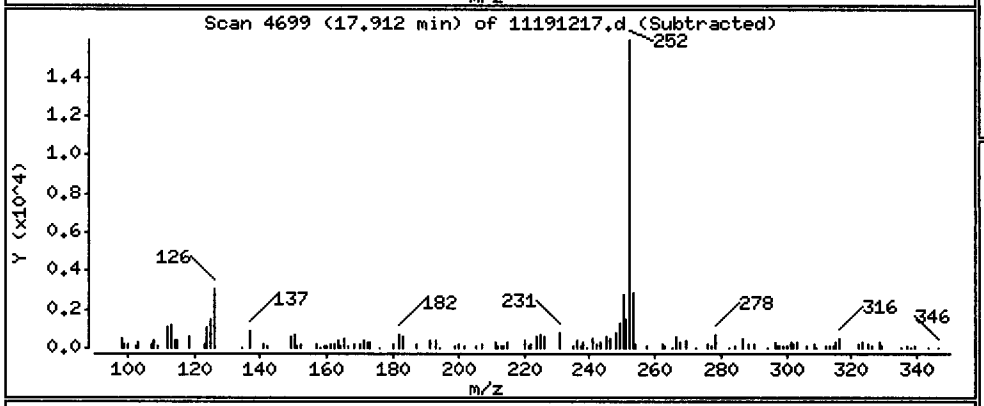
Column diameter: 0.25

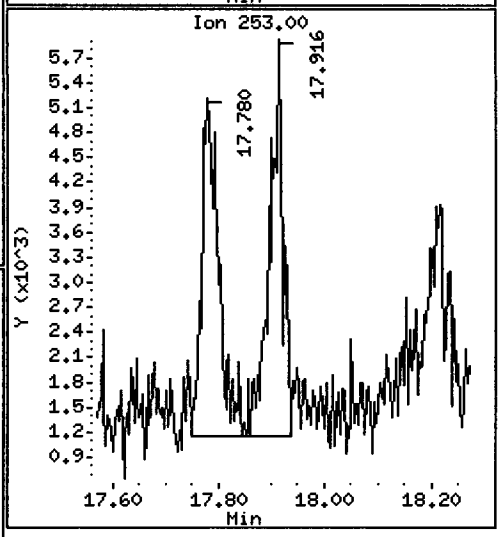
54 Benzo(a)pyrene

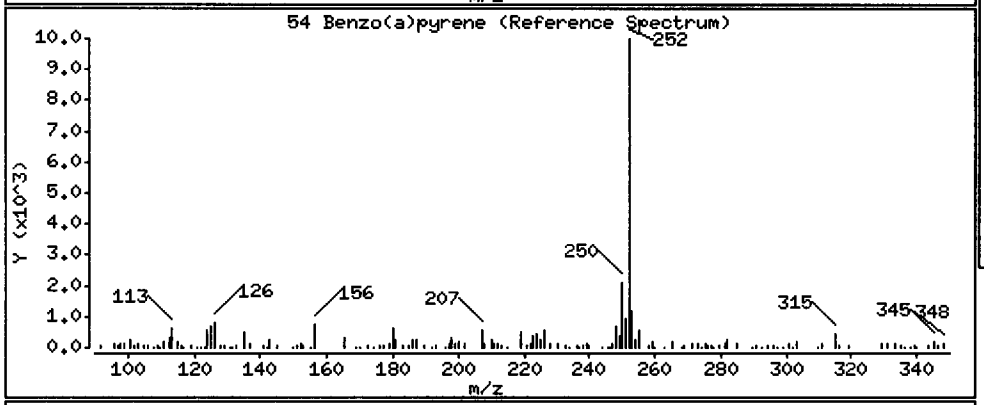
Concentration: 5.730 ug/kg

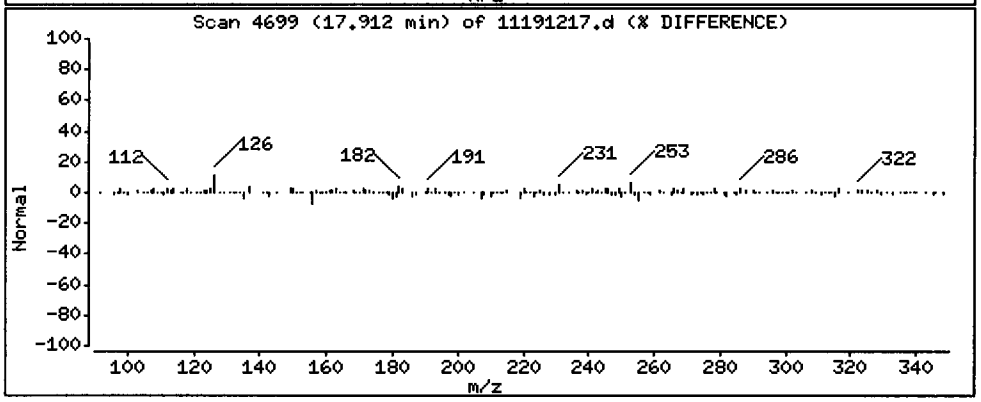












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

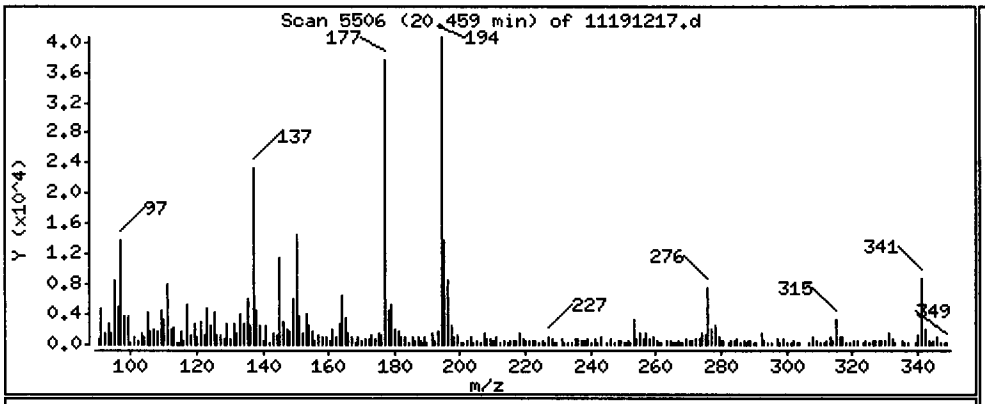
Operator: JZ

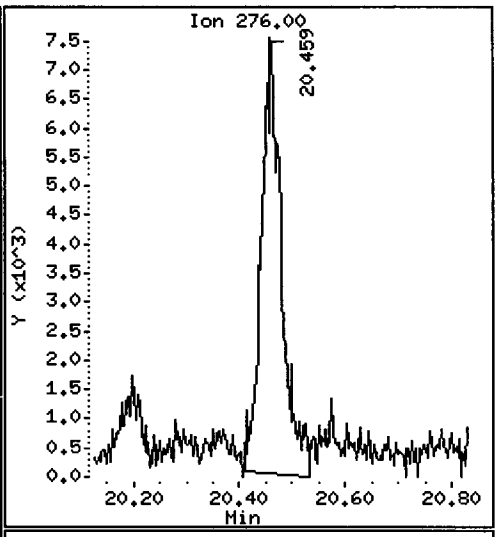
Column phase: ZB-5msi

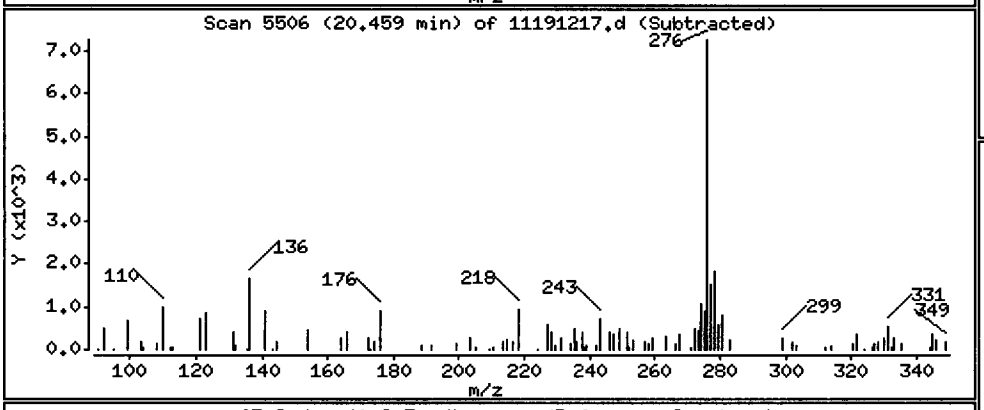
Column diameter: 0.25

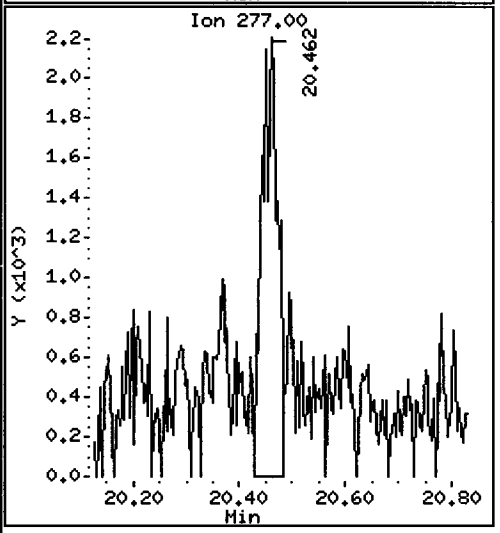
63 Indeno(1,2,3-cd)pyrene

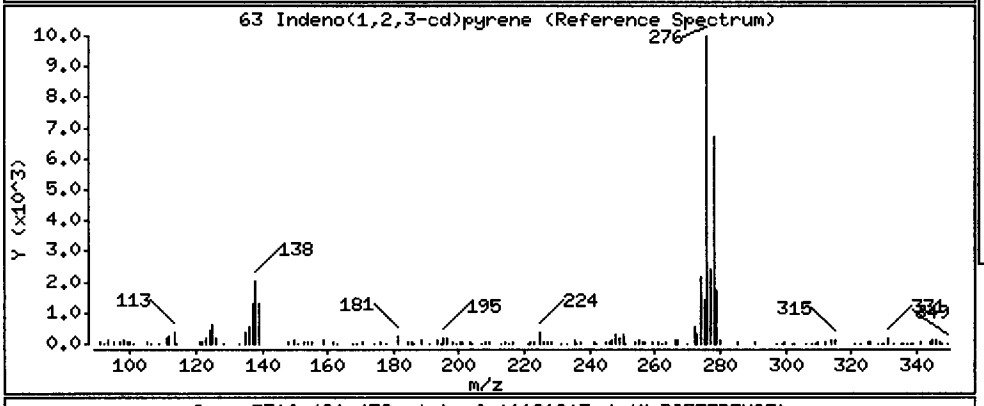
Concentration: 2.851 ug/kg

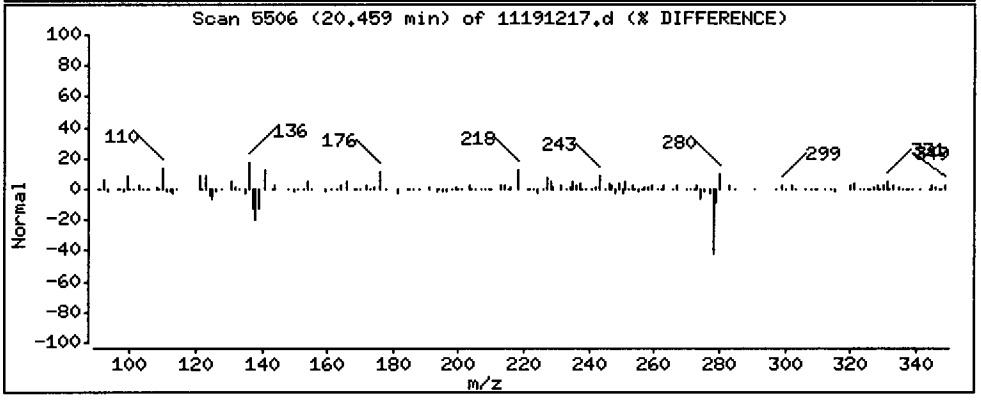












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

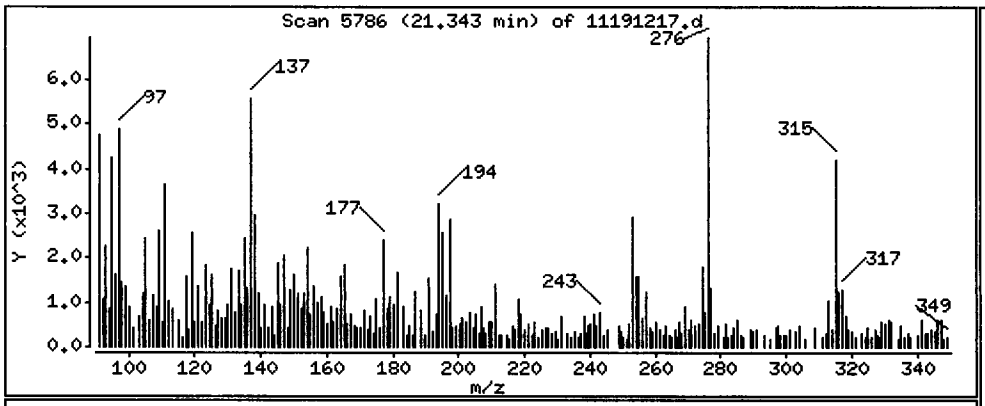
Operator: JZ

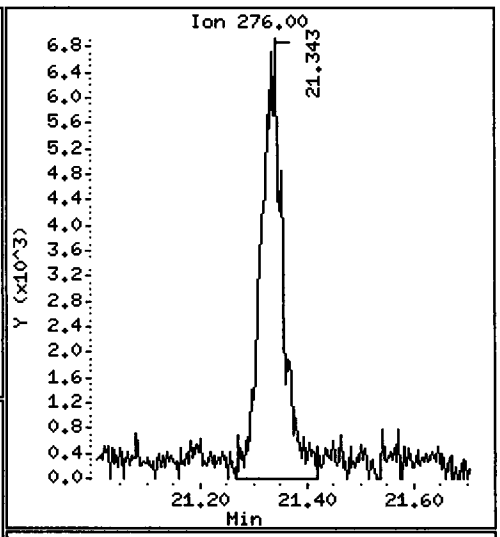
Column phase: ZB-5msi

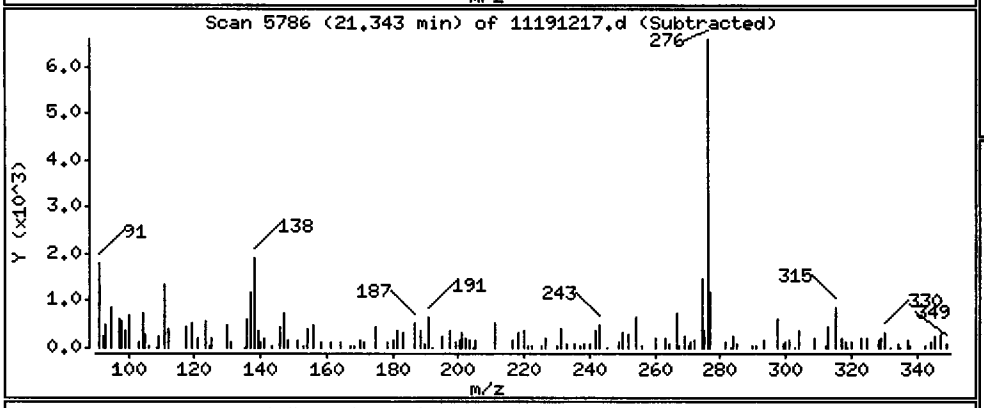
Column diameter: 0.25

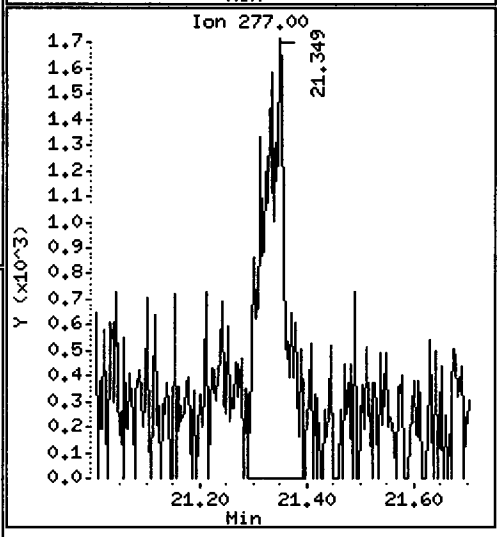
61 Benzo(g,h,i)perylene

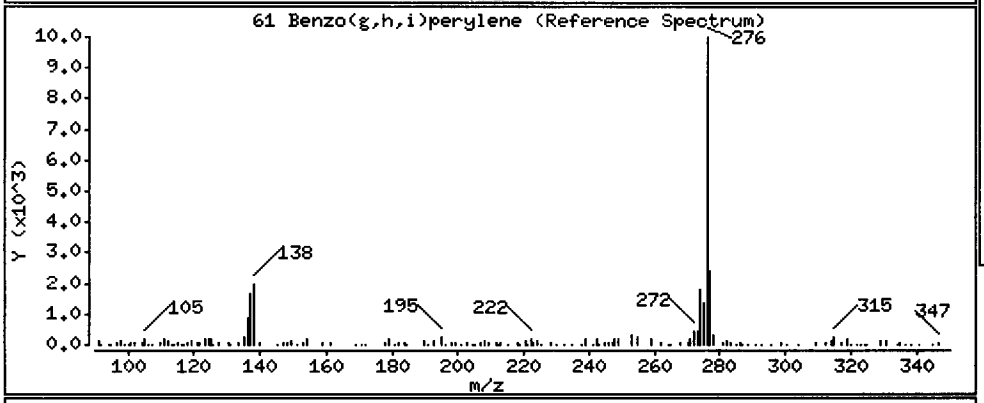
Concentration: 3.183 ug/kg

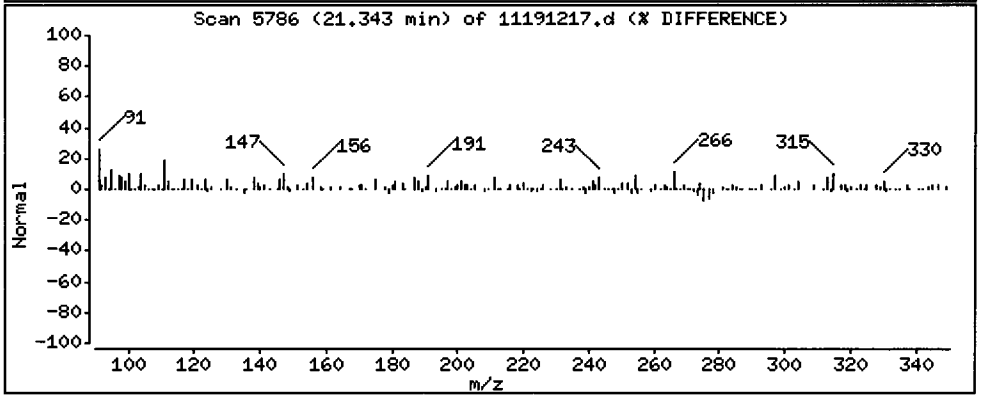












Data File: /chem3/nt11.i/20121119.b/11191217.d

Date : 19-NOV-2012 19:56

Client ID: HT-05-S-C-121106

Instrument: nt11.i

Sample Info: VR38E

Volume Injected (uL): 1.0

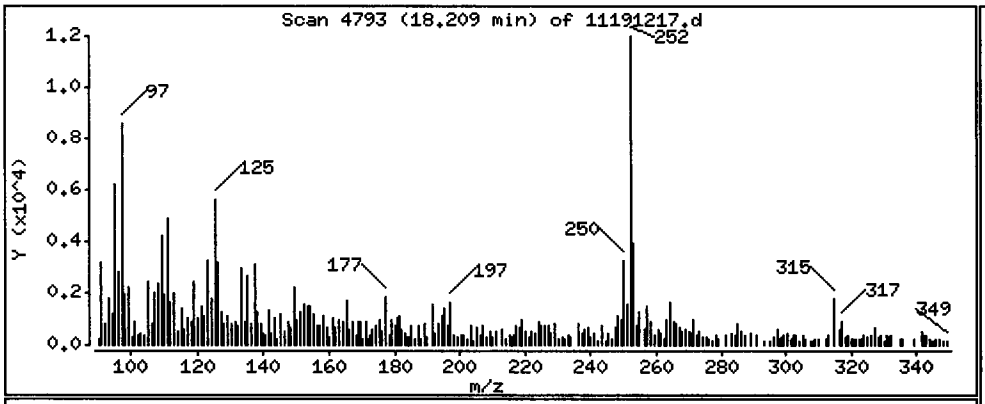
Operator: JZ

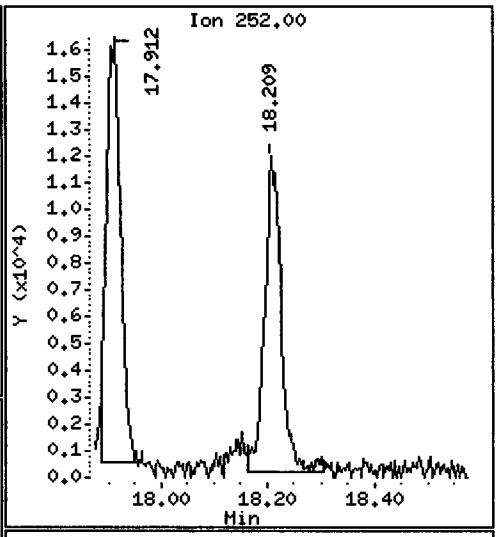
Column phase: ZB-5msi

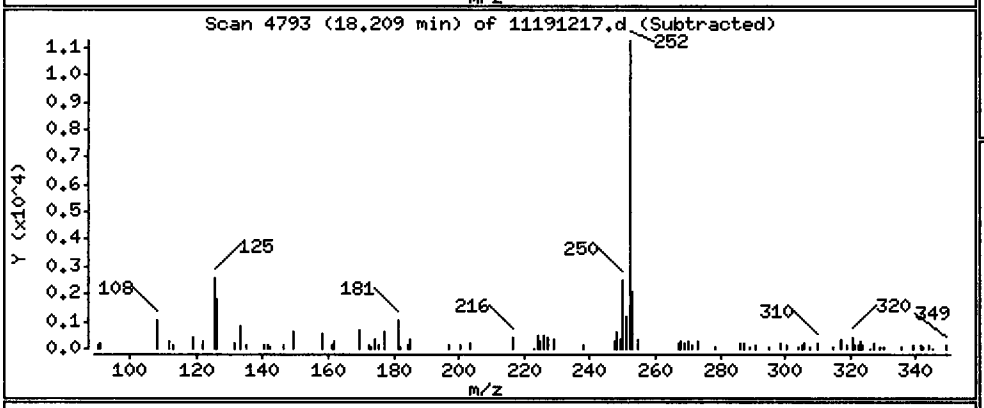
Column diameter: 0.25

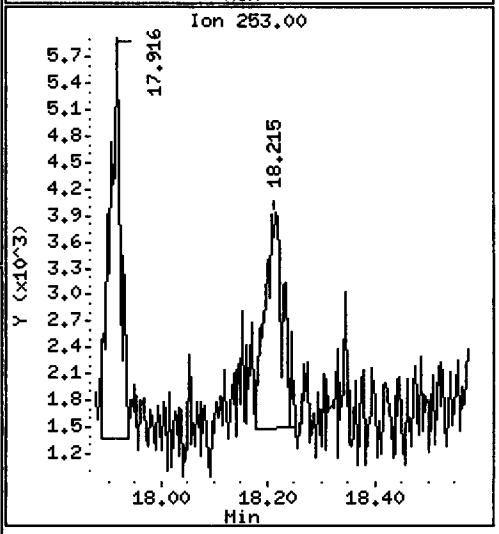
57 Perylene

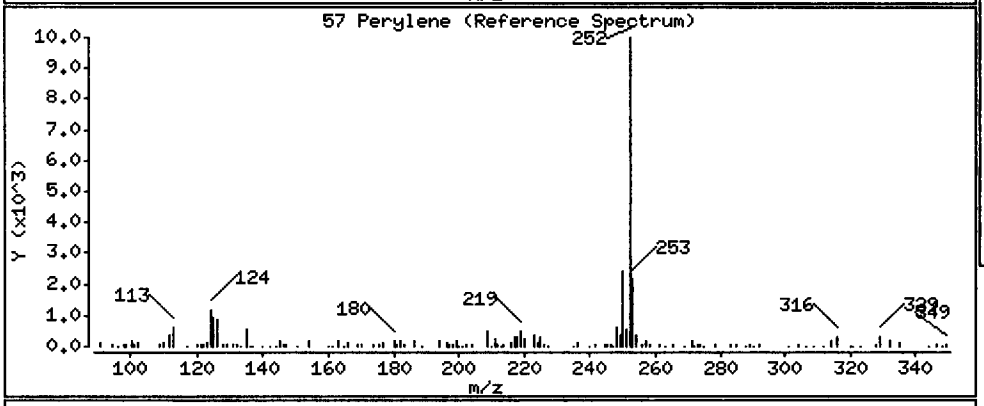
Concentration: 4.206 ug/kg

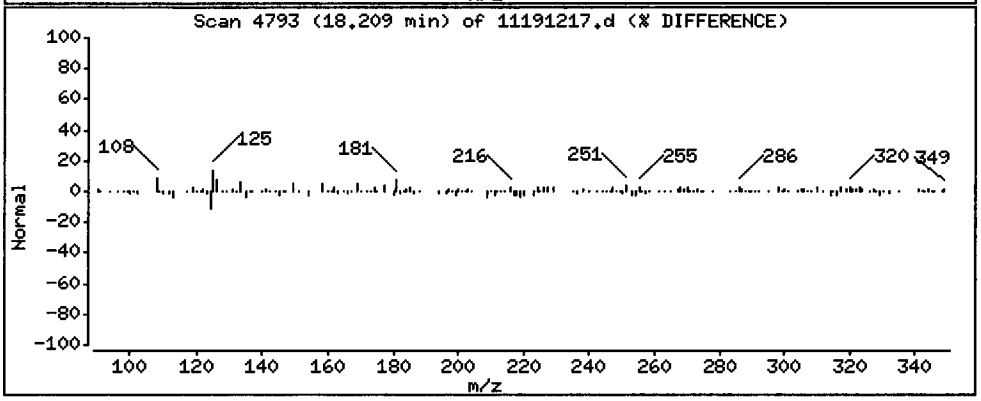












CO-ELUTION SUMMARY FOR FILE - 11191217.d

Lab ID: VR38E, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191218.d
Lab Smp Id: VR38F Client Smp ID: HT-08-S-C-121106
Inj Date : 19-NOV-2012 20:26
Operator : JZ Inst ID: nt11.i
Smp Info : VR38F
Misc Info : 12-22272
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 11:18 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	13.11000	Weight of sample extracted (g)
M	17.30000	% 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)
*	6 Naphthalene-d8	136	5.464	5.473	(1.000)	644239	2.00000	
	7 Naphthalene	128	5.492	5.501	(1.005)	24801	0.07203	3.322
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.135)	352593	1.60183	73.87
	14 2-Methylnaphthalene	141	6.246	6.255	(1.143)	14533	0.07492	3.455
	15 1-methylnaphthalene	141	Compound Not Detected.					
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	358881	2.00000	
	23 Acenaphthene	153	Compound Not Detected.					
	11 Dibenzofuran	168	Compound Not Detected.					
	25 Fluorene	166	8.414	8.420	(1.087)	15650	0.07009	3.232
*	28 Phenanthrene-d10	188	9.762	9.764	(1.000)	502206	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	71094	0.23436	10.81
	31 Anthracene	178	Compound Not Detected.					
	36 Fluoranthene	202	11.456	11.459	(1.174)	187611	0.61727	28.47
	39 Pyrene	202	11.936	11.926	(0.830)	169627	0.56801	26.20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.261	14.268	(0.991)	56706	0.20825	9.604
*	47 Chrysene-d12	240	14.384	14.387	(1.000)	541910	2.00000	
	48 Chrysene	228	14.448	14.457	(1.004)	84580	0.32002	14.76
	51 Benzo(b)fluoranthene	252	16.918	16.906	(0.932)	77174	0.29168	13.45
	52 Benzo(k)fluoranthene	252	16.975	16.966	(0.935)	38509	0.13401	6.180
	251 Benzo(j)fluoranthene	252	17.048	17.038	(0.939)	33713	0.11120	5.128
	54 Benzo(a)pyrene	252	17.931	17.922	(0.987)	59644	0.22193	10.23
*	56 Perylene-d12	264	18.159	18.152	(1.000)	571706	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.465	20.478	(1.127)	40209	0.12341	5.691
$	60 Dibenzo(a,h)anthracene-d14	292	20.377	20.380	(1.122)	396558	2.09230	96.49
	62 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	61 Benzo(g,h,i)perylene	276	21.343	21.355	(1.175)	41442	0.14951	6.895
	57 Perylene	252	18.228	18.225	(1.004)	106621	0.38255	17.64

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191218.d
Lab Smp Id: VR38F
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22272

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-08-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	644239	24.83
22 Acenaphthene-d10	284255	142128	568510	358881	26.25
28 Phenanthrene-d10	410660	205330	821320	502206	22.29
47 Chrysene-d12	467886	233943	935772	541910	15.82
56 Perylene-d12	472330	236165	944660	571706	21.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.46	-0.17
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.02
56 Perylene-d12	18.15	17.65	18.65	18.16	0.04

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.

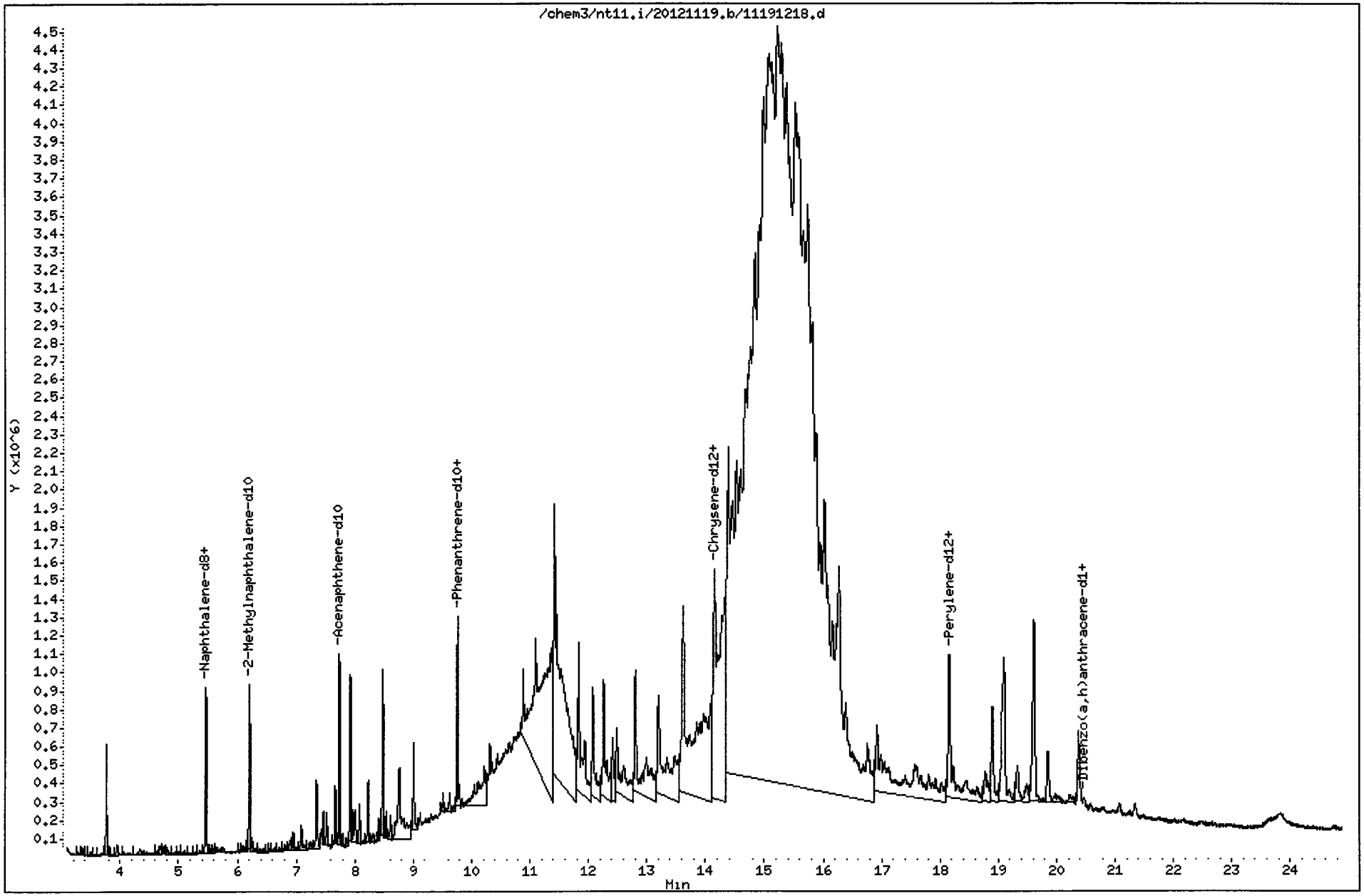
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38F Client Smp ID: HT-08-S-C-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22272

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	138.4	73.87	53.39	34-100
$ 60 Dibenzo(a,h)anthra	138.4	96.49	69.74	10-117

Data File: /chem3/nt11.i/20121119.b/11191218.d
Date : 19-NOV-2012 20:26
Client ID: HT-08-S-C-121106
Sample Info: VR38F
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

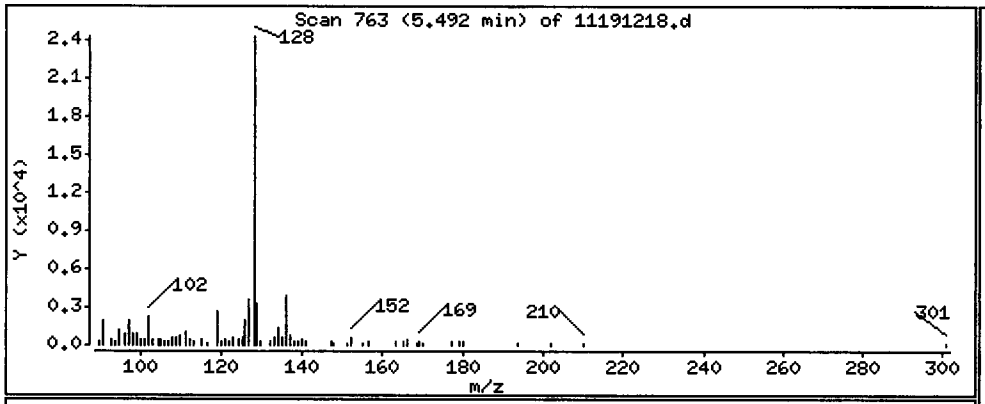
Operator: JZ

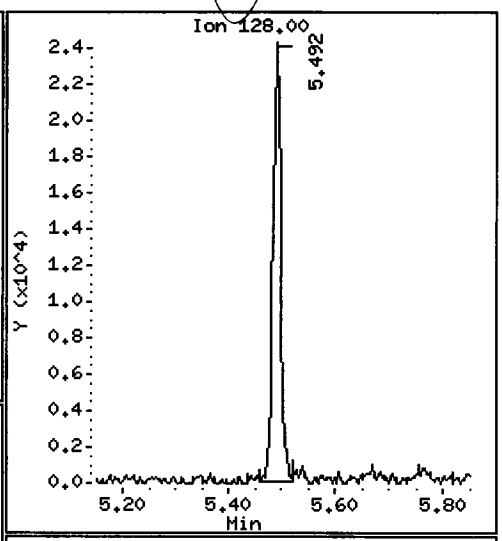
Column phase: ZB-5msi

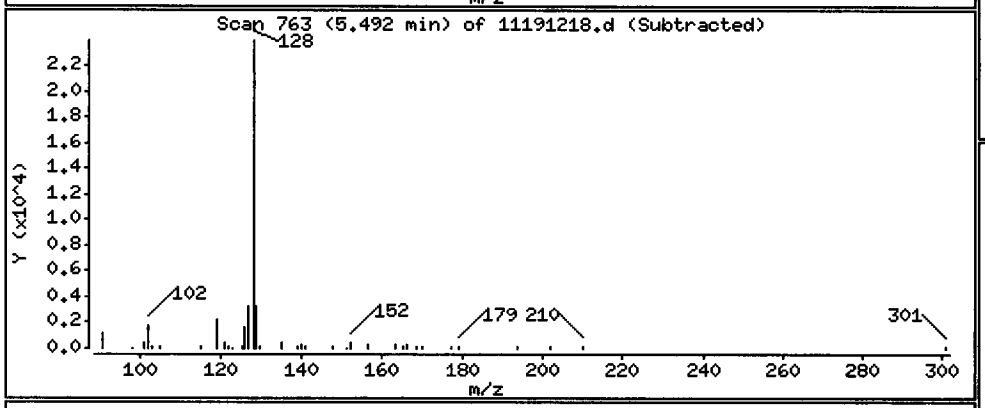
Column diameter: 0.25

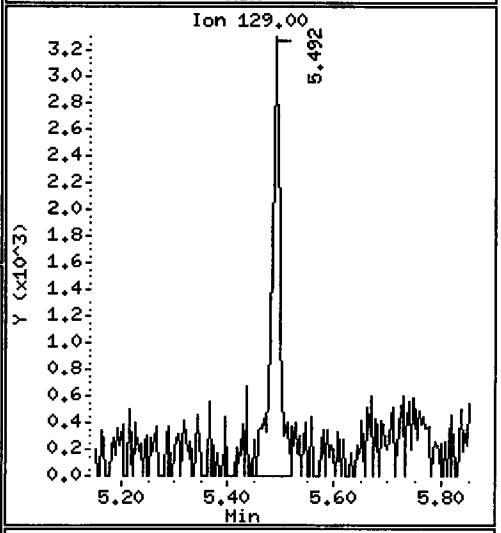
7 Naphthalene

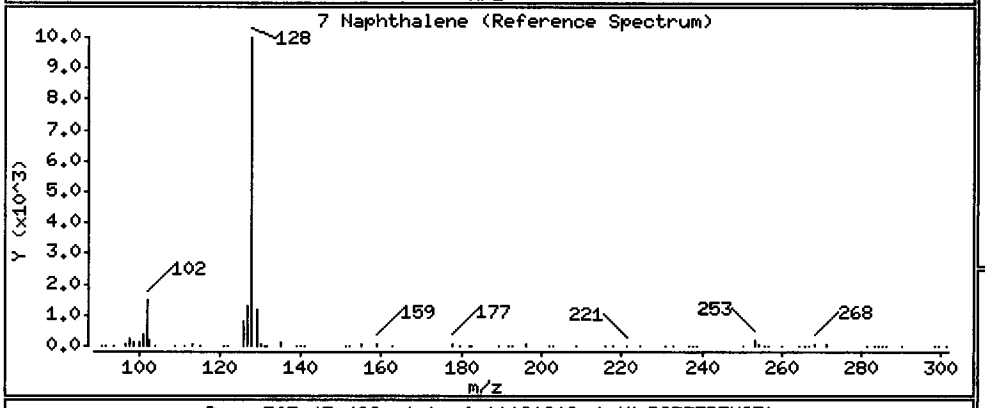
Concentration: 3.322 ug/kg

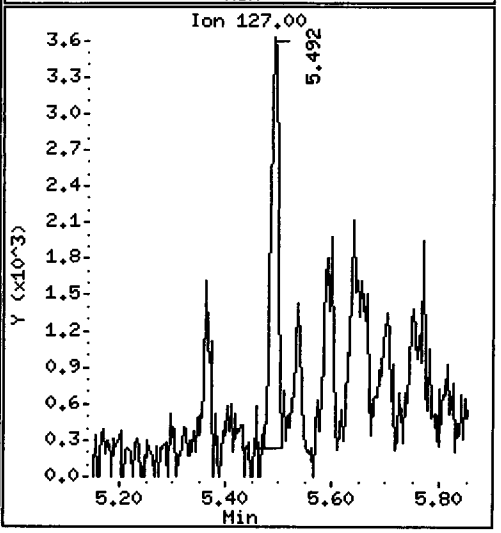


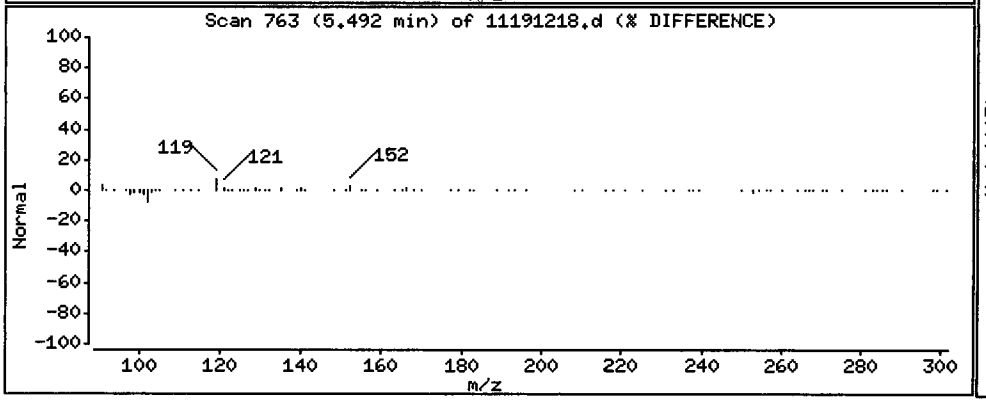












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

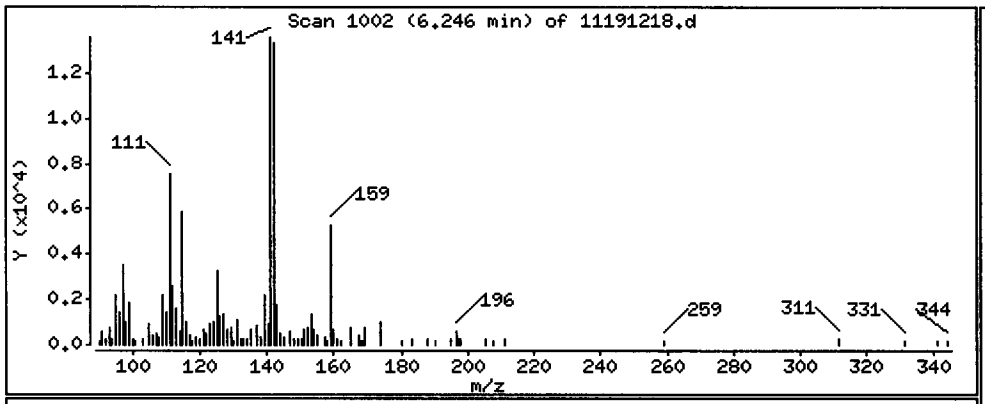
Client ID: HT-08-S-C-121106 Instrument: nt11.i

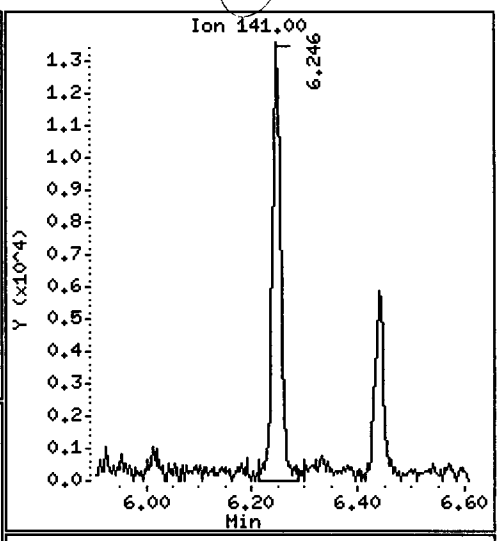
Sample Info: VR38F

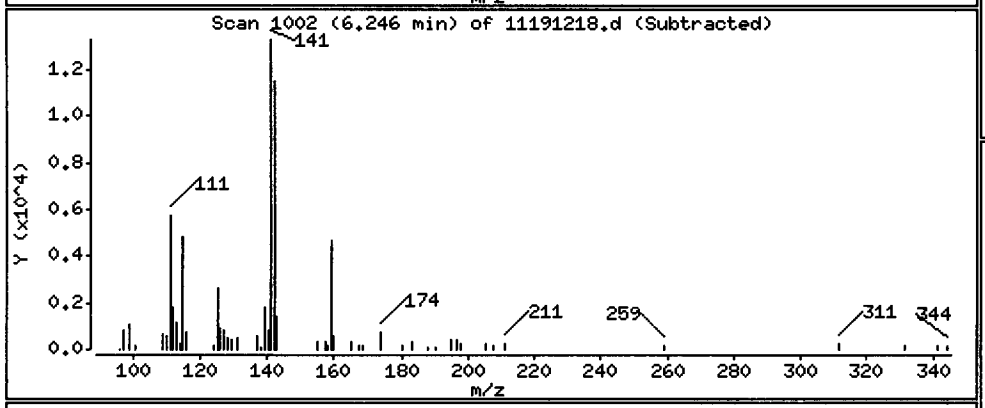
Volume Injected (uL): 1.0 Operator: JZ

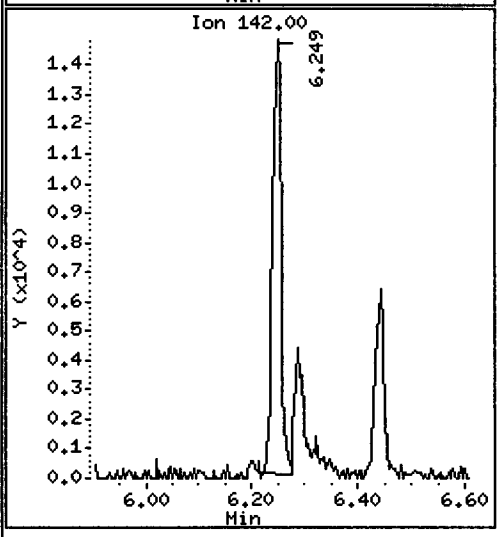
Column phase: ZB-5msi Column diameter: 0.25

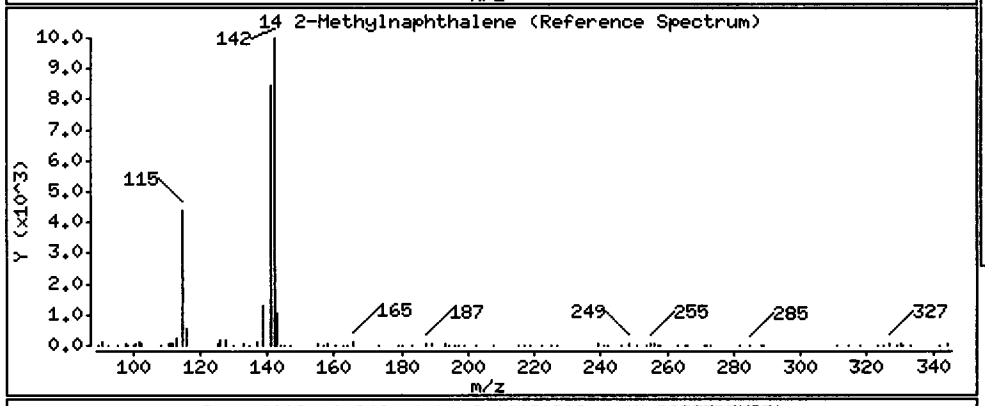
14 2-Methylnaphthalene Concentration: 3.455 ug/kg

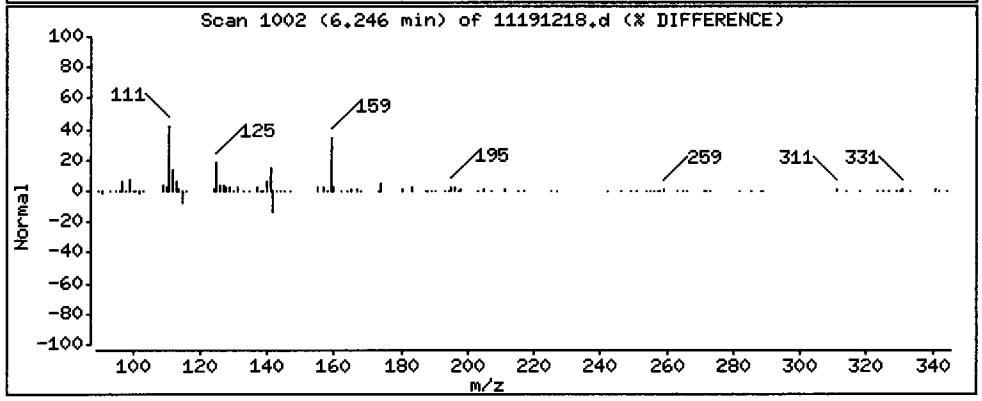












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

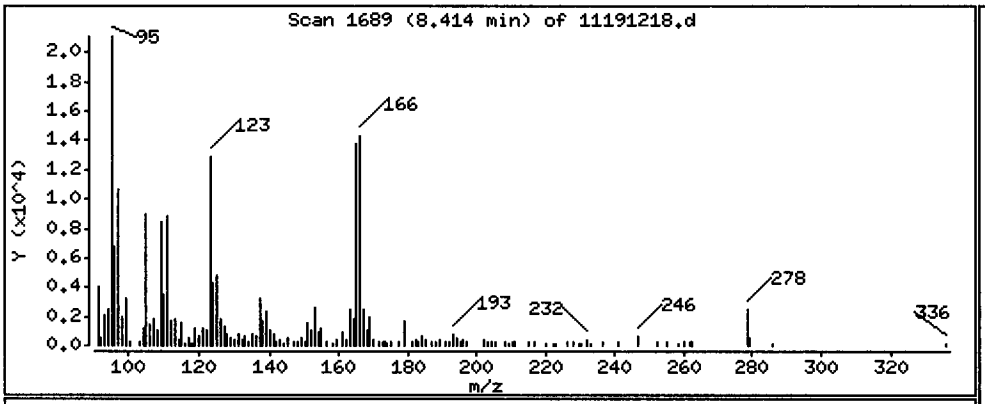
Operator: JZ

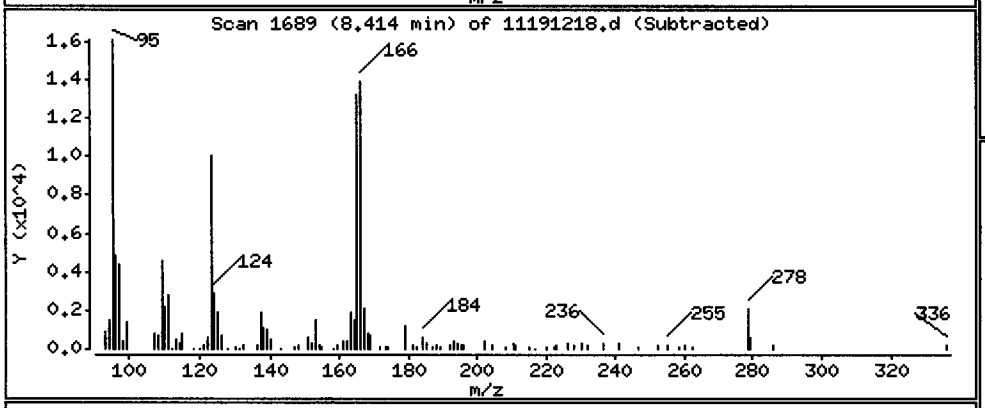
Column phase: ZB-5ms1

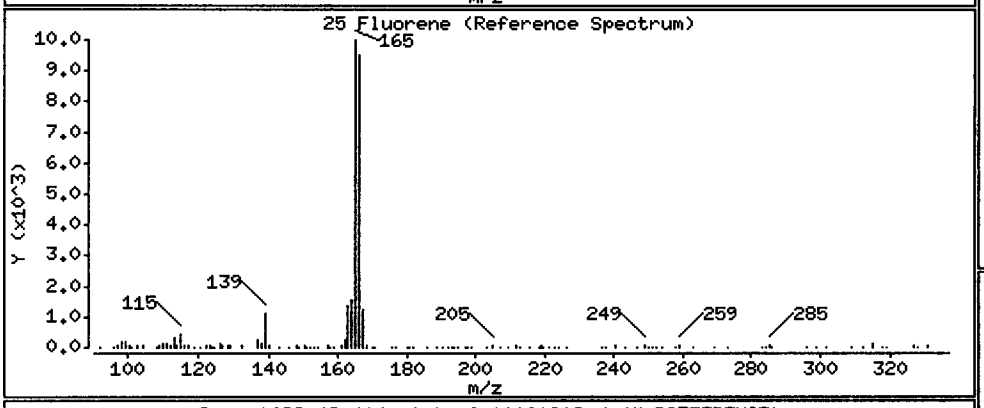
Column diameter: 0.25

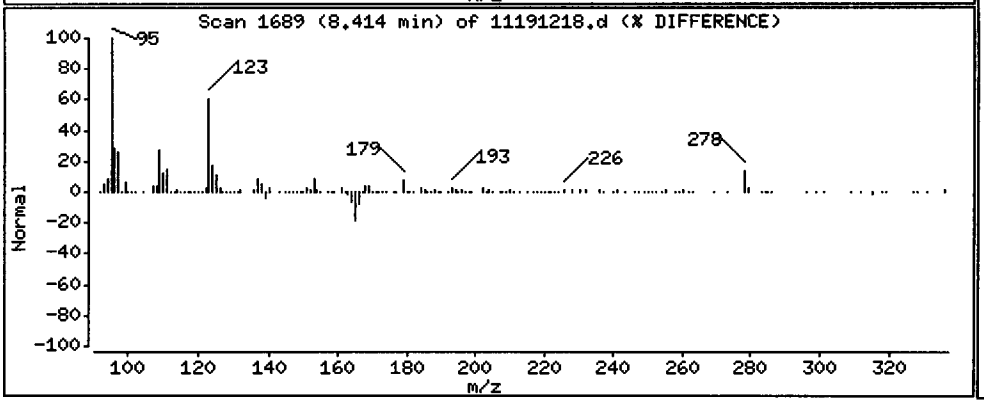
25 Fluorene

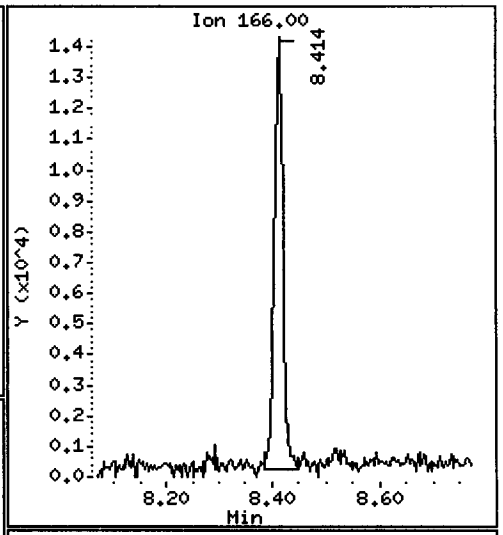
Concentration: 3.232 ug/kg

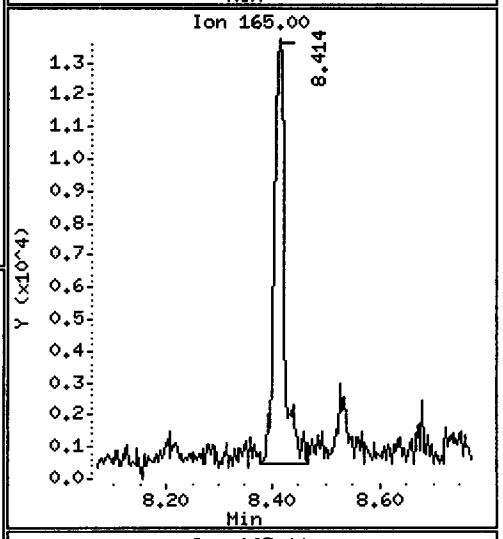


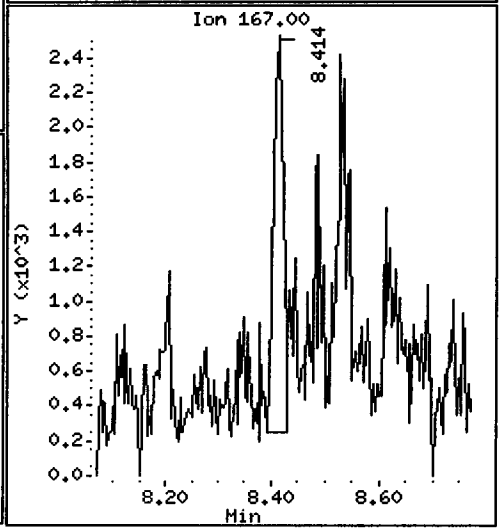












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

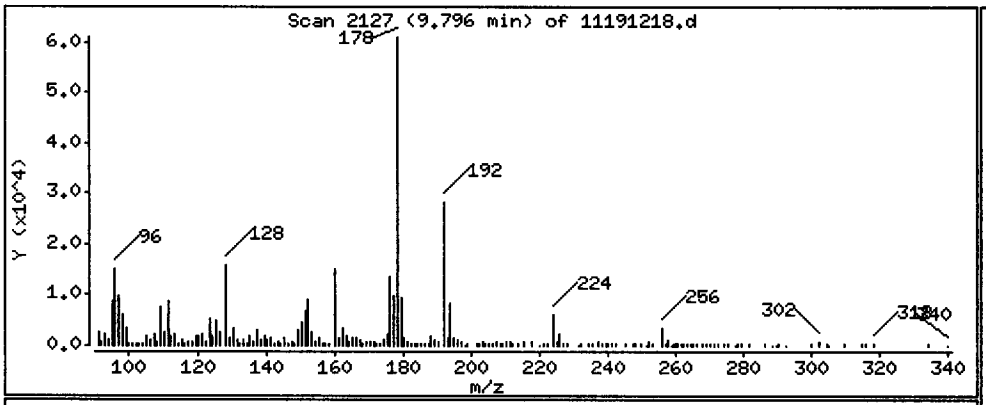
Operator: JZ

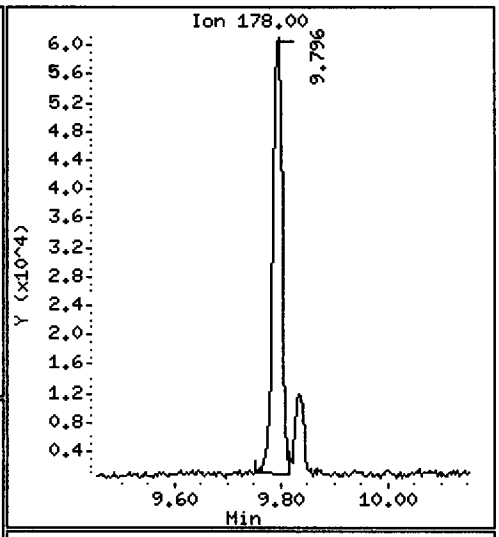
Column phase: ZB-5msi

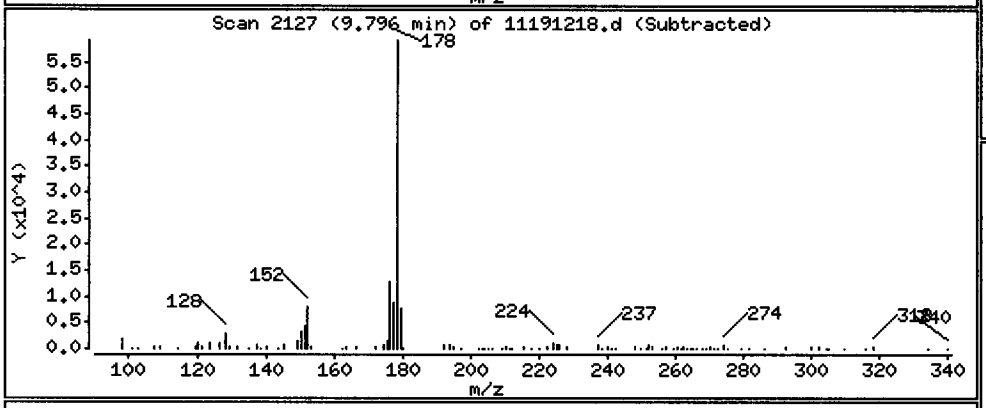
Column diameter: 0.25

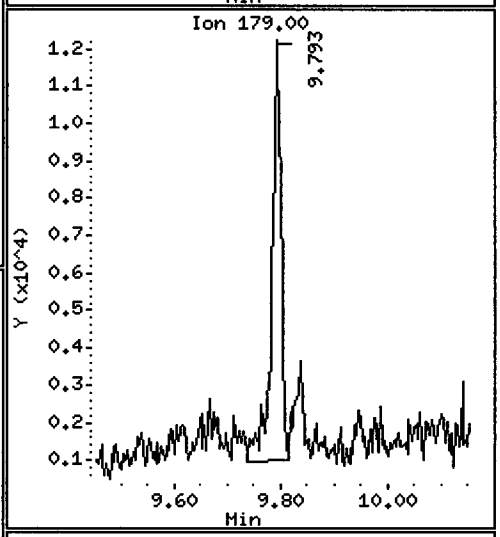
30 Phenanthrene

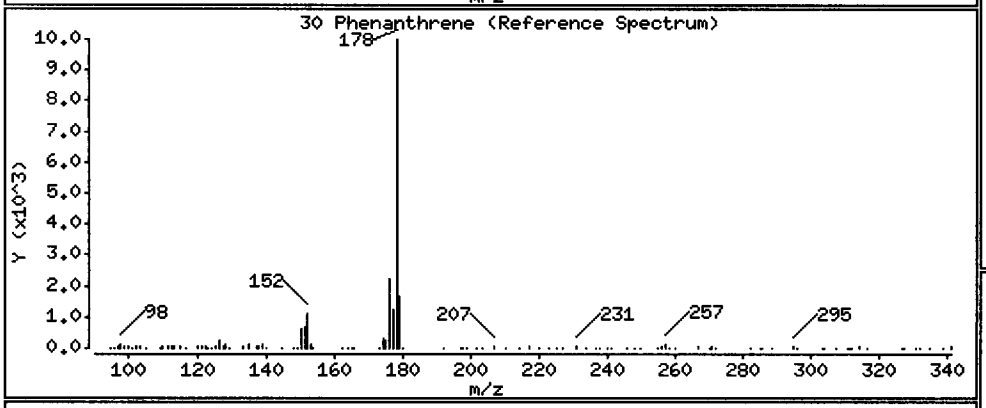
Concentration: 10.81 ug/kg

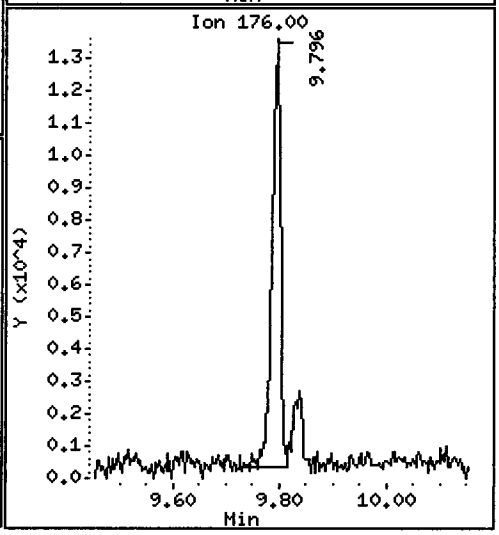


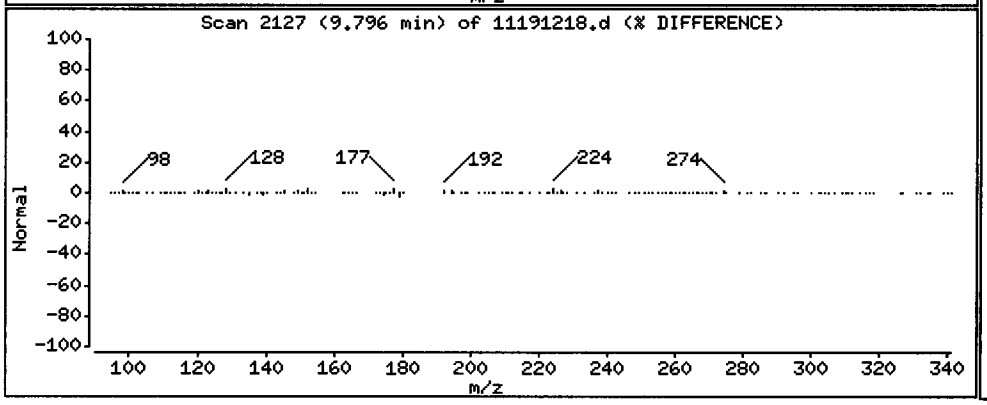












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

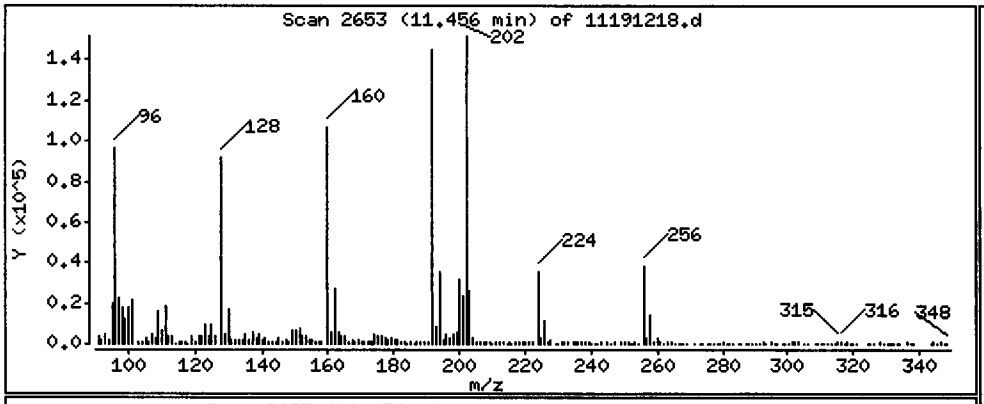
Operator: JZ

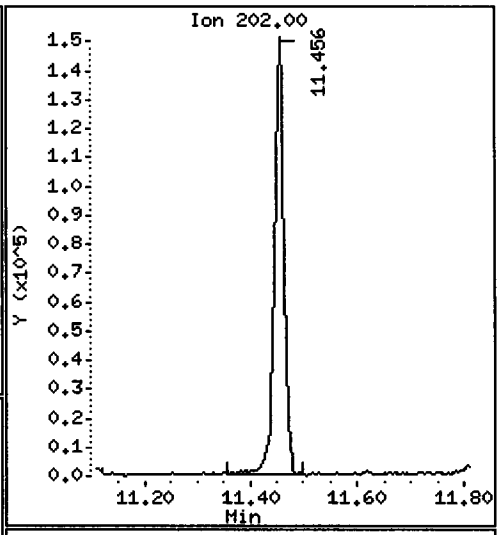
Column phase: ZB-5msi

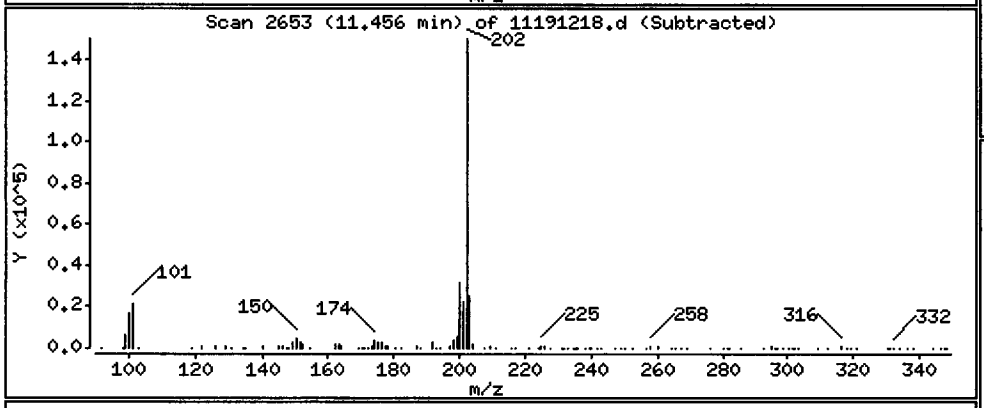
Column diameter: 0.25

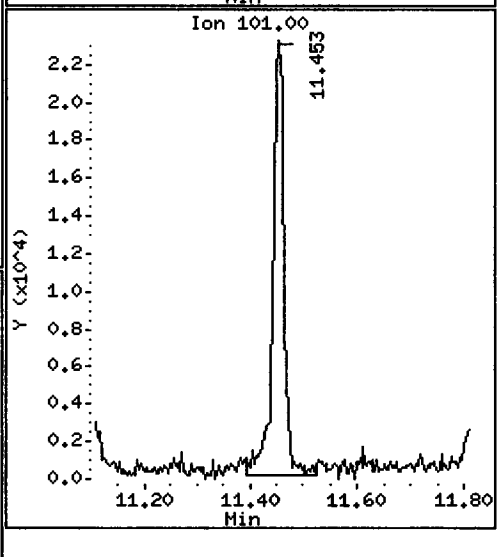
36 Fluoranthene

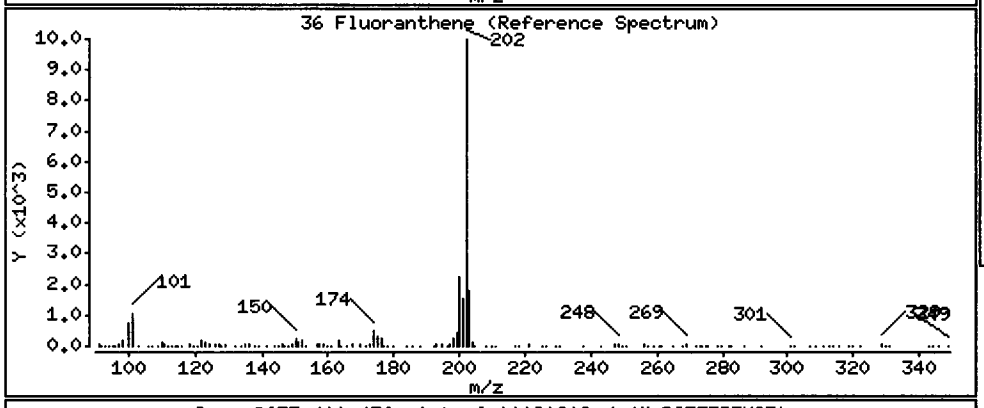
Concentration: 28.47 ug/kg

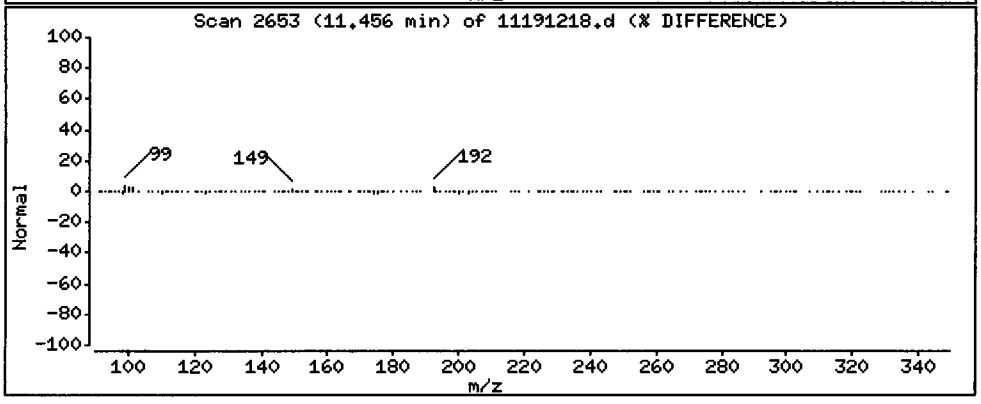












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

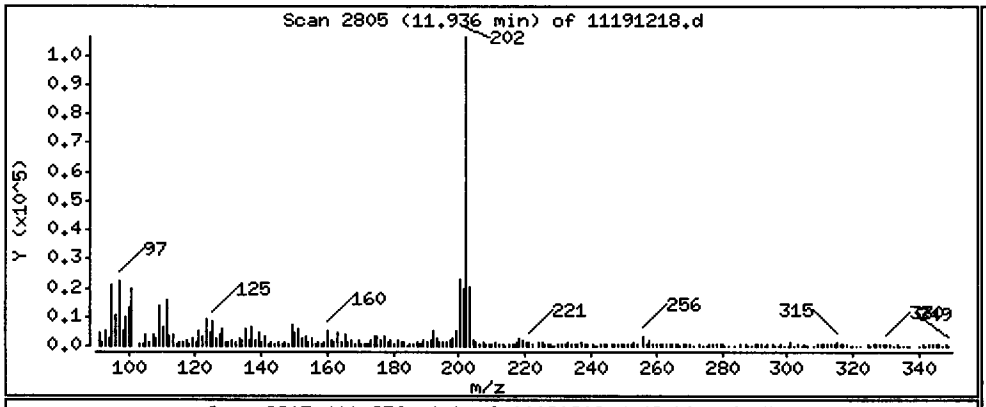
Operator: JZ

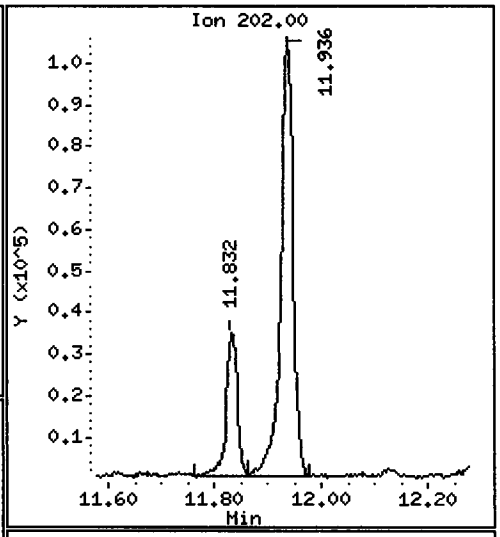
Column phase: ZB-5msi

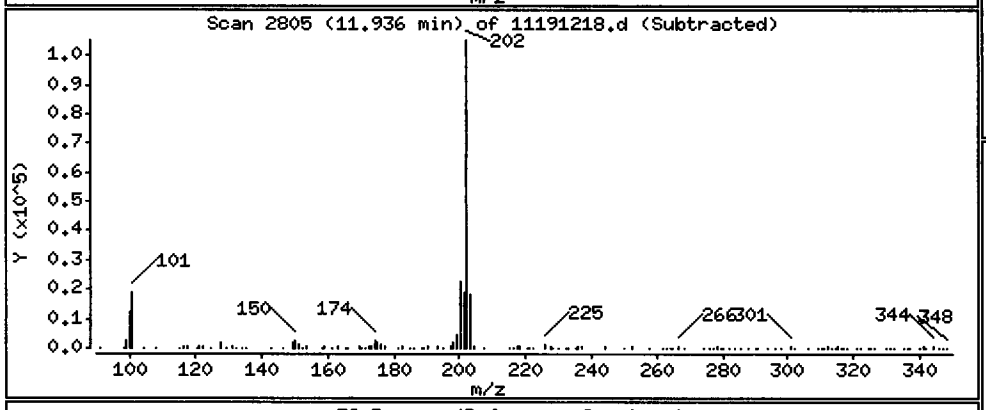
Column diameter: 0.25

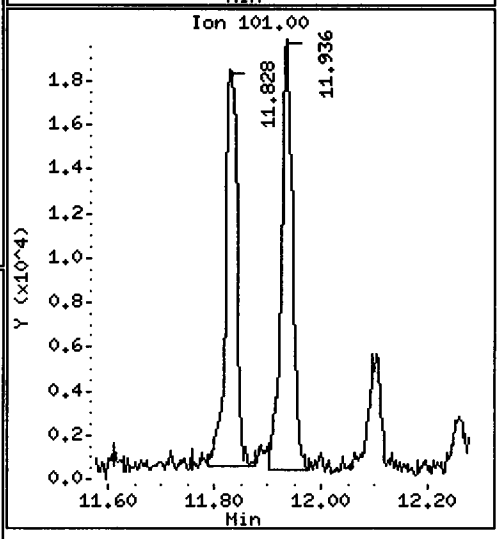
39 Pyrene

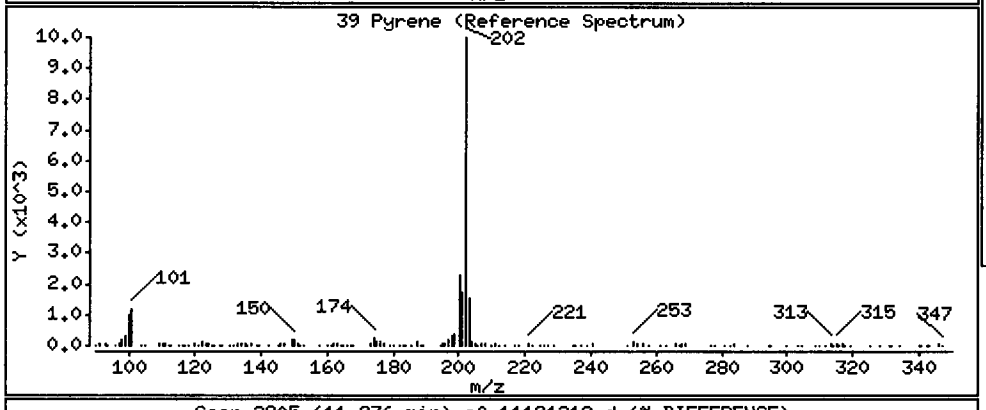
Concentration: 26.20 ug/kg

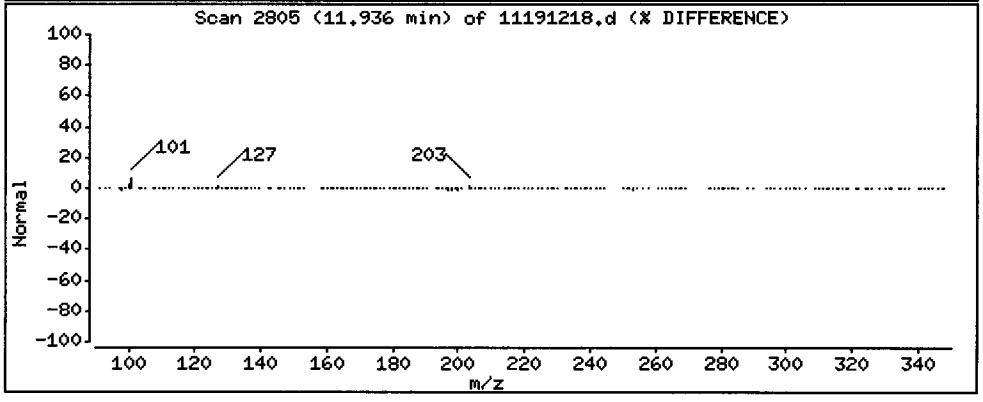












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

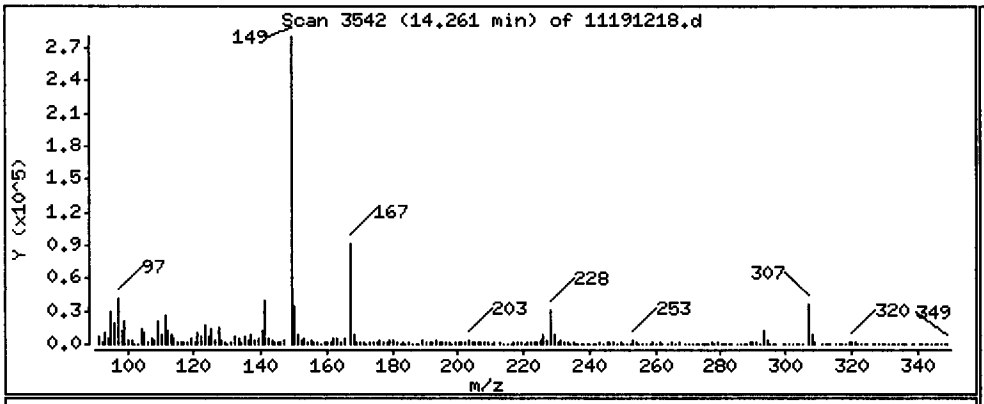
Operator: JZ

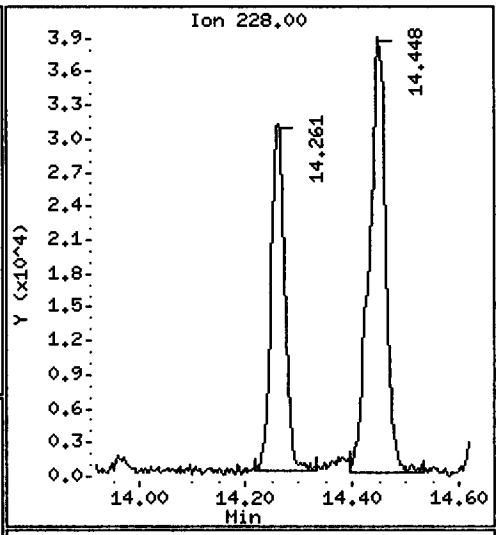
Column phase: ZB-5msi

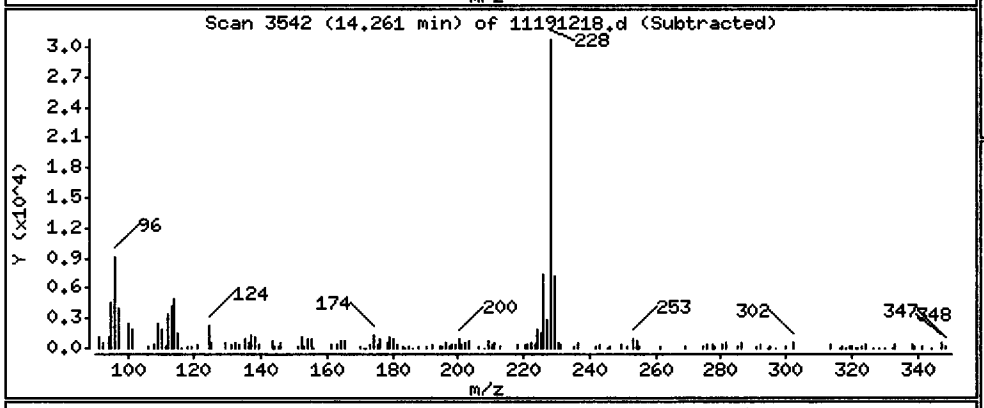
Column diameter: 0.25

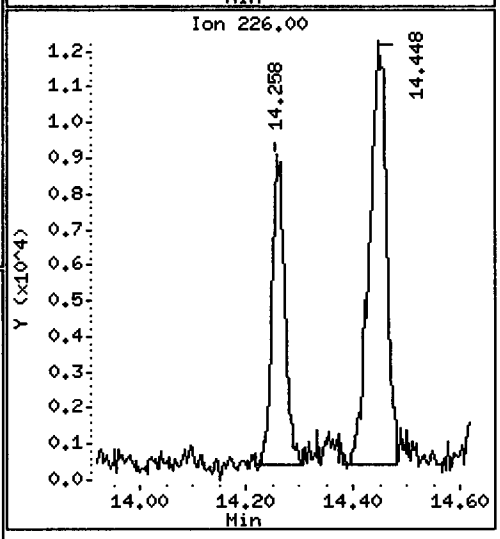
46 Benzo(a)anthracene

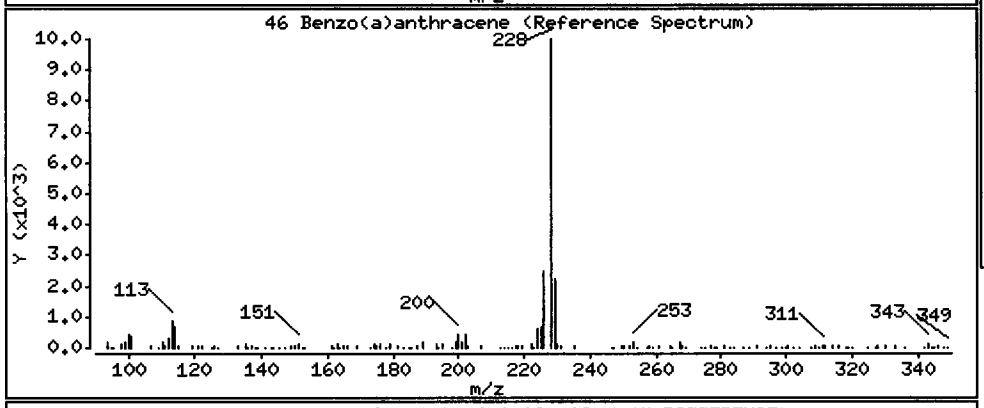
Concentration: 9.604 ug/kg

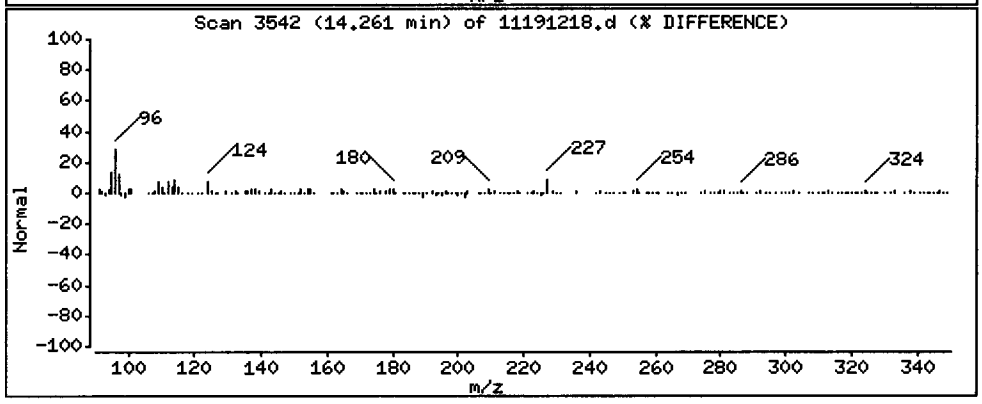












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

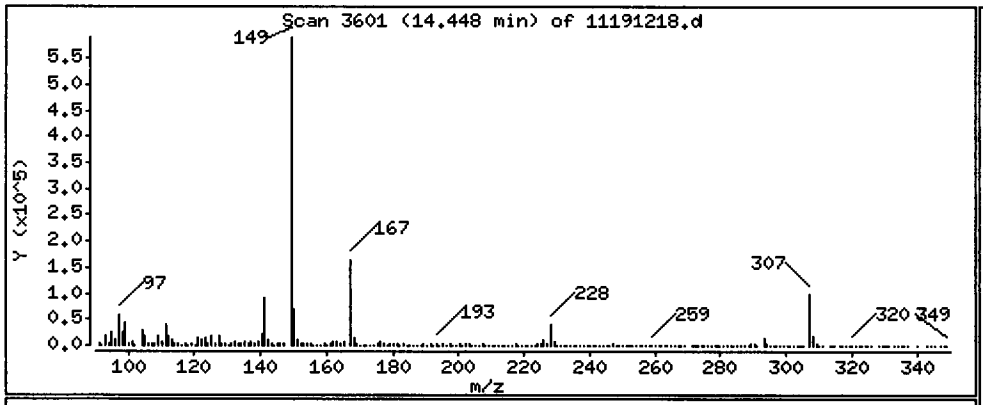
Operator: JZ

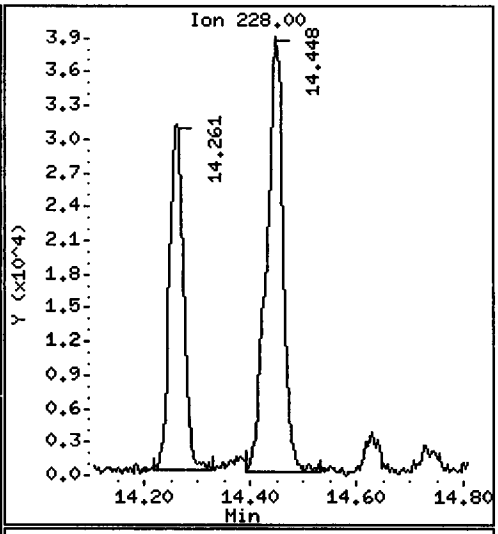
Column phase: ZB-5msi

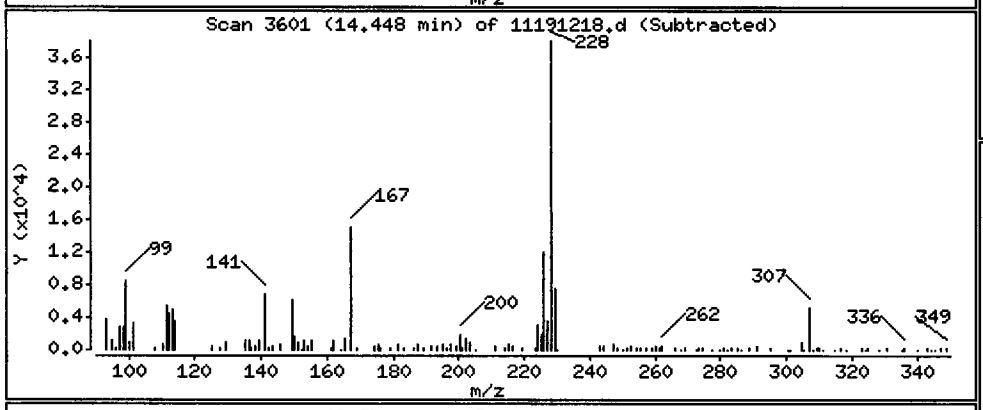
Column diameter: 0.25

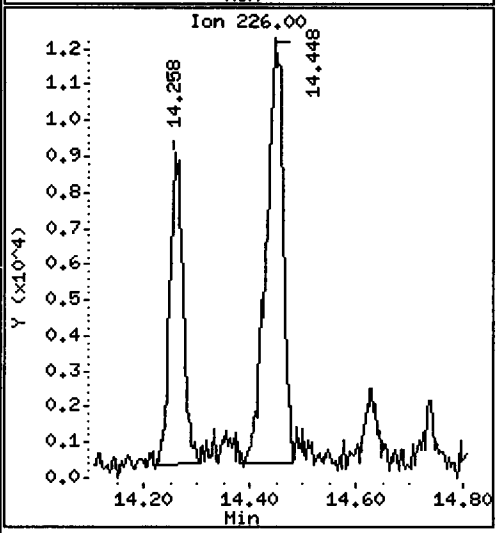
48 Chrysene

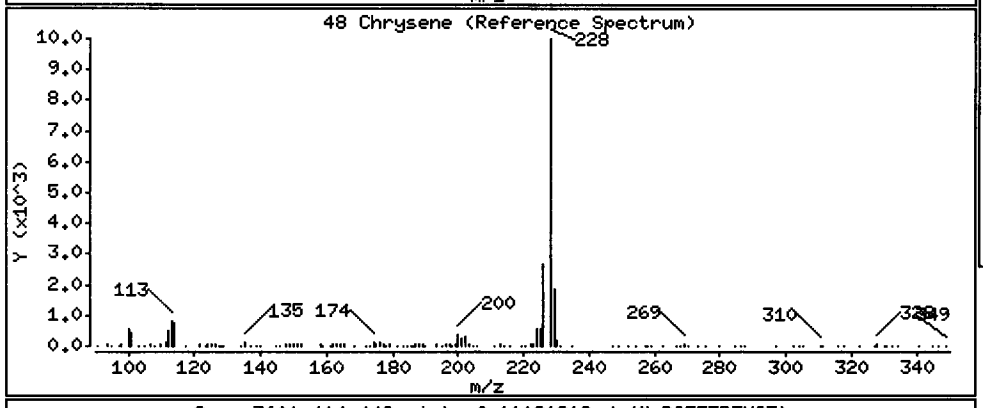
Concentration: 14.76 ug/kg

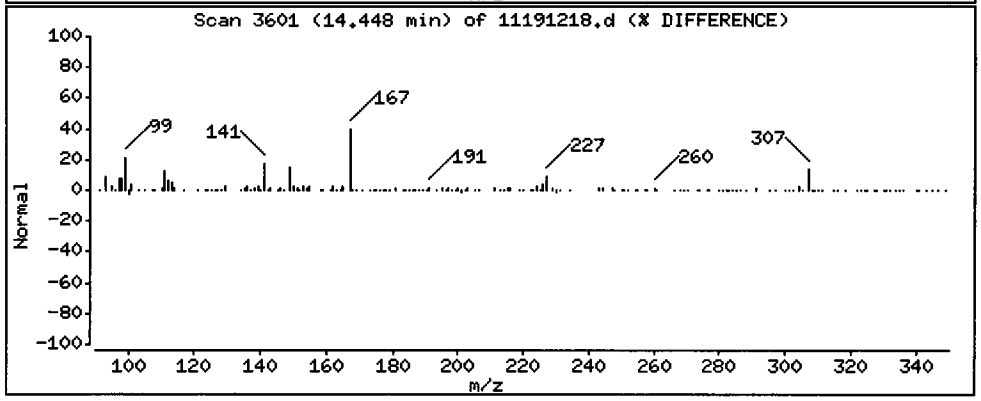












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

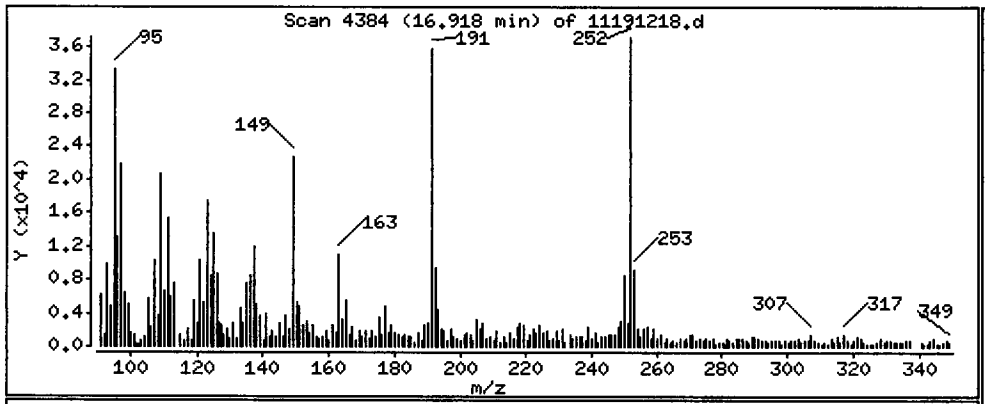
Operator: JZ

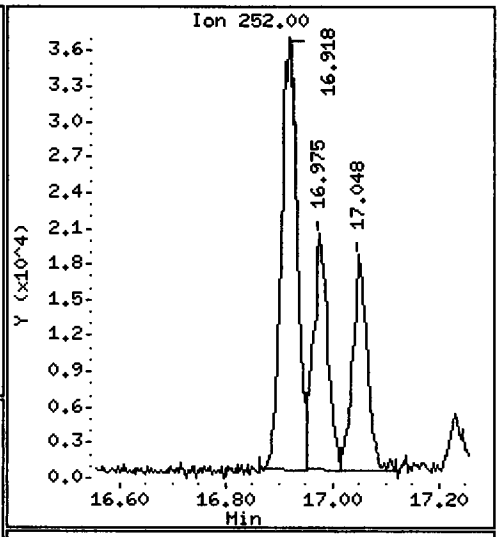
Column phase: ZB-5msi

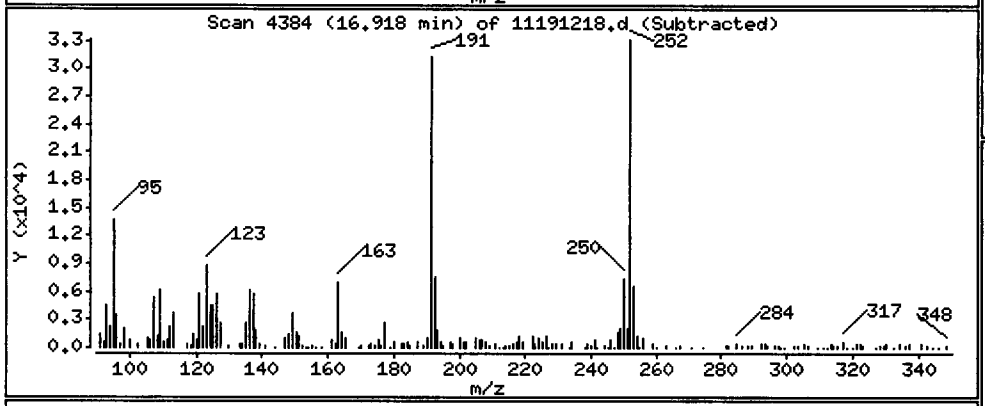
Column diameter: 0.25

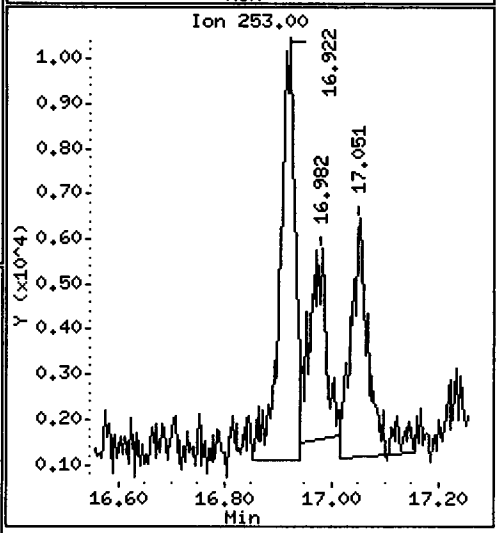
51 Benzo(b)fluoranthene

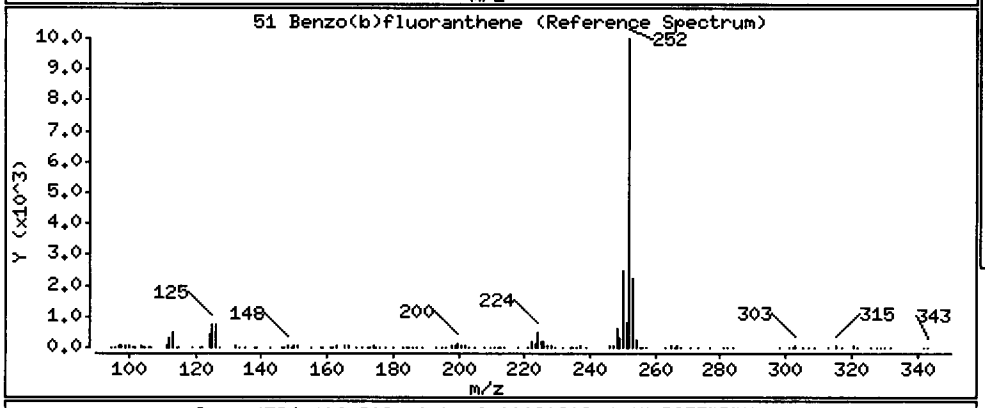
Concentration: 13.45 ug/kg

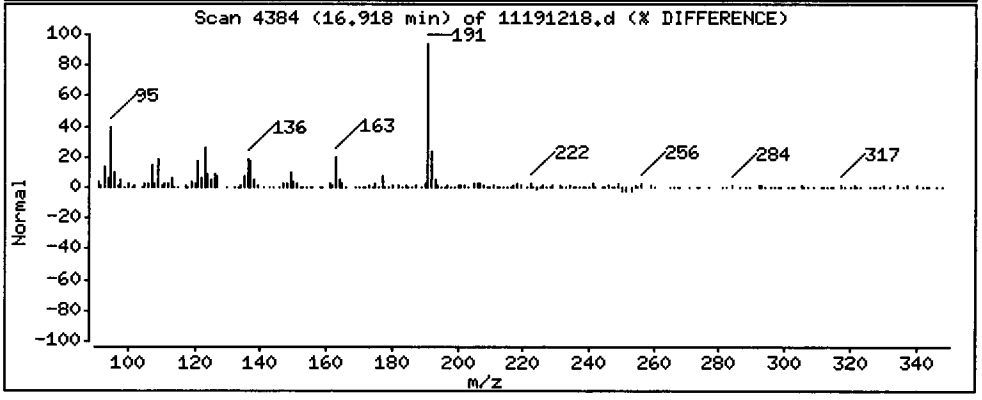












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

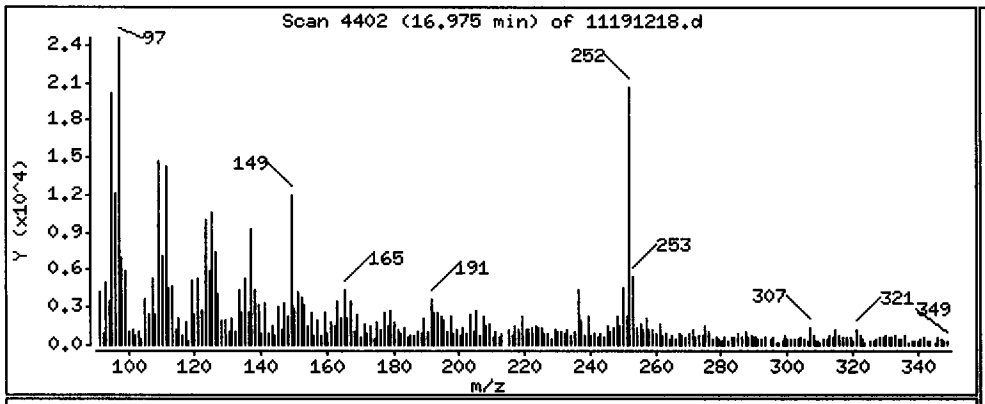
Operator: JZ

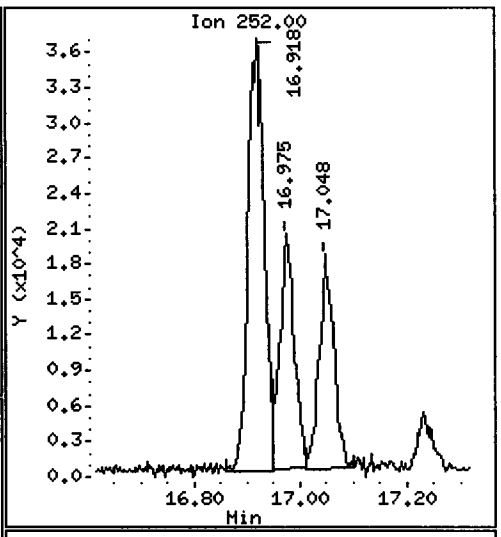
Column phase: ZB-5msi

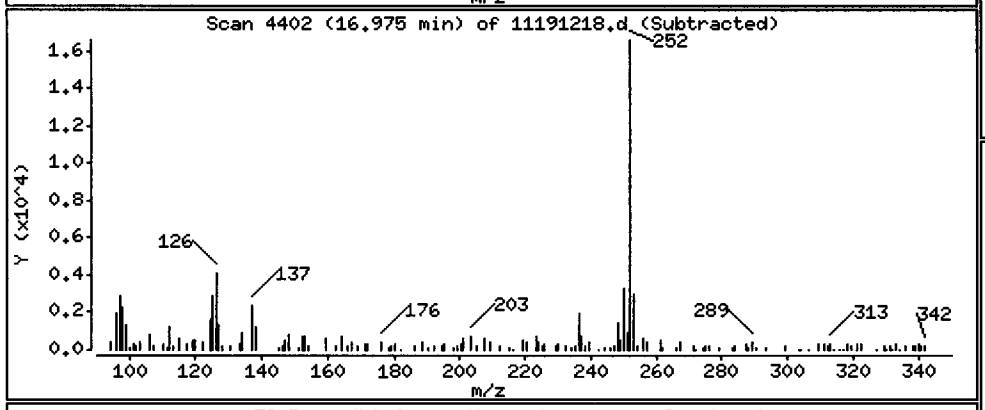
Column diameter: 0.25

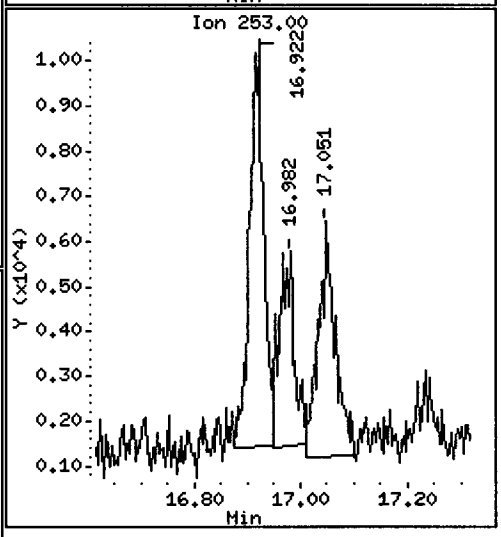
52 Benzo(k)fluoranthene

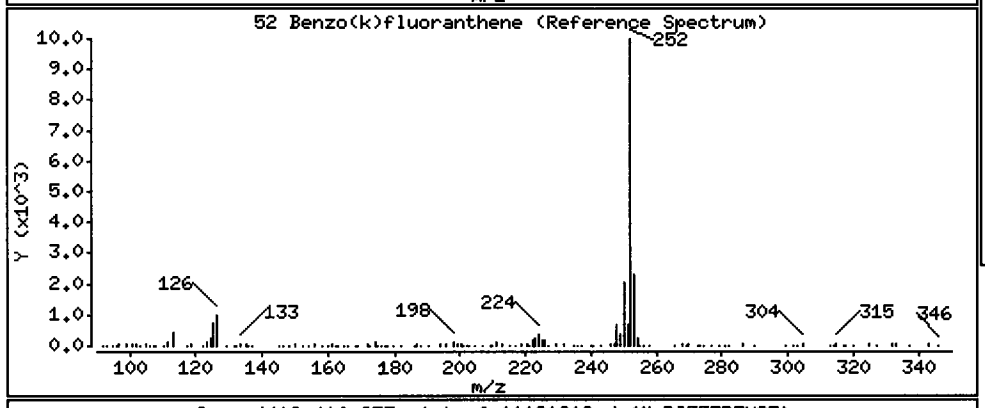
Concentration: 6.180 ug/kg

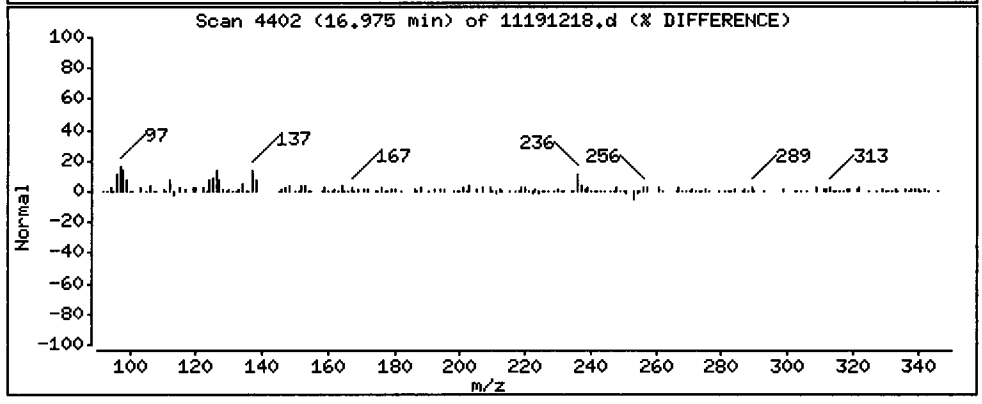












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

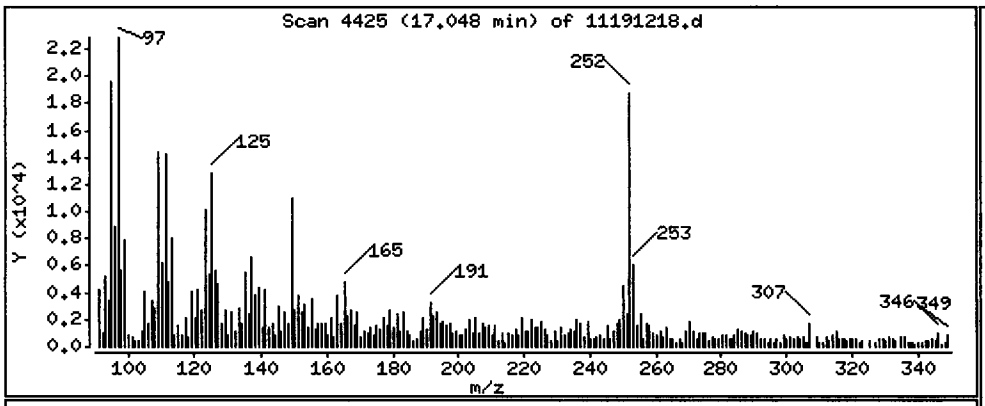
Operator: JZ

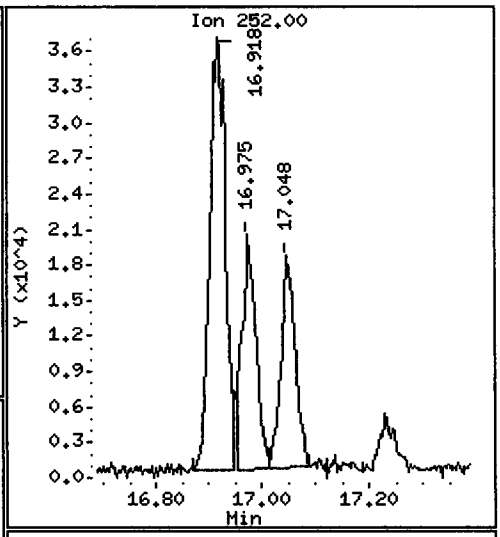
Column phase: ZB-5msi

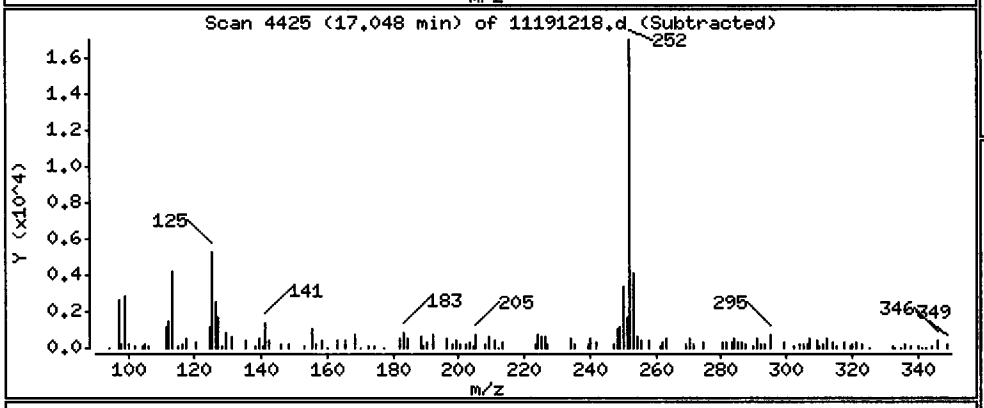
Column diameter: 0.25

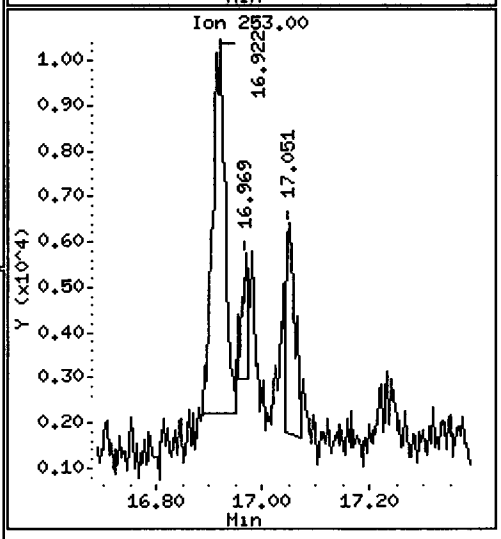
251 Benzo(j)fluoranthene

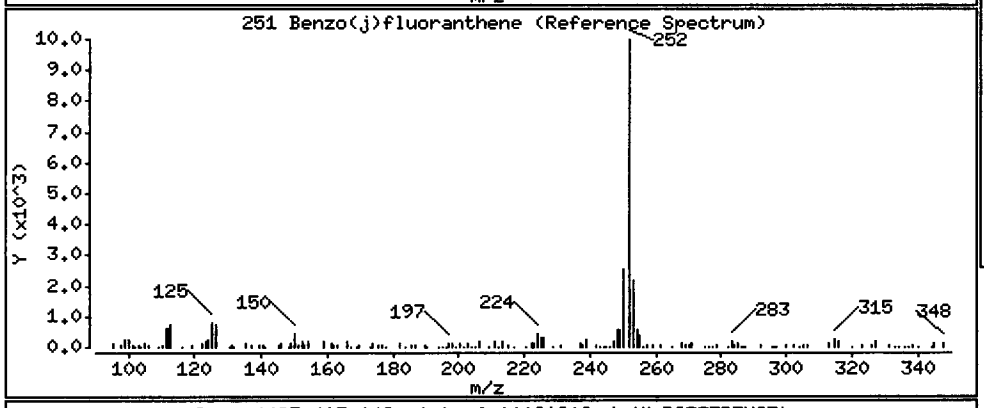
Concentration: 5.128 ug/kg

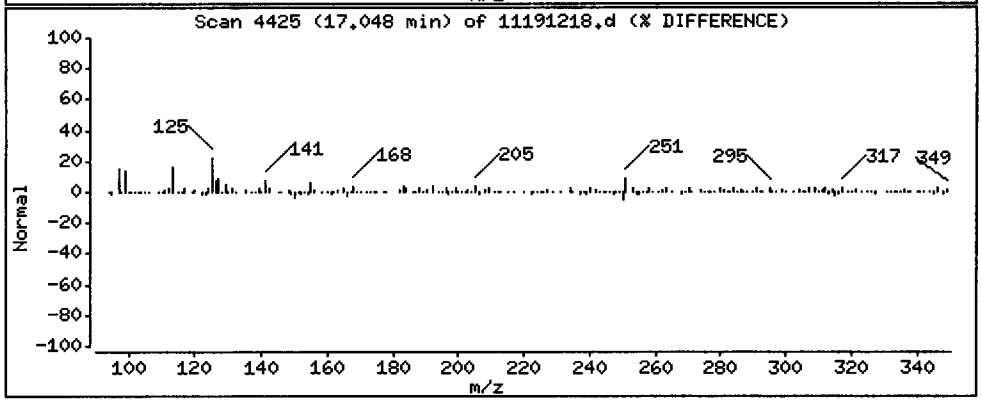












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

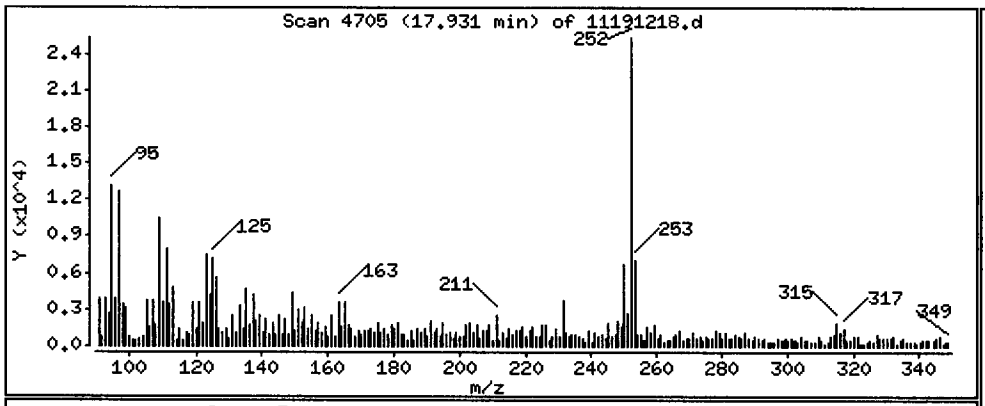
Operator: JZ

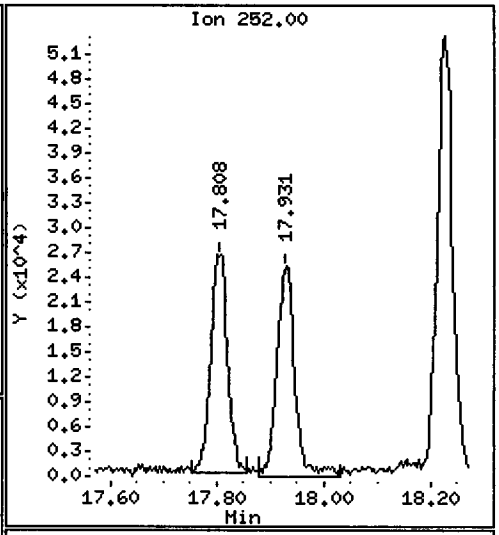
Column phase: ZB-5msi

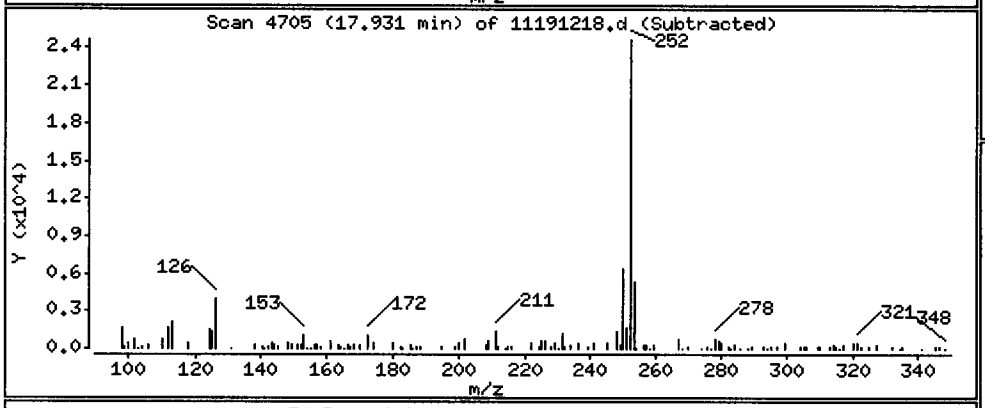
Column diameter: 0.25

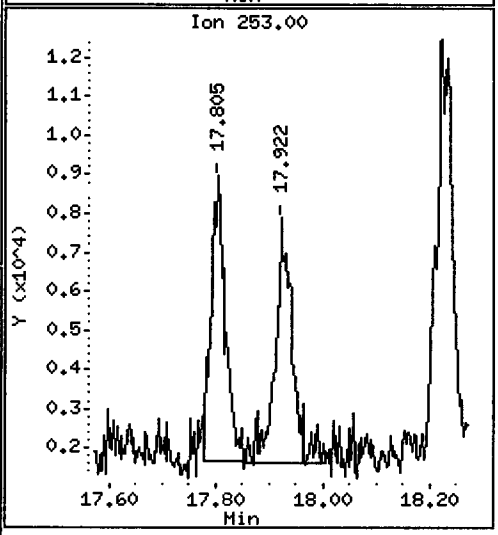
54 Benzo(a)pyrene

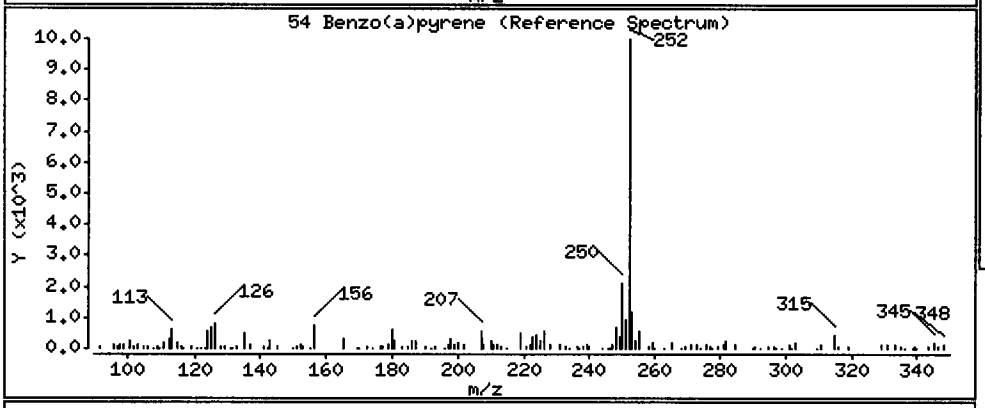
Concentration: 10.23 ug/kg

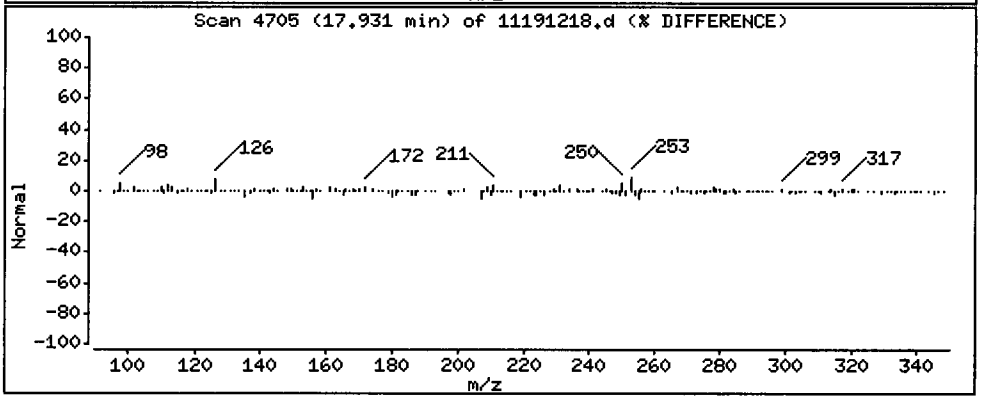












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

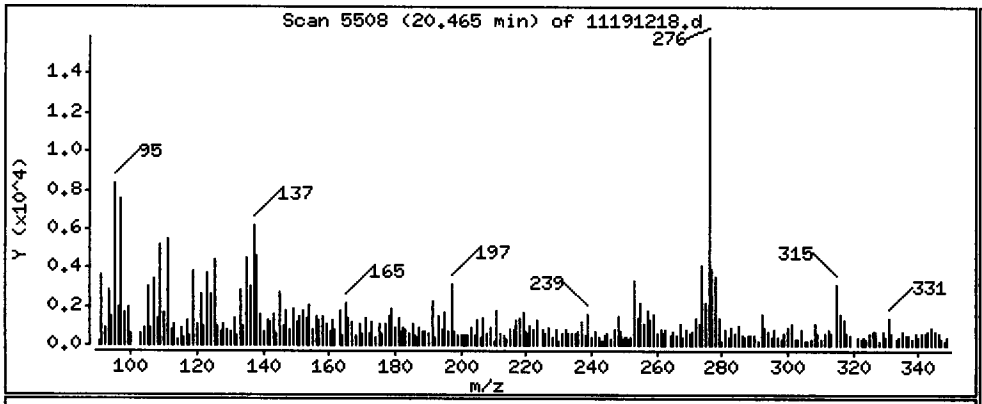
Operator: JZ

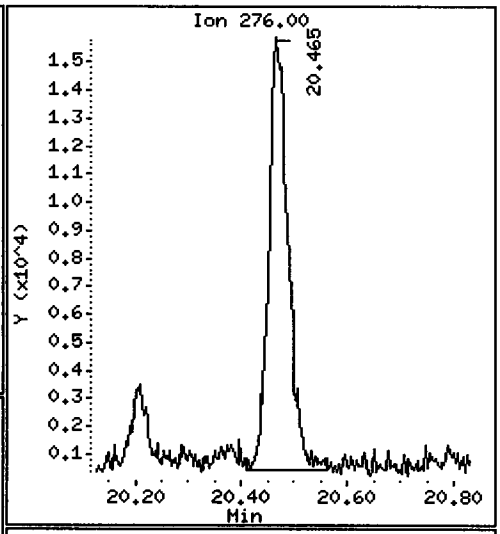
Column phase: ZB-5msi

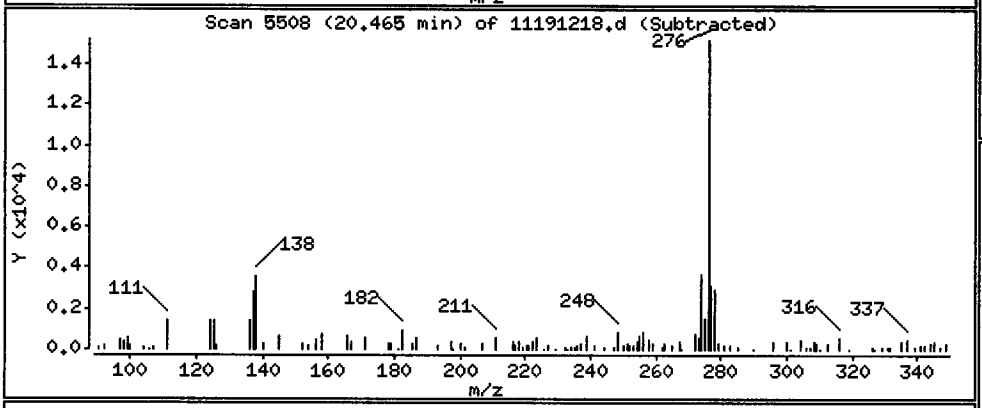
Column diameter: 0.25

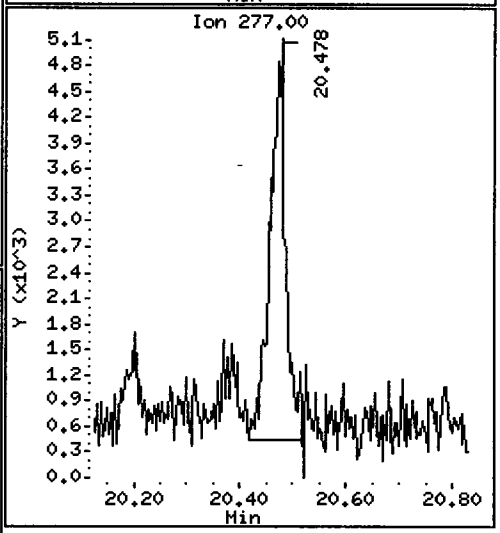
63 Indeno(1,2,3-cd)pyrene

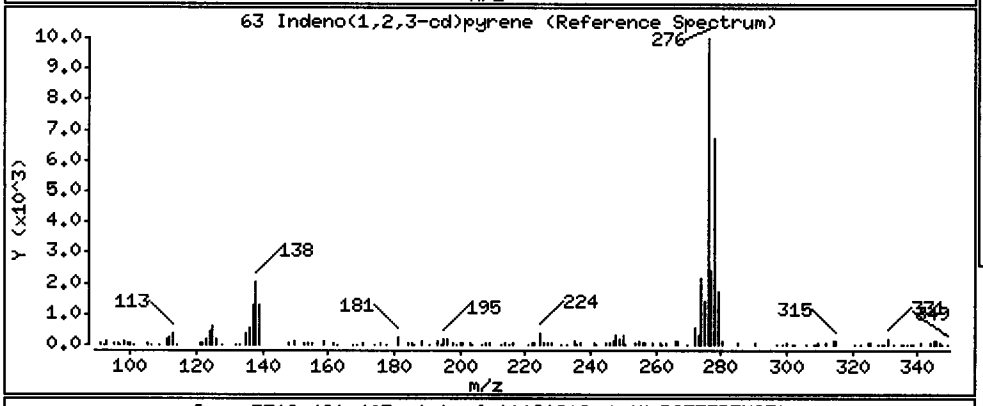
Concentration: 5.691 ug/kg

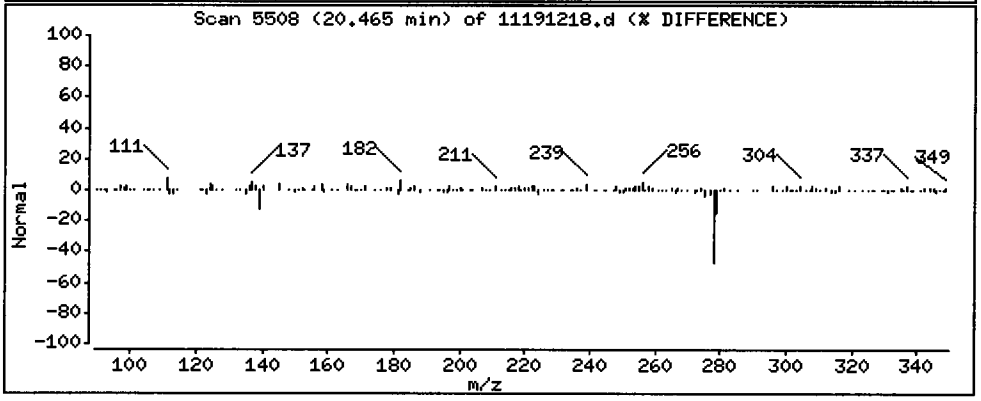












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

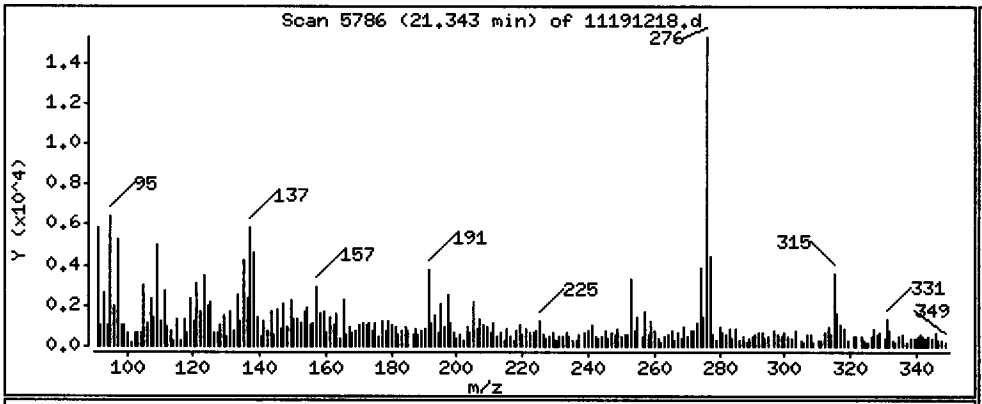
Operator: JZ

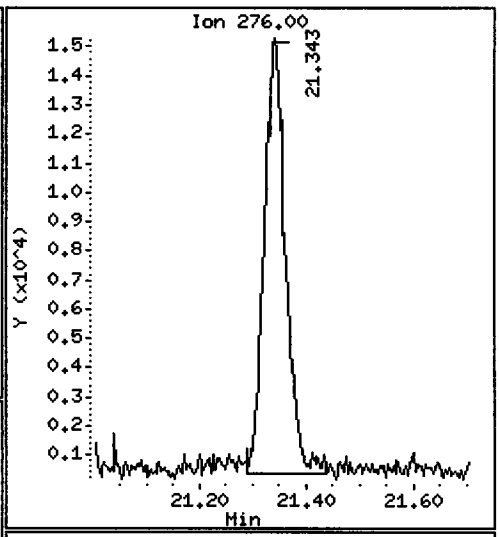
Column phase: ZB-5msi

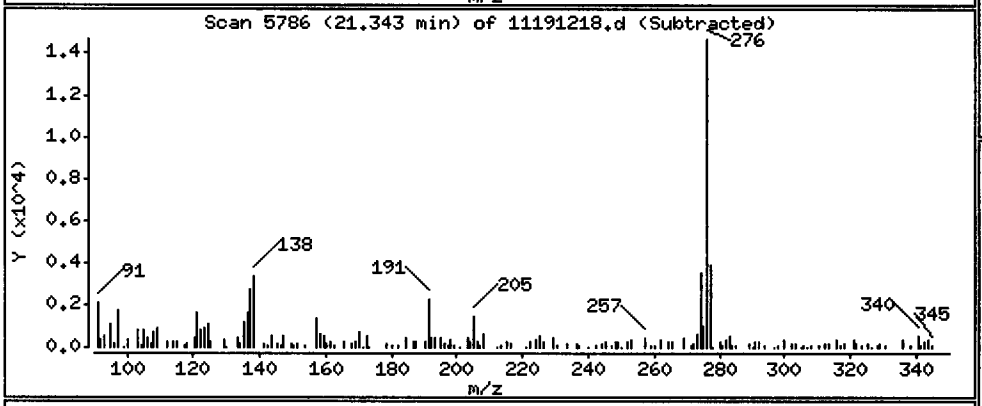
Column diameter: 0.25

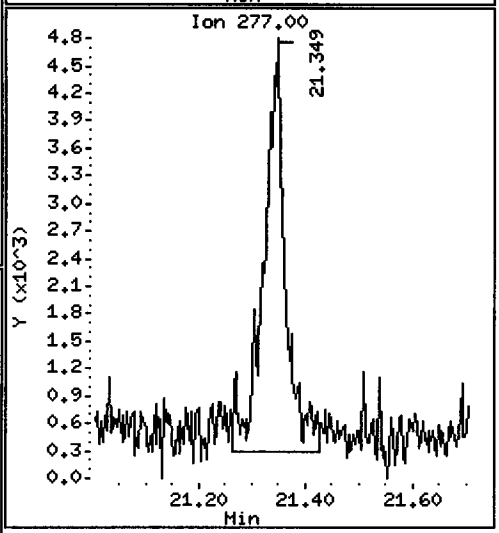
61 Benzo(g,h,i)perylene

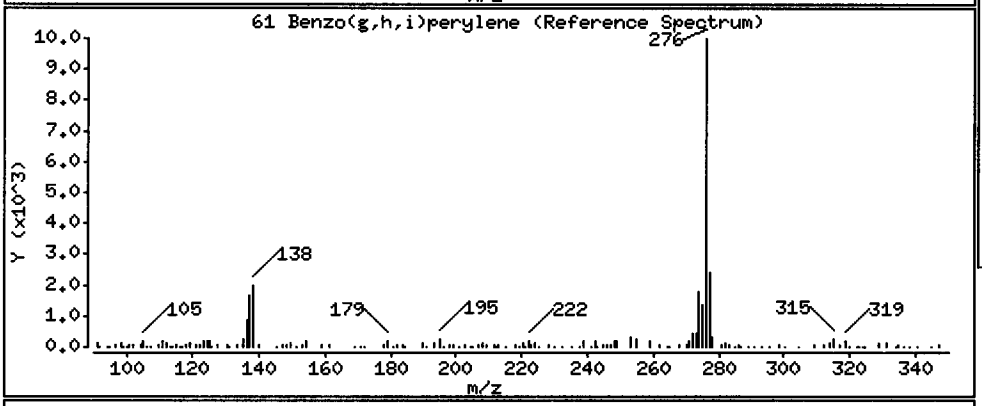
Concentration: 6.895 ug/kg

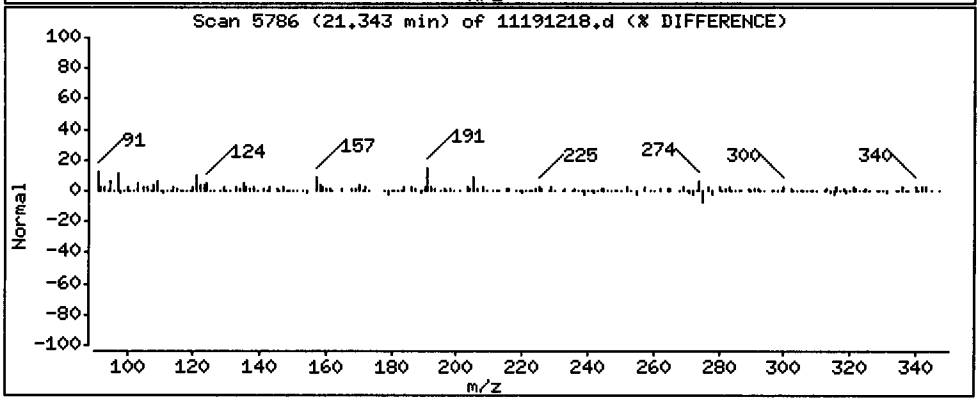












Data File: /chem3/nt11.i/20121119.b/11191218.d

Date : 19-NOV-2012 20:26

Client ID: HT-08-S-C-121106

Instrument: nt11.i

Sample Info: VR38F

Volume Injected (uL): 1.0

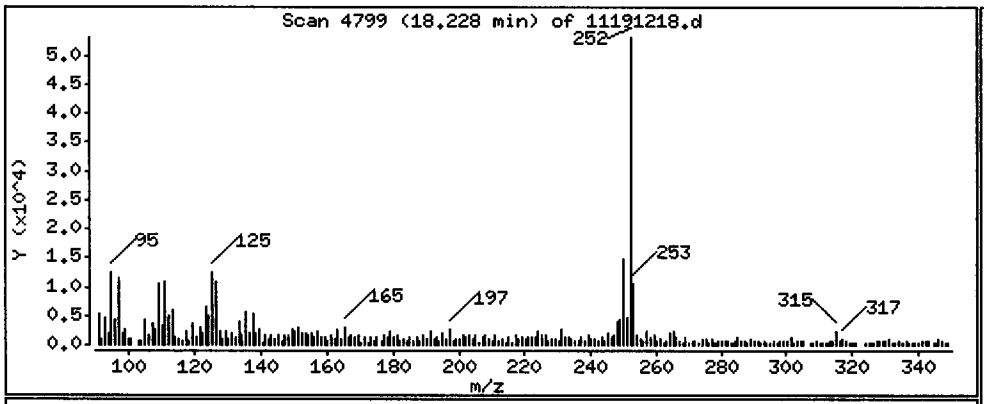
Operator: JZ

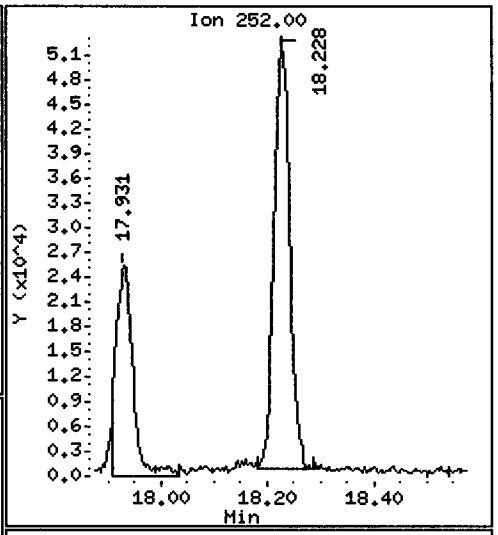
Column phase: ZB-5msi

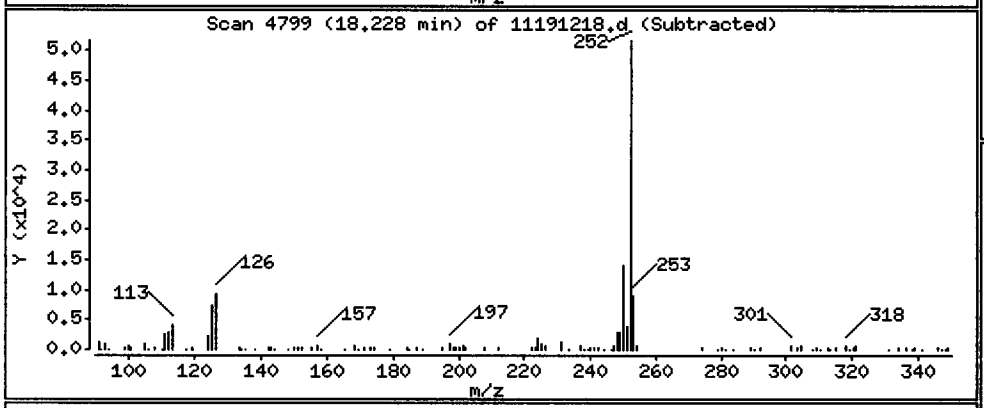
Column diameter: 0.25

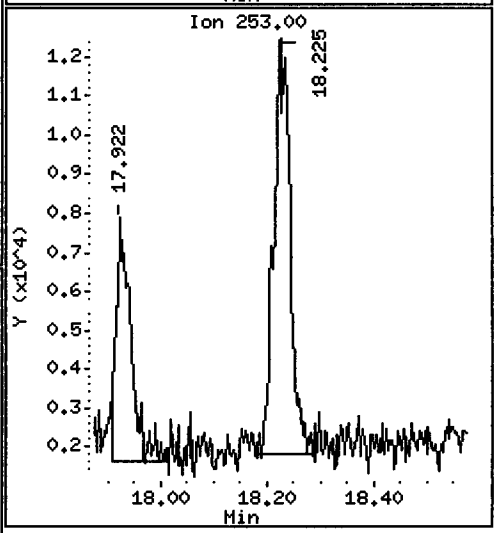
57 Perylene

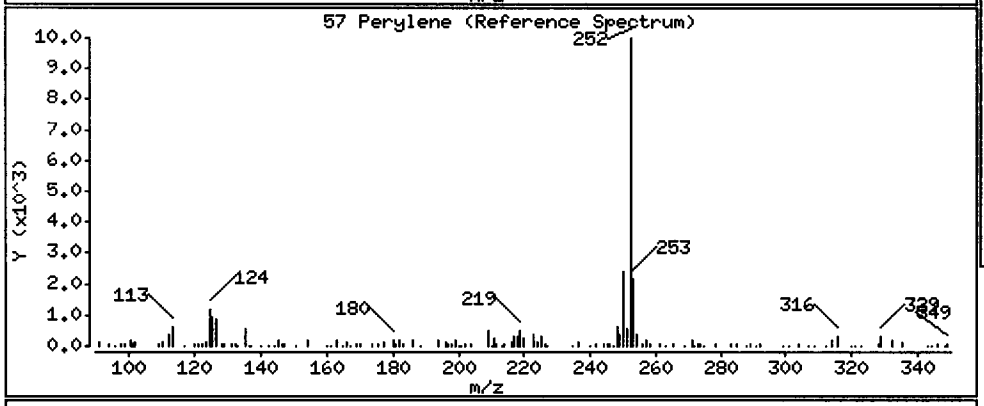
Concentration: 17.64 ug/kg

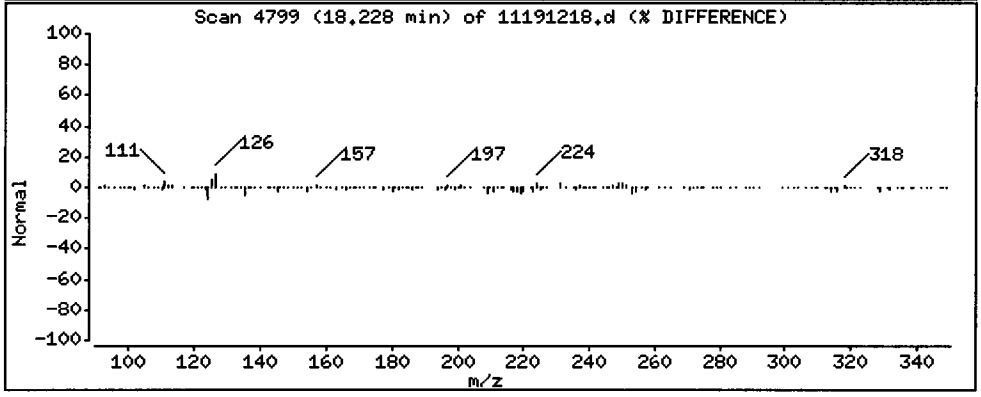












CO-ELUTION SUMMARY FOR FILE - 11191218.d

Lab ID: VR38F, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191219.d
Lab Smp Id: VR38G Client Smp ID: HT-09-S-C-121106
Inj Date : 19-NOV-2012 20:56
Operator : JZ Inst ID: nt11.i
Smp Info : VR38G
Misc Info : 12-22273
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 11:18 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	14.20000	Weight of sample extracted (g)
M	26.20000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
*	6 Naphthalene-d8	136	5.464	5.473	(1.000)	656246	2.00000	
	7 Naphthalene	128	5.489	5.501	(1.005)	30553	0.08712	4.156
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.135)	356318	1.58913	75.82
	14 2-Methylnaphthalene	141	6.246	6.255	(1.143)	23948	0.12119	5.782
	15 1-methylnaphthalene	141	6.439	6.448	(1.178)	12063	0.06373	3.041
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	361274	2.00000	
	23 Acenaphthene	153	Compound Not Detected.					
	11 Dibenzofuran	168	Compound Not Detected.					
	25 Fluorene	166	8.414	8.420	(1.087)	19463	0.08659	4.131
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	498232	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	216580	0.71963	34.33
	31 Anthracene	178	9.837	9.840	(1.008)	22632	0.07833	3.737
	36 Fluoranthene	202	11.465	11.459	(1.175)	380777	1.26282	60.25
	39 Pyrene	202	11.945	11.926	(0.830)	443457	1.41587	67.55

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.268	14.268	(0.992)	140505	0.49198	23.47
*	47 Chrysene-d12	240	14.387	14.387	(1.000)	568350	2.00000	
	48 Chrysene	228	14.460	14.457	(1.005)	204954	0.73939	35.28
	51 Benzo(b)fluoranthene	252	16.902	16.906	(0.931)	181267	0.71826	34.27
	52 Benzo(k)fluoranthene	252	16.959	16.966	(0.934)	93665	0.34174	16.31
	251 Benzo(j)fluoranthene	252	17.038	17.038	(0.938)	81389	0.28145	13.43
	54 Benzo(a)pyrene	252	17.919	17.922	(0.987)	131889	0.51451	24.55
*	56 Perylene-d12	264	18.155	18.152	(1.000)	545303	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.475	20.478	(1.128)	88503	0.28478	13.59
$	60 Dibenzo(a,h)anthracene-d14	292	20.380	20.380	(1.123)	365912	2.02409	96.57
	62 Dibenzo(a,h)anthracene	278	20.465	20.475	(1.127)	20276	0.08011	3.822
	61 Benzo(g,h,i)perylene	276	21.342	21.355	(1.176)	90944	0.34398	16.41
	57 Perylene	252	18.218	18.225	(1.003)	195374	0.73494	35.07

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191219.d
Lab Smp Id: VR38G
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22273

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-09-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	656246	27.15
22 Acenaphthene-d10	284255	142128	568510	361274	27.10
28 Phenanthrene-d10	410660	205330	821320	498232	21.32
47 Chrysene-d12	467886	233943	935772	568350	21.47
56 Perylene-d12	472330	236165	944660	545303	15.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.46	-0.17
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.39	0.00
56 Perylene-d12	18.15	17.65	18.65	18.16	0.02

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.

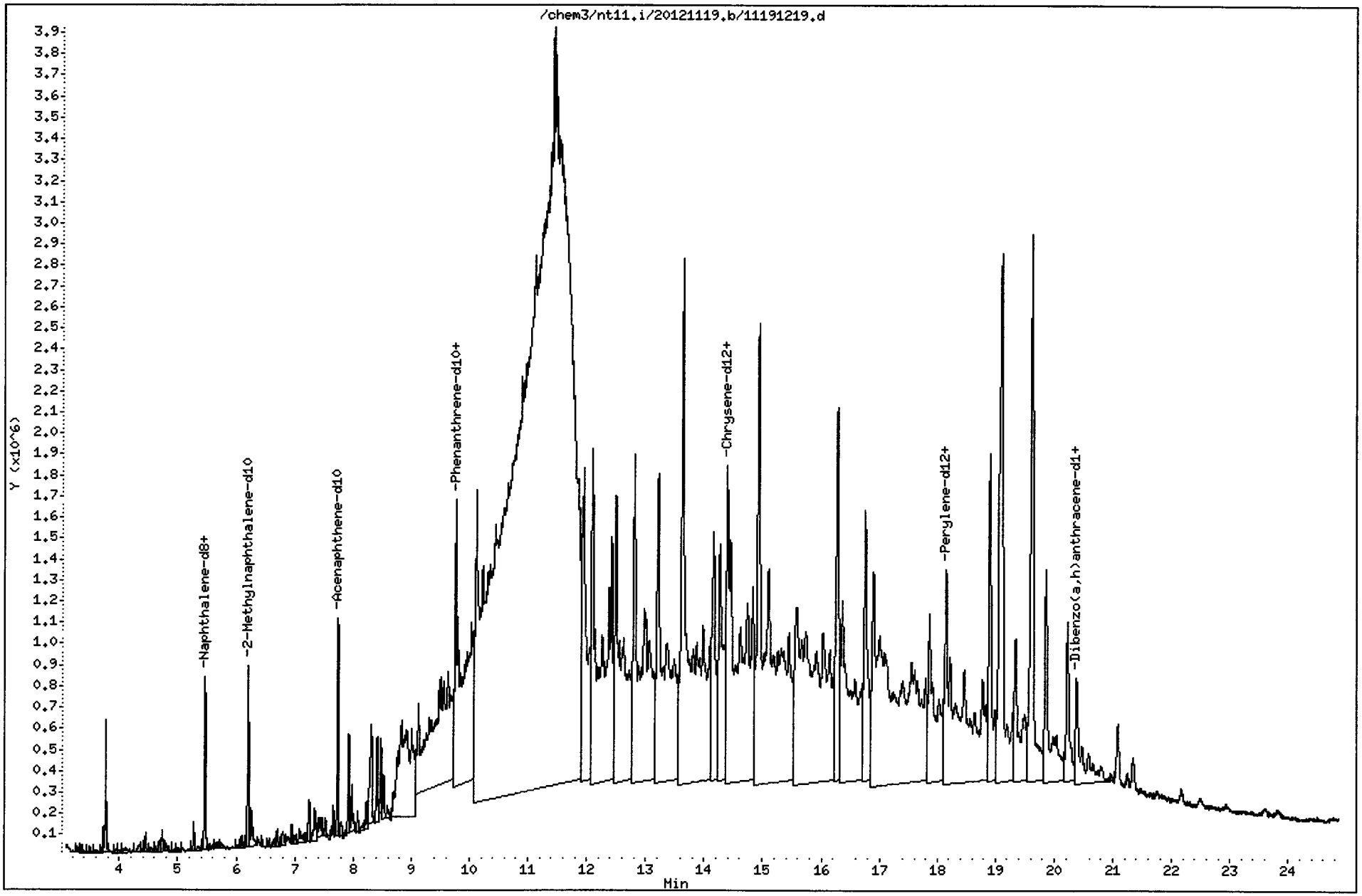
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38G Client Smp ID: HT-09-S-C-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22273

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	143.1	75.82	52.97	34-100
$ 60 Dibenzo(a,h)anthra	143.1	96.57	67.47	10-117

Data File: /chem3/nt11.i/20121119.b/11191219.d
Date : 19-NOV-2012 20:56
Client ID: HT-09-S-C-121106
Sample Info: VR38G
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

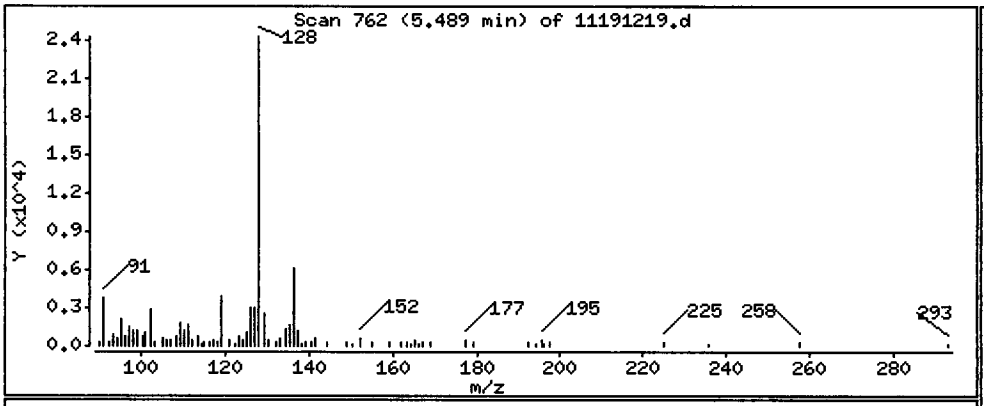
Operator: JZ

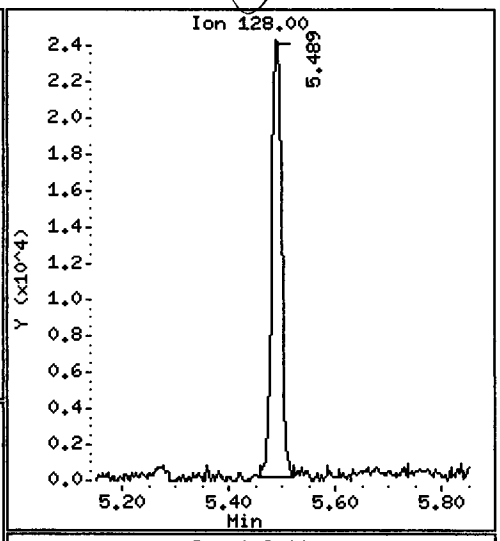
Column phase: ZB-5msi

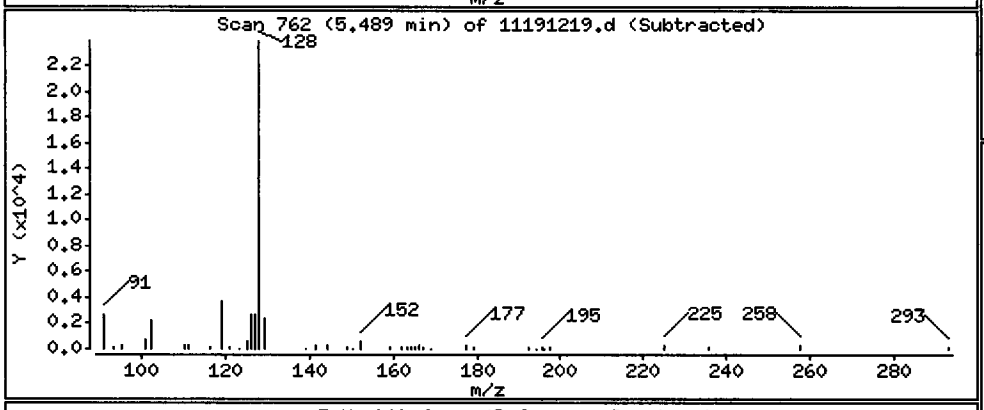
Column diameter: 0.25

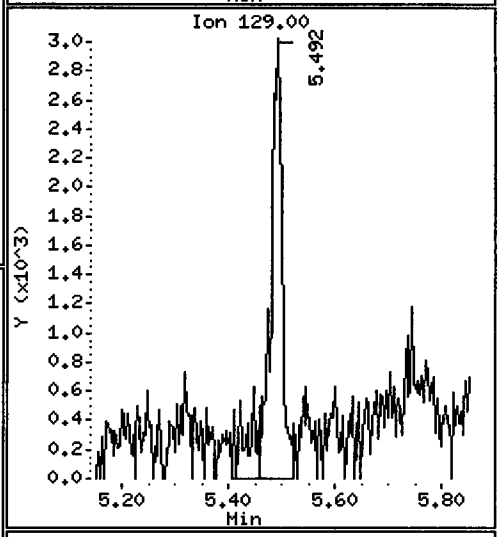
7 Naphthalene

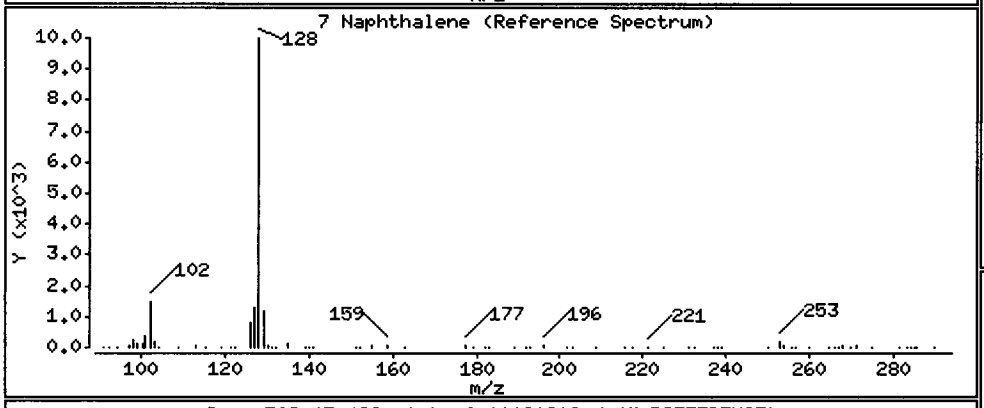
Concentration: 4.156 ug/kg

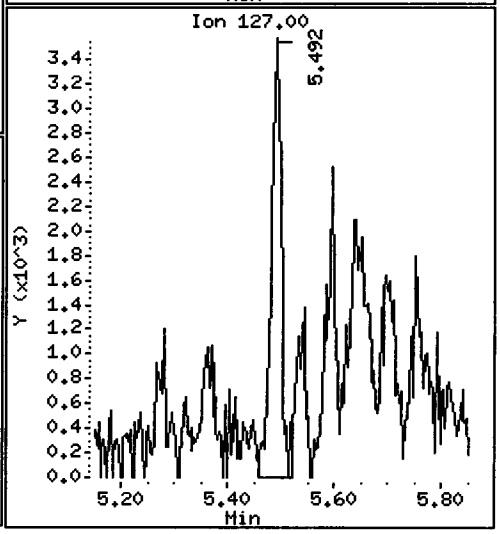


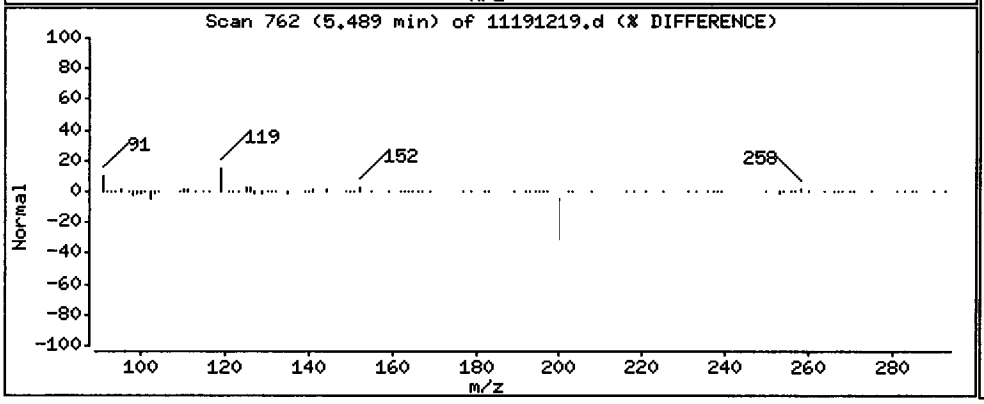












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

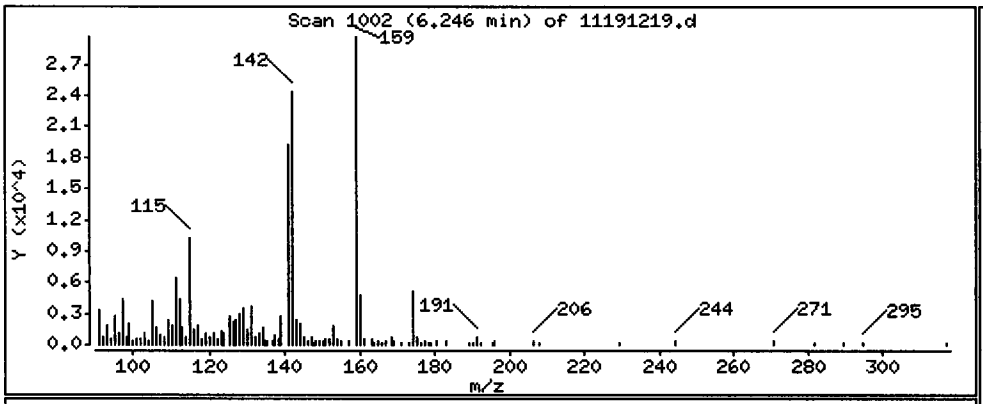
Client ID: HT-09-S-C-121106 Instrument: nt11.i

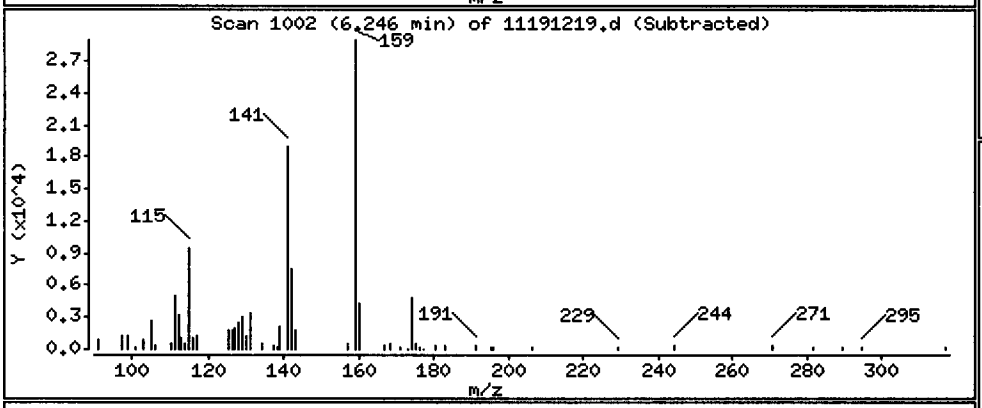
Sample Info: VR38G

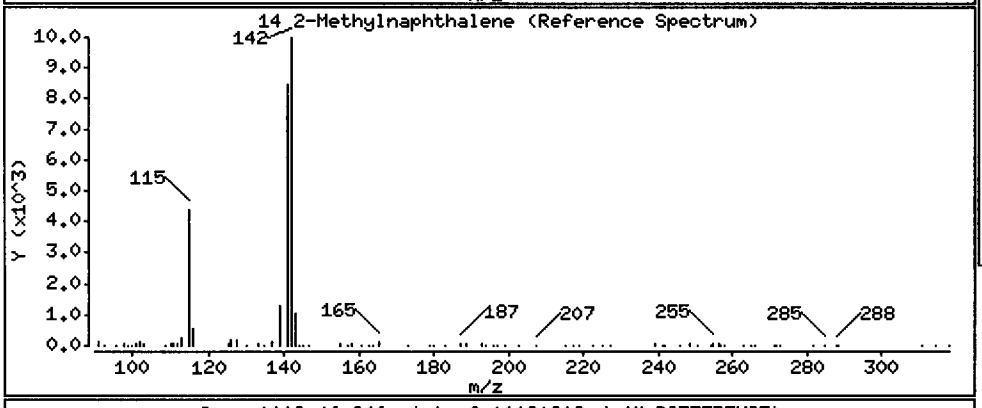
Volume Injected (uL): 1.0 Operator: JZ

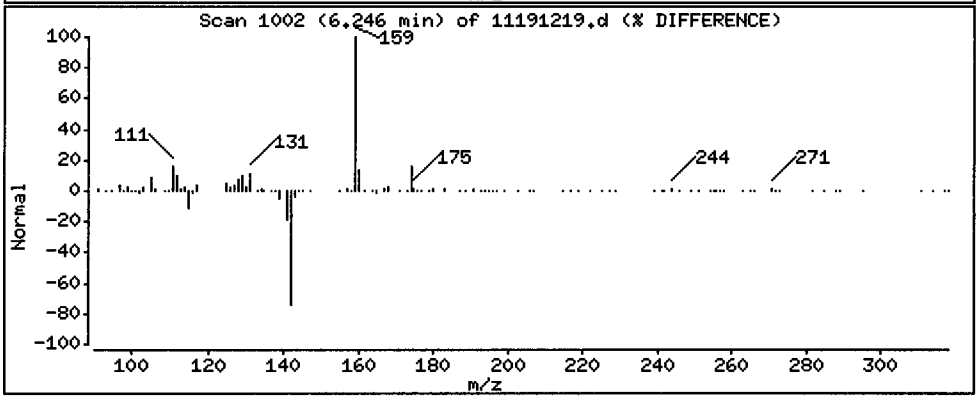
Column phase: ZB-5msi Column diameter: 0.25

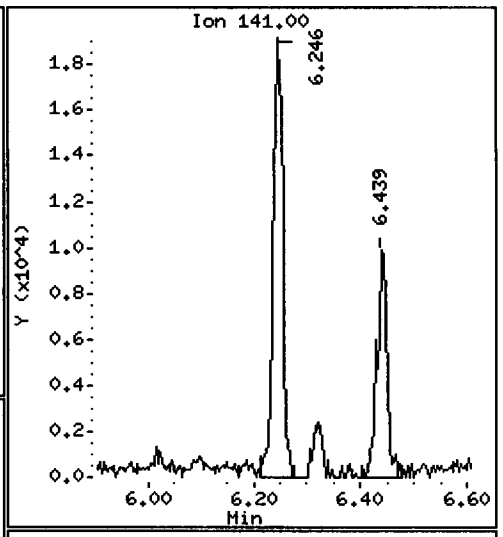
14 2-Methylnaphthalene Concentration: 5.782 ug/kg

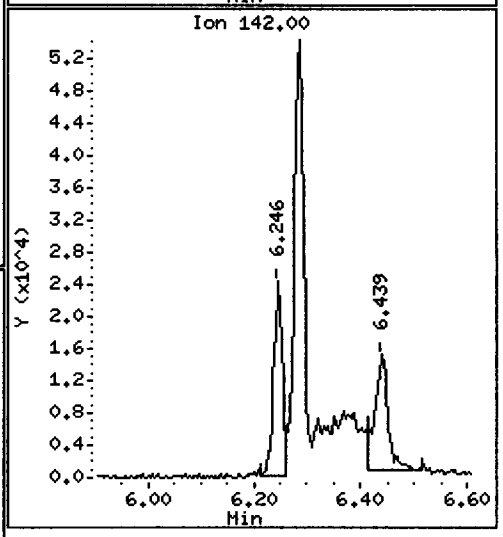












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

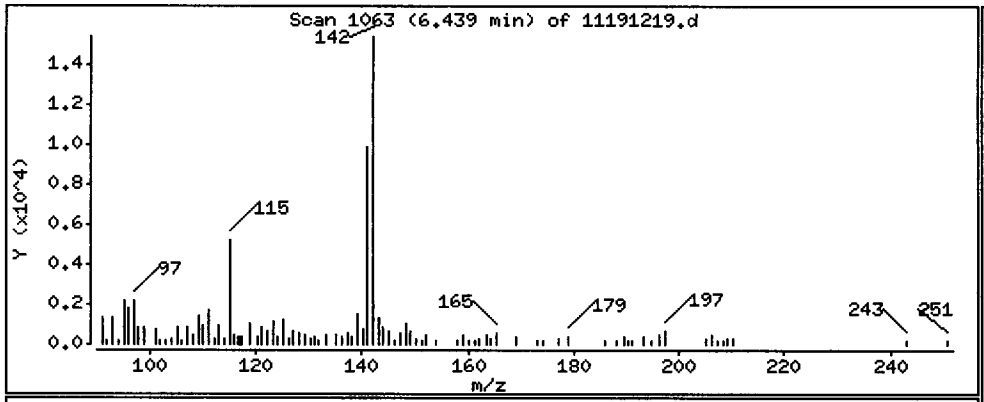
Client ID: HT-09-S-C-121106 Instrument: nt11.i

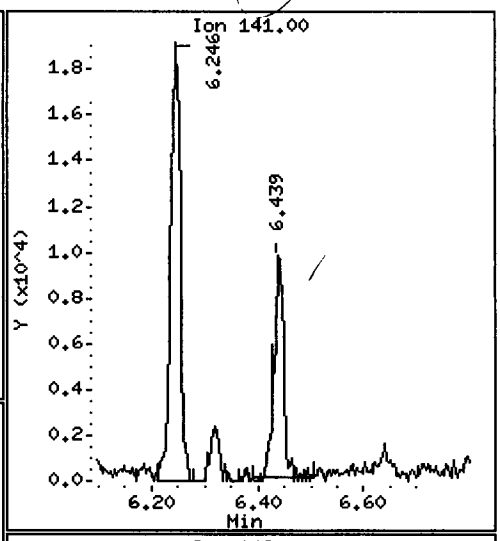
Sample Info: VR38G

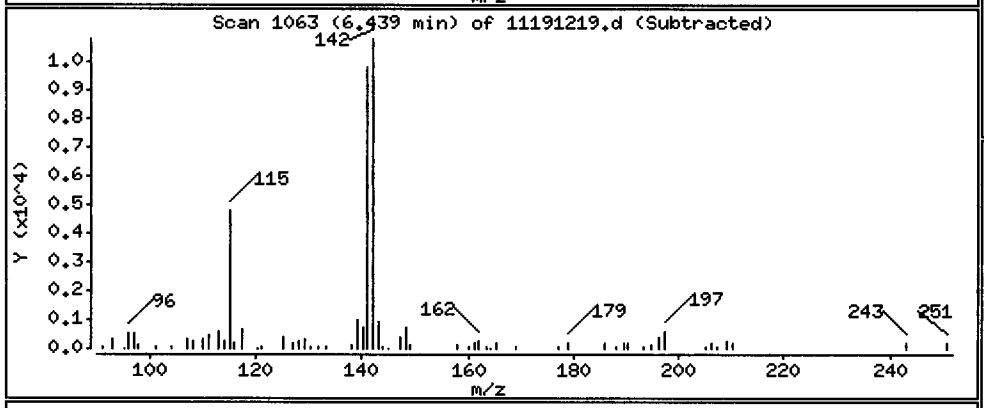
Volume Injected (uL): 1.0 Operator: JZ

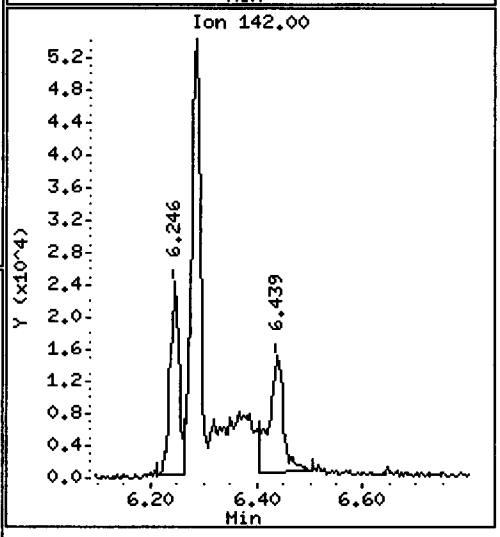
Column phase: ZB-5msi Column diameter: 0.25

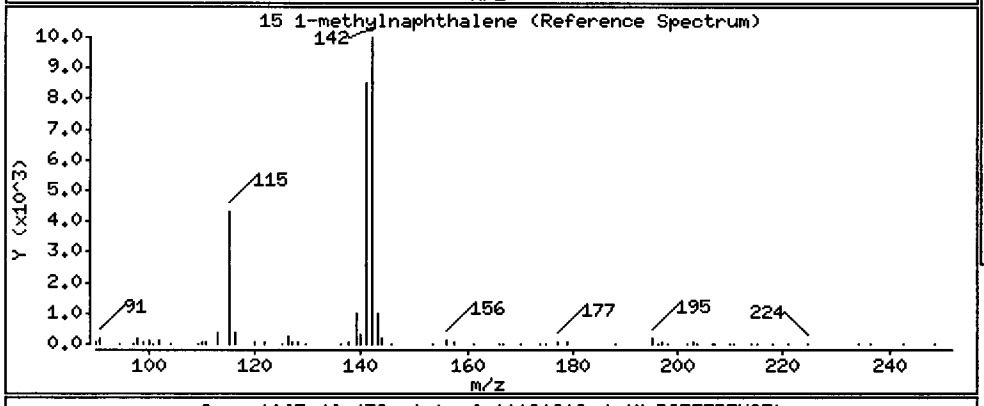
15 1-methylnaphthalene Concentration: 3.041 ug/kg

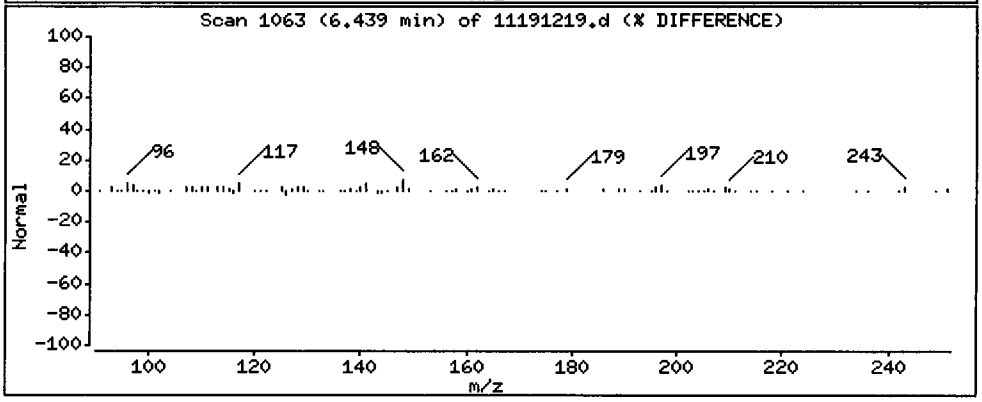












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

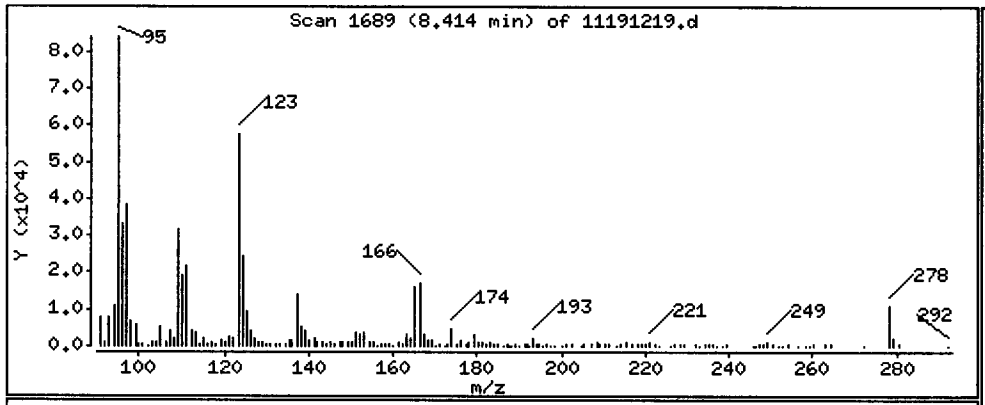
Operator: JZ

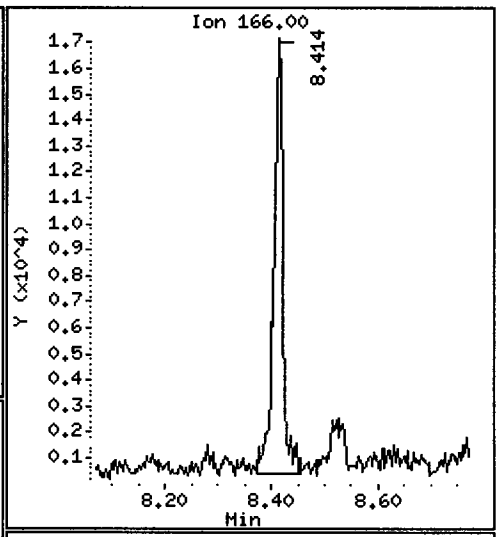
Column phase: ZB-5msi

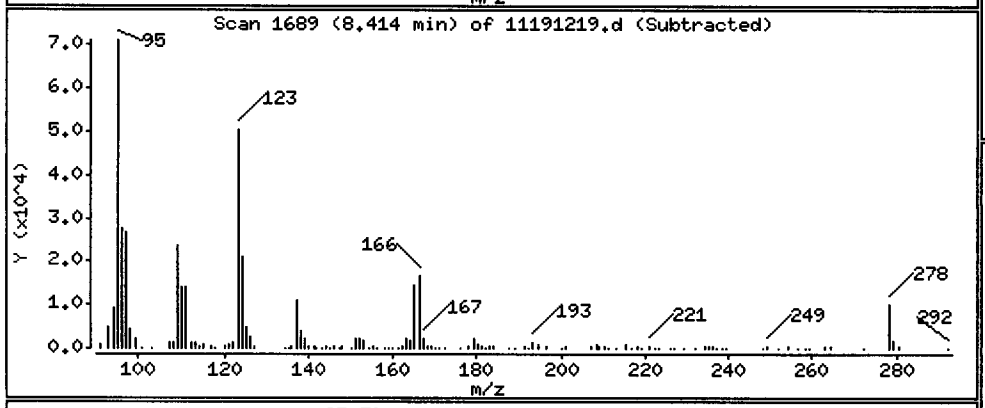
Column diameter: 0.25

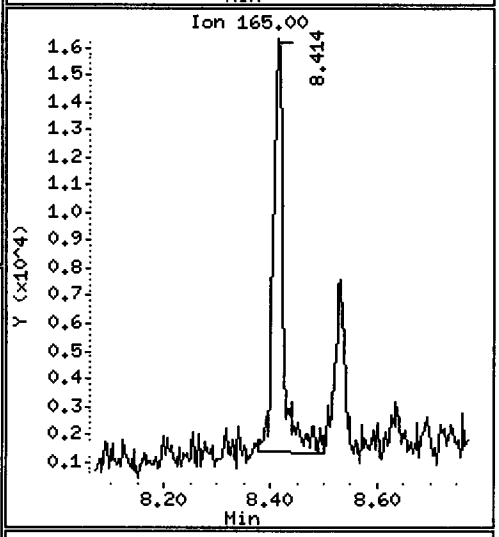
25 Fluorene

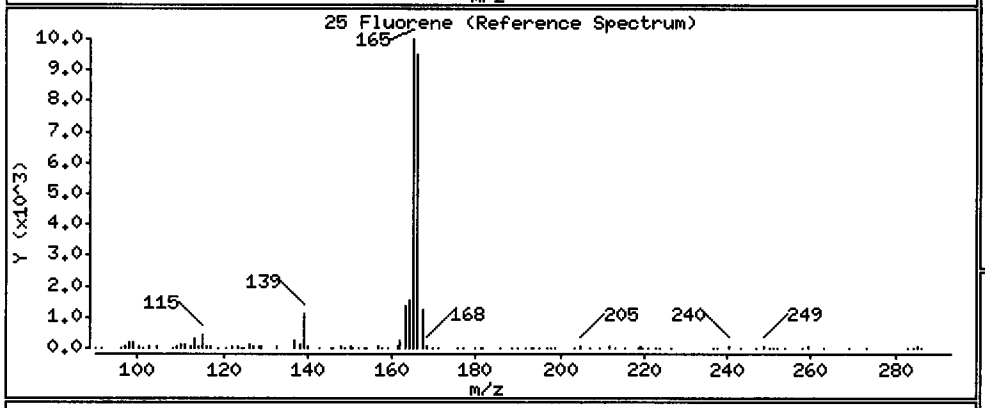
Concentration: 4.131 ug/kg

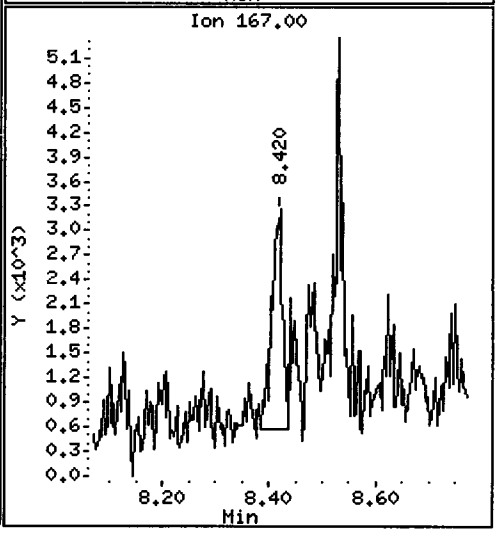


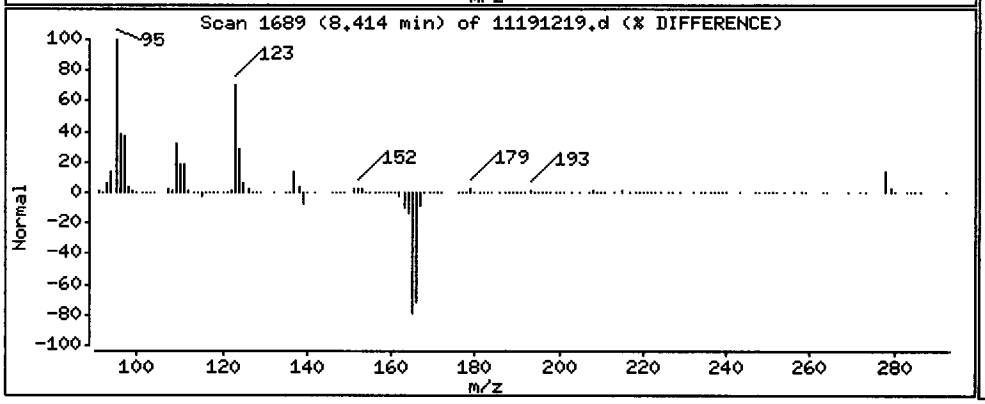












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

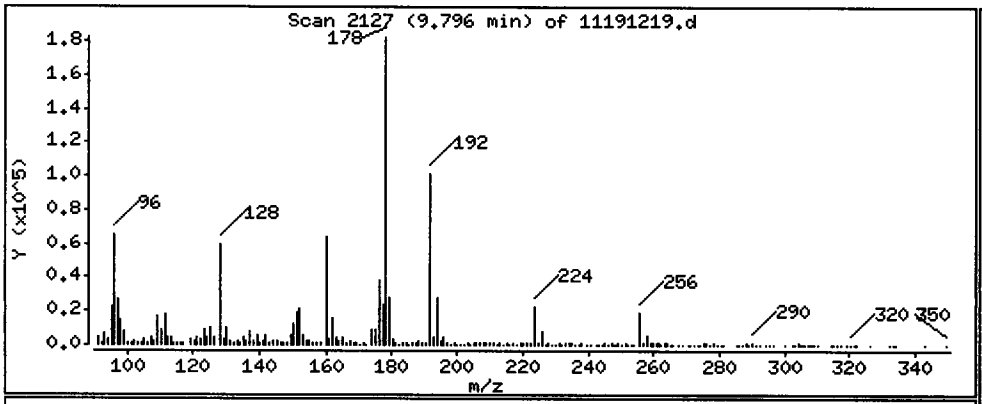
Operator: JZ

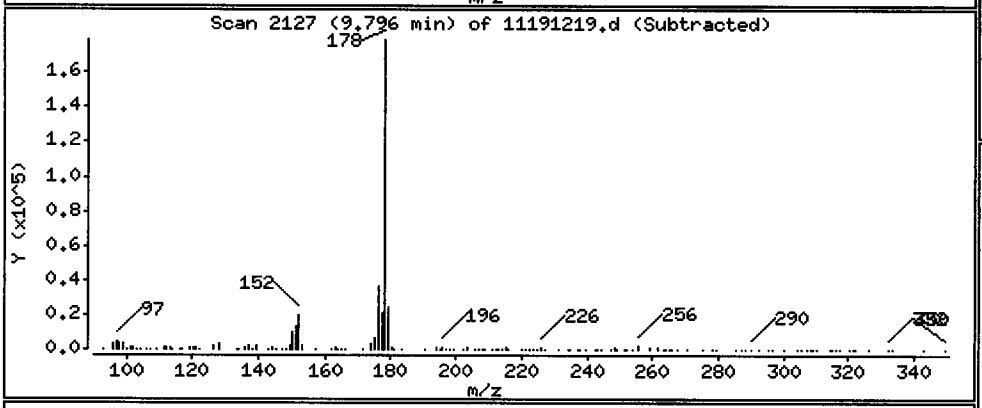
Column phase: ZB-5msi

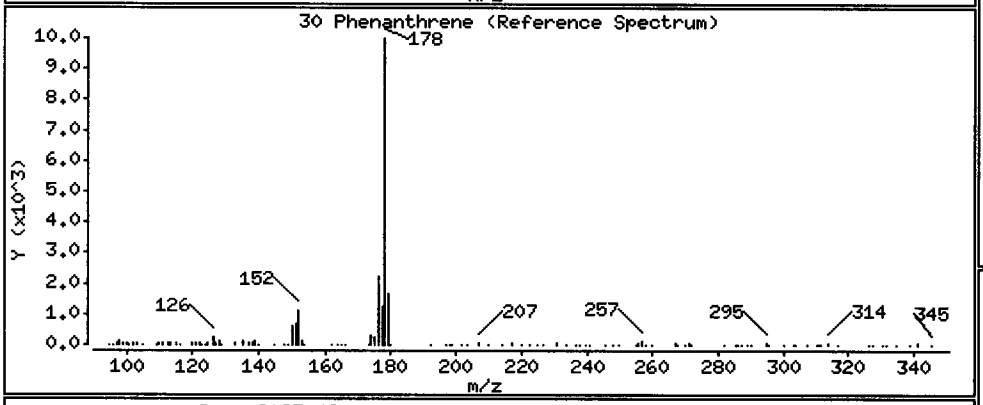
Column diameter: 0.25

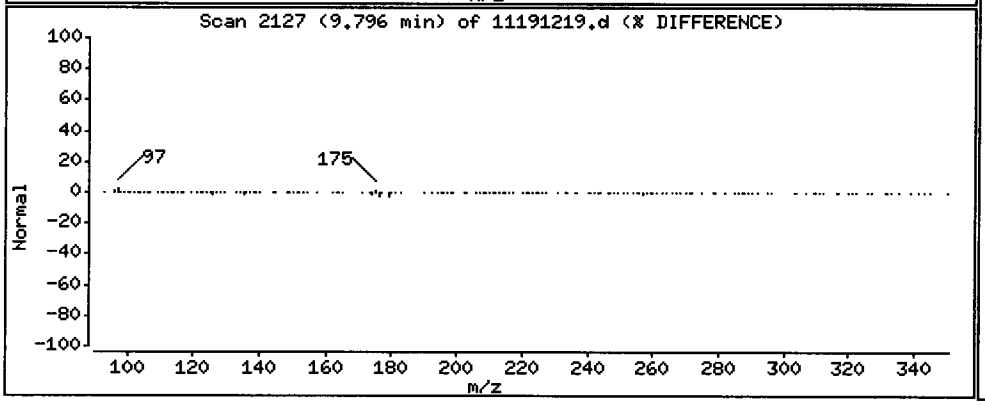
30 Phenanthrene

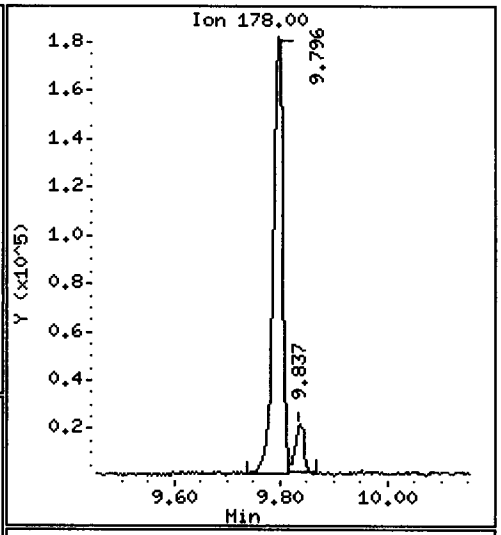
Concentration: 34.33 ug/kg

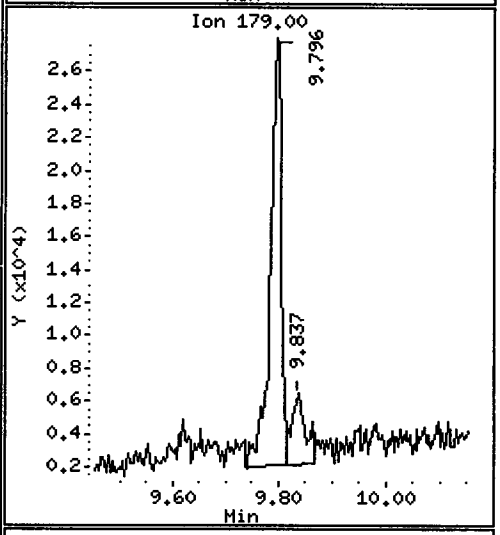


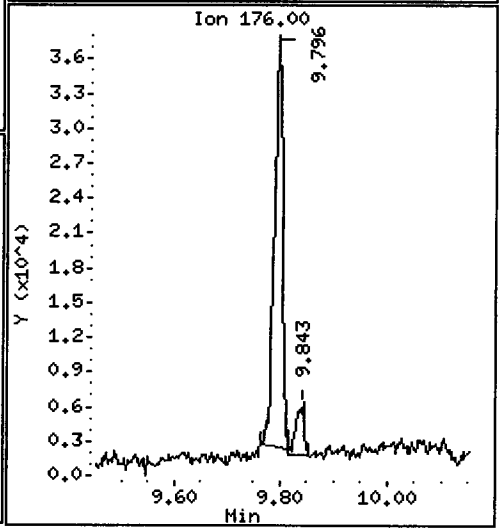












VR38 : 00000

Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

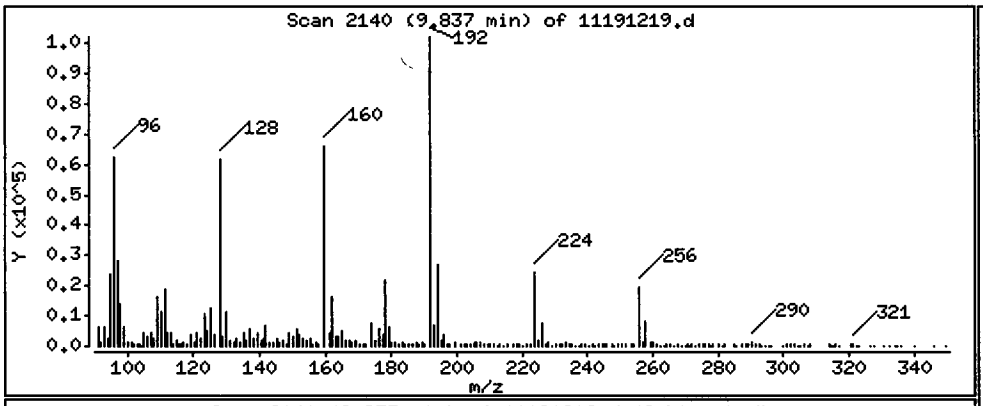
Operator: JZ

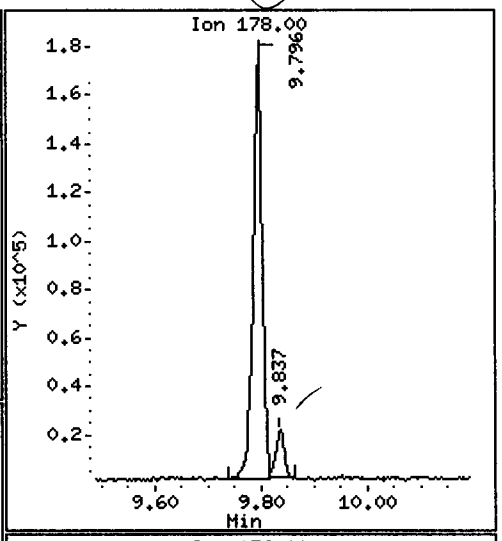
Column phase: ZB-5msi

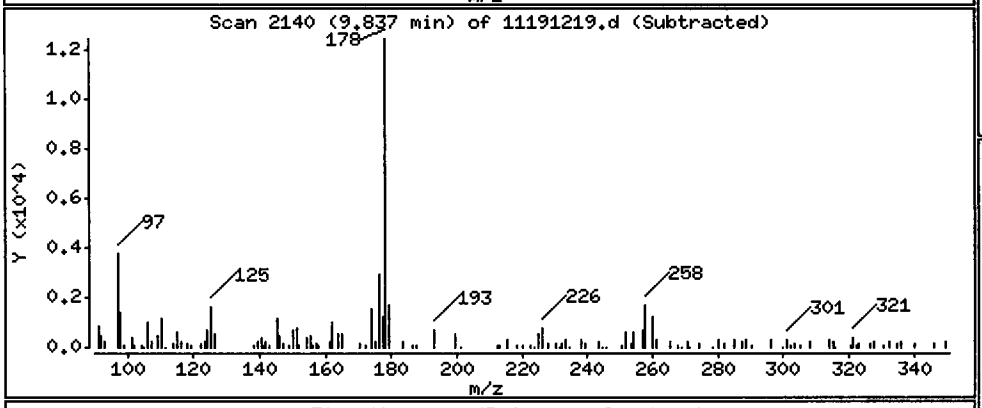
Column diameter: 0.25

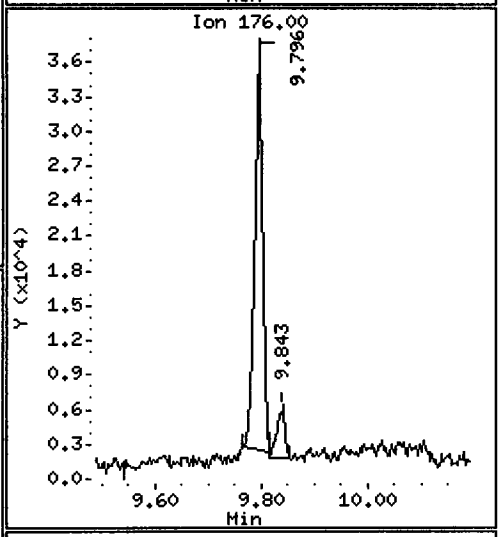
31 Anthracene

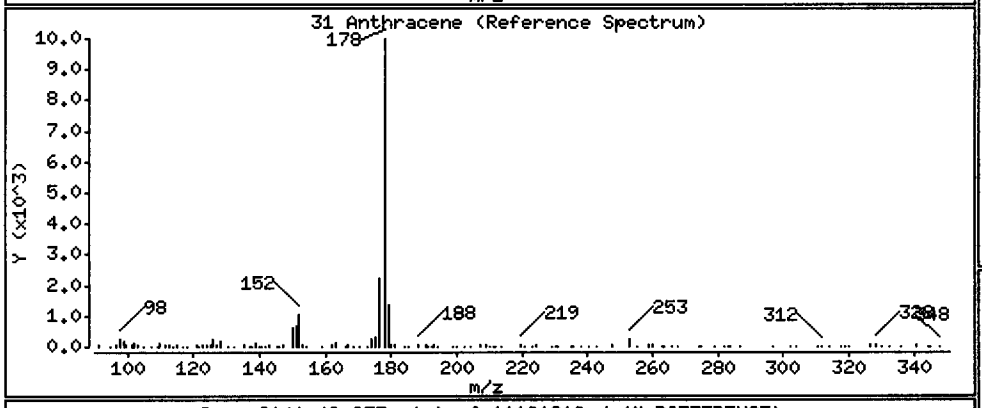
Concentration: 3.737 ug/kg

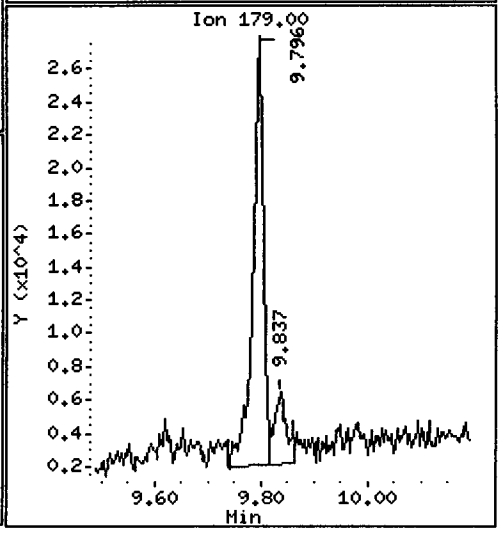


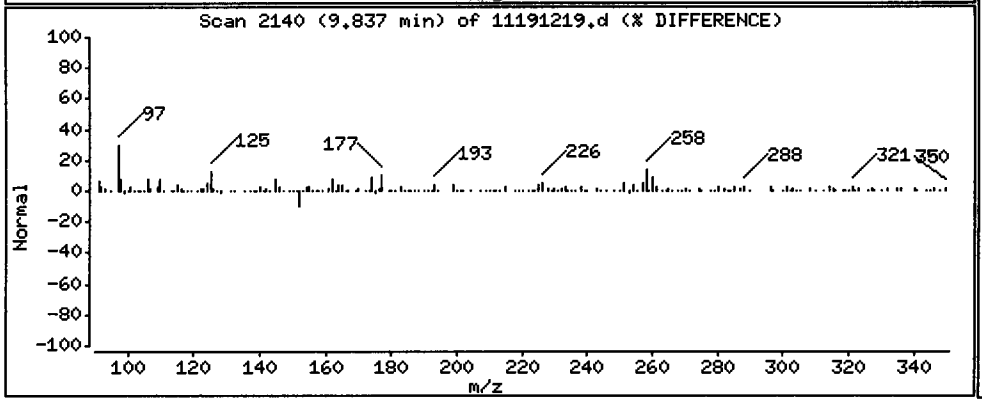












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

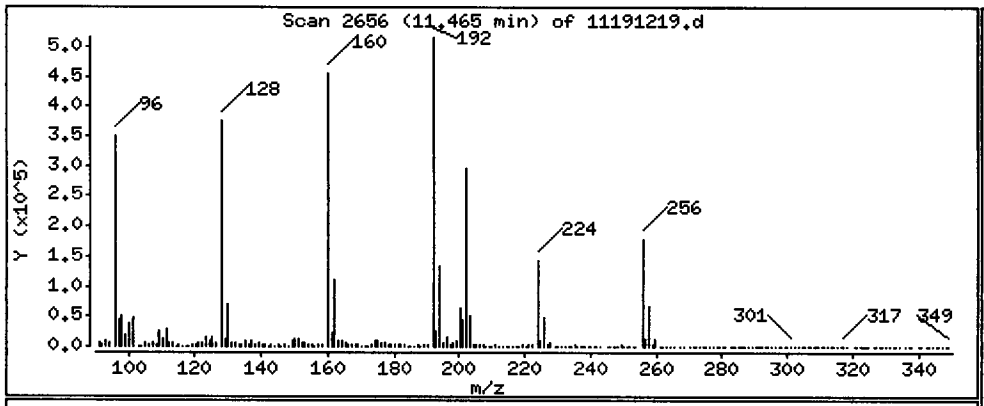
Operator: JZ

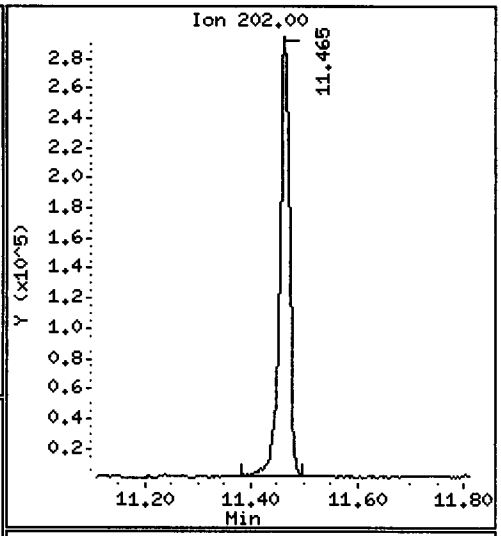
Column phase: ZB-5msi

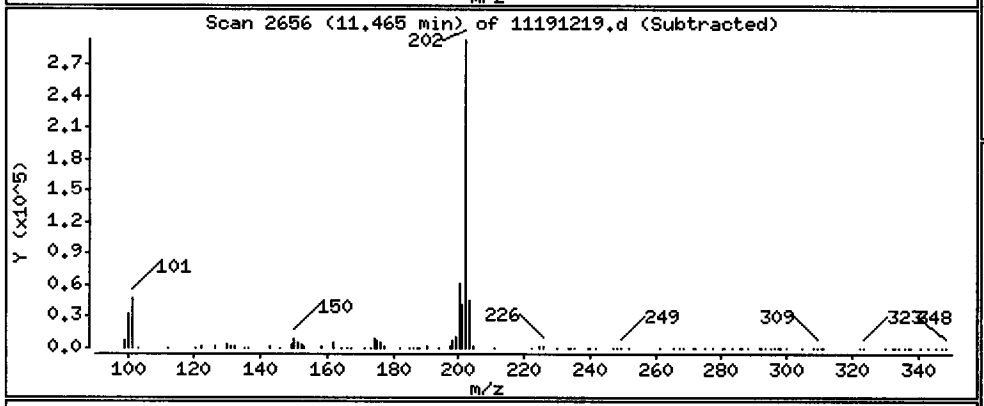
Column diameter: 0.25

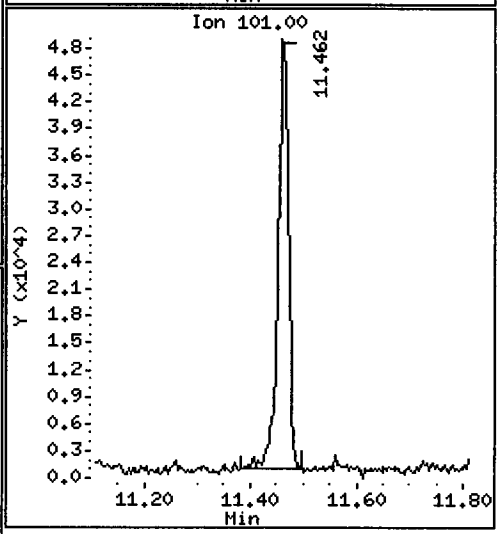
36 Fluoranthene

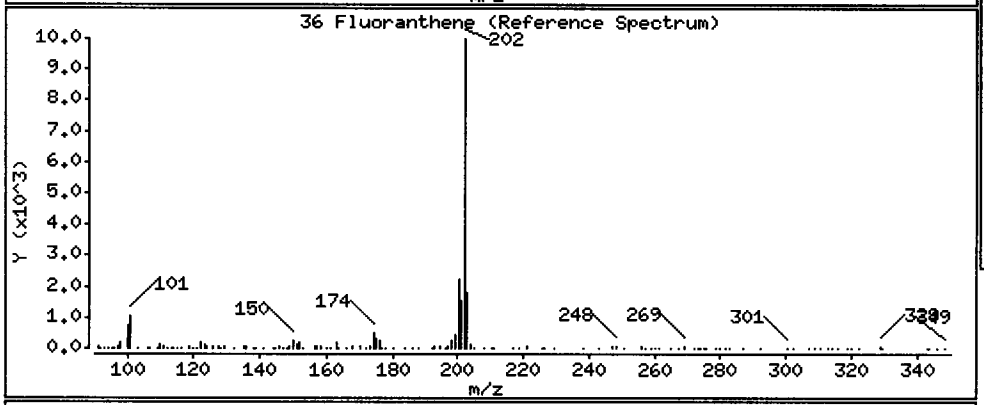
Concentration: 60.25 ug/kg

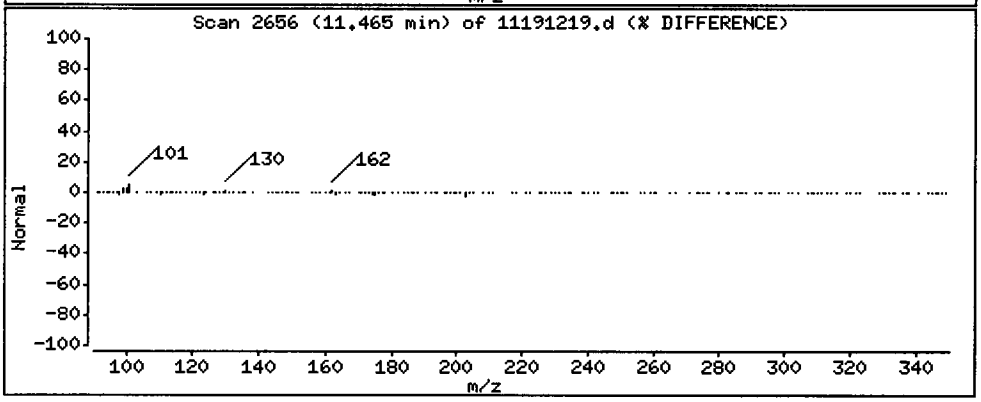












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

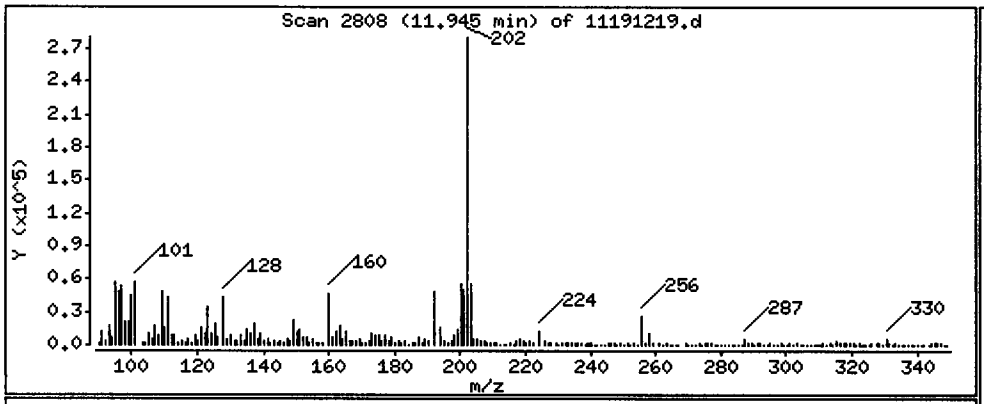
Operator: JZ

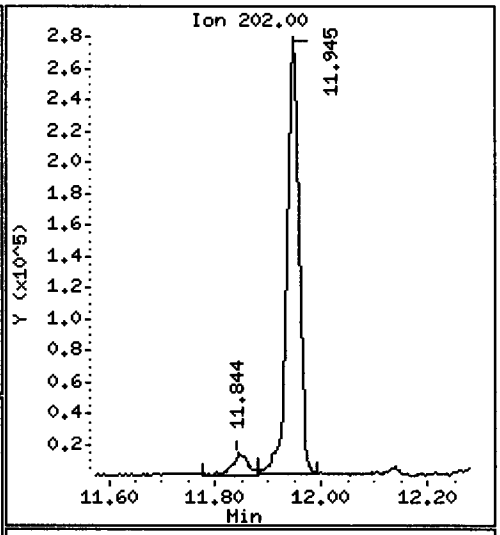
Column phase: ZB-5msi

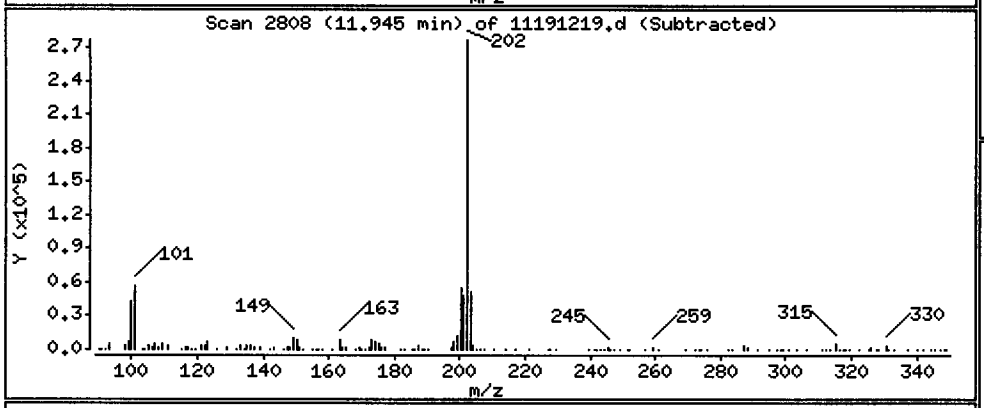
Column diameter: 0.25

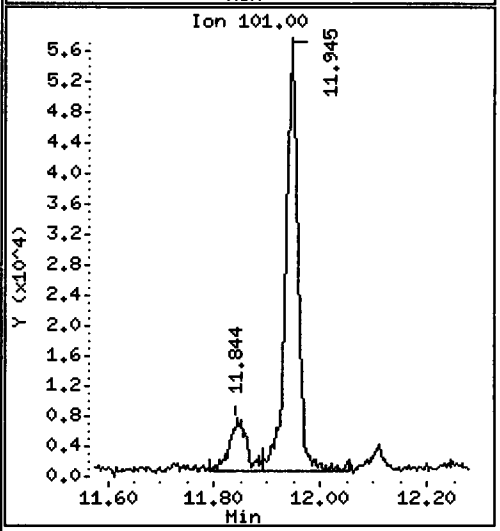
39 Pyrene

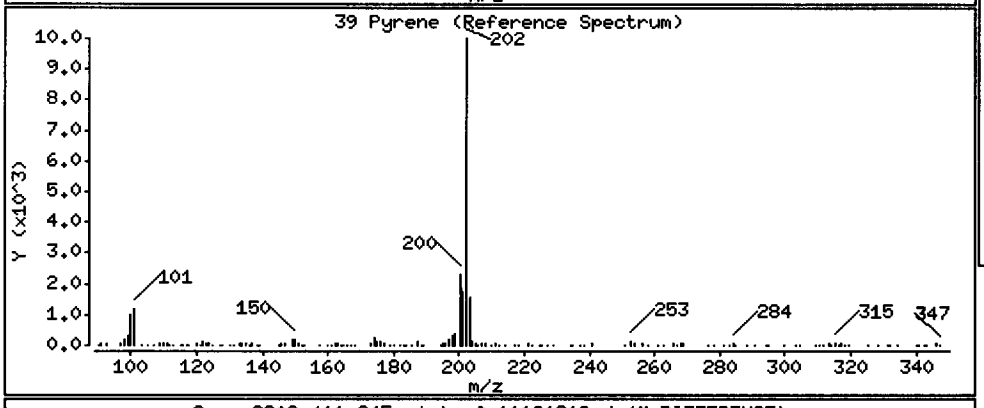
Concentration: 67.55 ug/kg

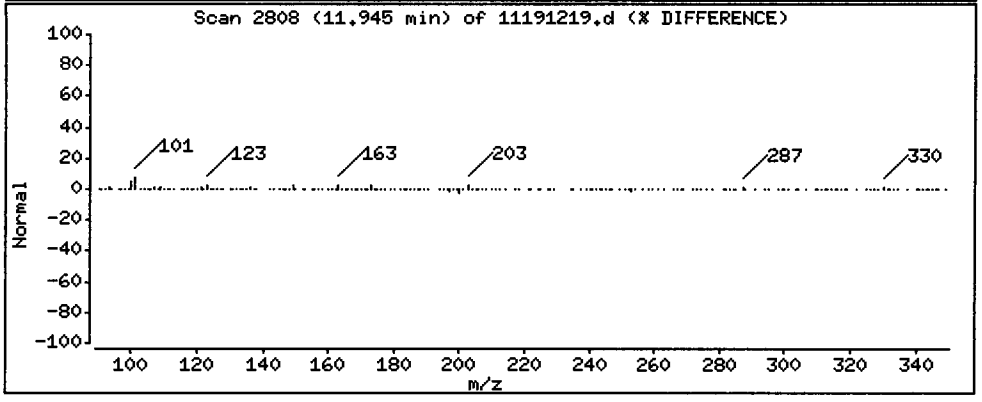












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

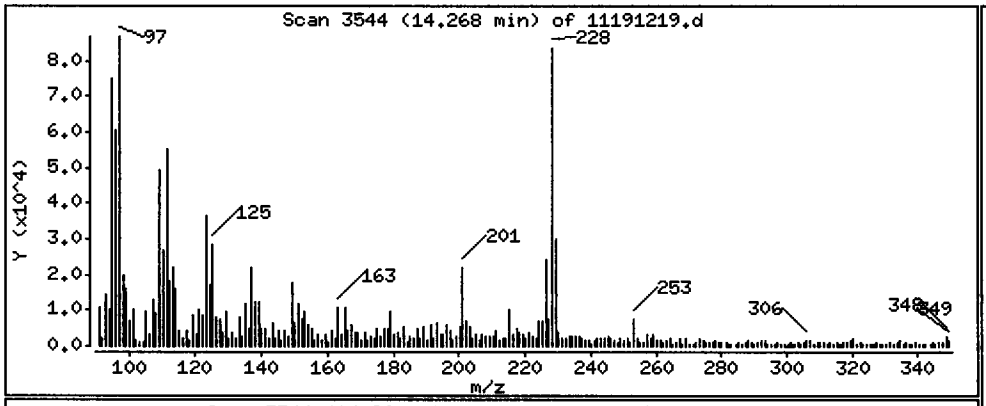
Operator: JZ

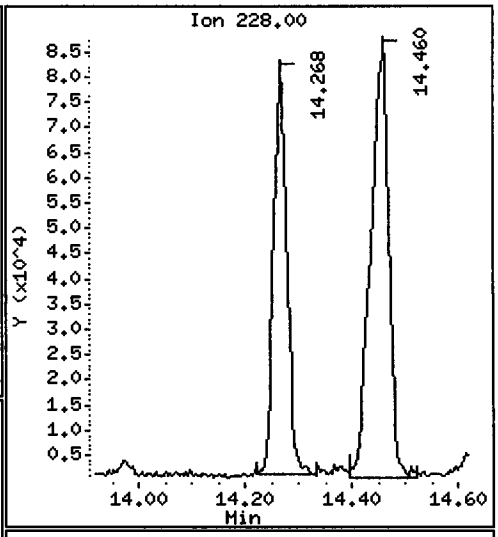
Column phase: ZB-5msi

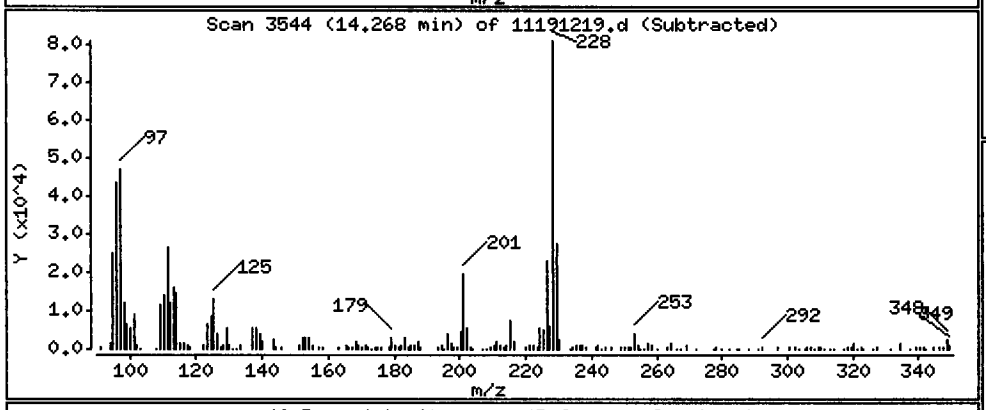
Column diameter: 0.25

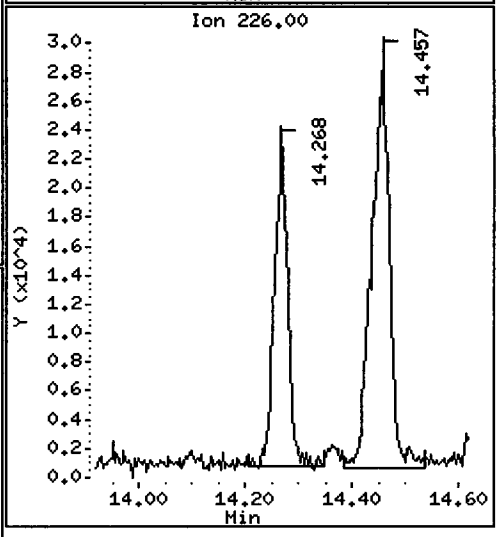
46 Benzo(a)anthracene

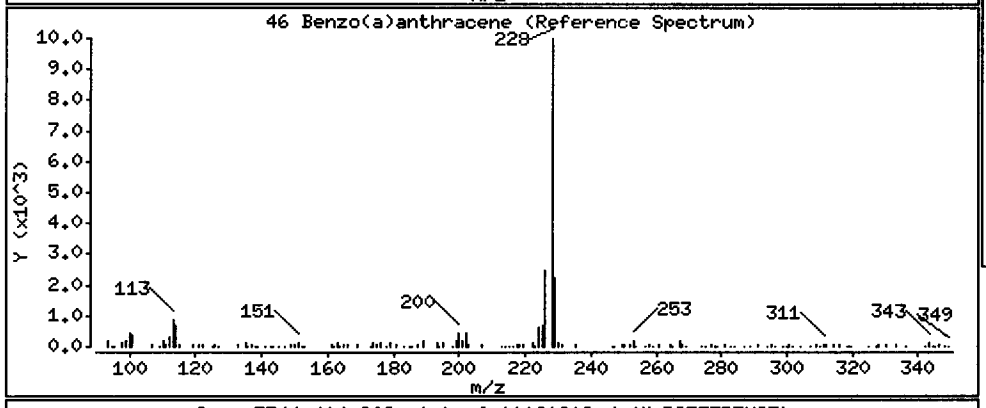
Concentration: 23.47 ug/kg

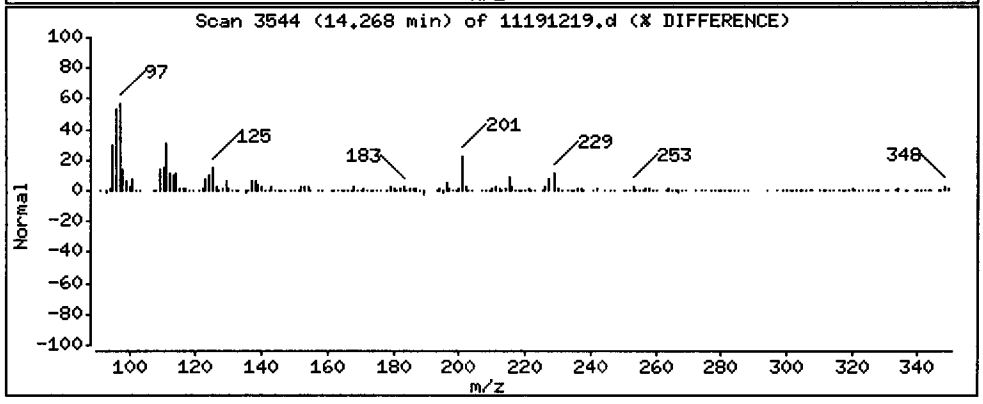












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

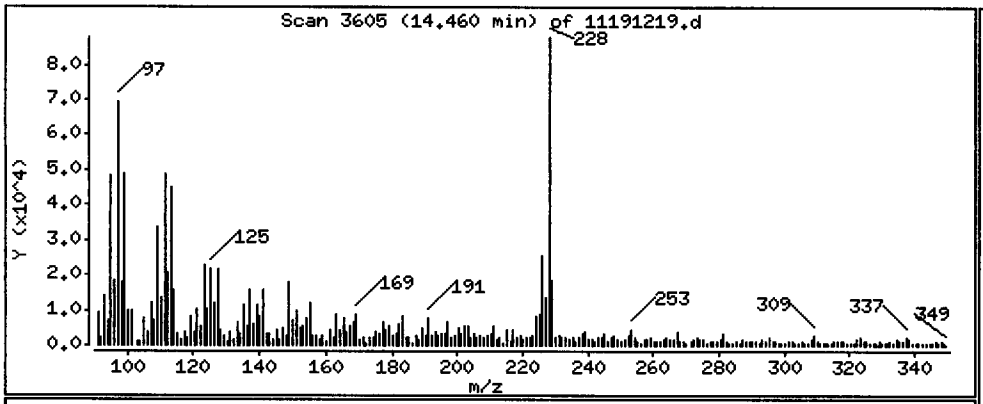
Operator: JZ

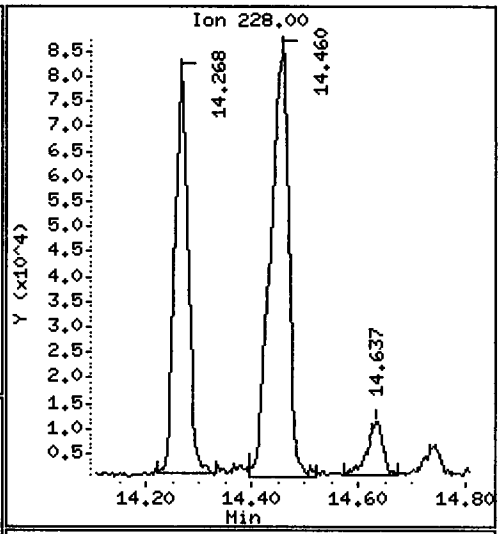
Column phase: ZB-5msi

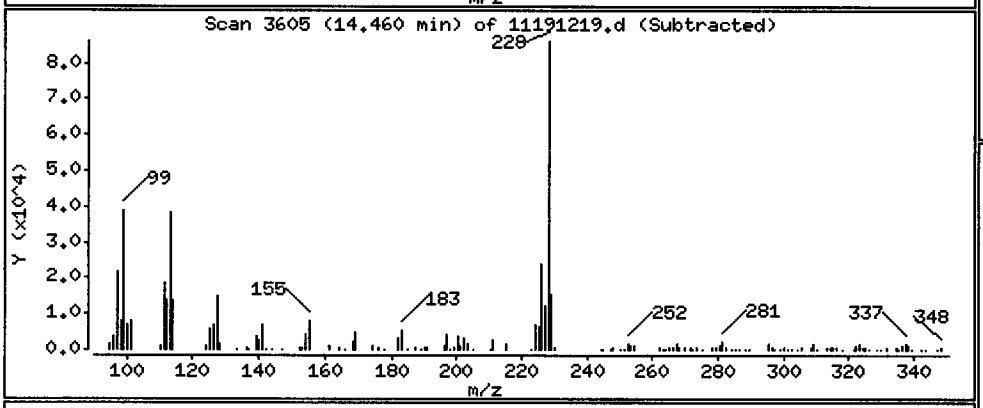
Column diameter: 0.25

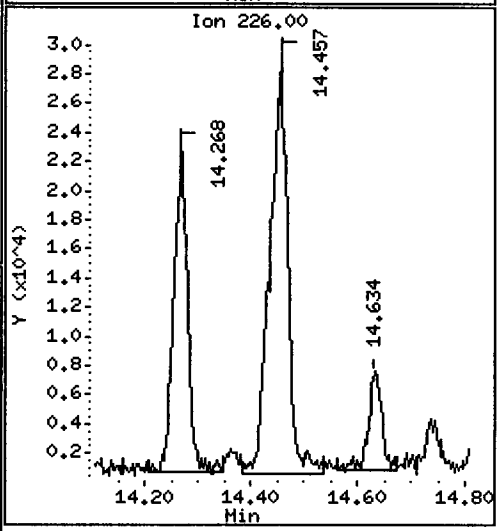
48 Chrysene

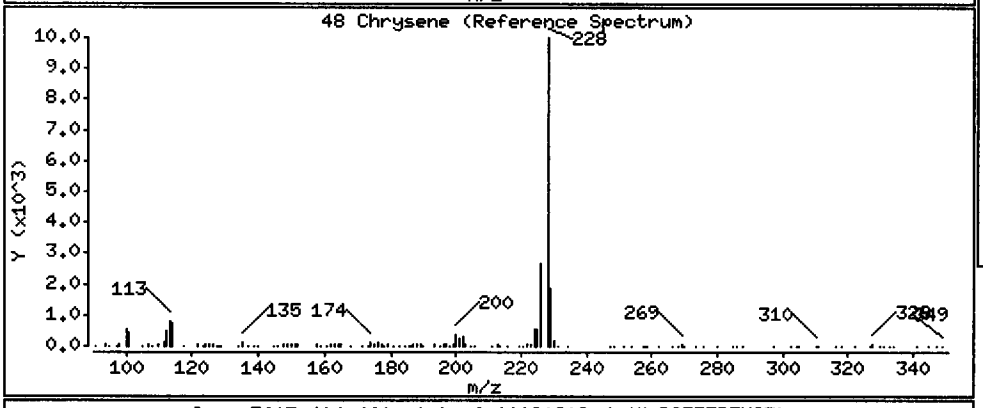
Concentration: 35.28 ug/kg

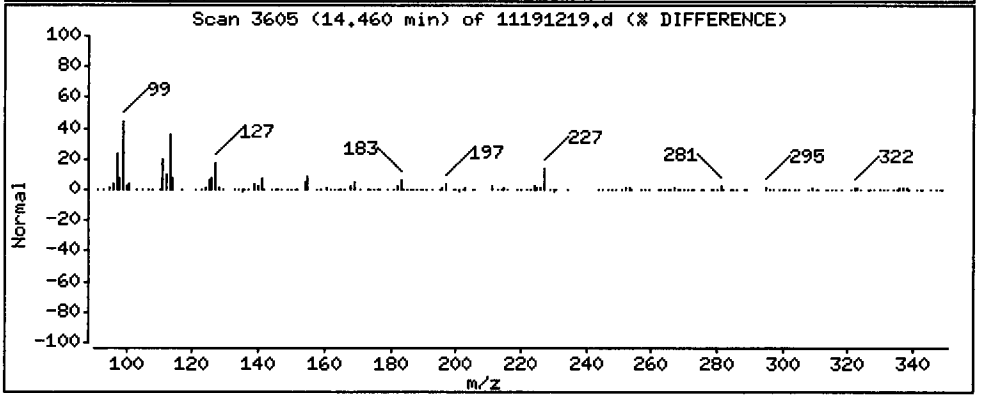












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

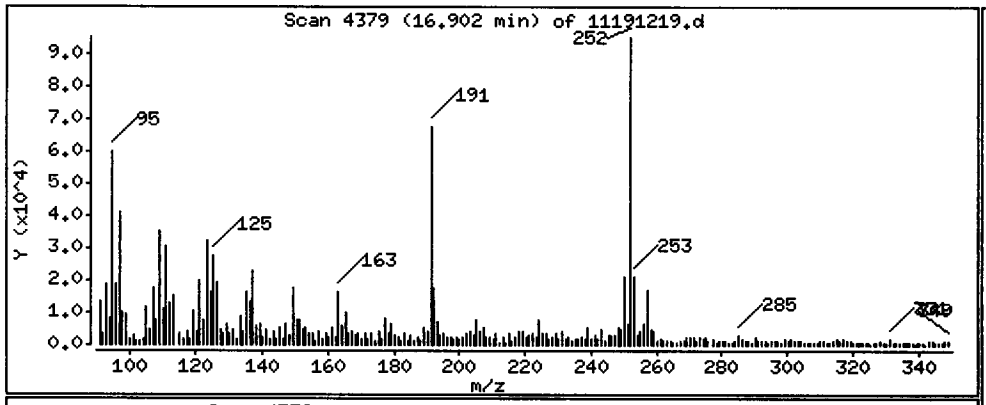
Operator: JZ

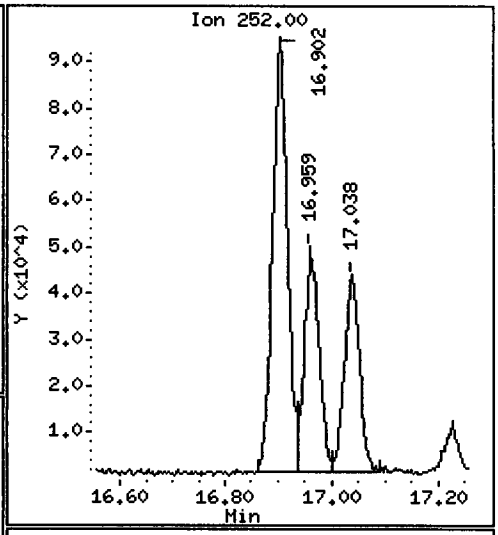
Column phase: ZB-5ms1

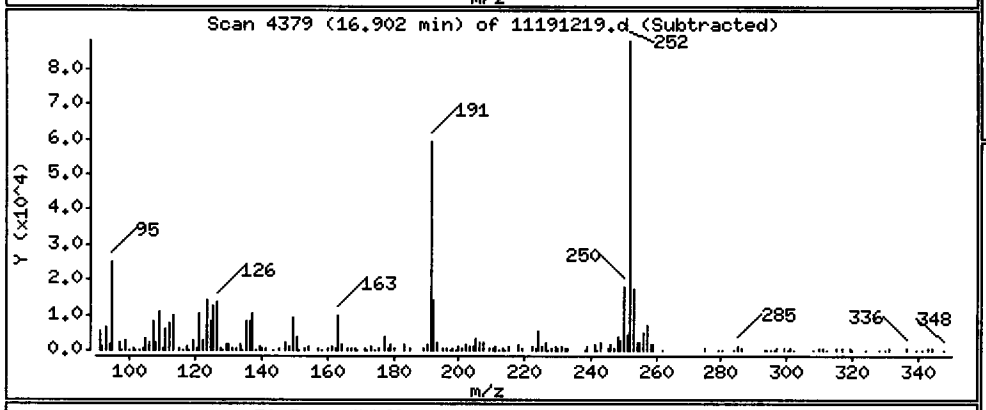
Column diameter: 0.25

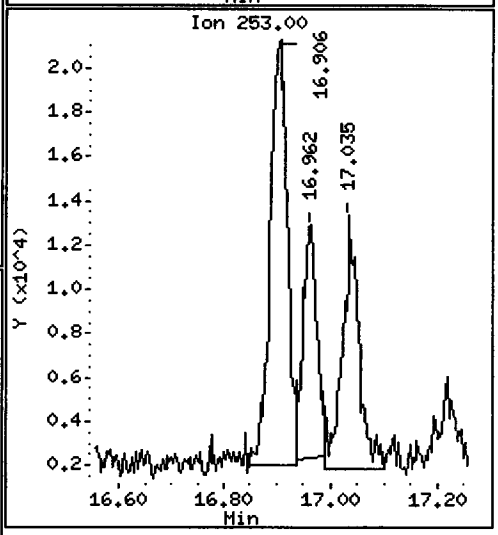
51 Benzo(b)fluoranthene

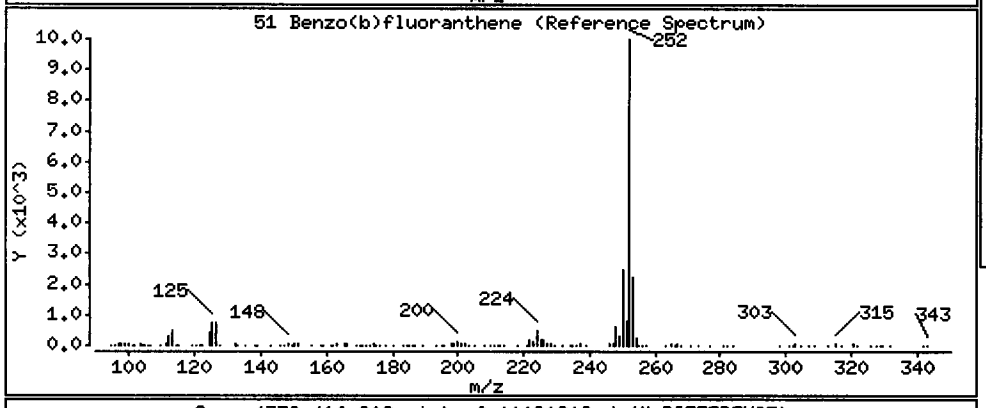
Concentration: 34.27 ug/kg

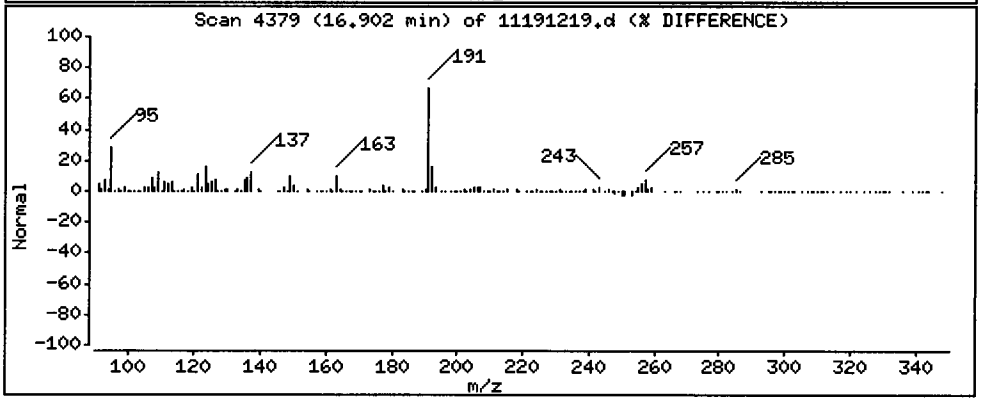












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

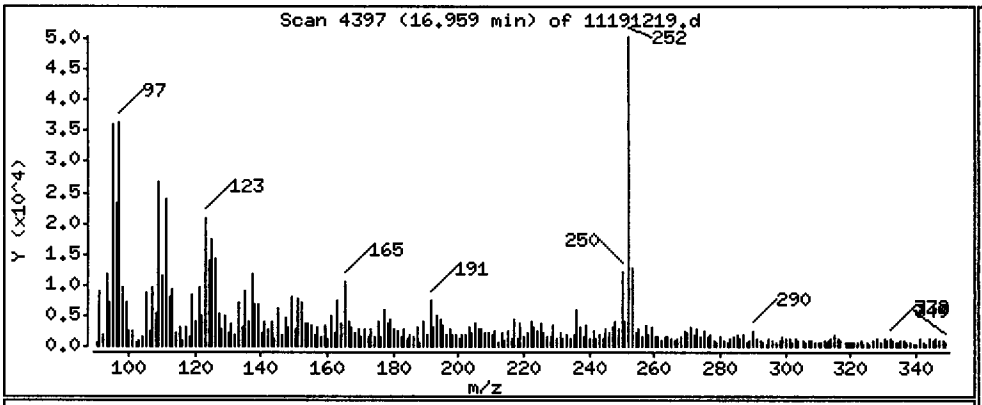
Operator: JZ

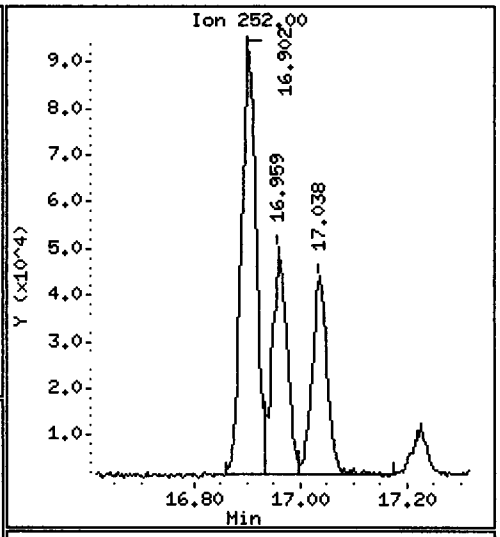
Column phase: ZB-5msi

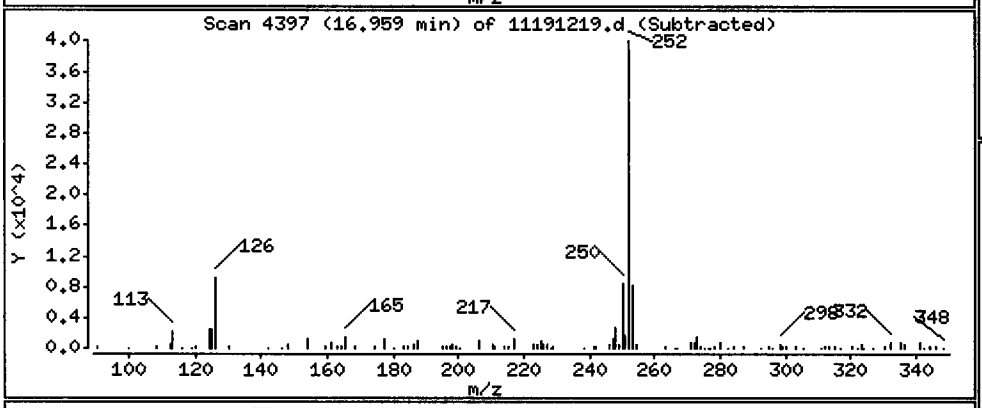
Column diameter: 0.25

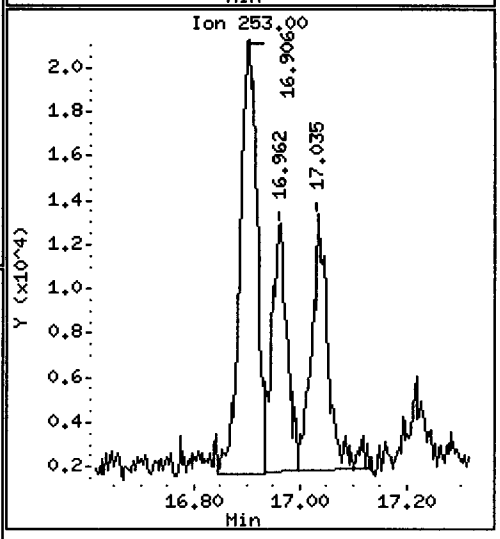
52 Benzo(k)fluoranthene

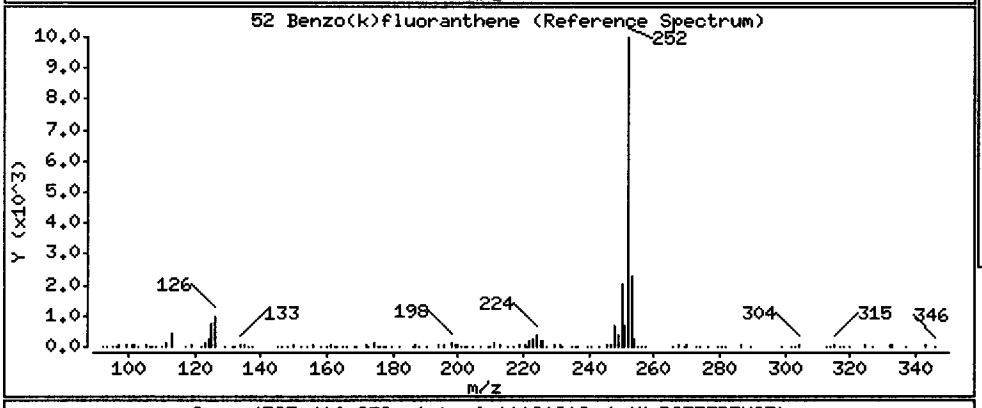
Concentration: 16.31 ug/kg

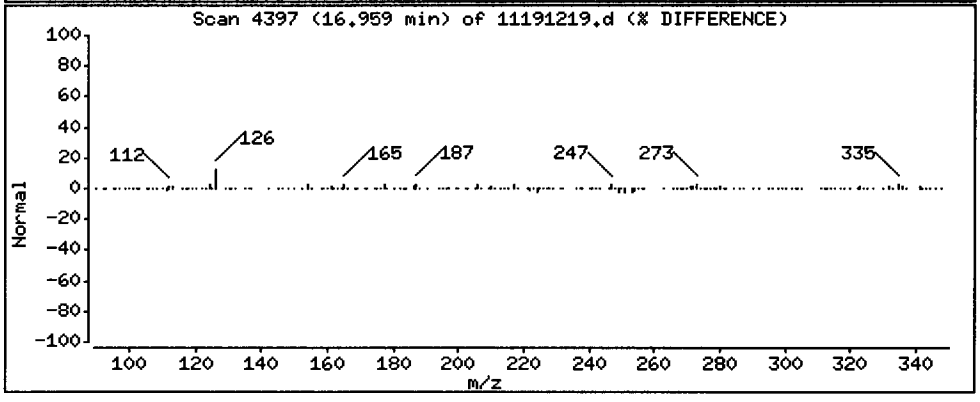












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

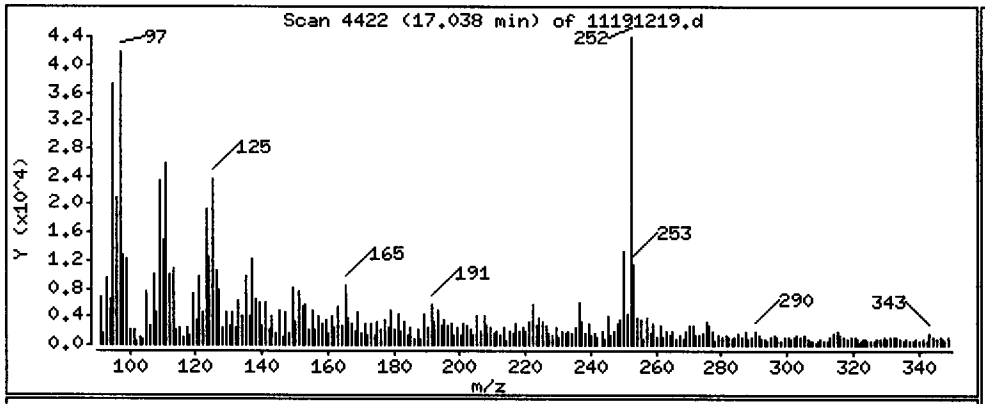
Operator: JZ

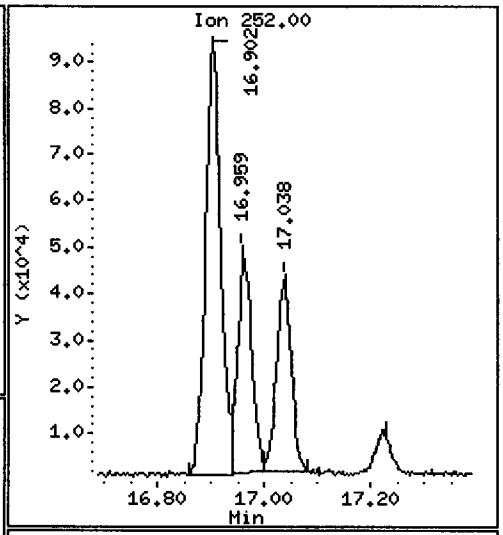
Column phase: ZB-5msi

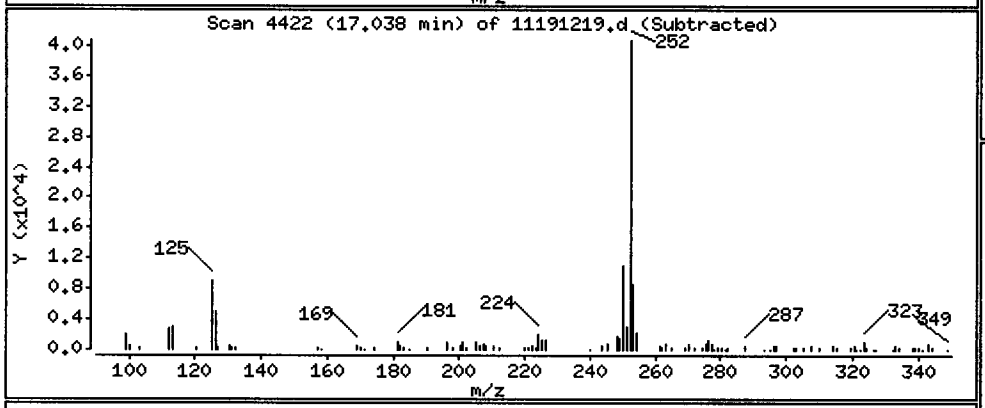
Column diameter: 0.25

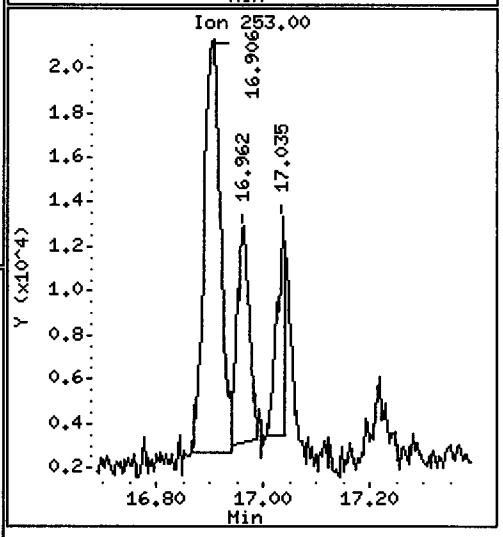
251 Benzo(j)fluoranthene

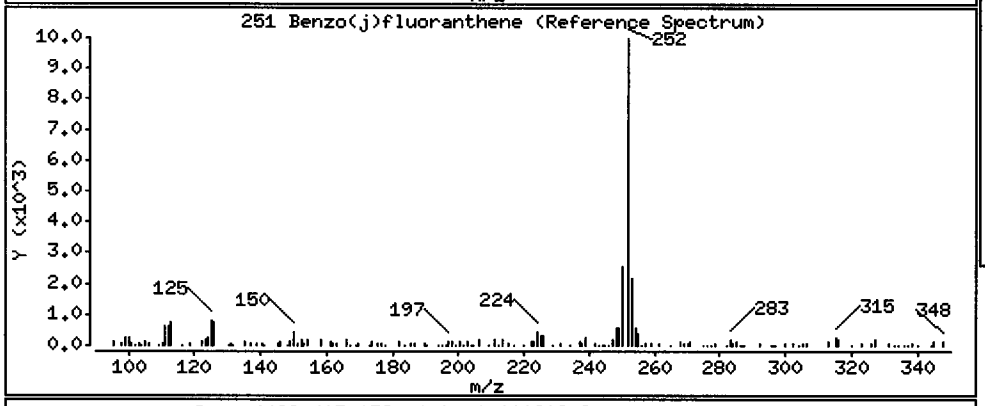
Concentration: 13.43 ug/kg

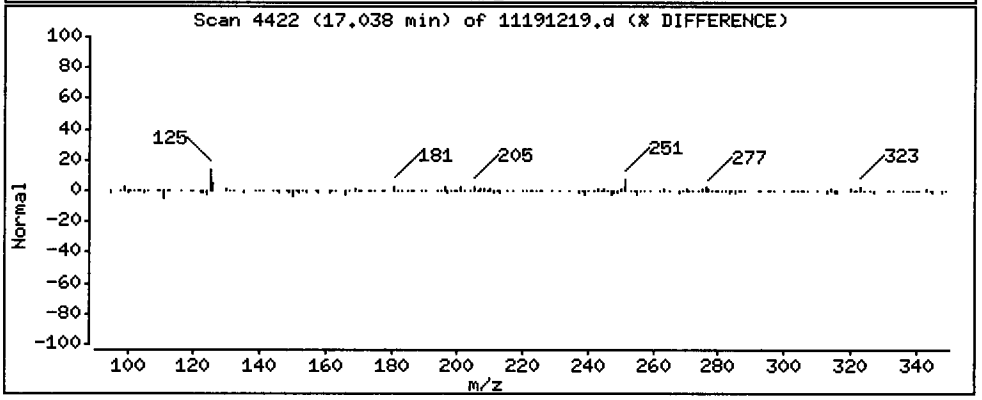












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

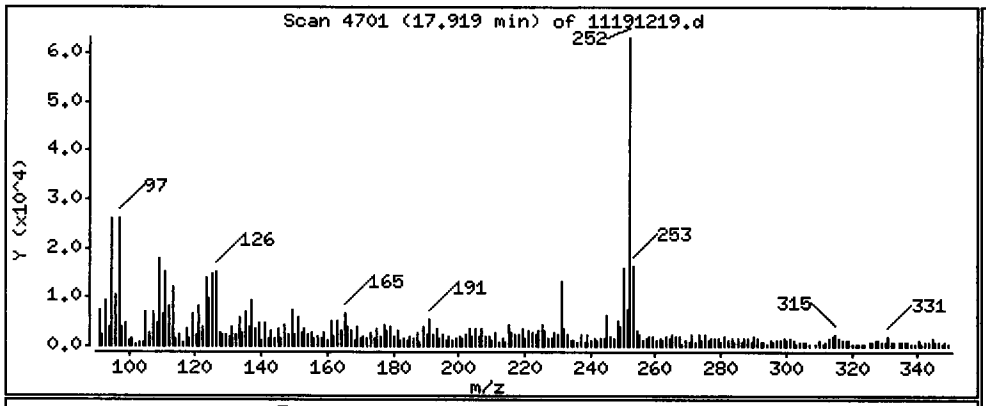
Operator: JZ

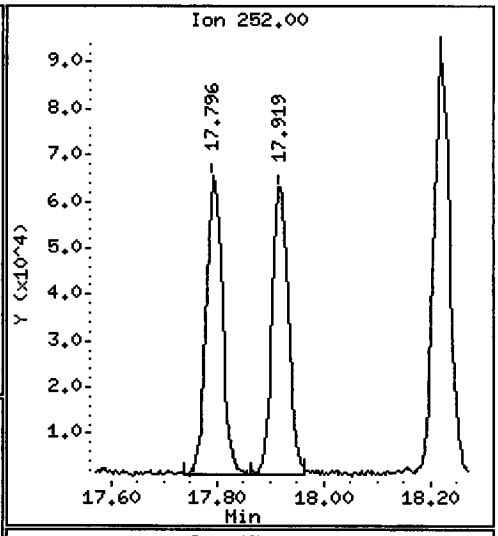
Column phase: ZB-5msi

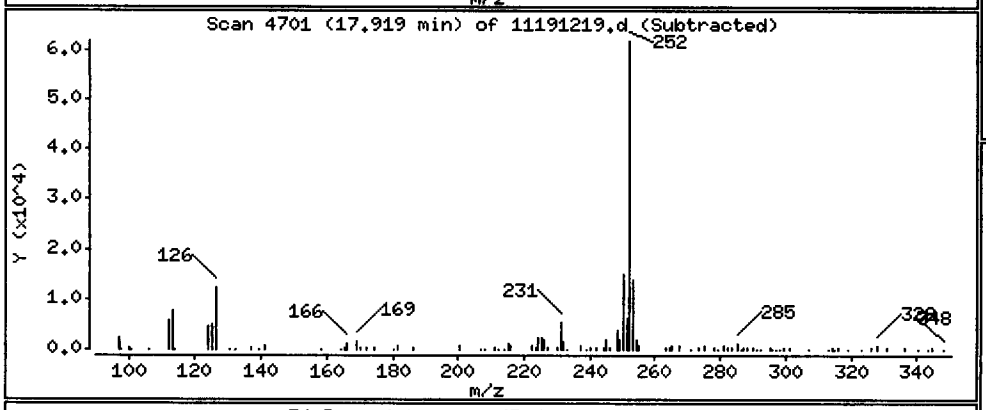
Column diameter: 0.25

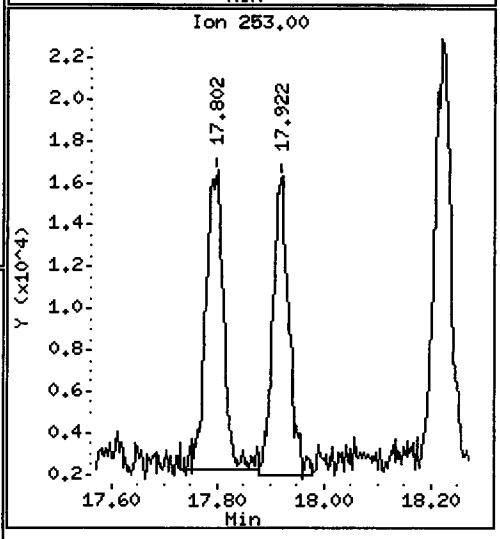
54 Benzo(a)pyrene

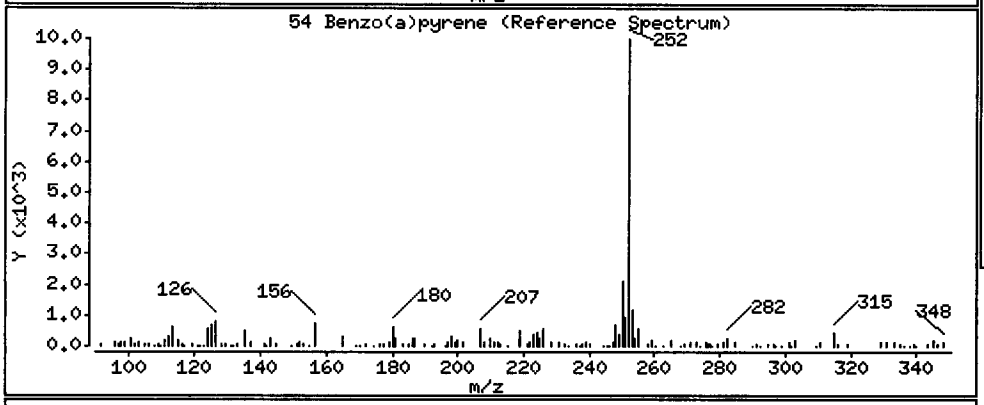
Concentration: 24.55 ug/kg

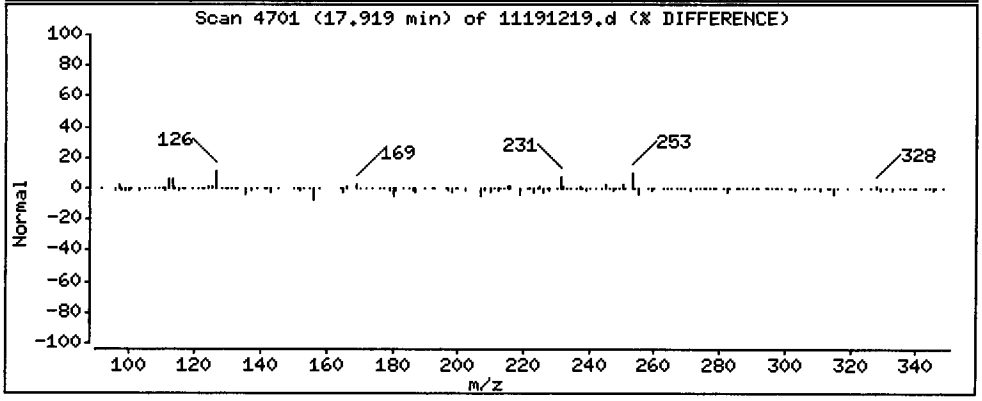












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

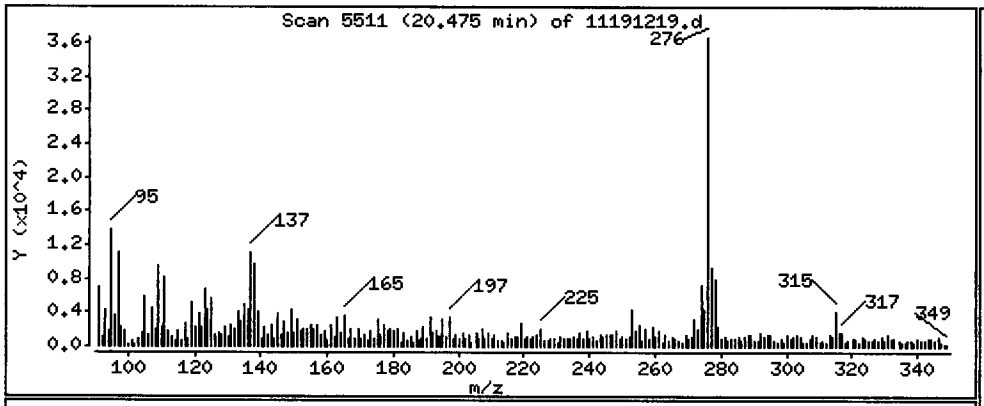
Operator: JZ

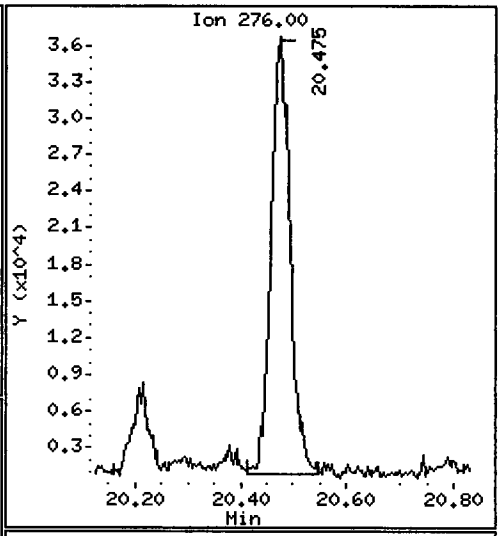
Column phase: ZB-5msi

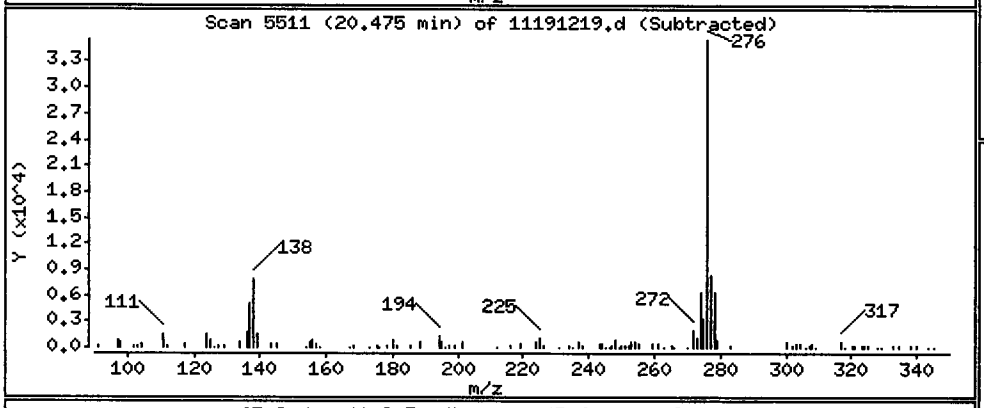
Column diameter: 0.25

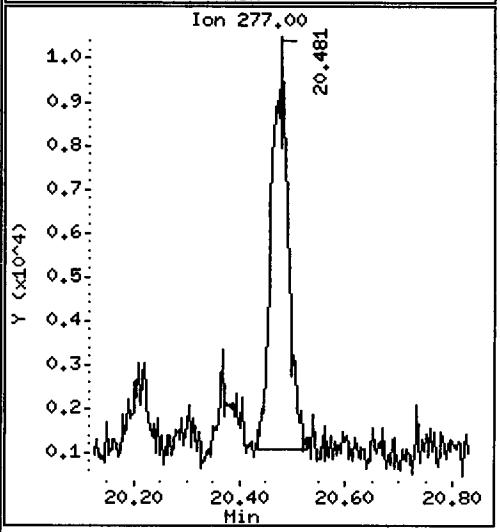
63 Indeno(1,2,3-cd)pyrene

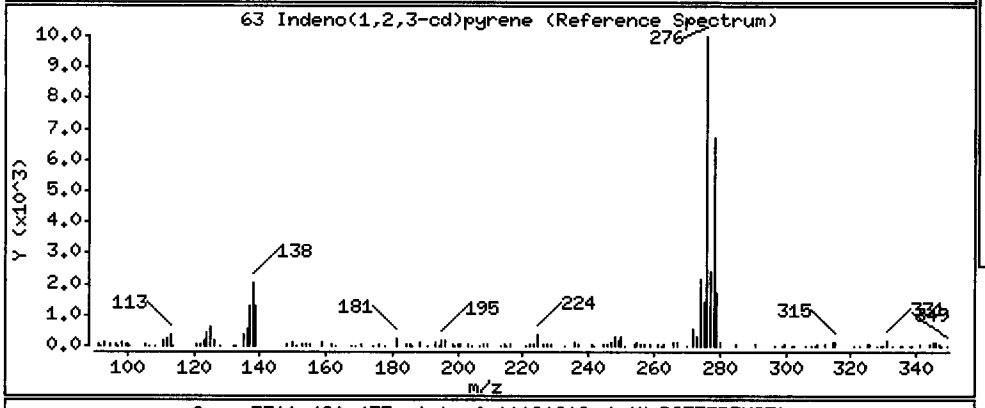
Concentration: 13.59 ug/kg

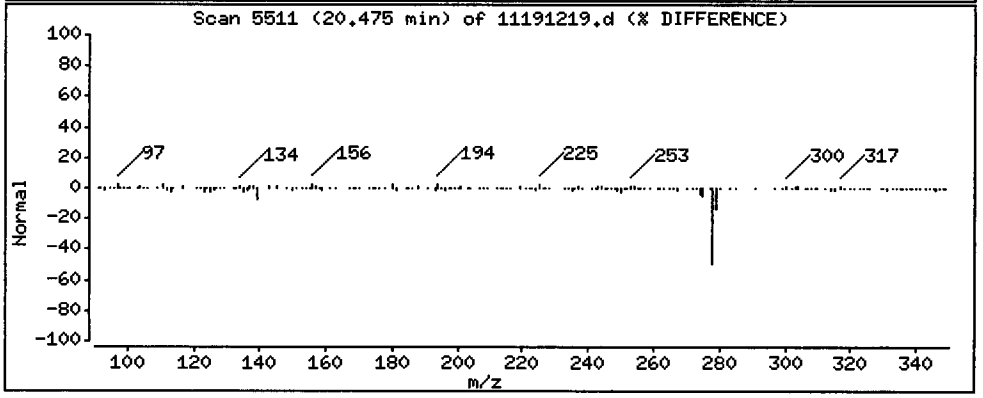












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

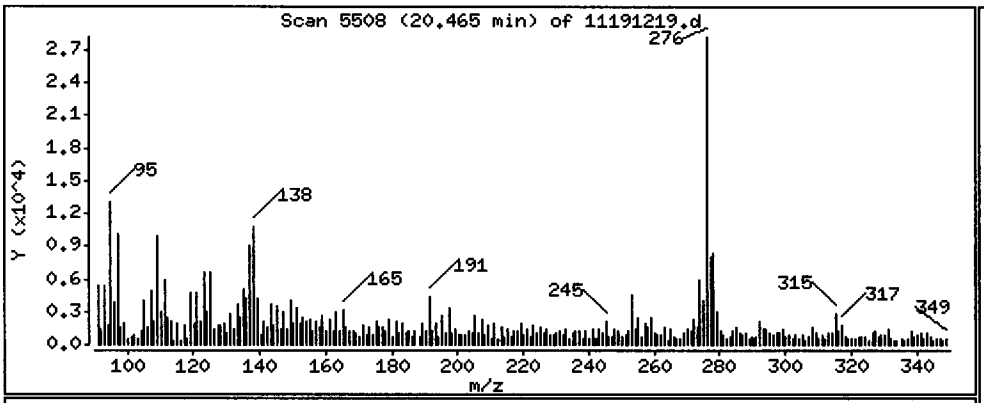
Operator: JZ

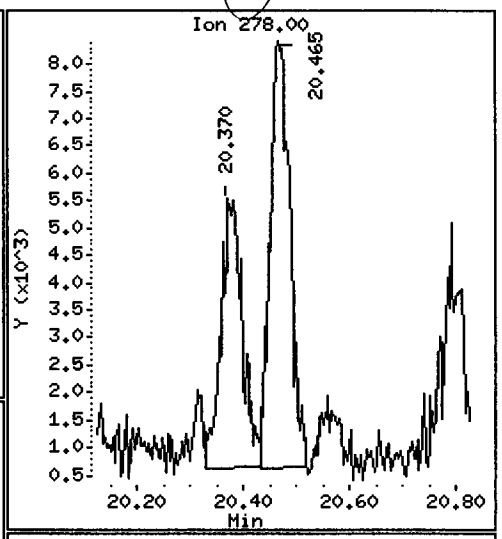
Column phase: ZB-5msi

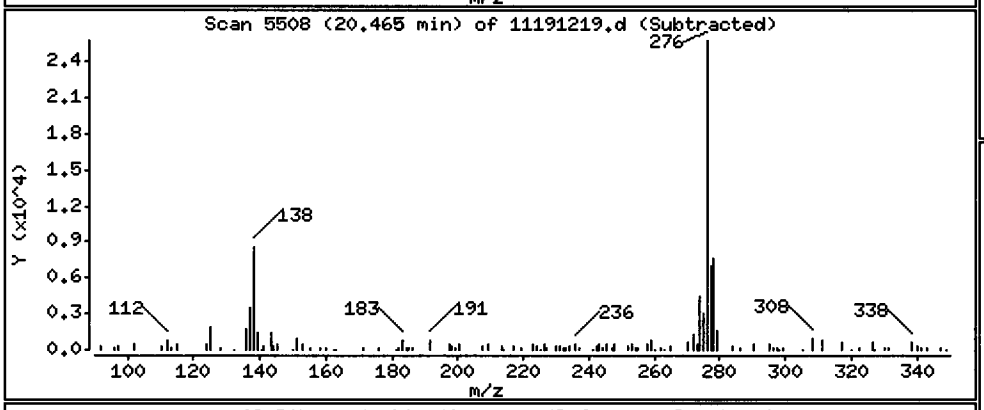
Column diameter: 0.25

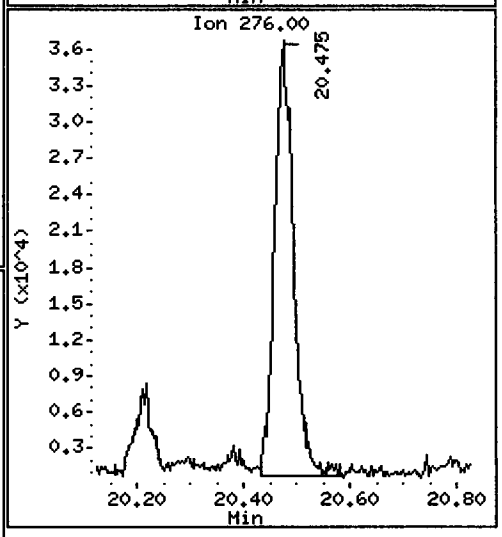
62 Dibenzo(a,h)anthracene

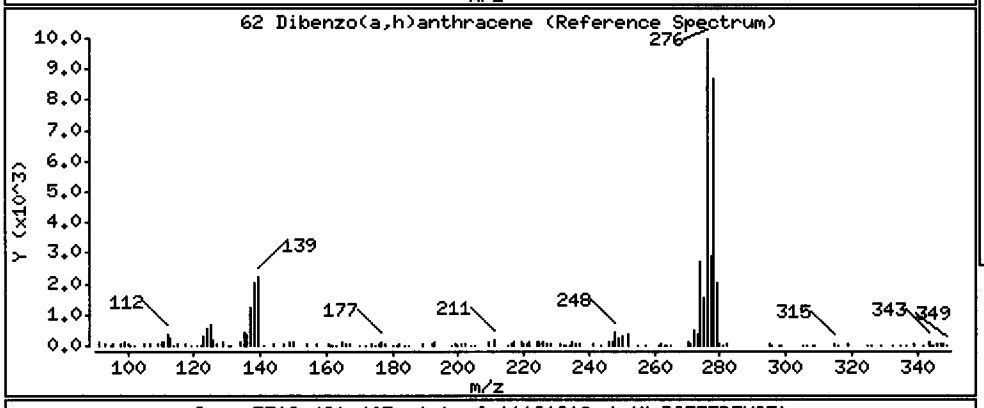
Concentration: 3.822 ug/kg

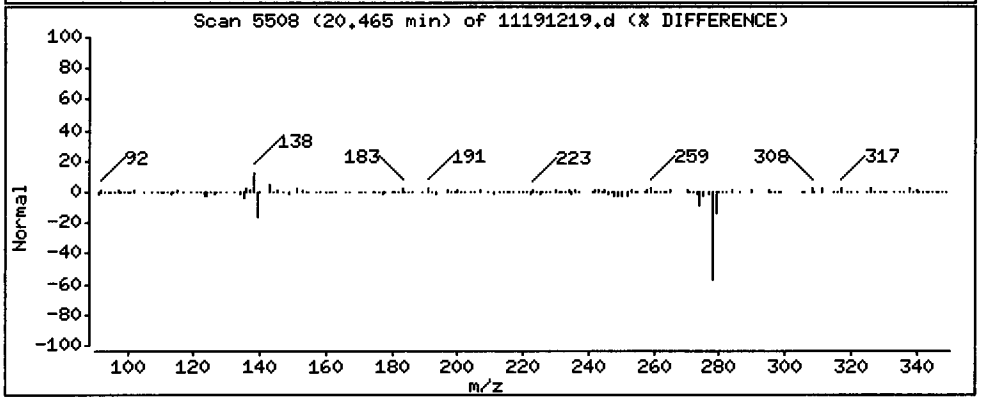












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

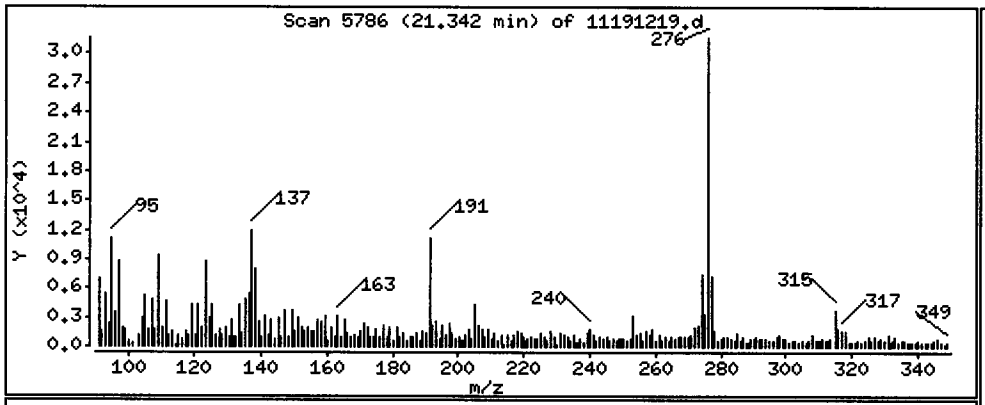
Operator: JZ

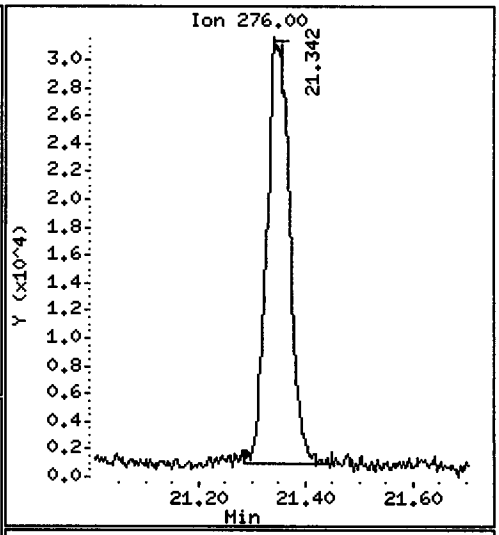
Column phase: ZB-5msi

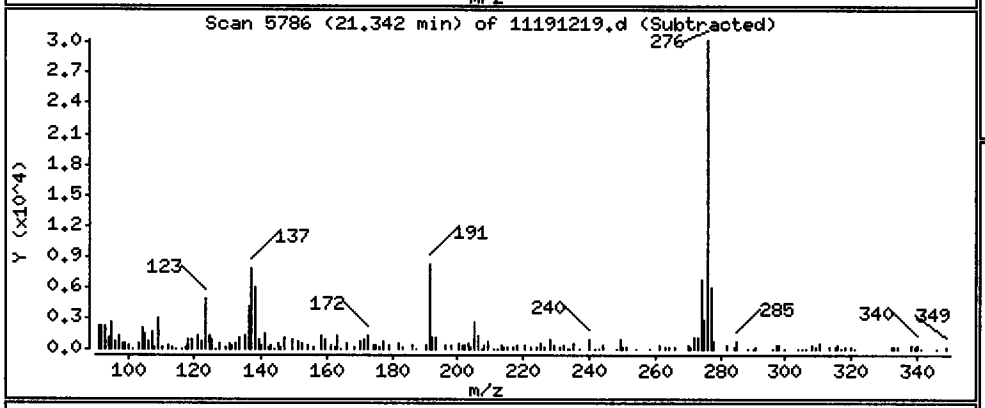
Column diameter: 0.25

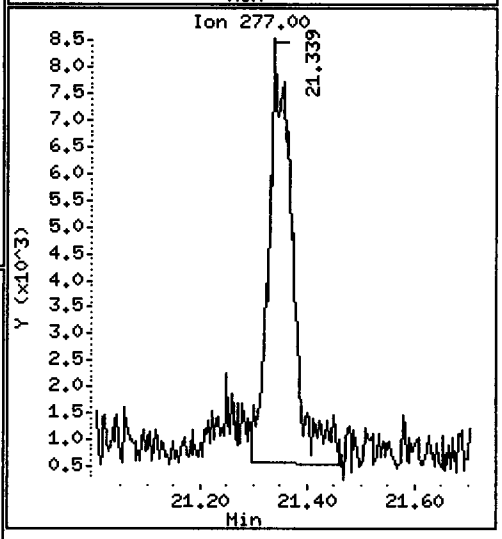
61 Benzo(g,h,i)perylene

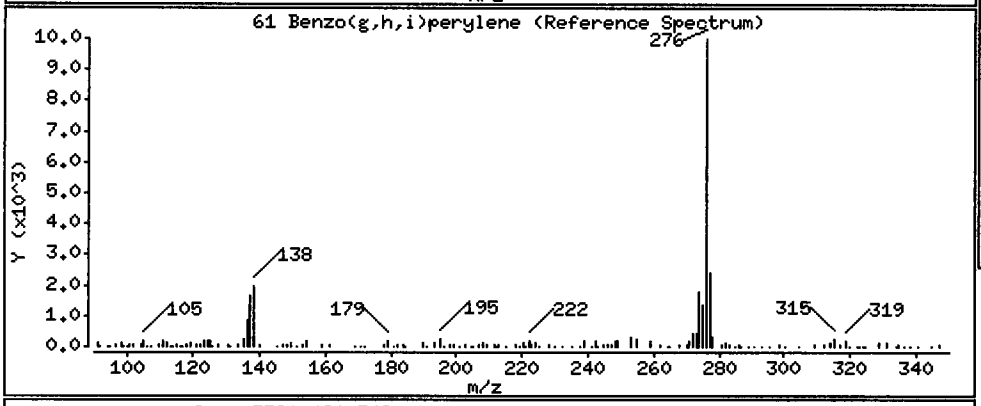
Concentration: 16.41 ug/kg

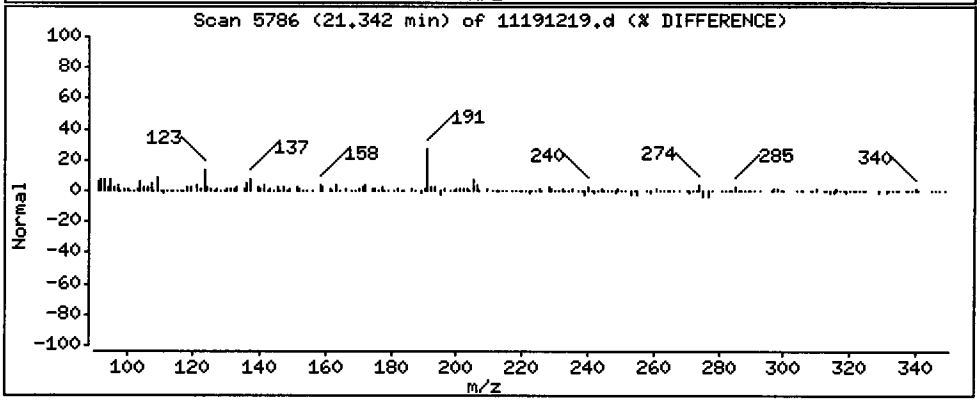












Data File: /chem3/nt11.i/20121119.b/11191219.d

Date : 19-NOV-2012 20:56

Client ID: HT-09-S-C-121106

Instrument: nt11.i

Sample Info: VR38G

Volume Injected (uL): 1.0

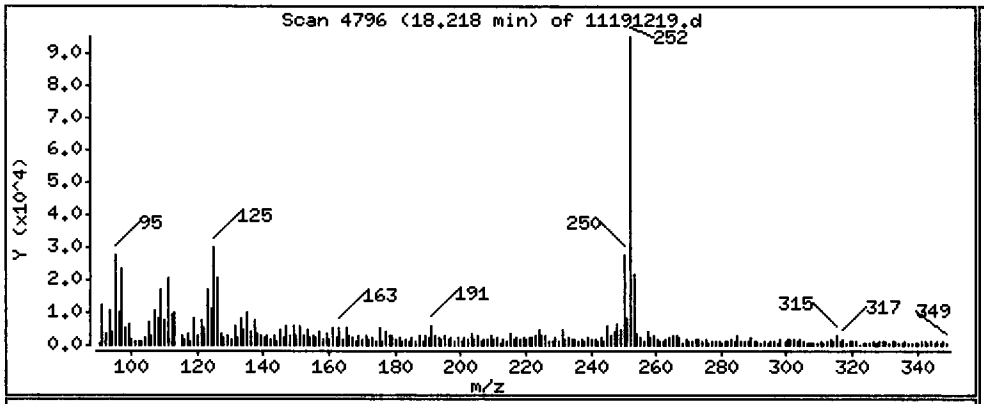
Operator: JZ

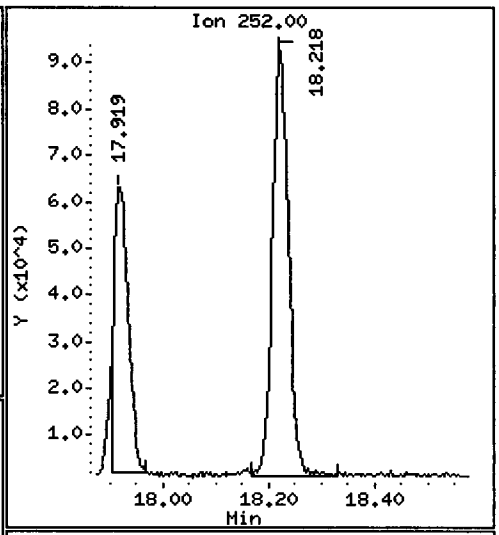
Column phase: ZB-5msi

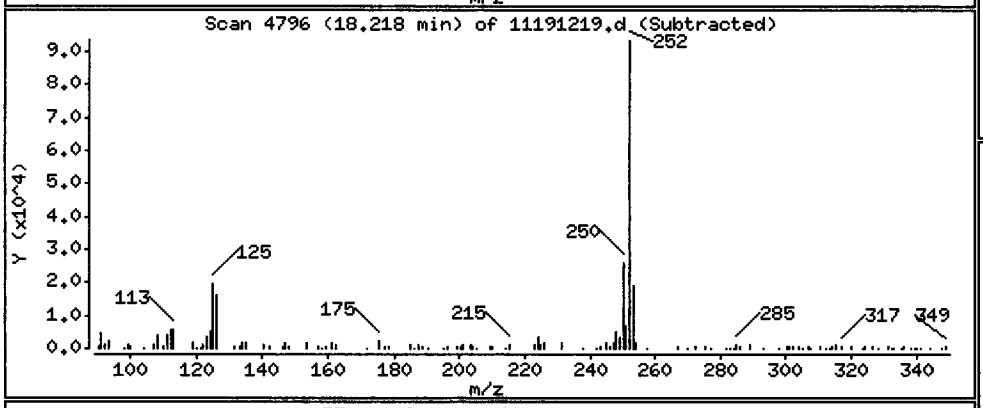
Column diameter: 0.25

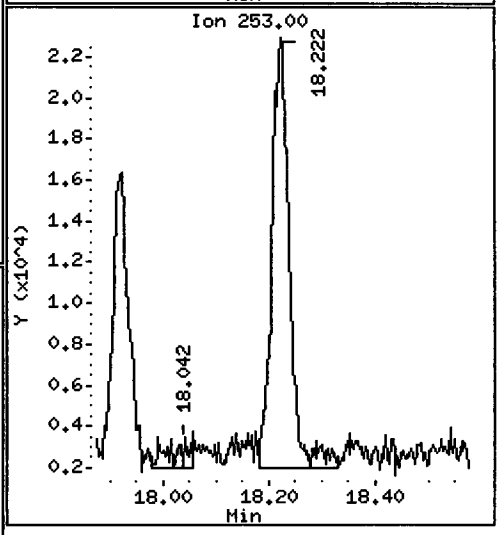
57 Perylene

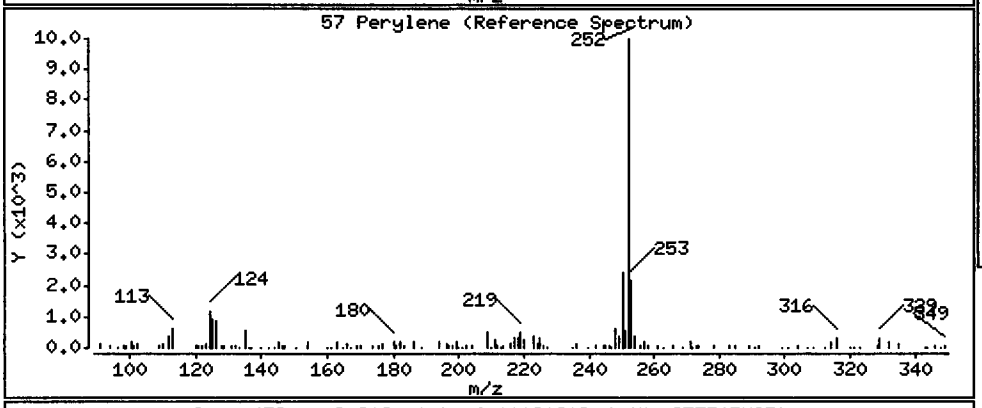
Concentration: 35.07 ug/kg

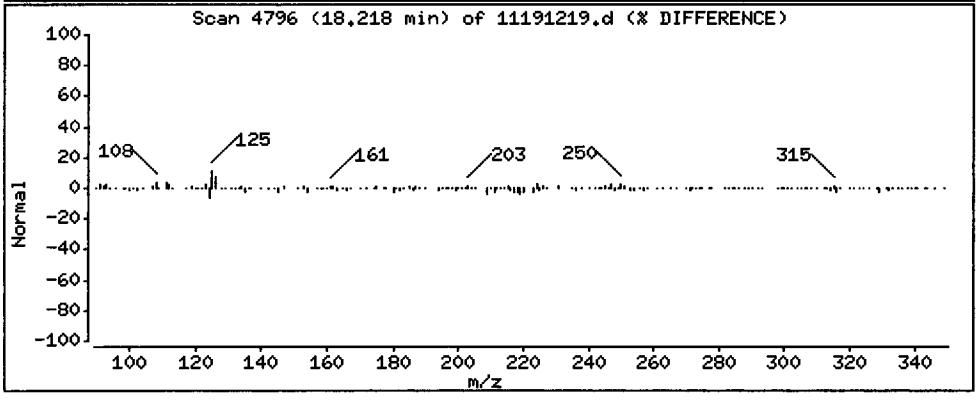












CO-ELUTION SUMMARY FOR FILE - 11191219.d

Lab ID: VR38G, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191220.d
Lab Smp Id: VR38H Client Smp ID: HT-10-S-LFP-121106
Inj Date : 19-NOV-2012 21:26
Operator : JZ Inst ID: nt11.i
Smp Info : VR38H
Misc Info : 12-22274
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 11:18 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.11000	Weight of sample extracted (g)
M	14.30000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
*	6 Naphthalene-d8	136	5.464	5.473	(1.000)	626390	2.00000	
	7 Naphthalene	128	Compound Not Detected.					
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.135)	358811	1.67652	80.77
	14 2-Methylnaphthalene	141	Compound Not Detected.					
	15 1-methylnaphthalene	141	Compound Not Detected.					
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	352406	2.00000	
	23 Acenaphthene	153	Compound Not Detected.					
	11 Dibenzofuran	168	Compound Not Detected.					
	25 Fluorene	166	Compound Not Detected.					
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	494684	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	41327	0.13830	6.663
	31 Anthracene	178	Compound Not Detected.					
	36 Fluoranthene	202	11.453	11.459	(1.173)	89367	0.29850	14.38
	39 Pyrene	202	11.936	11.926	(0.830)	91125	0.29698	14.31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.261	14.268	(0.992)	27049	0.09668	4.658
*	47 Chrysene-d12	240	14.381	14.387	(1.000)	556793	2.00000	
	48 Chrysene	228	14.451	14.457	(1.005)	48457	0.17844	8.597
	51 Benzo(b)fluoranthene	252	16.893	16.906	(0.931)	38541	0.15641	7.535
	52 Benzo(k)fluoranthene	252	16.953	16.966	(0.934)	20983	0.07841	3.778
	251 Benzo(j)fluoranthene	252	17.029	17.038	(0.939)	16550	0.05862	2.824
	54 Benzo(a)pyrene	252	17.912	17.922	(0.987)	34660	0.13848	6.672
*	56 Perylene-d12	264	18.143	18.152	(1.000)	532427	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.465	20.478	(1.128)	23595	0.07776	3.746
$	60 Dibenzo(a,h)anthracene-d14	292	20.370	20.380	(1.123)	425558	2.41096	116.2
	62 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	61 Benzo(g,h,i)perylene	276	21.339	21.355	(1.176)	25387	0.09834	4.738
	57 Perylene	252	18.209	18.225	(1.004)	20441	0.07875	3.794

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191220.d
Lab Smp Id: VR38H
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-10-S-LFP-1211
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	626390	21.37
22 Acenaphthene-d10	284255	142128	568510	352406	23.98
28 Phenanthrene-d10	410660	205330	821320	494684	20.46
47 Chrysene-d12	467886	233943	935772	556793	19.00
56 Perylene-d12	472330	236165	944660	532427	12.72

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.46	-0.17
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.04
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.05

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.

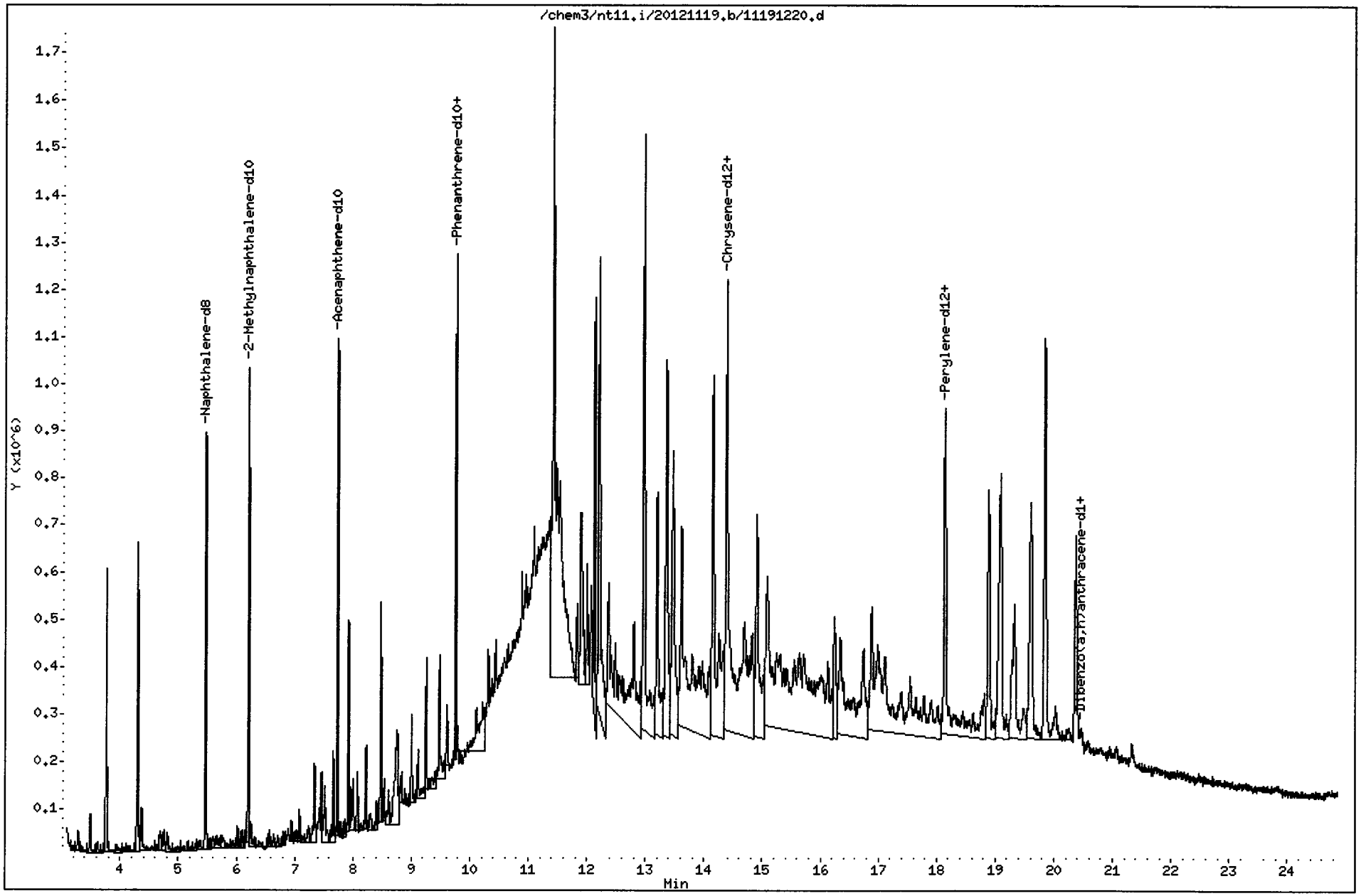
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38H Client Smp ID: HT-10-S-LFP-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	144.5	80.77	55.88	34-100
$ 60 Dibenzo(a,h)anthra	144.5	116.2	80.37	10-117

Data File: /chem3/nt11.i/20121119.b/11191220.d
Date : 19-NOV-2012 21:26
Client ID: HT-10-S-LFP-121106
Sample Info: VR38H
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

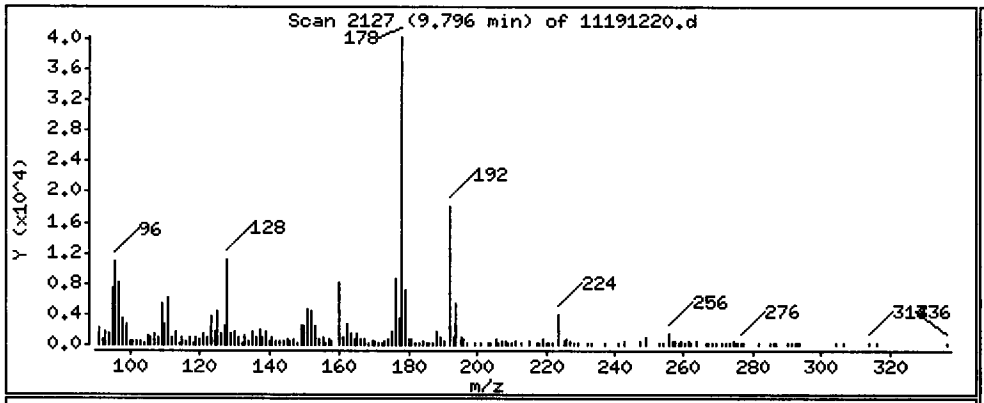
Operator: JZ

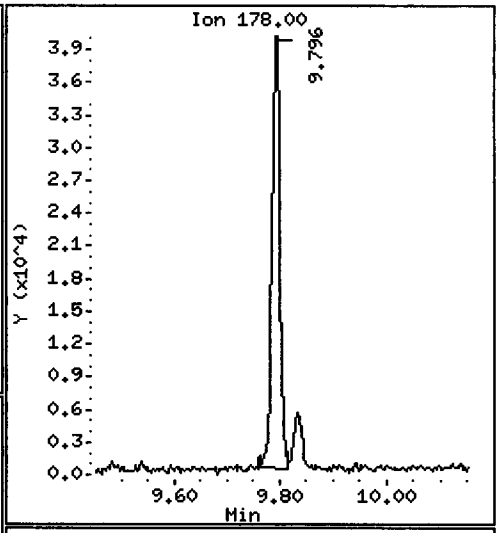
Column phase: ZB-5msi

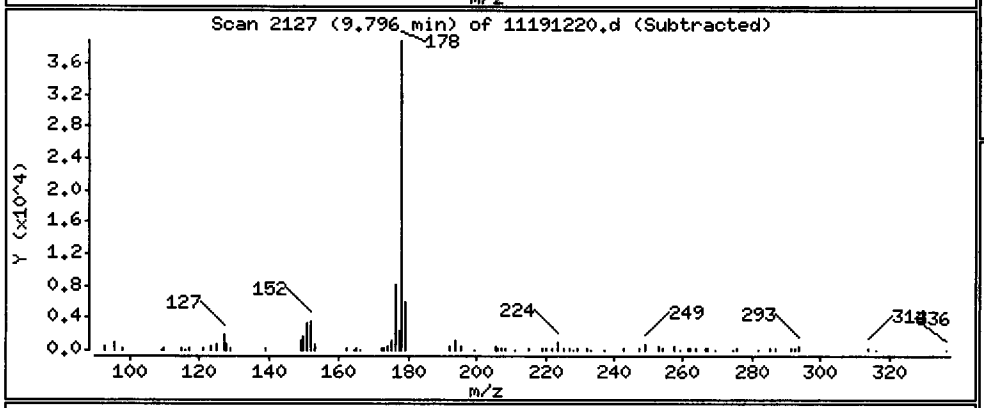
Column diameter: 0.25

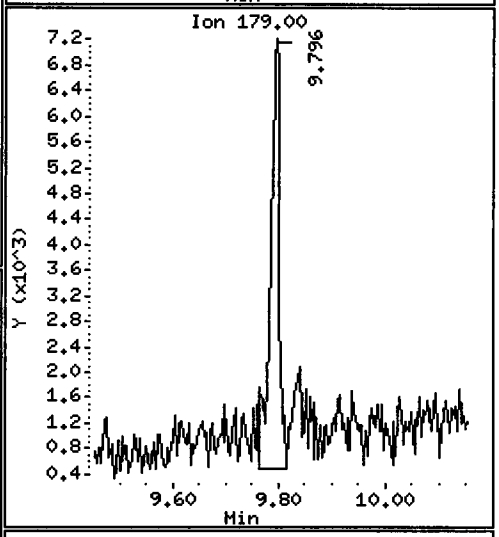
30 Phenanthrene

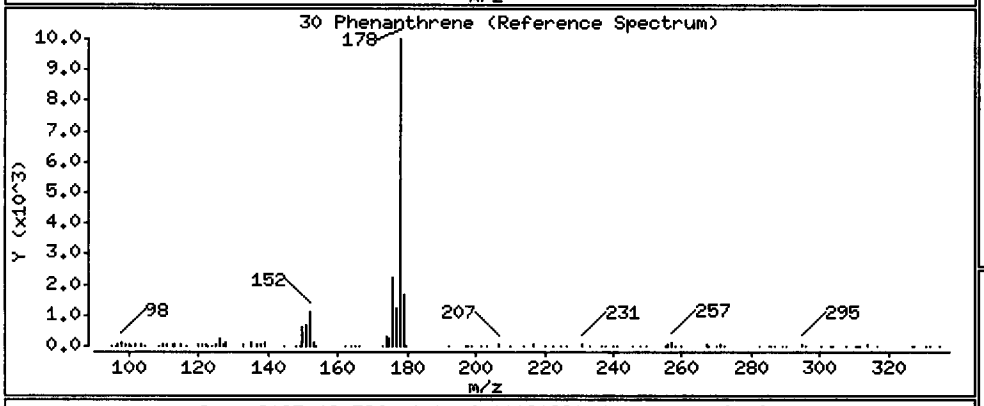
Concentration: 6.663 ug/kg

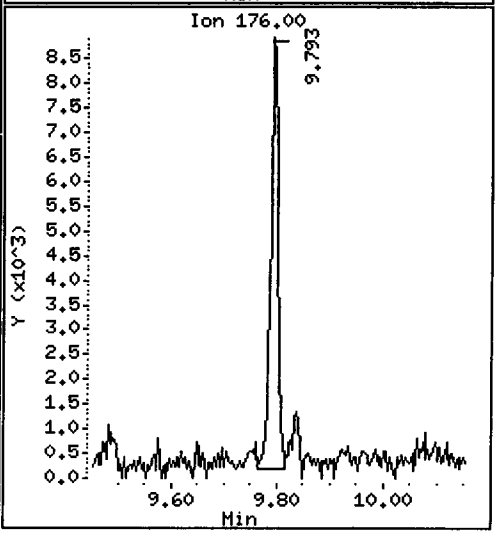


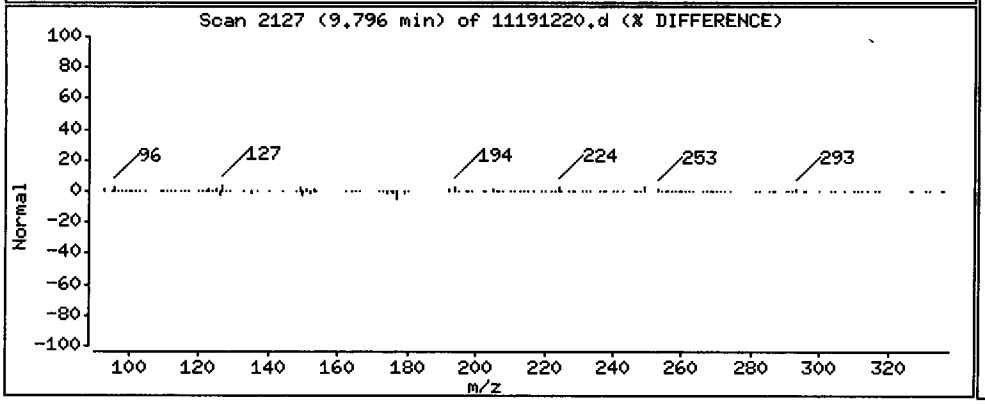












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

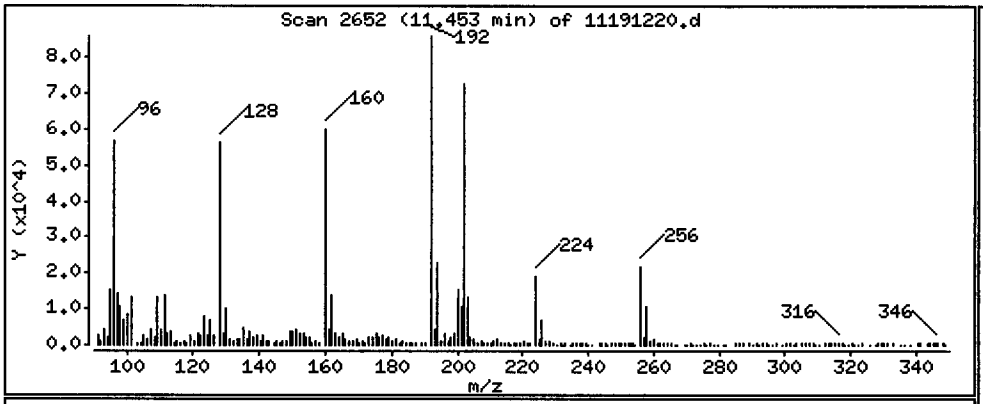
Operator: JZ

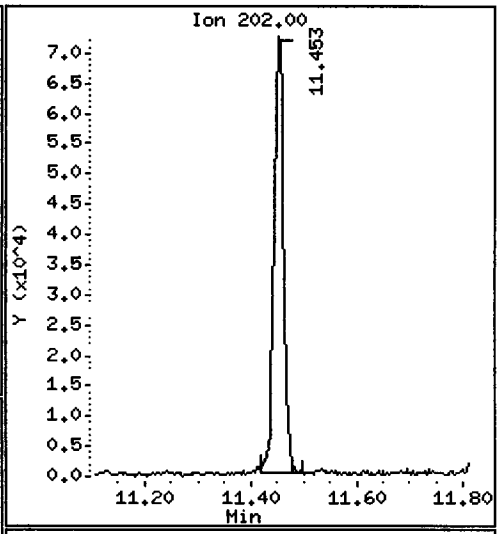
Column phase: ZB-5msi

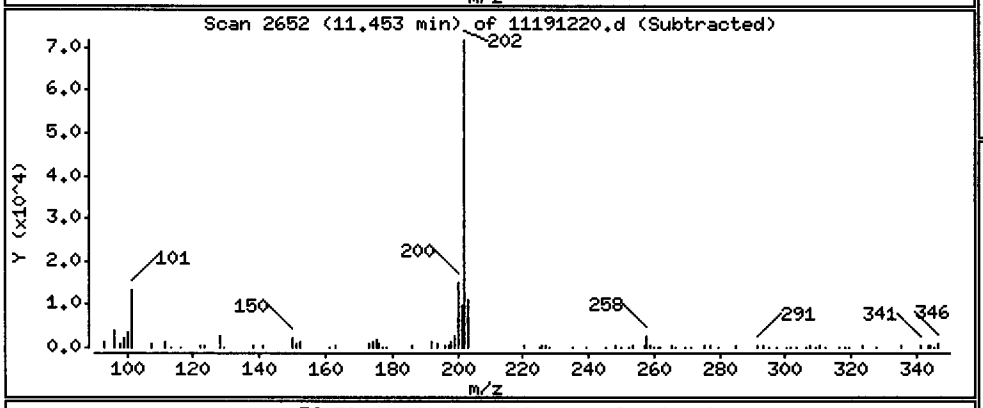
Column diameter: 0.25

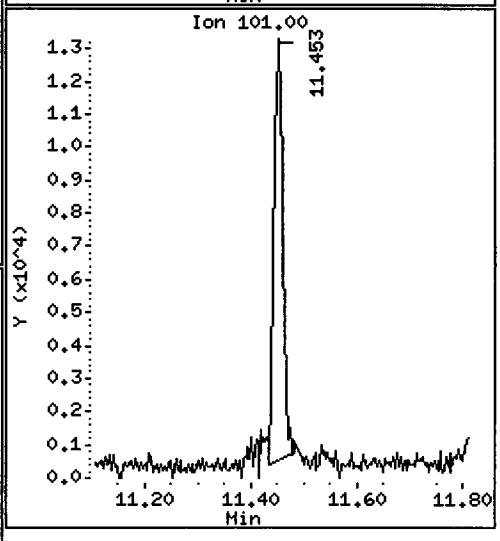
36 Fluoranthene

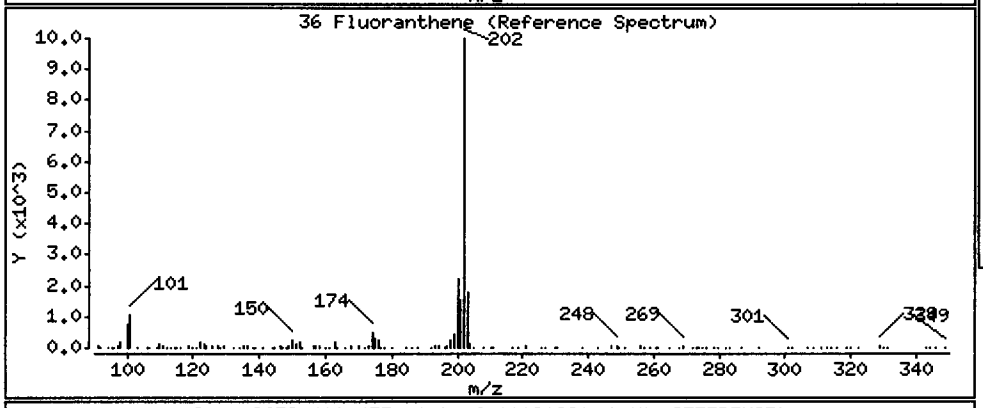
Concentration: 14.38 ug/kg

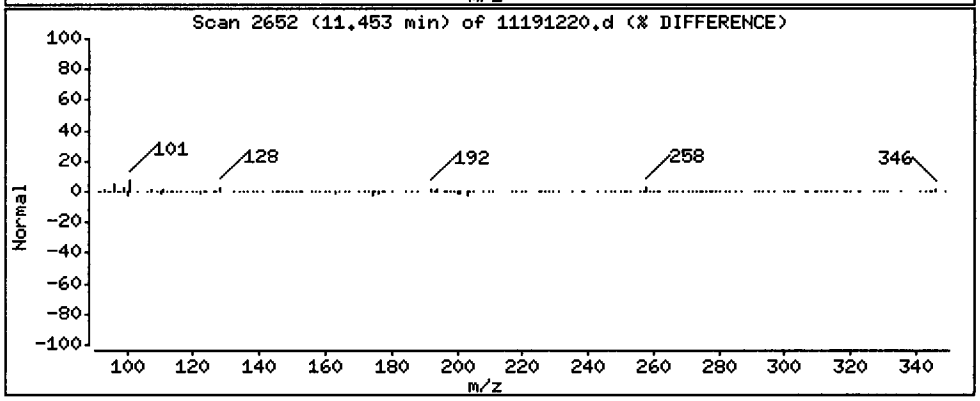












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

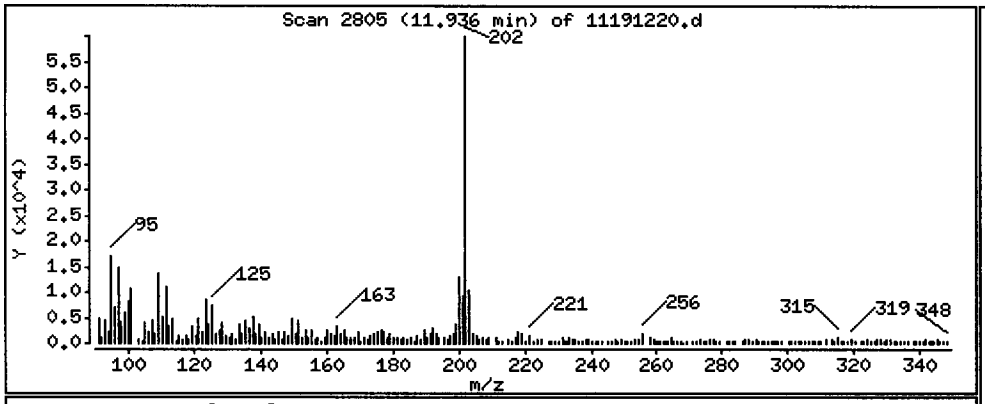
Operator: JZ

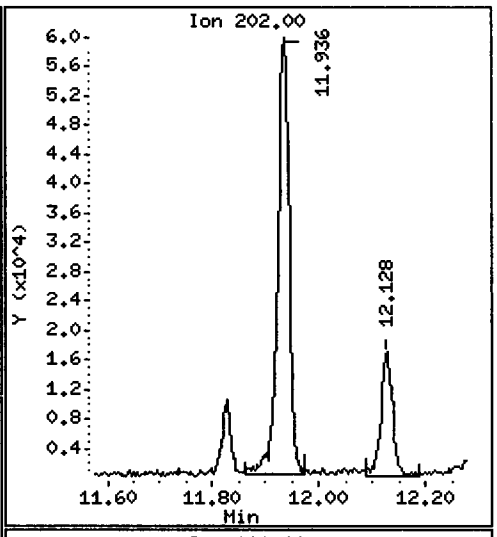
Column phase: ZB-5msi

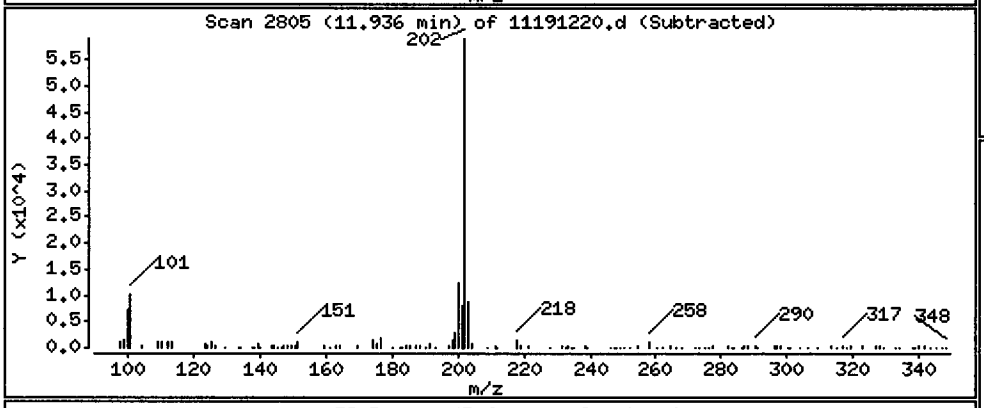
Column diameter: 0.25

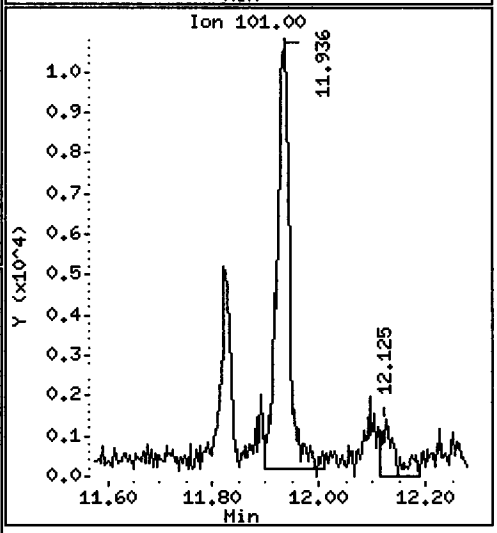
39 Pyrene

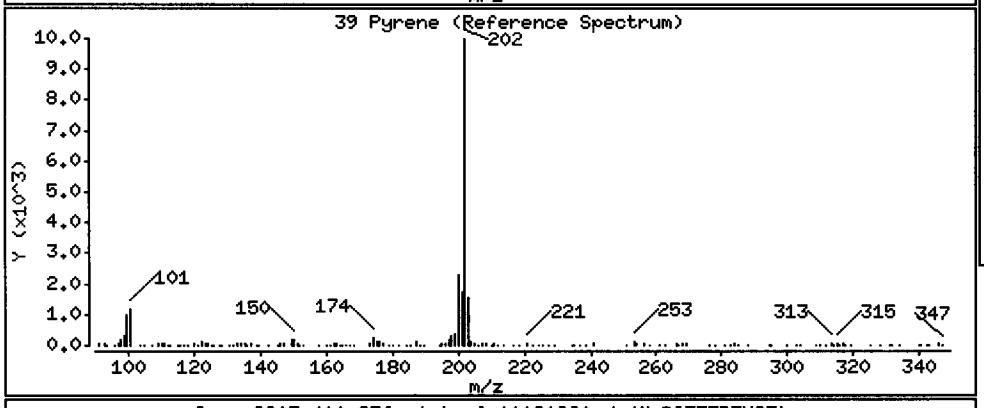
Concentration: 14.31 ug/kg

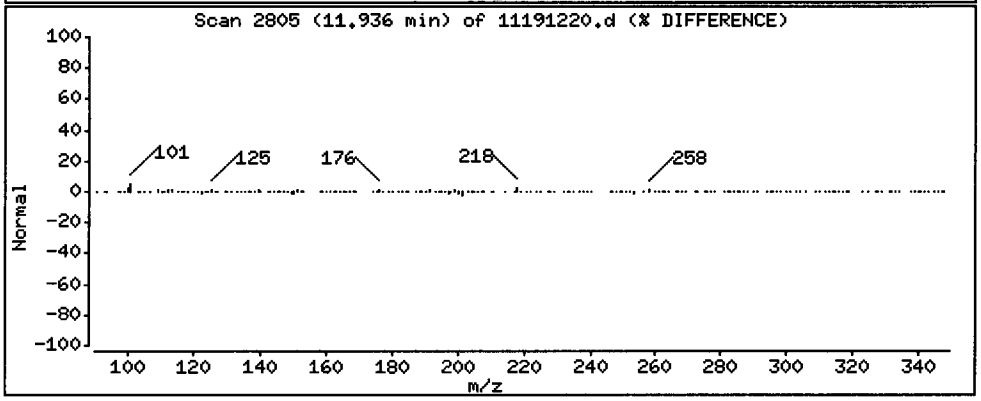












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

Operator: JZ

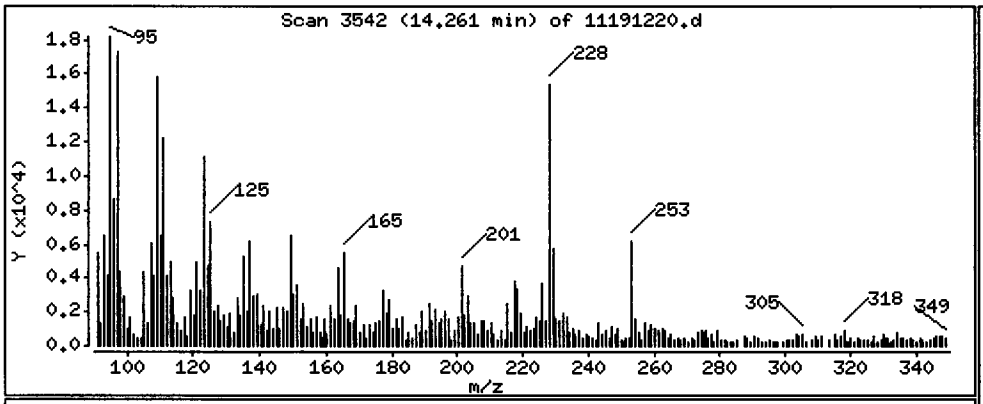
Column phase: ZB-5msi

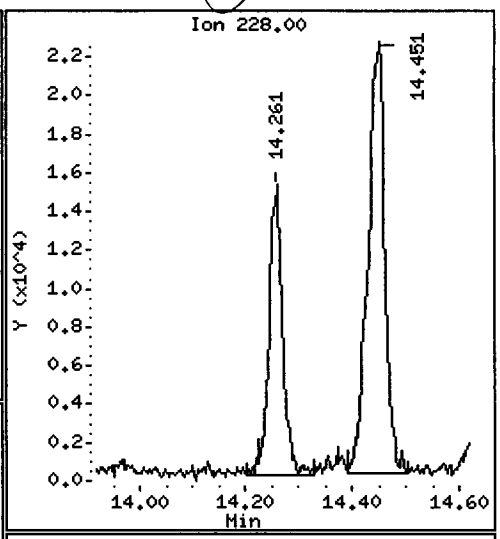
Column diameter: 0.25

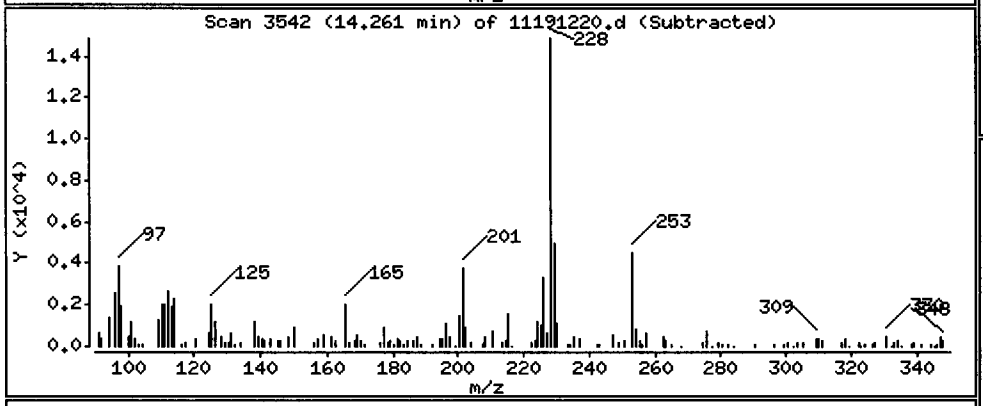
46 Benzo(a)anthracene

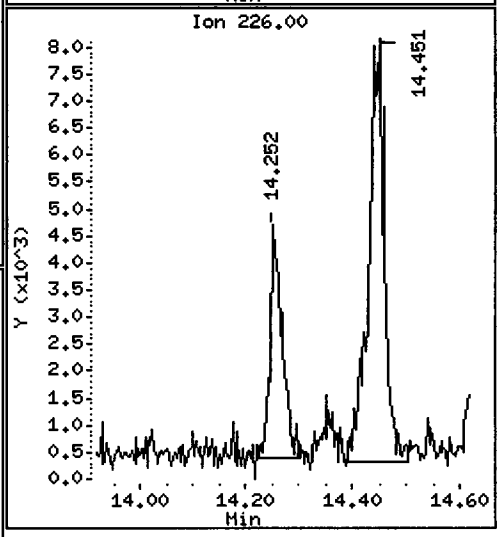
Concentration: 4.658 ug/kg

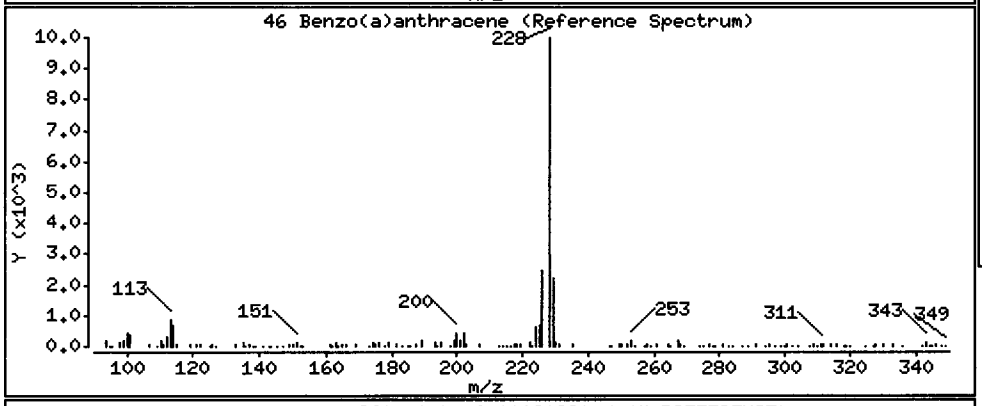
JCRL

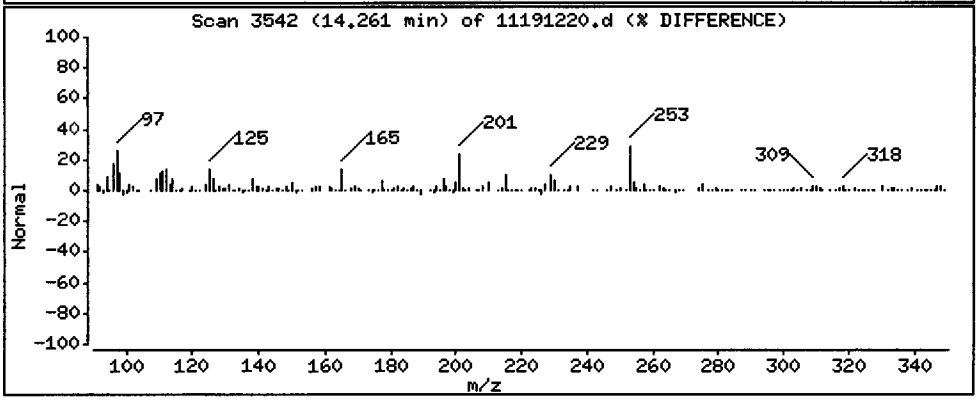












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

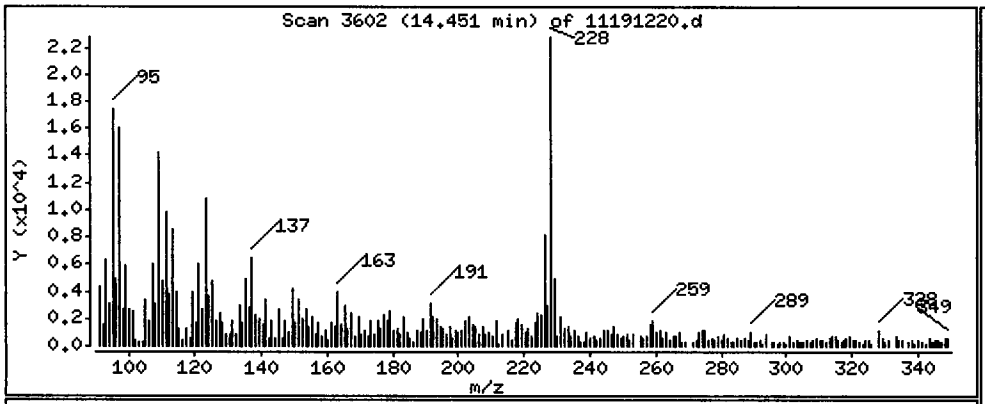
Operator: JZ

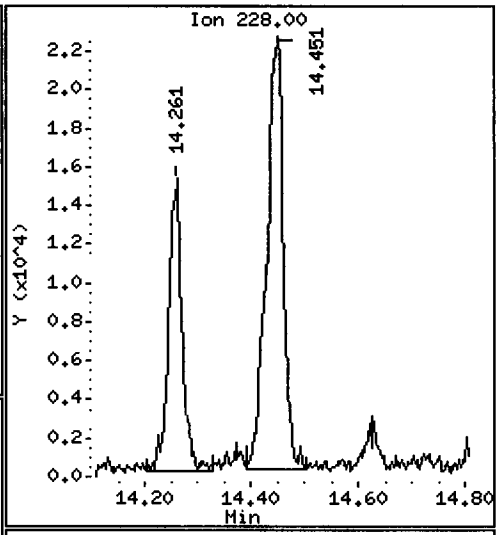
Column phase: ZB-5msi

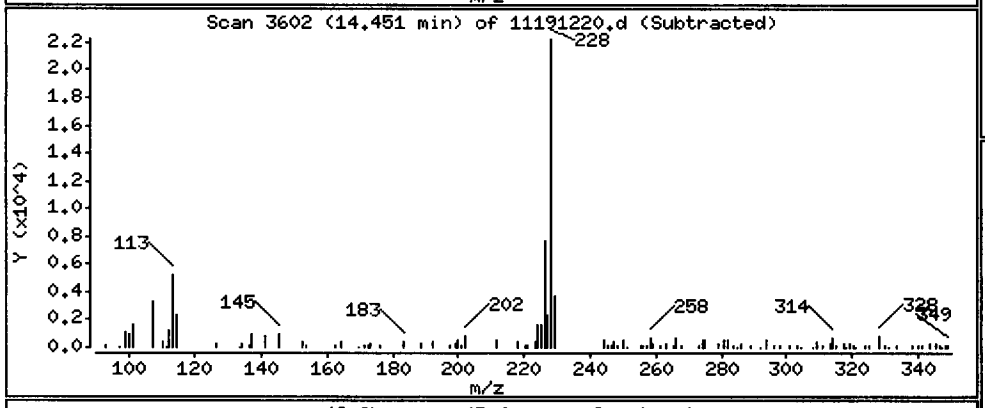
Column diameter: 0.25

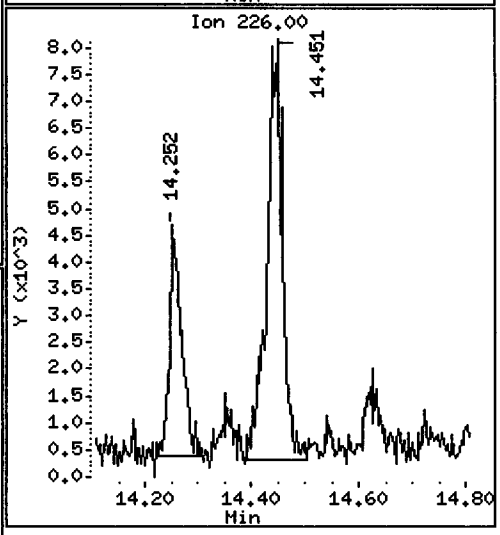
48 Chrysene

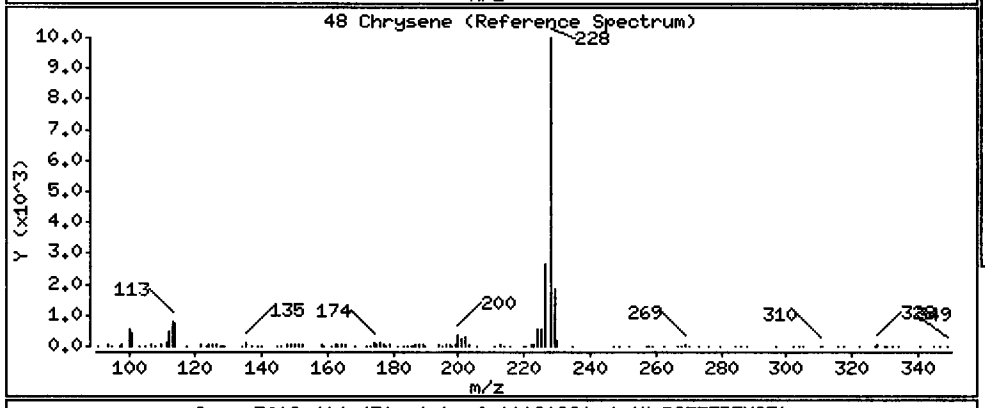
Concentration: 8.597 ug/kg

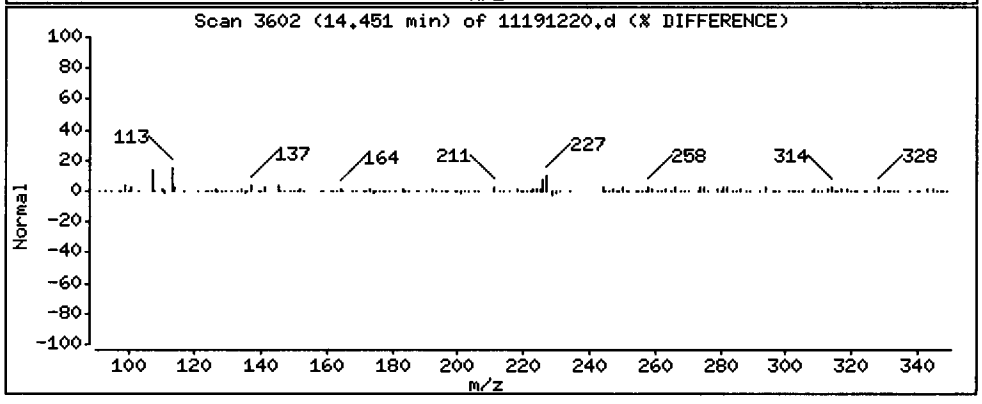












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

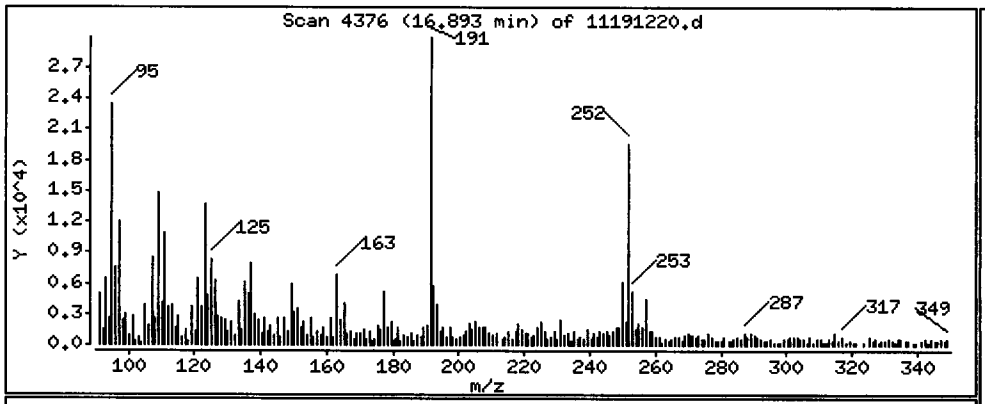
Operator: JZ

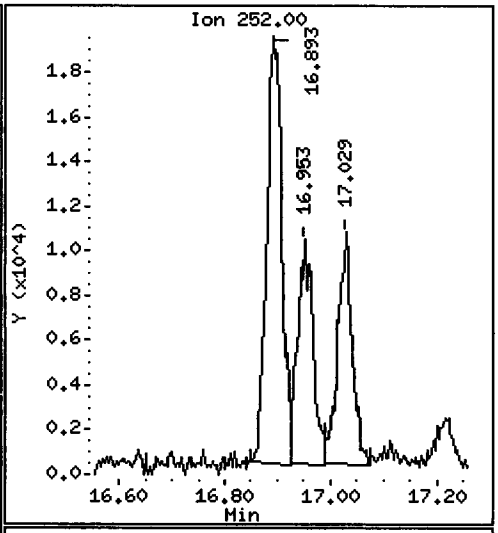
Column phase: ZB-5msi

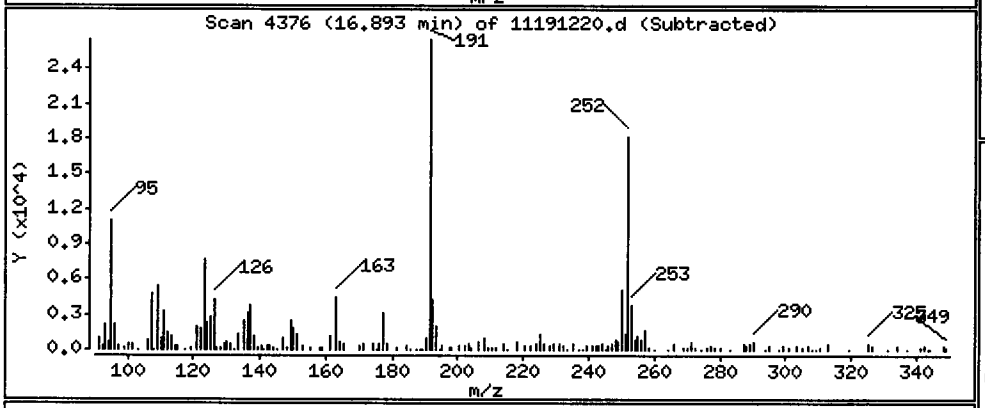
Column diameter: 0.25

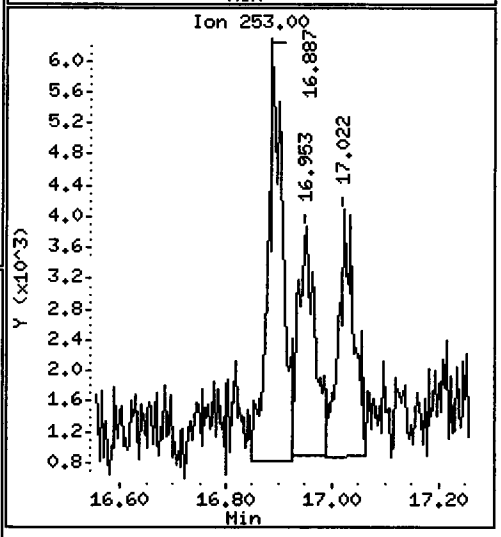
51 Benzo(b)fluoranthene

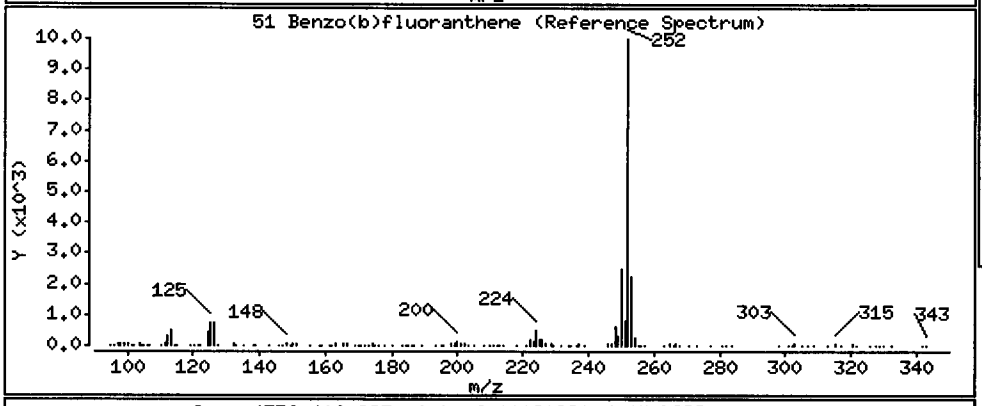
Concentration: 7.535 ug/kg

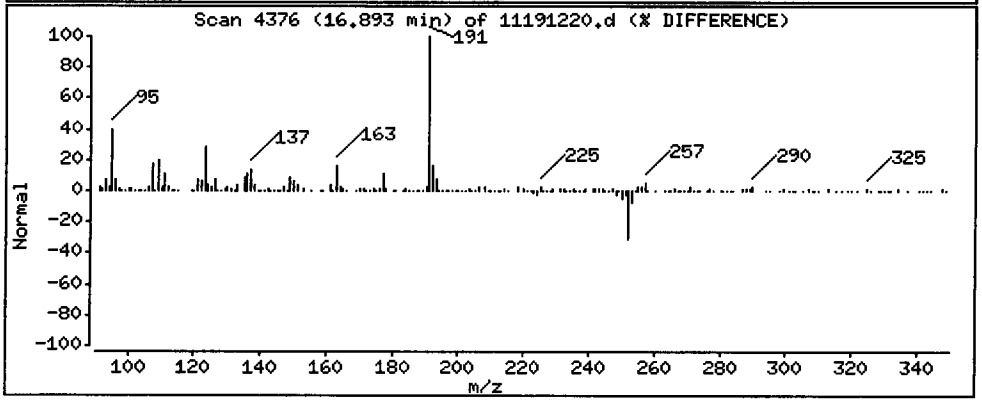












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

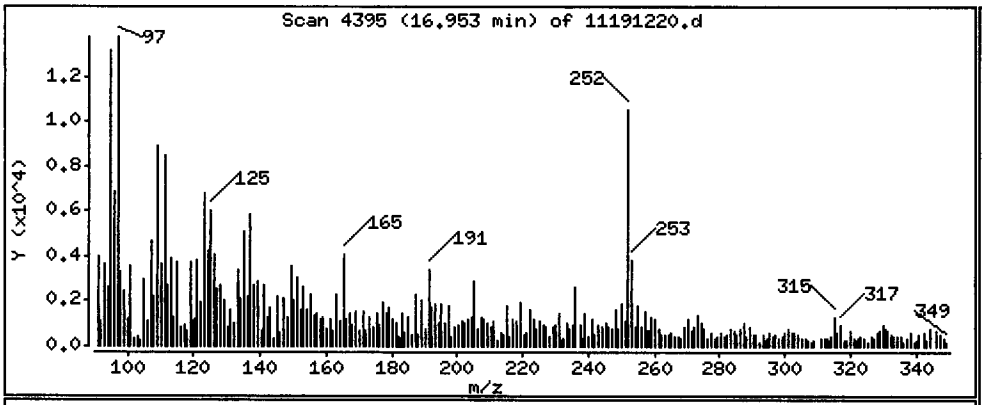
Operator: JZ

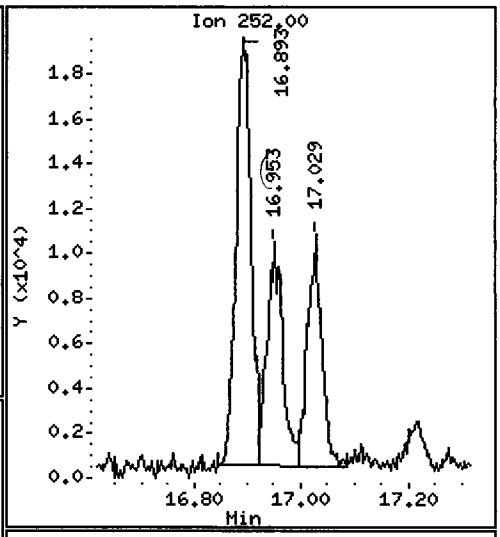
Column phase: ZB-5msi

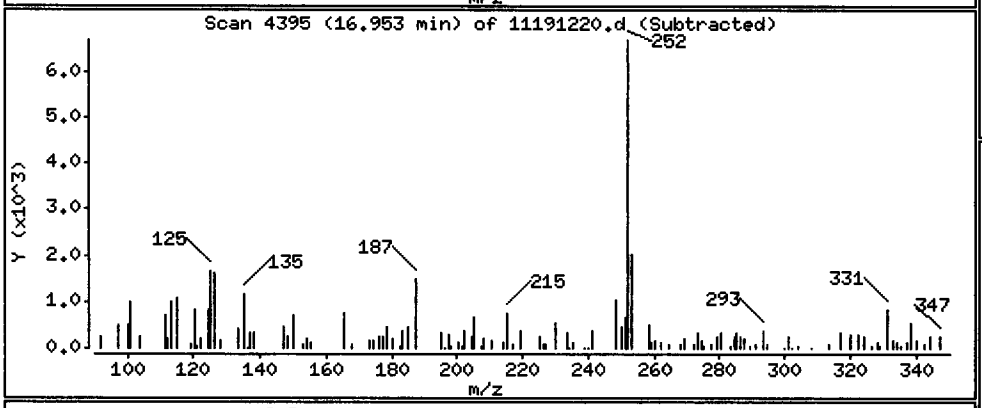
Column diameter: 0.25

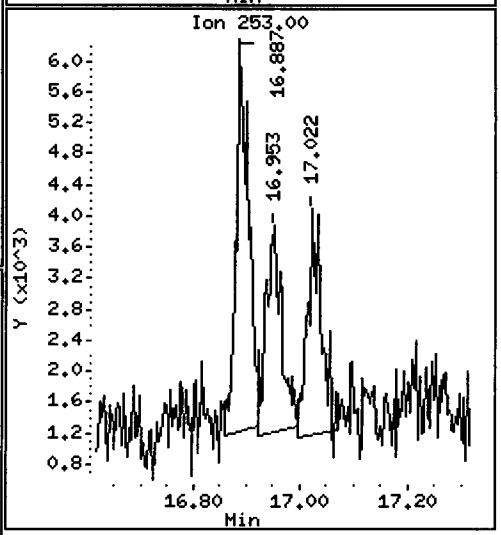
52 Benzo(k)fluoranthene

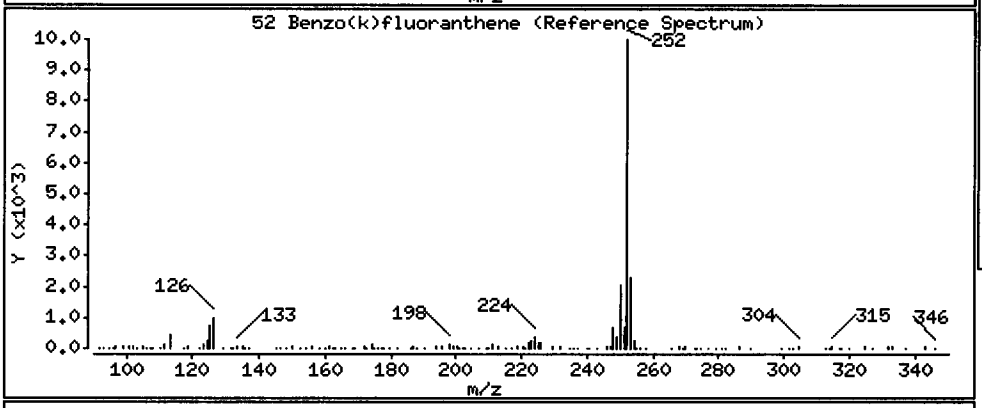
Concentration: 3.778 ug/kg

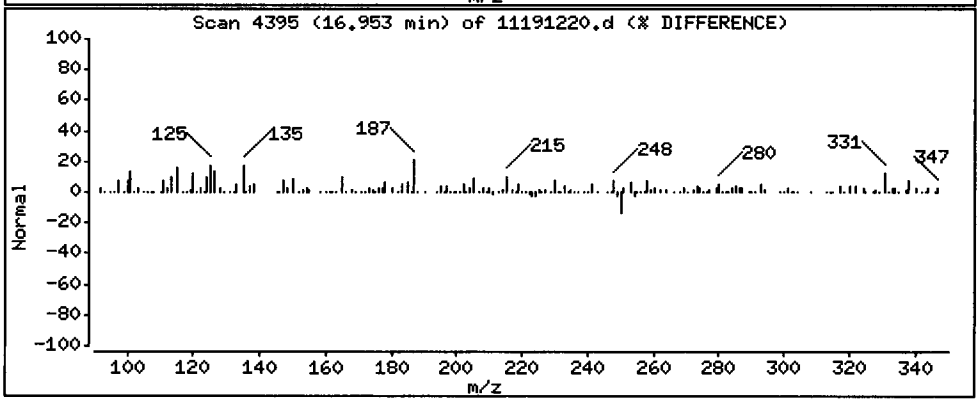












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

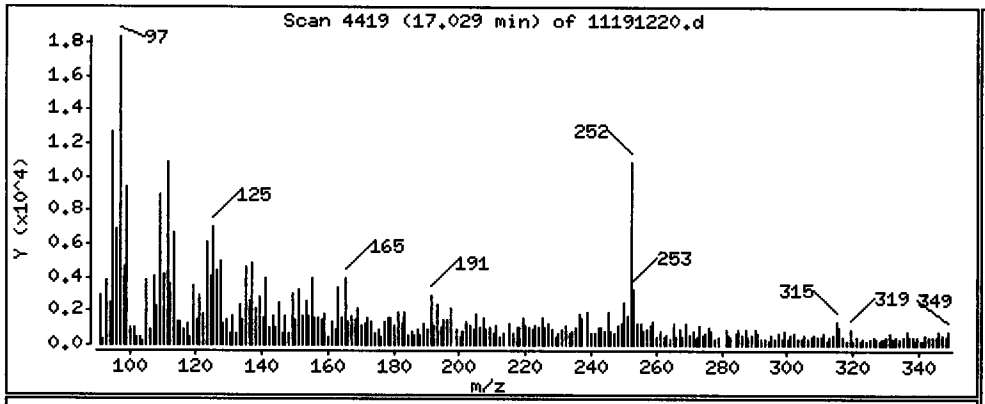
Operator: JZ

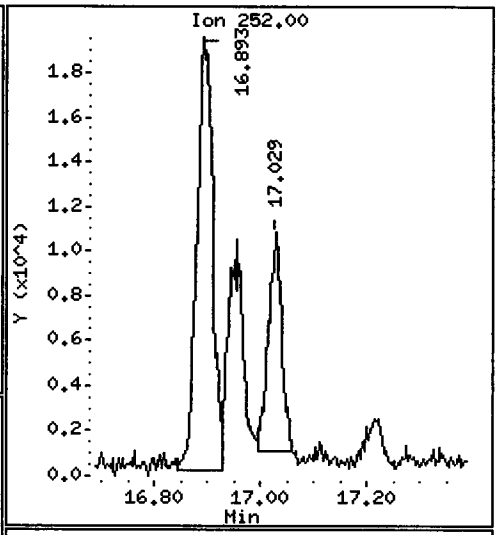
Column phase: ZB-5msi

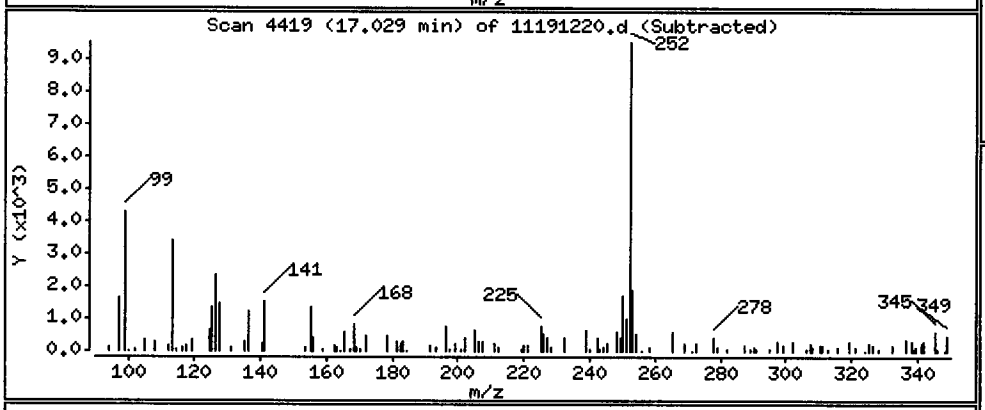
Column diameter: 0.25

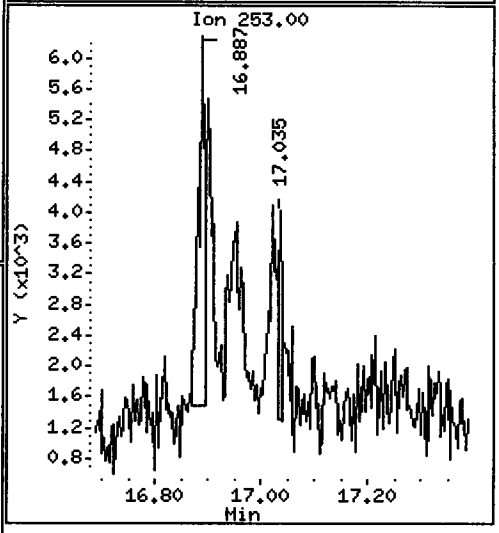
251 Benzo(j)fluoranthene

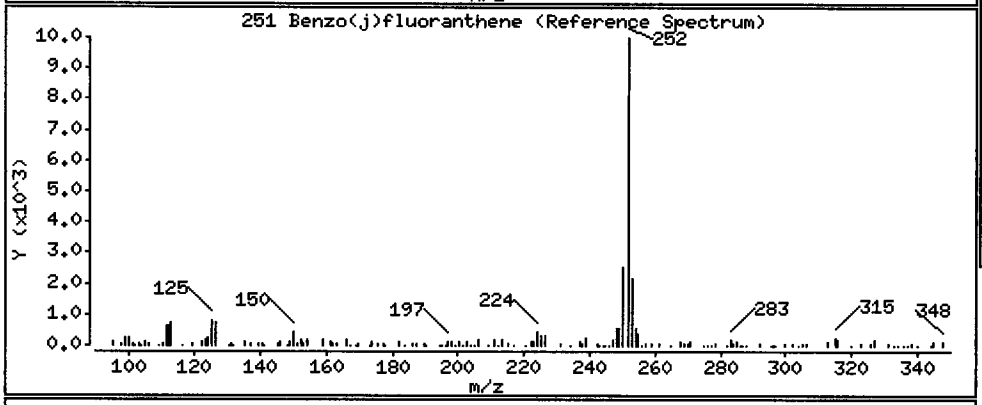
Concentration: 2.824 ug/kg

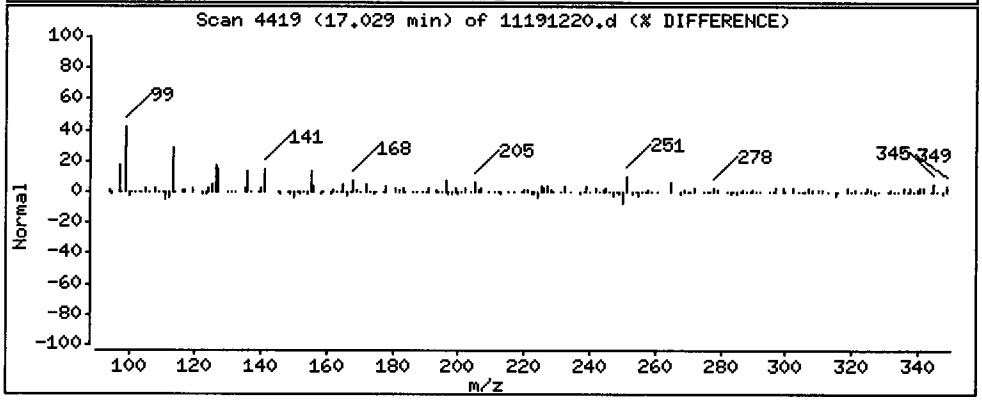












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

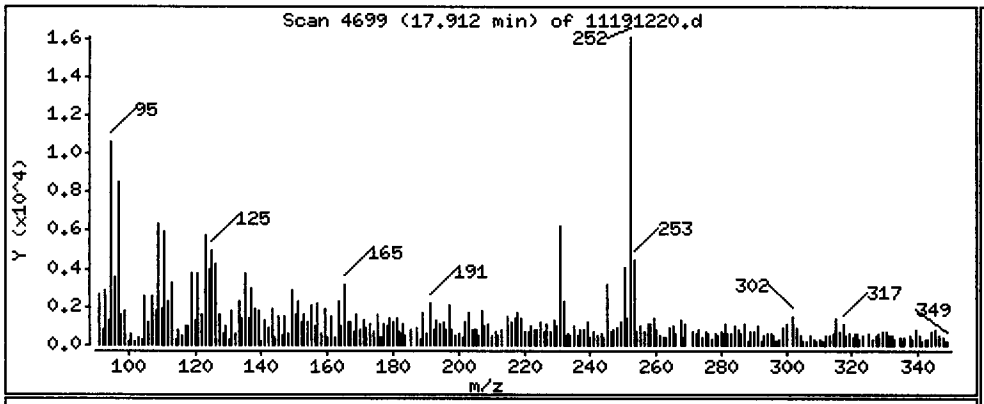
Operator: JZ

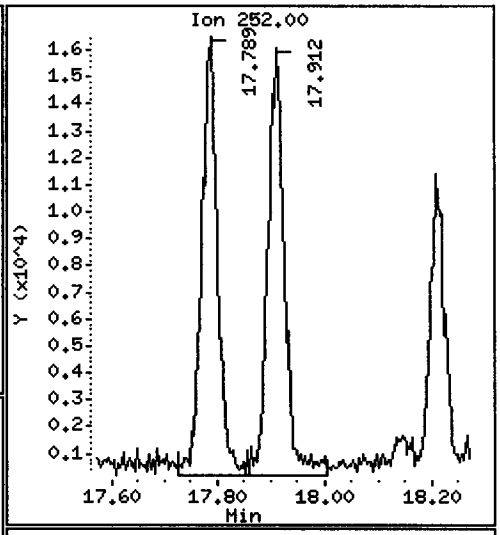
Column phase: ZB-5msi

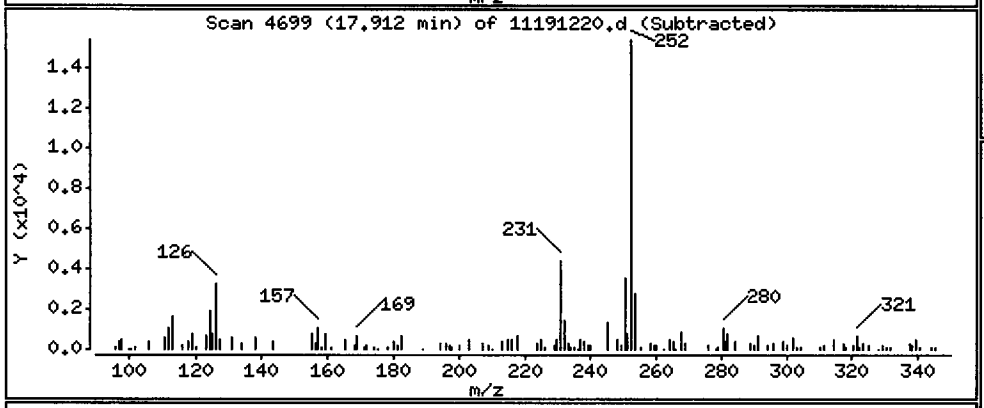
Column diameter: 0.25

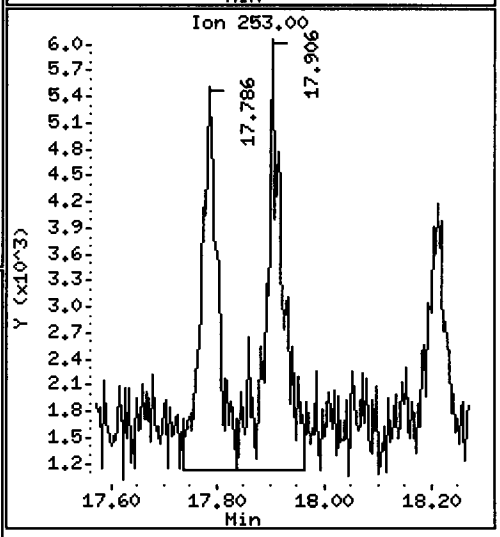
54 Benzo(a)pyrene

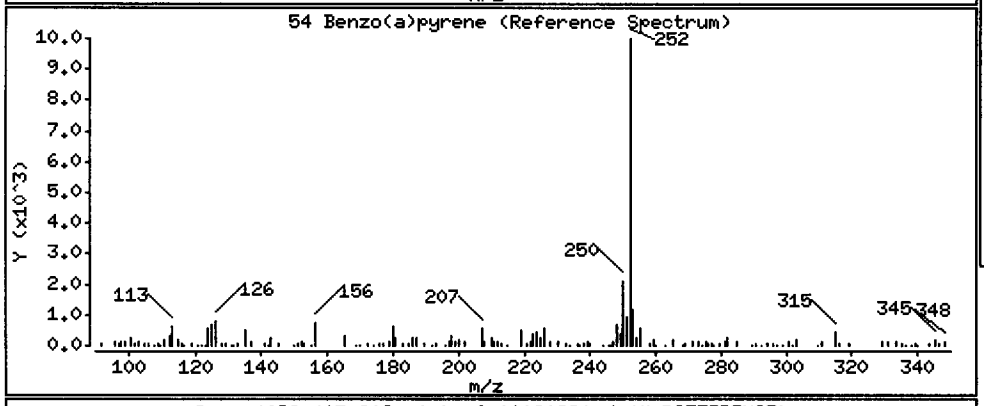
Concentration: 6.672 ug/kg

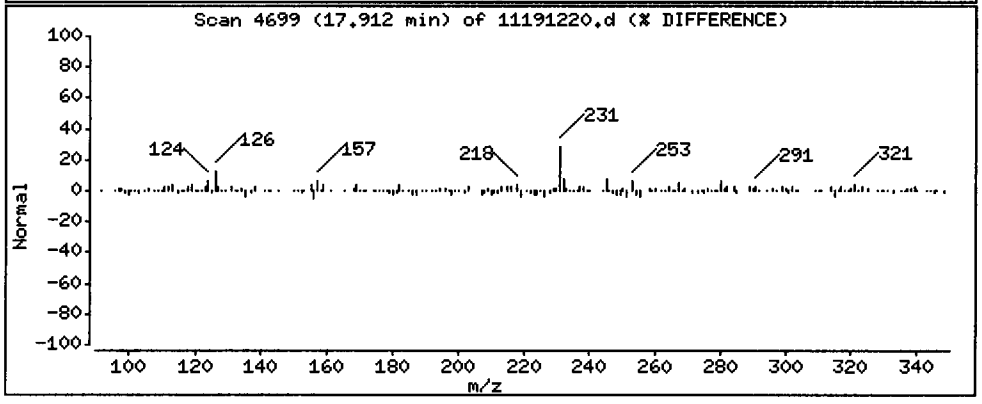












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

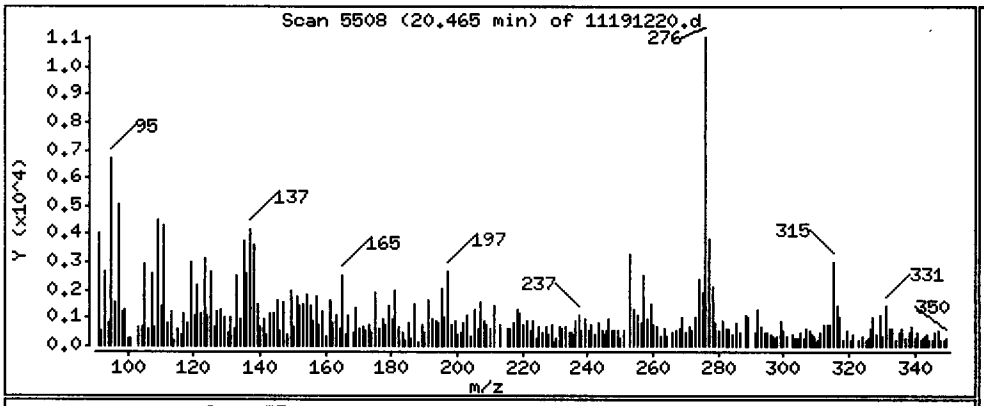
Operator: JZ

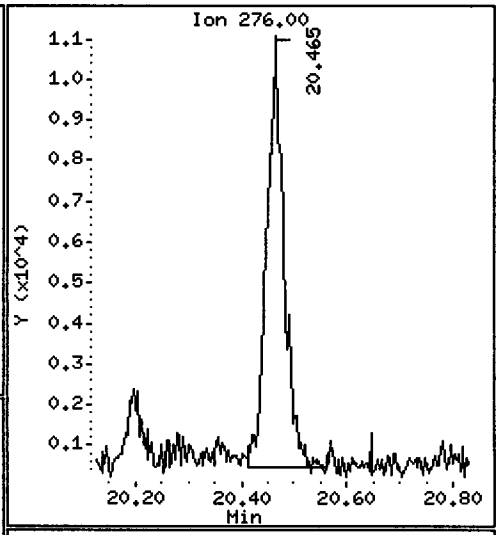
Column phase: ZB-5msi

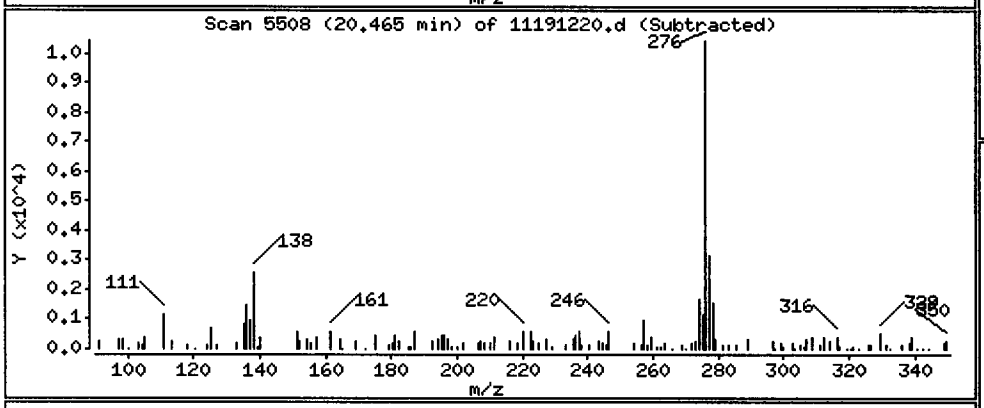
Column diameter: 0.25

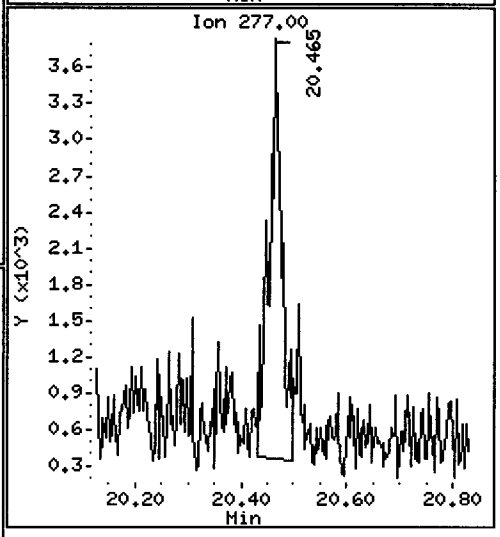
63 Indeno(1,2,3-cd)pyrene

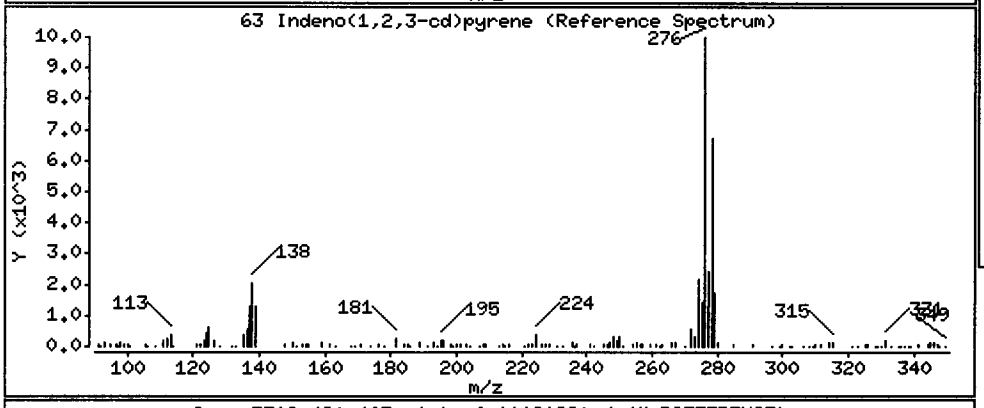
Concentration: 3.746 ug/kg

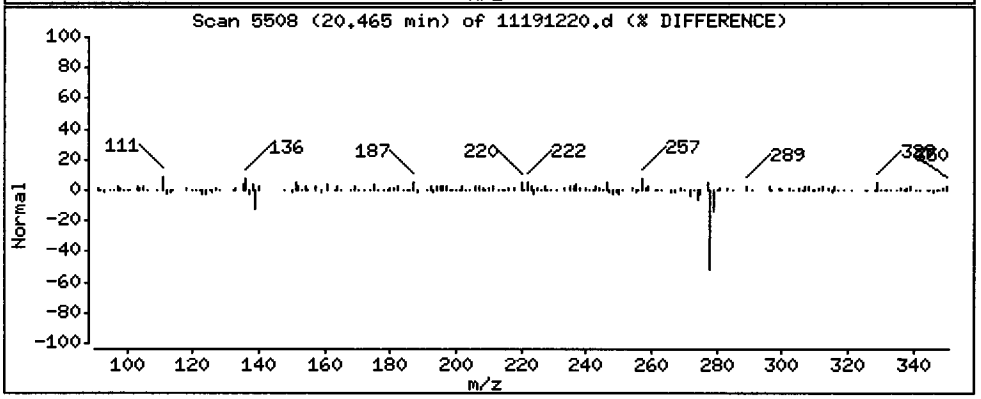












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

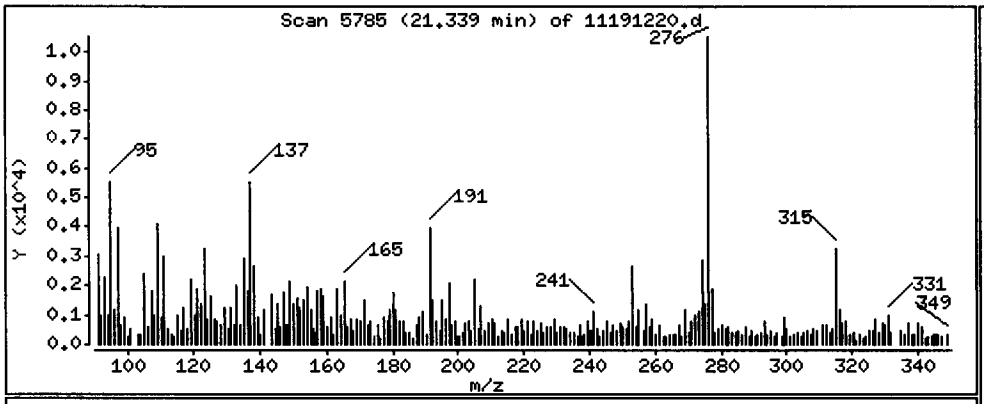
Client ID: HT-10-S-LFP-121106 Instrument: nt11.i

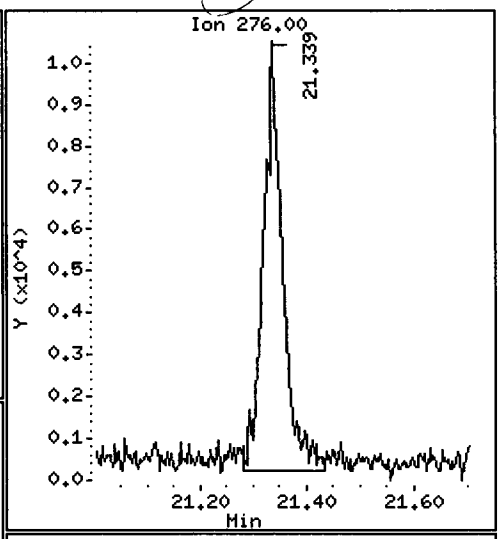
Sample Info: VR38H

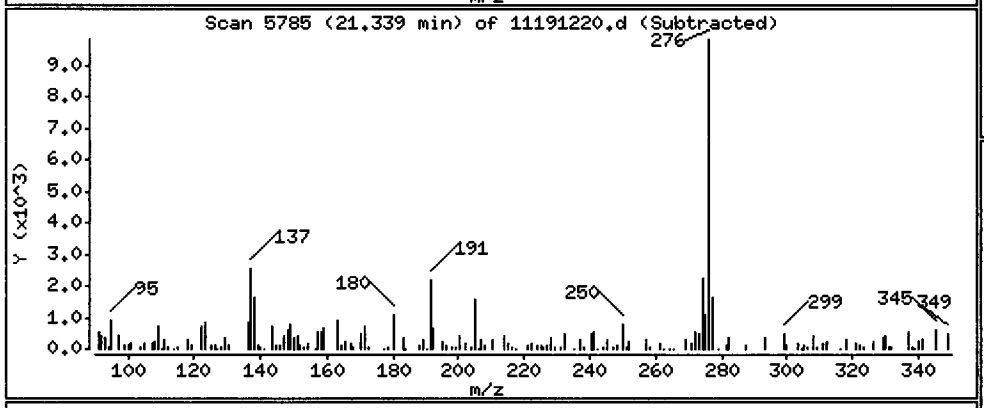
Volume Injected (uL): 1.0 Operator: JZ

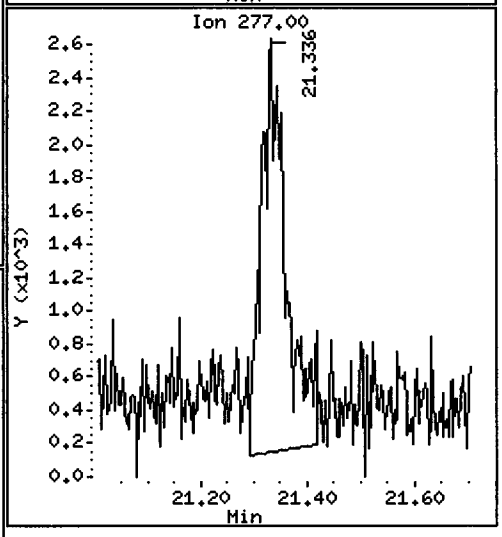
Column phase: ZB-5msi Column diameter: 0.25

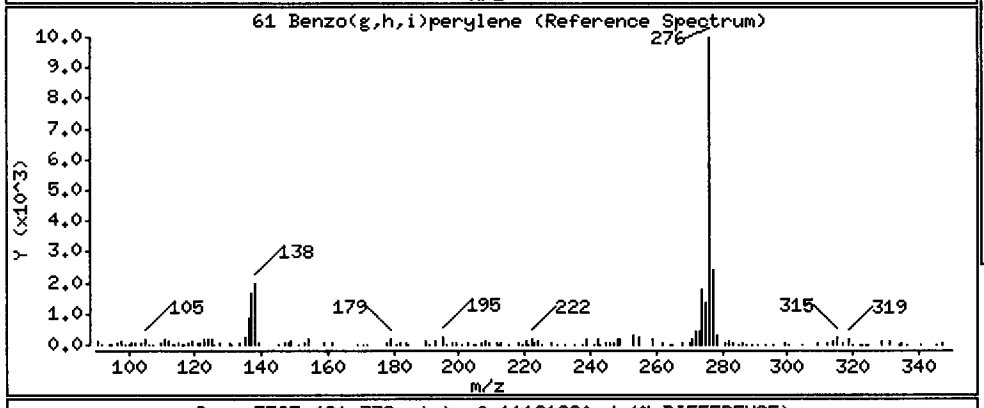
61 Benzo(g,h,i)perylene Concentration: 4.738 ug/kg

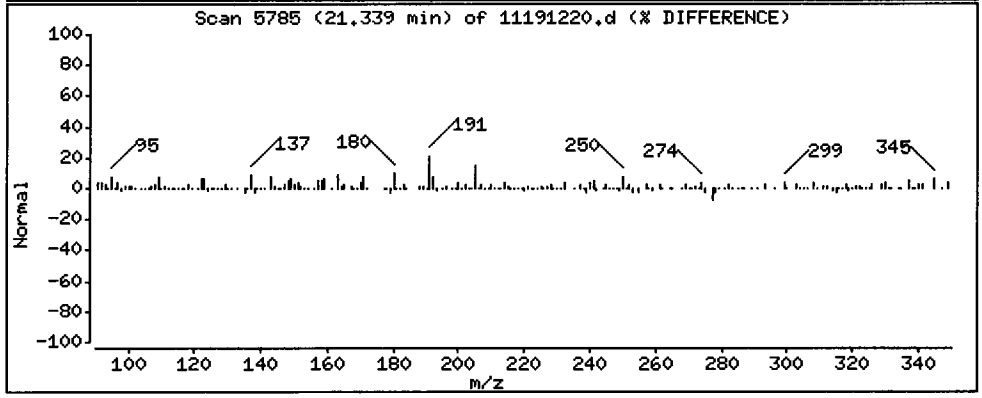












Data File: /chem3/nt11.i/20121119.b/11191220.d

Date : 19-NOV-2012 21:26

Client ID: HT-10-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38H

Volume Injected (uL): 1.0

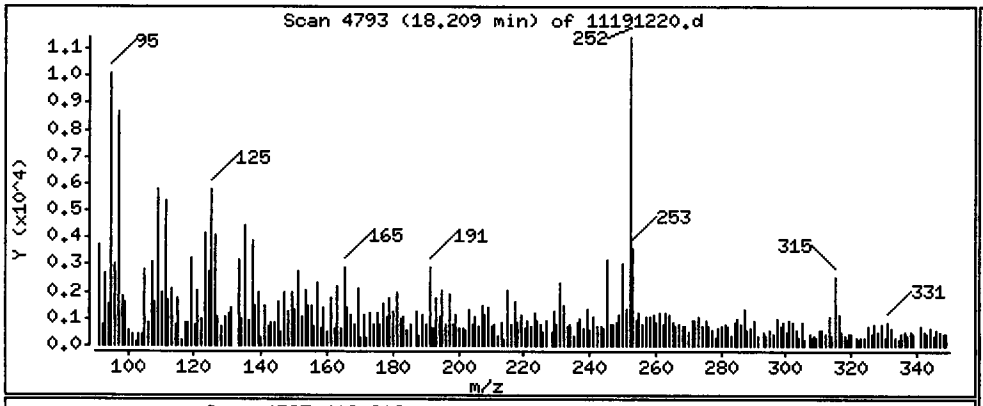
Operator: JZ

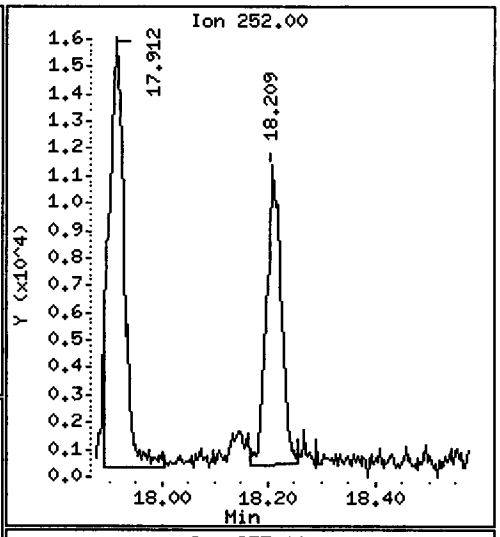
Column phase: ZB-5msi

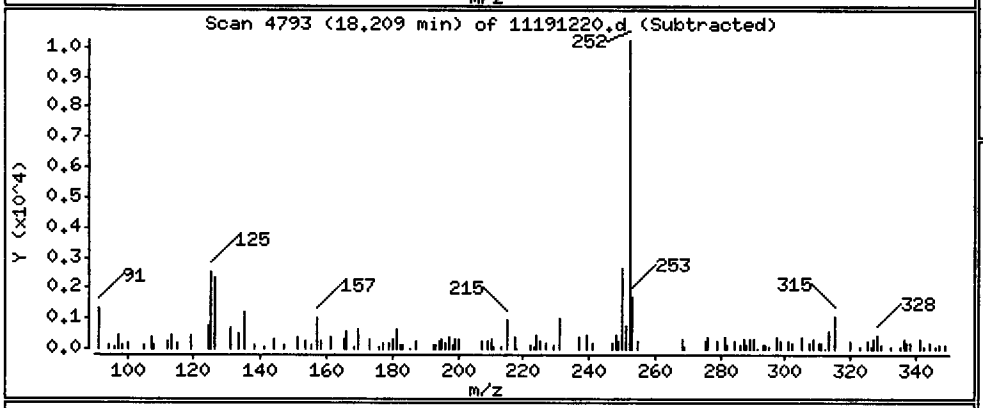
Column diameter: 0.25

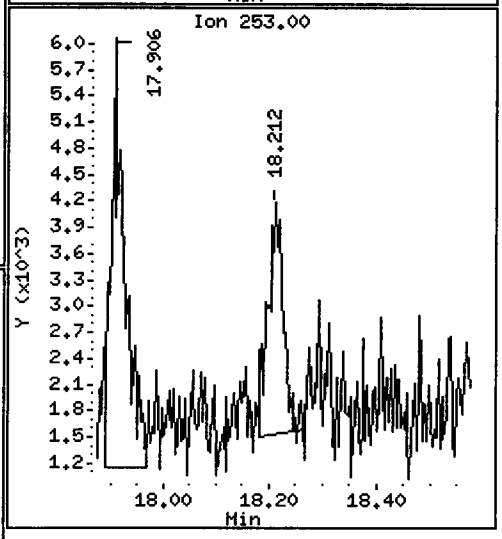
57 Perylene

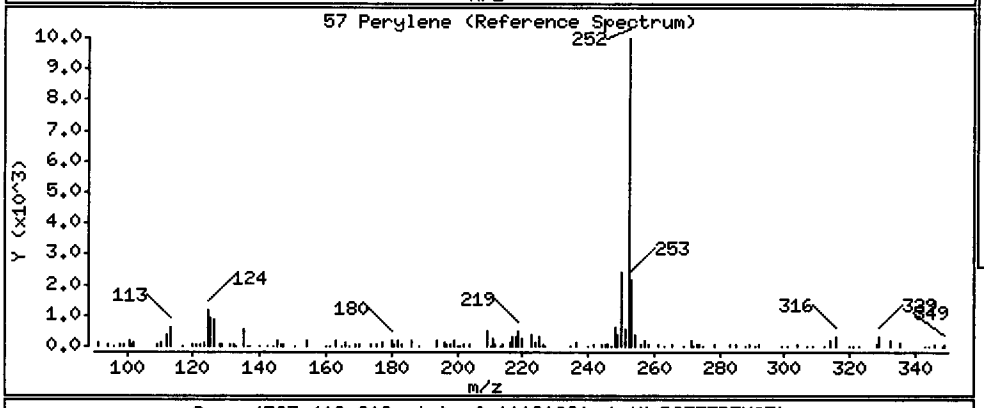
Concentration: 3.794 ug/kg

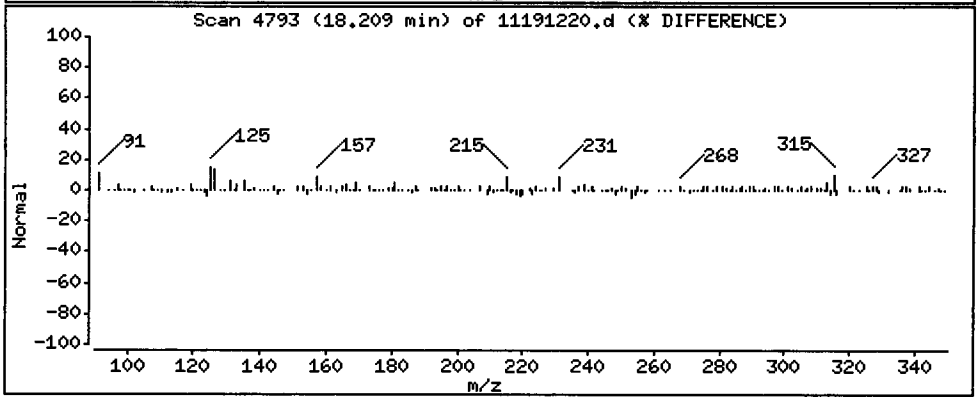












CO-ELUTION SUMMARY FOR FILE - 11191220.d

Lab ID: VR38H, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191221.d
Lab Smp Id: VR38HMS Client Smp ID: HT-10-S-LFP-121 MS
Inj Date : 19-NOV-2012 21:56
Operator : JZ Inst ID: nt11.i
Smp Info : VR38HMS
Misc Info : 12-22274
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 15:37 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 21 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/30/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.10000	Weight of sample extracted (g)
M	14.30000	% 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)
*	6 Naphthalene-d8	136	5.467	5.473	(1.000)	649774	2.00000	
	7 Naphthalene	128	5.495	5.501	(1.005)	650376	1.87288	90.31
$	12 2-Methylnaphthalene-d10	152	6.205	6.208	(1.135)	391071	1.76150	84.93
	14 2-Methylnaphthalene	141	6.252	6.255	(1.144)	380630	1.94539	93.80
	15 1-methylnaphthalene	141	6.445	6.448	(1.179)	392423	2.09399	101.0
	21 Acenaphthylene	152	7.631	7.634	(0.986)	727158	2.29498	110.7
*	22 Acenaphthene-d10	164	7.742	7.745	(1.000)	364637	2.00000	
	23 Acenaphthene	153	7.789	7.795	(1.006)	442050	2.19382	105.8
	11 Dibenzofuran	168	7.944	7.947	(1.026)	604601	2.04817	98.76
	25 Fluorene	166	8.417	8.420	(1.087)	547024	2.41119	116.3
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	507442	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	772637	2.52066	121.5
	31 Anthracene	178	9.837	9.840	(1.008)	761776	2.58882	124.8
	36 Fluoranthene	202	11.459	11.459	(1.174)	813592	2.64924	127.7
	39 Pyrene	202	11.936	11.926	(0.830)	862445	2.71567	130.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.261	14.268	(0.991)	744977	2.57262	124.0
*	47 Chrysene-d12	240	14.384	14.387	(1.000)	576292	2.00000	
	48 Chrysene	228	14.457	14.457	(1.005)	739645	2.63158	126.9
	51 Benzo(b)fluoranthene	252	16.906	16.906	(0.932)	742104	3.03096	146.1
	52 Benzo(k)fluoranthene	252	16.962	16.966	(0.935)	727777	2.73699	132.0
	251 Benzo(j)fluoranthene	252	17.038	17.038	(0.939)	654300	2.33222	112.5
	54 Benzo(a)pyrene	252	17.922	17.922	(0.988)	639845	2.57281	124.1
*	56 Perylene-d12	264	18.146	18.152	(1.000)	529037	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.475	20.478	(1.128)	633909	2.10249	101.4
$	60 Dibenzo(a,h)anthracene-d14	292	20.374	20.380	(1.123)	414013	2.36058	113.8
	62 Dibenzo(a,h)anthracene	278	20.468	20.475	(1.128)	522036	2.12596	102.5
	61 Benzo(g,h,i)perylene	276	21.349	21.355	(1.177)	503018	1.96108	94.56
	57 Perylene	252	18.222	18.225	(1.004)	804019	3.11747	150.3

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191221.d
Lab Smp Id: VR38HMS
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-10-S-LFP-121
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	649774	25.90
22 Acenaphthene-d10	284255	142128	568510	364637	28.28
28 Phenanthrene-d10	410660	205330	821320	507442	23.57
47 Chrysene-d12	467886	233943	935772	576292	23.17
56 Perylene-d12	472330	236165	944660	529037	12.01

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.11
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.02
56 Perylene-d12	18.15	17.65	18.65	18.15	-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

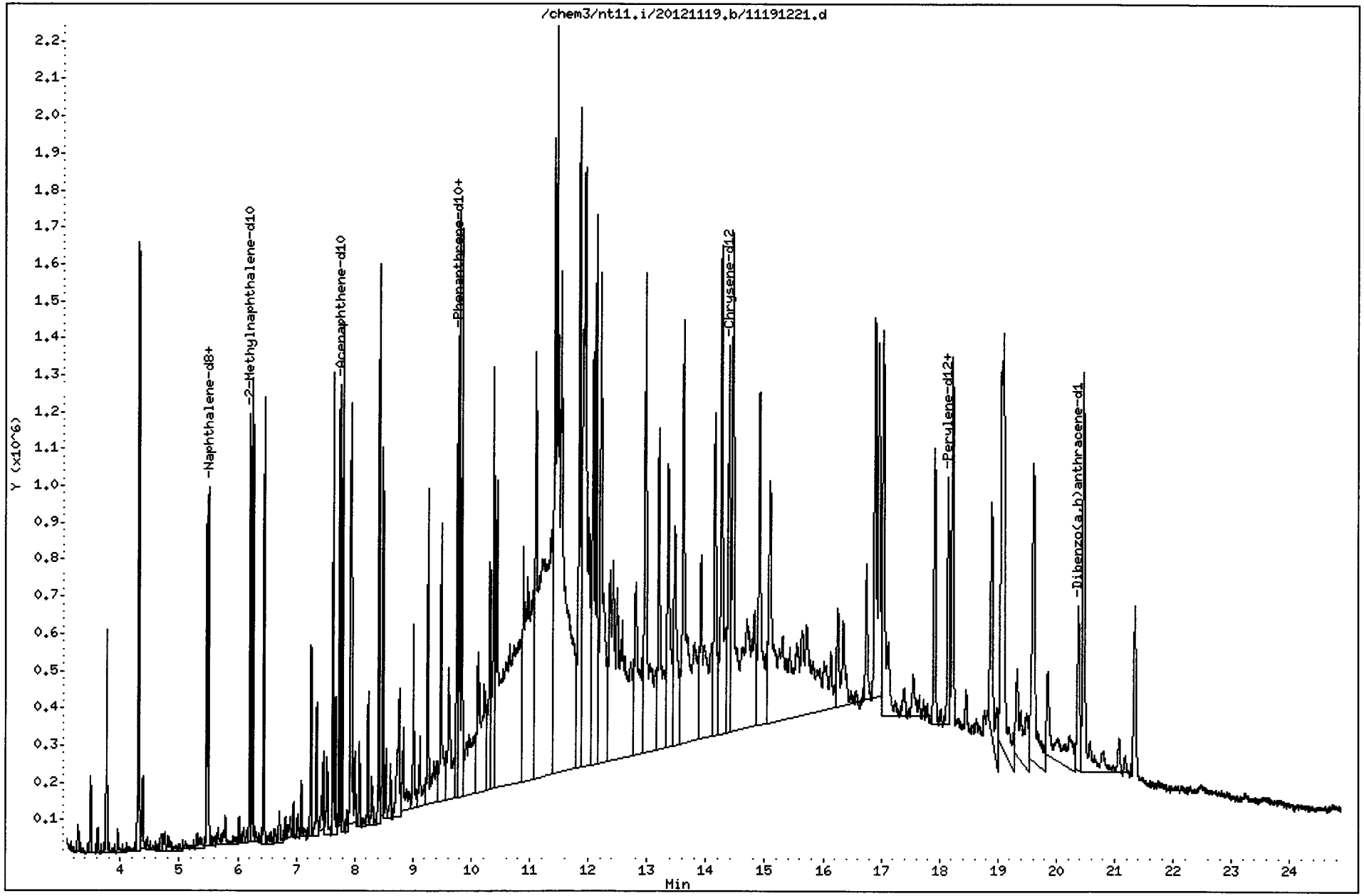
Client Name: Anchor QEA
Client SDG: VR38
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: VR38HMS
Client Smp ID: HT-10-S-LFP-121 MS
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: MS
SpikeList File: pnalcsw.spk
Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
7 Naphthalene	144.7	90.31	62.43	37-100
14 2-Methylnaphthalen	144.7	93.80	64.85	34-107
15 1-methylnaphthalen	144.7	101.0	69.80	30-160
21 Acenaphthylene	144.7	110.7	76.50	32-104
23 Acenaphthene	144.7	105.8	73.13	40-102
11 Dibenzofuran	144.7	98.76	68.27	44-104
25 Fluorene	144.7	116.3	80.37	43-114
30 Phenanthrene	144.7	121.5	84.02	43-116
31 Anthracene	144.7	124.8	86.29	30-121
36 Fluoranthene	144.7	127.7	88.31	46-138
39 Pyrene	144.7	130.9	90.52	47-124
46 Benzo(a)anthracene	144.7	124.0	85.75	38-134
48 Chrysene	144.7	126.9	87.72	52-112
51 Benzo(b)fluoranthe	144.7	146.1	101.03	49-123
52 Benzo(k)fluoranthe	144.7	132.0	91.23	50-127
54 Benzo(a)pyrene	144.7	124.1	85.76	24-118
63 Indeno(1,2,3-cd)py	144.7	101.4	70.08	32-123
62 Dibenzo(a,h)anthra	144.7	102.5	70.87	30-127
61 Benzo(g,h,i)peryle	144.7	94.56	65.37	26-124
57 Perylene	144.7	150.3	103.92	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	144.7	84.93	58.72	34-100
$ 60 Dibenzo(a,h)anthra	144.7	113.8	78.69	10-117

Data File: /chem3/nt11.i/20121119.b/11191221.d
Date : 19-NOV-2012 21:56
Client ID: HT-10-S-LFP-121 MS
Sample Info: VR38HMS
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - 11191221.d

Lab ID: VR38HMS, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191222.d
Lab Smp Id: VR38HMSD Client Smp ID: HT-10-S-LFP-121 MSD
Inj Date : 19-NOV-2012 22:26
Operator : JZ Inst ID: nt11.i
Smp Info : VR38HMSD
Misc Info : 12-22274
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 15:37 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.12000	Weight of sample extracted (g)
M	14.30000	% 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)
*	6 Naphthalene-d8	136	5.467	5.473	(1.000)	663747	2.00000	
	7 Naphthalene	128	5.495	5.501	(1.005)	668614	1.88487	90.73
$	12 2-Methylnaphthalene-d10	152	6.205	6.208	(1.135)	392151	1.72918	83.24
	14 2-Methylnaphthalene	141	6.253	6.255	(1.144)	384535	1.92397	92.62
	15 1-methylnaphthalene	141	6.445	6.448	(1.179)	398412	2.08119	100.2
	21 Acenaphthylene	152	7.628	7.634	(0.985)	726646	2.26934	109.2
*	22 Acenaphthene-d10	164	7.742	7.745	(1.000)	368497	2.00000	
	23 Acenaphthene	153	7.789	7.795	(1.006)	437254	2.14729	103.4
	11 Dibenzofuran	168	7.941	7.947	(1.026)	605043	2.02820	97.63
	25 Fluorene	166	8.417	8.420	(1.087)	545695	2.38014	114.6
*	28 Phenanthrene-d10	188	9.762	9.764	(1.000)	521171	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	762264	2.42131	116.6
	31 Anthracene	178	9.837	9.840	(1.008)	763546	2.52648	121.6
	36 Fluoranthene	202	11.456	11.459	(1.174)	803446	2.54728	122.6
	39 Pyrene	202	11.936	11.926	(0.830)	850243	2.65566	127.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.258	14.268	(0.991)	742878	2.54468	122.5
*	47 Chrysene-d12	240	14.384	14.387	(1.000)	580978	2.00000	
	48 Chrysene	228	14.454	14.457	(1.005)	729340	2.57398	123.9
	51 Benzo(b)fluoranthene	252	16.899	16.906	(0.931)	730773	2.93058	141.1
	52 Benzo(k)fluoranthene	252	16.959	16.966	(0.935)	720911	2.66202	128.1
	251 Benzo(j)fluoranthene	252	17.035	17.038	(0.939)	672703	2.35434	113.3
	54 Benzo(a)pyrene	252	17.916	17.922	(0.987)	629666	2.48598	119.7
*	56 Perylene-d12	264	18.143	18.152	(1.000)	538804	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.468	20.478	(1.128)	641503	2.08911	100.6
$	60 Dibenzo(a,h)anthracene-d14	292	20.374	20.380	(1.123)	412555	2.30962	111.2
	62 Dibenzo(a,h)anthracene	278	20.465	20.475	(1.128)	534494	2.13724	102.9
	61 Benzo(g,h,i)perylene	276	21.346	21.355	(1.177)	498312	1.90752	91.82
	57 Perylene	252	18.218	18.225	(1.004)	786481	2.99420	144.1

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191222.d
Lab Smp Id: VR38HMSD
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-10-S-LFP-121
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	663747	28.61
22 Acenaphthene-d10	284255	142128	568510	368497	29.64
28 Phenanthrene-d10	410660	205330	821320	521171	26.91
47 Chrysene-d12	467886	233943	935772	580978	24.17
56 Perylene-d12	472330	236165	944660	538804	14.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.11
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.02
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.05

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

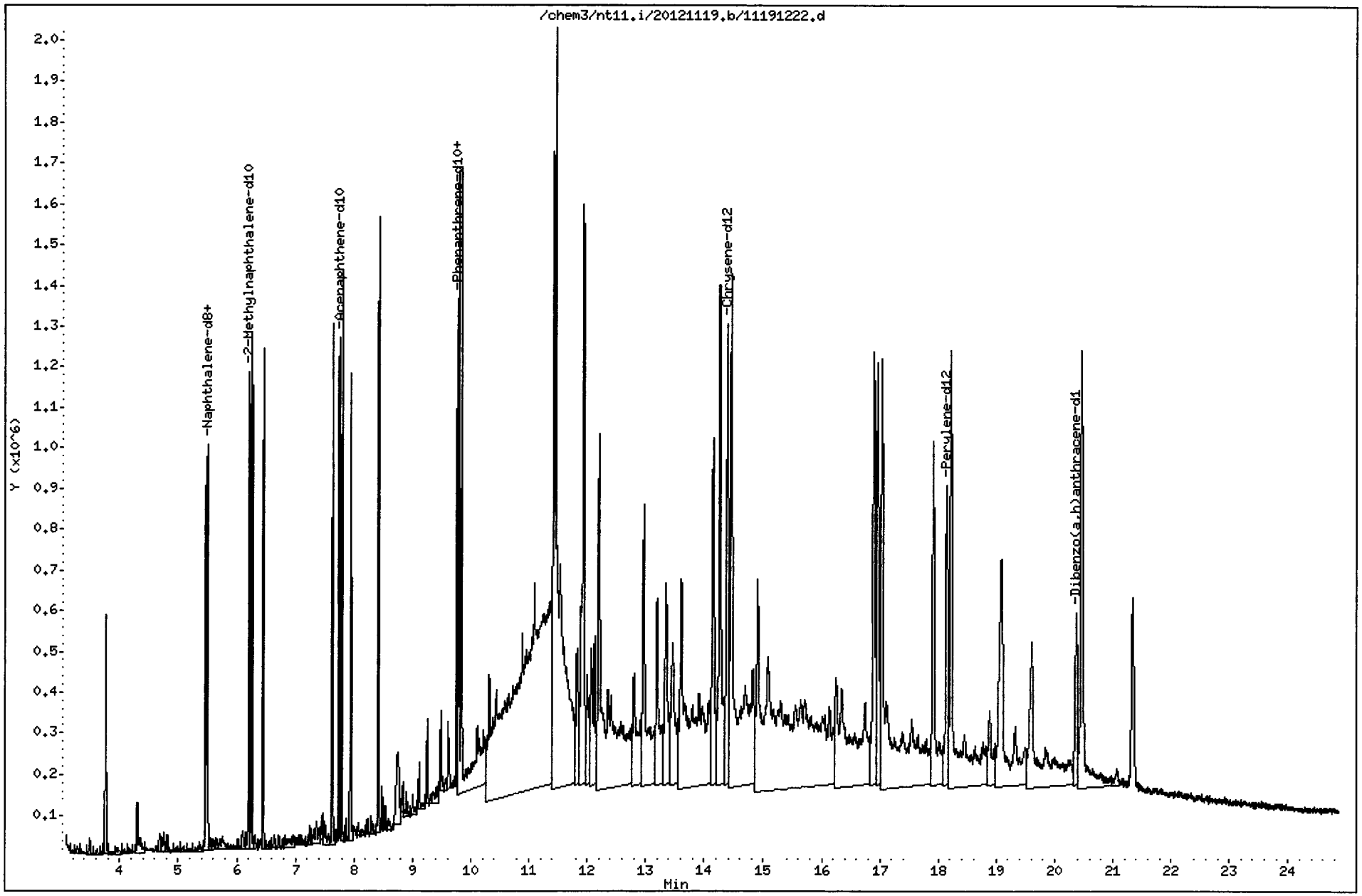
Client Name: Anchor QEA
Client SDG: VR38
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: VR38HMSD
Client Smp ID: HT-10-S-LFP-121 MSD
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: MS
SpikeList File: pnalcsw.spk
Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
7 Naphthalene	144.4	90.73	62.83	37-100
14 2-Methylnaphthalen	144.4	92.62	64.13	34-107
15 1-methylnaphthalen	144.4	100.2	69.37	30-160
21 Acenaphthylene	144.4	109.2	75.64	32-104
23 Acenaphthene	144.4	103.4	71.58	40-102
11 Dibenzofuran	144.4	97.63	67.61	44-104
25 Fluorene	144.4	114.6	79.34	43-114
30 Phenanthrene	144.4	116.6	80.71	43-116
31 Anthracene	144.4	121.6	84.22	30-121
36 Fluoranthene	144.4	122.6	84.91	46-138
39 Pyrene	144.4	127.8	88.52	47-124
46 Benzo(a)anthracene	144.4	122.5	84.82	38-134
48 Chrysene	144.4	123.9	85.80	52-112
51 Benzo(b)fluoranthe	144.4	141.1	97.69	49-123
52 Benzo(k)fluoranthe	144.4	128.1	88.73	50-127
54 Benzo(a)pyrene	144.4	119.7	82.87	24-118
63 Indeno(1,2,3-cd)py	144.4	100.6	69.64	32-123
62 Dibenzo(a,h)anthra	144.4	102.9	71.24	30-127
61 Benzo(g,h,i)peryle	144.4	91.82	63.58	26-124
57 Perylene	144.4	144.1	99.81	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	144.4	83.24	57.64	34-100
$ 60 Dibenzo(a,h)anthra	144.4	111.2	76.99	10-117

Data File: /chem3/nt11.i/20121119.b/11191222.d
Date : 19-NOV-2012 22:26
Client ID: HT-10-S-LFP-121 MSD
Sample Info: VR38HMSD
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - 11191222.d

Lab ID: VR38HMSD, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191223.d
Lab Smp Id: VR38I Client Smp ID: HT-11-S-LFP-121106
Inj Date : 19-NOV-2012 22:56
Operator : JZ Inst ID: nt11.i
Smp Info : VR38I
Misc Info : 12-22275
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 15:42 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.20000	Weight of sample extracted (g)
M	14.70000	% 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)
*	6 Naphthalene-d8	136	5.463	5.473	(1.000)	641651	2.00000	
	7 Naphthalene	128	Compound Not Detected.					
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.135)	371867	1.69620	81.50
	14 2-Methylnaphthalene	141	Compound Not Detected.					
	15 1-methylnaphthalene	141	Compound Not Detected.					
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	352250	2.00000	
	23 Acenaphthene	153	Compound Not Detected.					
	11 Dibenzofuran	168	Compound Not Detected.					
	25 Fluorene	166	Compound Not Detected.					
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	510678	2.00000	
	30 Phenanthrene	178	Compound Not Detected.					
	31 Anthracene	178	Compound Not Detected.					
	36 Fluoranthene	202	11.453	11.459	(1.173)	19488	0.06306	3.030
	39 Pyrene	202	11.926	11.926	(0.829)	21262	0.06712	3.225
	46 Benzo(a)anthracene	228	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
*	47 Chrysene-d12	240	14.381	14.387	(1.000)	574808	2.00000	
	48 Chrysene	228	14.444	14.457	(1.004)	14286	0.05096	2.448
	51 Benzo(b)fluoranthene	252	16.890	16.906	(0.931)	12851	0.05232	2.514
	52 Benzo(k)fluoranthene	252	Compound Not Detected.					
	251 Benzo(j)fluoranthene	252	Compound Not Detected.					
	54 Benzo(a)pyrene	252	Compound Not Detected.					
*	56 Perylene-d12	264	18.143	18.152	(1.000)	530683	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	60 Dibenzo(a,h)anthracene-d14	292	20.367	20.380	(1.123)	401732	2.28345	109.7
	62 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	61 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	57 Perylene	252	18.218	18.225	(1.004)	15572	0.06019	2.892

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191223.d
Lab Smp Id: VR38I
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22275

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-11-S-LFP-1211
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	641651	24.32
22 Acenaphthene-d10	284255	142128	568510	352250	23.92
28 Phenanthrene-d10	410660	205330	821320	510678	24.36
47 Chrysene-d12	467886	233943	935772	574808	22.85
56 Perylene-d12	472330	236165	944660	530683	12.35

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.46	-0.17
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.04
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.05

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.

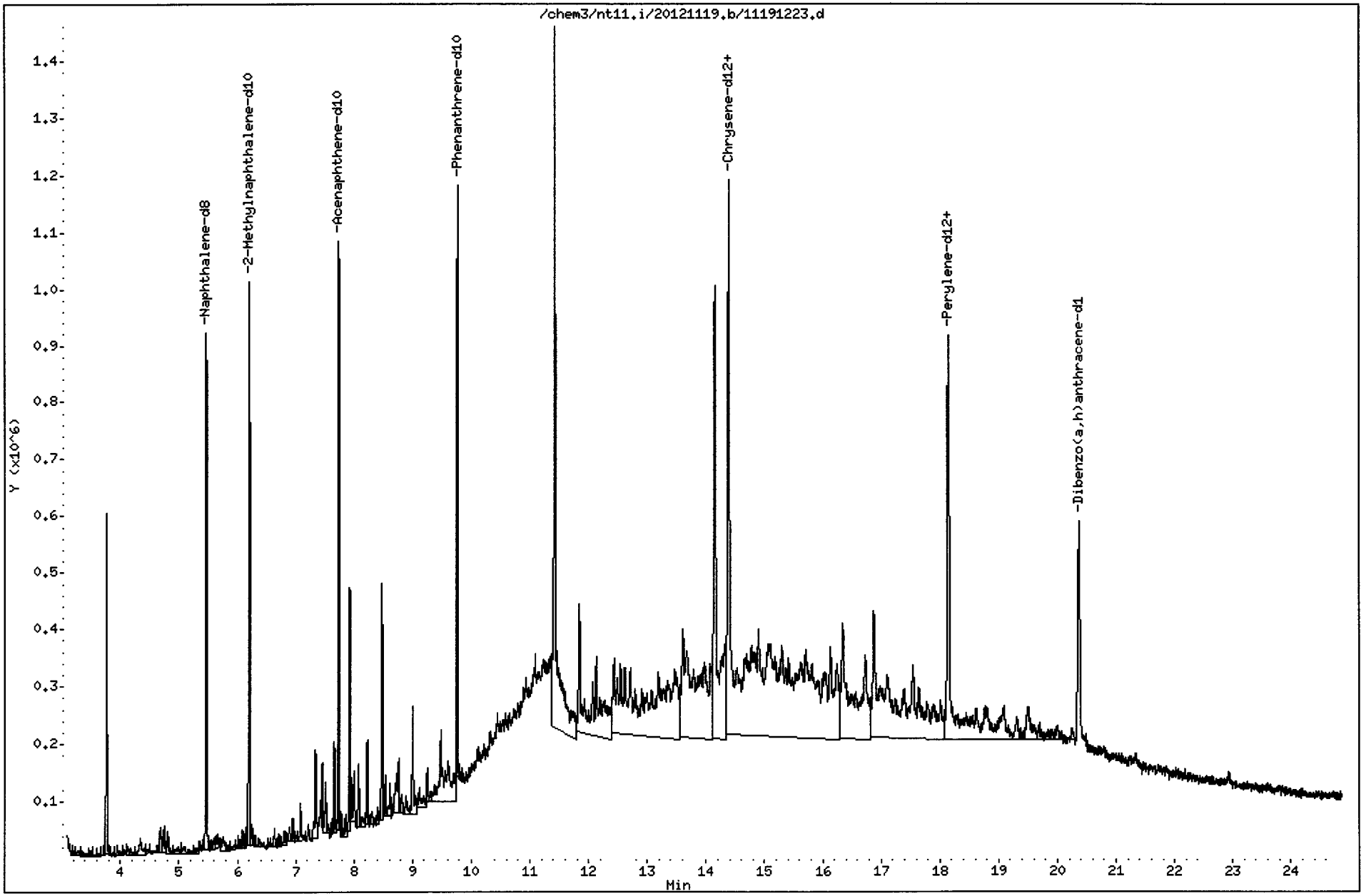
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38I Client Smp ID: HT-11-S-LFP-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22275

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	144.1	81.50	56.54	34-100
$ 60 Dibenzo(a,h)anthra	144.1	109.7	76.12	10-117

Data File: /chem3/nt11.i/20121119.b/11191223.d
Date : 19-NOV-2012 22:56
Client ID: HT-11-S-LFP-121106
Sample Info: VR38I
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191223.d

Date : 19-NOV-2012 22:56

Client ID: HT-11-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38I

Volume Injected (uL): 1.0

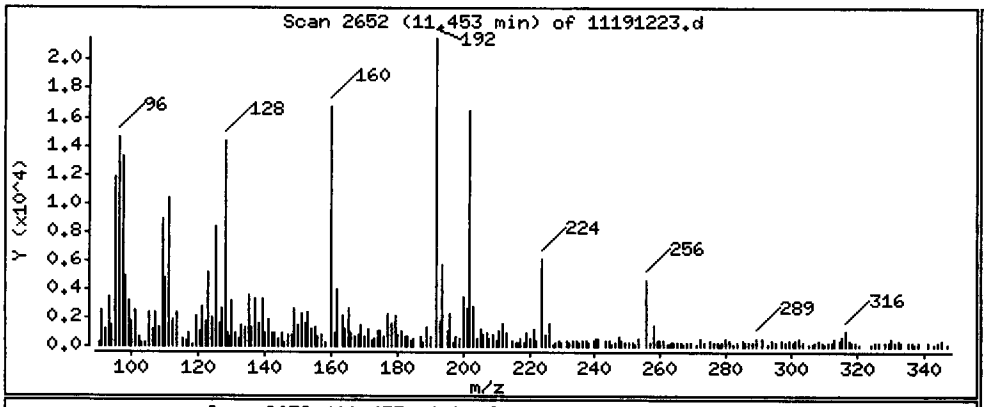
Operator: JZ

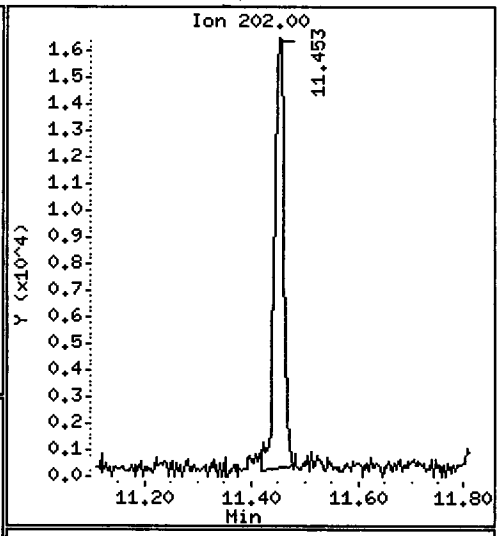
Column phase: ZB-5msi

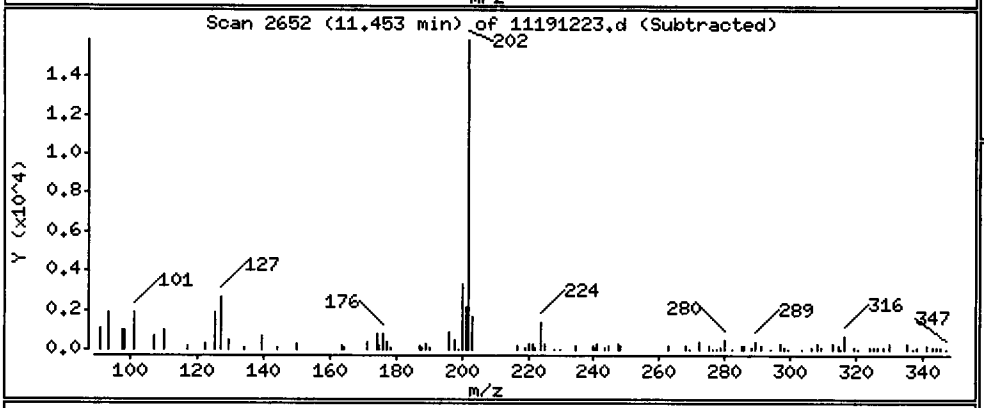
Column diameter: 0.25

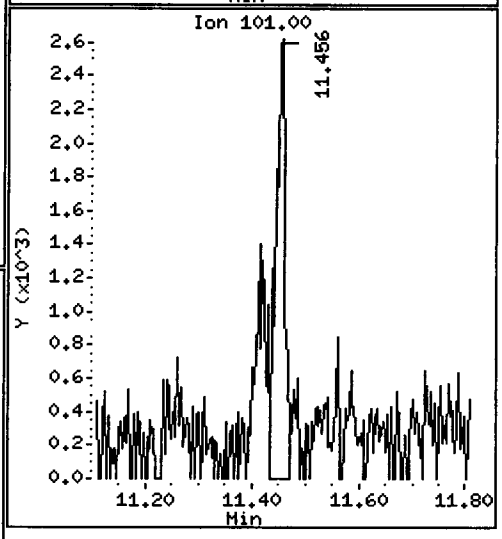
36 Fluoranthene

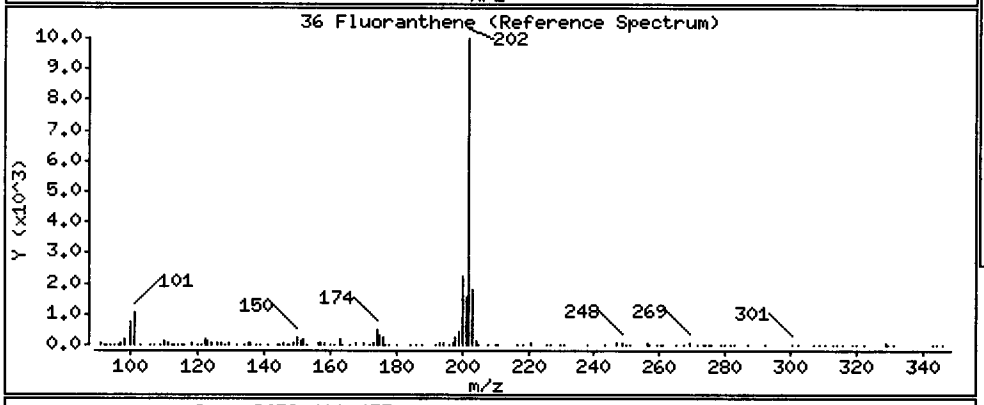
Concentration: 3.030 ug/kg

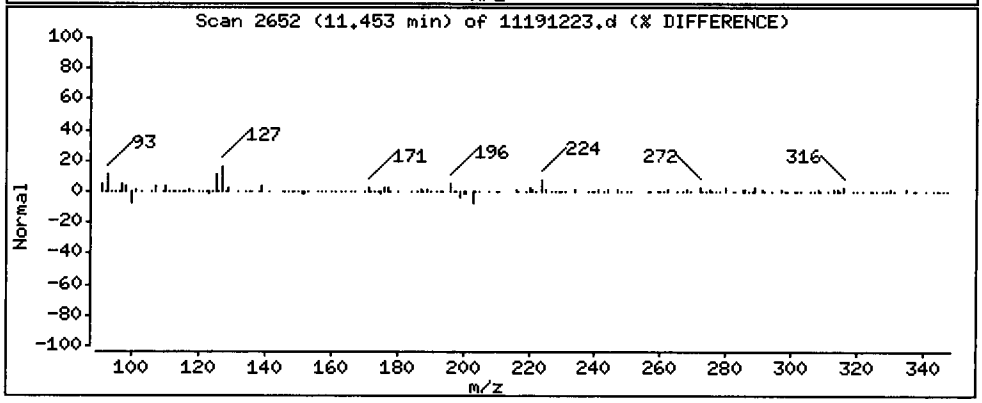












Data File: /chem3/nt11.i/20121119.b/11191223.d

Date : 19-NOV-2012 22:56

Client ID: HT-11-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38I

Volume Injected (uL): 1.0

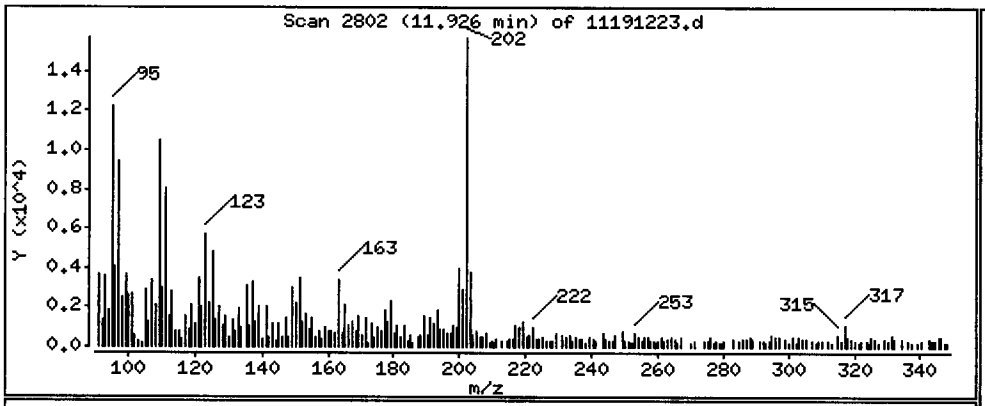
Operator: JZ

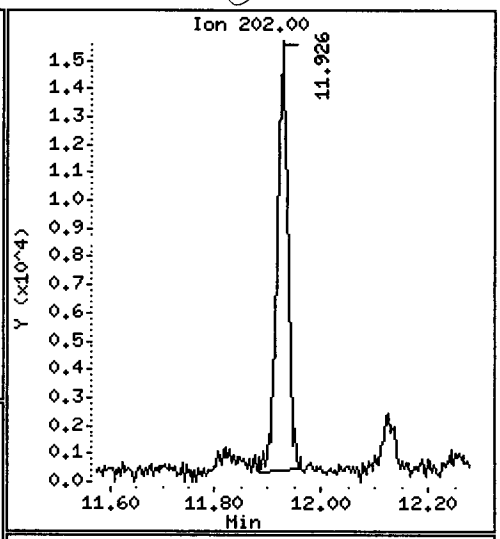
Column phase: ZB-5msi

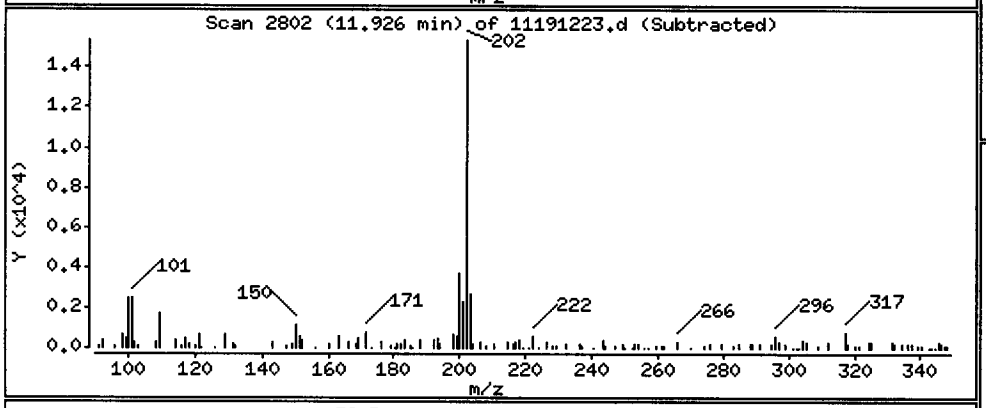
Column diameter: 0.25

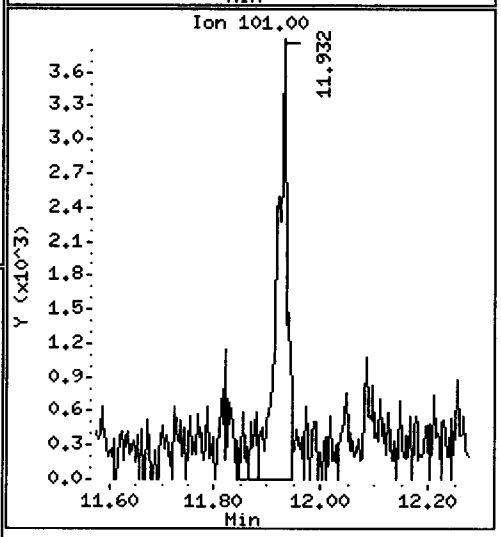
39 Pyrene

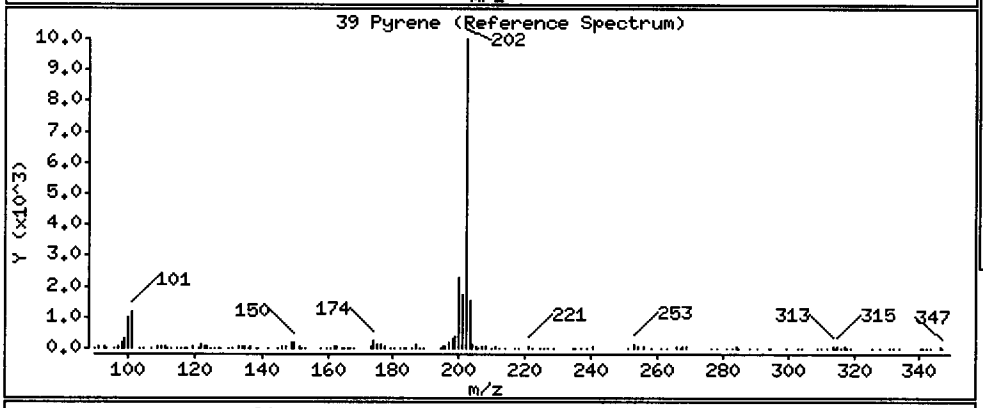
Concentration: 3.225 ug/kg

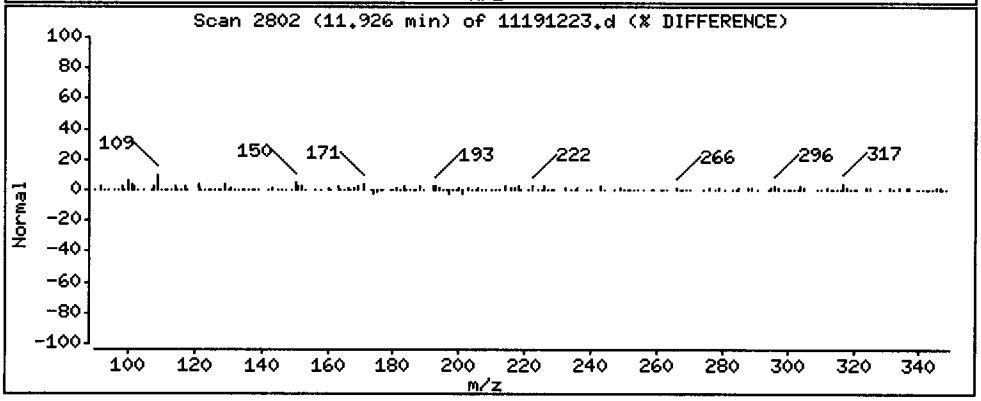












Data File: /chem3/nt11.i/20121119.b/11191223.d

Date : 19-NOV-2012 22:56

Client ID: HT-11-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38I

Volume Injected (uL): 1.0

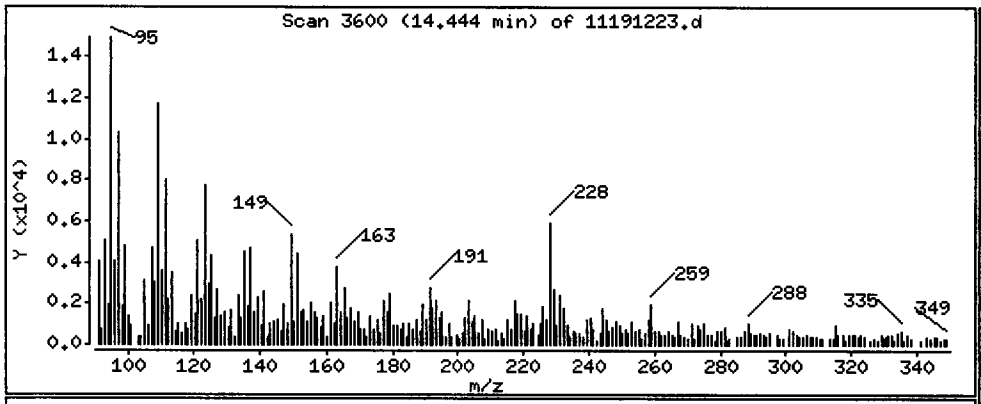
Operator: JZ

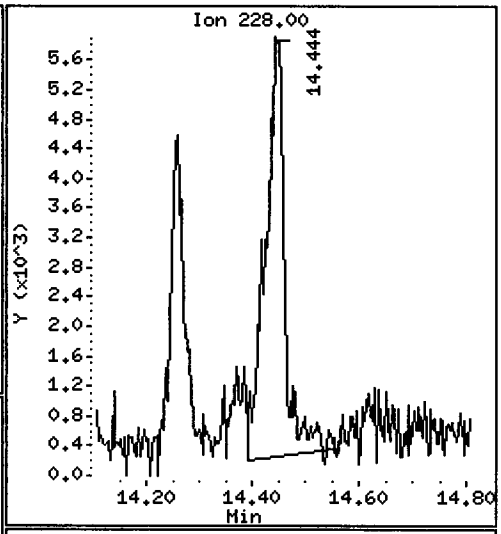
Column phase: ZB-5msi

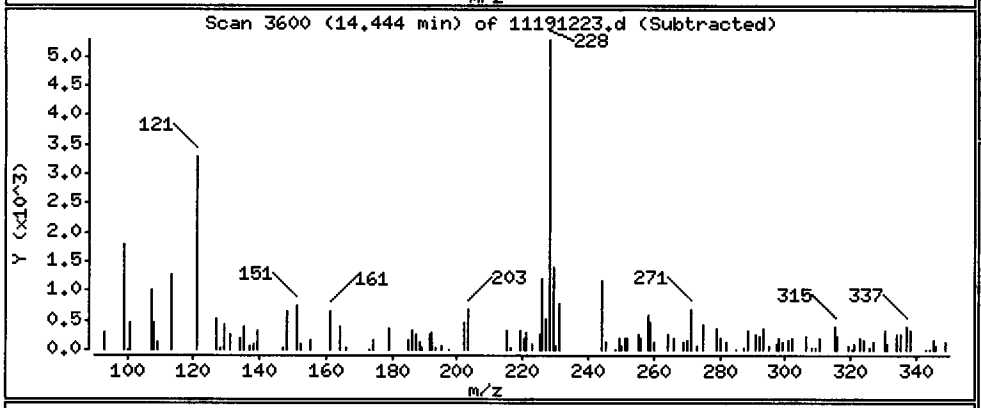
Column diameter: 0.25

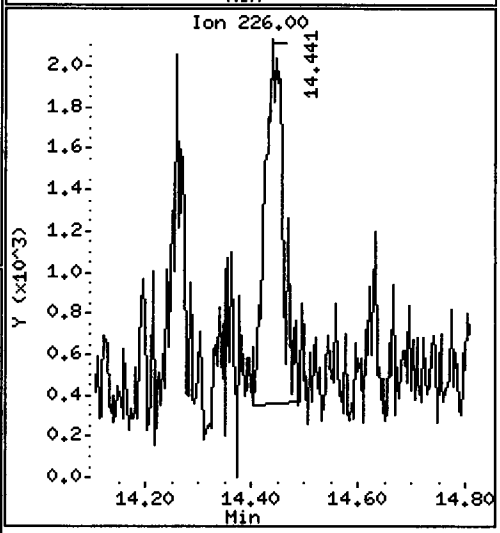
48 Chrysene

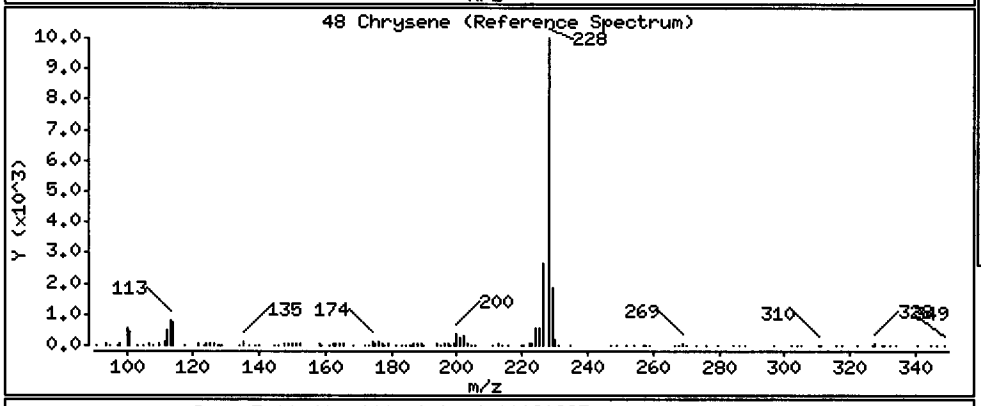
Concentration: 2.448 ug/kg

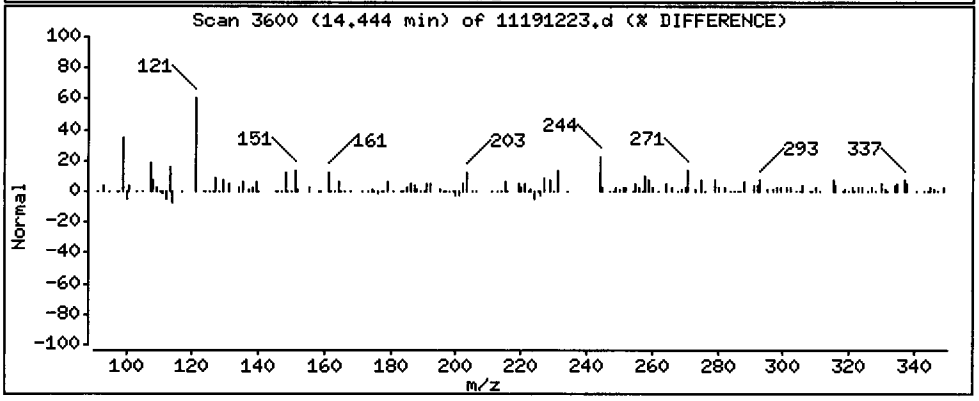












Data File: /chem3/nt11.i/20121119.b/11191223.d

Date : 19-NOV-2012 22:56

Client ID: HT-11-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38I

Volume Injected (uL): 1.0

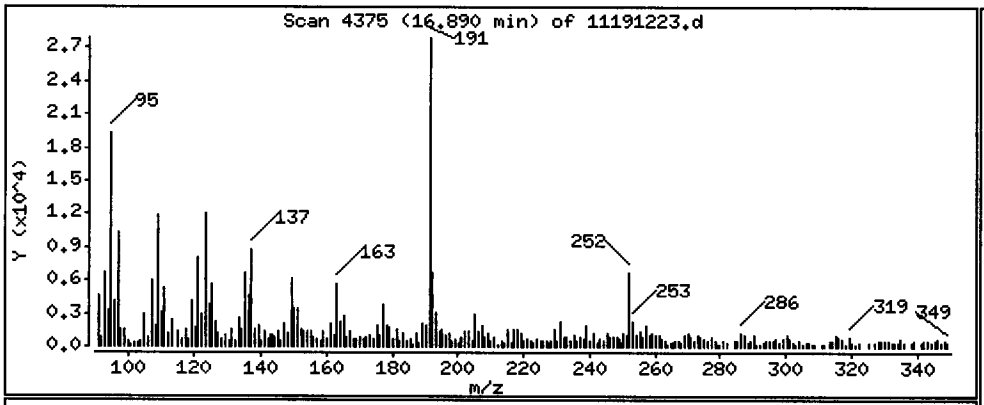
Operator: JZ

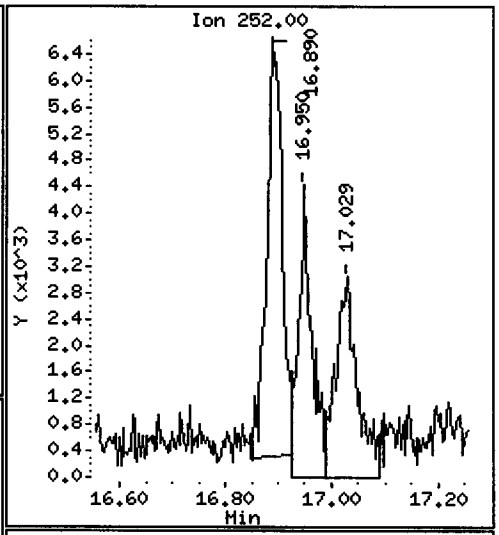
Column phase: ZB-5msi

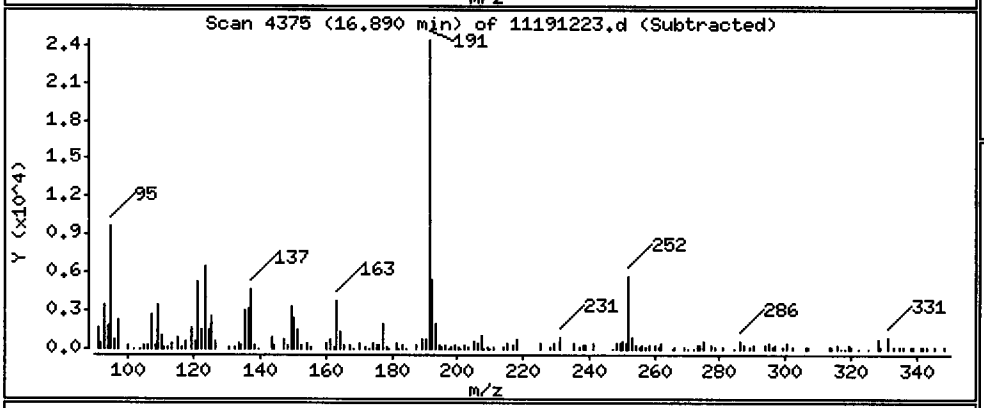
Column diameter: 0.25

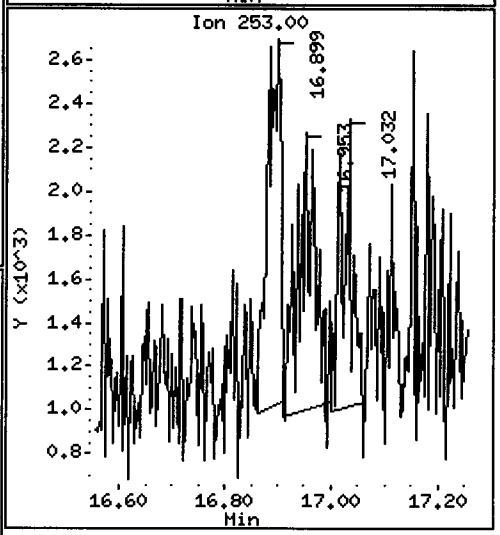
51 Benzo(b)fluoranthene

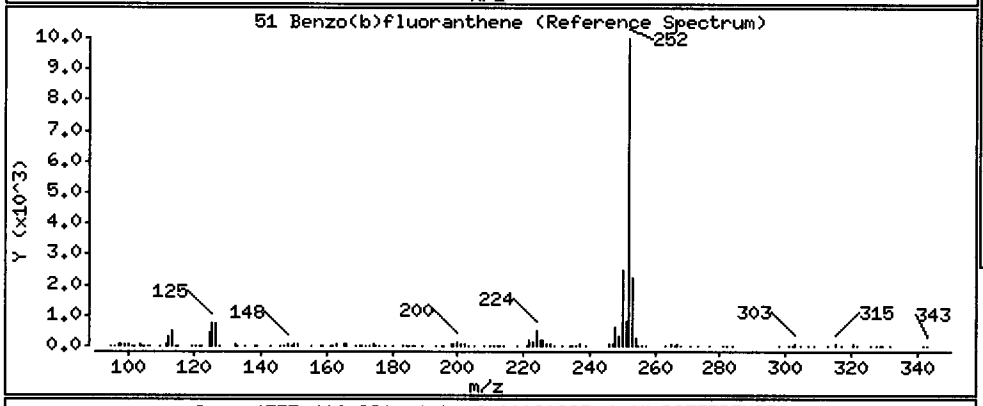
Concentration: 2.514 ug/kg

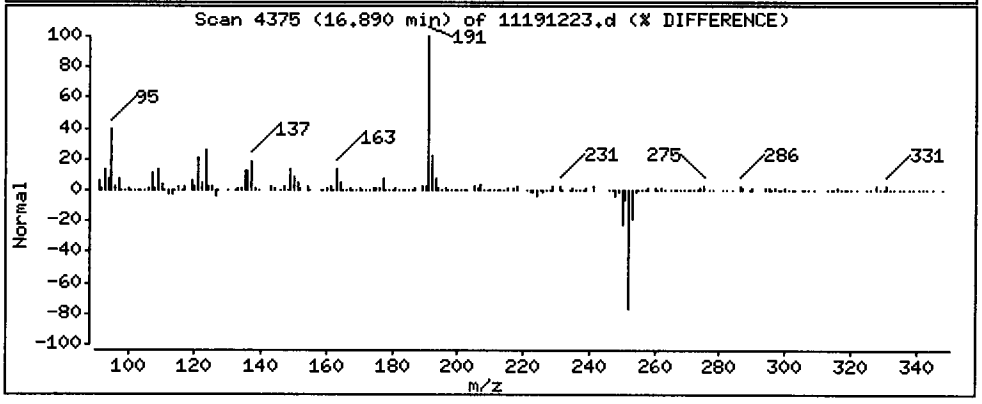












Data File: /chem3/nt11.i/20121119.b/11191223.d

Date : 19-NOV-2012 22:56

Client ID: HT-11-S-LFP-121106

Instrument: nt11.i

Sample Info: VR38I

Volume Injected (uL): 1.0

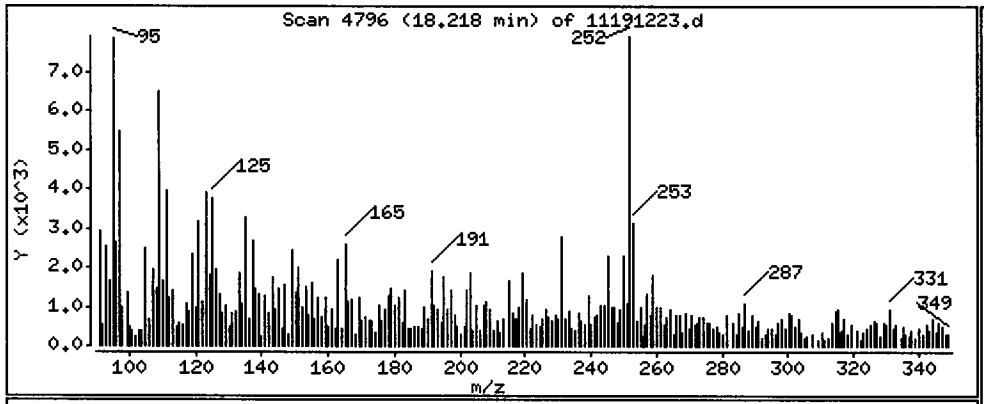
Operator: JZ

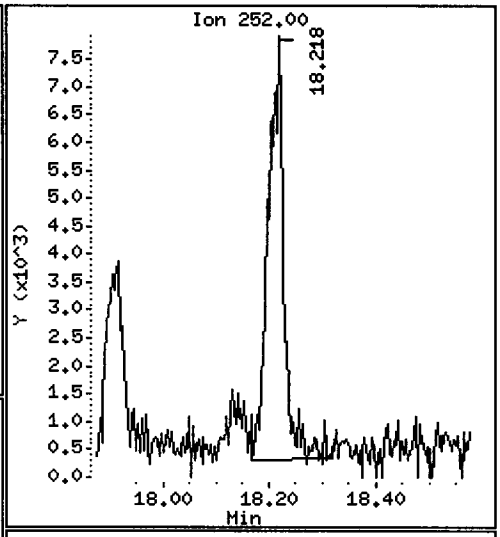
Column phase: ZB-5msi

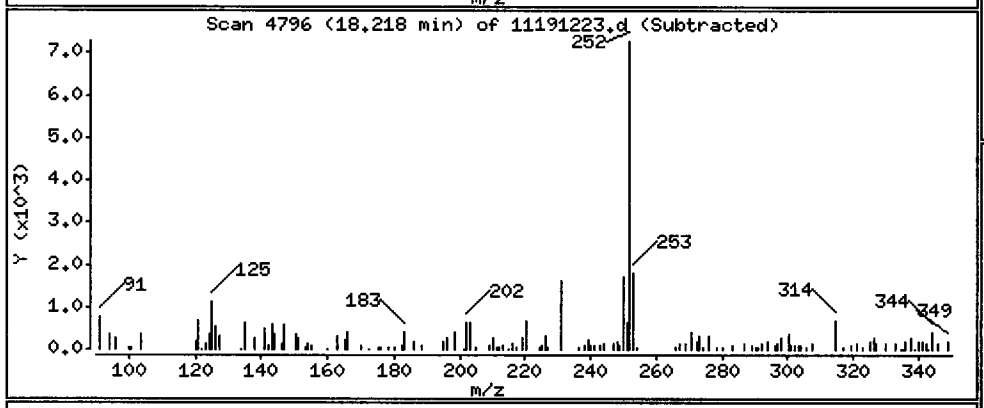
Column diameter: 0.25

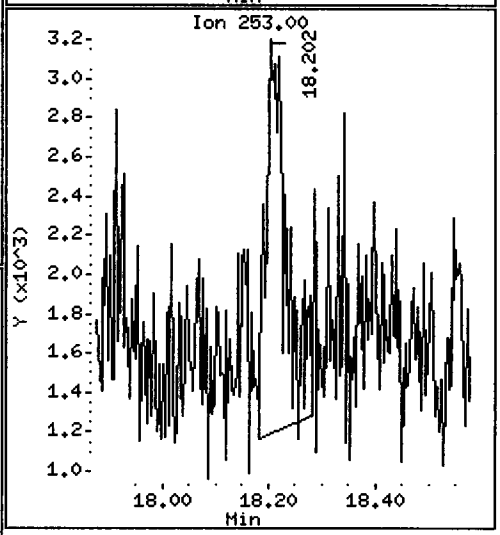
57 Perylene

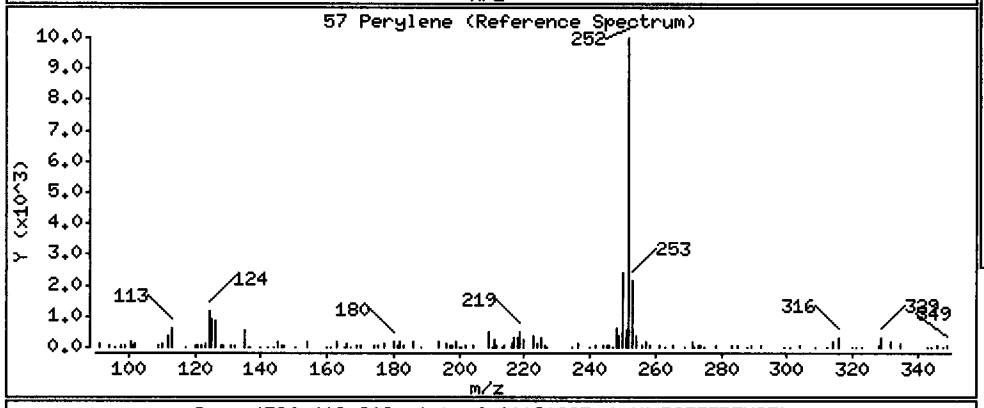
Concentration: 2.892 ug/kg

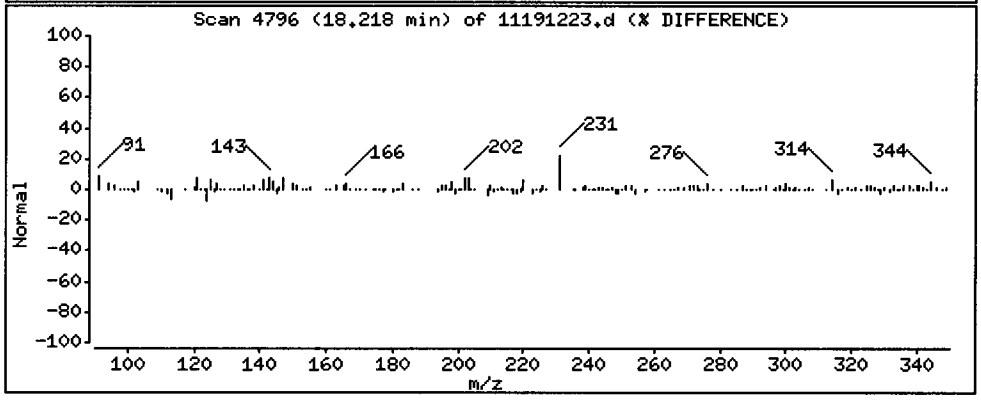












CO-ELUTION SUMMARY FOR FILE - 11191223.d

Lab ID: VR38I, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191212.d
Lab Smp Id: VR38LCSS1 Client Smp ID: VR38LCSS1
Inj Date : 19-NOV-2012 17:26
Operator : JZ Inst ID: nt11.i
Smp Info : VR38LCSS1,
Misc Info : 12-22274
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 19-Nov-2012 18:30 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/19/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	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)	FINAL (ug/kg)
*	6 Naphthalene-d8	136	5.467	5.473	(1.000)	649092	2.00000	
	7 Naphthalene	128	5.495	5.501	(1.005)	621847	1.79261	89.63
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.134)	364471	1.64341	82.17
	14 2-Methylnaphthalene	141	6.249	6.255	(1.143)	347038	1.77556	88.78
	15 1-methylnaphthalene	141	6.442	6.448	(1.178)	359362	1.91959	95.98
	21 Acenaphthylene	152	7.628	7.634	(0.986)	592181	1.91284	95.64
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	356276	2.00000	
	23 Acenaphthene	153	7.789	7.795	(1.007)	383941	1.95015	97.51
	11 Dibenzofuran	168	7.941	7.947	(1.026)	531128	1.84150	92.07
	25 Fluorene	166	8.414	8.420	(1.087)	479277	2.16215	108.1
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	512960	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	688108	2.22074	111.0
	31 Anthracene	178	9.834	9.840	(1.007)	677398	2.27730	113.9
	36 Fluoranthene	202	11.453	11.459	(1.173)	764141	2.46145	123.1
	39 Pyrene	202	11.920	11.926	(0.829)	791643	2.48618	124.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.258	14.268	(0.992)	735454	2.53306	126.7
*	47 Chrysene-d12	240	14.378	14.387	(1.000)	577811	2.00000	
	48 Chrysene	228	14.451	14.457	(1.005)	714467	2.53531	126.8
	51 Benzo(b)fluoranthene	252	16.893	16.906	(0.931)	744773	2.74108	137.1
	52 Benzo(k)fluoranthene	252	16.956	16.966	(0.935)	740824	2.51057	125.5
	251 Benzo(j)fluoranthene	252	17.029	17.038	(0.939)	679061	2.18113	109.1
	54 Benzo(a)pyrene	252	17.909	17.922	(0.987)	647182	2.34499	117.2
*	56 Perylene-d12	264	18.139	18.152	(1.000)	587089	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.471	20.478	(1.129)	889486	2.65845	132.9
$	60 Dibenzo(a,h)anthracene-d14	292	20.370	20.380	(1.123)	574419	2.95131	147.6
	62 Dibenzo(a,h)anthracene	278	20.462	20.475	(1.128)	735753	2.70003	135.0
	61 Benzo(g,h,i)perylene	276	21.339	21.355	(1.176)	745842	2.62024	131.0
	57 Perylene	252	18.215	18.225	(1.004)	814900	2.84723	142.4

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191212.d
Lab Smp Id: VR38LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: VR38LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	649092	25.77
22 Acenaphthene-d10	284255	142128	568510	356276	25.34
28 Phenanthrene-d10	410660	205330	821320	512960	24.91
47 Chrysene-d12	467886	233943	935772	577811	23.49
56 Perylene-d12	472330	236165	944660	587089	24.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.12
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.07
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.07

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

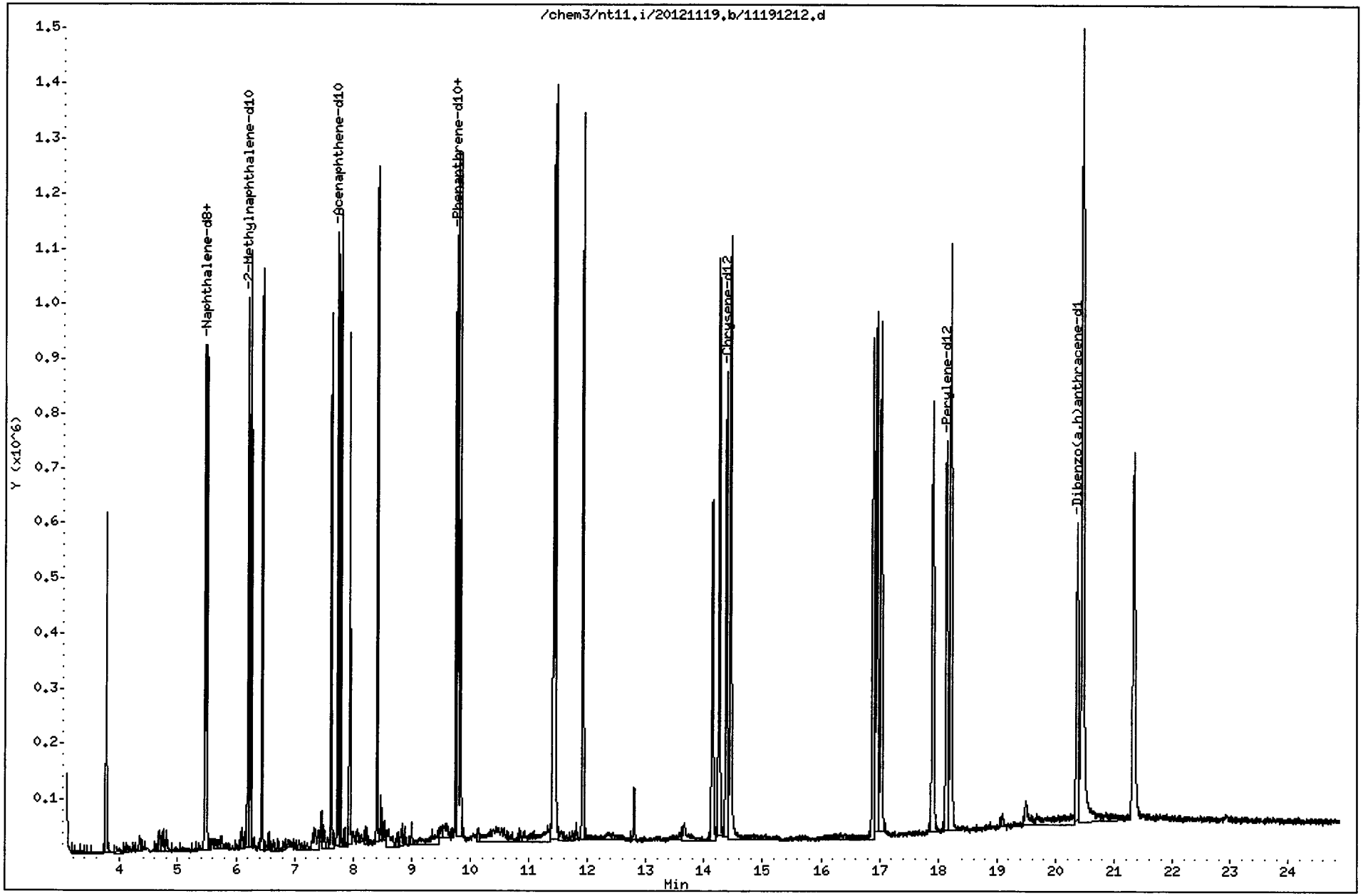
Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38LCSS1 Client Smp ID: VR38LCSS1
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: LCS
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
7 Naphthalene	150.0	89.63	59.75	37-100
14 2-Methylnaphthalen	150.0	88.78	59.19	34-107
15 1-methylnaphthalen	150.0	95.98	63.99	30-160
21 Acenaphthylene	150.0	95.64	63.76	32-104
23 Acenaphthene	150.0	97.51	65.01	40-102
11 Dibenzofuran	150.0	92.07	61.38	44-104
25 Fluorene	150.0	108.1	72.07	43-114
30 Phenanthrene	150.0	111.0	74.02	43-116
31 Anthracene	150.0	113.9	75.91	30-121
36 Fluoranthene	150.0	123.1	82.05	46-138
39 Pyrene	150.0	124.3	82.87	47-124
46 Benzo(a)anthracene	150.0	126.7	84.44	38-134
48 Chrysene	150.0	126.8	84.51	52-112
51 Benzo(b)fluoranthe	150.0	137.1	91.37	49-123
52 Benzo(k)fluoranthe	150.0	125.5	83.69	50-127
54 Benzo(a)pyrene	150.0	117.2	78.17	24-118
63 Indeno(1,2,3-cd)py	150.0	132.9	88.62	32-123
62 Dibenzo(a,h)anthra	150.0	135.0	90.00	30-127
61 Benzo(g,h,i)peryle	150.0	131.0	87.34	26-124
57 Perylene	150.0	142.4	94.91	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	150.0	82.17	54.78	34-100
$ 60 Dibenzo(a,h)anthra	150.0	147.6	98.38	10-117

Data File: /chem3/nt11.i/20121119.b/11191212.d
Date : 19-NOV-2012 17:26
Client ID: VR38LCSS1
Sample Info: VR38LCSS1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - 11191212.d

Lab ID: VR38LCSS1, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191224.d
Lab Smp Id: VR38J Client Smp ID: HT-06-S-E-121106
Inj Date : 19-NOV-2012 23:26
Operator : JZ Inst ID: nt11.i
Smp Info : VR38J
Misc Info : 12-22276
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 15:42 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	13.28000	Weight of sample extracted (g)
M	20.20000	% 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)
*	6 Naphthalene-d8	136	5.470	5.473	(1.000)	662707	2.00000	
	7 Naphthalene	128	5.498	5.501	(1.005)	43728	0.12347	5.825
$	12 2-Methylnaphthalene-d10	152	6.205	6.208	(1.134)	373902	1.65130	77.91
	14 2-Methylnaphthalene	141	6.252	6.255	(1.143)	25965	0.13012	6.139
	15 1-methylnaphthalene	141	Compound Not Detected.					
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.742	7.745	(1.000)	368944	2.00000	
	23 Acenaphthene	153	7.789	7.795	(1.006)	14935	0.07325	3.456
	11 Dibenzofuran	168	7.941	7.947	(1.026)	35163	0.11773	5.555
	25 Fluorene	166	8.414	8.420	(1.087)	29751	0.12961	6.115
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	516393	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	339492	1.08836	51.35
	31 Anthracene	178	9.837	9.840	(1.008)	49387	0.16493	7.781
	36 Fluoranthene	202	11.456	11.459	(1.174)	696294	2.22799	105.1
	39 Pyrene	202	11.929	11.926	(0.829)	573695	1.79645	84.76

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.264	14.268	(0.992)	234328	0.80472	37.97
*	47 Chrysene-d12	240	14.384	14.387	(1.000)	579501	2.00000	
	48 Chrysene	228	14.451	14.457	(1.005)	299437	1.05946	49.99
	51 Benzo(b)fluoranthene	252	16.896	16.906	(0.931)	224359	0.97754	46.12
	52 Benzo(k)fluoranthene	252	16.956	16.966	(0.935)	118442	0.47518	22.42
	251 Benzo(j)fluoranthene	252	17.029	17.038	(0.939)	105666	0.40179	18.96
	54 Benzo(a)pyrene	252	17.915	17.922	(0.987)	209541	0.89883	42.41
*	56 Perylene-d12	264	18.143	18.152	(1.000)	495919	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.471	20.478	(1.128)	112459	0.39790	18.77
$	60 Dibenzo(a,h)anthracene-d14	292	20.377	20.380	(1.123)	342036	2.08042	98.16
	62 Dibenzo(a,h)anthracene	278	20.462	20.475	(1.128)	28447	0.12359	5.831
	61 Benzo(g,h,i)perylene	276	21.345	21.355	(1.177)	109179	0.45407	21.42
	57 Perylene	252	18.212	18.225	(1.004)	81949	0.33897	15.99

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191224.d
Lab Smp Id: VR38J
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22276

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-06-S-E-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	662707	28.40
22 Acenaphthene-d10	284255	142128	568510	368944	29.79
28 Phenanthrene-d10	410660	205330	821320	516393	25.75
47 Chrysene-d12	467886	233943	935772	579501	23.86
56 Perylene-d12	472330	236165	944660	495919	4.99

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.06
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.02
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.05

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.

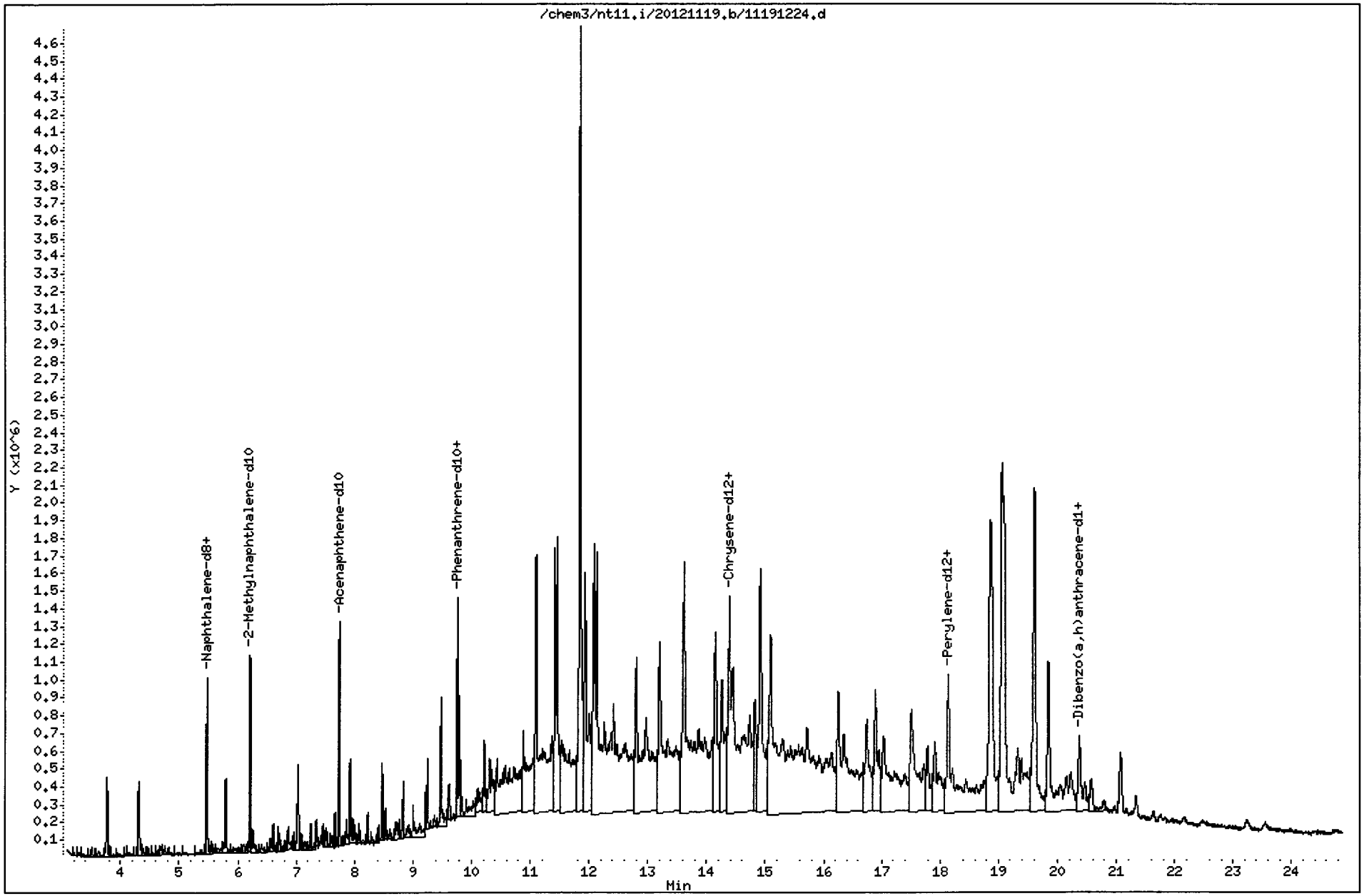
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38J Client Smp ID: HT-06-S-E-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22276

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	141.5	77.91	55.04	34-100
$ 60 Dibenzo(a,h)anthra	141.5	98.16	69.35	10-117

Data File: /chem3/nt11.i/20121119.b/11191224.d
Date : 19-NOV-2012 23:26
Client ID: HT-06-S-E-121106
Sample Info: VR38J
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



VR38J 11191224

Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

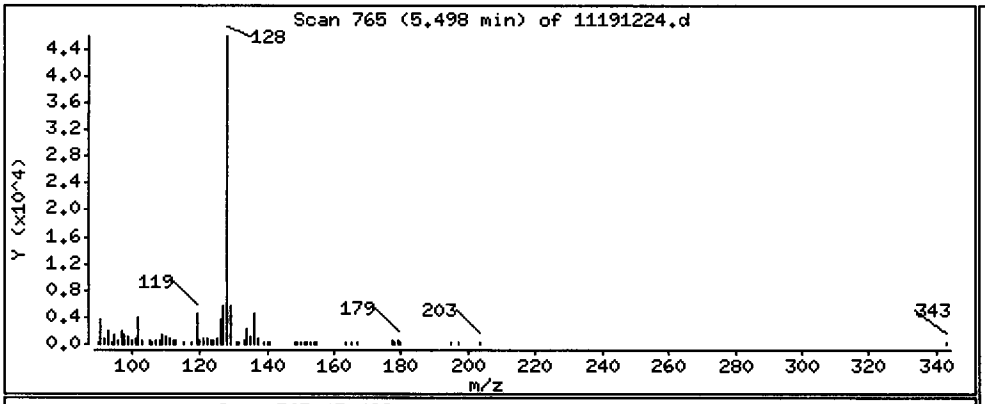
Operator: JZ

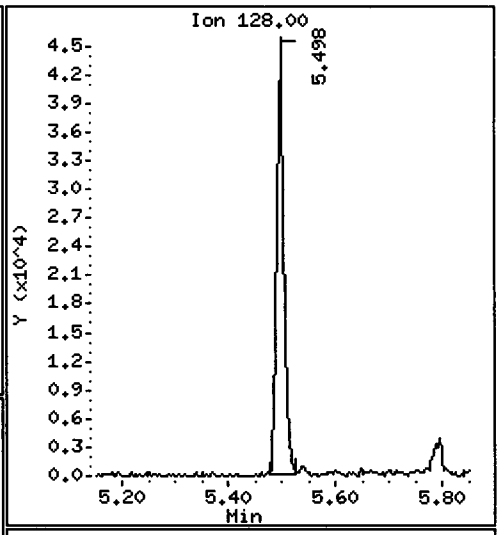
Column phase: ZB-5msi

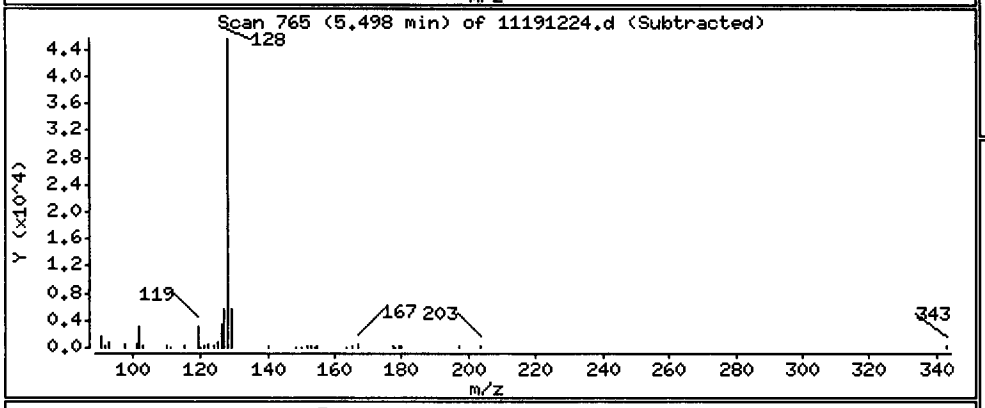
Column diameter: 0.25

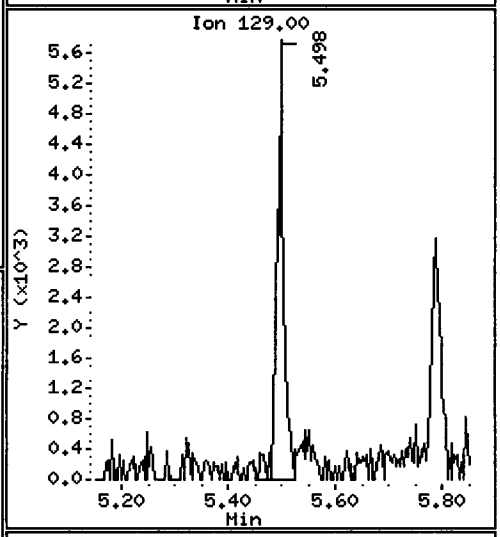
7 Naphthalene

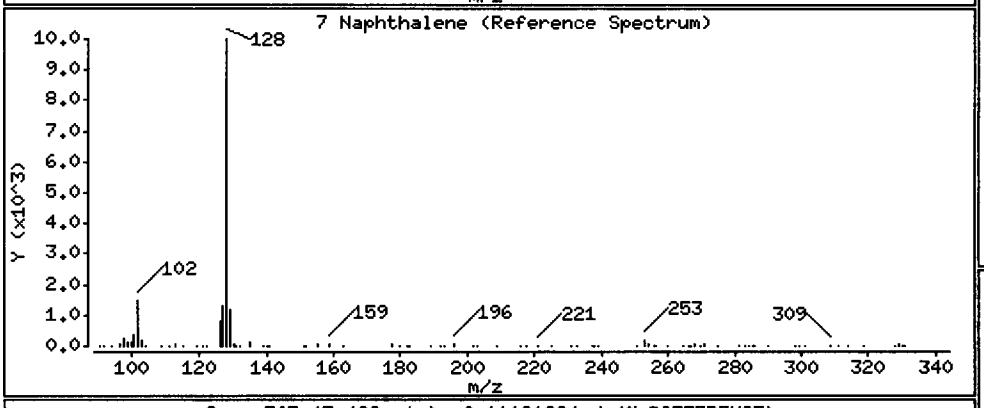
Concentration: 5.825 ug/kg

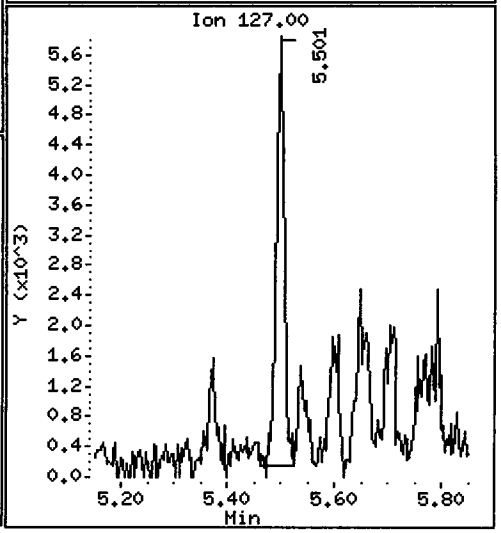


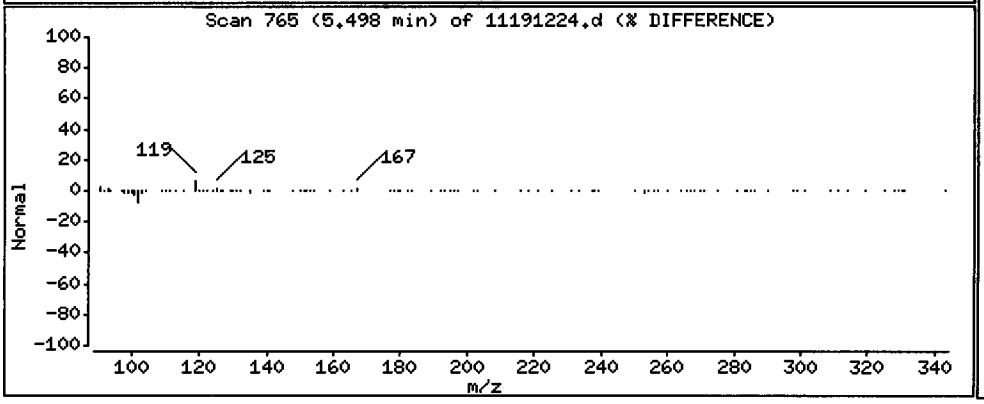












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

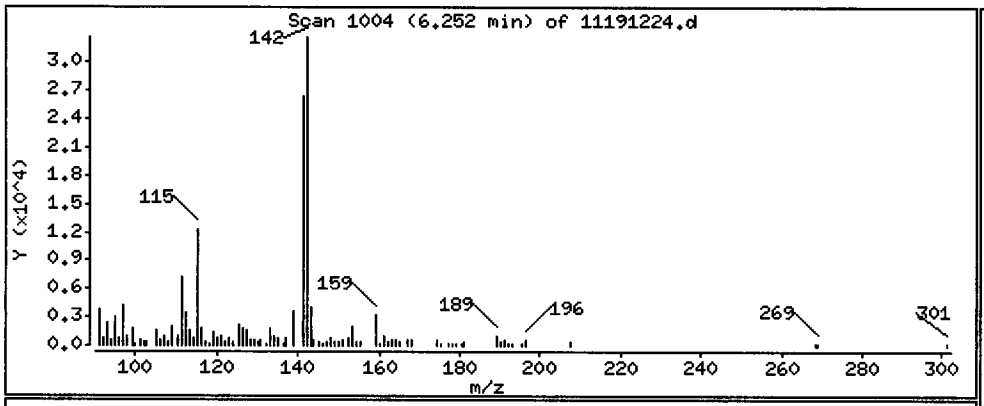
Operator: JZ

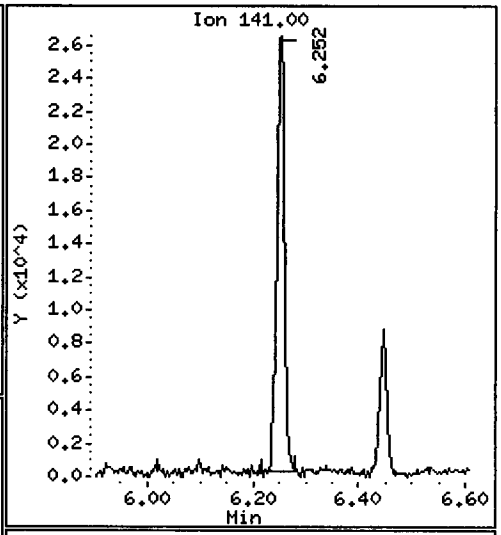
Column phase: ZB-5msi

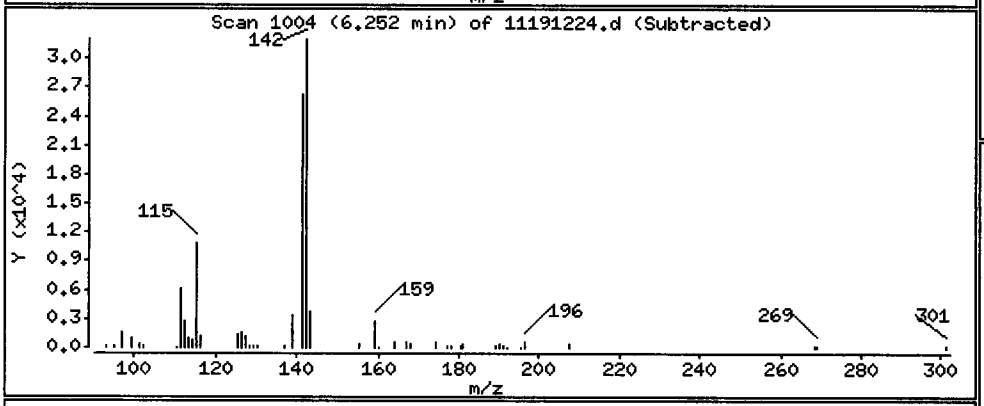
Column diameter: 0.25

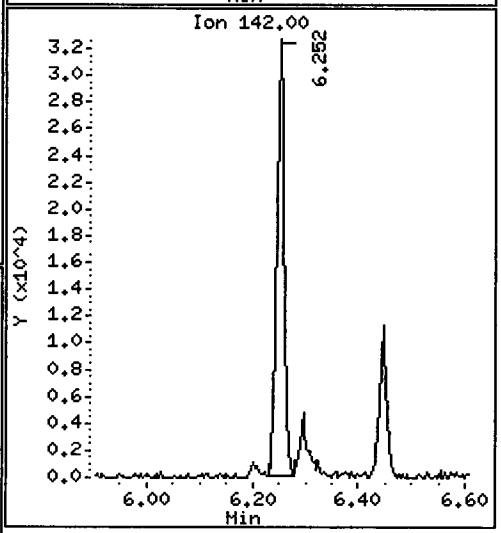
14 2-Methylnaphthalene

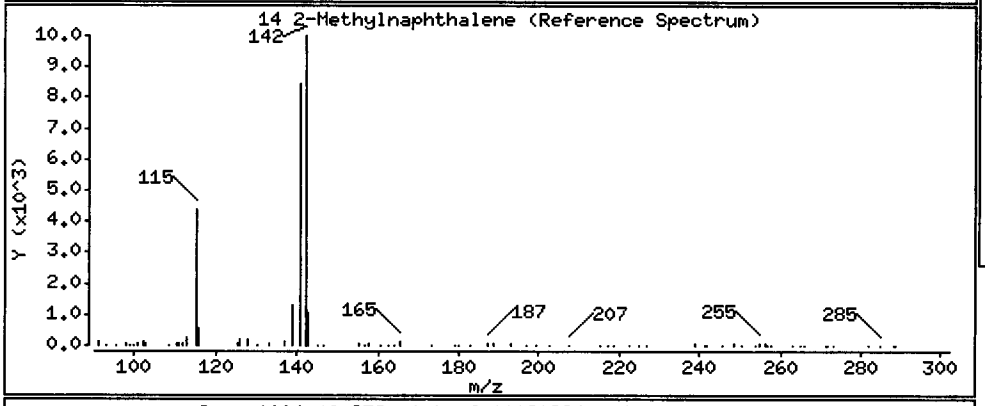
Concentration: 6.139 ug/kg

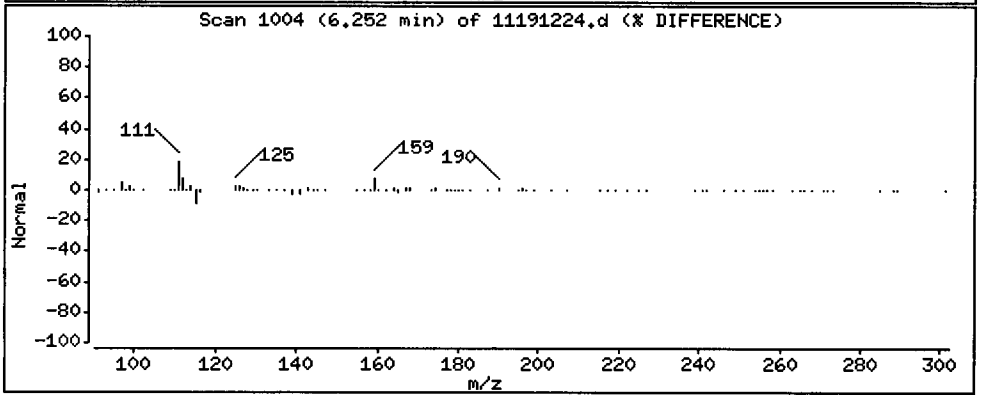












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

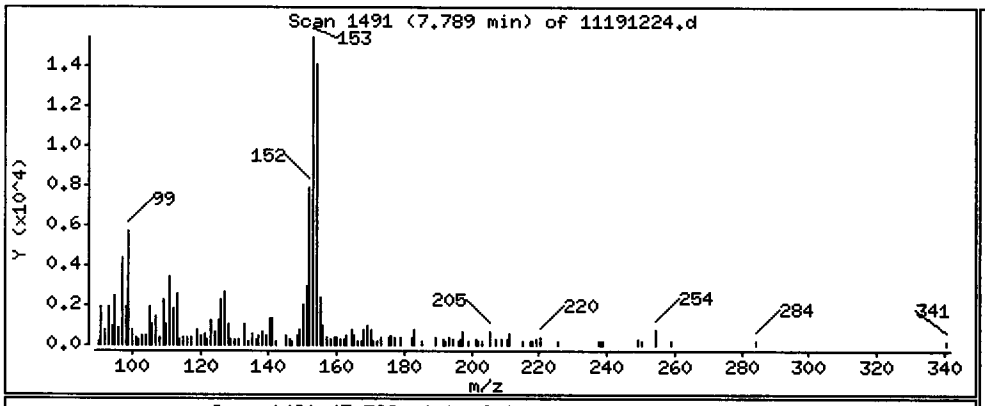
Operator: JZ

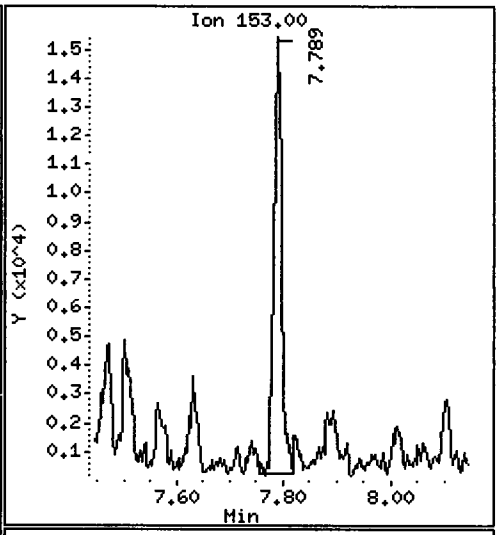
Column phase: ZB-5msi

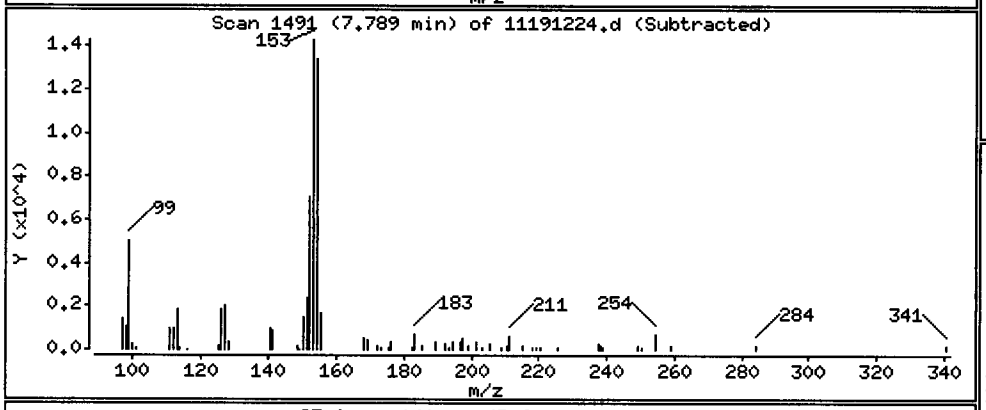
Column diameter: 0.25

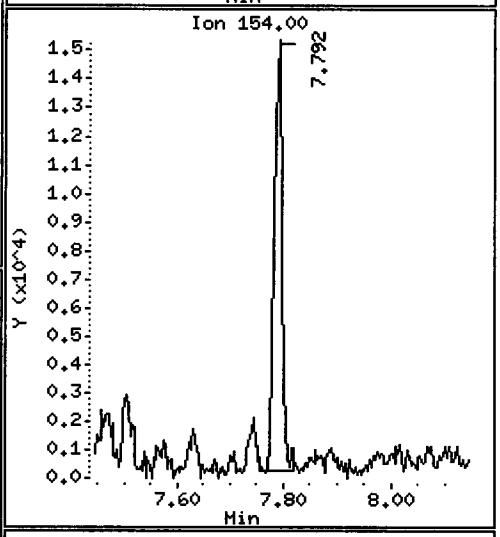
23 Acenaphthene

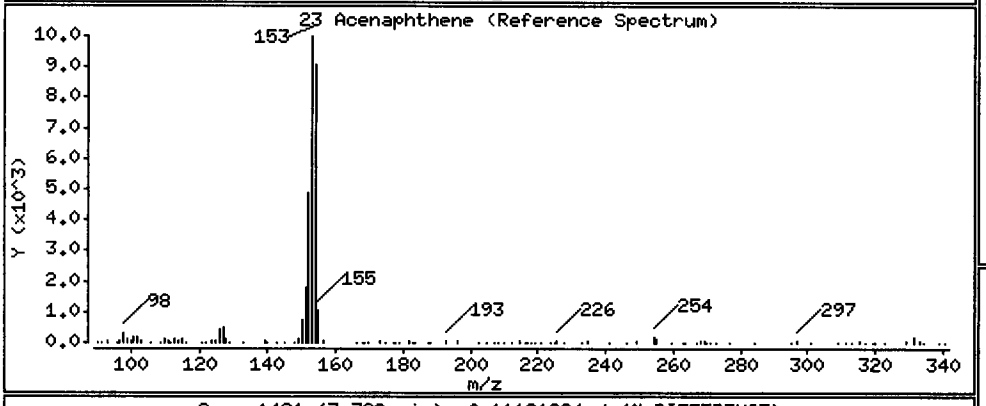
Concentration: 3.456 ug/kg

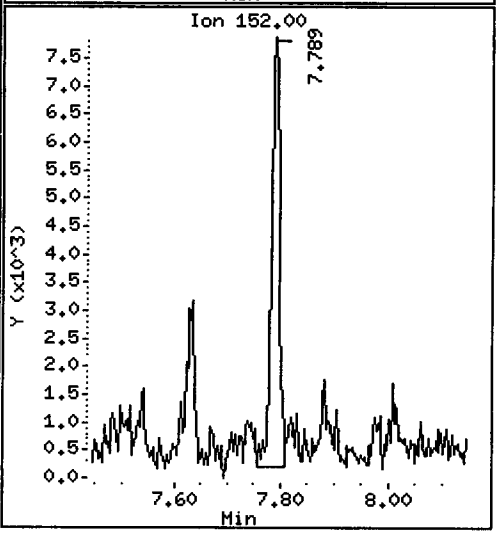


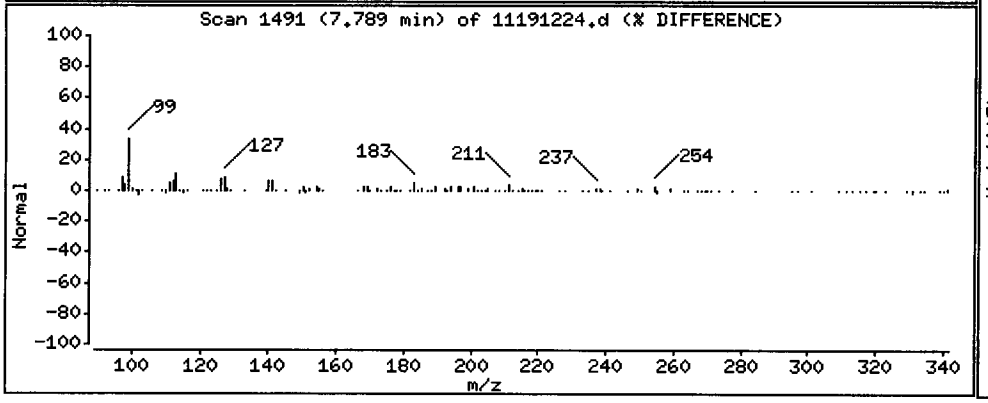












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

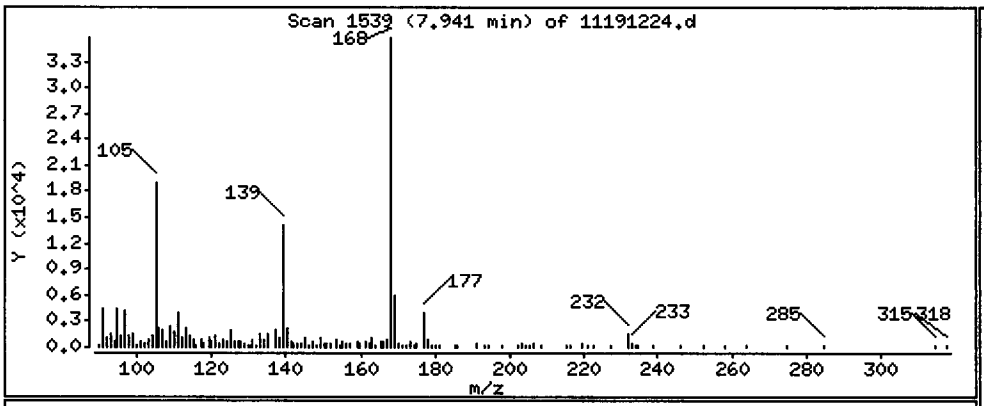
Operator: JZ

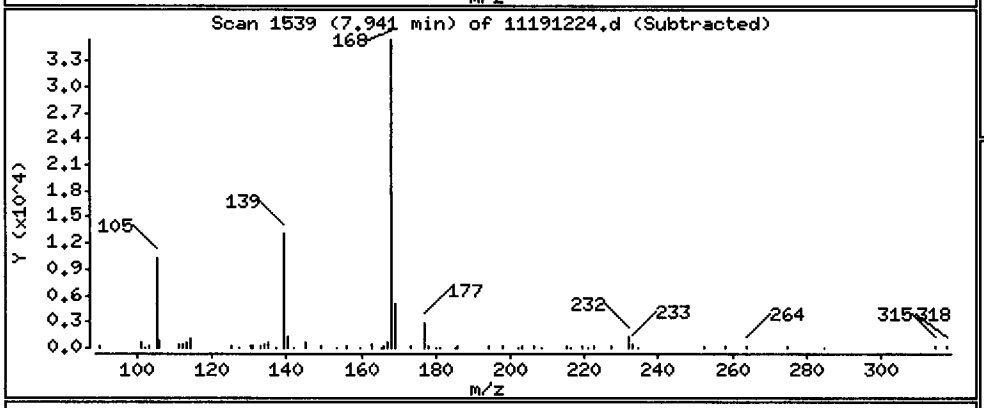
Column phase: ZB-5msi

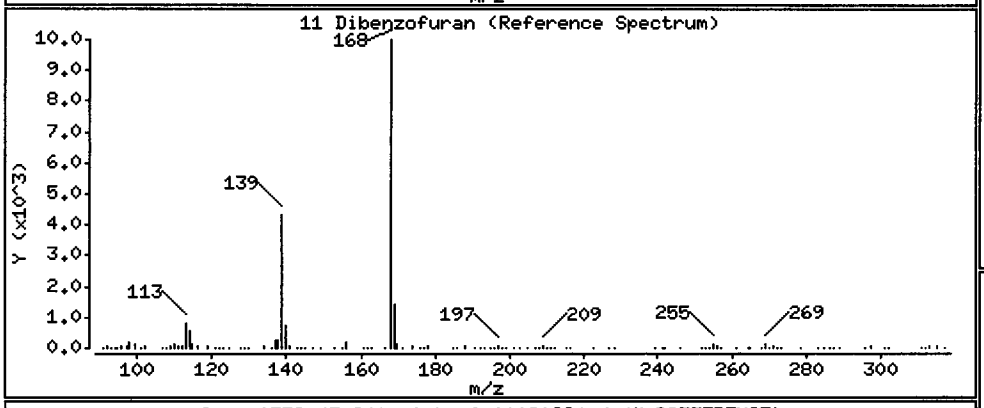
Column diameter: 0.25

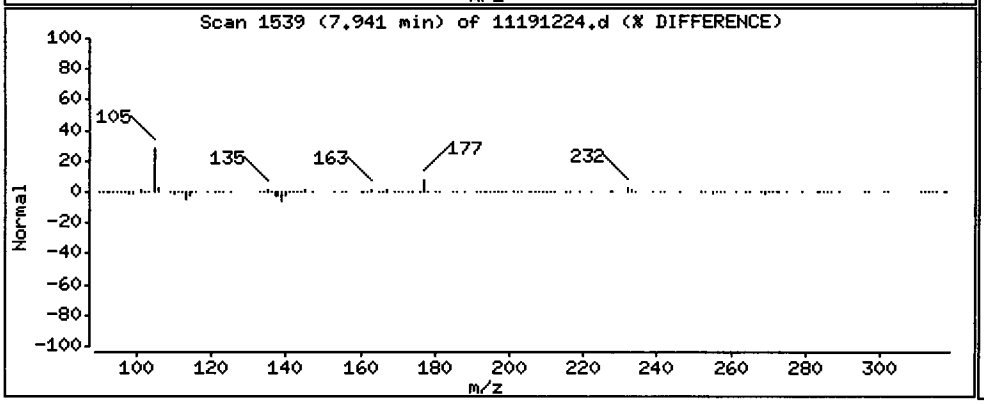
11 Dibenzofuran

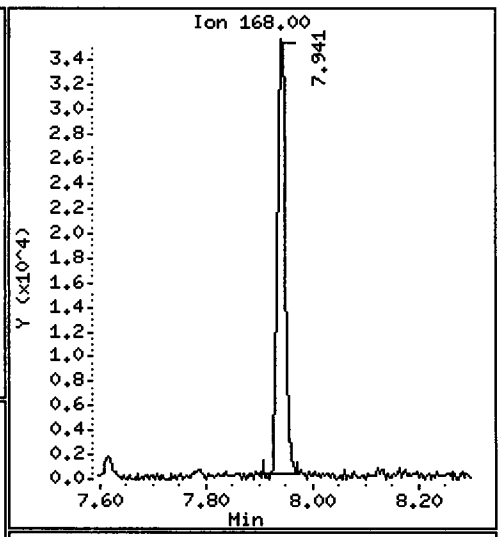
Concentration: 5.555 ug/kg

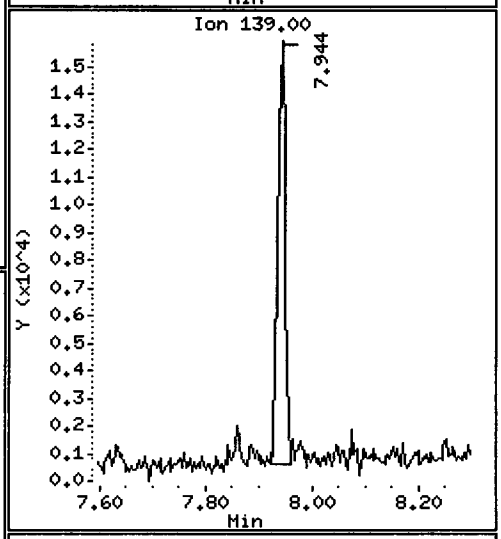


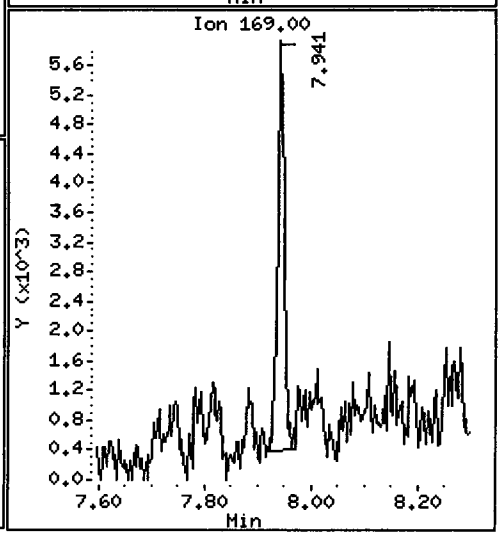












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

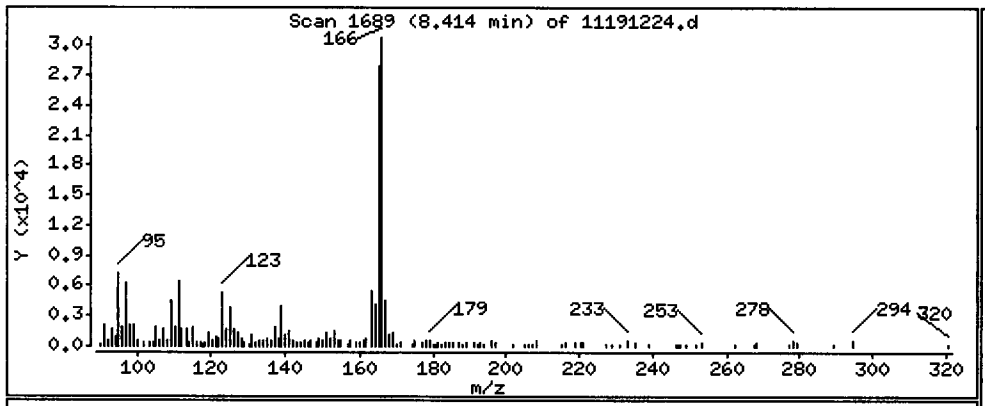
Operator: JZ

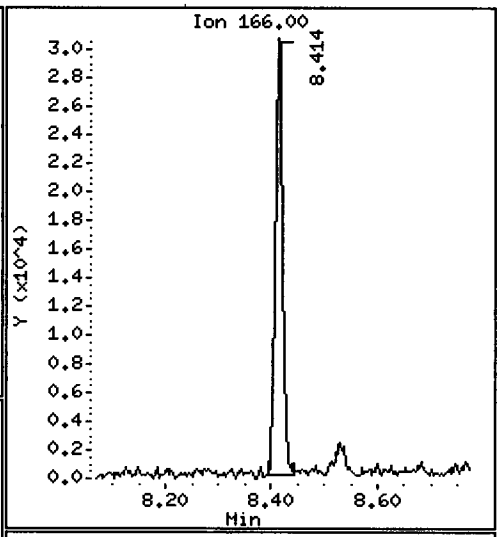
Column phase: ZB-5msi

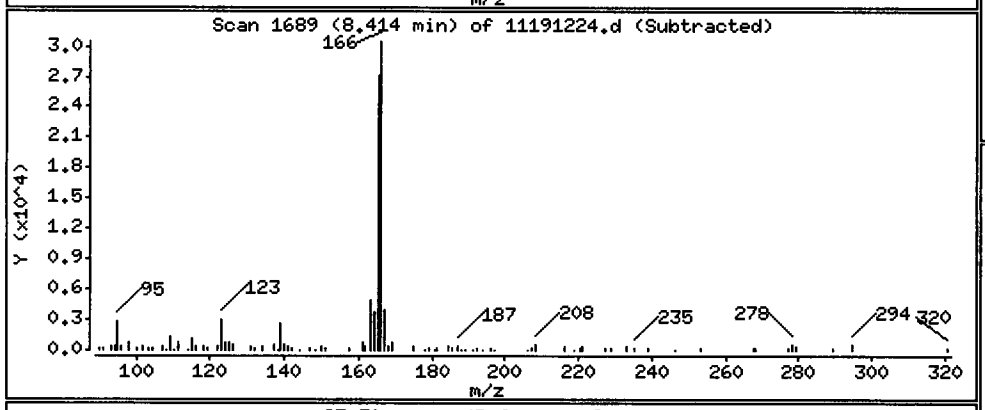
Column diameter: 0.25

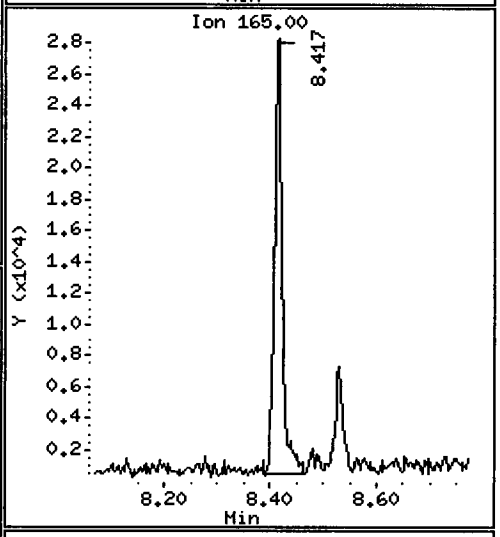
25 Fluorene

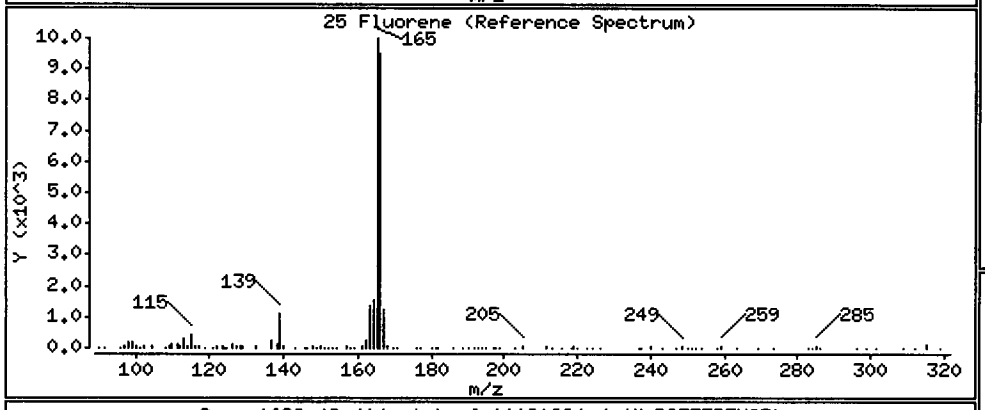
Concentration: 6.115 ug/kg

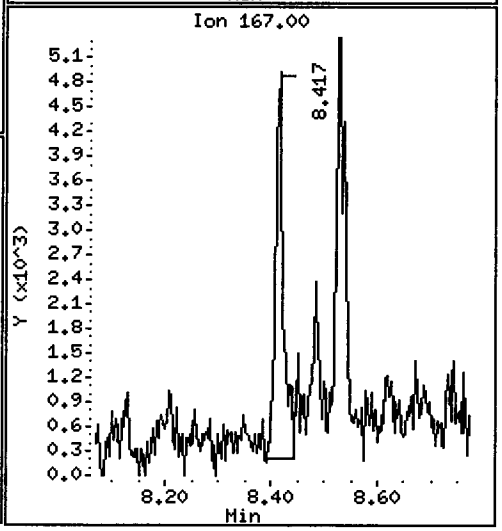


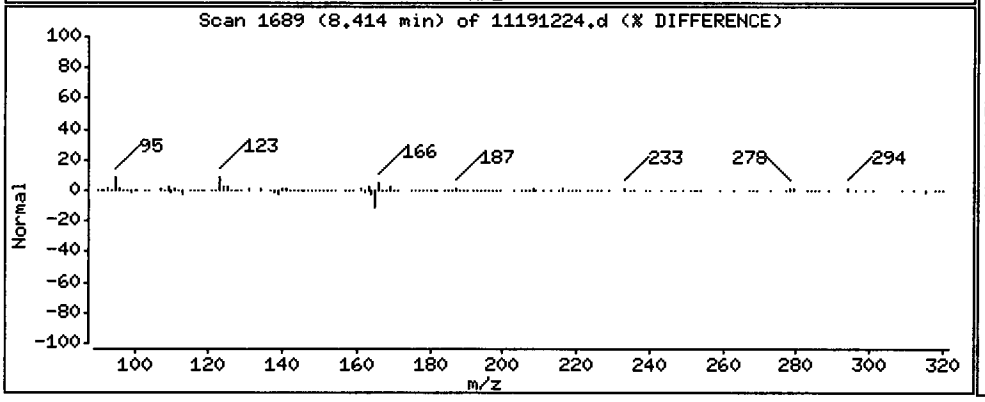












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

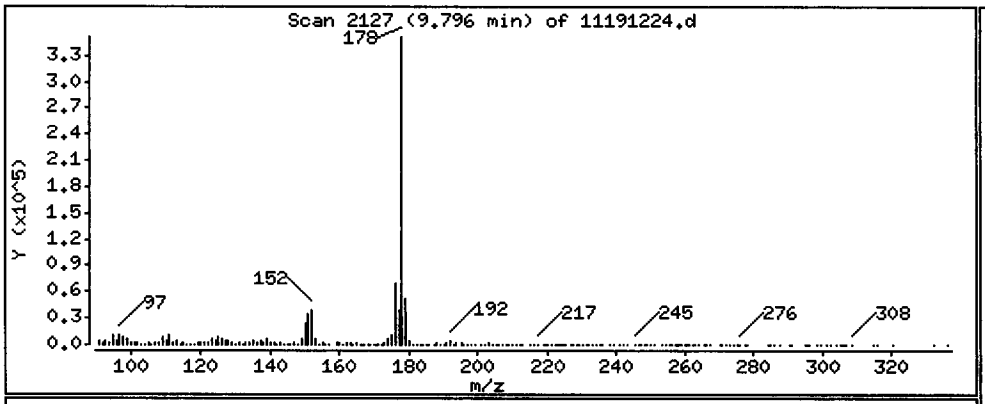
Operator: JZ

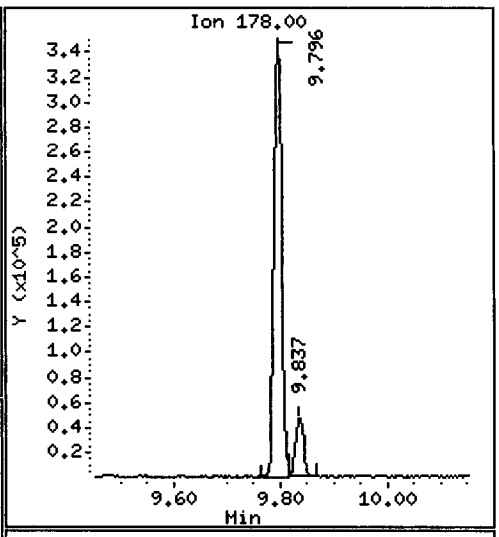
Column phase: ZB-5msi

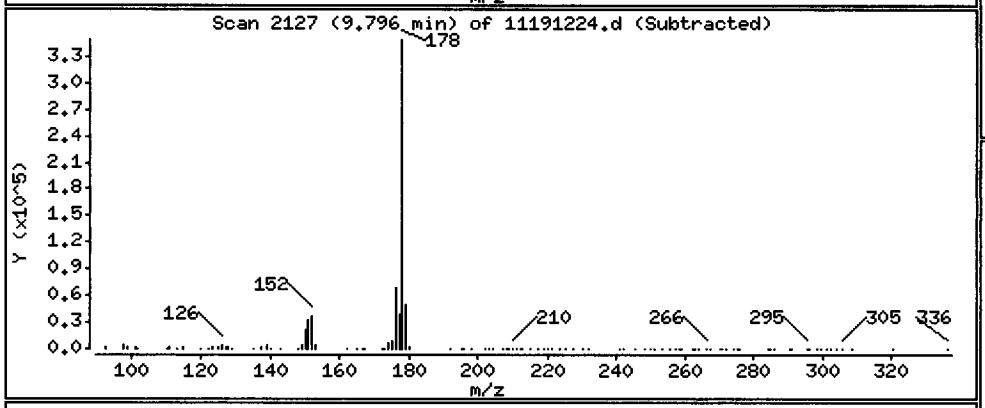
Column diameter: 0.25

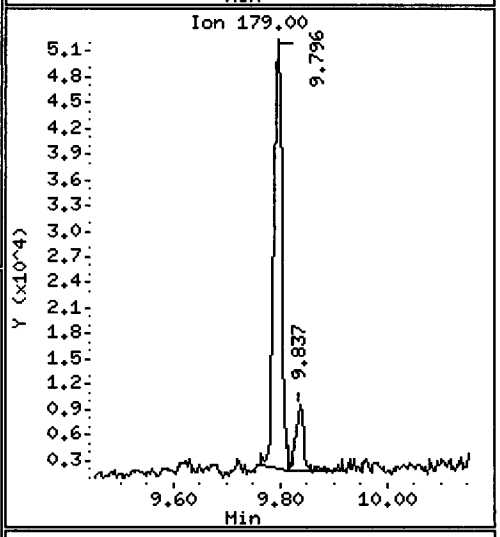
30 Phenanthrene

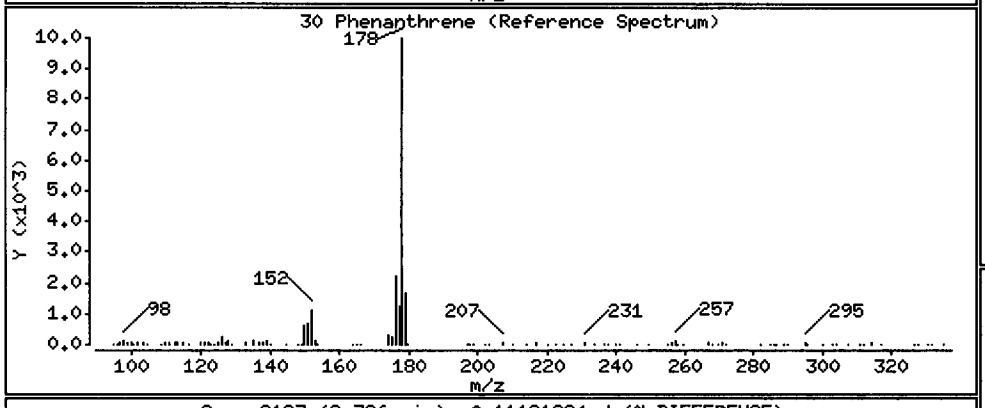
Concentration: 51.35 ug/kg

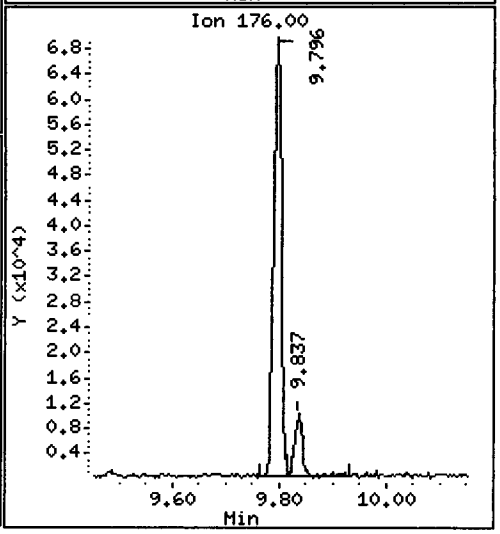


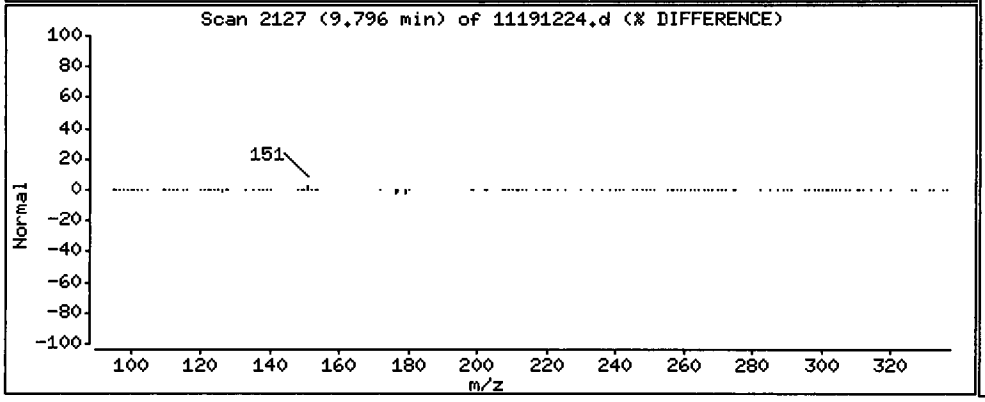












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

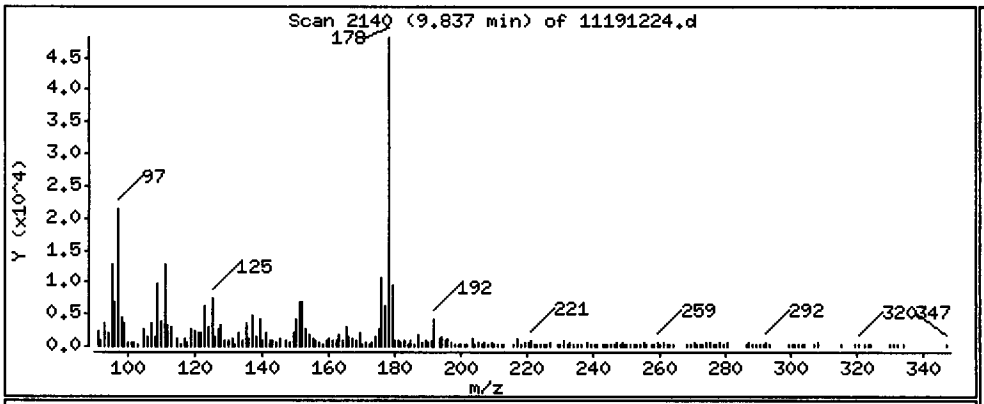
Operator: JZ

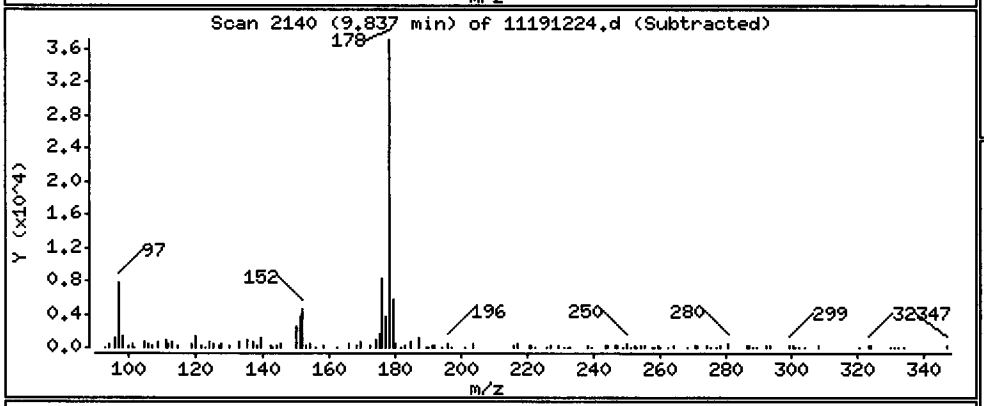
Column phase: ZB-5msi

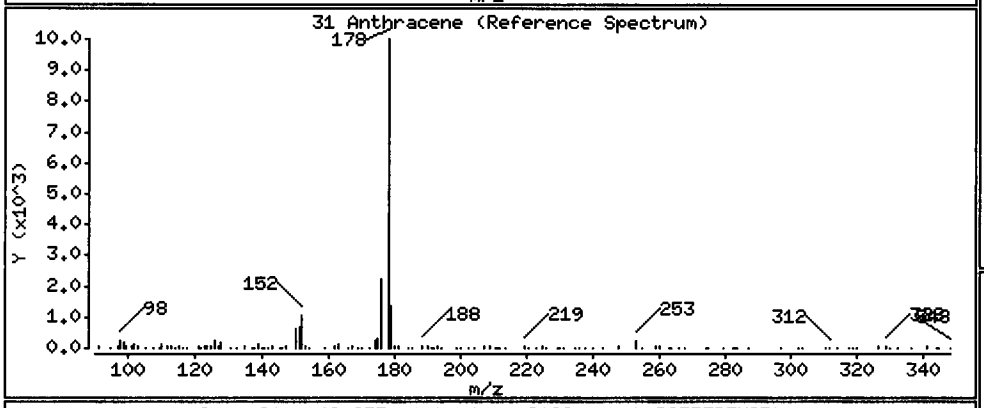
Column diameter: 0.25

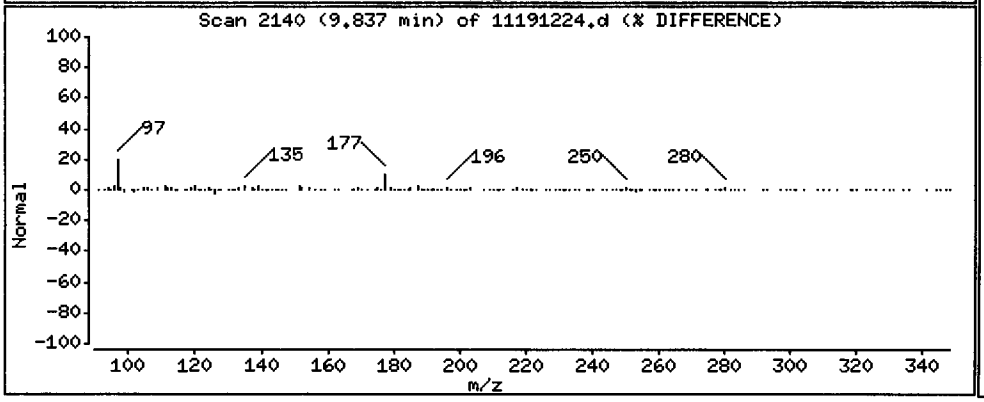
31 Anthracene

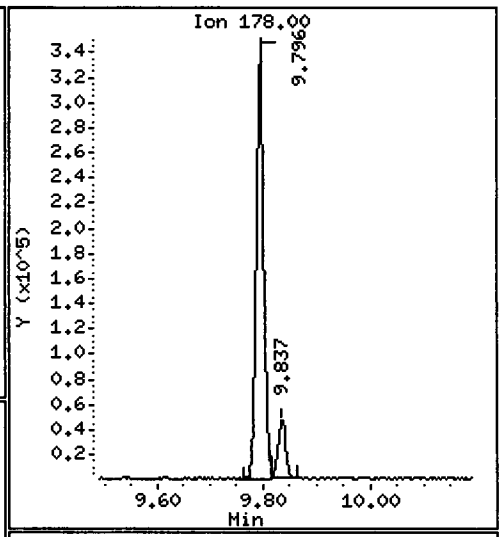
Concentration: 7.781 ug/kg

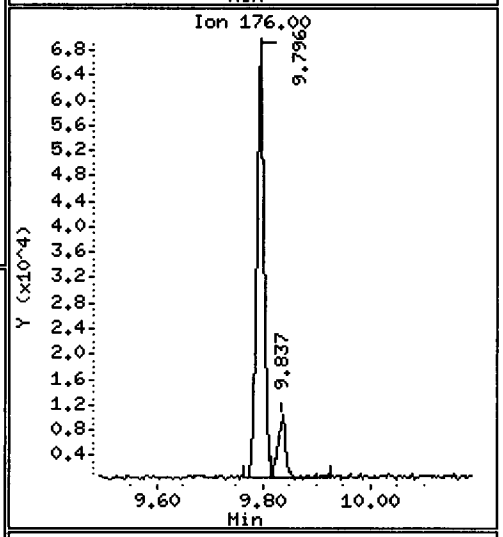


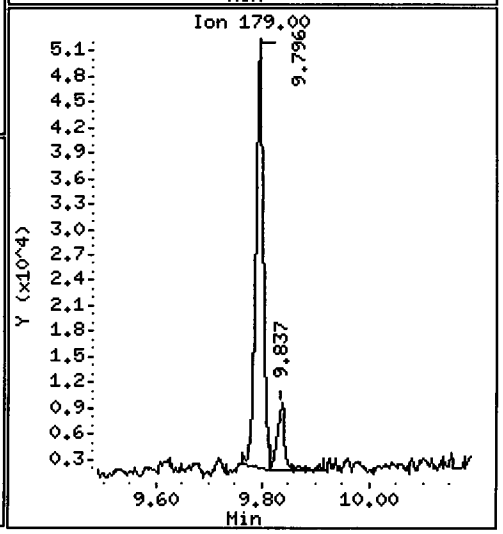












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

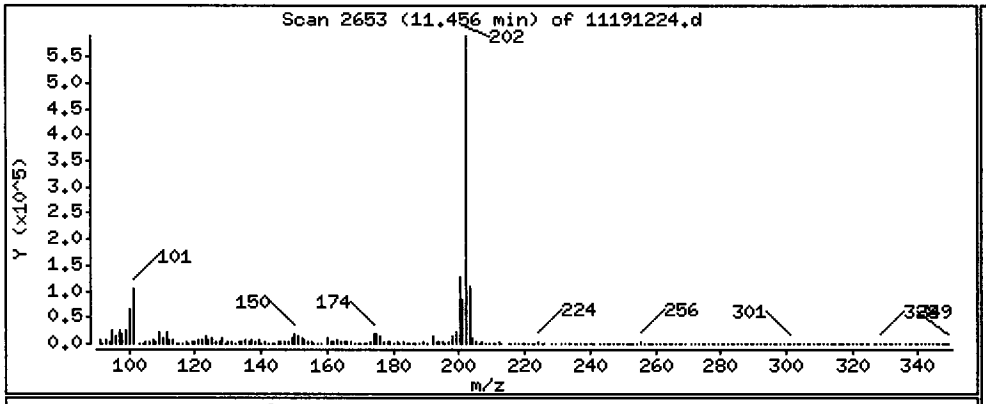
Client ID: HT-06-S-E-121106 Instrument: nt11.i

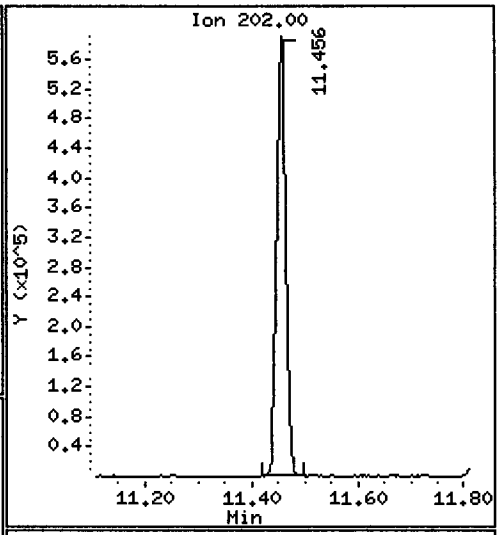
Sample Info: VR38J

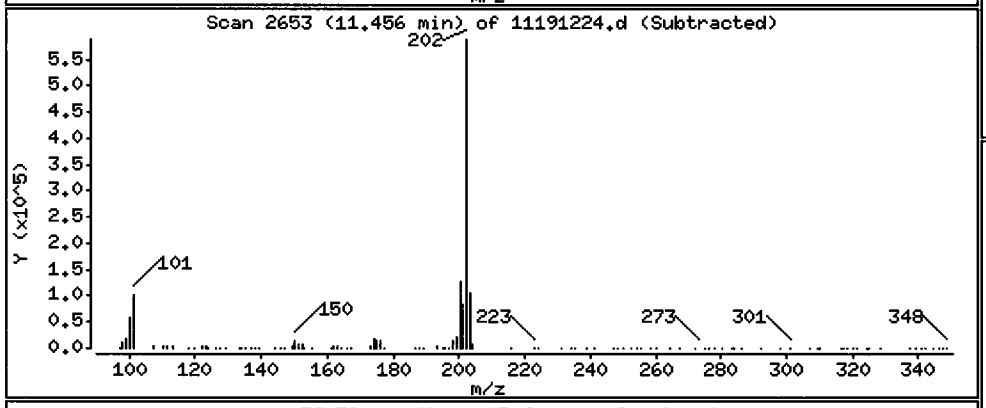
Volume Injected (uL): 1.0 Operator: JZ

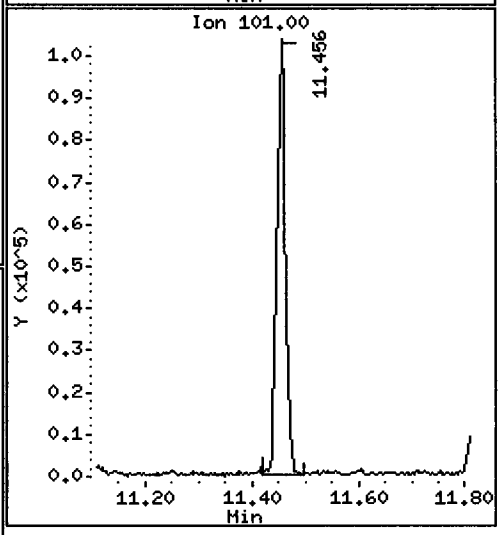
Column phase: ZB-5msi Column diameter: 0.25

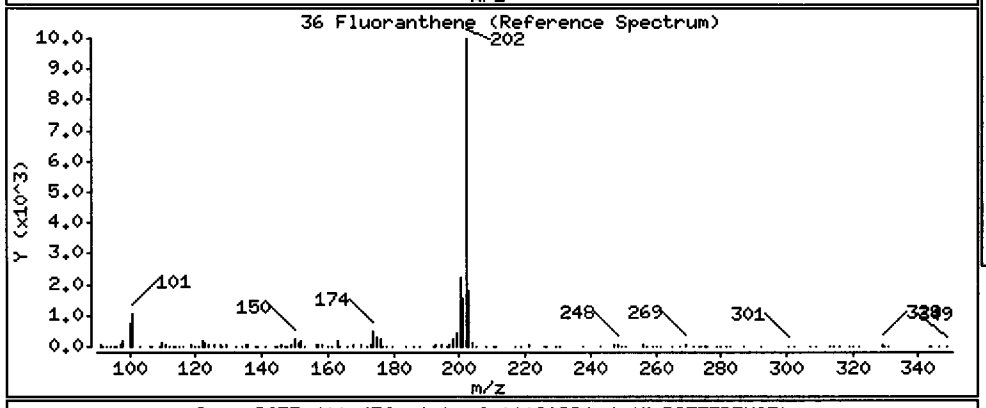
36 Fluoranthene Concentration: 105.1 ug/kg

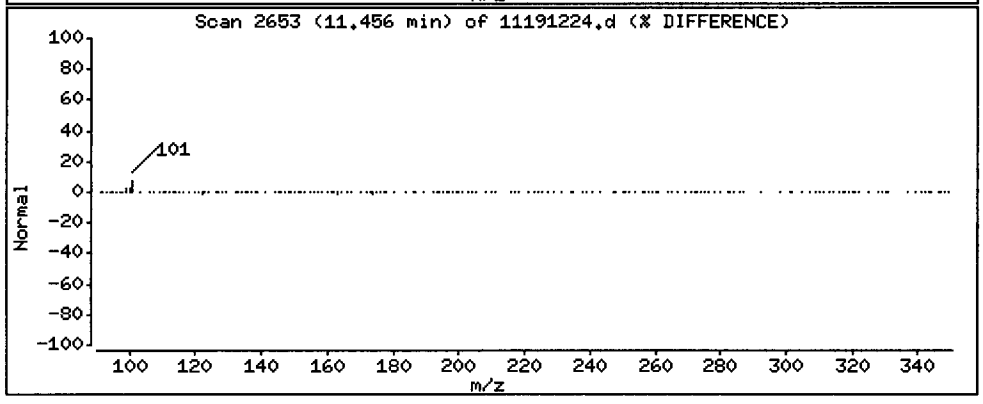












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

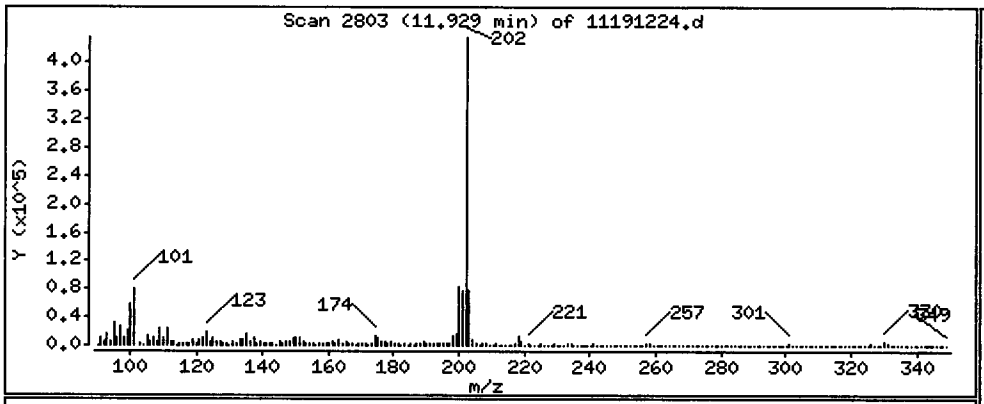
Operator: JZ

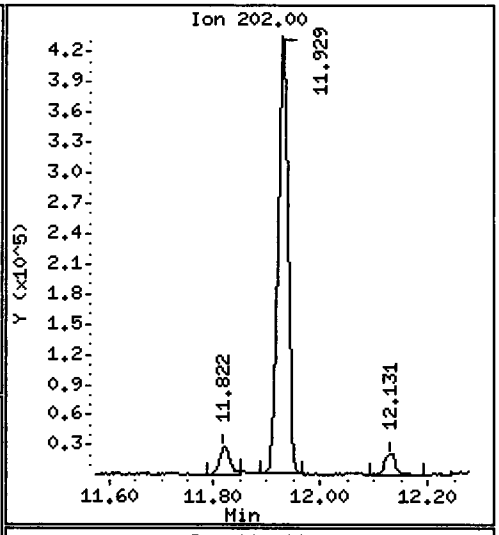
Column phase: ZB-5msi

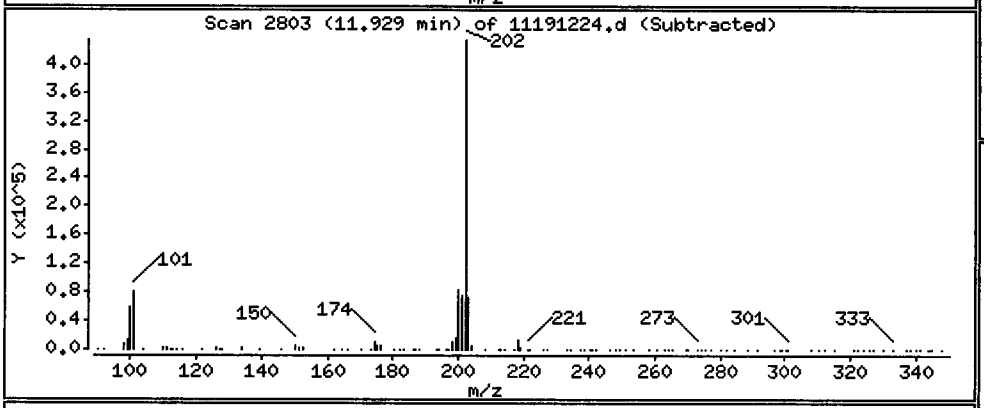
Column diameter: 0.25

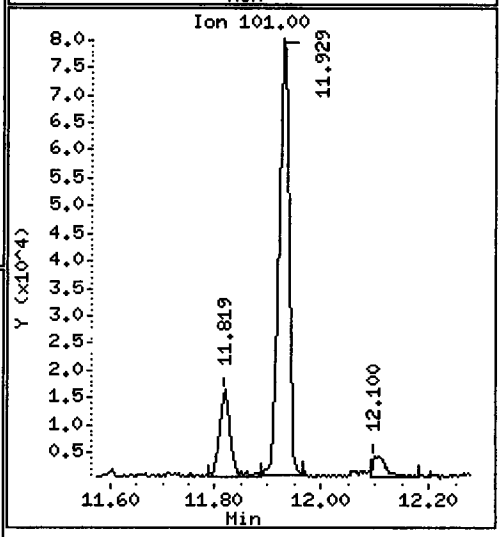
39 Pyrene

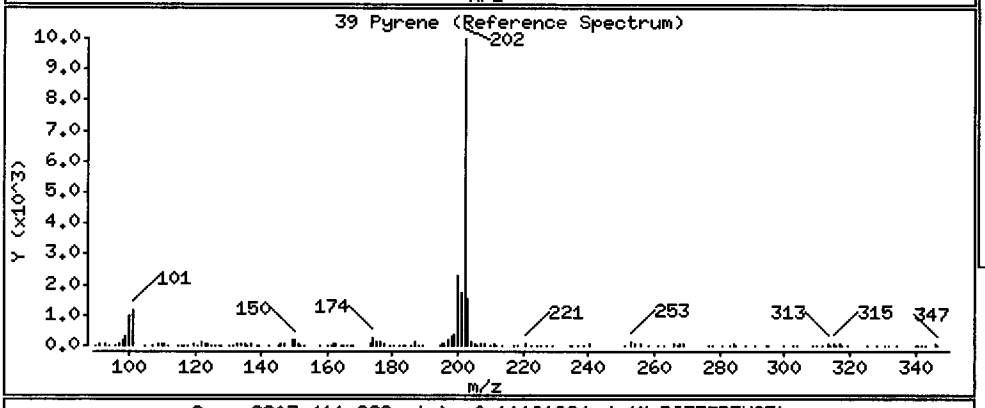
Concentration: 84.76 ug/kg

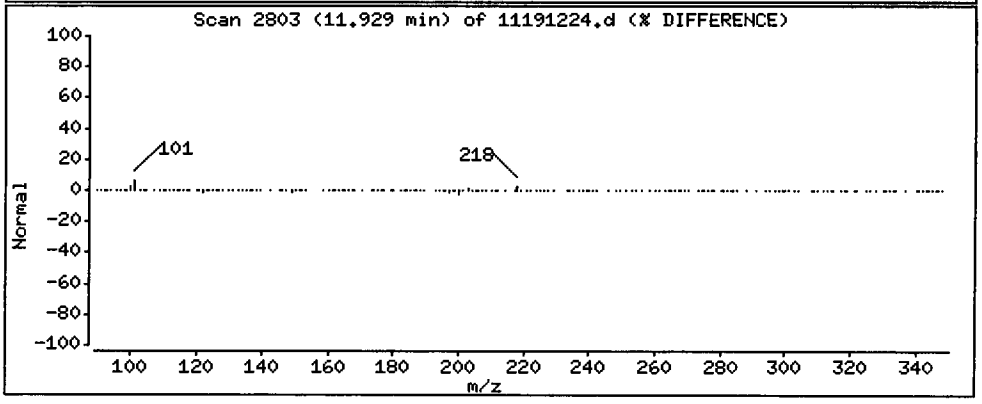












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

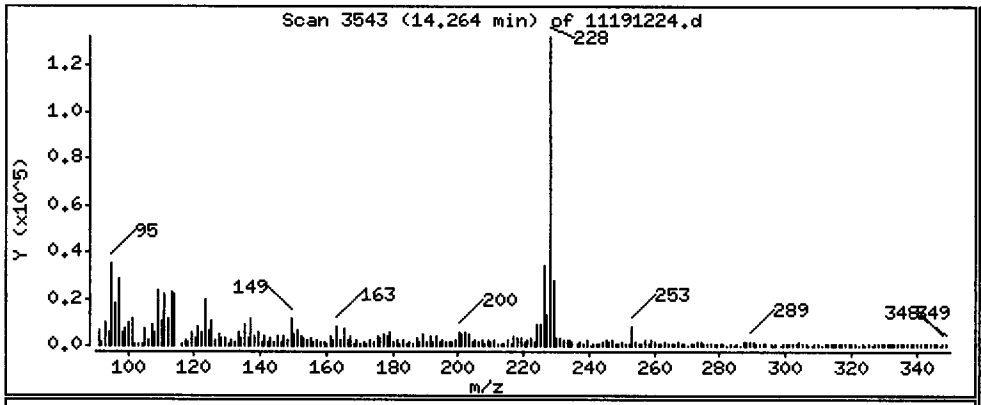
Operator: JZ

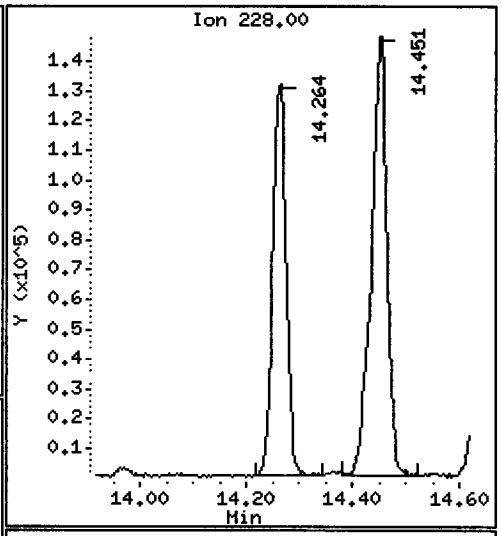
Column phase: ZB-5msi

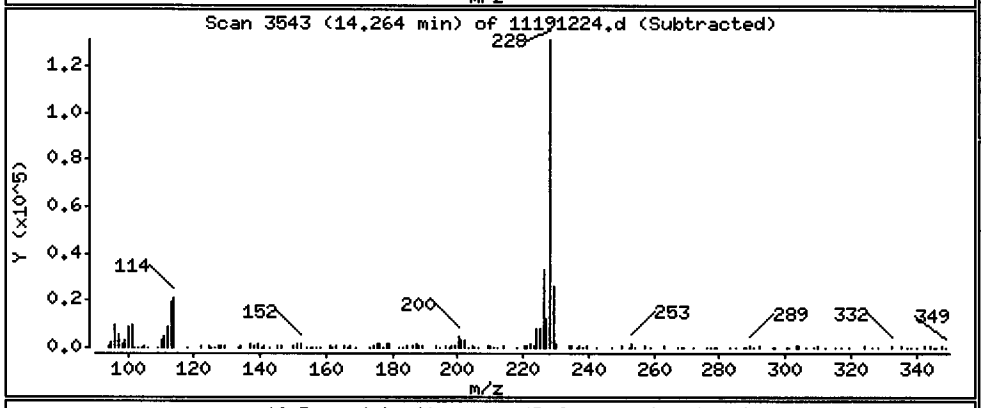
Column diameter: 0.25

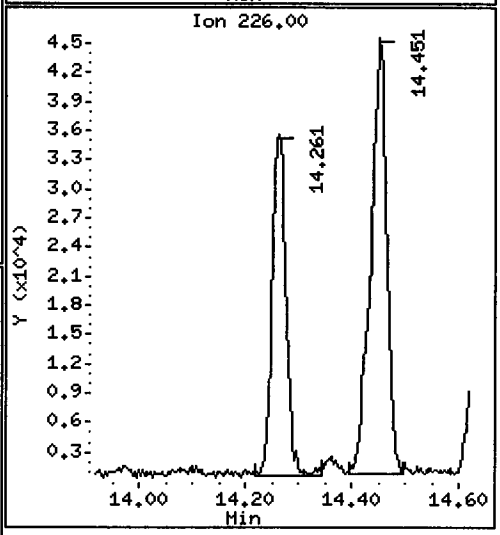
46 Benzo(a)anthracene

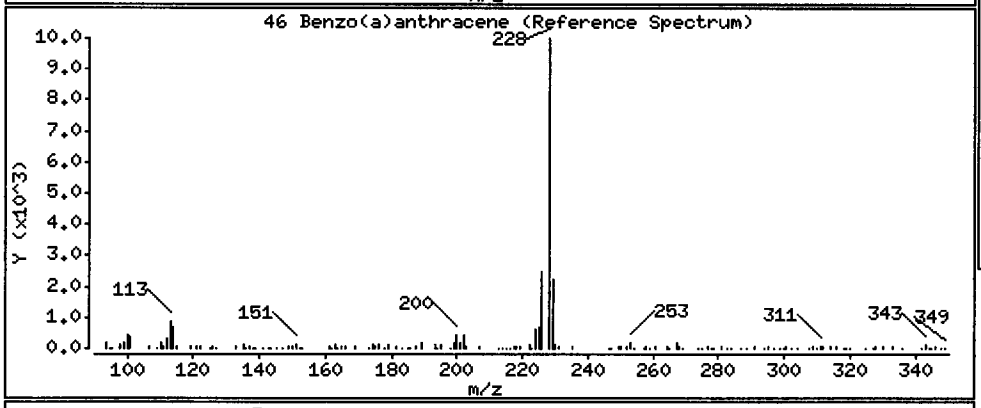
Concentration: 37.97 ug/kg

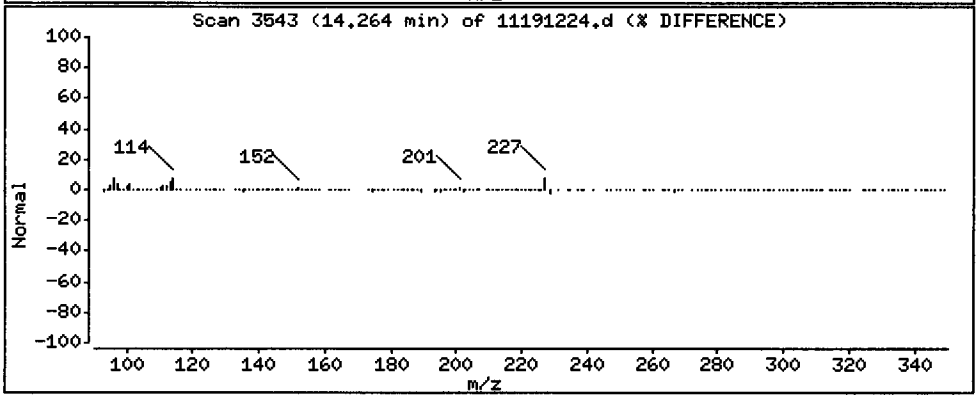












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

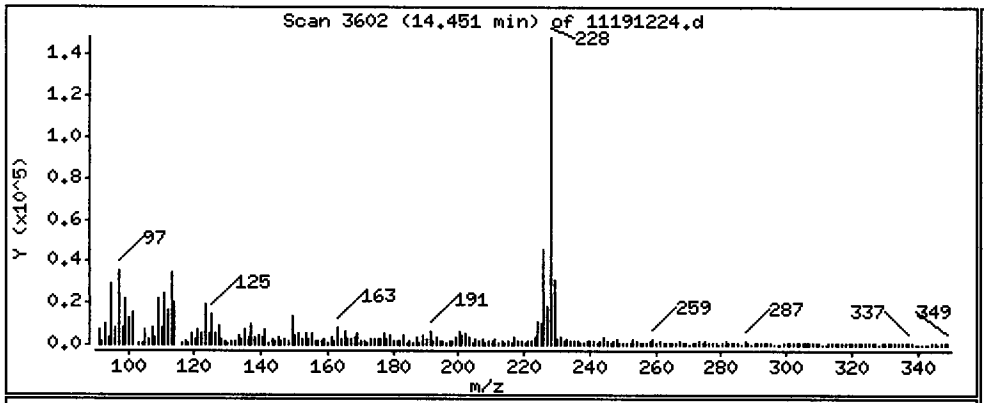
Operator: JZ

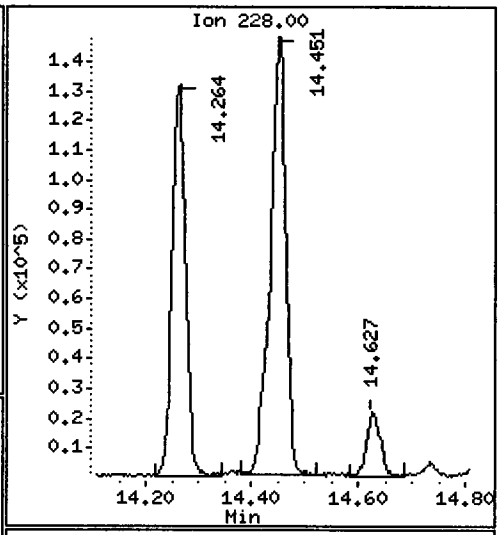
Column phase: ZB-5msi

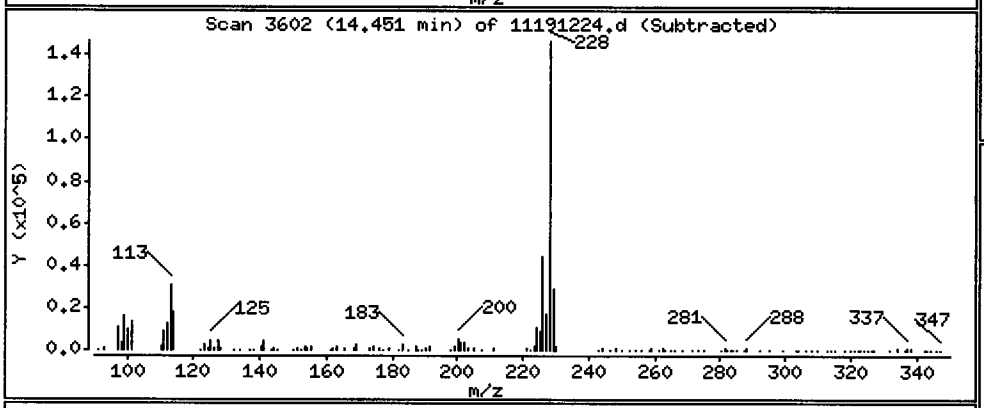
Column diameter: 0.25

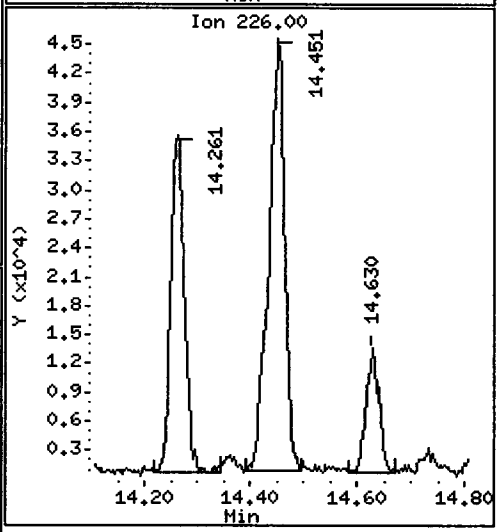
48 Chrysene

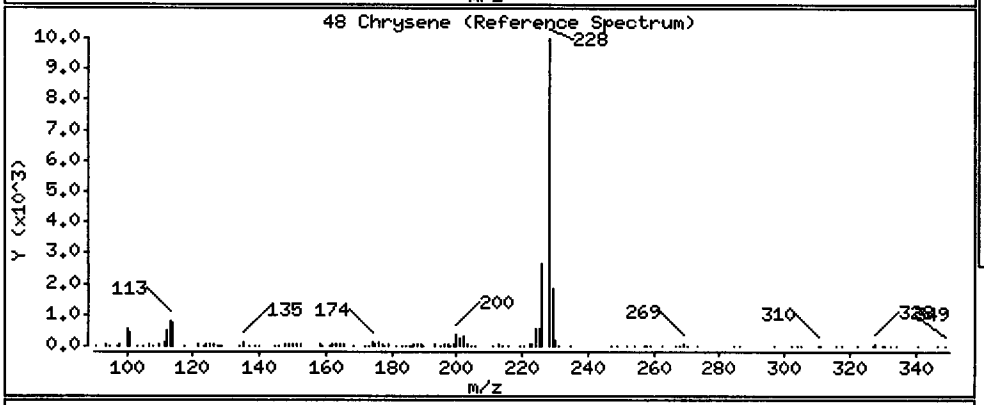
Concentration: 49.99 ug/kg

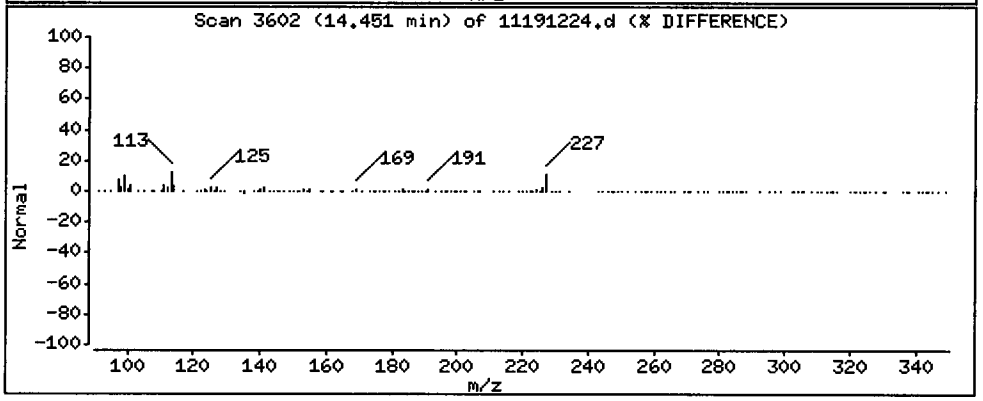












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

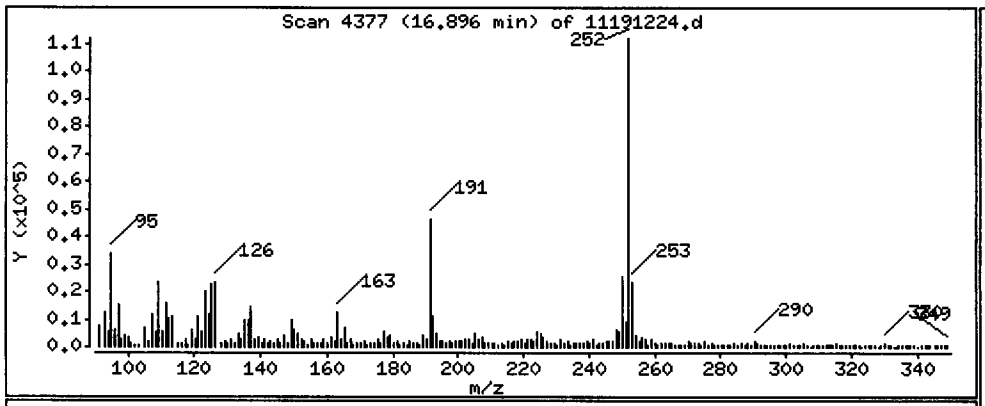
Operator: JZ

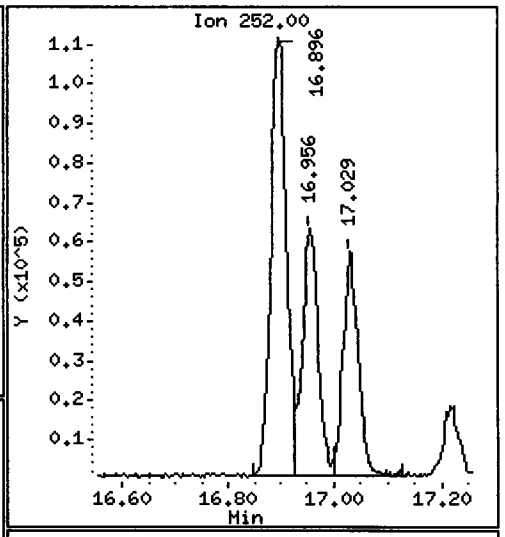
Column phase: ZB-5msi

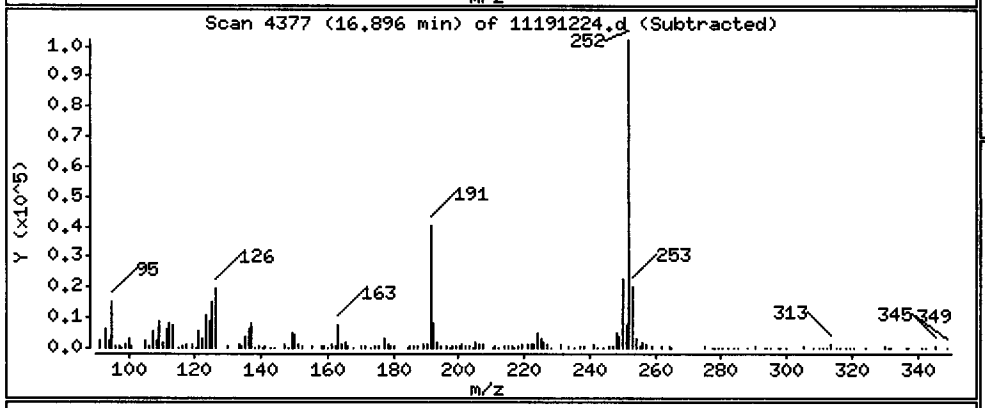
Column diameter: 0.25

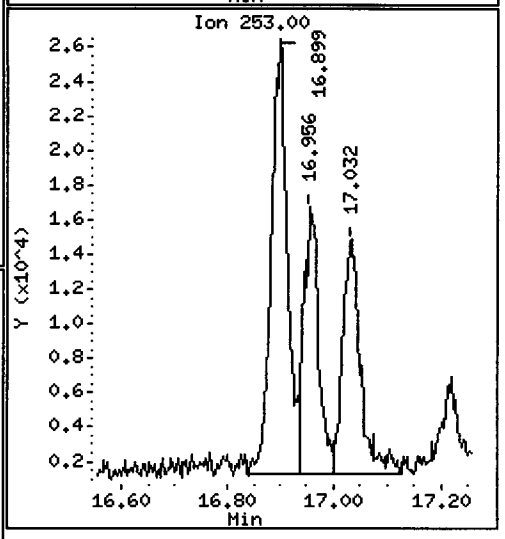
51 Benzo(b)fluoranthene

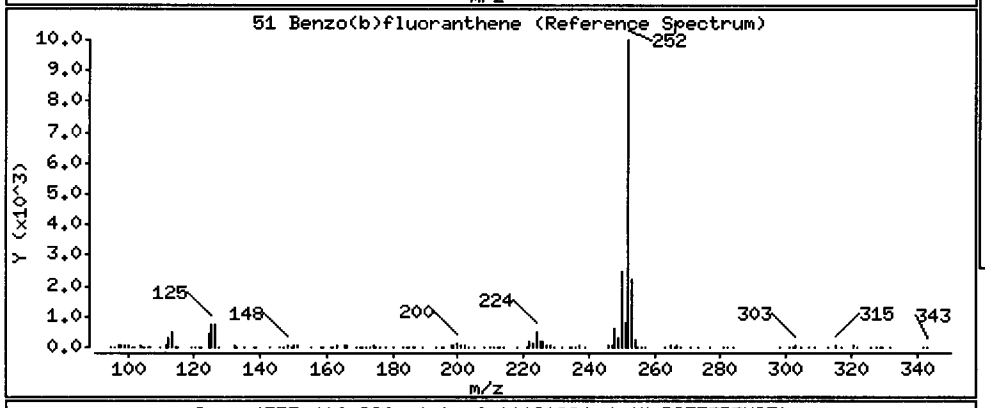
Concentration: 46.12 ug/kg

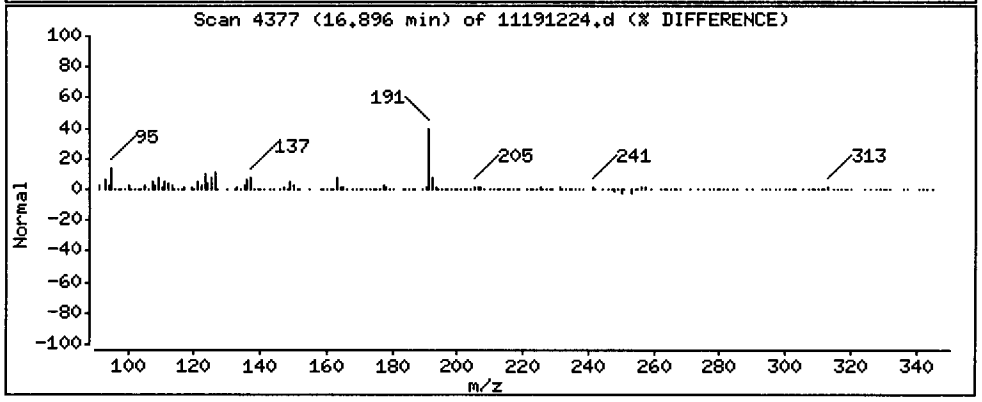












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

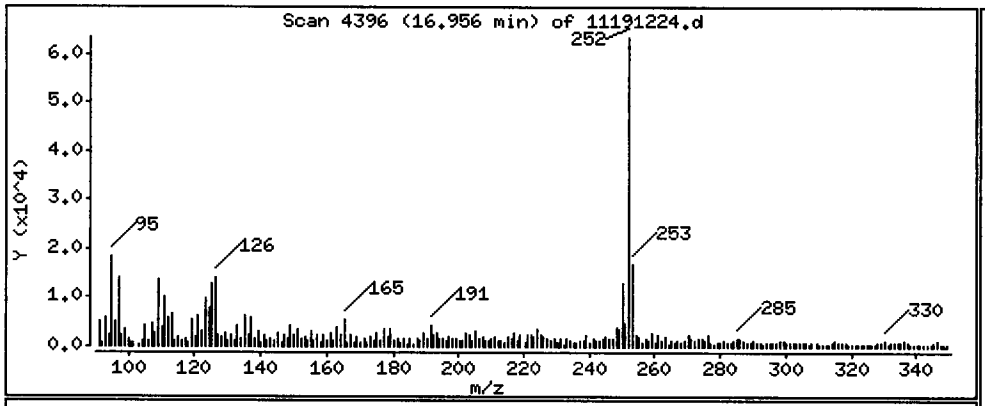
Operator: JZ

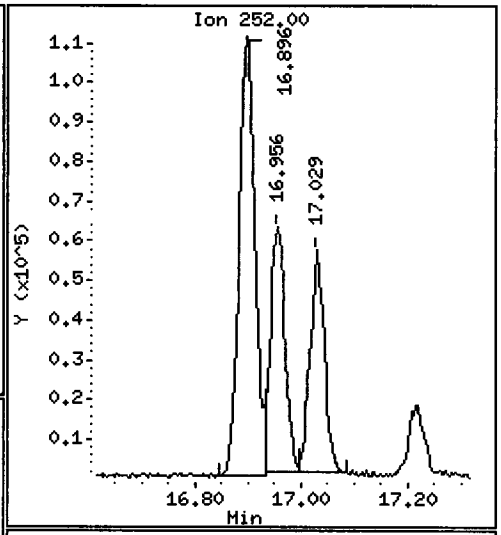
Column phase: ZB-5msi

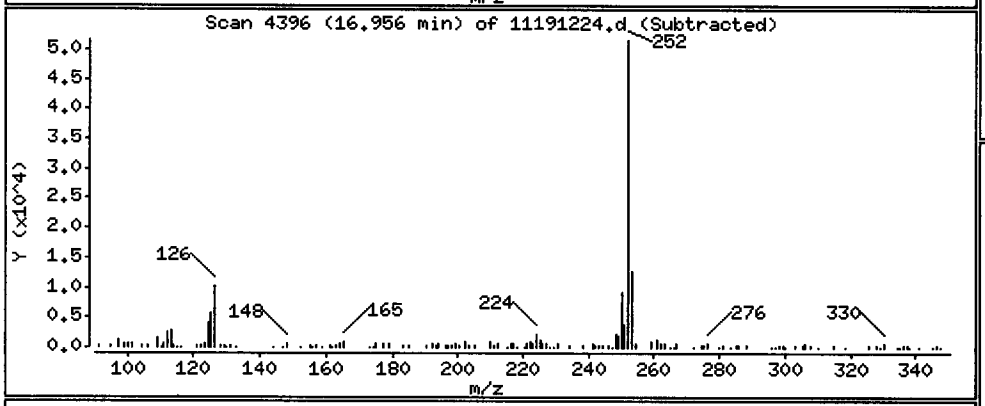
Column diameter: 0.25

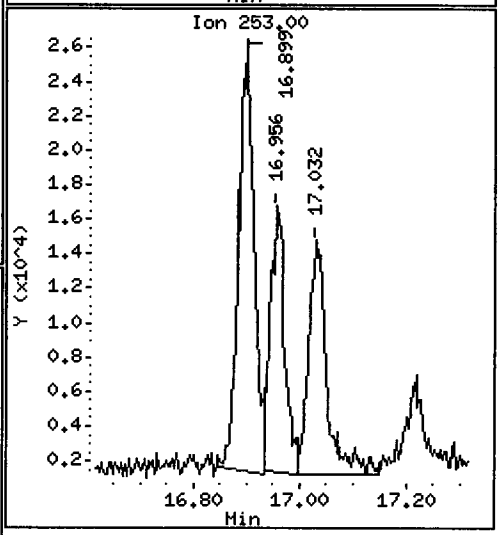
52 Benzo(k)fluoranthene

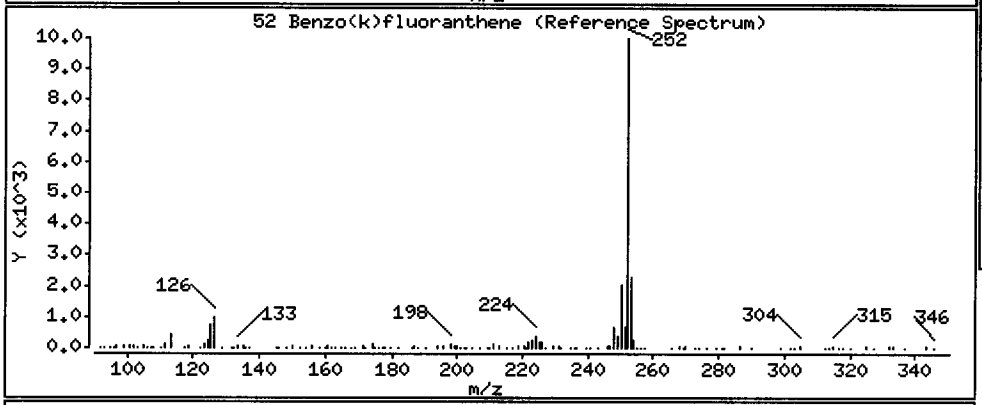
Concentration: 22.42 ug/kg

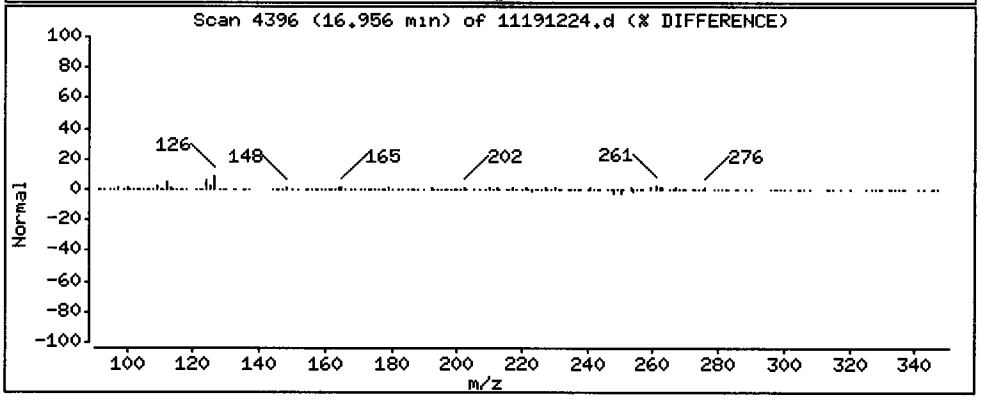












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

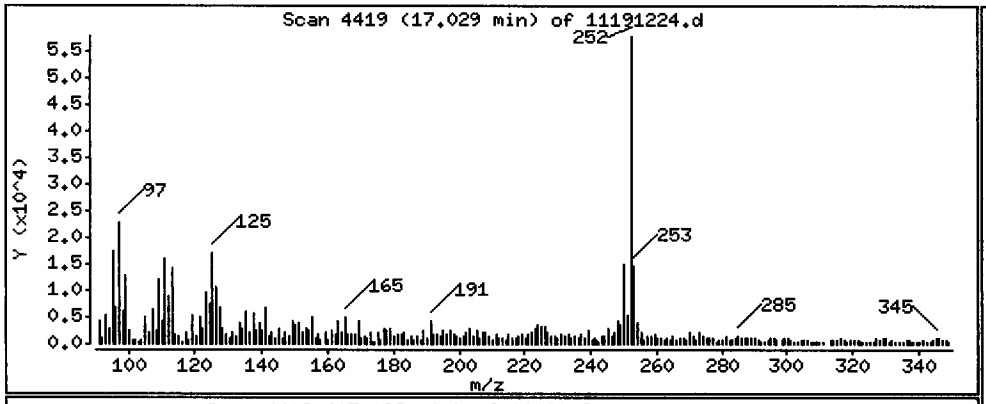
Operator: JZ

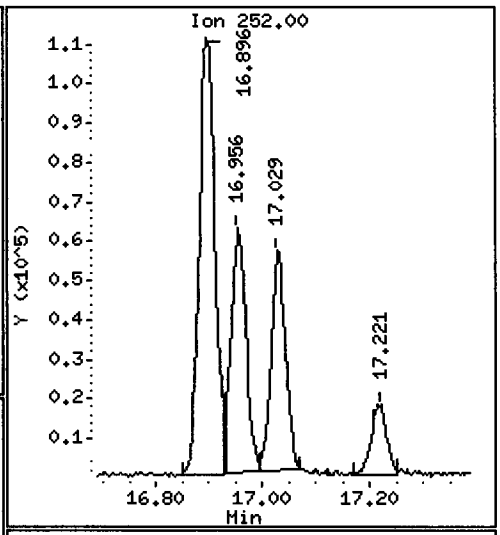
Column phase: ZB-5msi

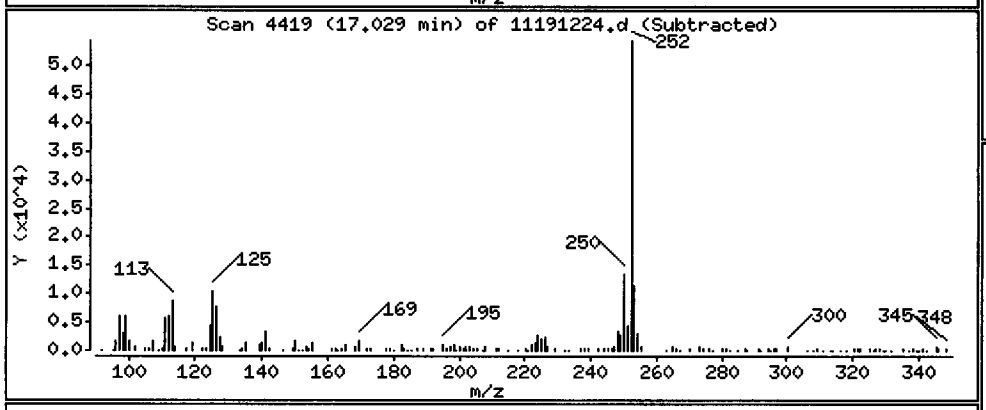
Column diameter: 0.25

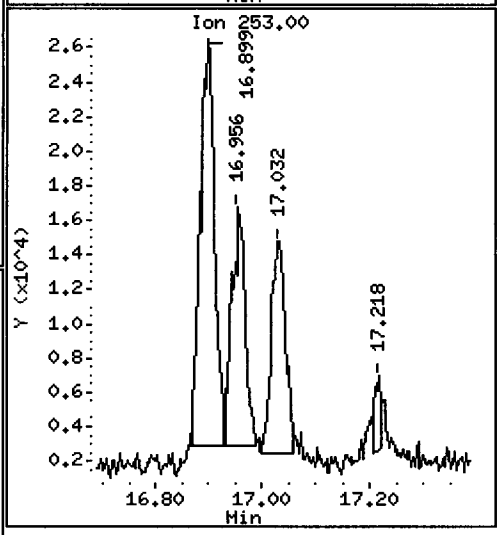
251 Benzo(j)fluoranthene

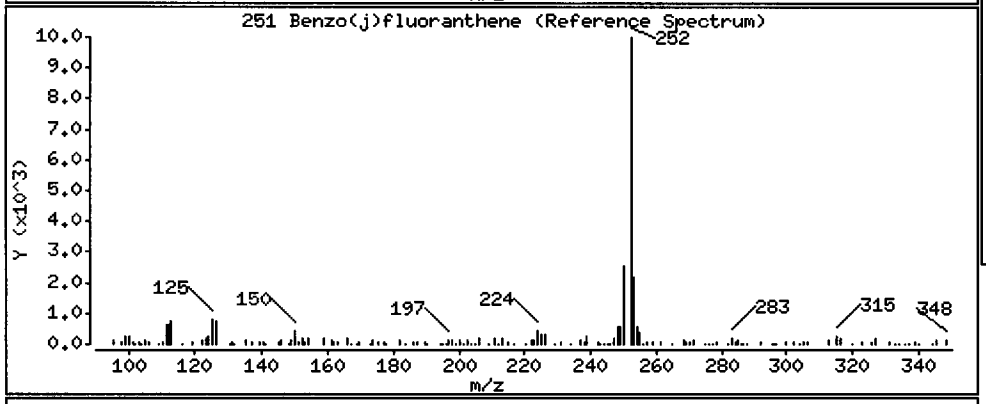
Concentration: 18.96 ug/kg

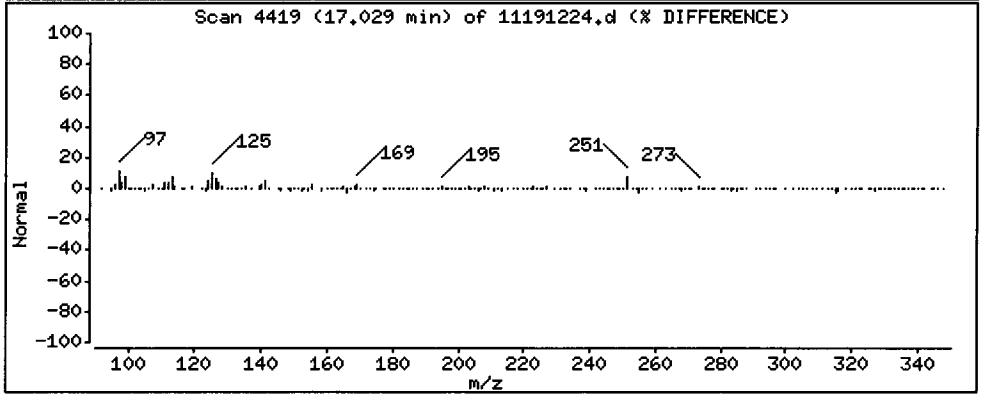












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

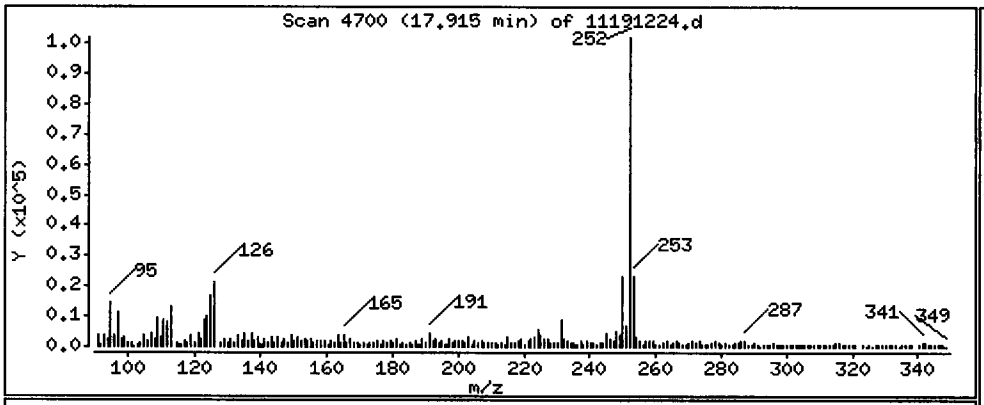
Operator: JZ

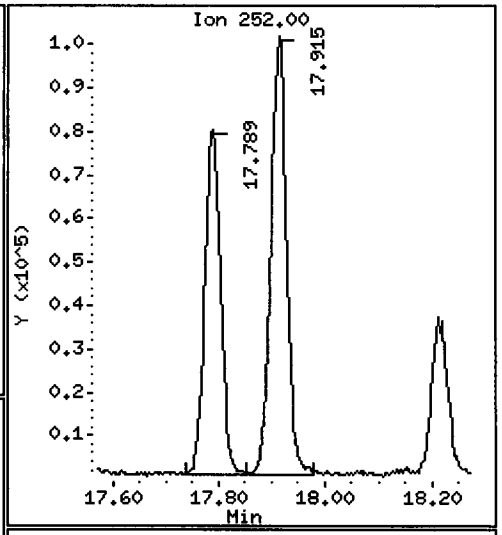
Column phase: ZB-5msi

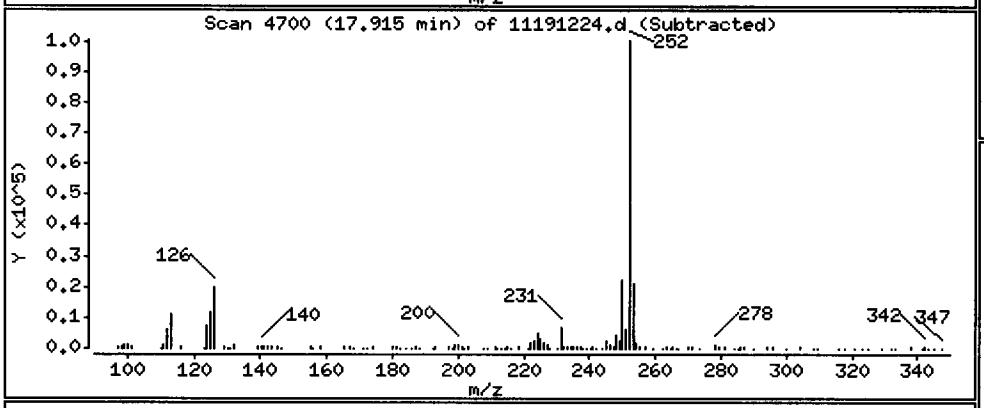
Column diameter: 0.25

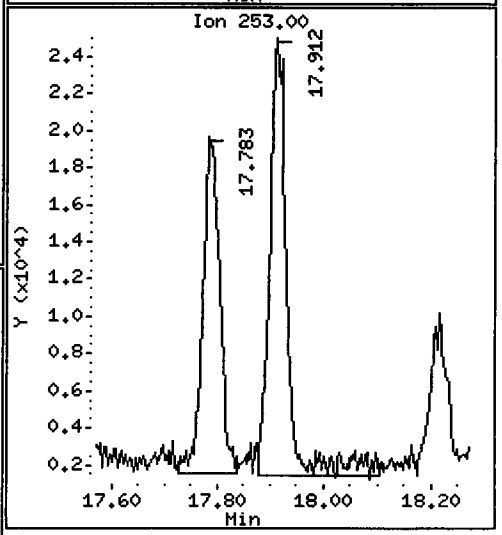
54 Benzo(a)pyrene

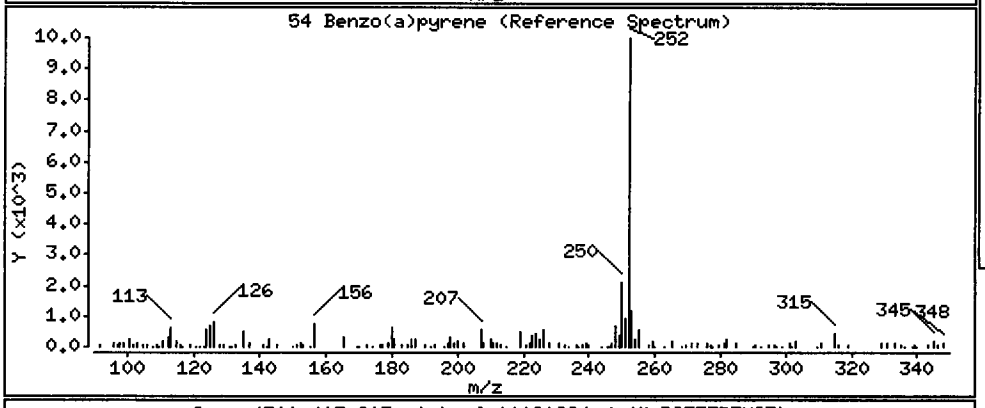
Concentration: 42.41 ug/kg

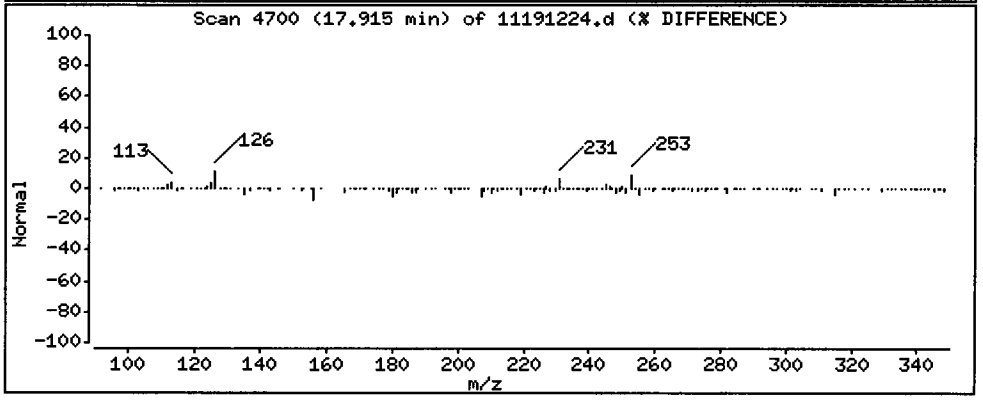












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

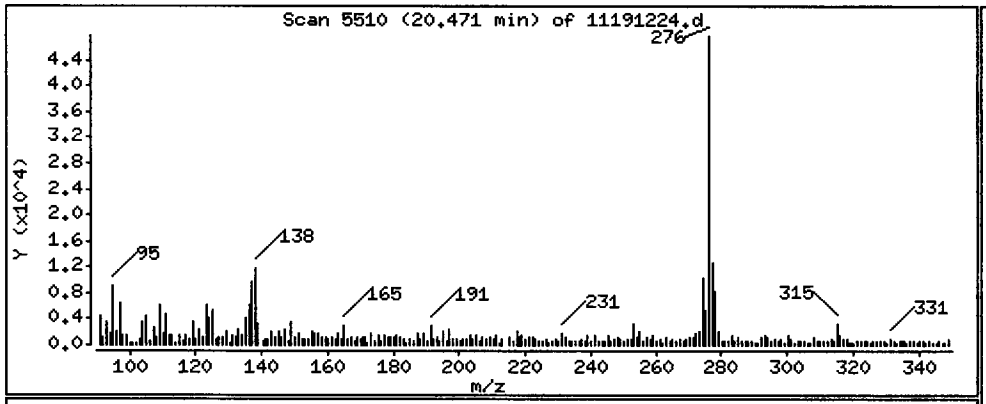
Operator: JZ

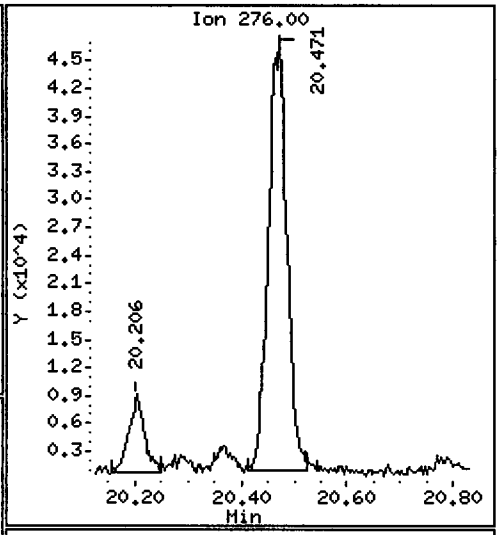
Column phase: ZB-5msi

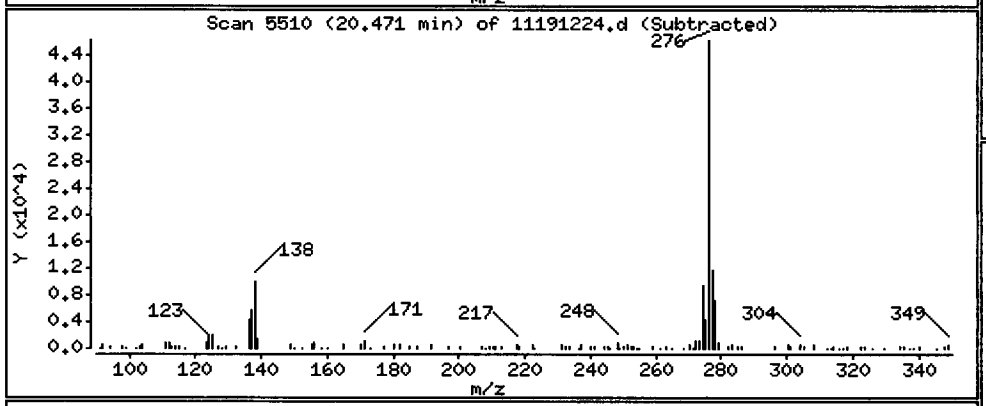
Column diameter: 0.25

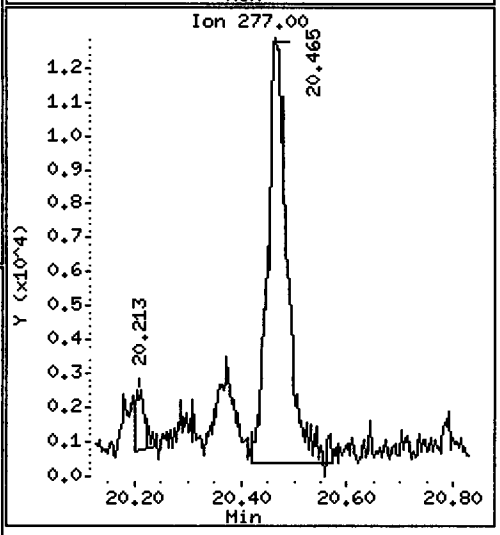
63 Indeno(1,2,3-cd)pyrene

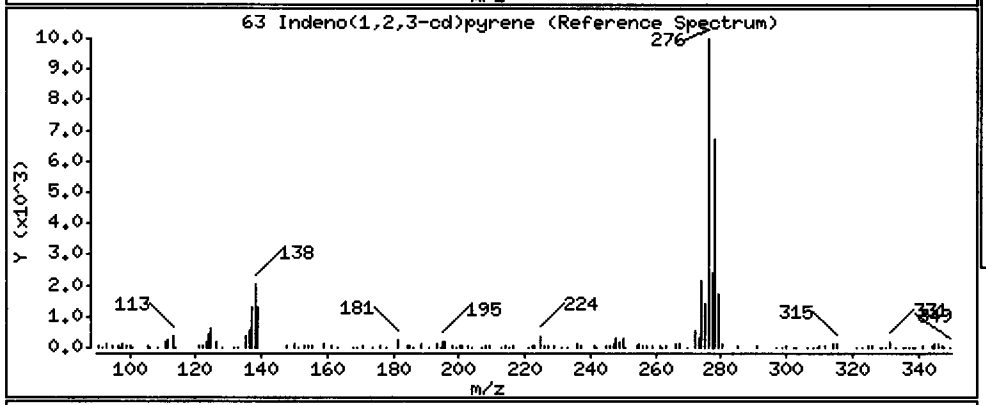
Concentration: 18.77 ug/kg

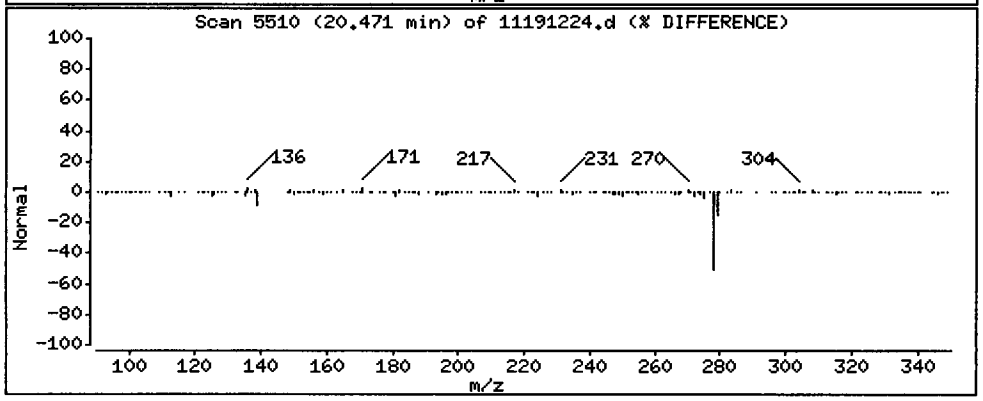












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

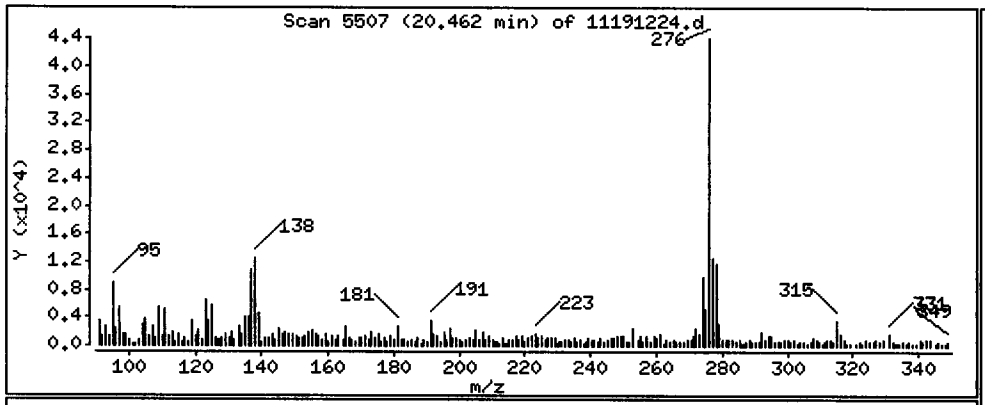
Operator: JZ

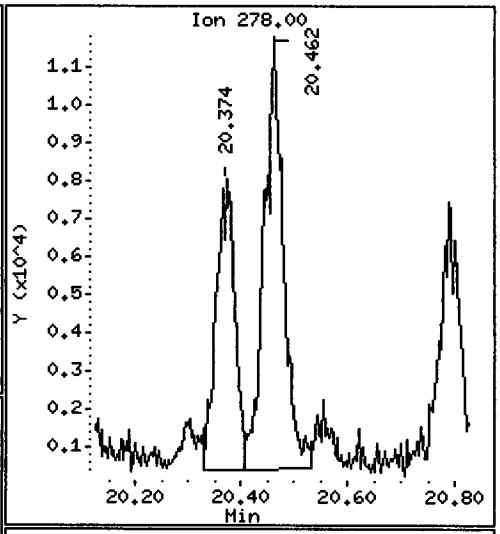
Column phase: ZB-5msi

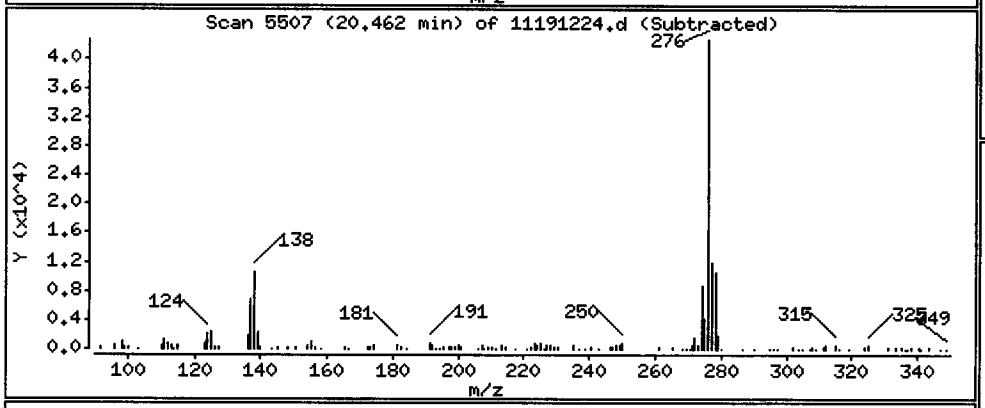
Column diameter: 0.25

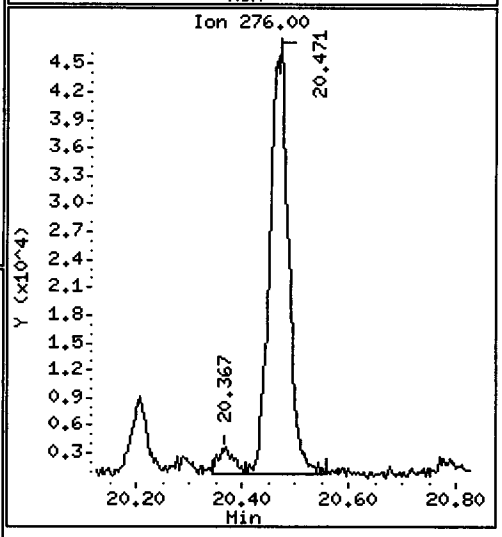
62 Dibenzo(a,h)anthracene

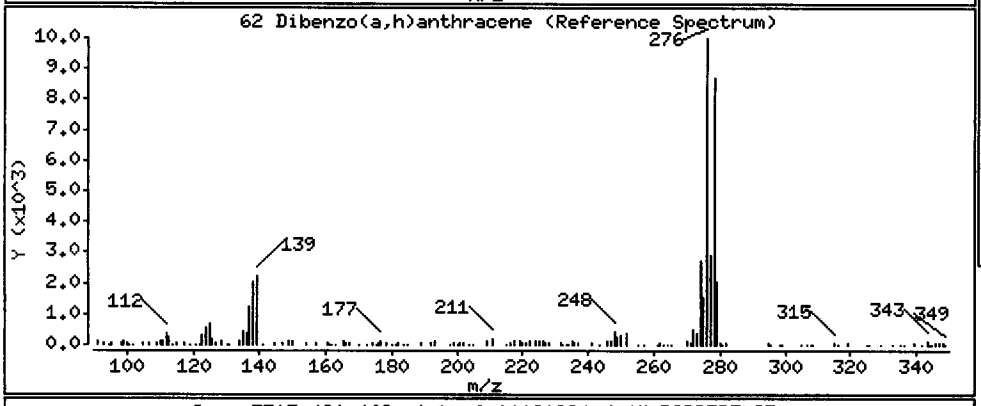
Concentration: 5.831 ug/kg

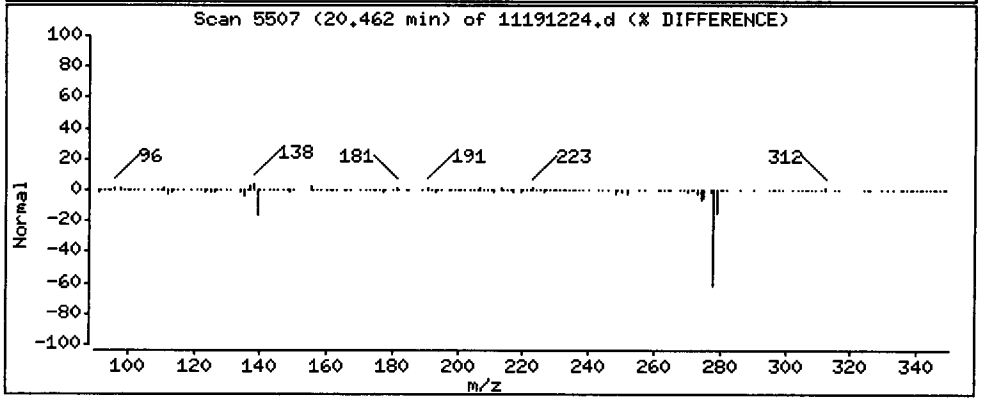












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

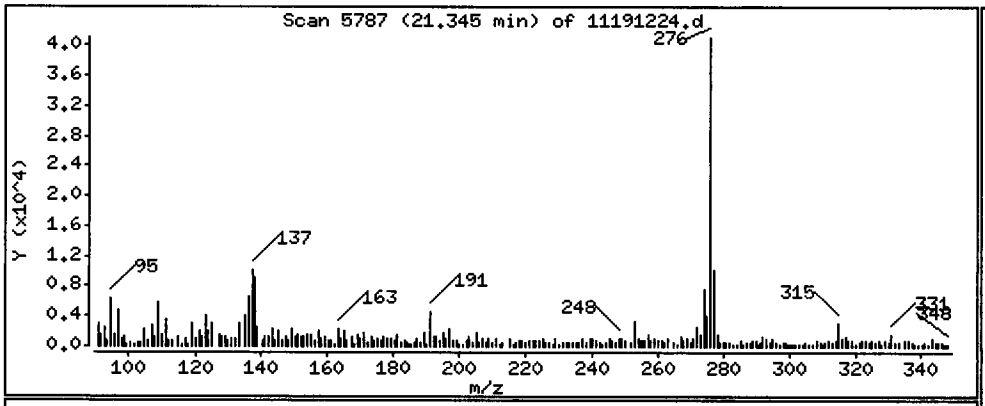
Operator: JZ

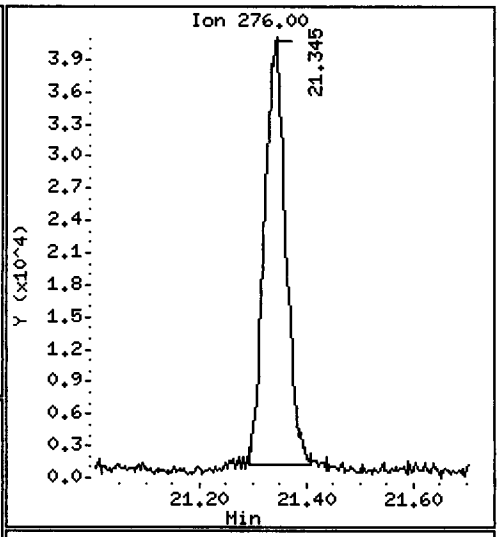
Column phase: ZB-5msi

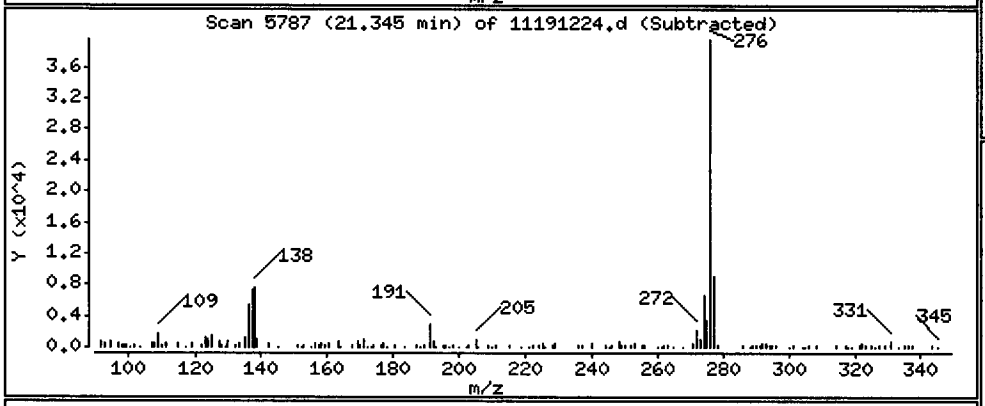
Column diameter: 0.25

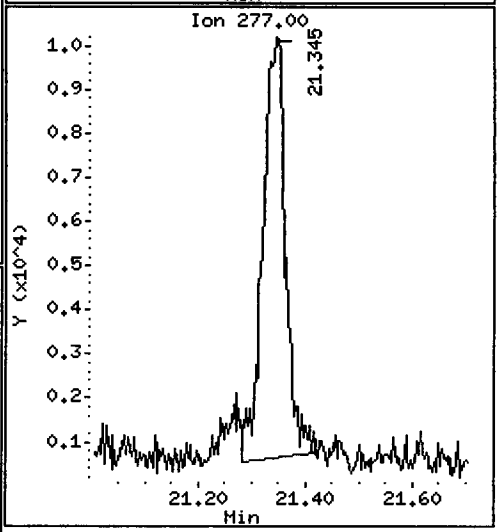
61 Benzo(g,h,i)perylene

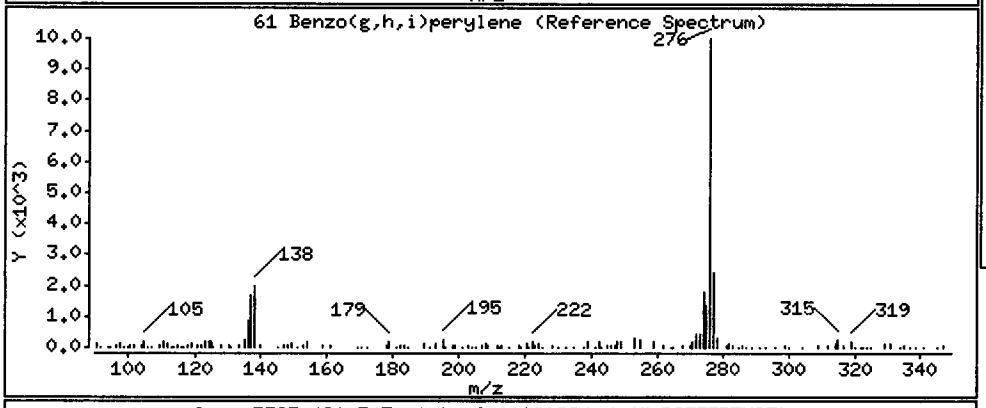
Concentration: 21.42 ug/kg

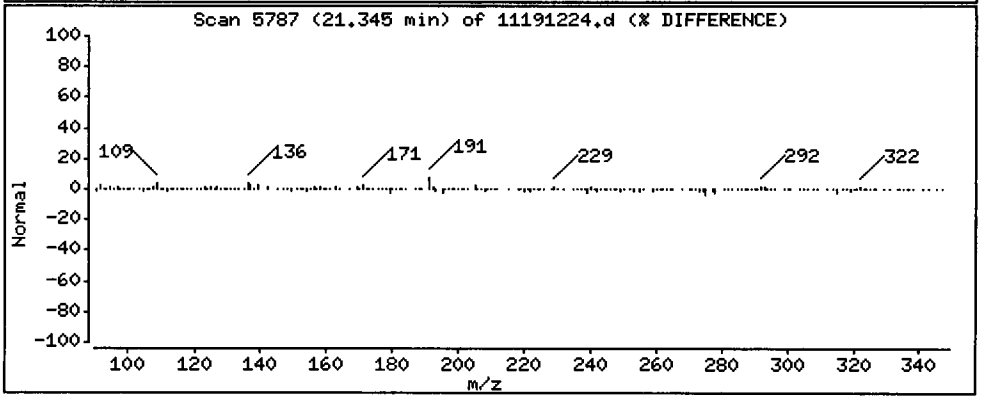












Data File: /chem3/nt11.i/20121119.b/11191224.d

Date : 19-NOV-2012 23:26

Client ID: HT-06-S-E-121106

Instrument: nt11.i

Sample Info: VR38J

Volume Injected (uL): 1.0

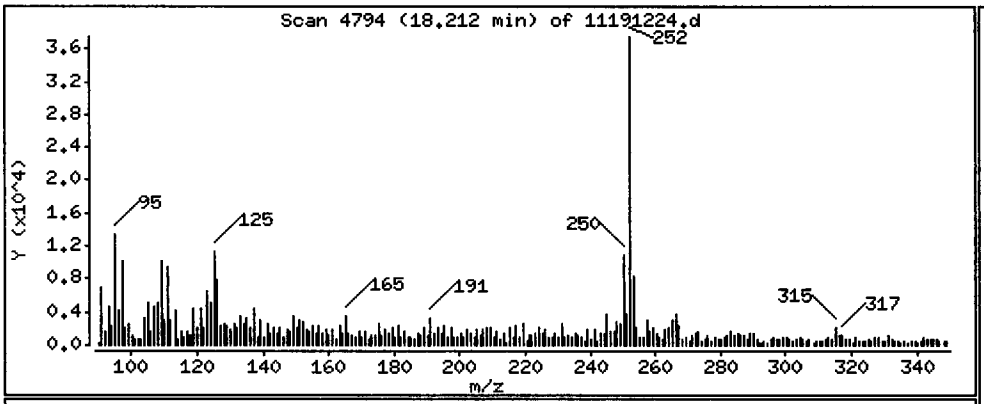
Operator: JZ

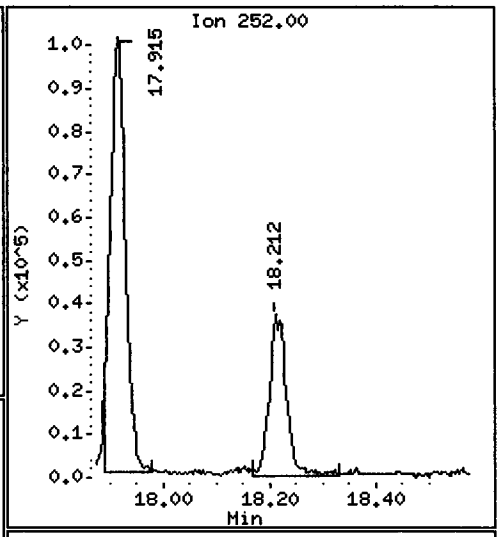
Column phase: ZB-5msi

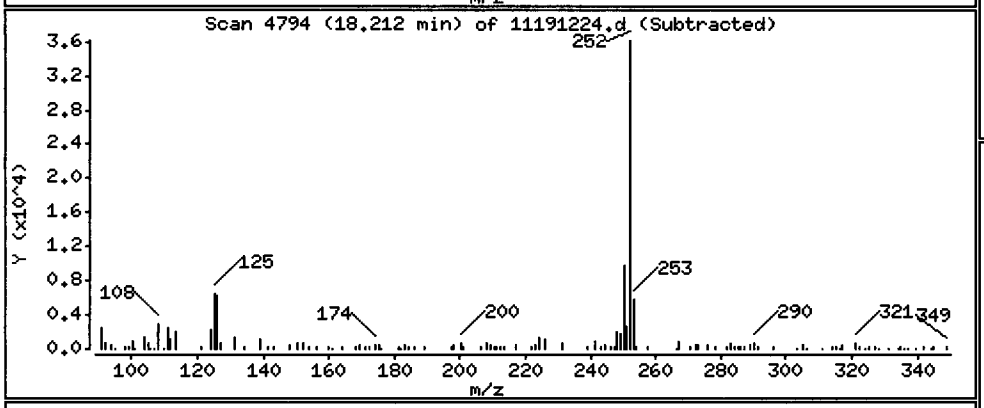
Column diameter: 0.25

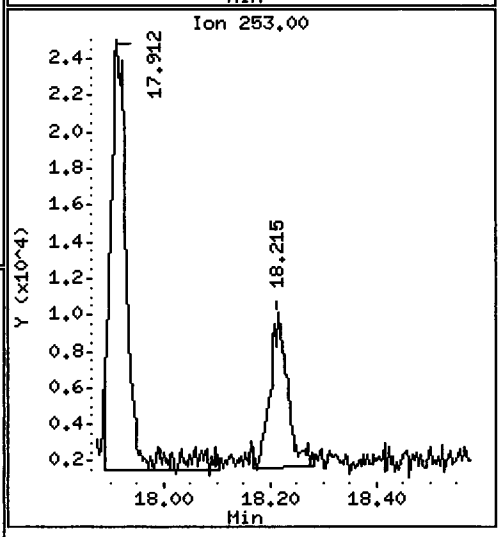
57 Perylene

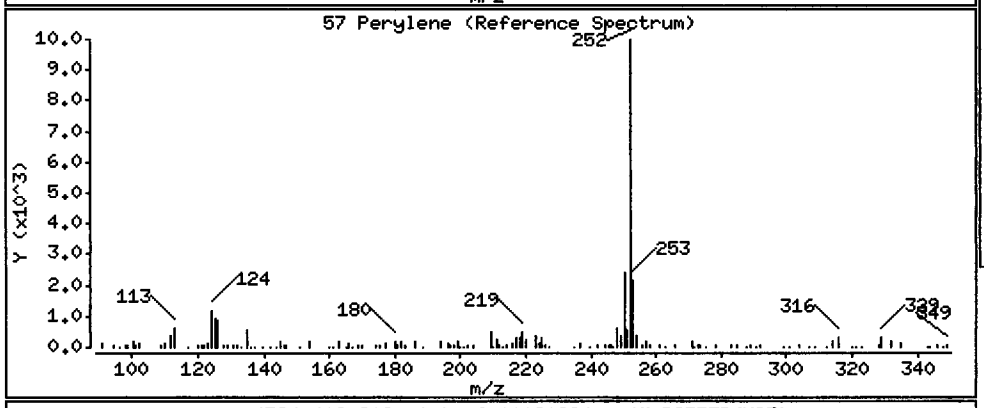
Concentration: 15.99 ug/kg

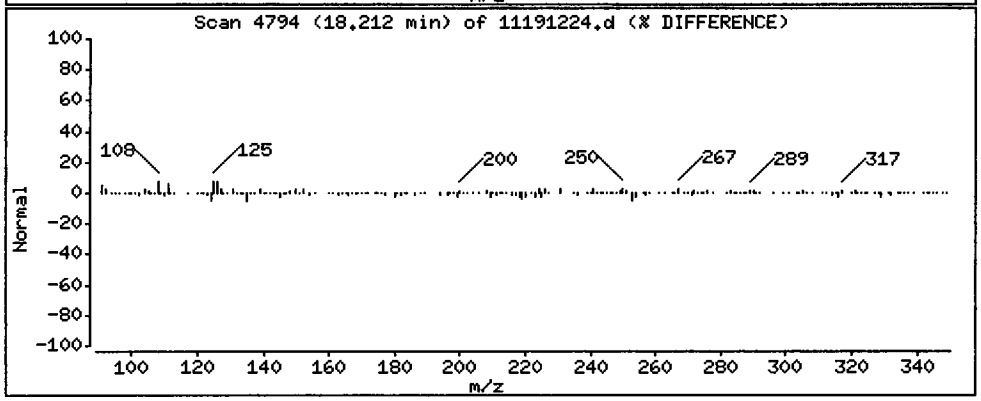












CO-ELUTION SUMMARY FOR FILE - 11191224.d

Lab ID: VR38J, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191225.d
Lab Smp Id: VR38K Client Smp ID: HT-07-S-E-121106
Inj Date : 19-NOV-2012 23:56
Operator : JZ Inst ID: nt11.i
Smp Info : VR38K
Misc Info : 12-22277
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 15:42 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.28000	Weight of sample extracted (g)
M	16.50000	% 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)
*	6 Naphthalene-d8	136	5.470	5.473	(1.000)	687317	2.00000	
	7 Naphthalene	128	5.498	5.501	(1.005)	21008	0.05719	2.789
$	12 2-Methylnaphthalene-d10	152	6.205	6.208	(1.134)	400640	1.70603	83.19
	14 2-Methylnaphthalene	141	6.252	6.255	(1.143)	28412	0.13728	6.694
	15 1-methylnaphthalene	141	6.445	6.448	(1.178)	17745	0.08952	4.365
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.742	7.745	(1.000)	380338	2.00000	
	23 Acenaphthene	153	Compound Not Detected.					
	11 Dibenzofuran	168	Compound Not Detected.					
	25 Fluorene	166	Compound Not Detected.					
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	535730	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	111982	0.34604	16.87
	31 Anthracene	178	Compound Not Detected.					
	36 Fluoranthene	202	11.456	11.459	(1.174)	234894	0.72448	35.33
	39 Pyrene	202	11.932	11.926	(0.829)	215580	0.66083	32.22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.261	14.268	(0.991)	74993	0.25211	12.29
*	47 Chrysene-d12	240	14.387	14.387	(1.000)	591980	2.00000	
	48 Chrysene	228	14.451	14.457	(1.004)	126095	0.43674	21.30
	51 Benzo(b)fluoranthene	252	16.896	16.906	(0.931)	96409	0.44897	21.89
	52 Benzo(k)fluoranthene	252	16.956	16.966	(0.934)	51715	0.22176	10.81
	251 Benzo(j)fluoranthene	252	17.029	17.038	(0.938)	43589	0.17716	8.639
	54 Benzo(a)pyrene	252	17.912	17.922	(0.987)	77273	0.35428	17.28
*	56 Perylene-d12	264	18.149	18.152	(1.000)	463981	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.468	20.478	(1.128)	46064	0.17420	8.495
$	60 Dibenzo(a,h)anthracene-d14	292	20.377	20.380	(1.123)	296979	1.93071	94.15
	62 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	61 Benzo(g,h,i)perylene	276	21.346	21.355	(1.176)	57479	0.25551	12.46
	57 Perylene	252	18.215	18.225	(1.004)	34310	0.15169	7.397

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191225.d
Lab Smp Id: VR38K
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22277

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: HT-07-S-E-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	687317	33.17
22 Acenaphthene-d10	284255	142128	568510	380338	33.80
28 Phenanthrene-d10	410660	205330	821320	535730	30.46
47 Chrysene-d12	467886	233943	935772	591980	26.52
56 Perylene-d12	472330	236165	944660	463981	-1.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.06
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.04
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.39	0.00
56 Perylene-d12	18.15	17.65	18.65	18.15	-0.02

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.

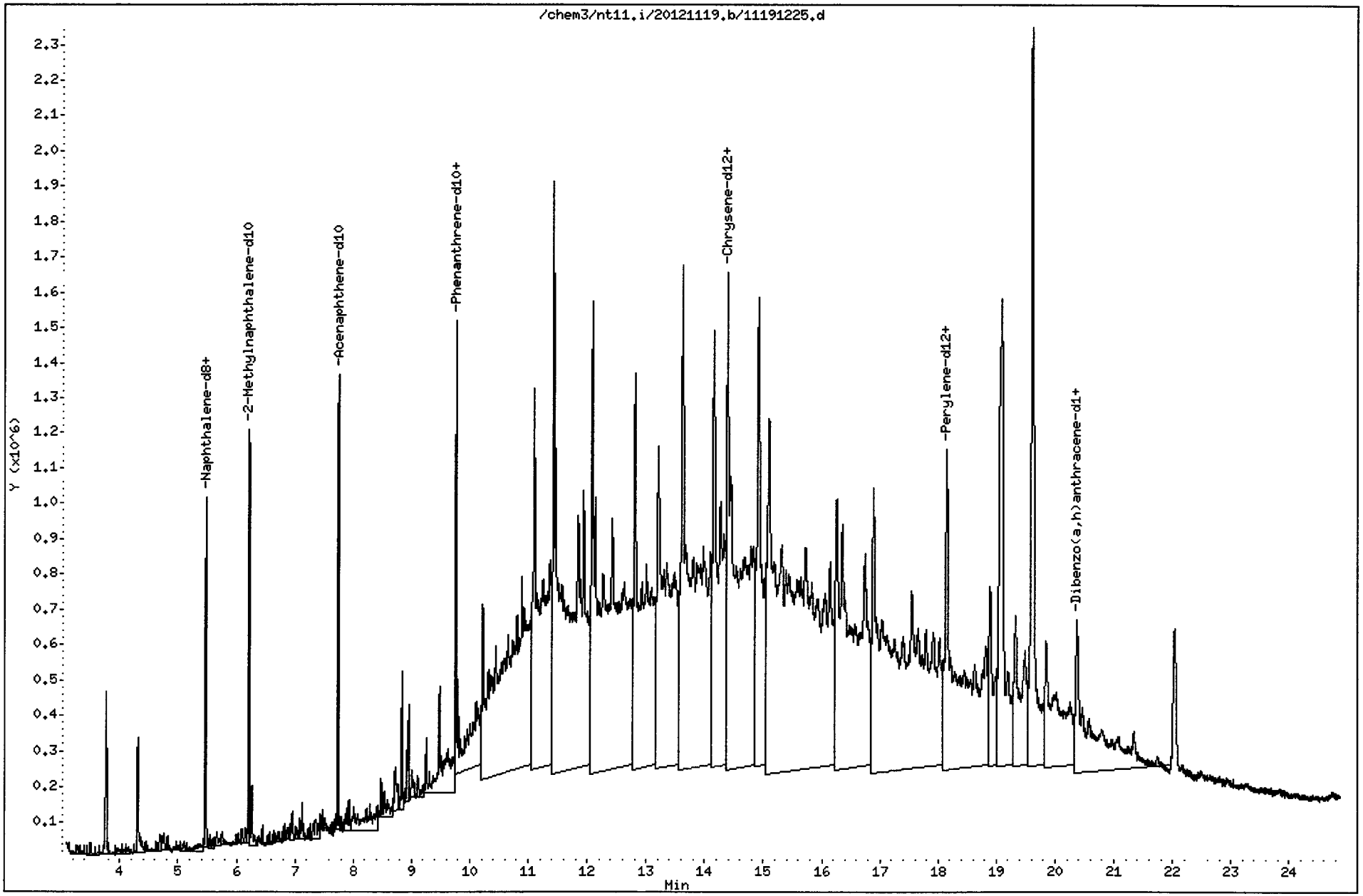
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38K Client Smp ID: HT-07-S-E-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22277

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	146.3	83.19	56.87	34-100
$ 60 Dibenzo(a,h)anthra	146.3	94.15	64.36	10-117

Data File: /chem3/nt11.i/20121119.b/11191225.d
Date : 19-NOV-2012 23:56
Client ID: HT-07-S-E-121106
Sample Info: VR38K
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

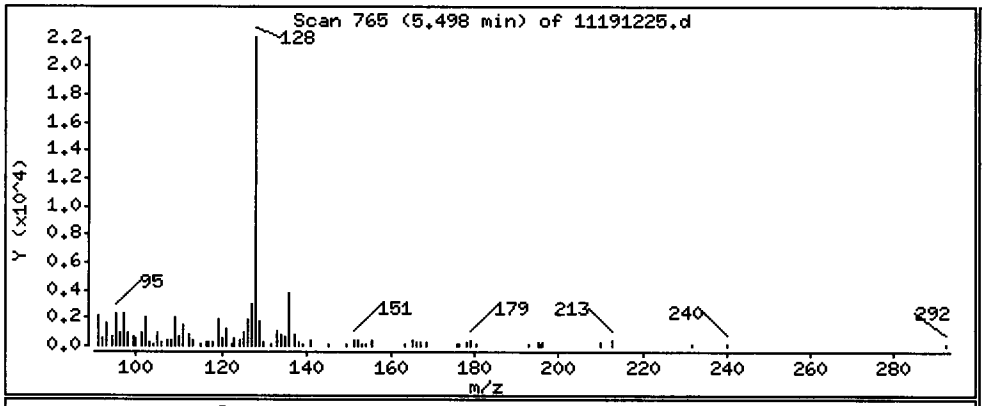
Operator: JZ

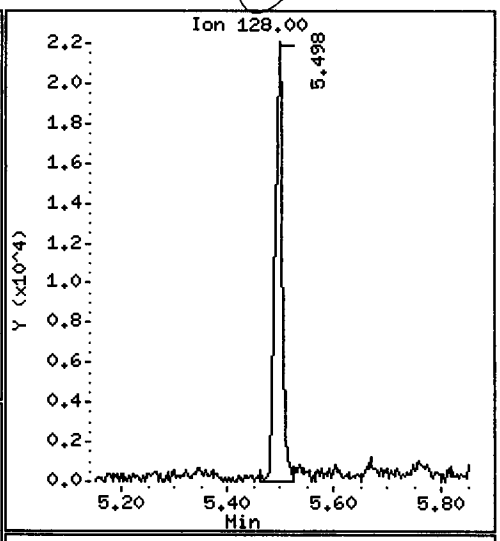
Column phase: ZB-5msi

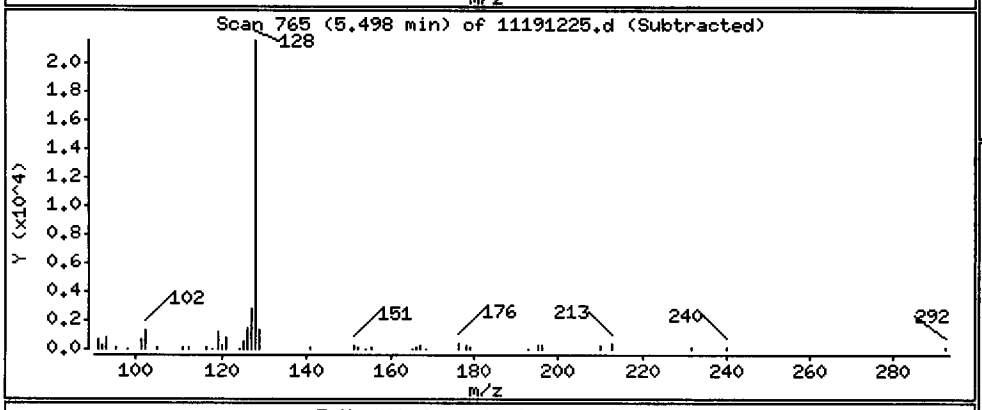
Column diameter: 0.25

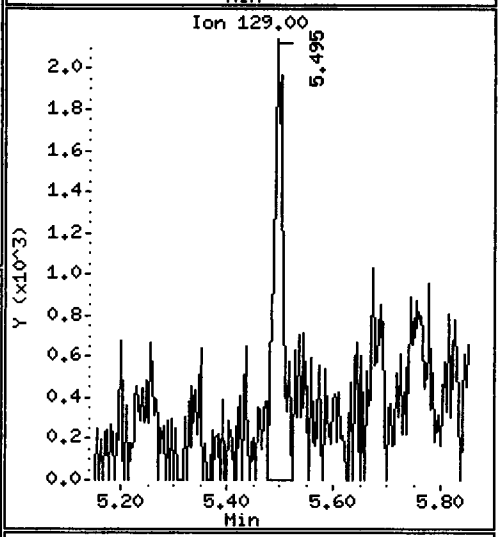
7 Naphthalene

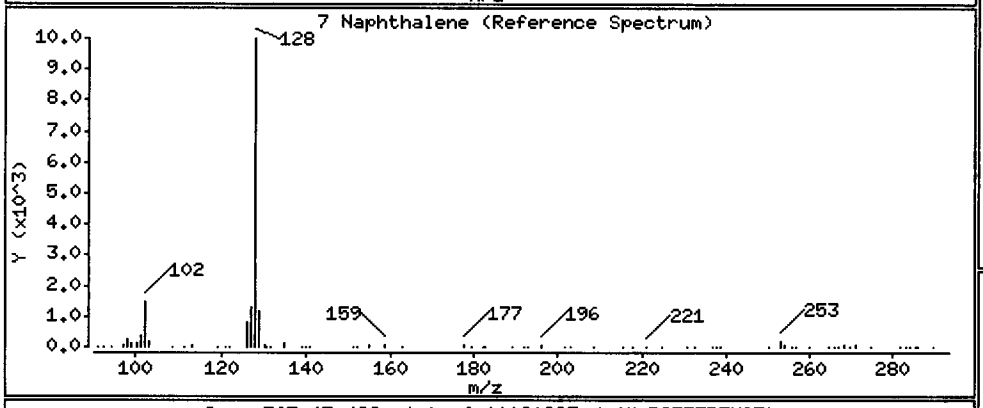
Concentration: 2.789 ug/kg

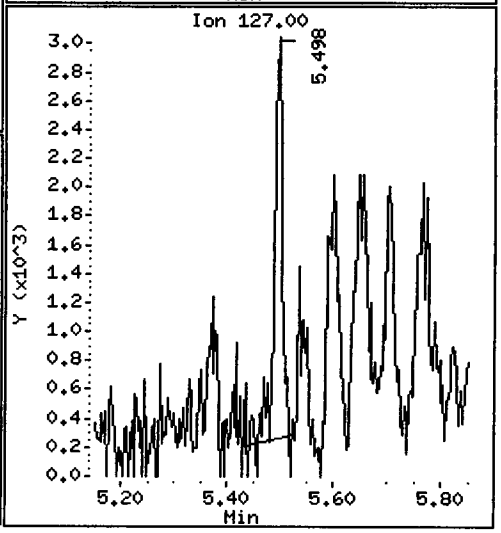


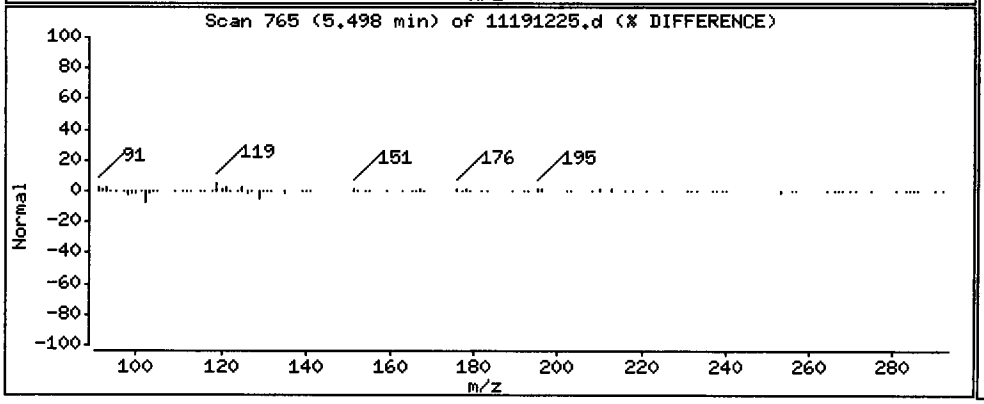












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

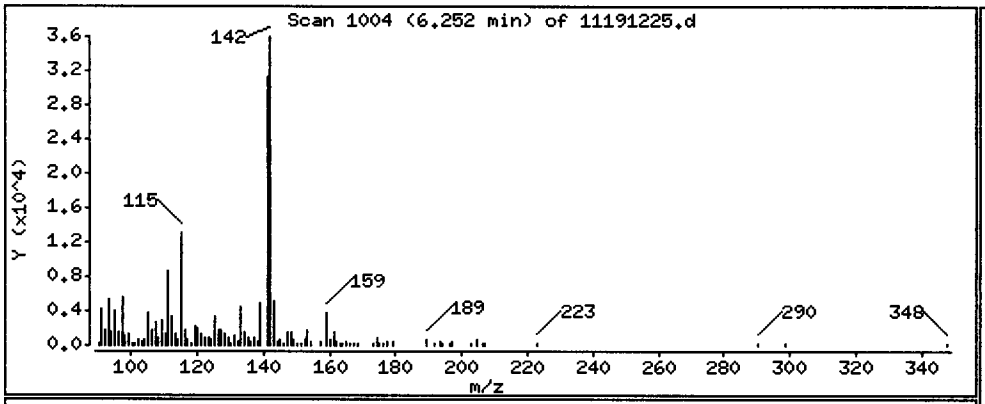
Client ID: HT-07-S-E-121106 Instrument: nt11.i

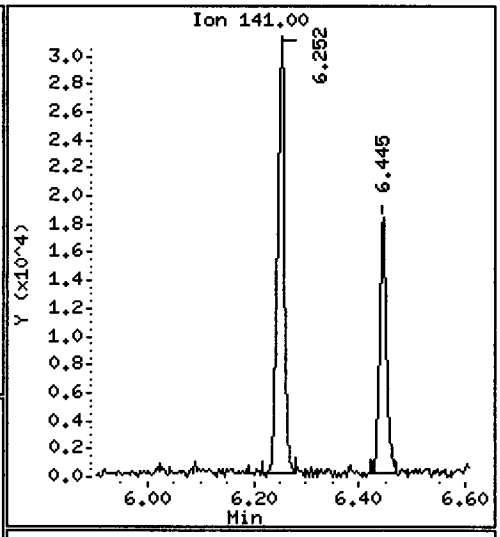
Sample Info: VR38K

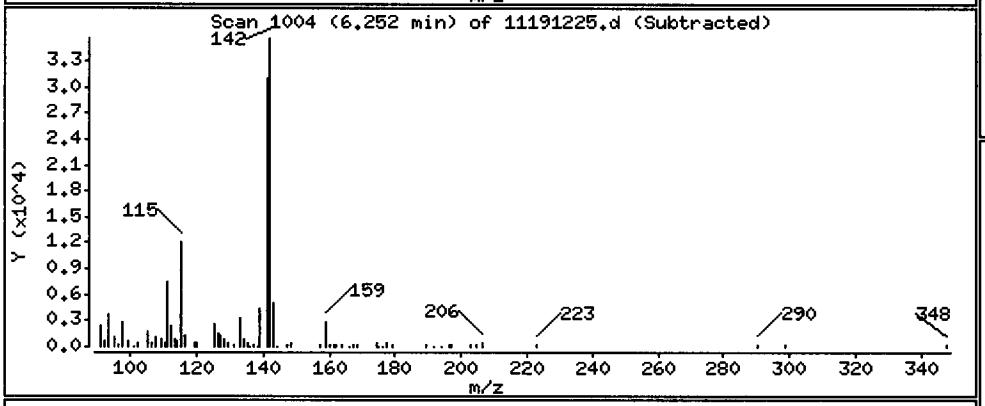
Volume Injected (uL): 1.0 Operator: JZ

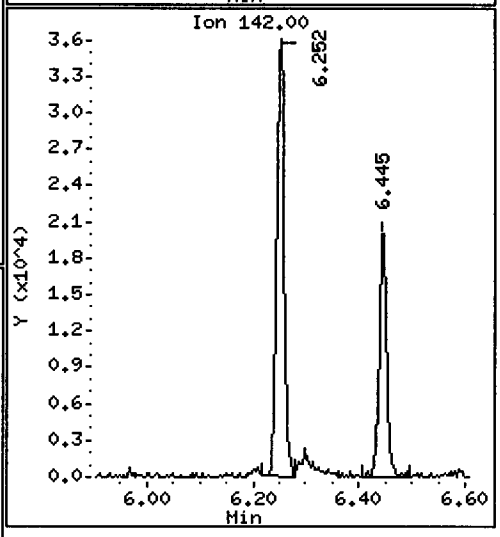
Column phase: ZB-5msi Column diameter: 0.25

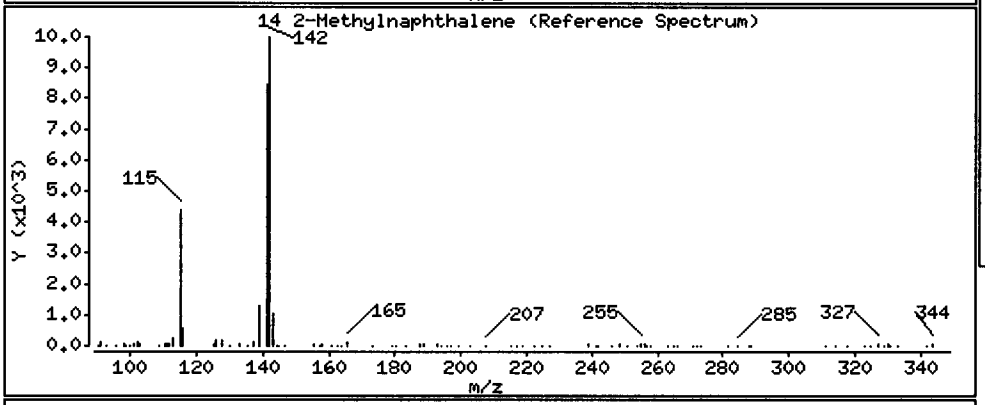
14 2-Methylnaphthalene Concentration: 6.694 ug/kg

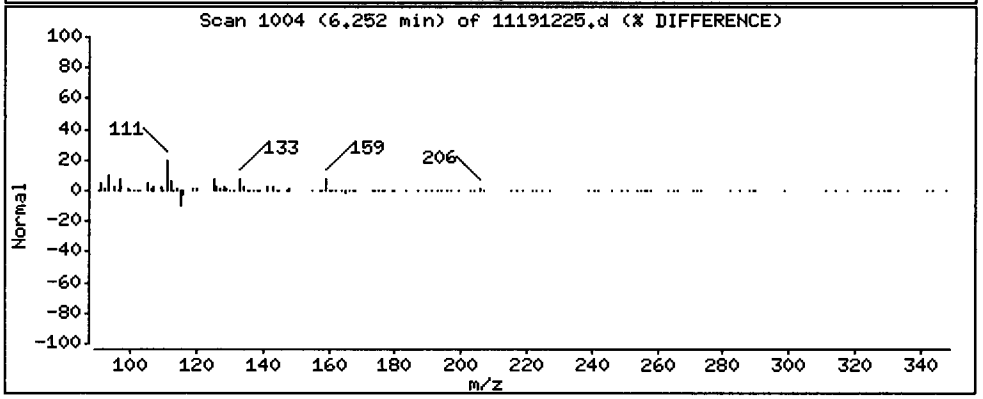












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

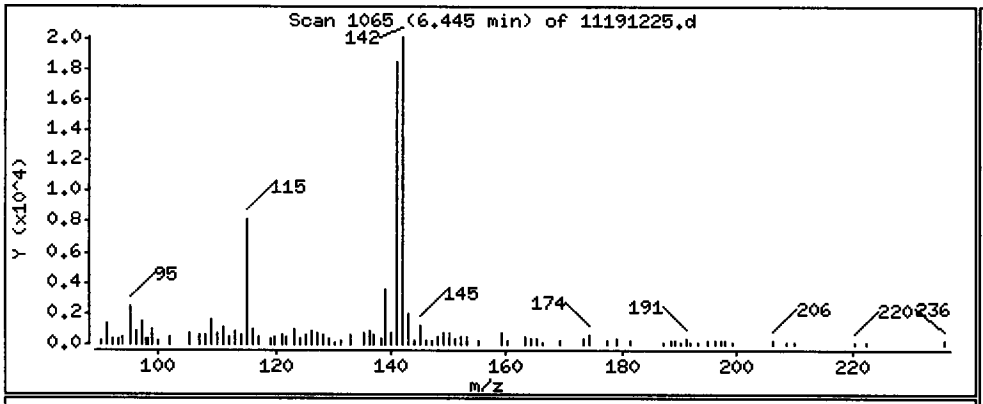
Operator: JZ

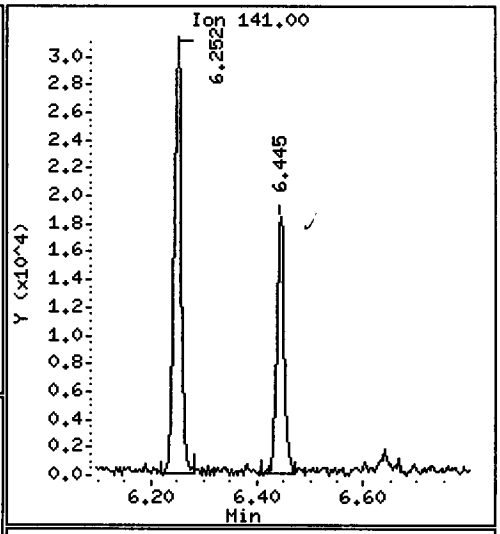
Column phase: ZB-5msi

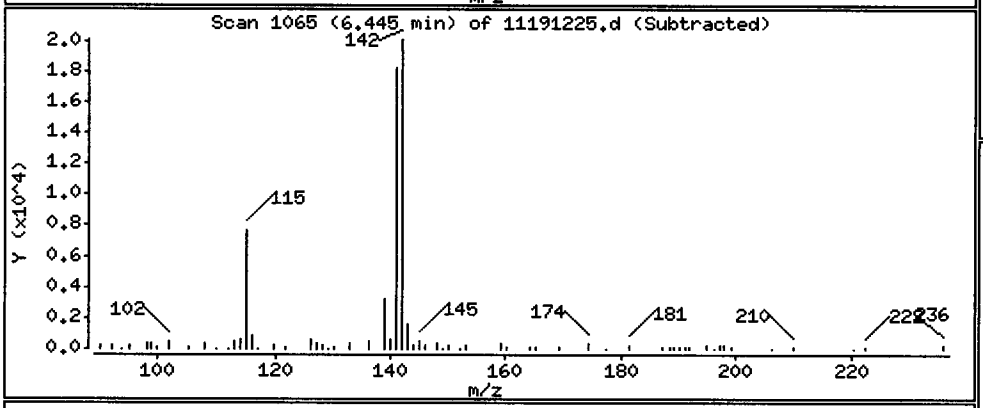
Column diameter: 0.25

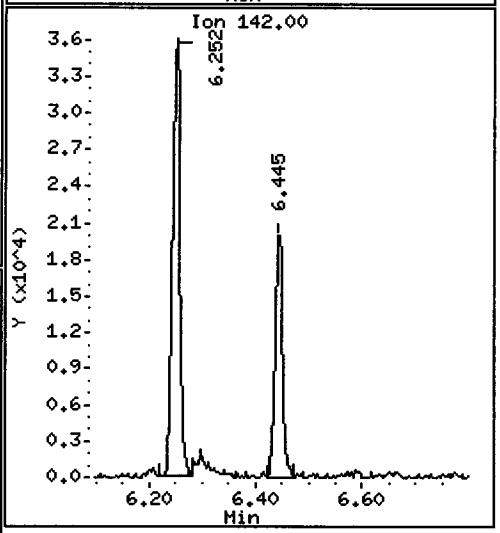
15 1-methylnaphthalene

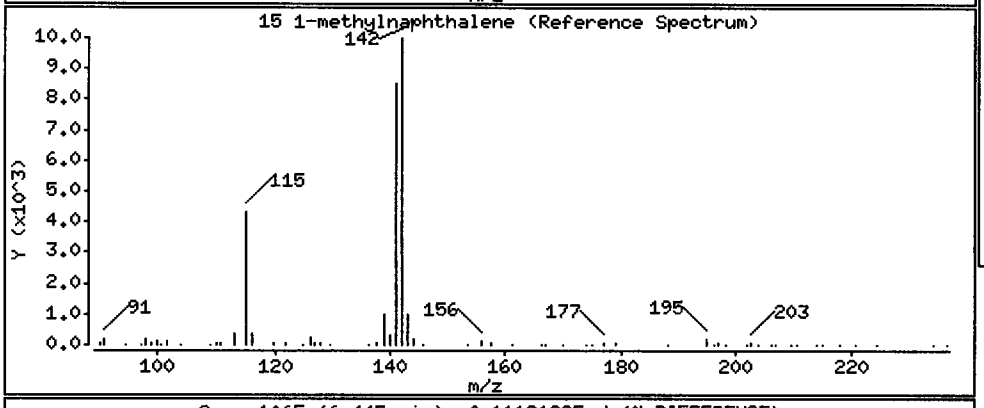
Concentration: 4.365 ug/kg

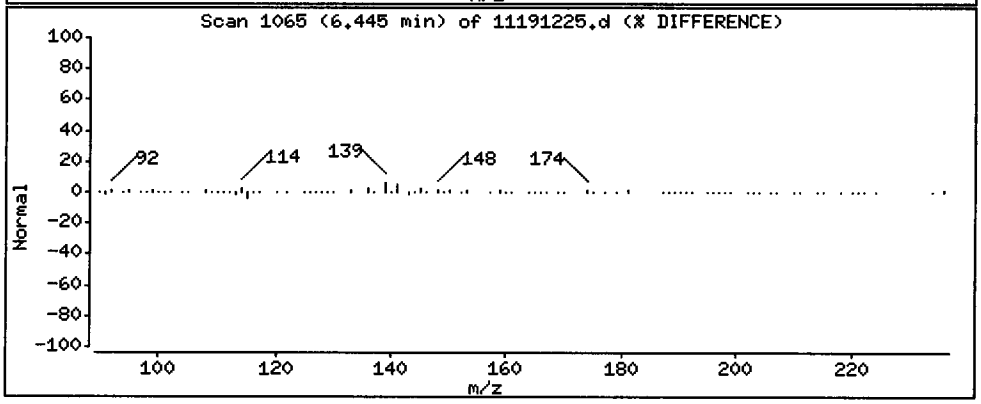












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

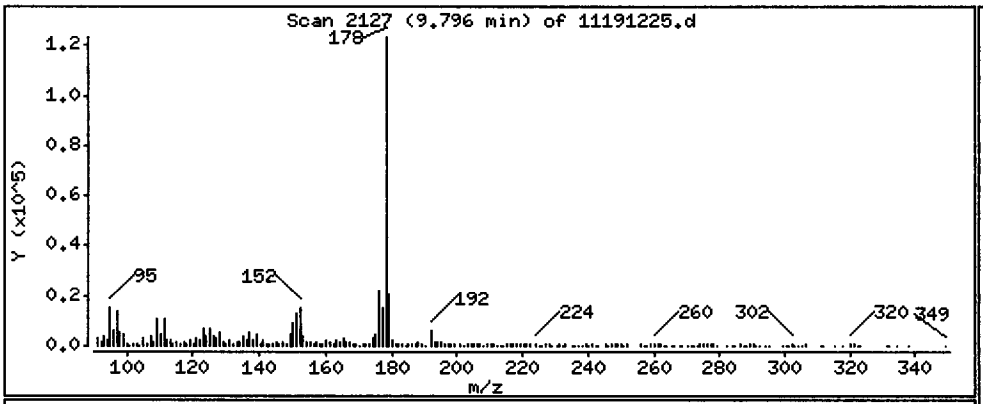
Operator: JZ

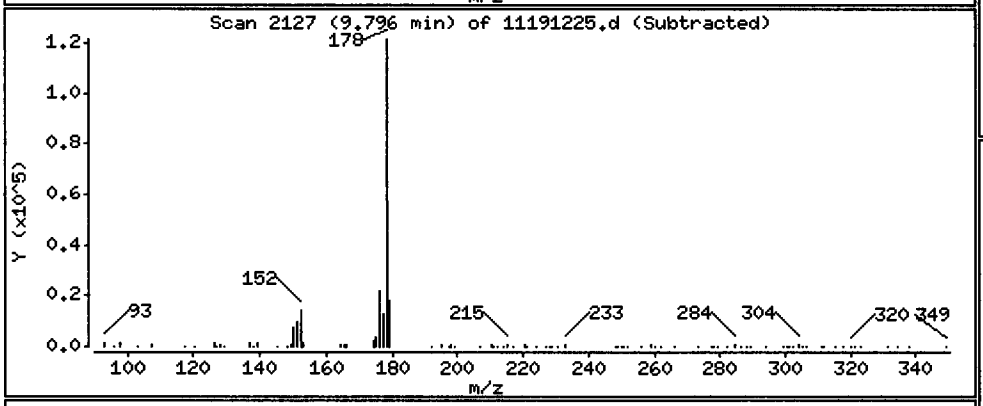
Column phase: ZB-5msi

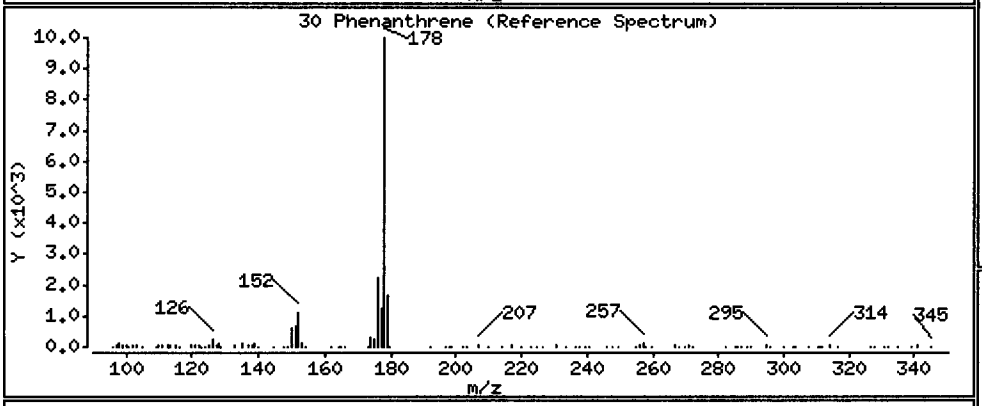
Column diameter: 0.25

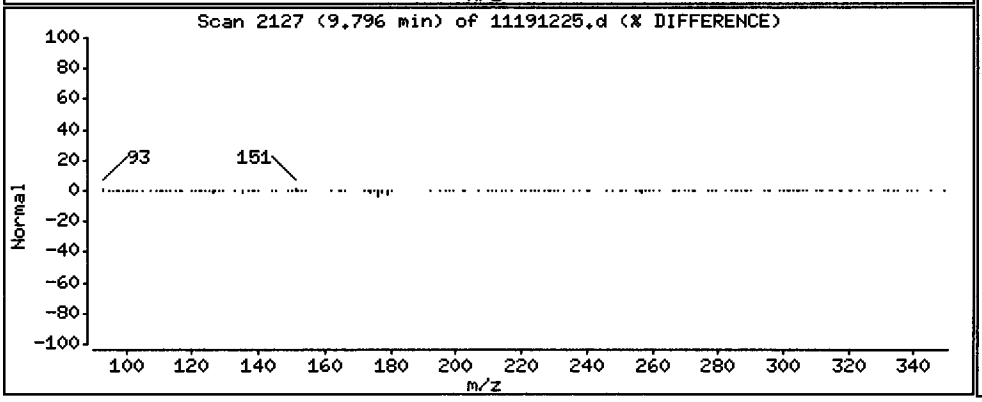
30 Phenanthrene

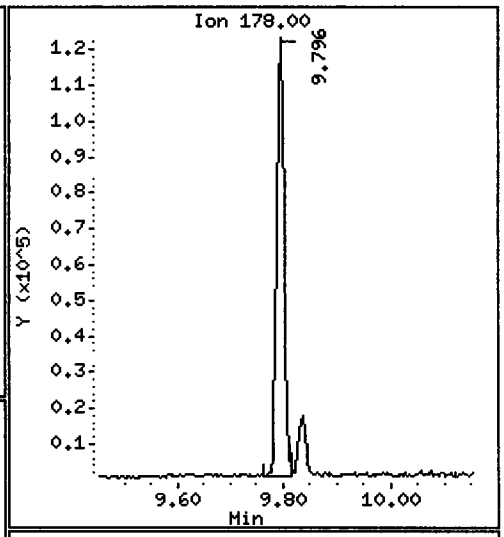
Concentration: 16.87 ug/kg

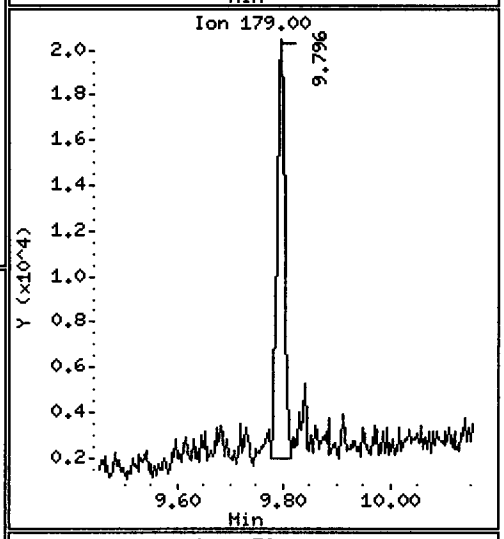


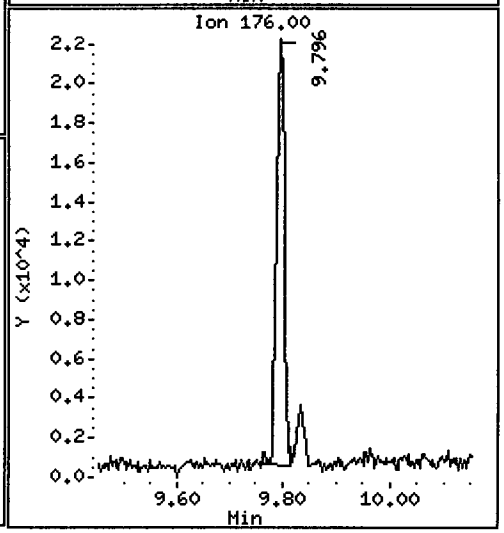












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

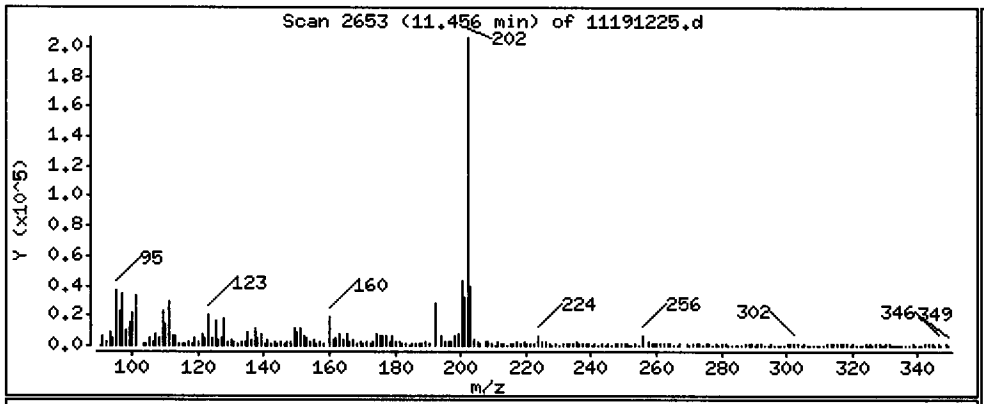
Operator: JZ

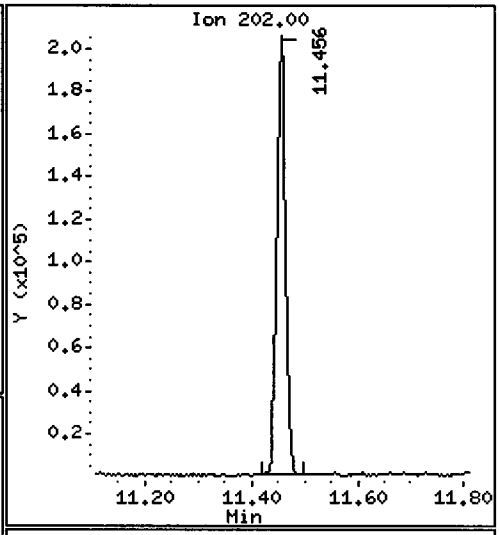
Column phase: ZB-5msi

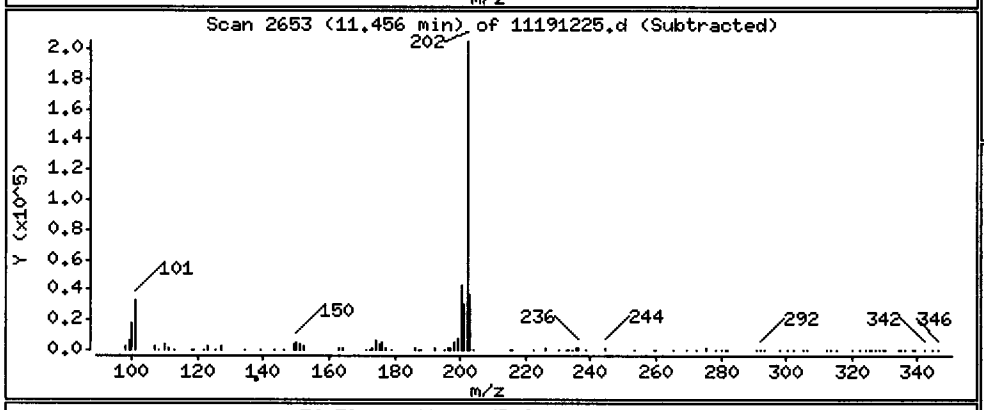
Column diameter: 0.25

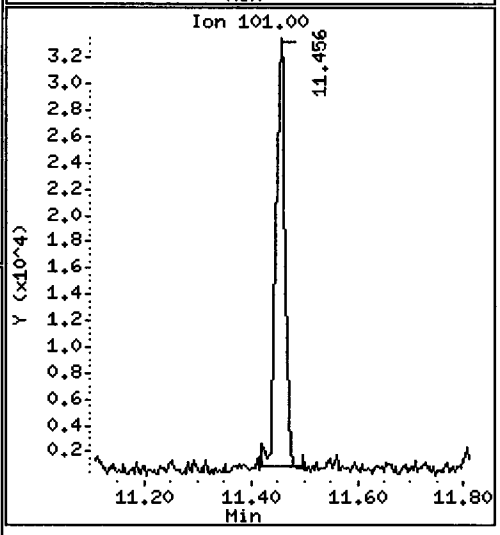
36 Fluoranthene

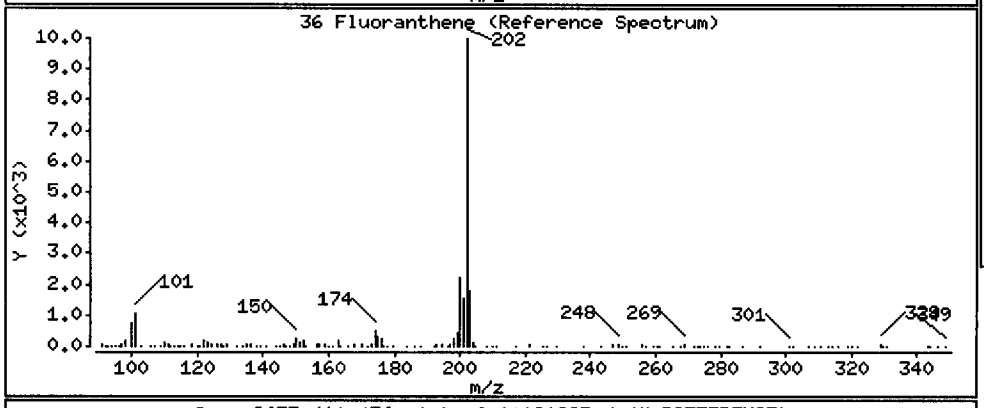
Concentration: 35.33 ug/kg

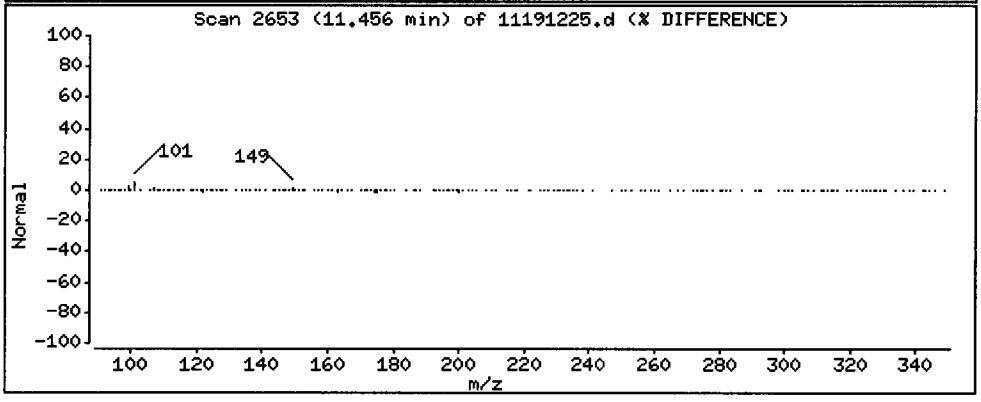












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

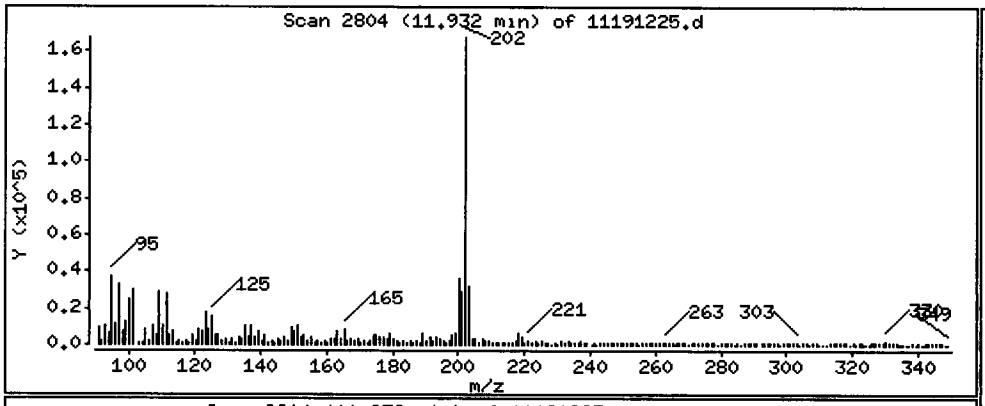
Operator: JZ

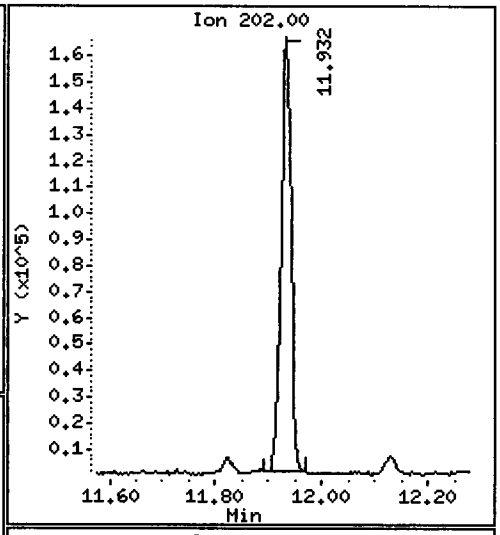
Column phase: ZB-5msi

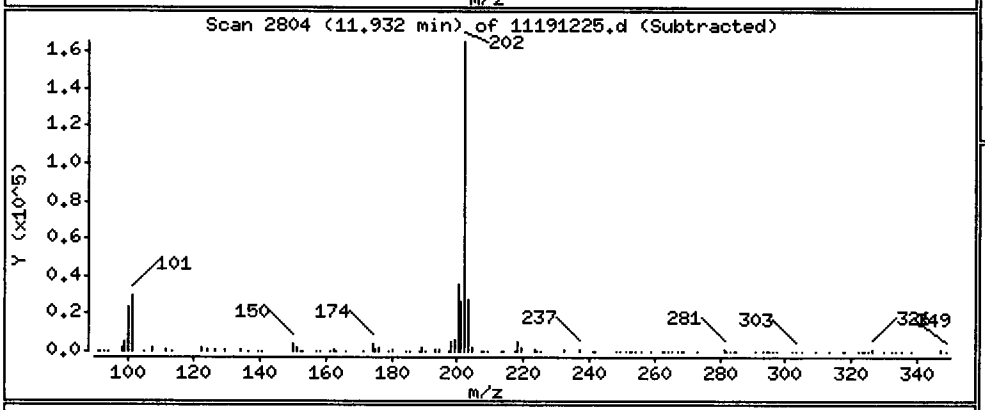
Column diameter: 0.25

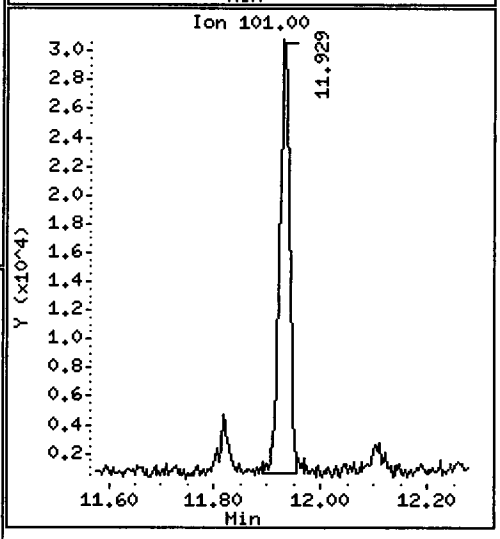
39 Pyrene

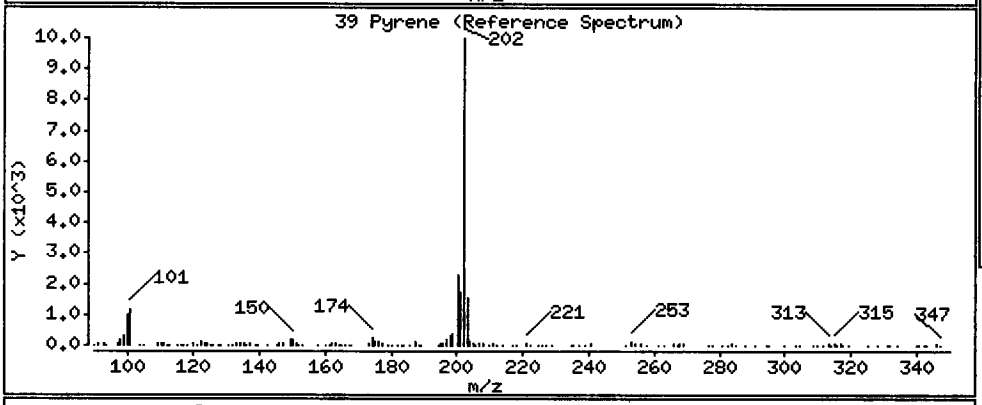
Concentration: 32.22 ug/kg

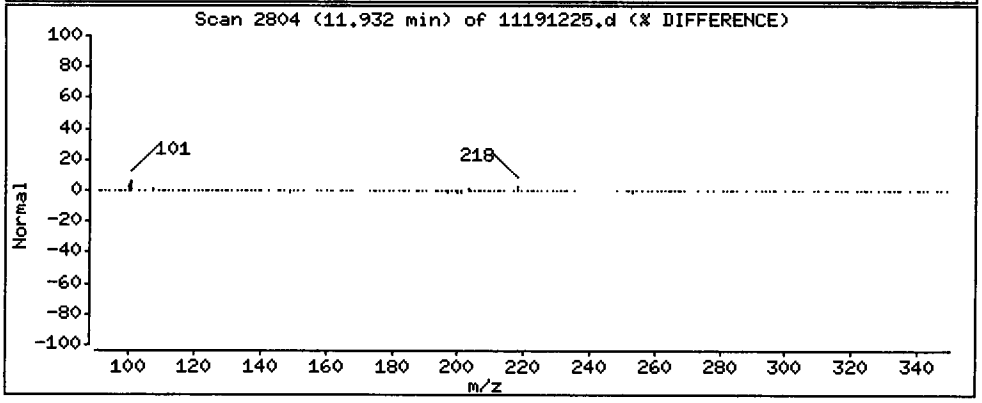












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

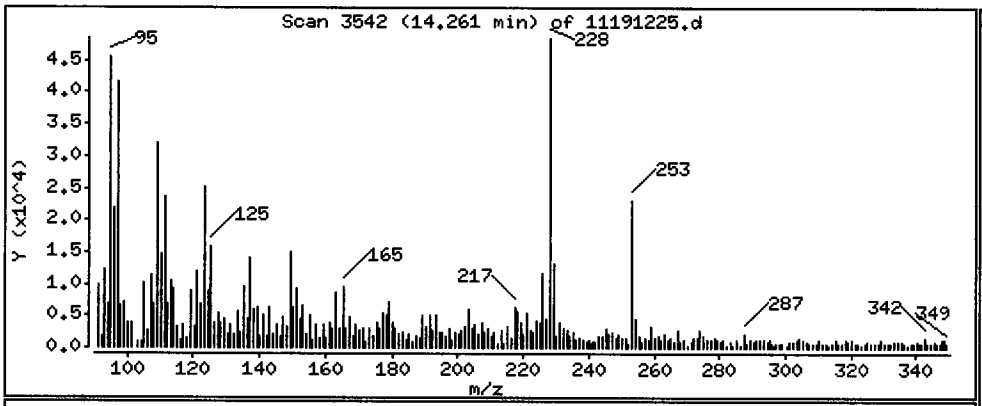
Operator: JZ

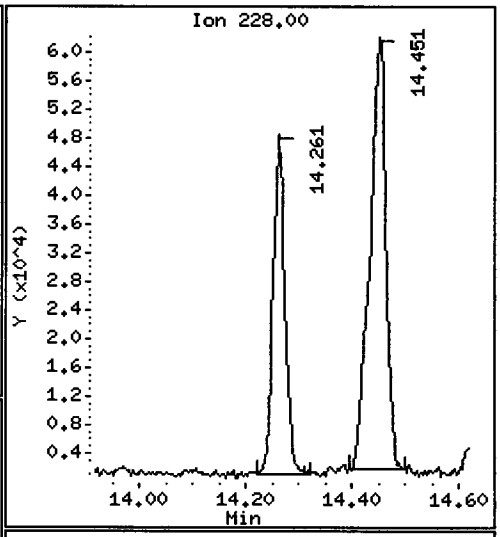
Column phase: ZB-5msi

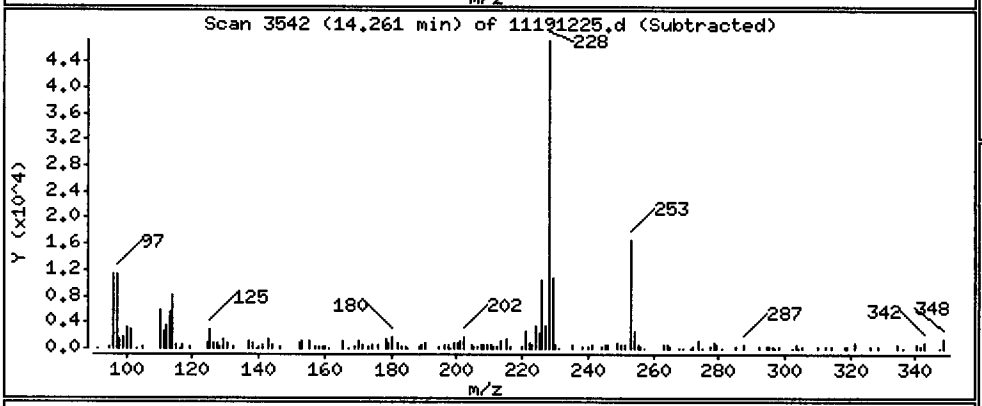
Column diameter: 0.25

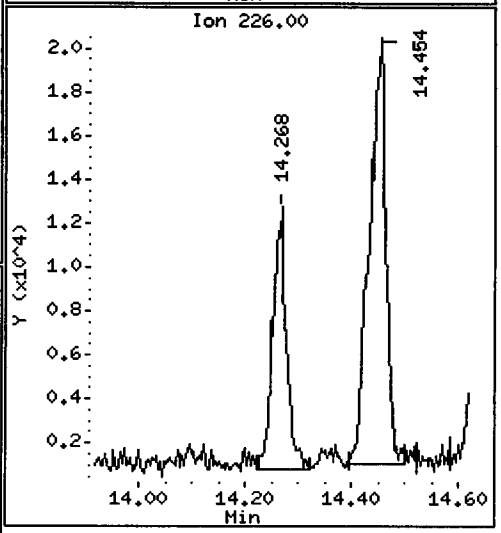
46 Benzo(a)anthracene

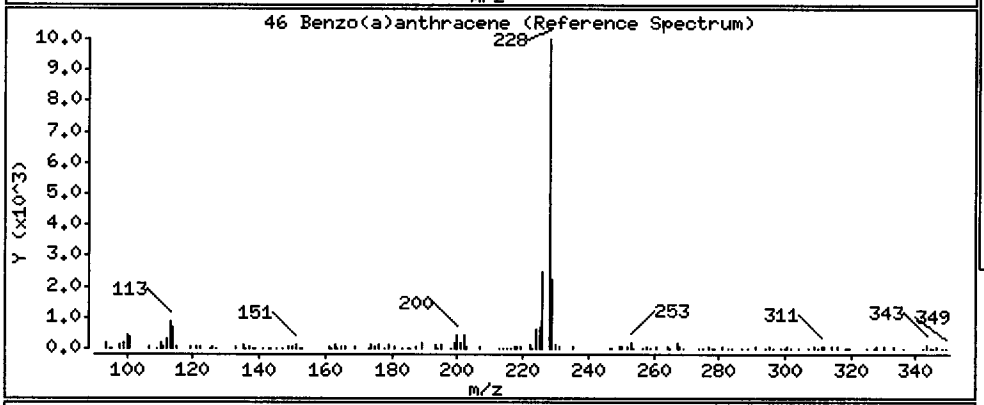
Concentration: 12.29 ug/kg

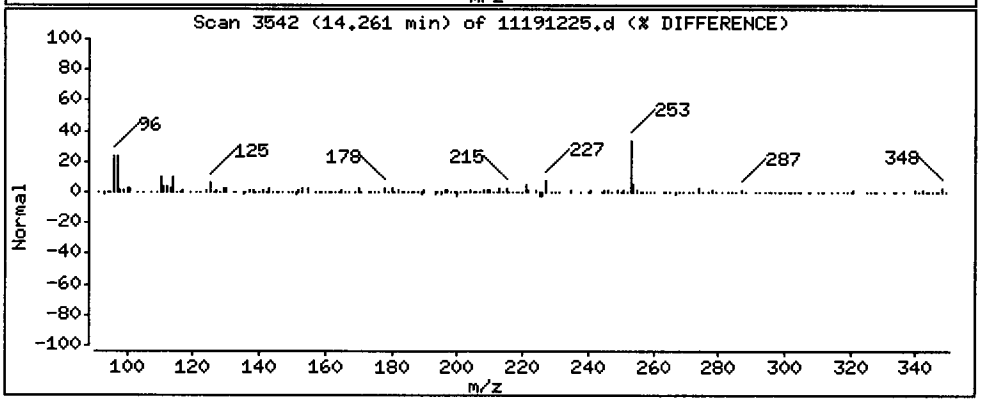












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

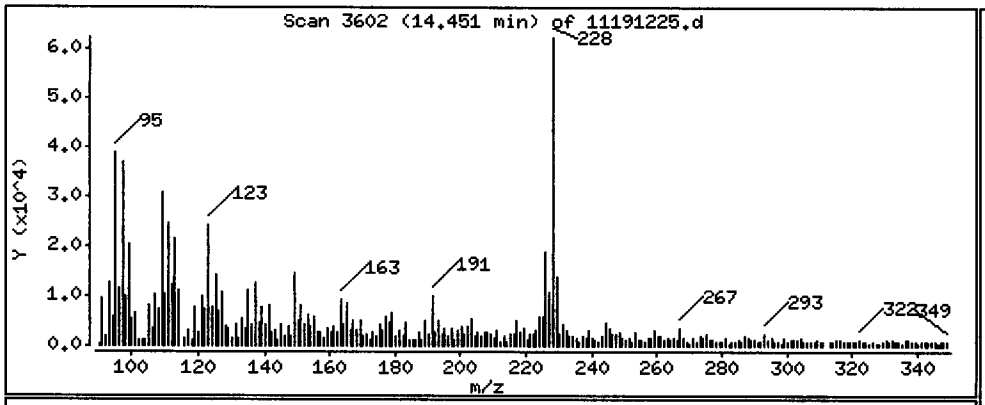
Operator: JZ

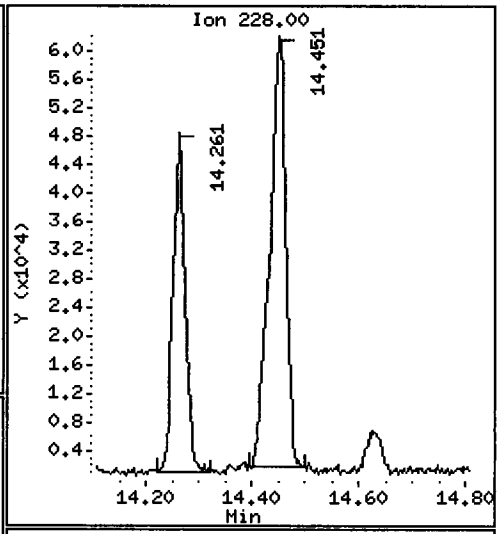
Column phase: ZB-5msi

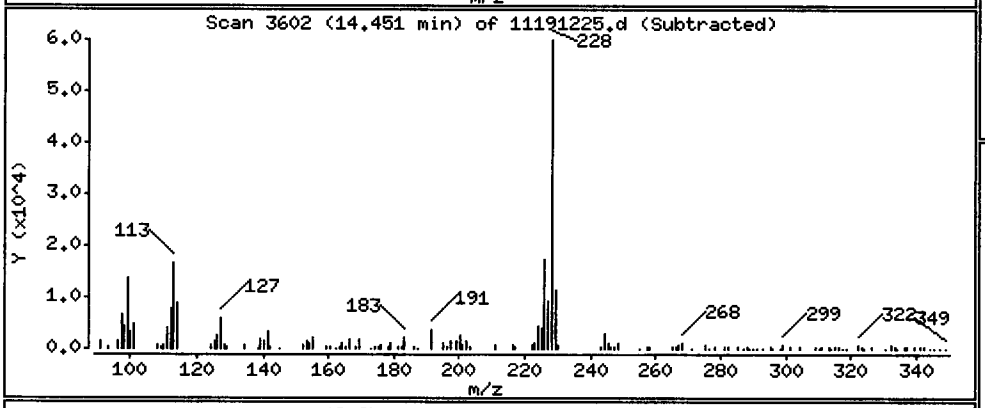
Column diameter: 0.25

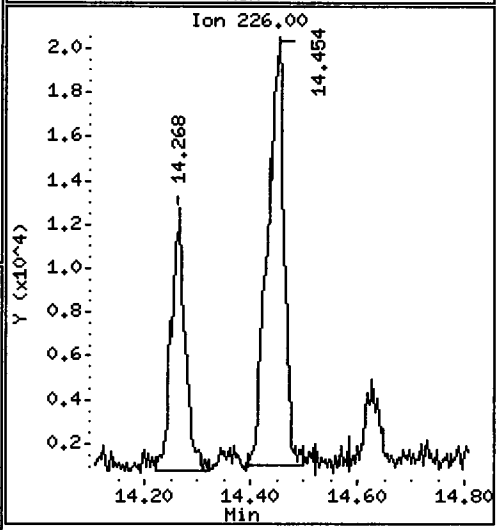
48 Chrysene

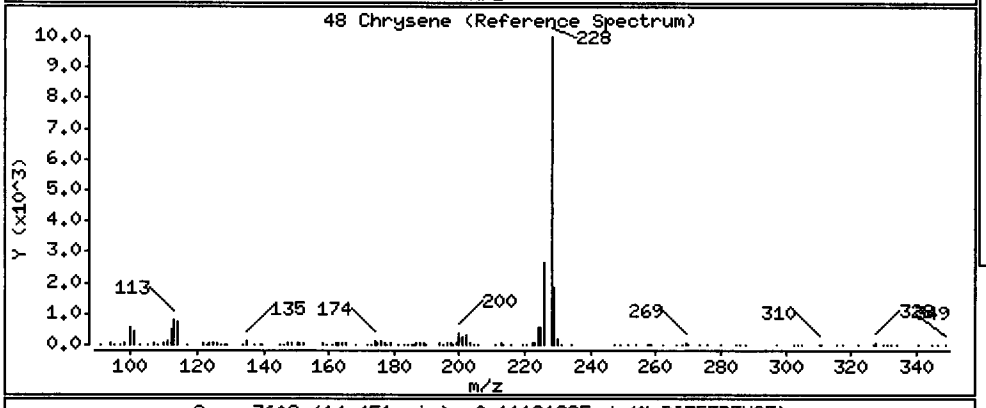
Concentration: 21.30 ug/kg

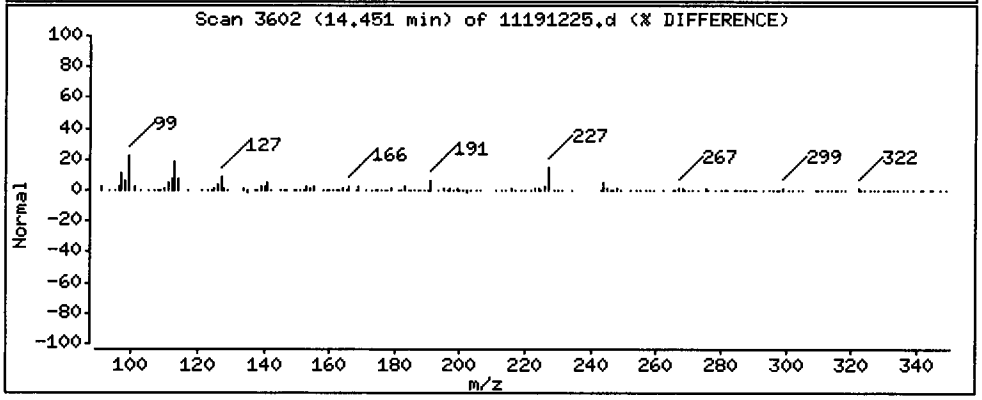












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

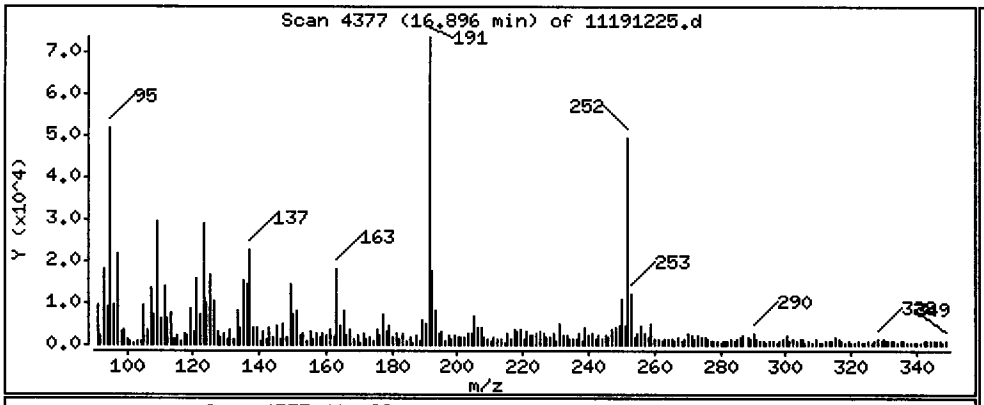
Operator: JZ

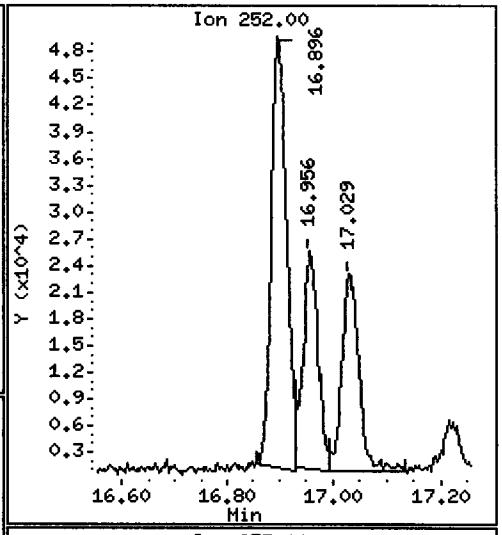
Column phase: ZB-5msi

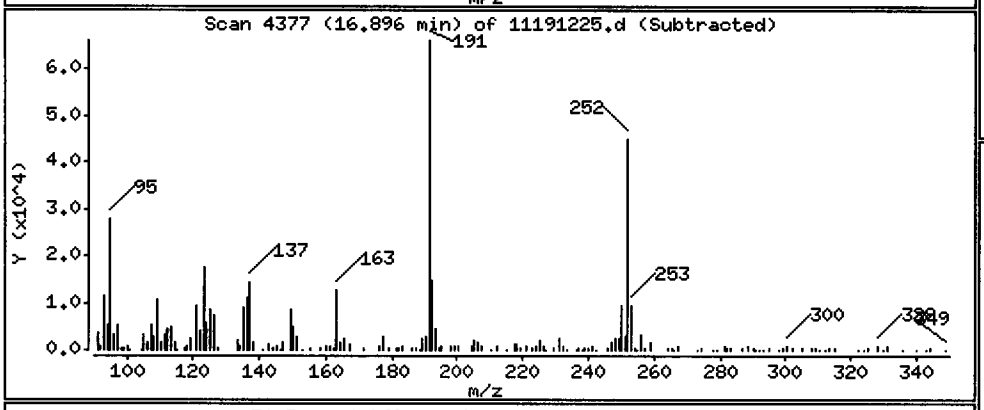
Column diameter: 0.25

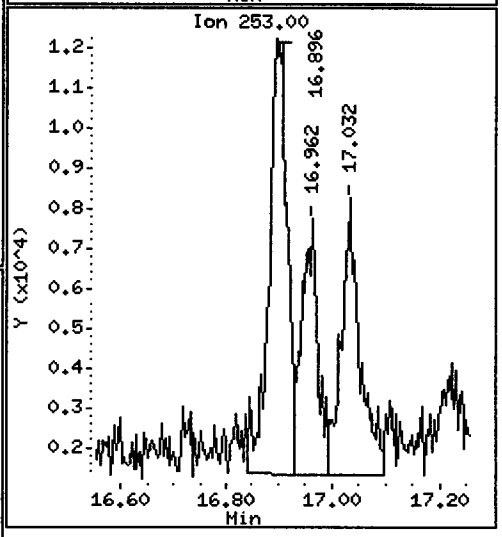
51 Benzo(b)fluoranthene

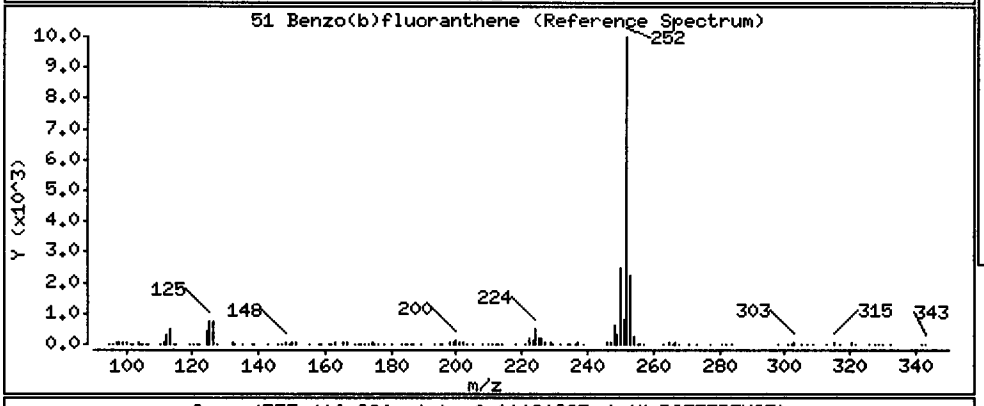
Concentration: 21.89 ug/kg

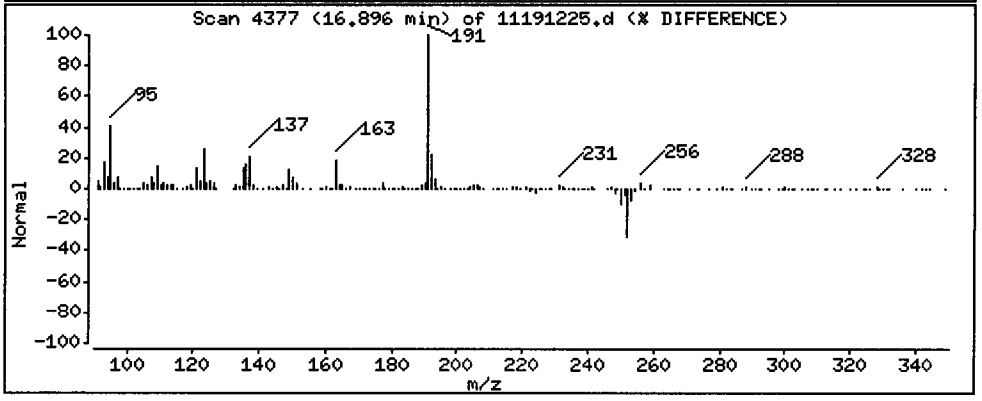












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

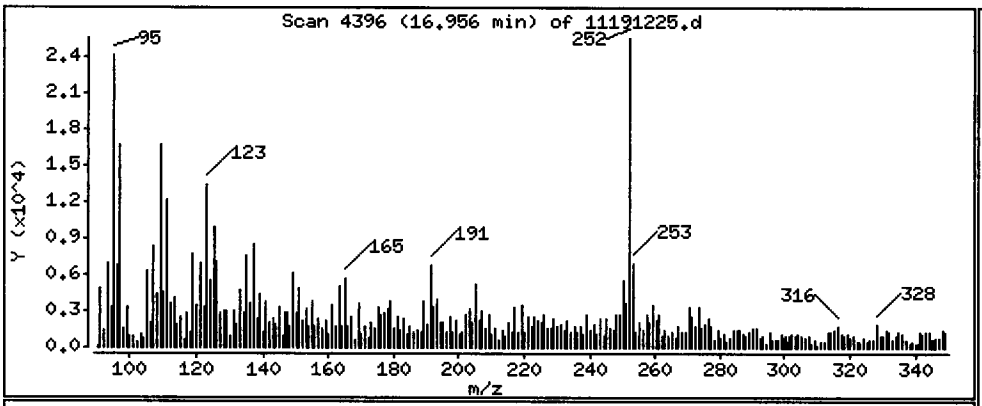
Operator: JZ

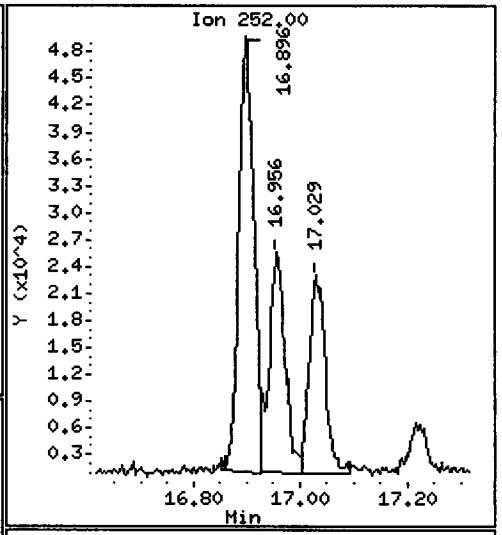
Column phase: ZB-5msi

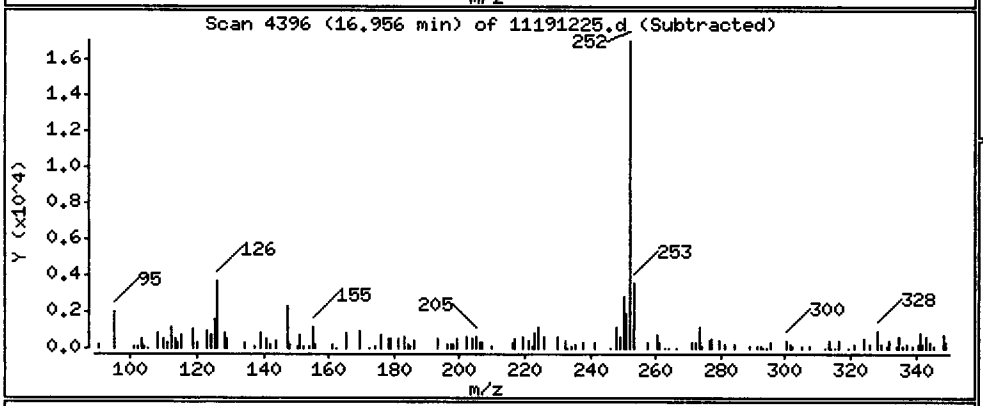
Column diameter: 0.25

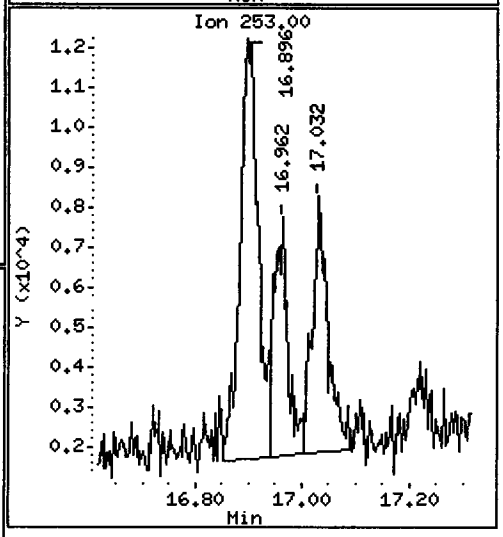
52 Benzo(k)fluoranthene

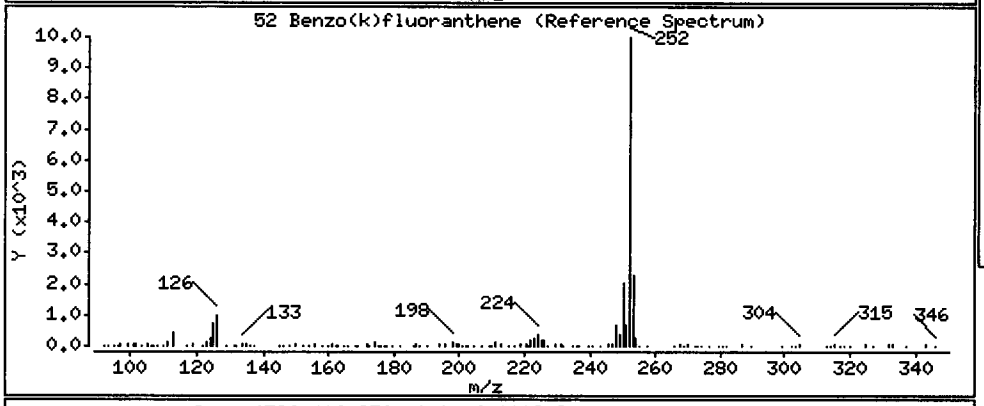
Concentration: 10.81 ug/kg

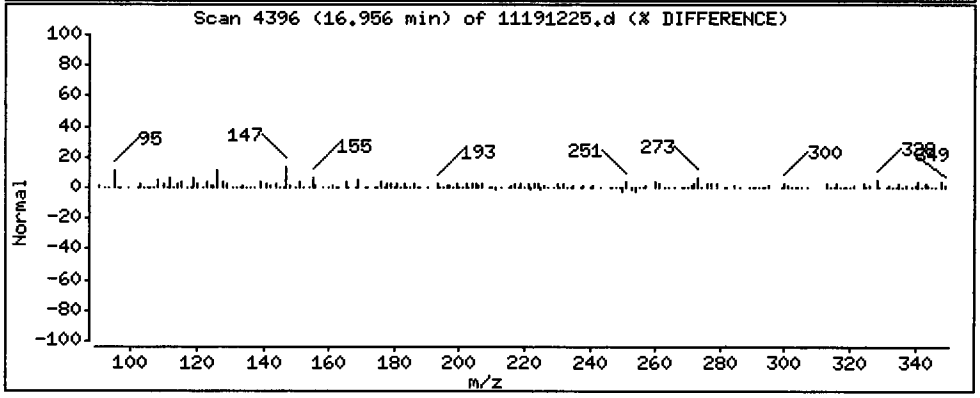












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

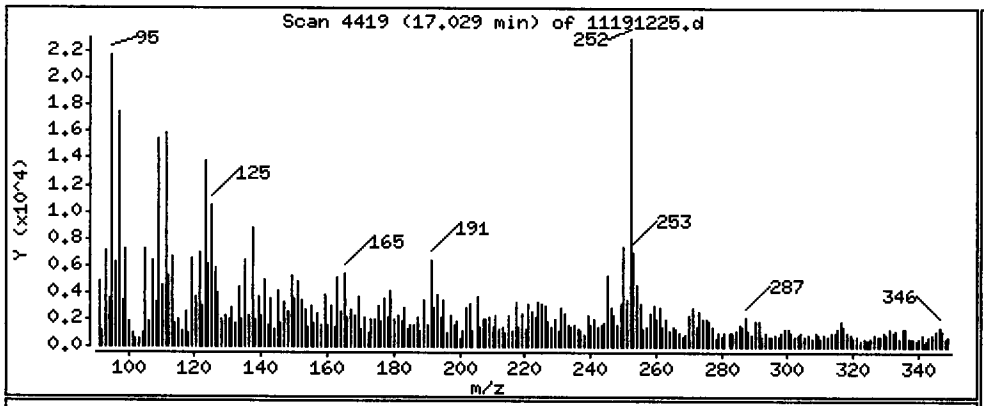
Operator: JZ

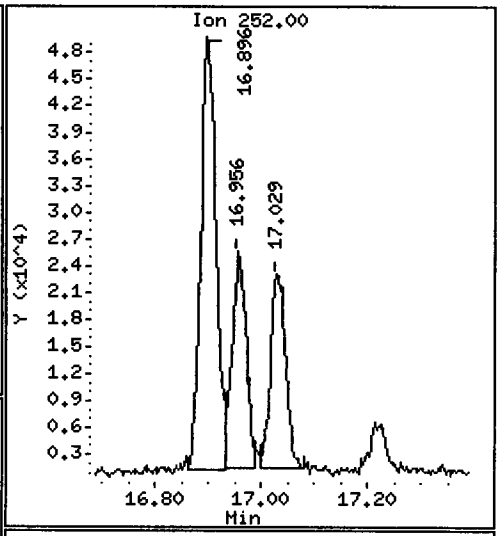
Column phase: ZB-5msi

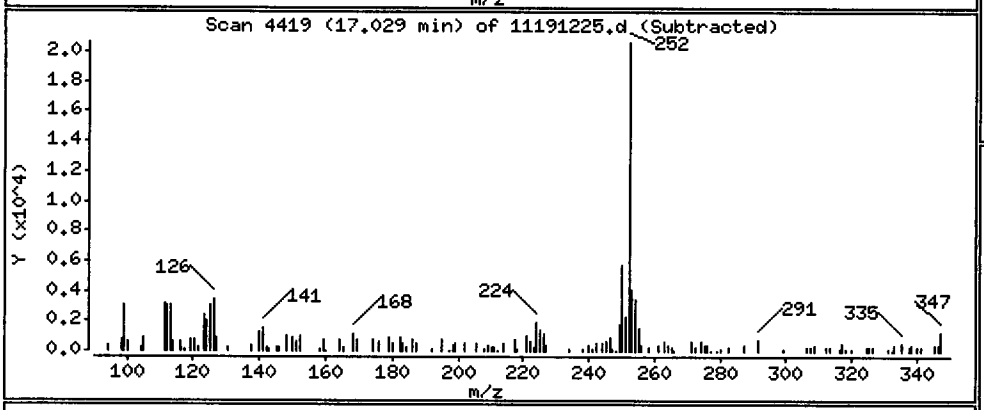
Column diameter: 0.25

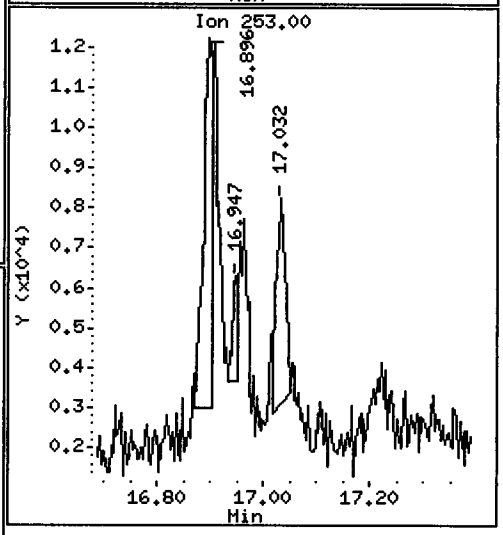
251 Benzo(j)fluoranthene

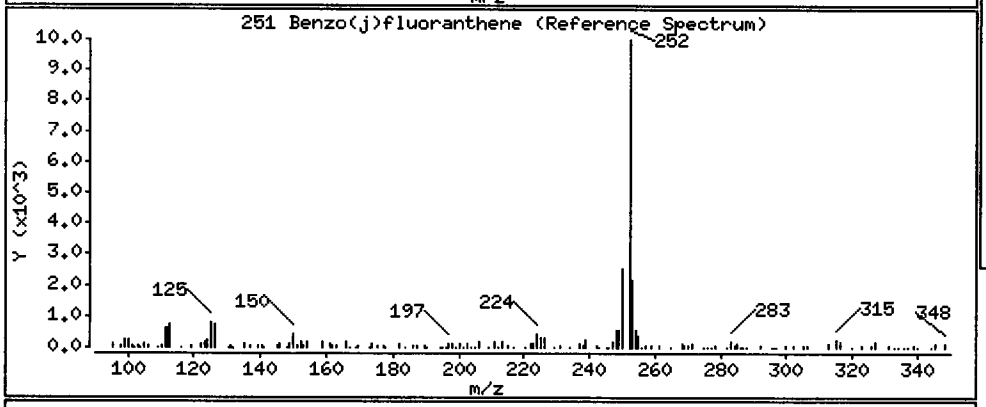
Concentration: 8.639 ug/kg

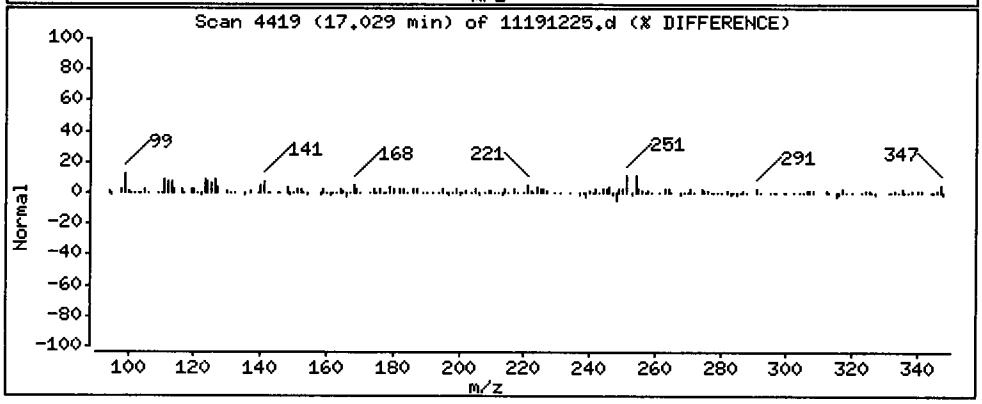












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

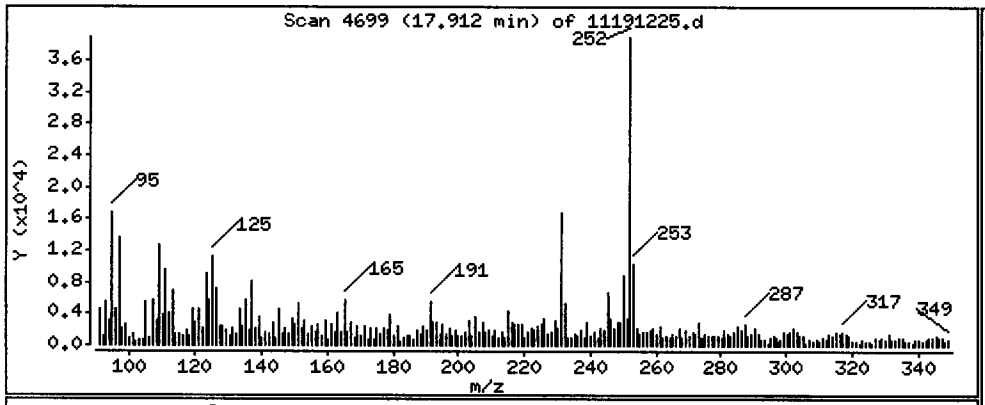
Operator: JZ

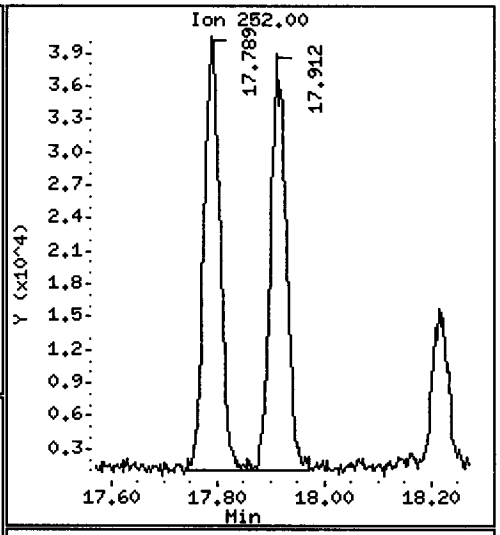
Column phase: ZB-5msi

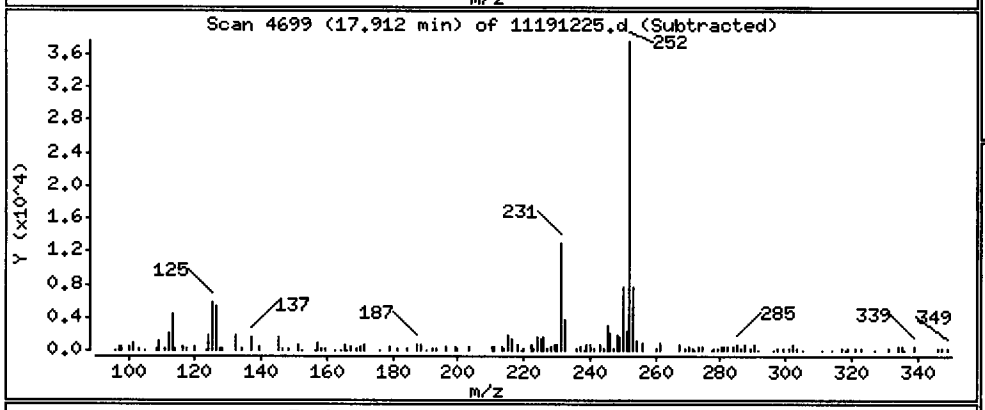
Column diameter: 0.25

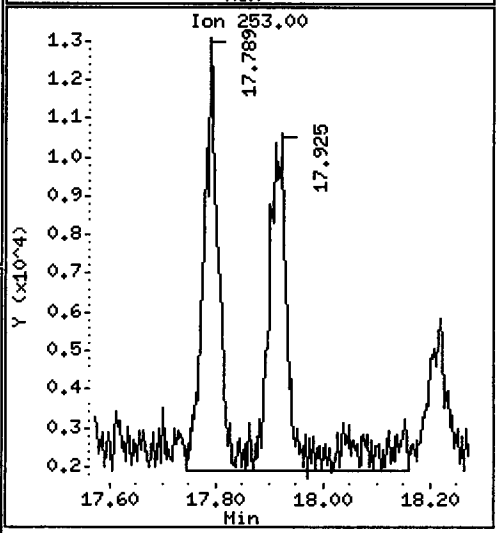
54 Benzo(a)pyrene

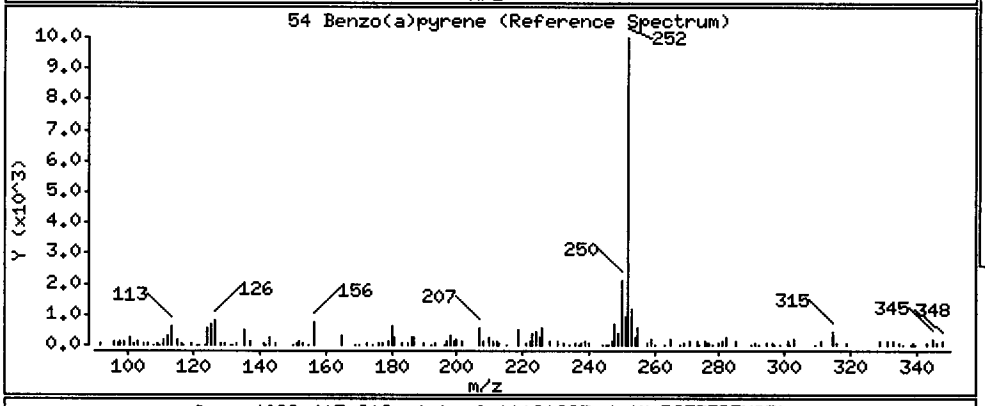
Concentration: 17.28 ug/kg

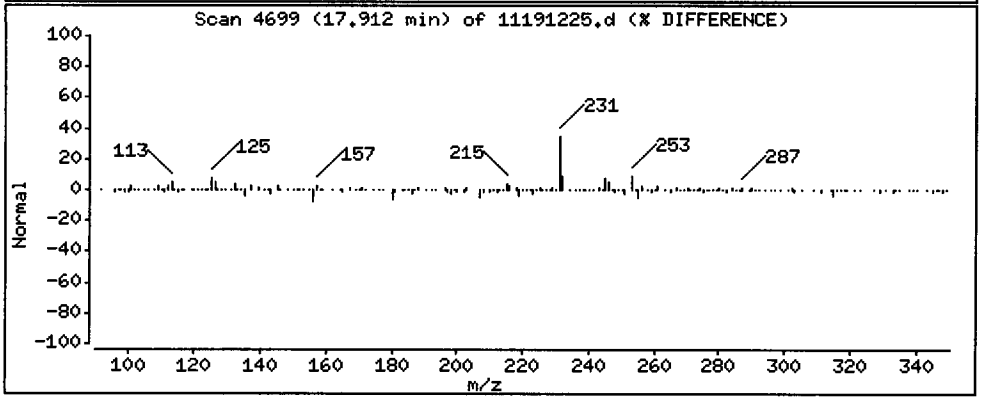












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

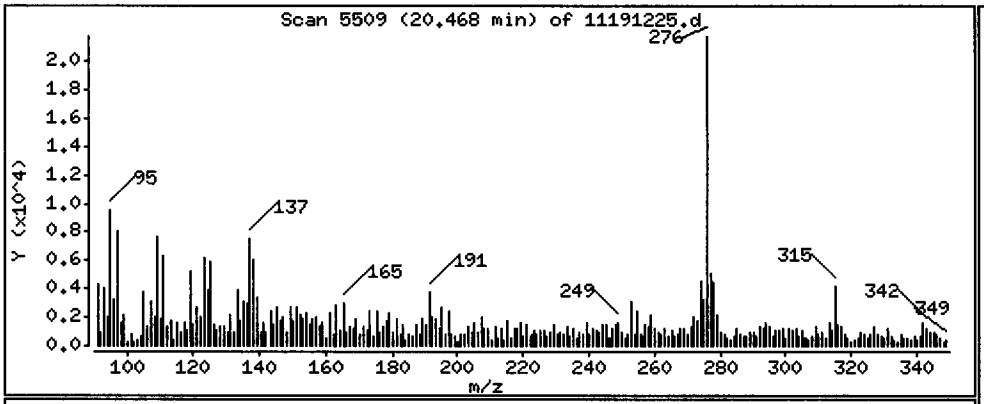
Operator: JZ

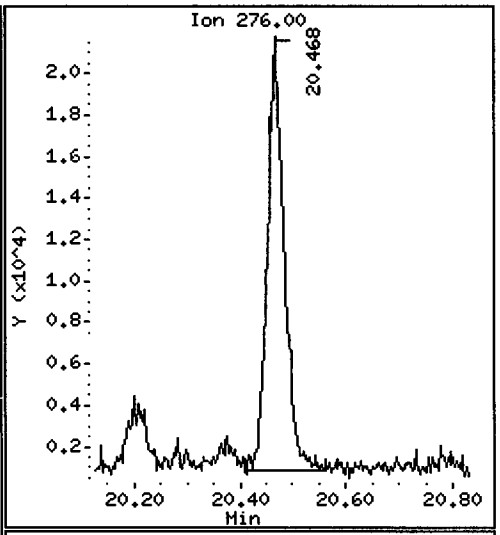
Column phase: ZB-5msi

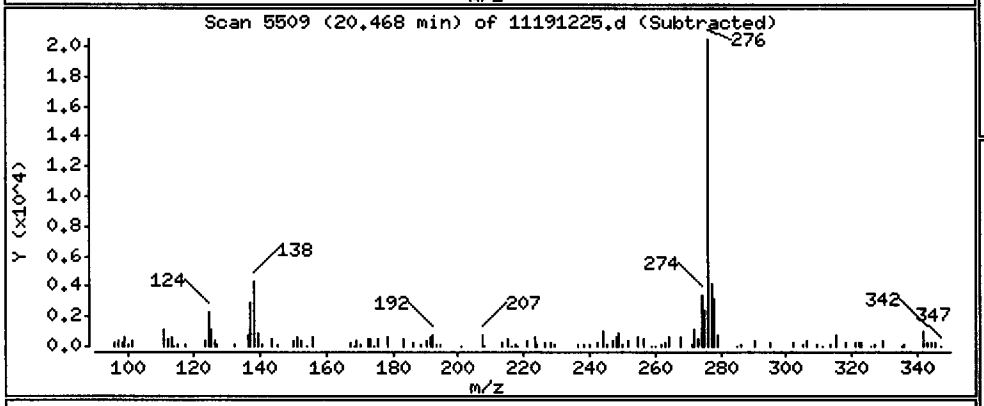
Column diameter: 0.25

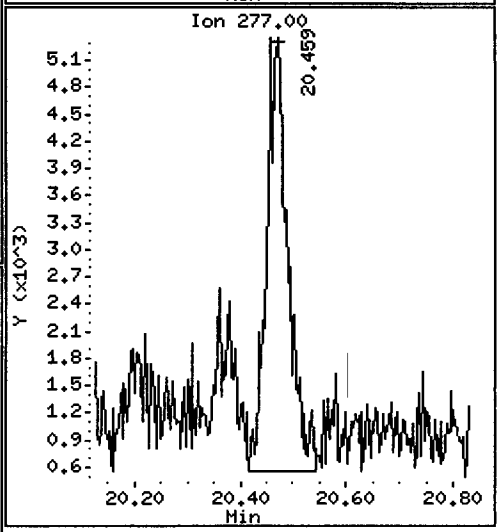
63 Indeno(1,2,3-cd)pyrene

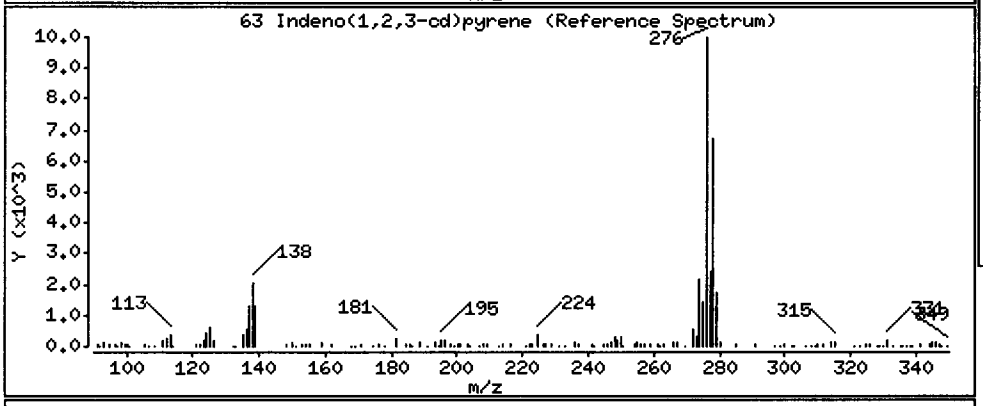
Concentration: 8.495 ug/kg

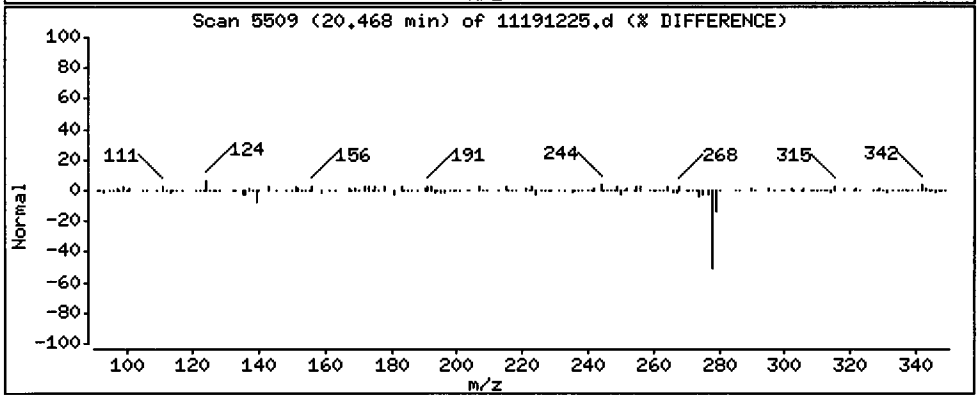












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

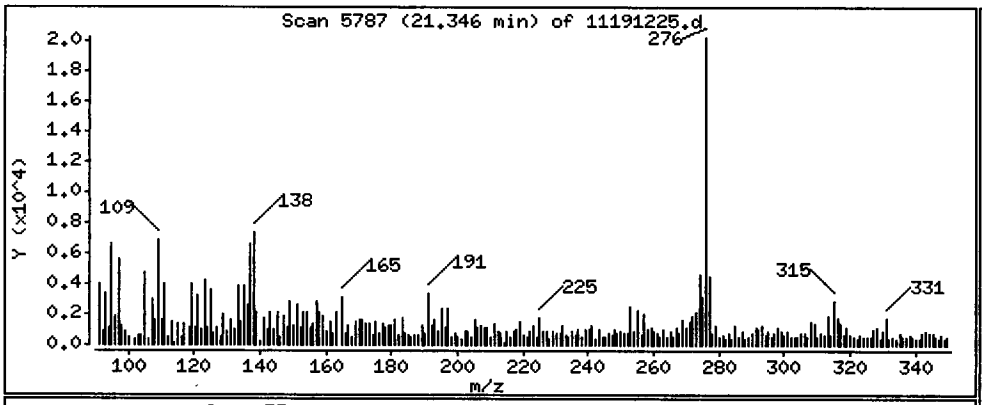
Operator: JZ

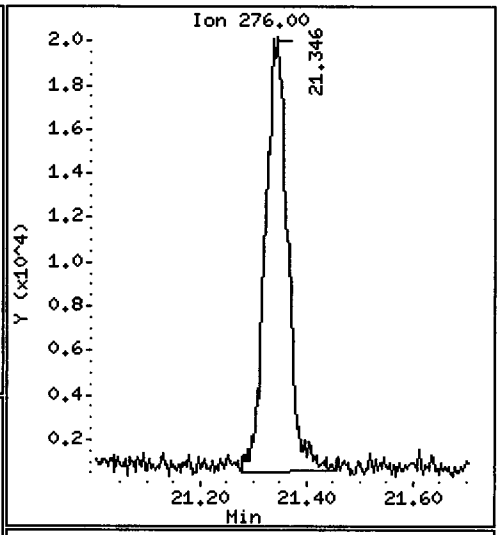
Column phase: ZB-5msi

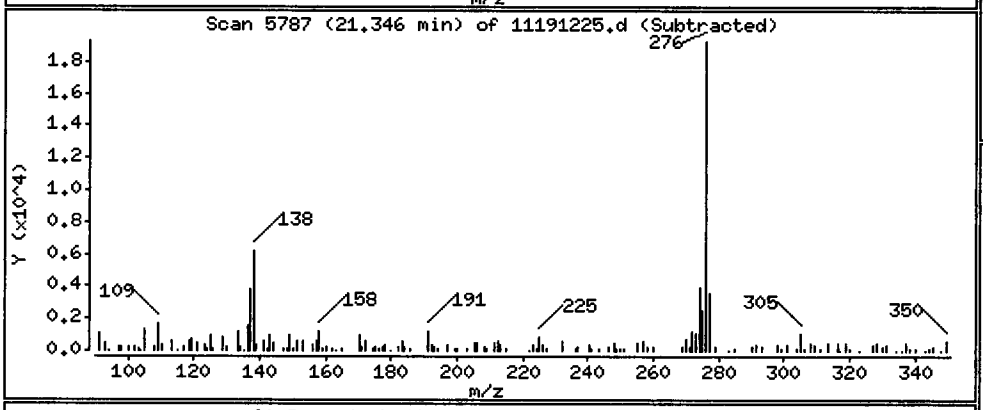
Column diameter: 0.25

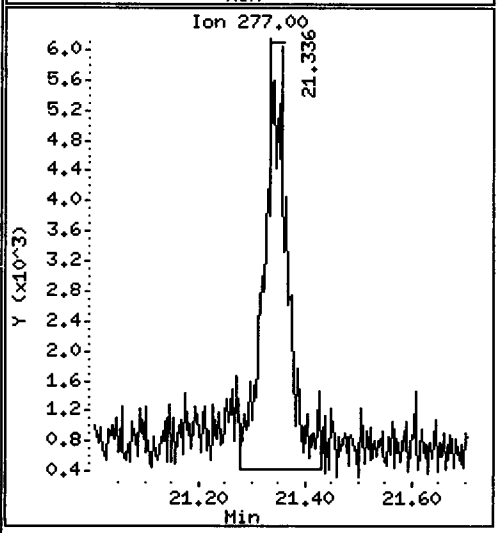
61 Benzo(g,h,i)perylene

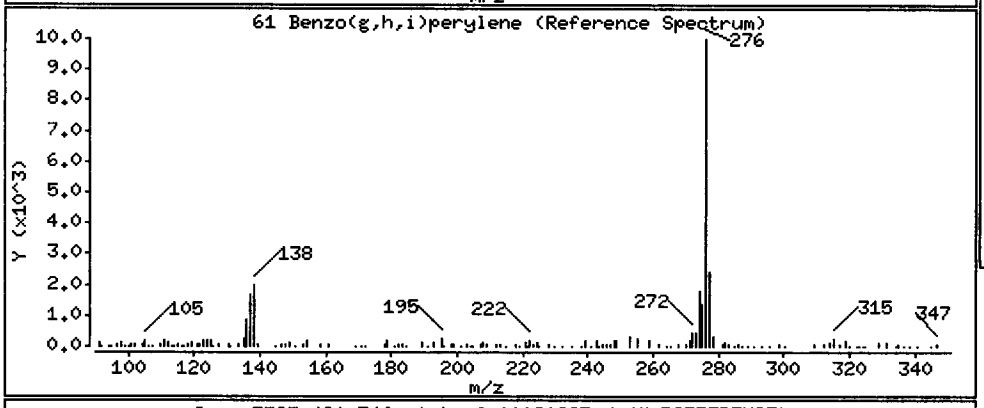
Concentration: 12.46 ug/kg

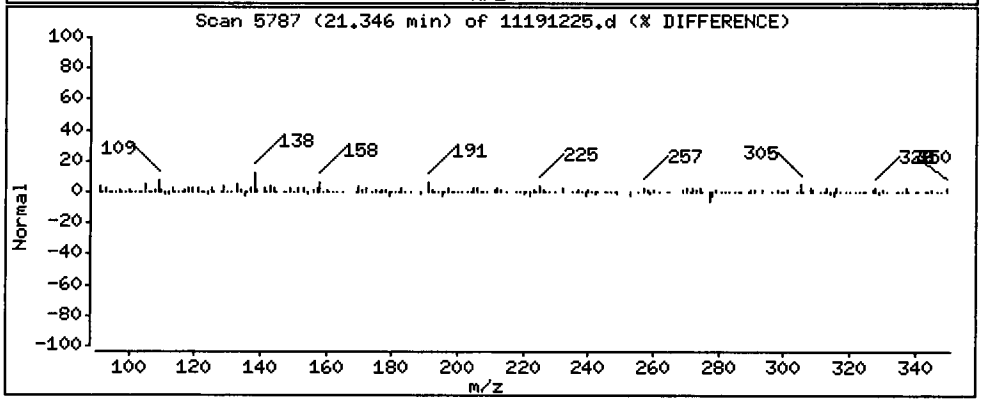












Data File: /chem3/nt11.i/20121119.b/11191225.d

Date : 19-NOV-2012 23:56

Client ID: HT-07-S-E-121106

Instrument: nt11.i

Sample Info: VR38K

Volume Injected (uL): 1.0

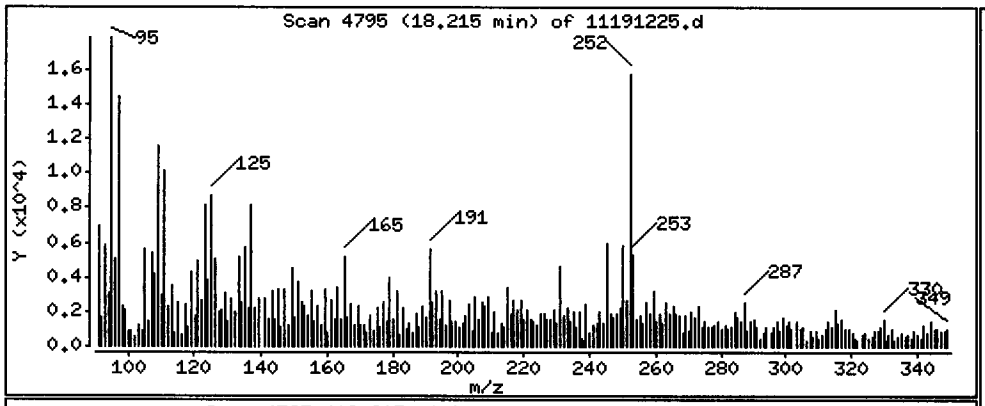
Operator: JZ

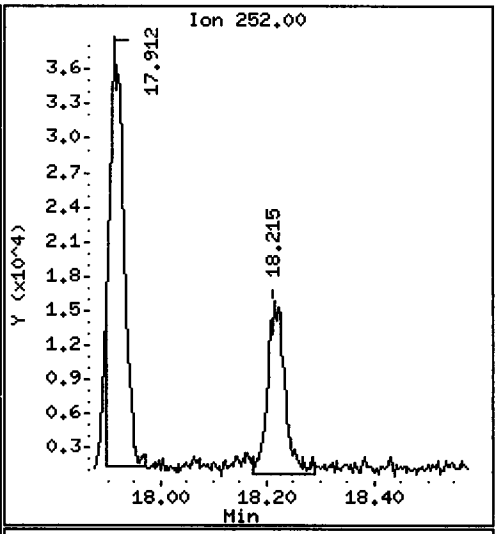
Column phase: ZB-5msi

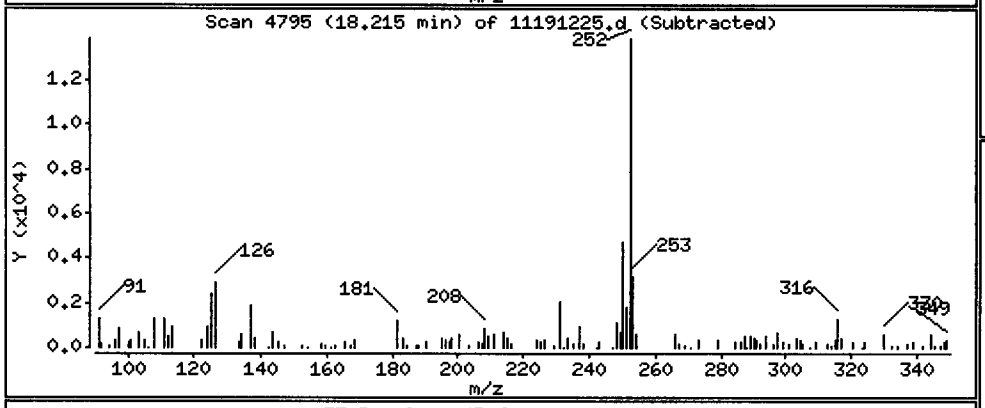
Column diameter: 0.25

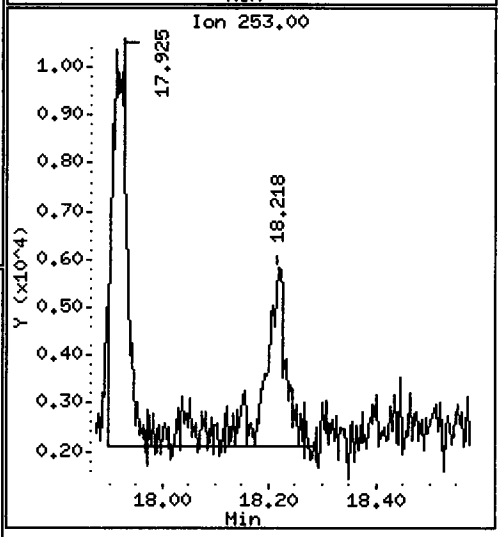
57 Perylene

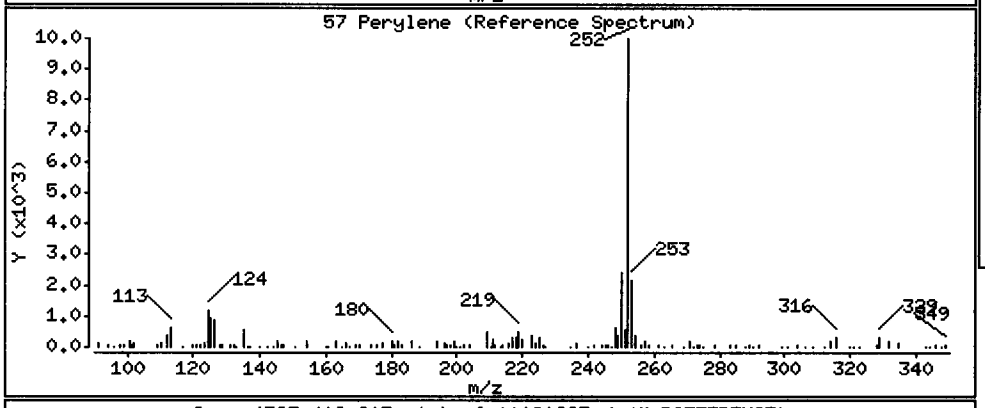
Concentration: 7.397 ug/kg

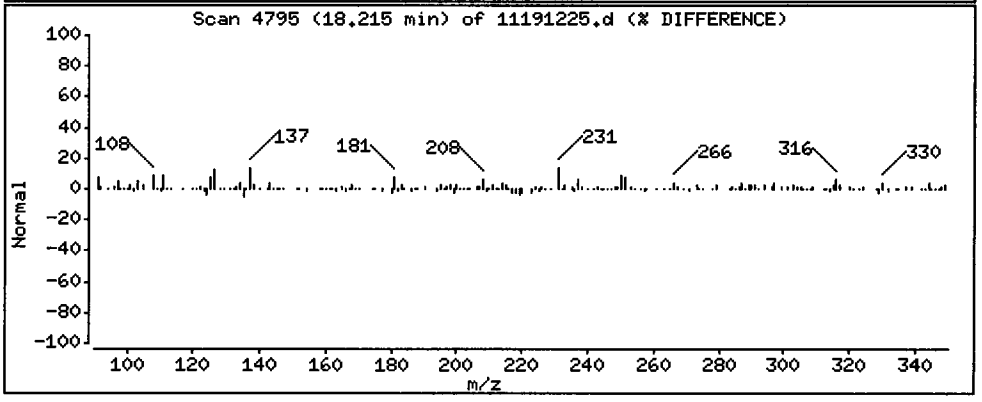












CO-ELUTION SUMMARY FOR FILE - 11191225.d

Lab ID: VR38K, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191211.d
Lab Smp Id: VR38MBS1 Client Smp ID: VR38MBS1
Inj Date : 19-NOV-2012 16:56
Operator : JZ Inst ID: nt11.i
Smp Info : VR38MBS1,
Misc Info : 12-22274
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 19-Nov-2012 18:30 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/19/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	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)
*	6 Naphthalene-d8	136	5.463	5.473	(1.000)	622986	2.00000	
	7 Naphthalene	128	Compound Not Detected.					
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.135)	343108	1.61191	80.60
	14 2-Methylnaphthalene	141	Compound Not Detected.					
	15 1-methylnaphthalene	141	Compound Not Detected.					
	21 Acenaphthylene	152	Compound Not Detected.					
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	346823	2.00000	
	23 Acenaphthene	153	Compound Not Detected.					
	11 Dibenzofuran	168	Compound Not Detected.					
	25 Fluorene	166	Compound Not Detected.					
*	28 Phenanthrene-d10	188	9.758	9.764	(1.000)	492267	2.00000	
	30 Phenanthrene	178	Compound Not Detected.					
	31 Anthracene	178	Compound Not Detected.					
	36 Fluoranthene	202	Compound Not Detected.					
	39 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	Compound Not Detected.					
*	47 Chrysene-d12	240	14.378	14.387	(1.000)	559332	2.00000	
	48 Chrysene	228	Compound Not Detected.					
	51 Benzo(b)fluoranthene	252	Compound Not Detected.					
	52 Benzo(k)fluoranthene	252	Compound Not Detected.					
	251 Benzo(j)fluoranthene	252	Compound Not Detected.					
	54 Benzo(a)pyrene	252	Compound Not Detected.					
*	56 Perylene-d12	264	18.139	18.152	(1.000)	563336	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	60 Dibenzo(a,h)anthracene-d14	292	20.367	20.380	(1.123)	524106	2.80636	140.3
	62 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	61 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	57 Perylene	252	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191211.d
Lab Smp Id: VR38MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: VR38MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	622986	20.71
22 Acenaphthene-d10	284255	142128	568510	346823	22.01
28 Phenanthrene-d10	410660	205330	821320	492267	19.87
47 Chrysene-d12	467886	233943	935772	559332	19.54
56 Perylene-d12	472330	236165	944660	563336	19.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.46	-0.17
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.06
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.07
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.07

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

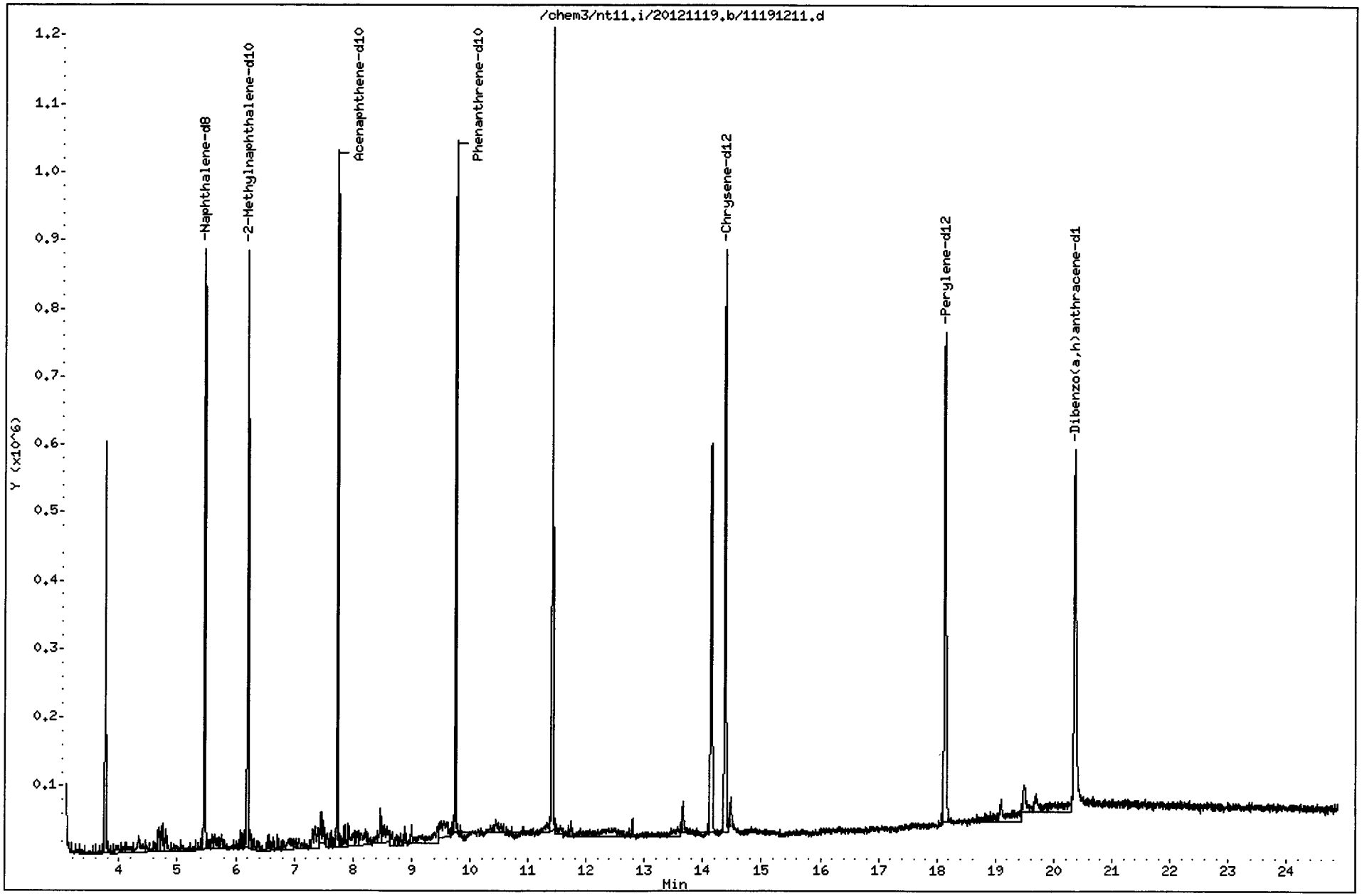
Client Name: Anchor QEA, LLC.
Sample Matrix: SOLID
Lab Smp Id: VR38MBS1
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcsw.spk
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

Client SDG: VR38
Fraction: SV
Client Smp ID: VR38MBS1
Operator: JZ
SampleType: BLANK
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	150.0	80.60	53.73	34-100
$ 60 Dibenzo(a,h)anthra	150.0	140.3	93.55	10-117

Data File: /chem3/nt11.i/20121119.b/11191211.d
Date : 19-NOV-2012 16:56
Client ID: VR38MBS1
Sample Info: VR38MBS1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - 11191211.d

Lab ID: VR38MBS1, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-2

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121119.b/11191212.d
Lab Smp Id: VR38LCSS1 Client Smp ID: VR38LCSS1
Inj Date : 19-NOV-2012 17:26
Operator : JZ Inst ID: nt11.i
Smp Info : VR38LCSS1,
Misc Info : 12-22274
Comment : 1ul Injection
Method : /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Meth Date : 21-Nov-2012 12:35 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

11/14/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	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)
*	6 Naphthalene-d8	136	5.467	5.473	(1.000)	649092	2.00000	
	7 Naphthalene	128	5.495	5.501	(1.005)	621847	1.79261	89.63
$	12 2-Methylnaphthalene-d10	152	6.202	6.208	(1.134)	364471	1.64341	82.17
	14 2-Methylnaphthalene	141	6.249	6.255	(1.143)	347038	1.77556	88.78
	15 1-methylnaphthalene	141	6.442	6.448	(1.178)	359362	1.91959	95.98
	21 Acenaphthylene	152	7.628	7.634	(0.986)	592181	1.91284	95.64
*	22 Acenaphthene-d10	164	7.739	7.745	(1.000)	356276	2.00000	
	23 Acenaphthene	153	7.789	7.795	(1.007)	383941	1.95015	97.51
	11 Dibenzofuran	168	7.941	7.947	(1.026)	531128	1.84150	92.07
	25 Fluorene	166	8.414	8.420	(1.087)	479277	2.16215	108.1
*	28 Phenanthrene-d10	188	9.761	9.764	(1.000)	512960	2.00000	
	30 Phenanthrene	178	9.796	9.802	(1.004)	688108	2.22074	111.0
	31 Anthracene	178	9.834	9.840	(1.007)	677398	2.27730	113.9
	36 Fluoranthene	202	11.453	11.459	(1.173)	764141	2.46145	123.1
	39 Pyrene	202	11.920	11.926	(0.829)	791643	2.48618	124.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.258	14.268	(0.992)	735454	2.53306	126.7
*	47 Chrysene-d12	240	14.378	14.387	(1.000)	577811	2.00000	
	48 Chrysene	228	14.451	14.457	(1.005)	714467	2.53531	126.8
	51 Benzo(b)fluoranthene	252	16.893	16.906	(0.931)	744773	2.74108	137.1
	52 Benzo(k)fluoranthene	252	16.956	16.966	(0.935)	740824	2.51057	125.5
	251 Benzo(j)fluoranthene	252	17.029	17.038	(0.939)	679061	2.18113	109.1
	54 Benzo(a)pyrene	252	17.909	17.922	(0.987)	647182	2.34499	117.2
*	56 Perylene-d12	264	18.139	18.152	(1.000)	587089	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.471	20.478	(1.129)	889486	2.65845	132.9
$	60 Dibenzo(a,h)anthracene-d14	292	20.370	20.380	(1.123)	574419	2.95131	147.6
	62 Dibenzo(a,h)anthracene	278	20.462	20.475	(1.128)	735753	2.70003	135.0
	61 Benzo(g,h,i)perylene	276	21.339	21.355	(1.176)	745842	2.62024	131.0
	57 Perylene	252	18.215	18.225	(1.004)	814900	2.84723	142.4

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11191212.d
Lab Smp Id: VR38LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

Calibration Date: 19-NOV-2012
Calibration Time: 12:25
Client Smp ID: VR38LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	649092	25.77
22 Acenaphthene-d10	284255	142128	568510	356276	25.34
28 Phenanthrene-d10	410660	205330	821320	512960	24.91
47 Chrysene-d12	467886	233943	935772	577811	23.49
56 Perylene-d12	472330	236165	944660	587089	24.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.47	4.97	5.97	5.47	-0.12
22 Acenaphthene-d10	7.74	7.24	8.24	7.74	-0.08
28 Phenanthrene-d10	9.76	9.26	10.26	9.76	-0.03
47 Chrysene-d12	14.39	13.89	14.89	14.38	-0.07
56 Perylene-d12	18.15	17.65	18.65	18.14	-0.07

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

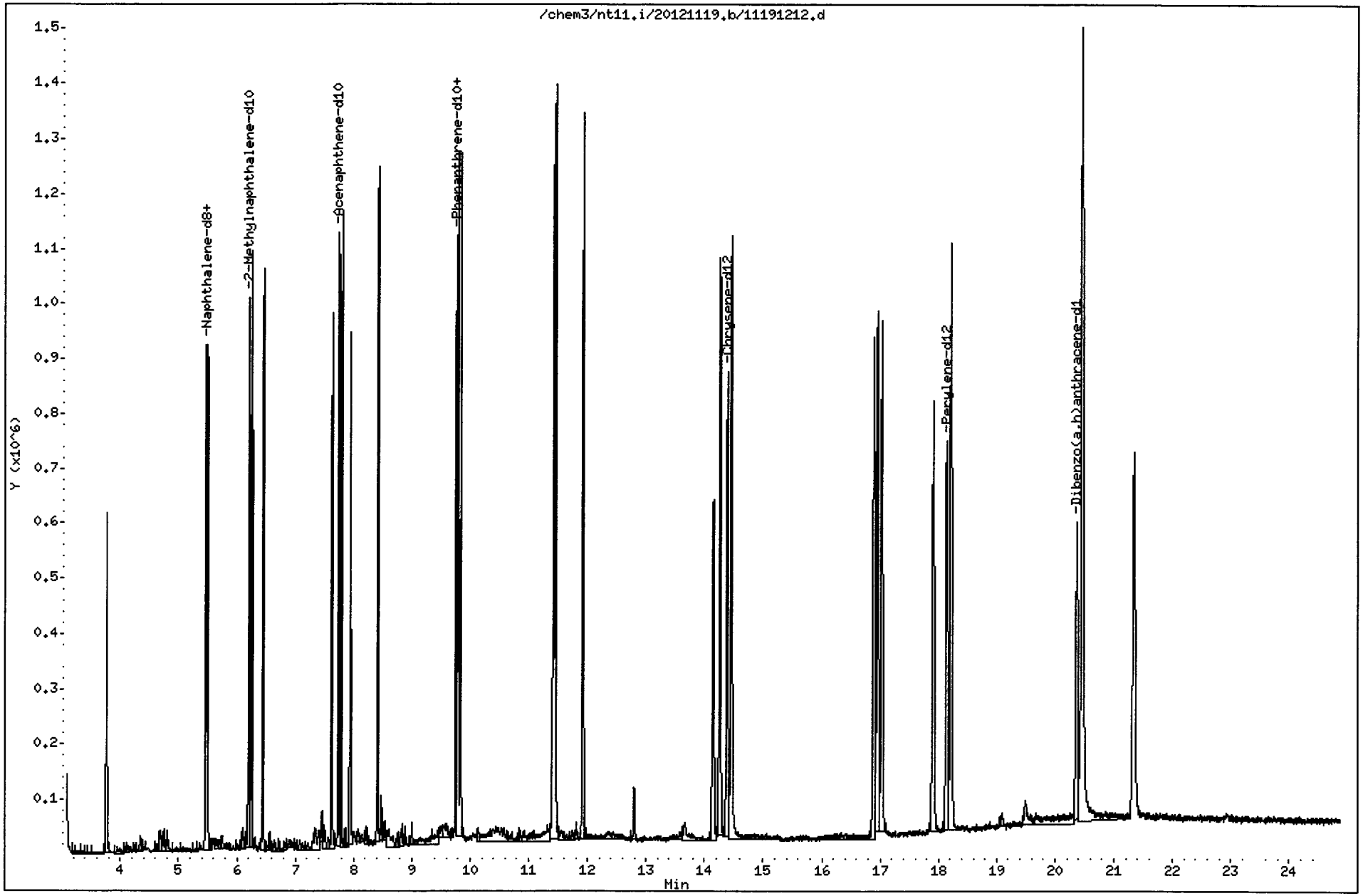
Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38LCSS1 Client Smp ID: VR38LCSS1
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: LCS
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121119.b/FSIMPNA111512.m
Misc Info: 12-22274

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
7 Naphthalene	150.0	89.63	59.75	37-100
14 2-Methylnaphthalen	150.0	88.78	59.19	34-107
15 1-methylnaphthalen	150.0	95.98	63.99	30-160
21 Acenaphthylene	150.0	95.64	63.76	32-104
23 Acenaphthene	150.0	97.51	65.01	40-102
11 Dibenzofuran	150.0	92.07	61.38	44-104
25 Fluorene	150.0	108.1	72.07	43-114
30 Phenanthrene	150.0	111.0	74.02	43-116
31 Anthracene	150.0	113.9	75.91	30-121
36 Fluoranthene	150.0	123.1	82.05	46-138
39 Pyrene	150.0	124.3	82.87	47-124
46 Benzo(a)anthracene	150.0	126.7	84.44	38-134
48 Chrysene	150.0	126.8	84.51	52-112
51 Benzo(b)fluoranthe	150.0	137.1	91.37	49-123
52 Benzo(k)fluoranthe	150.0	125.5	83.69	50-127
54 Benzo(a)pyrene	150.0	117.2	78.17	24-118
63 Indeno(1,2,3-cd)py	150.0	132.9	88.62	32-123
62 Dibenzo(a,h)anthra	150.0	135.0	90.00	30-127
61 Benzo(g,h,i)peryle	150.0	131.0	87.34	26-124
57 Perylene	150.0	142.4	94.91	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	150.0	82.17	54.78	34-100
$ 60 Dibenzo(a,h)anthra	150.0	147.6	98.38	10-117

Data File: /chem3/nt11.i/20121119.b/11191212.d
Date : 19-NOV-2012 17:26
Client ID: VR38LCSS1
Sample Info: VR38LCSS1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



VR38 01055

CO-ELUTION SUMMARY FOR FILE - 11191212.d

Lab ID: VR38LCSS1, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 19-NOV-

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 11/20/12 Analysis: 8270 PAH Analyst: AR

GC Program: 8270MSMS Column No: 11423 Column Type: RXi-17Sil MX

Instrument Tune (.U or .CT.): 120327 EM Voltage: 2400

Calibration File: 11201202 Curve Date: 11/14/12 Injection Vol.: 1µl ✓

IS/SS	Ical/Ccal	LCS/ICV
1998-3	2020-1	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt11.i/20121120.b

	Time	Filename	LabID	ClientId	DF								
1	1207	11201201.d	DFTPP1120	DFTPP1120	1	NO ISTDS FOUND							
2	1231	11201202.d	CC1120	CC1120	1	5.44	632714	7.72	355653	9.74	513102	14.34	617135	18.10	629632
3	1310	11201203.d	VR80MBW1	VR80MBW1	1	5.43	654445	7.71	365629	9.73	528991	14 34	576730	18 10	525729
4	1340	11201204.d	VR80LCSW1	VR80LCSW1	1	5.43	661011	7.71	374905	9.73	539040	14.34	590855	18.10	549719
5	1410	11201205.d	VR80LCSDW1	VR80LCSDW1	1	5.43	677815	7.71	382722	9.73	548086	14.34	604613	18.10	560931
6	1440	11201206.d	VR80A	HT-01-W-C-12	1	5.43	649843	7.71	368699	9 73	526649	14.34	582917	18.10	546608
7	1510	11201207.d	VR80B	HT-04-W-C-12	1	5.43	686302	7.71	389999	9.73	549943	14.34	622005	18.10	576302
8	1540	11201208.d	VR80C	HT-04-W-C-du	1	5.43	666389	7.71	379382	9.73	537689	14.34	593787	18.10	564841
9	1610	11201209.d	VR80D	WS-10-W-C-12	1	5.43	679087	7.71	382162	9.73	550129	14.34	614288	18.10	565809
10	1640	11201210.d	VR38D	HT-04-S-C-12	1	5.44	641589	7.71	358015	9.74	498531	14.36	553225	18.11	636065

AR 11/20/12

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 StarLIMS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt11.i/20121120.b

ARI Job No.: CC11 Method: FSIMPNA111512.m Instrument: nt11.i Date: 20-NOV-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1231	11201202.d	CC1120	CC1120	1	NO MANUAL INTEGRATION
1640	11201210.d	VR38D	HT-04-S-C-	3	NO MANUAL INTEGRATION

11/20/12

Q-FLAG SUMMARY FOR DATABATCH - /chem3/nt11.i/20121120.b

Instrument: nt11.i Date: 20-NOV-2012 Method: FSIMPNA111512.m

INITIAL CAL: 15-NOV-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 20-NOV-2012

Compound	%D
NO Q-FLAGS	

11/20/12

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt11.i Injection Date: 20-NOV-2012 12:31
Lab File ID: 11201202.d Init. Cal. Date(s): 15-NOV-2012 15-NOV-2012
Analysis Type: Init. Cal. Times: 18:53 21:24
Lab Sample ID: CC1120 Quant Type: ISTD
Method: /chem3/nt11.i/20121120.b/FSIMPNA111512.m

11/20/12

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
7 Naphthalene	1.06886	1.02135	0.100	-4.44500	20.00000	Averaged
$ 12 2-Methylnaphthalene-d10	0.68335	0.67672	0.100	-0.97004	20.00000	Averaged
14 2-Methylnaphthalene	0.60223	0.59919	0.100	-0.50613	20.00000	Averaged
15 1-methylnaphthalene	0.57683	0.56329	0.100	-2.34667	20.00000	Averaged
21 Acenaphthylene	1.73788	1.77759	0.100	2.28512	20.00000	Averaged
23 Acenaphthene	1.10520	1.05630	0.100	-4.42397	20.00000	Averaged
11 Dibenzofuran	1.61909	1.53681	0.100	-5.08206	20.00000	Averaged
25 Fluorene	1.24435	1.25914	0.100	1.18793	20.00000	Averaged
30 Phenanthrene	1.20811	1.16192	0.100	-3.82281	20.00000	Averaged
31 Anthracene	1.15976	1.16182	0.100	0.17741	20.00000	Averaged
36 Fluoranthene	1.21040	1.22067	0.100	0.84863	20.00000	Averaged
39 Pyrene	1.10215	1.08552	0.100	-1.50859	20.00000	Averaged
46 Benzo(a)anthracene	1.00497	0.97370	0.100	-3.11175	20.00000	Averaged
48 Chrysene	0.97543	0.94286	0.100	-3.33876	20.00000	Averaged
51 Benzo(b)fluoranthene	0.92561	0.97310	0.100	5.13058	20.00000	Averaged
52 Benzo(k)fluoranthene	1.00524	1.03710	0.100	3.16931	20.00000	Averaged
251 Benzo(j)fluoranthene	1.06060	1.06172	0.100	0.10567	20.00000	Averaged
54 Benzo(a)pyrene	0.94018	0.94806	0.100	0.83849	20.00000	Averaged
63 Indeno(1,2,3-cd)pyrene	1.13982	1.24745	0.100	9.44224	20.00000	Averaged
$ 60 Dibenzo(a,h)anthracene-d14	0.66304	0.76925	0.100	16.01873	20.00000	Averaged
62 Dibenzo(a,h)anthracene	0.92830	1.02143	0.100	10.03165	20.00000	Averaged
61 Benzo(g,h,i)perylene	0.96969	1.07834	0.100	11.20554	20.00000	Averaged
57 Perylene	0.97501	0.94703	0.100	-2.86929	20.00000	Averaged

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121120.b/11201202.d
Lab Smp Id: CC1120 Client Smp ID: CC1120
Inj Date : 20-NOV-2012 12:31
Operator : JZ Inst ID: nt11.i
Smp Info : CC1120
Misc Info : 12-
Comment : 1ul Injection
Method : /chem3/nt11.i/20121120.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 16:07 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

JZ 11/20/12

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 6 Naphthalene-d8	136	5.441	5.441	(1.000)	632714	2.00000	
7 Naphthalene	128	5.470	5.470	(1.005)	807780	2.50000	2.389
$ 12 2-Methylnaphthalene-d10	152	6.177	6.177	(1.135)	535211	2.50000	2.476
14 2-Methylnaphthalene	141	6.224	6.224	(1.144)	473891	2.50000	2.487
15 1-methylnaphthalene	141	6.416	6.416	(1.179)	445505	2.50000	2.441
21 Acenaphthylene	152	7.603	7.603	(0.985)	790259	2.50000	2.557
* 22 Acenaphthene-d10	164	7.717	7.717	(1.000)	355653	2.00000	
23 Acenaphthene	153	7.764	7.764	(1.006)	469598	2.50000	2.389
11 Dibenzofuran	168	7.915	7.915	(1.026)	683215	2.50000	2.373
25 Fluorene	166	8.392	8.392	(1.087)	559770	2.50000	2.530
* 28 Phenanthrene-d10	188	9.736	9.736	(1.000)	513102	2.00000	
30 Phenanthrene	178	9.771	9.771	(1.004)	745232	2.50000	2.404
31 Anthracene	178	9.812	9.812	(1.008)	745166	2.50000	2.504
36 Fluoranthene	202	11.424	11.424	(1.173)	782912	2.50000	2.521
39 Pyrene	202	11.891	11.891	(0.829)	837395	2.50000	2.462
46 Benzo(a)anthracene	228	14.220	14.220	(0.991)	751131	2.50000	2.422
* 47 Chrysene-d12	240	14.343	14.343	(1.000)	617135	2.00000	
48 Chrysene	228	14.409	14.409	(1.005)	727341	2.50000	2.417
51 Benzo(b)fluoranthene	252	16.855	16.855	(0.931)	765868	2.50000	2.628
52 Benzo(k)fluoranthene	252	16.912	16.912	(0.934)	816237	2.50000	2.579
251 Benzo(j)fluoranthene	252	16.988	16.988	(0.939)	835618	2.50000	2.503
54 Benzo(a)pyrene	252	17.871	17.871	(0.987)	746163	2.50000	2.521
* 56 Perylene-d12	264	18.098	18.098	(1.000)	629632	2.00000	
63 Indeno(1,2,3-cd)pyrene	276	20.415	20.415	(1.128)	981789	2.50000	2.736
$ 60 Dibenzo(a,h)anthracene-d14	292	20.323	20.323	(1.123)	605430	2.50000	2.900
62 Dibenzo(a,h)anthracene	278	20.418	20.418	(1.128)	803903	2.50000	2.751
61 Benzo(g,h,i)perylene	276	21.289	21.289	(1.176)	848700	2.50000	2.780

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
57 Perylene	252	18.171	18.171	(1.004)	745350	2.50000	2.428

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11201202.d
Lab Smp Id: CC1120
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121120.b/FSIMPNA111512.m
Misc Info: 12-

Calibration Date: 20-NOV-2012
Calibration Time: 12:31
Client Smp ID: CC1120
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	632714	22.59
22 Acenaphthene-d10	284255	142128	568510	355653	25.12
28 Phenanthrene-d10	410660	205330	821320	513102	24.95
47 Chrysene-d12	467886	233943	935772	617135	31.90
56 Perylene-d12	472330	236165	944660	629632	33.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.44	4.94	5.94	5.44	0.00
22 Acenaphthene-d10	7.72	7.22	8.22	7.72	0.00
28 Phenanthrene-d10	9.74	9.24	10.24	9.74	0.00
47 Chrysene-d12	14.34	13.84	14.84	14.34	0.00
56 Perylene-d12	18.10	17.60	18.60	18.10	0.00

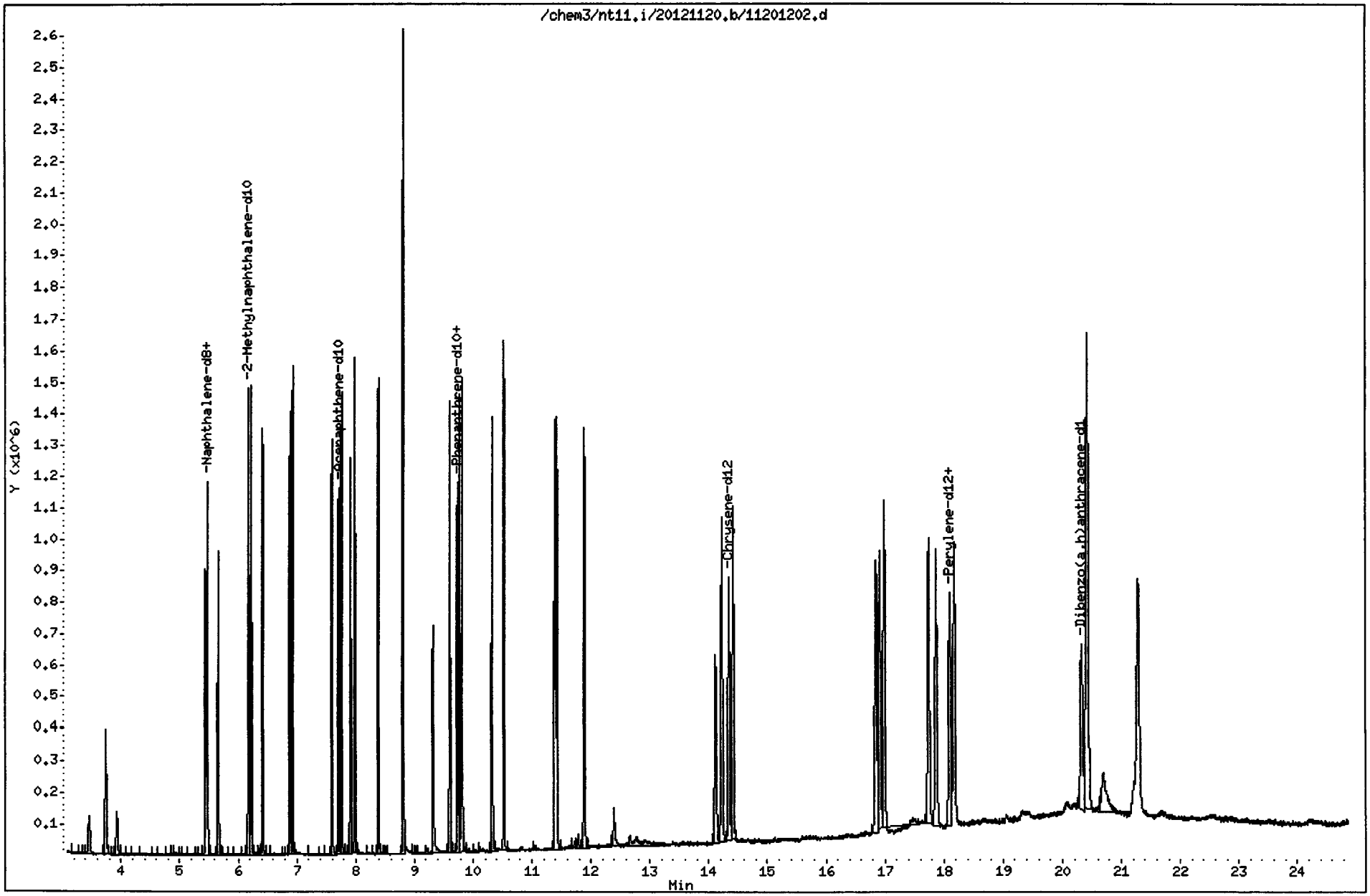
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20121120.b/11201202.d
Date : 20-NOV-2012 12:31
Client ID: CC1120
Sample Info: CC1120

Instrument: nt11.i

Operator: JZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - 11201202.d

Lab ID: CC1120, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 20-NOV-201

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem3/nt11.i/20121120.b/tune.b/11201201.d

Date : 20-NOV-2012 12:07

Client ID: DFTPP1120

Instrument: nt11.i

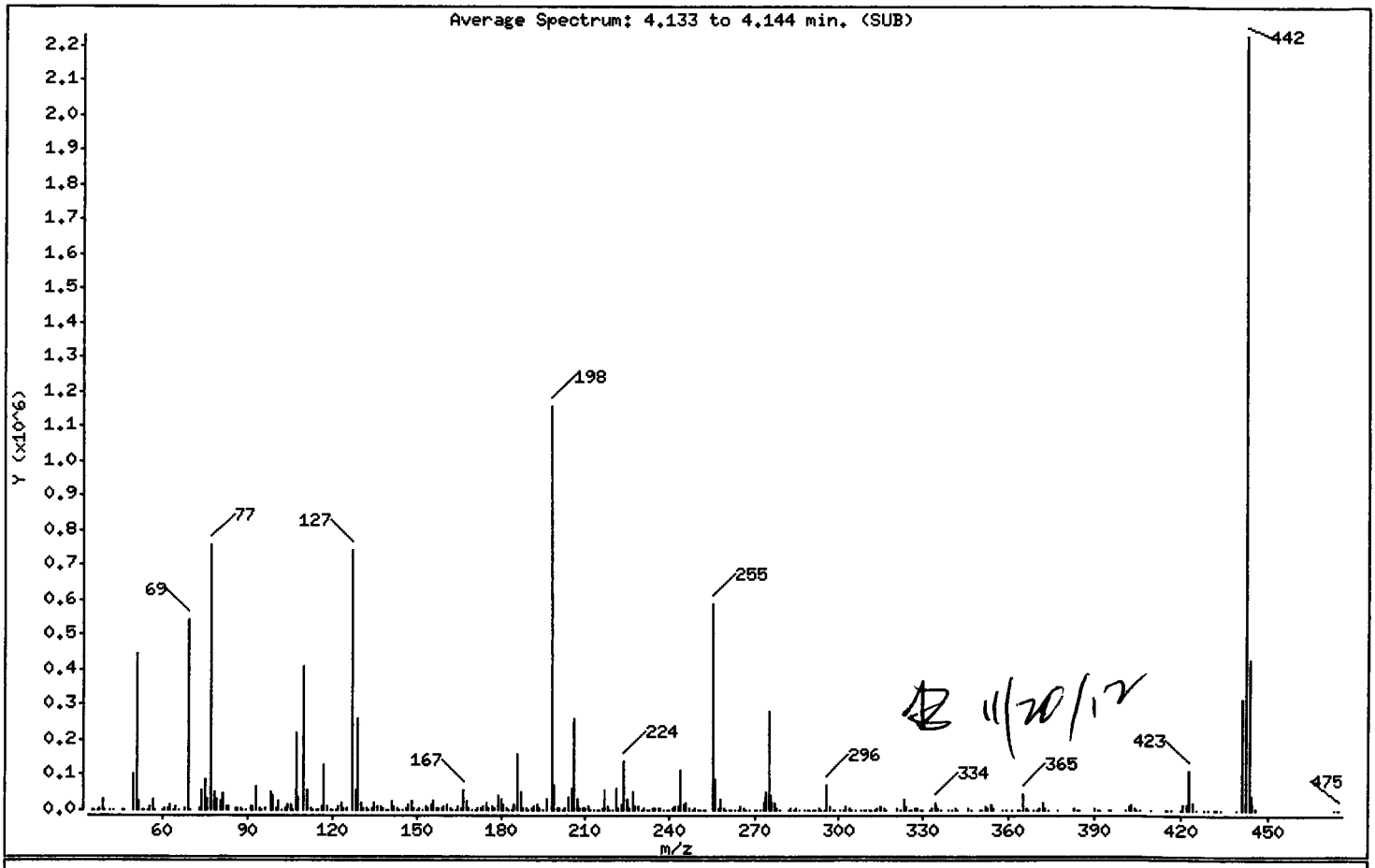
Sample Info: DFTPP1120

Operator: JZ

Column phase: Rxi-17silms

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	38.29
68	Less than 2.00% of mass 69	0.39 (0.84)
69	Mass 69 relative abundance	46.82
70	Less than 2.00% of mass 69	0.20 (0.44)
127	10.00 - 80.00% of mass 198	64.22
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.34
275	10.00 - 60.00% of mass 198	24.18
365	Greater than 1.00% of mass 198	3.93
441	0.01 - 24.00% of mass 442	27.64 (14.36)
442	50.00 - 200.00% of mass 198	192.50
443	15.00 - 24.00% of mass 442	36.96 (19.20)

Data File: /chem3/nt11.i/20121120.b/tune.b/11201201.d

Date : 20-NOV-2012 12:07

Client ID: DFTPP1120 Instrument: nt11.i

Sample Info: DFTPP1120

Operator: JZ

Column phase: Rxi-17silms Column diameter: 0.25

Data File: 11201201.d
Spectrum: Average Spectrum: 4.133 to 4.144 min. (SUB)
Location of Maximum: 442.00
Number of points: 341

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	787	135.00	21472	222.00	2936	315.00	9236
36.00	180	136.00	7920	223.00	15157	316.00	5757
37.00	713	137.00	9110	224.00	138560	317.00	1007
38.00	5286	138.00	2858	225.00	33216	321.00	3222
39.00	32664	139.00	458	226.00	4538	322.00	1802
40.00	820	140.00	2495	227.00	49392	323.00	32504
42.00	1186	141.00	27992	228.00	8047	324.00	8235
43.00	385	142.00	10829	229.00	11008	325.00	846
46.00	221	143.00	6371	230.00	1578	326.00	373
47.00	140	144.00	560	231.00	3977	327.00	6442
50.00	104360	145.00	1555	232.00	871	328.00	3368
51.00	443264	146.00	6210	233.00	1047	329.00	856
52.00	23256	147.00	13902	234.00	4049	330.00	396
53.00	211	148.00	27616	235.00	3758	332.00	2558
54.00	521	149.00	6004	236.00	3522	333.00	3882
55.00	632	150.00	2551	237.00	4946	334.00	21784
56.00	11106	151.00	4660	238.00	278	335.00	5271
57.00	30464	152.00	590	239.00	2260	336.00	851
58.00	682	153.00	8515	240.00	1797	339.00	269
60.00	936	154.00	6079	241.00	3118	340.00	302
61.00	4509	155.00	17552	242.00	7978	341.00	4583
62.00	5971	156.00	23240	243.00	8726	342.00	1330
63.00	17872	157.00	4724	244.00	114480	346.00	4919
64.00	1784	158.00	4937	245.00	14691	347.00	1074
65.00	12364	159.00	3400	246.00	17952	350.00	177
66.00	792	160.00	8472	247.00	3927	351.00	712
68.00	4552	161.00	12962	248.00	1020	352.00	11027
69.00	542016	162.00	3910	249.00	5435	353.00	7053
70.00	2363	163.00	1389	250.00	868	354.00	14363
73.00	3248	164.00	1872	251.00	1052	355.00	2737
74.00	53992	165.00	7807	252.00	2222	358.00	228
75.00	88752	166.00	7426	253.00	2173	359.00	1899
76.00	32448	167.00	54064	255.00	590656	361.00	496
77.00	759808	168.00	25160	256.00	86472	363.00	202
78.00	50224	169.00	3747	257.00	6678	364.00	206

Data File: /chem3/nt11.i/20121120.b/tune.b/11201201.d

Date : 20-NOV-2012 12:07

Client ID: DFTPP1120 Instrument: nt11.i

Sample Info: DFTPP1120

Operator: JZ

Column phase: Rxi-17silms Column diameter: 0.25

Data File: 11201201.d
Spectrum: Average Spectrum: 4.133 to 4.144 min. (SUB)
Location of Maximum: 442.00
Number of points: 341

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	31072	170.00	2037	258.00	28632	365.00	45456
80.00	26840	171.00	1213	259.00	5718	366.00	6476
81.00	44712	172.00	3886	260.00	1322	367.00	257
82.00	10594	173.00	5185	261.00	1249	369.00	183
83.00	12081	174.00	11659	262.00	290	370.00	825
85.00	5747	175.00	22360	263.00	191	371.00	3676
86.00	6780	176.00	7609	264.00	1707	372.00	21376
87.00	5757	177.00	10749	265.00	10755	373.00	4731
88.00	2374	178.00	2929	266.00	3155	374.00	589
89.00	876	179.00	41792	267.00	678	377.00	714
91.00	9657	180.00	28928	268.00	250	383.00	7128
92.00	11868	181.00	13788	270.00	526	384.00	2042
93.00	64536	182.00	2608	271.00	1512	385.00	720
94.00	5053	183.00	2204	272.00	1250	390.00	2853
95.00	520	184.00	2180	273.00	18576	391.00	1665
96.00	3804	185.00	16616	274.00	52448	392.00	1694
98.00	49008	186.00	160384	275.00	279872	395.00	196
99.00	40776	187.00	49288	276.00	38752	396.00	192
100.00	2756	188.00	4601	277.00	22888	401.00	1975
101.00	27456	189.00	6824	278.00	3953	402.00	9782
102.00	1664	190.00	1310	279.00	1206	403.00	15349
103.00	7554	191.00	4148	282.00	781	404.00	5228
104.00	13250	192.00	12249	283.00	3399	405.00	645
105.00	14991	193.00	13057	284.00	1925	406.00	172
106.00	2173	194.00	3307	285.00	3984	410.00	590
107.00	218368	195.00	1956	286.00	1286	415.00	626
108.00	33416	196.00	31048	288.00	169	416.00	217
110.00	407616	198.00	1157632	289.00	1516	417.00	192
111.00	54760	199.00	73392	290.00	653	420.00	225
112.00	6848	200.00	5398	291.00	695	421.00	12917
113.00	437	201.00	5789	292.00	1494	422.00	14728
114.00	1199	202.00	1426	293.00	5260	423.00	114784
115.00	282	203.00	6593	294.00	1674	424.00	22408
116.00	10379	204.00	34792	295.00	745	425.00	2217
117.00	128744	205.00	60608	296.00	73864	428.00	209

Date : 20-NOV-2012 12:07

Client ID: DFTPP1120

Instrument: nt11.i

Sample Info: DFTPP1120

Operator: JZ

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: 11201201.d

Spectrum: Average Spectrum: 4.133 to 4.144 min. (SUB)

Location of Maximum: 442.00

Number of points: 341

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	10256	206.00	260480	297.00	11120	429.00	167
119.00	1126	207.00	28400	298.00	481	431.00	639
120.00	1863	208.00	6455	299.00	313	432.00	230
121.00	1282	209.00	2966	301.00	1078	433.00	350
122.00	10258	210.00	5105	302.00	1901	439.00	324
123.00	18576	211.00	8453	303.00	9942	441.00	320000
124.00	6833	212.00	1697	304.00	3552	442.00	2228736
125.00	7397	213.00	967	305.00	288	443.00	427840
127.00	743488	214.00	641	306.00	209	444.00	41688
128.00	57520	215.00	2461	308.00	1260	445.00	3043
129.00	262400	216.00	5536	309.00	366	473.00	167
130.00	20520	217.00	58136	310.00	1354	474.00	187
131.00	3760	218.00	8657	311.00	288	475.00	215
132.00	2596	219.00	1221	312.00	438		
133.00	919	220.00	361	313.00	497		
134.00	5361	221.00	59640	314.00	4070		

Data File: /chem3/nt11.i/20121120.b/tune.b/11201201.d

Date : 20-NOV-2012 12:07

Client ID: DFTPP1120

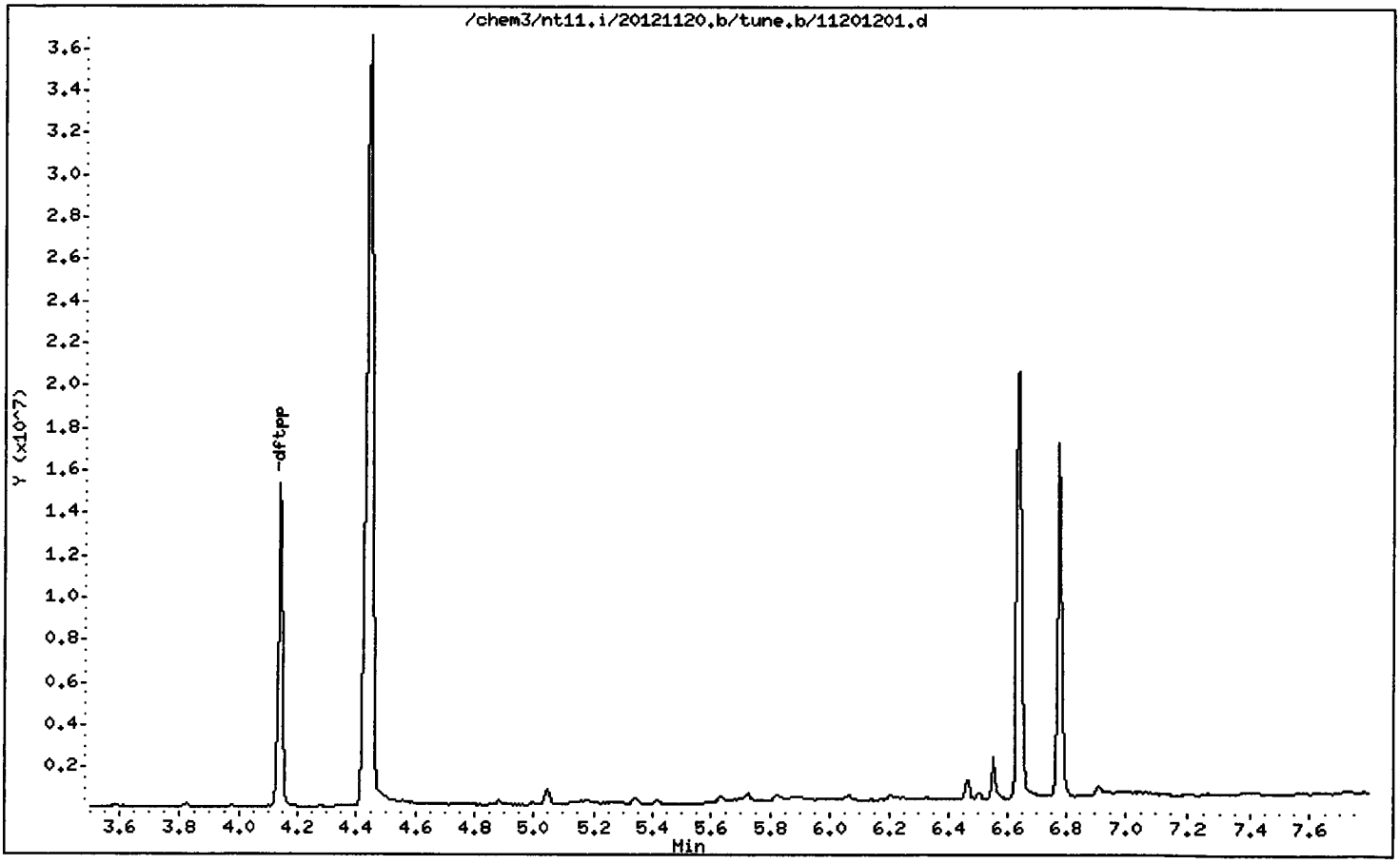
Instrument: nt11.i

Sample Info: DFTPP1120

Operator: JZ

Column phase: Rxi-17silms

Column diameter: 0.25



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20121120.b/ddt.b/11201201.d ARI ID:
Method: /chem3/nt11.i/20121120.b/ddt.b/sw846ddt.m Misc:
Analysis Date: 20-NOV-2012 12:07 Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	4.449	6863376
Benzidine	6.644	8966792
4,4'-DDE	6.067	23126
4,4'-DDD	6.554	370458
4,4'-DDT	6.778	3265811

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

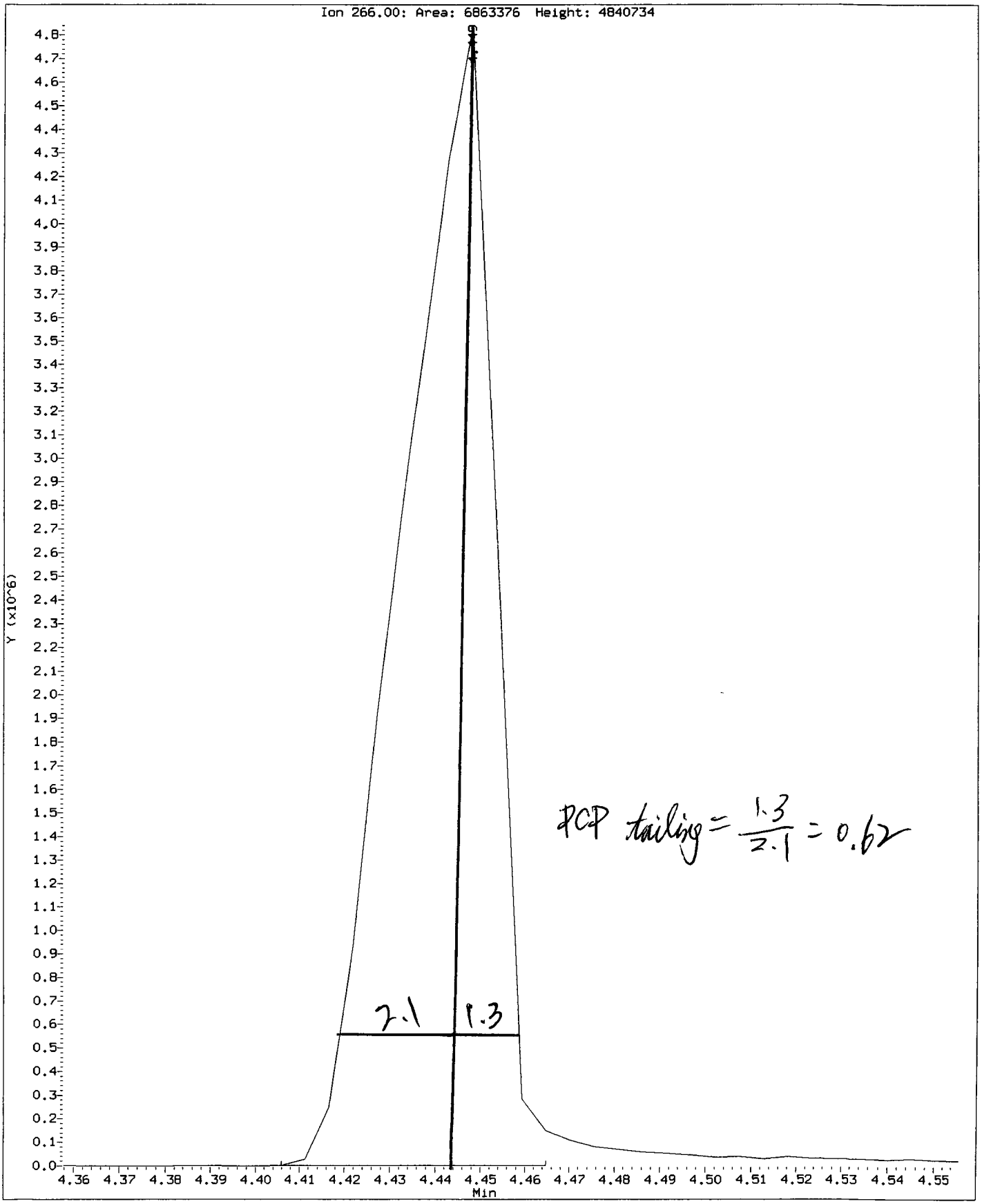
$$\text{DDT Percent Breakdown} = \frac{(23126 + 370458) * 100}{(23126 + 370458 + 3265811)}$$

DDT Percent Breakdown = 10.8 %

11/20/12

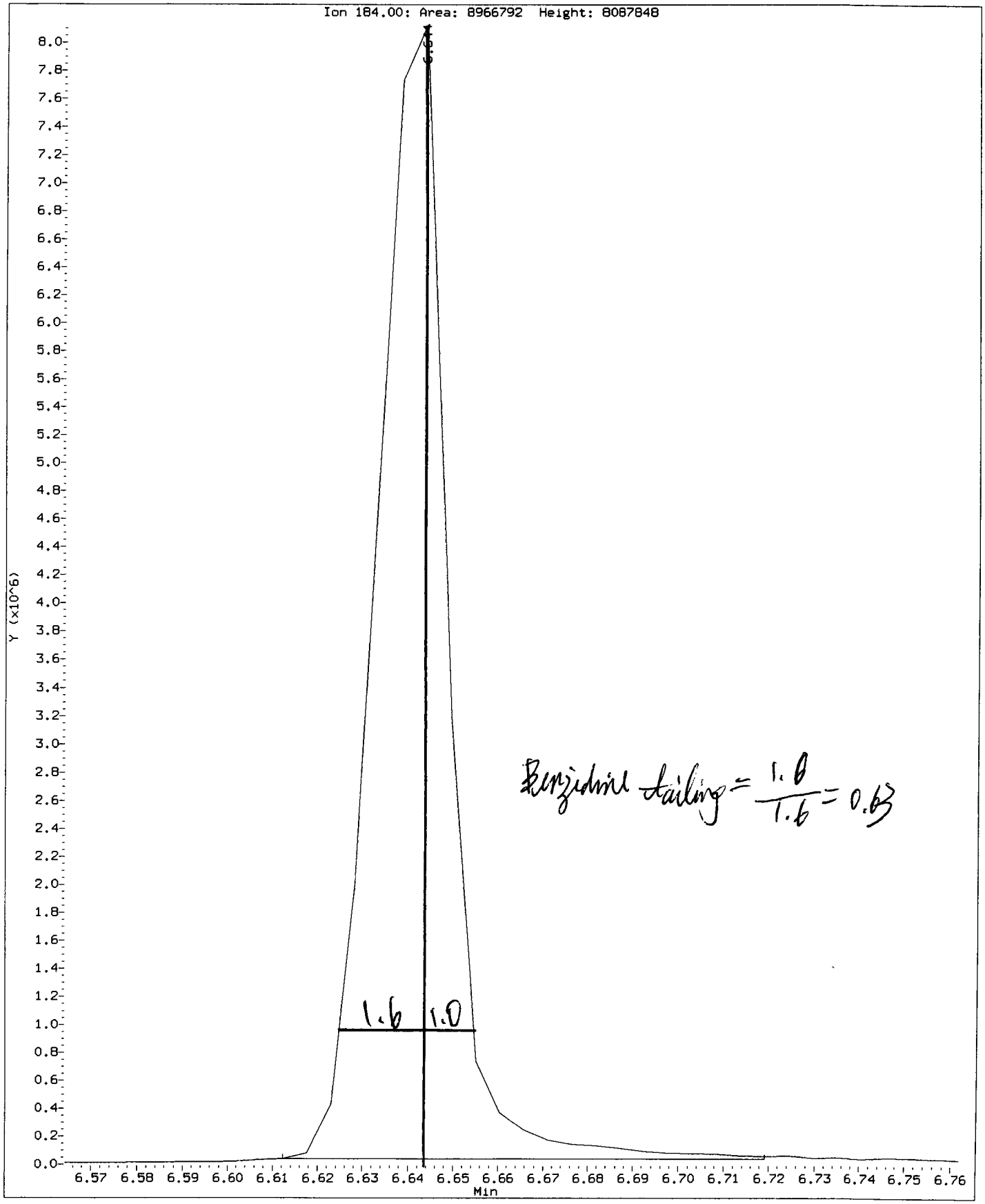
Data File: /chem3/nt11.i/20121120.b/ddt.b/11201201.d
Injection Date: 20-NOV-2012 12:07
Instrument: nt11.i
Client Sample ID: DDT1120

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt11.i/20121120.b/ddt.b/11201201.d
Injection Date: 20-NOV-2012 12:07
Instrument: nt11.i
Client Sample ID: DDT1120

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt11.i/20121120.b/11201210.d
Lab Smp Id: VR38D Client Smp ID: HT-04-S-C-121106
Inj Date : 20-NOV-2012 16:40
Operator : JZ Inst ID: nt11.i
Smp Info : VR38D,3,
Misc Info : 12-22270
Comment : 1ul Injection
Method : /chem3/nt11.i/20121120.b/FSIMPNA111512.m
Meth Date : 20-Nov-2012 17:31 jianqing Quant Type: ISTD
Cal Date : 15-NOV-2012 20:24 Cal File: 11151205.d
Als bottle: 10
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 3.50

AZ 11/20/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	500.00000	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)
*	6 Naphthalene-d8	136	5.438	5.441	(1.000)	641589	2.00000	
	7 Naphthalene	128	5.467	5.470	(1.005)	740898	2.16077	324.1
$	12 2-Methylnaphthalene-d10	152	6.174	6.177	(1.135)	134837	0.61510	92.26
	14 2-Methylnaphthalene	141	6.221	6.224	(1.144)	255953	1.32486	198.7
	15 1-methylnaphthalene	141	6.414	6.416	(1.179)	97013	0.52427	78.64
	21 Acenaphthylene	152	7.600	7.603	(0.986)	40582	0.13045	19.57
*	22 Acenaphthene-d10	164	7.710	7.717	(1.000)	358015	2.00000	
	23 Acenaphthene	153	7.761	7.764	(1.007)	157838	0.79781	119.7
	11 Dibenzofuran	168	7.912	7.915	(1.026)	430545	1.48551	222.8
	25 Fluorene	166	8.386	8.392	(1.088)	340474	1.52851	229.3
*	28 Phenanthrene-d10	188	9.736	9.736	(1.000)	498531	2.00000	
	30 Phenanthrene	178	9.771	9.771	(1.004)	1646960	5.46909	820.4
	31 Anthracene	178	9.809	9.812	(1.007)	443602	1.53448	230.2
	36 Fluoranthene	202	11.434	11.424	(1.174)	2006460	6.65026	997.5
	39 Pyrene	202	11.907	11.891	(0.829)	1527881	5.01160	751.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	46 Benzo(a)anthracene	228	14.233	14.220	(0.991)	674500	2.42636	364.0
*	47 Chrysene-d12	240	14.356	14.343	(1.000)	553225	2.00000	
	48 Chrysene	228	14.422	14.409	(1.005)	913013	3.38384	507.6
	51 Benzo(b)fluoranthene	252	16.868	16.855	(0.931)	504966	1.71539	257.3
	52 Benzo(k)fluoranthene	252	16.928	16.912	(0.934)	291132	0.91065	136.6
	251 Benzo(j)fluoranthene	252	17.007	16.988	(0.939)	246532	0.73089	109.6
	54 Benzo(a)pyrene	252	17.884	17.871	(0.987)	430821	1.44084	216.1
*	56 Perylene-d12	264	18.114	18.098	(1.000)	636065	2.00000	
	63 Indeno(1,2,3-cd)pyrene	276	20.472	20.415	(1.130)	235380	0.64932	97.40
$	60 Dibenzo(a,h)anthracene-d14	292	20.374	20.323	(1.125)	175267	0.83117	124.7
	62 Dibenzo(a,h)anthracene	278	20.462	20.418	(1.130)	72749	0.24641	36.96
	61 Benzo(g,h,i)perylene	276	21.336	21.289	(1.178)	209134	0.67814	101.7
	57 Perylene	252	18.184	18.171	(1.004)	355968	1.14798	172.2

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 11201210.d
Lab Smp Id: VR38D
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem3/nt11.i/20121120.b/FSIMPNA111512.m
Misc Info: 12-22270

Calibration Date: 20-NOV-2012
Calibration Time: 12:31
Client Smp ID: HT-04-S-C-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	516111	258056	1032222	641589	24.31
22 Acenaphthene-d10	284255	142128	568510	358015	25.95
28 Phenanthrene-d10	410660	205330	821320	498531	21.40
47 Chrysene-d12	467886	233943	935772	553225	18.24
56 Perylene-d12	472330	236165	944660	636065	34.67

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
6 Naphthalene-d8	5.44	4.94	5.94	5.44	-0.05
22 Acenaphthene-d10	7.72	7.22	8.22	7.71	-0.08
28 Phenanthrene-d10	9.74	9.24	10.24	9.74	0.00
47 Chrysene-d12	14.34	13.84	14.84	14.36	0.09
56 Perylene-d12	18.10	17.60	18.60	18.11	0.09

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.

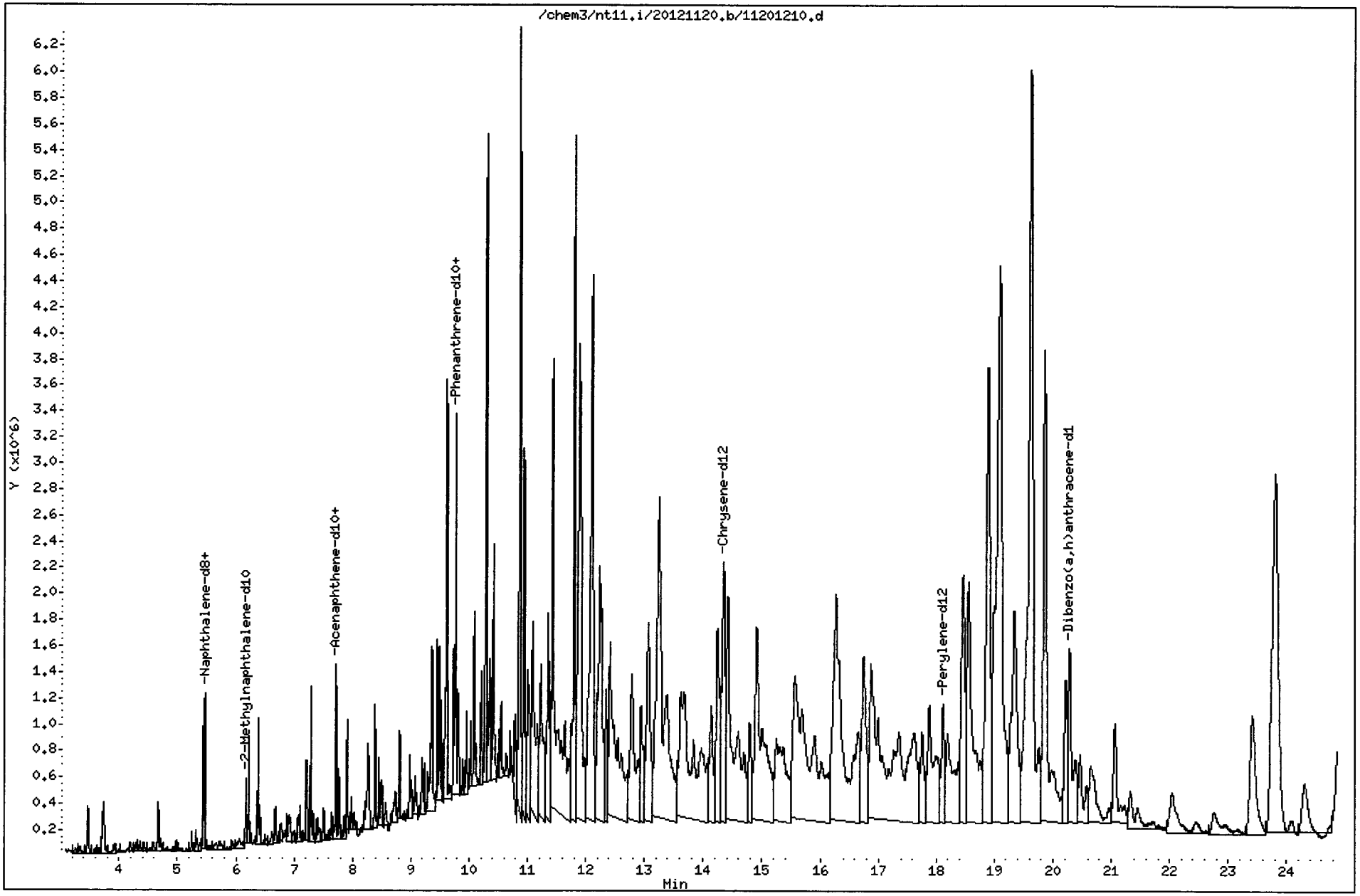
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38D Client Smp ID: HT-04-S-C-121106
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: pnalcsw.spk Quant Type: ISTD
Sublist File: pnax.sub
Method File: /chem3/nt11.i/20121120.b/FSIMPNA111512.m
Misc Info: 12-22270

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 12 2-Methylnaphthalen	150.0	92.26	61.51	34-100
$ 60 Dibenzo(a,h)anthra	150.0	124.7	83.12	10-117

Data File: /chem3/nt11.i/20121120.b/11201210.d
Date : 20-NOV-2012 16:40
Client ID: HT-04-S-C-121106
Sample Info: VR38D,3,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: JZ
Column diameter: 0.25



Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

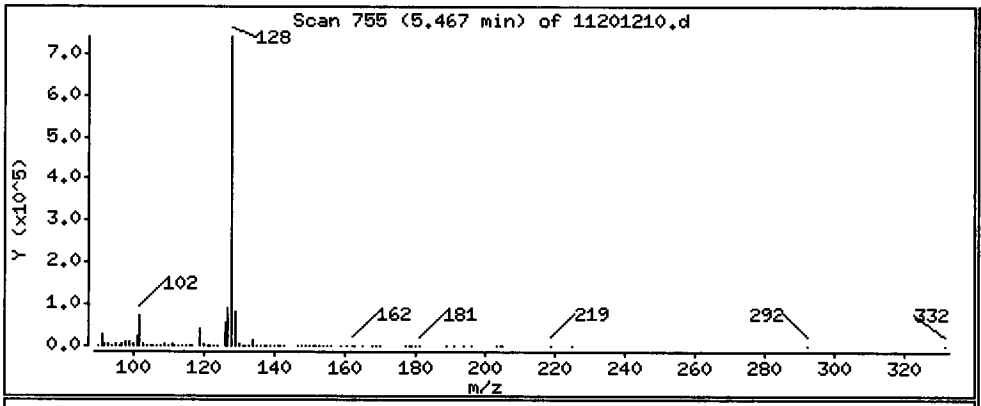
Operator: JZ

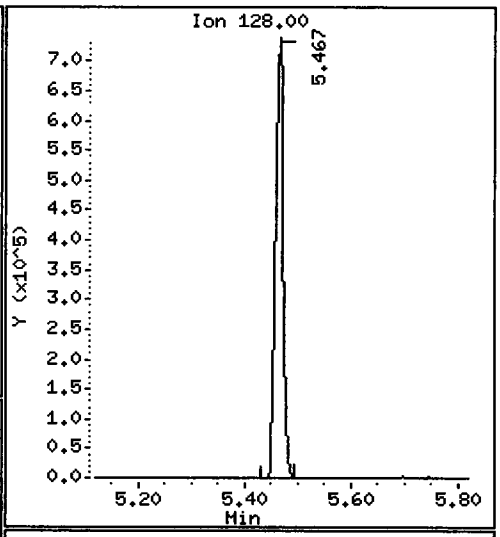
Column phase: ZB-5msi

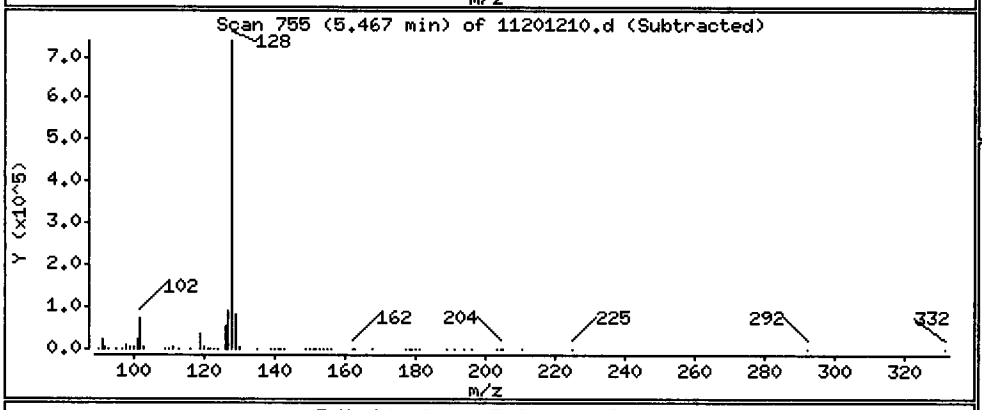
Column diameter: 0.25

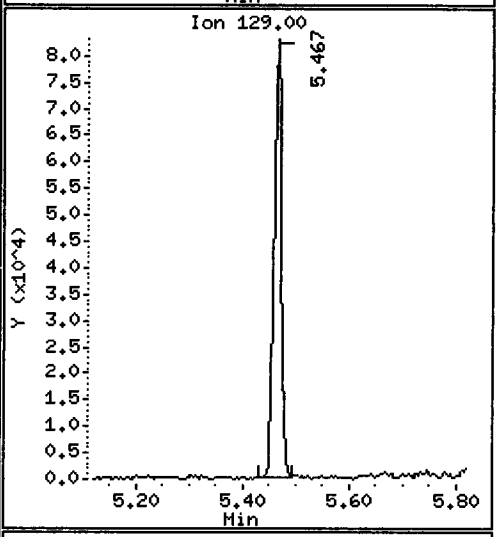
7 Naphthalene

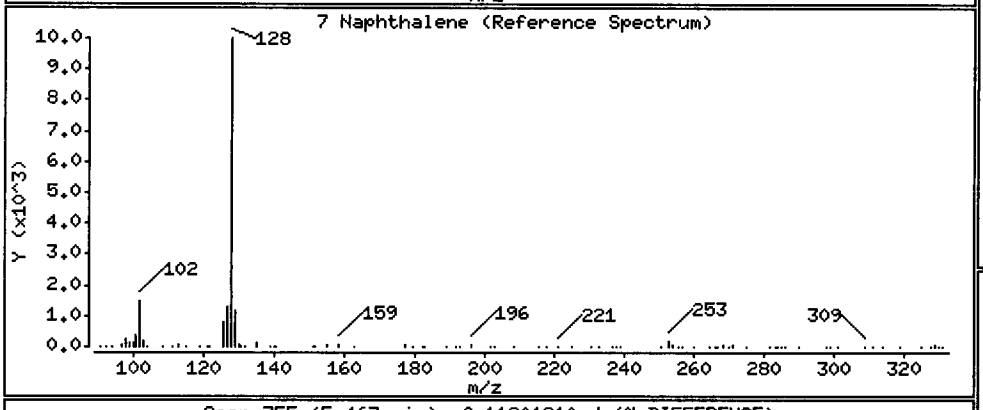
Concentration: 324.1 ug/kg

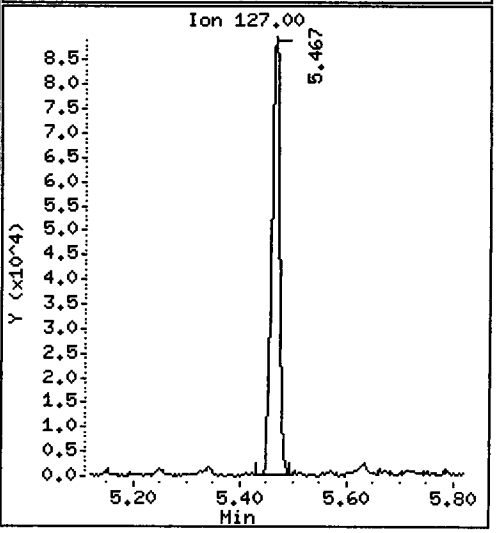


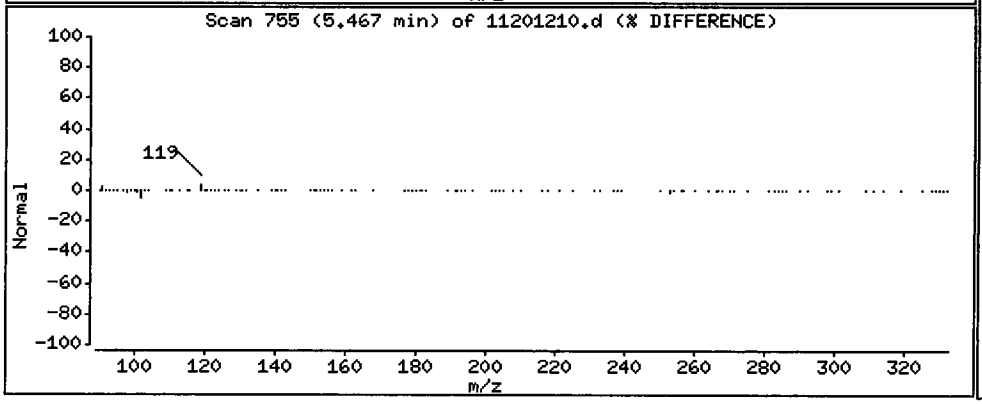












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

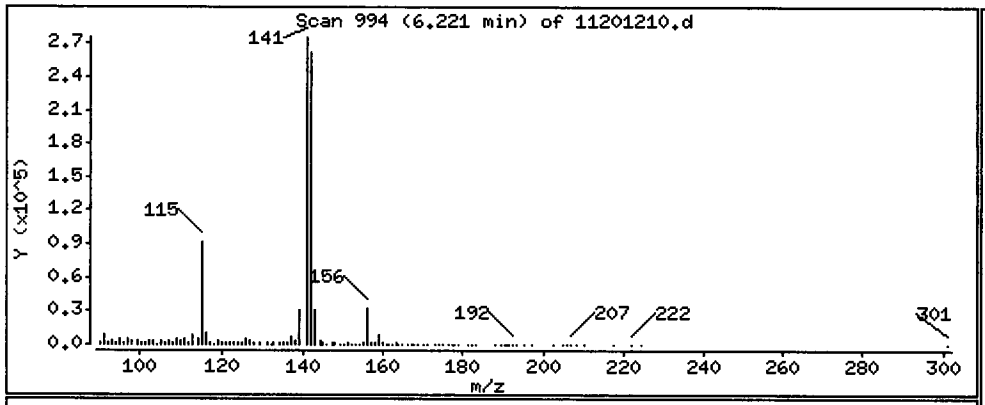
Operator: JZ

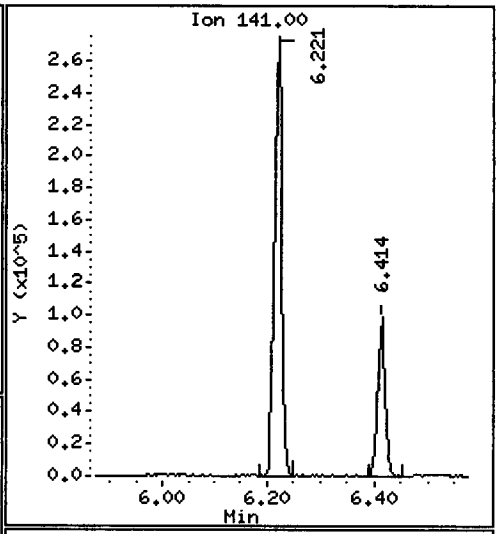
Column phase: ZB-5msi

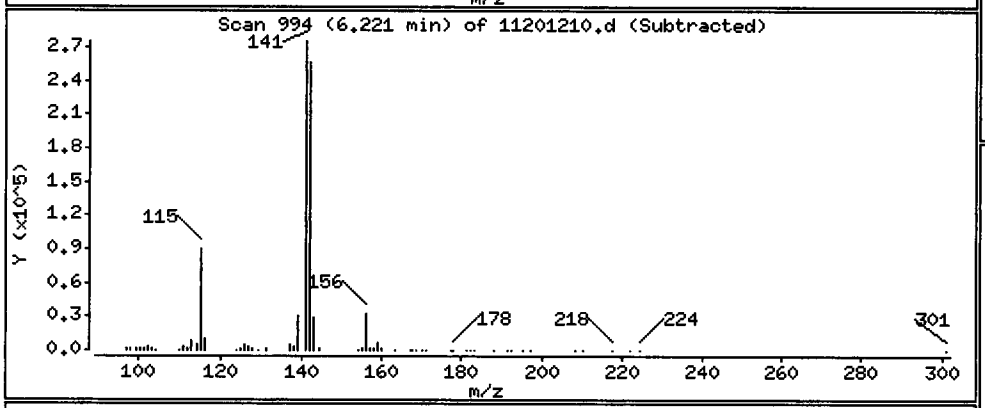
Column diameter: 0.25

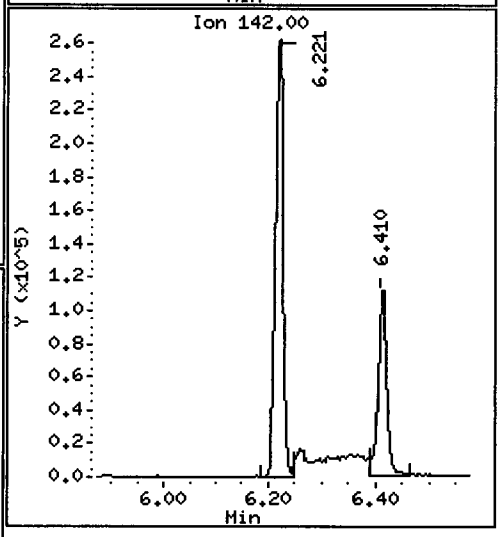
14 2-Methylnaphthalene

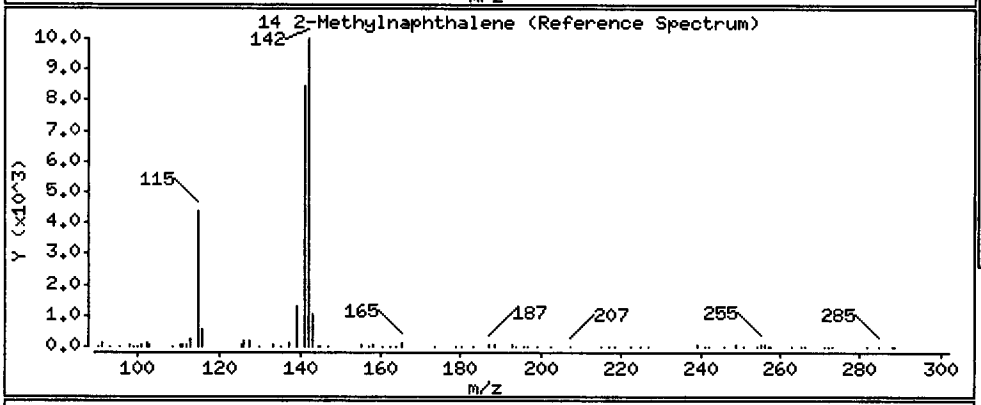
Concentration: 198.7 ug/kg

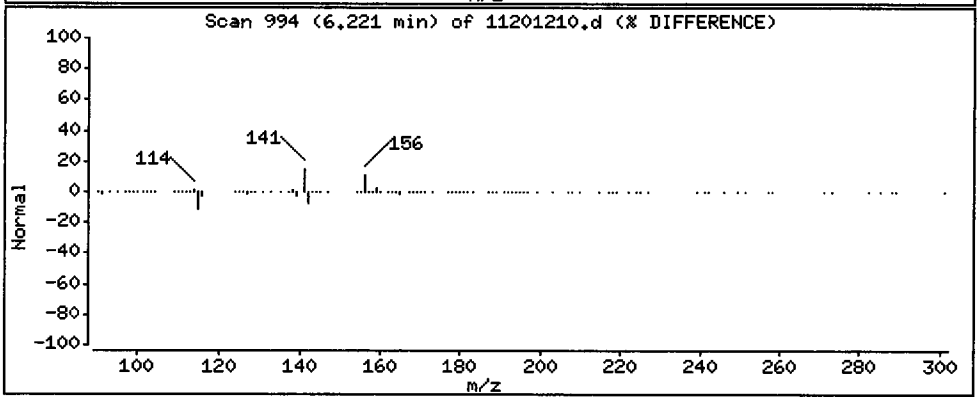












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

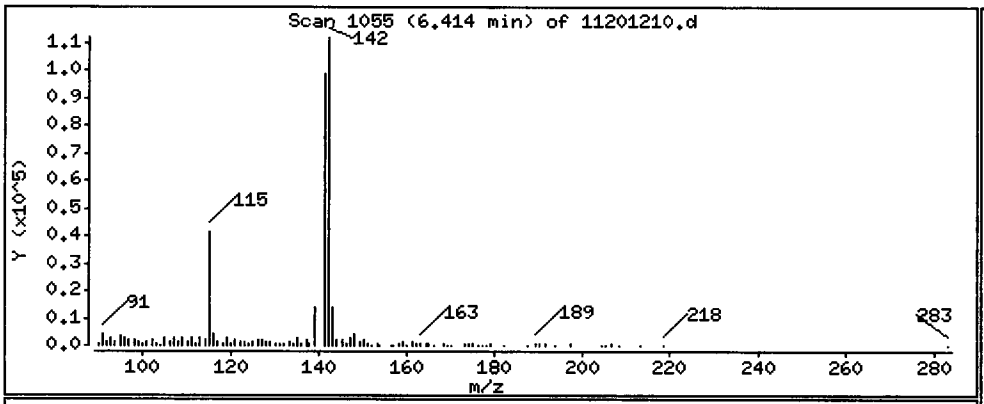
Operator: JZ

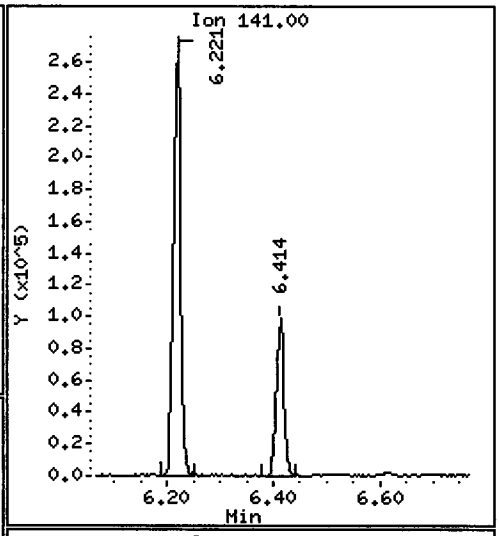
Column phase: ZB-5msi

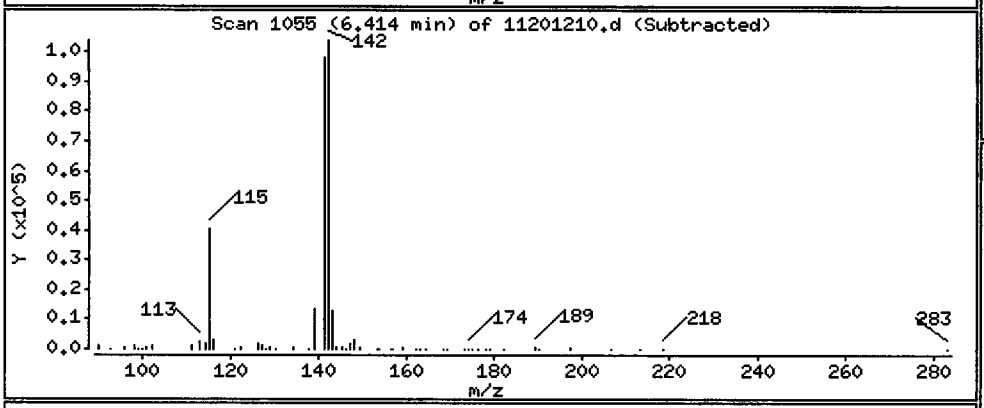
Column diameter: 0.25

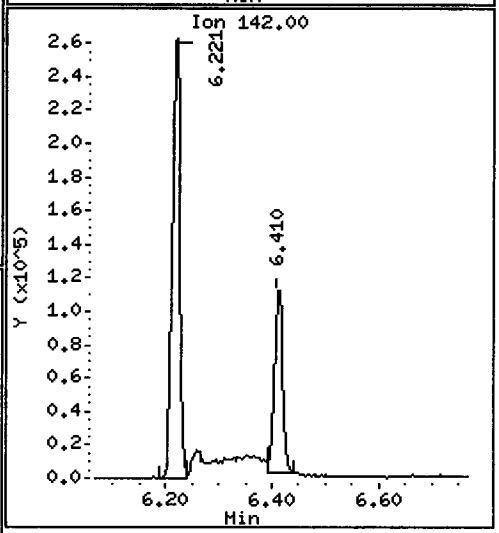
15 1-methylnaphthalene

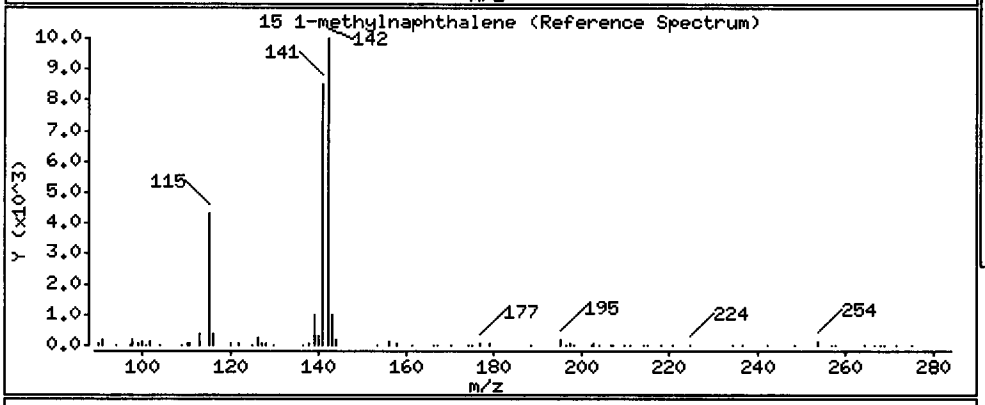
Concentration: 78.64 ug/kg

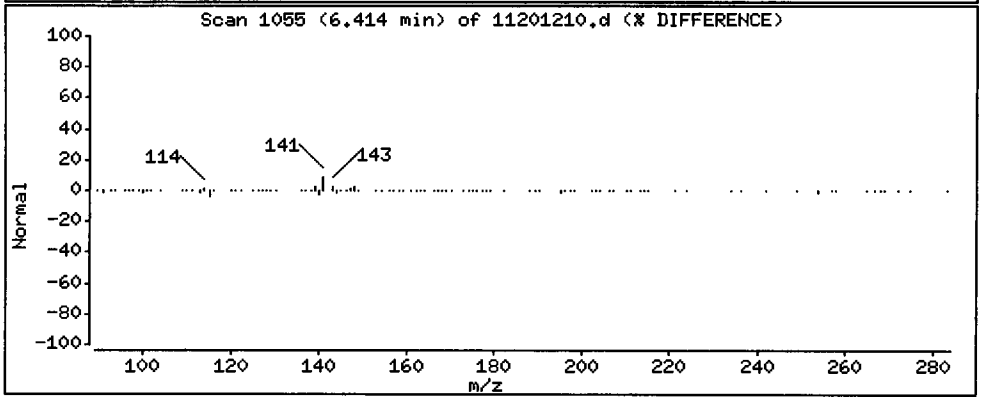












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

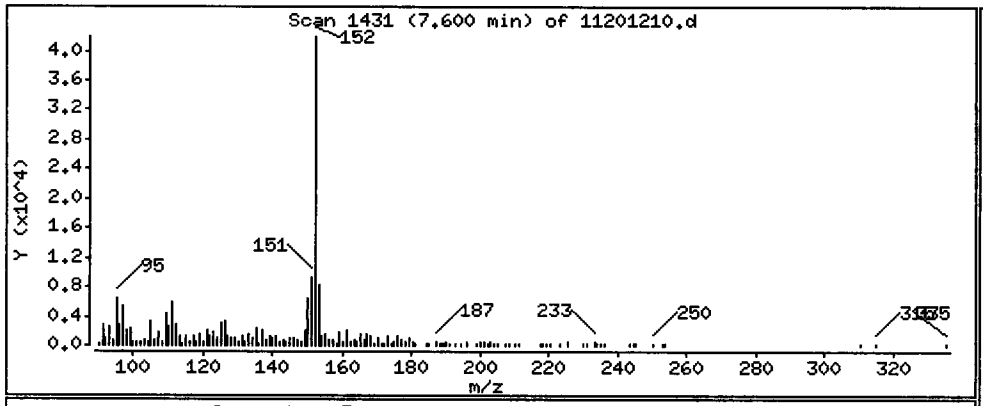
Operator: JZ

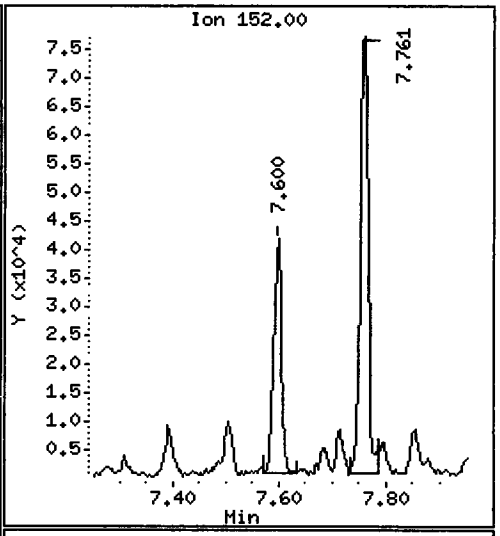
Column phase: ZB-5msi

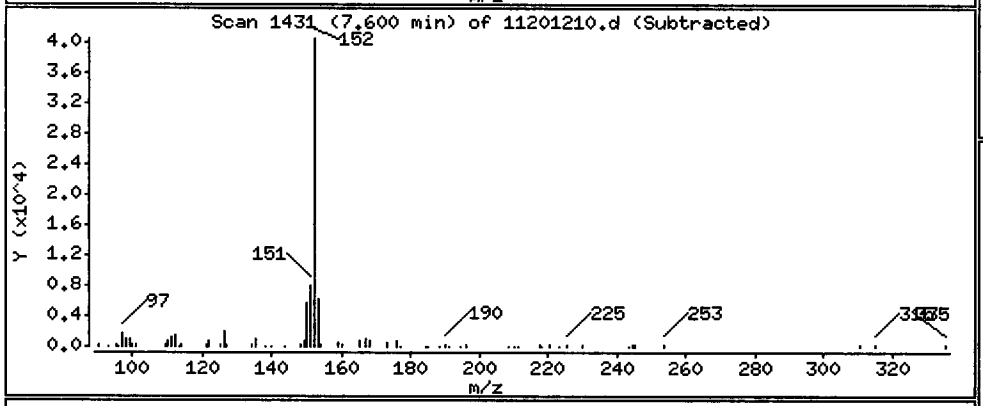
Column diameter: 0.25

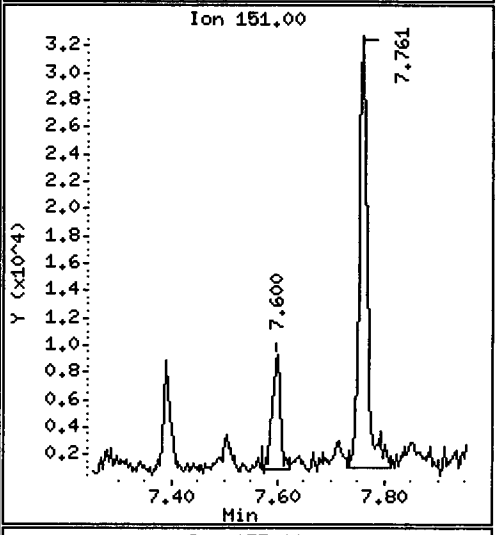
21 Acenaphthylene

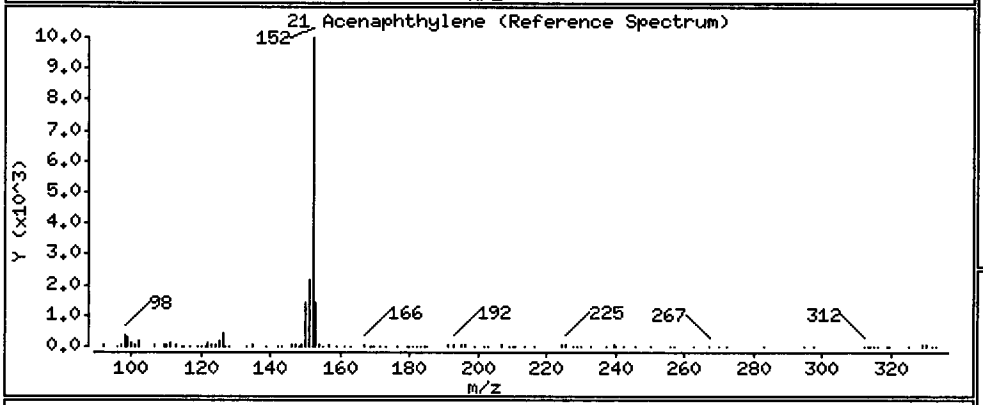
Concentration: 19.57 ug/kg

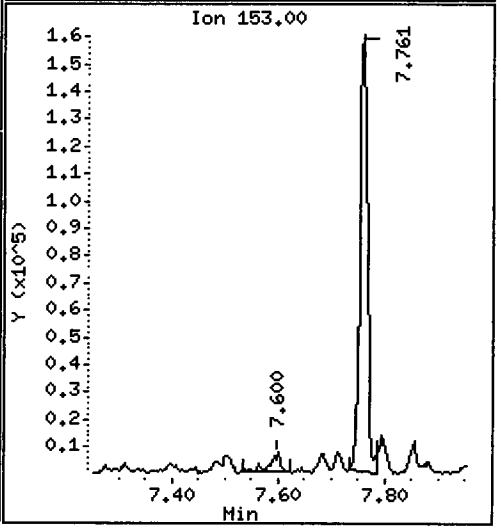


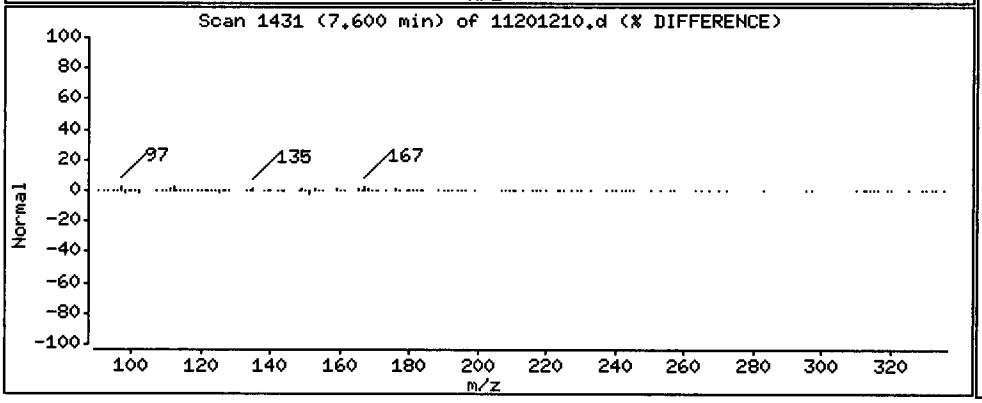












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

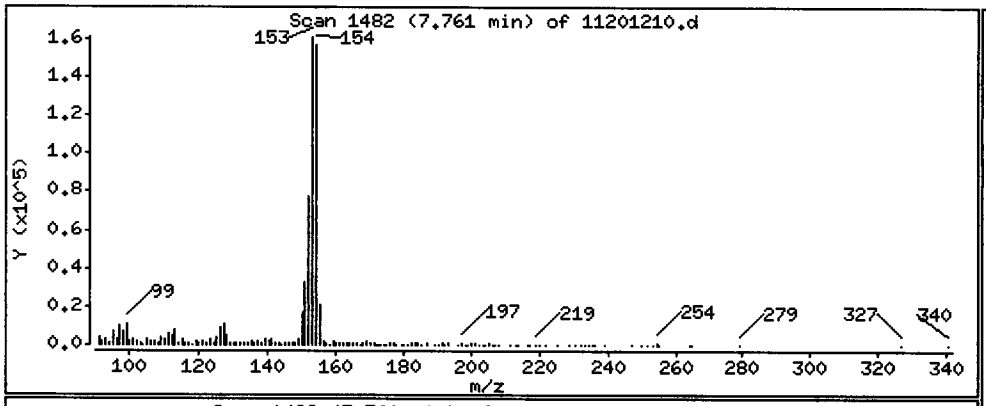
Operator: JZ

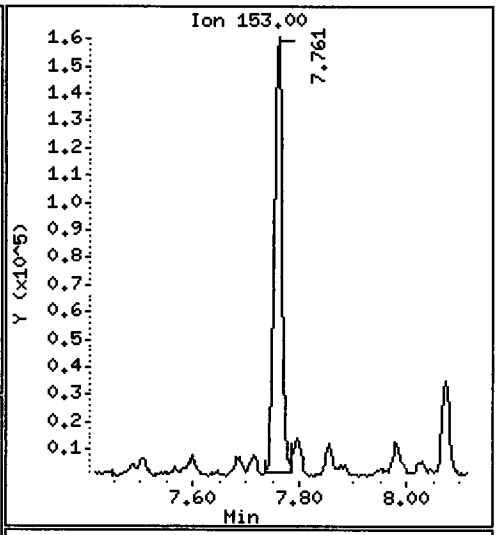
Column phase: ZB-5msi

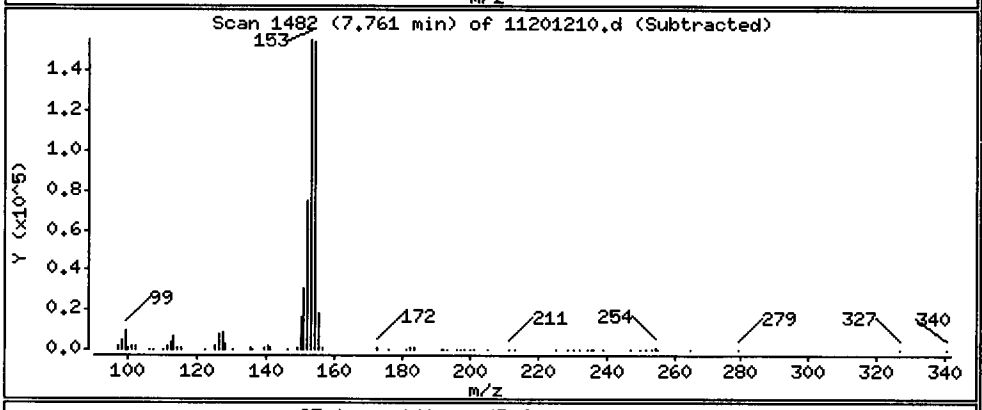
Column diameter: 0.25

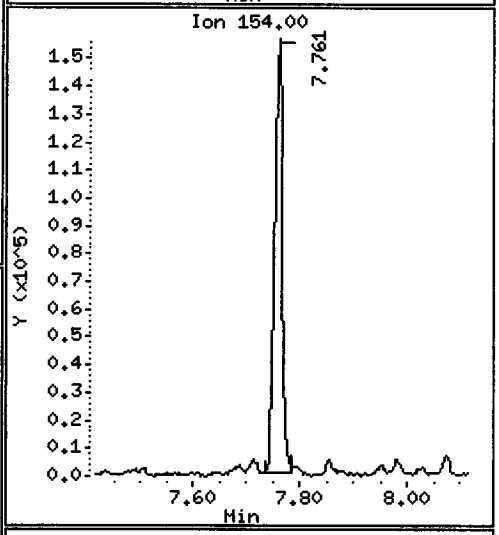
23 Acenaphthene

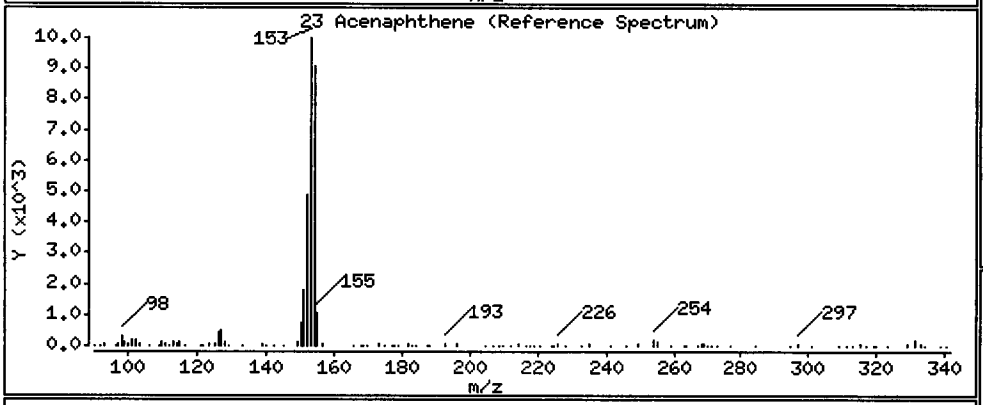
Concentration: 119.7 ug/kg

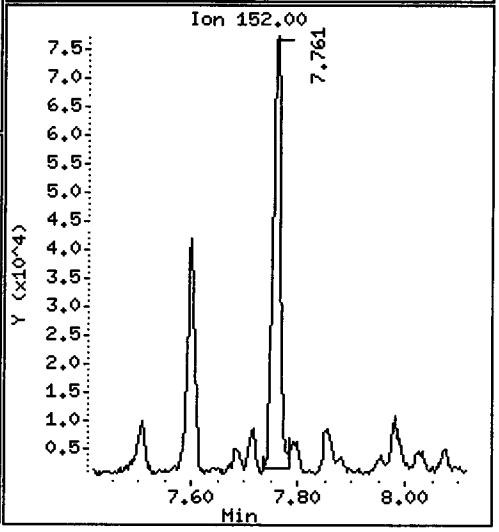


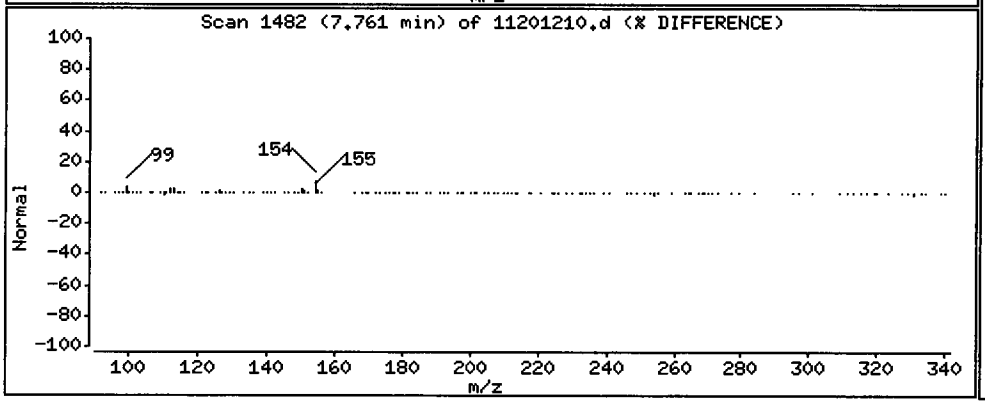












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

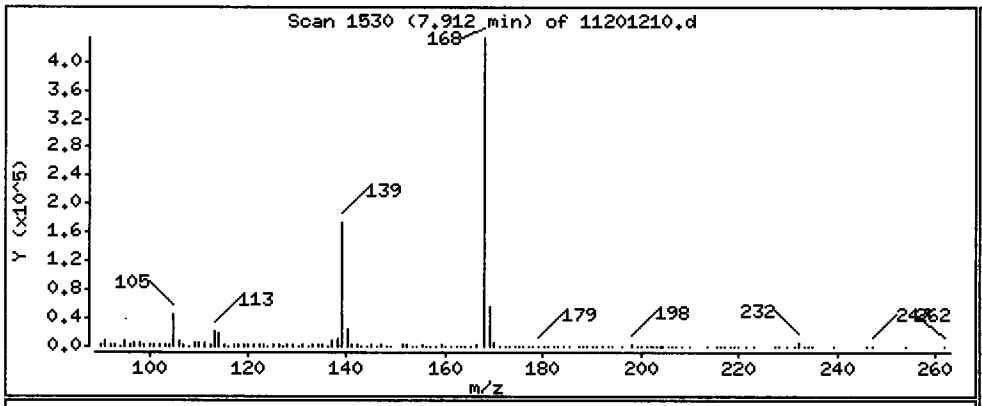
Operator: JZ

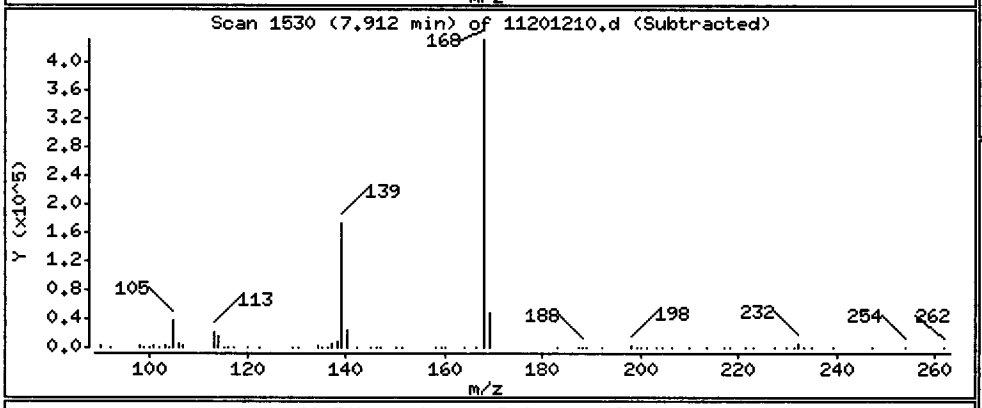
Column phase: ZB-5msi

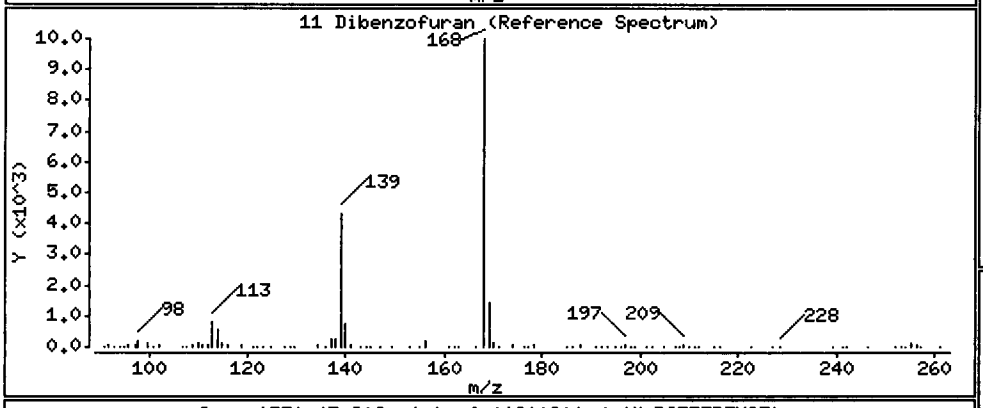
Column diameter: 0.25

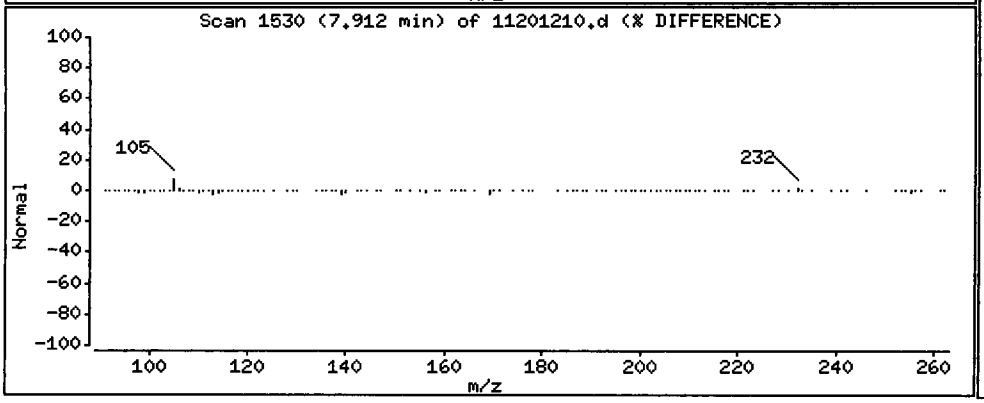
11 Dibenzofuran

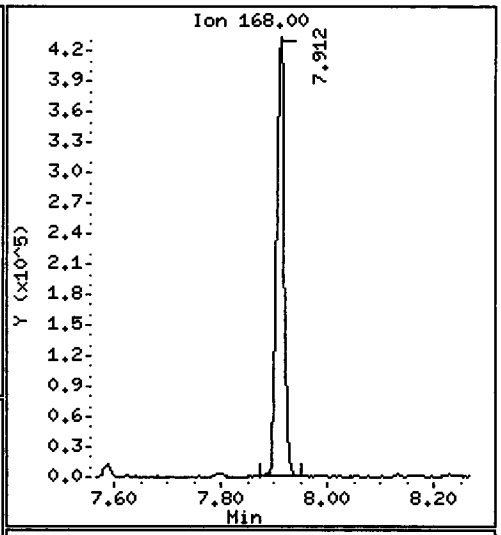
Concentration: 222.8 ug/kg

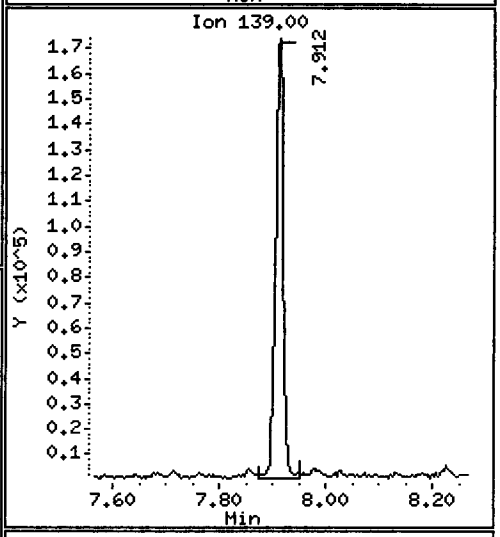


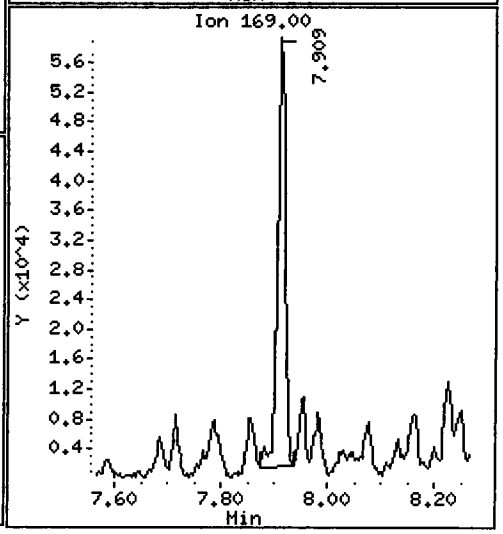












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

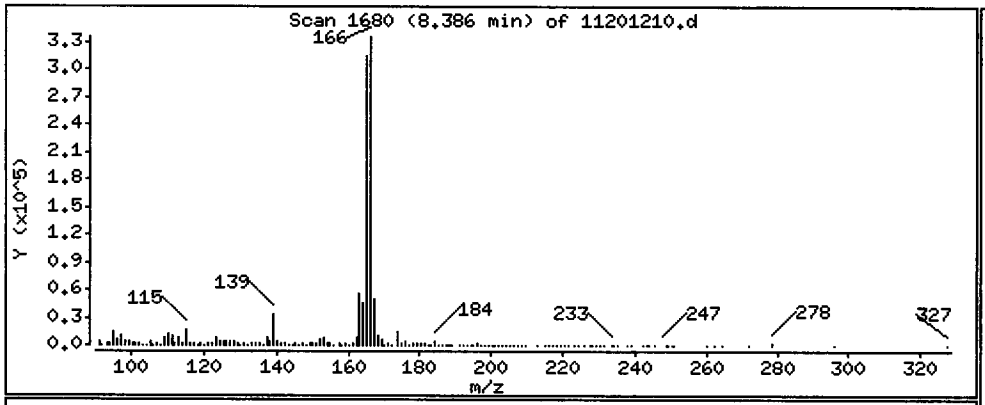
Operator: JZ

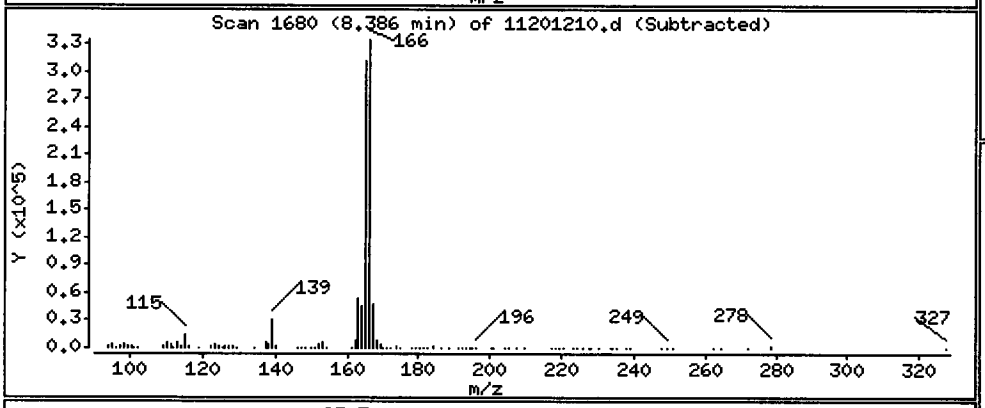
Column phase: ZB-5msi

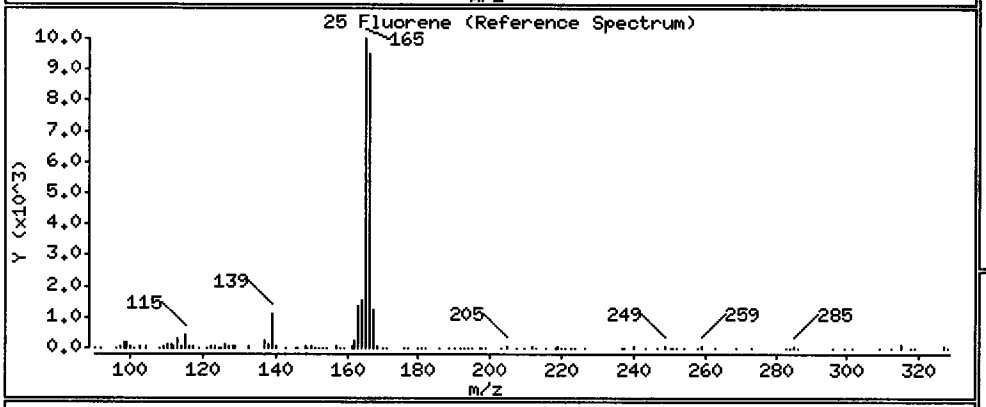
Column diameter: 0.25

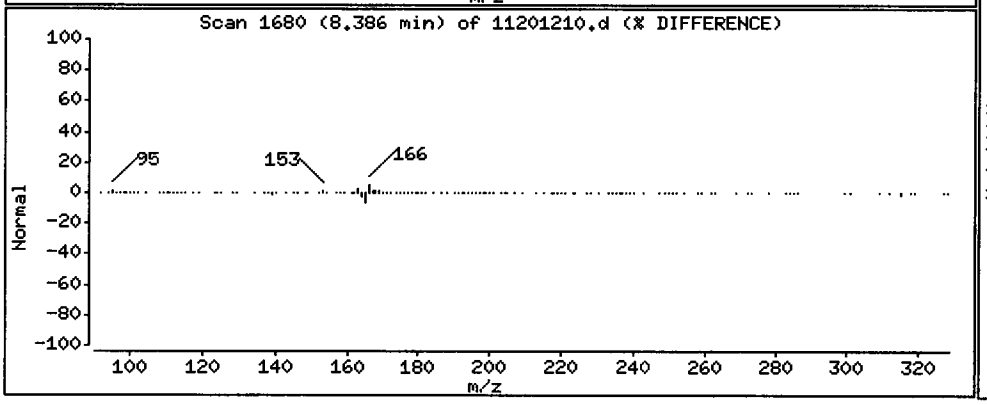
25 Fluorene

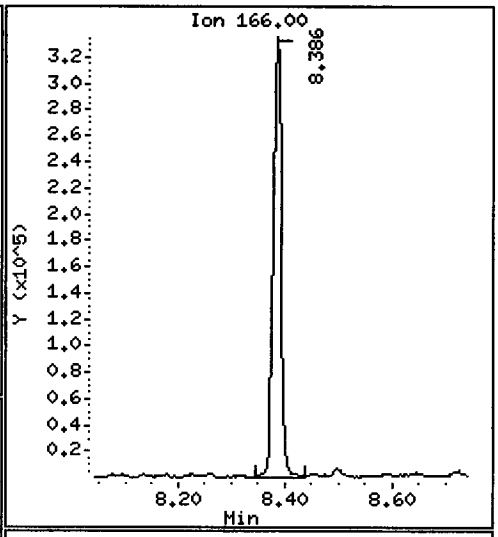
Concentration: 229.3 ug/kg

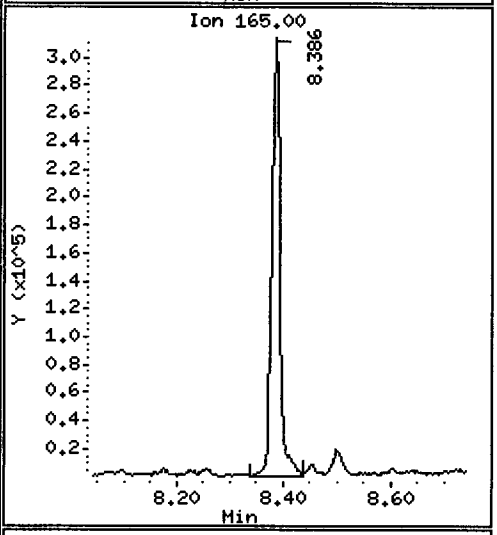


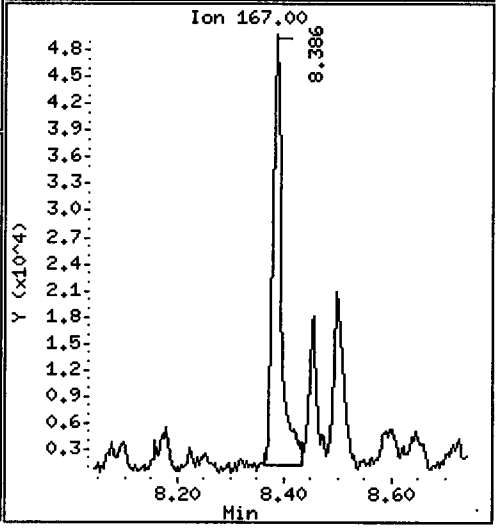












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

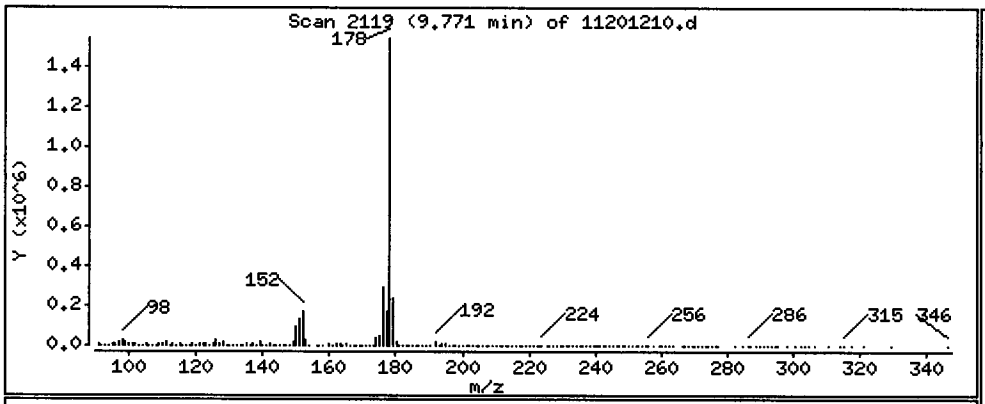
Operator: JZ

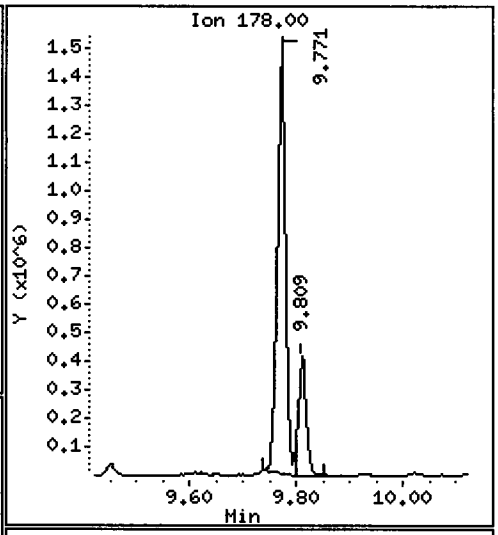
Column phase: ZB-5ms

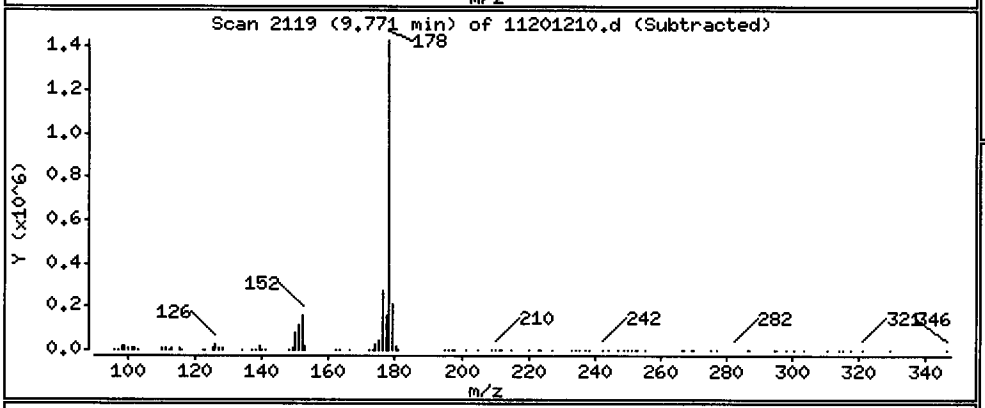
Column diameter: 0.25

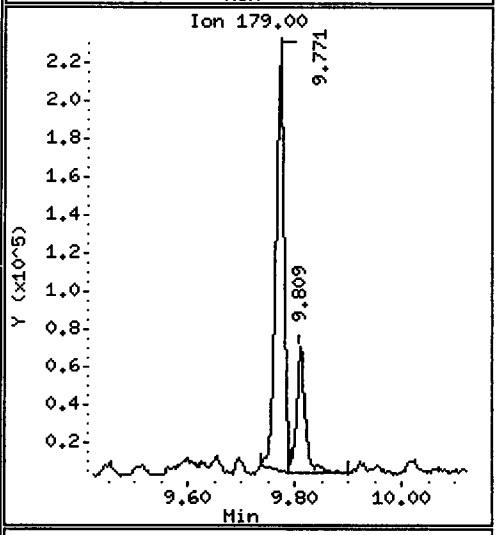
30 Phenanthrene

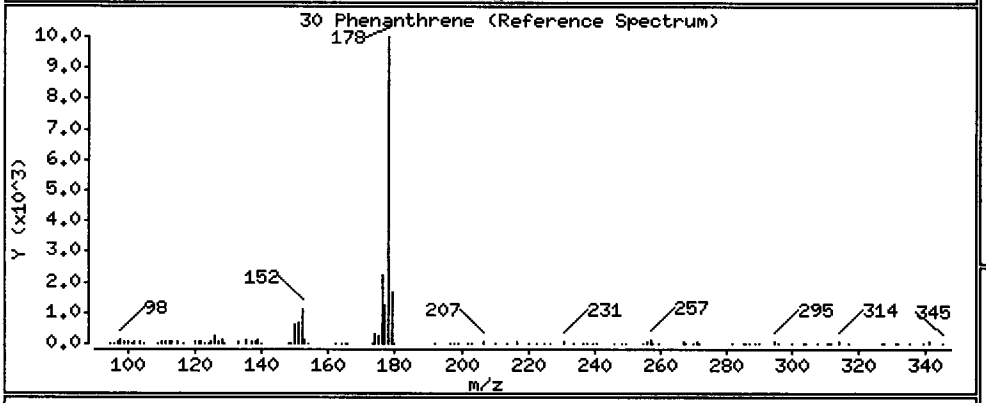
Concentration: 820.4 ug/kg

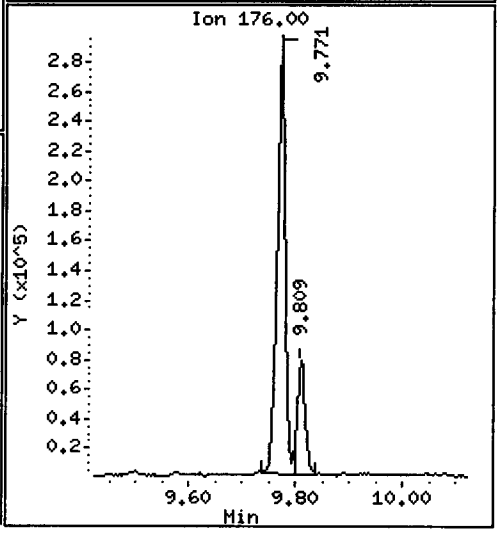


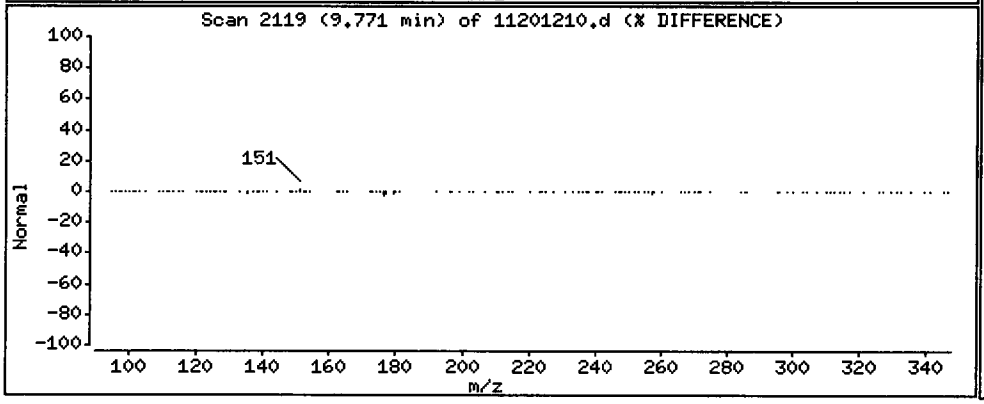












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

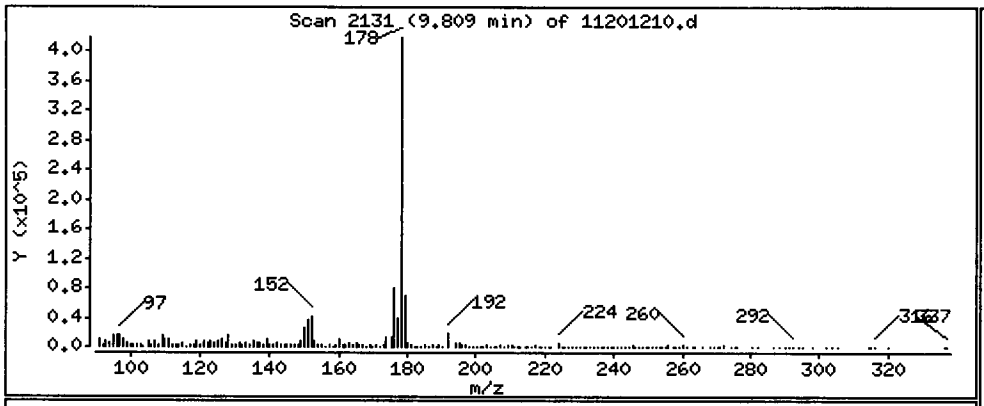
Operator: JZ

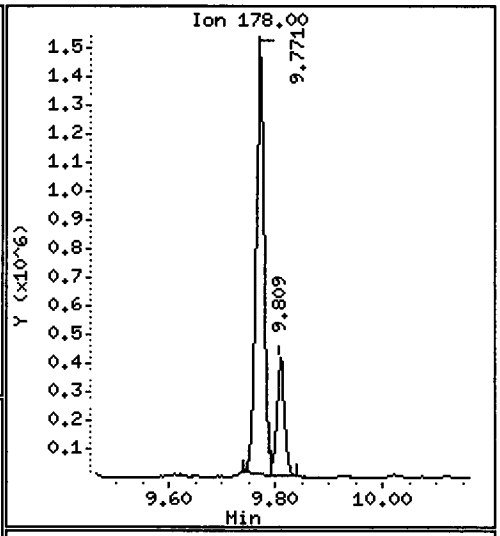
Column phase: ZB-5msi

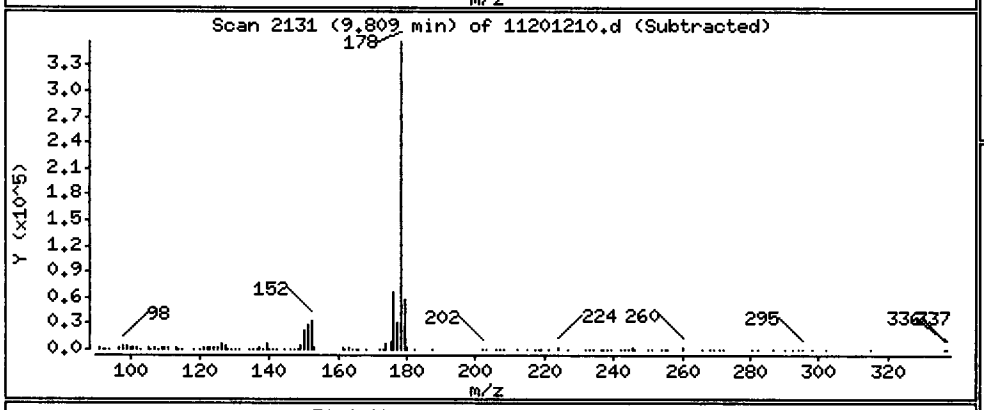
Column diameter: 0.25

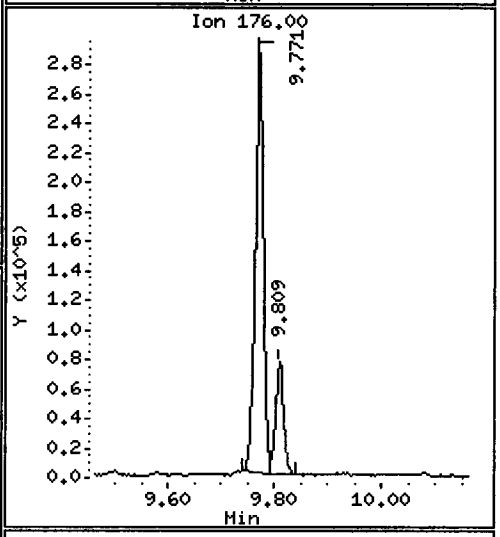
31 Anthracene

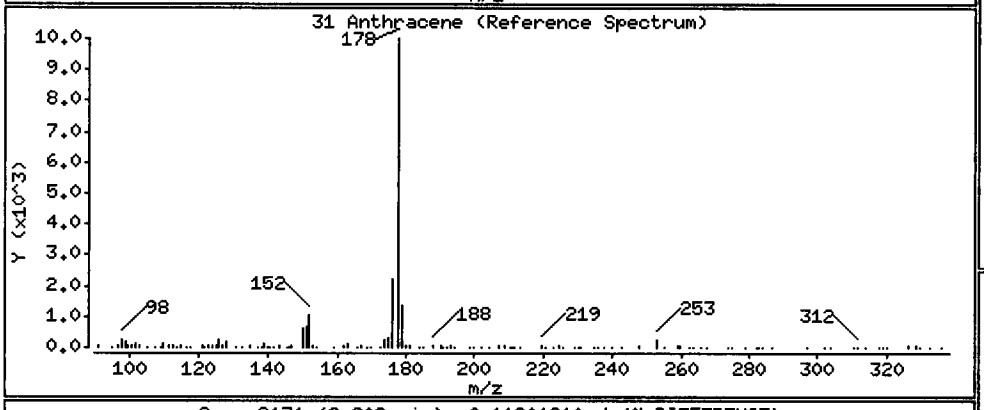
Concentration: 230.2 ug/kg

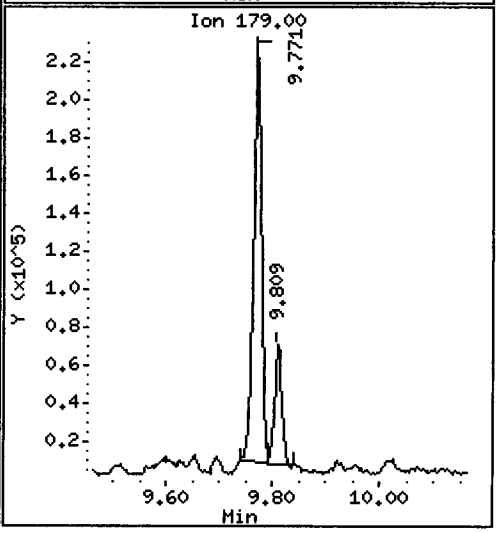


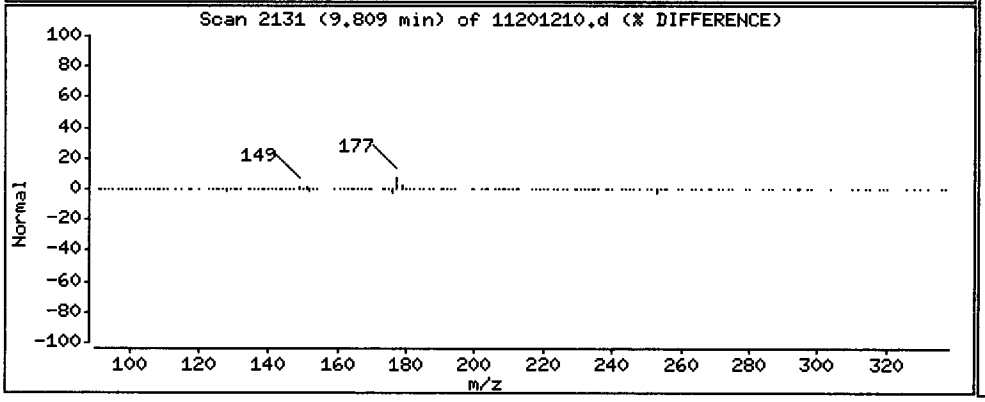












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

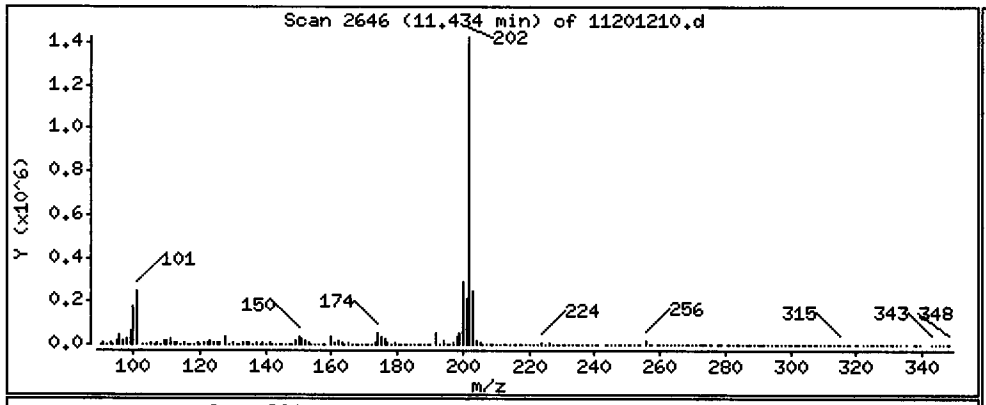
Operator: JZ

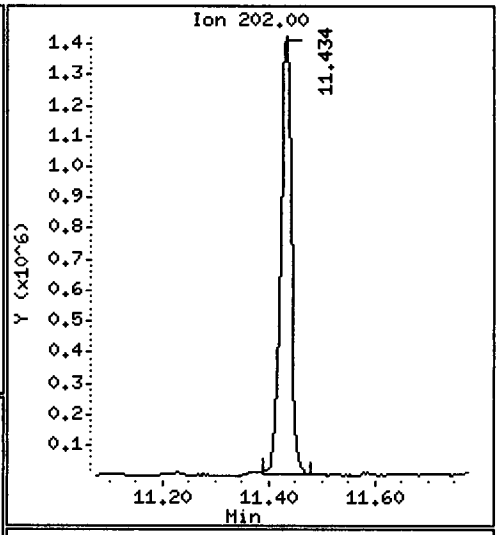
Column phase: ZB-5msi

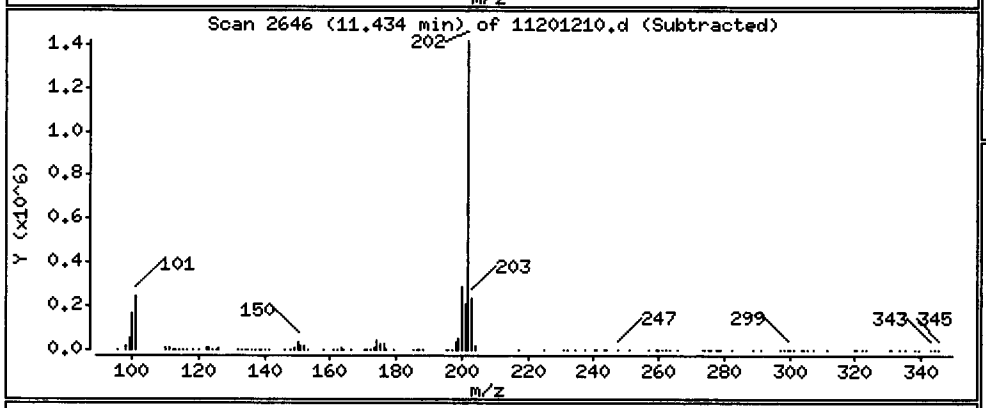
Column diameter: 0.25

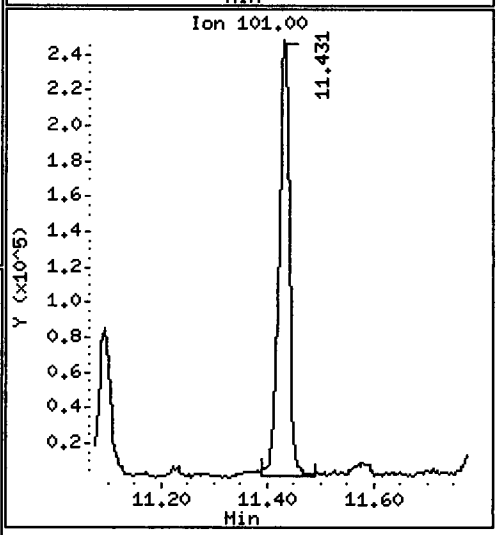
36 Fluoranthene

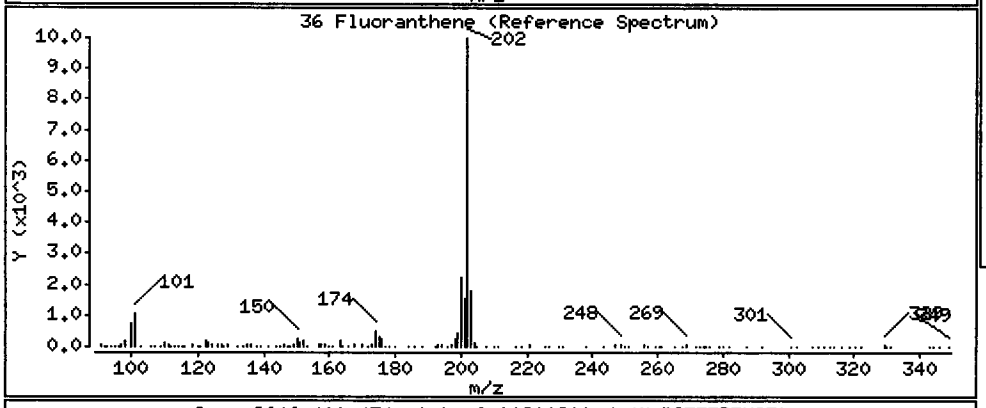
Concentration: 997.5 ug/kg

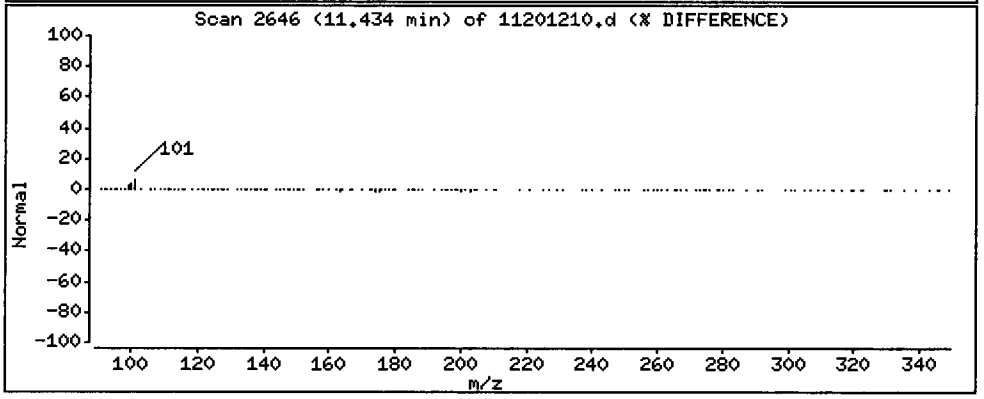












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

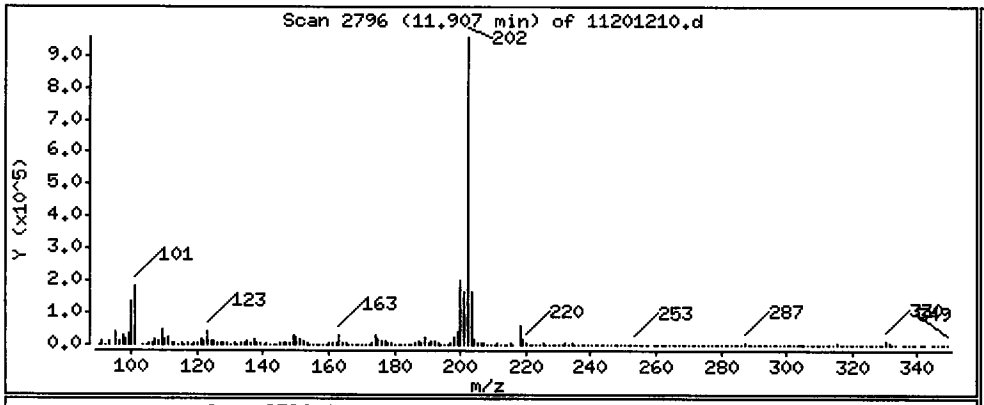
Operator: JZ

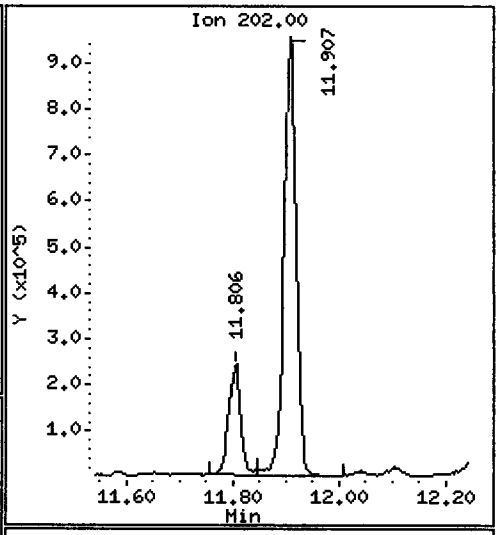
Column phase: ZB-5msi

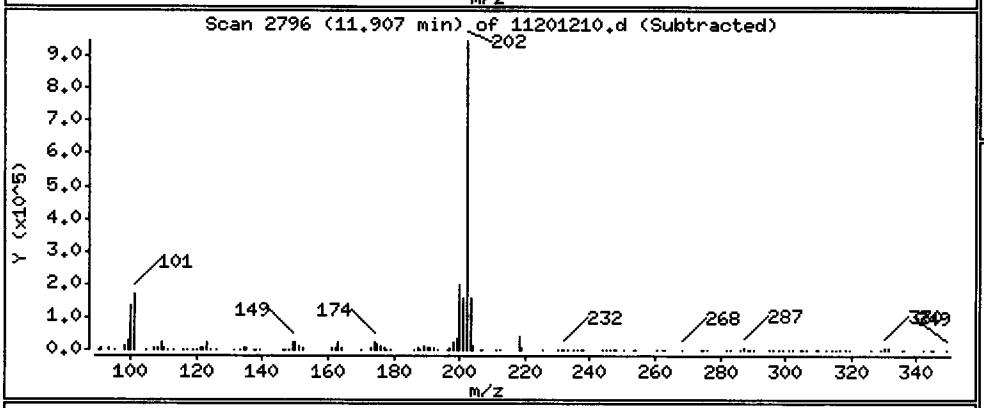
Column diameter: 0.25

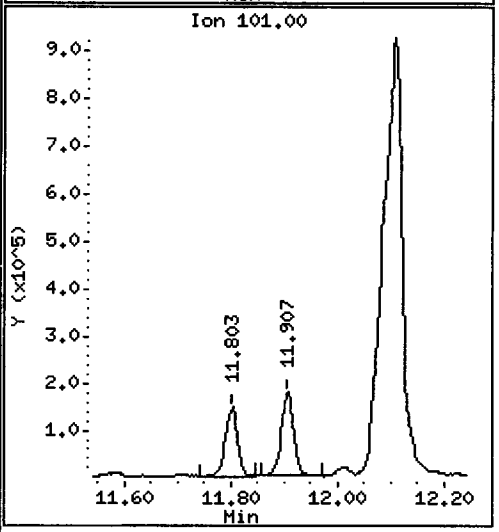
39 Pyrene

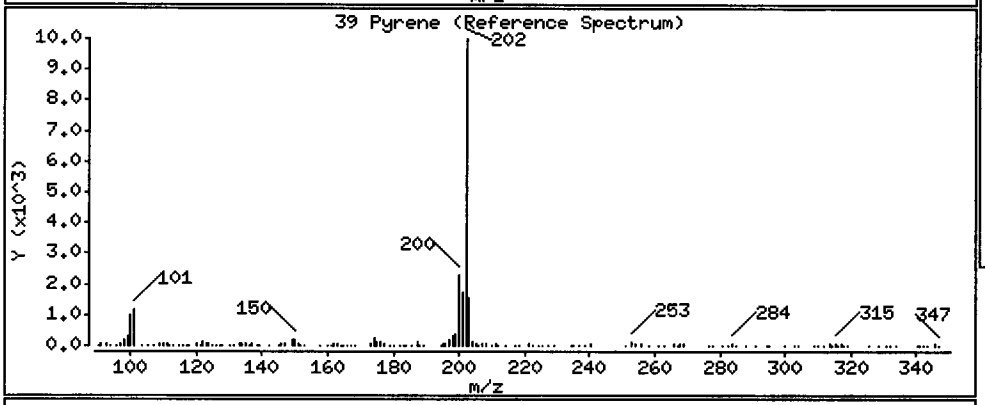
Concentration: 751.7 ug/kg

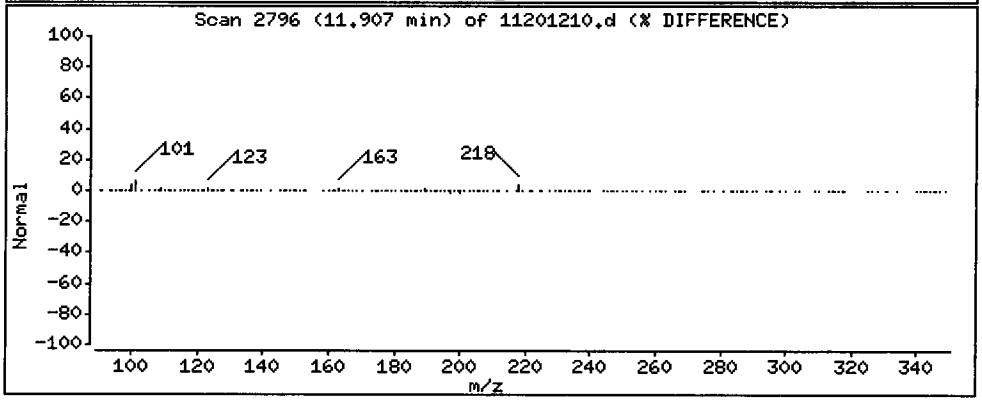












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

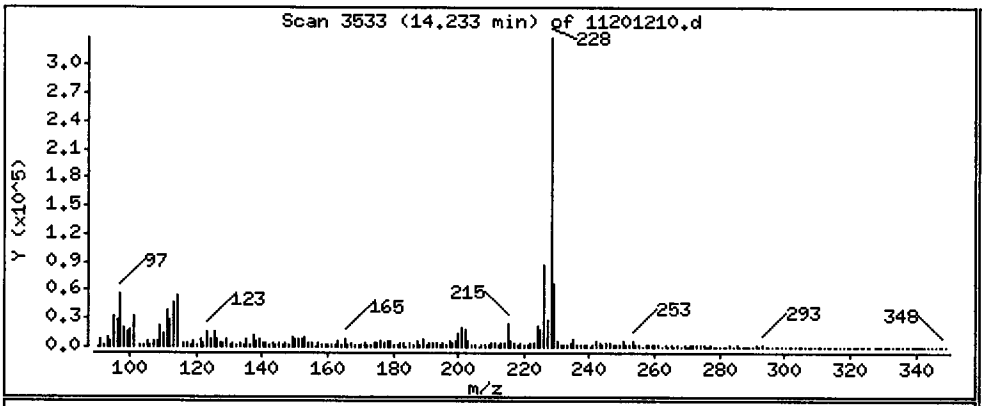
Operator: JZ

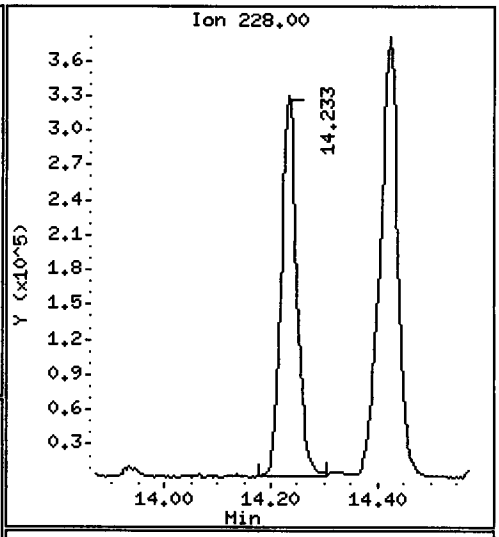
Column phase: ZB-5msi

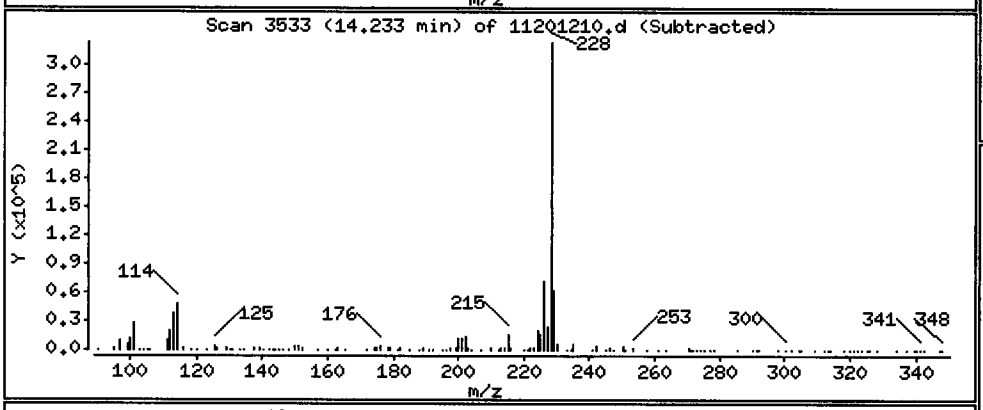
Column diameter: 0.25

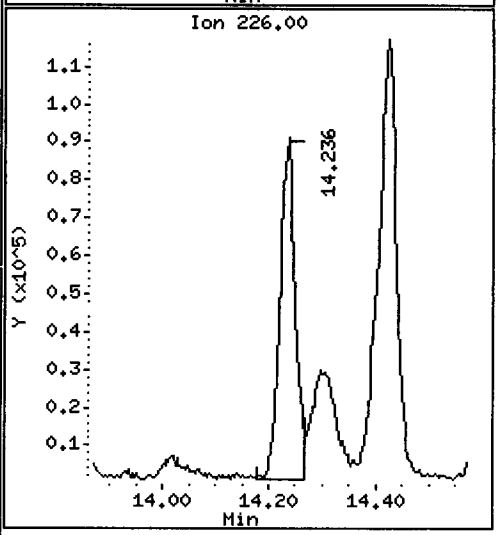
46 Benzo(a)anthracene

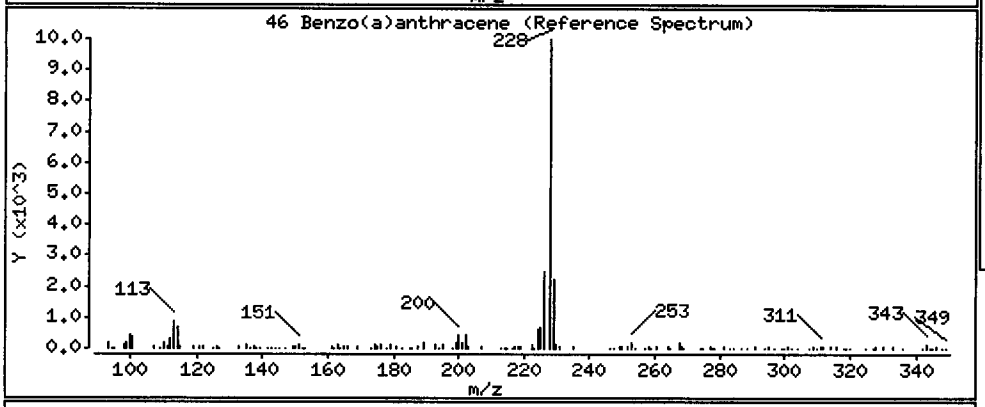
Concentration: 364.0 ug/kg

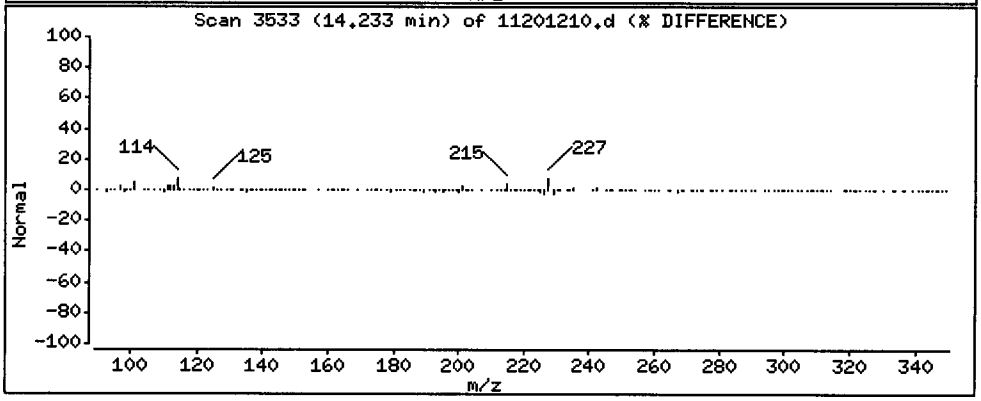












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

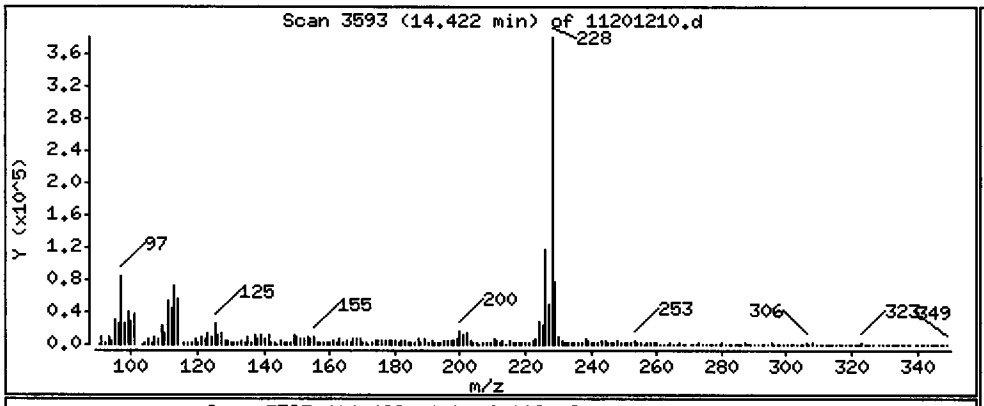
Operator: JZ

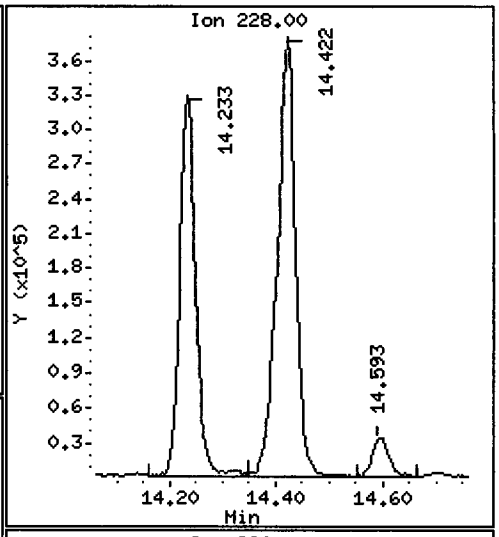
Column phase: ZB-5msi

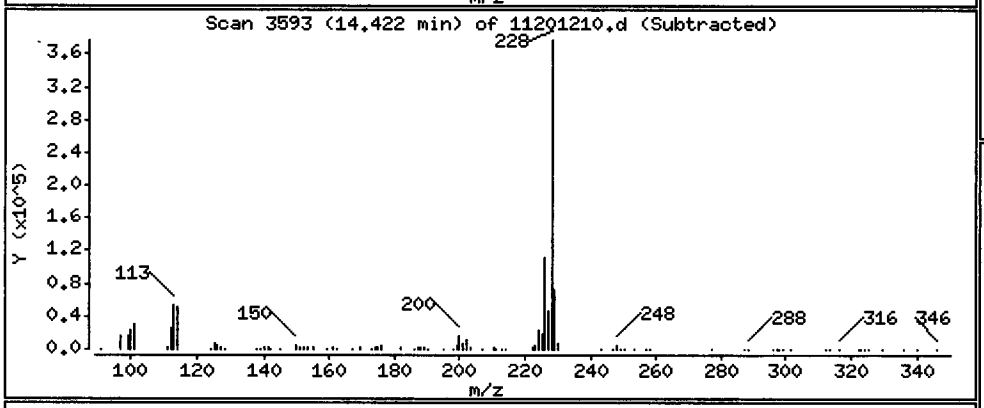
Column diameter: 0.25

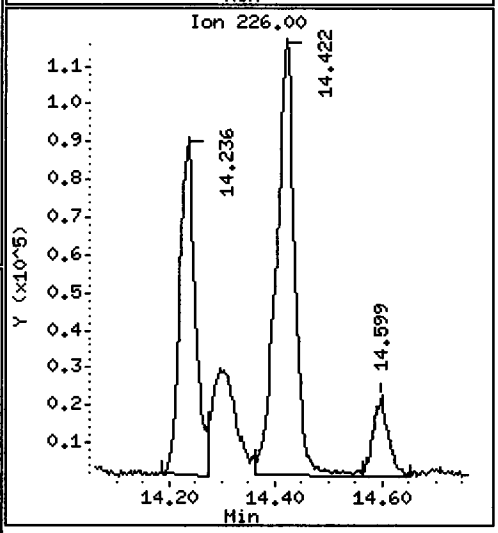
48 Chrysene

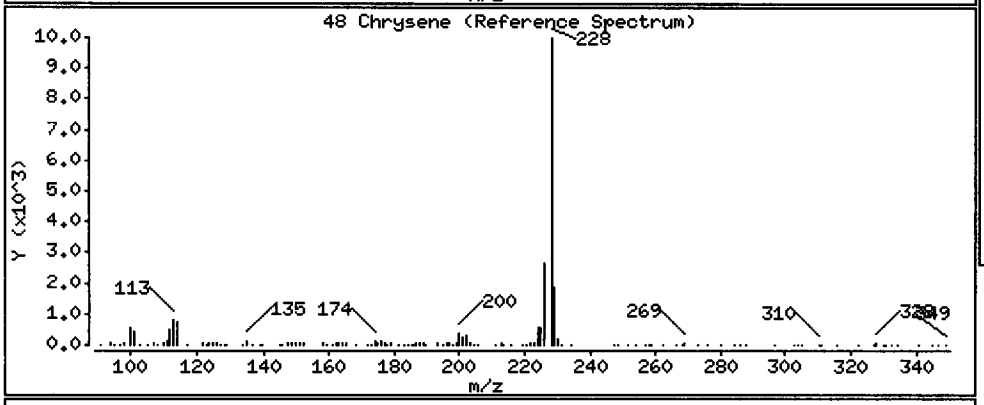
Concentration: 507.6 ug/kg

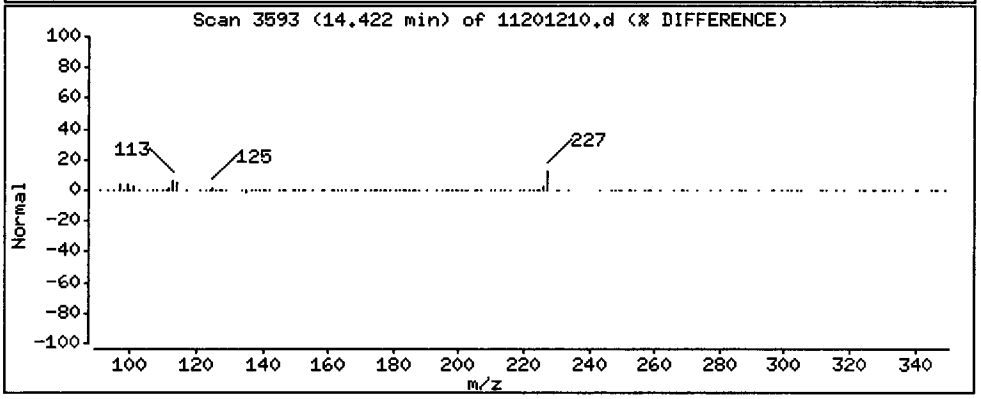












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

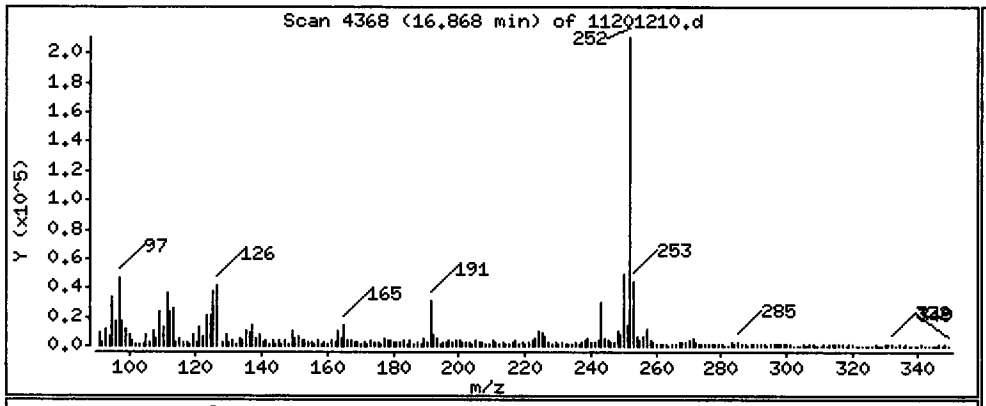
Operator: JZ

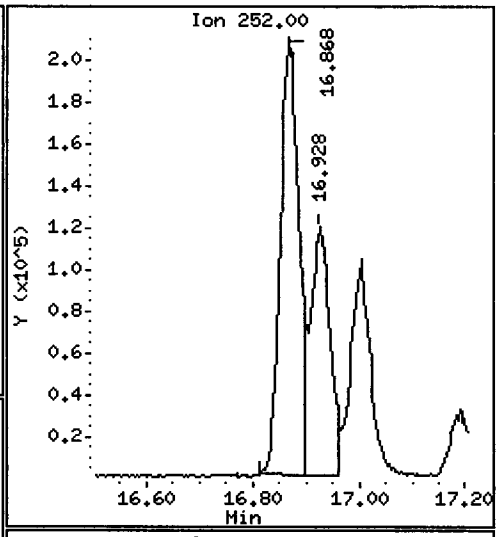
Column phase: ZB-5msi

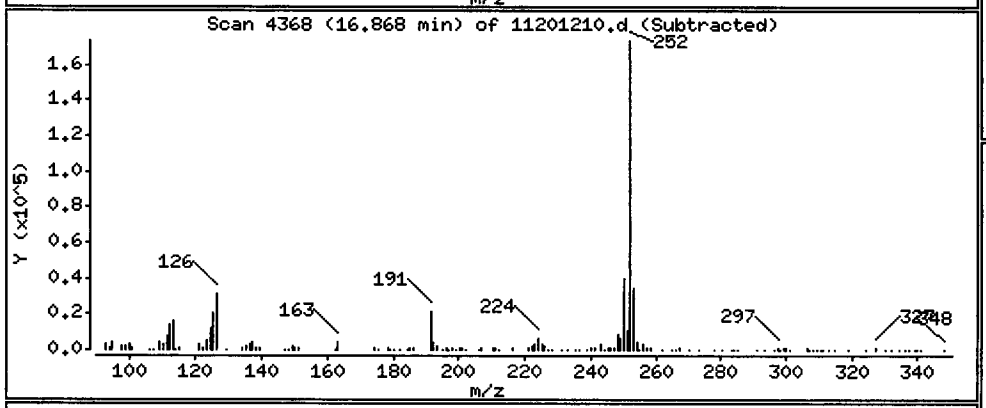
Column diameter: 0.25

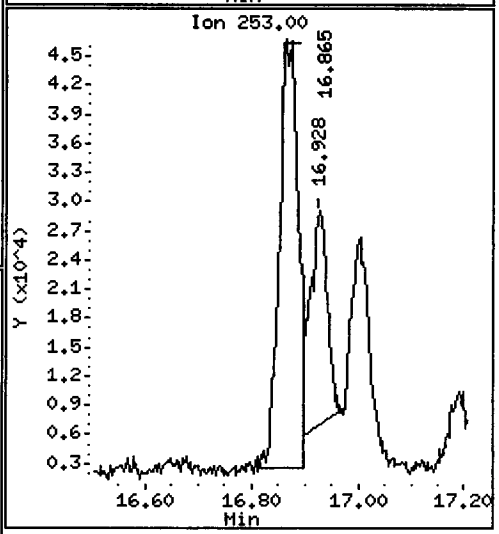
51 Benzo(b)fluoranthene

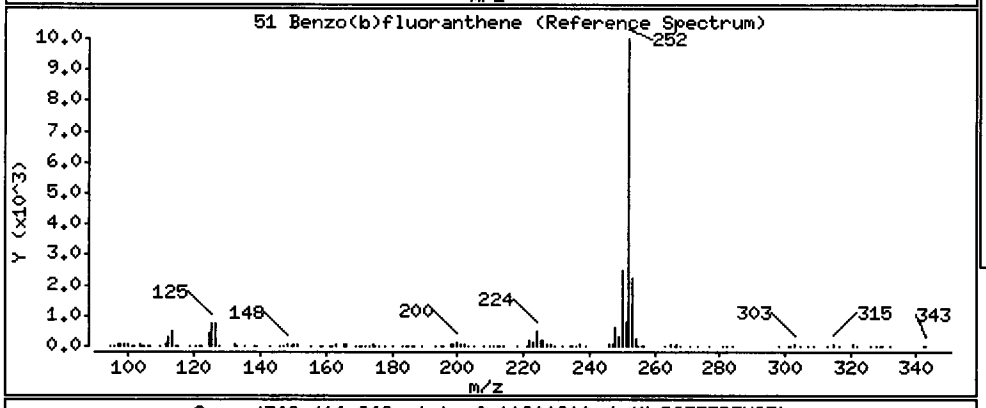
Concentration: 257.3 ug/kg

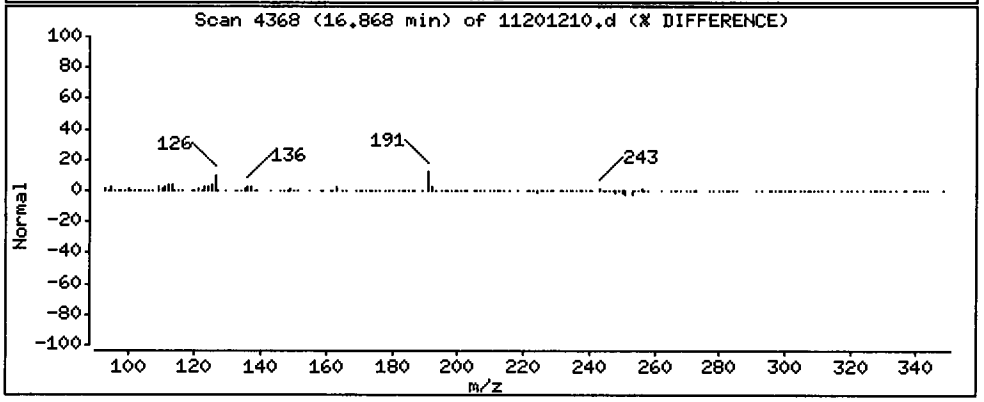












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

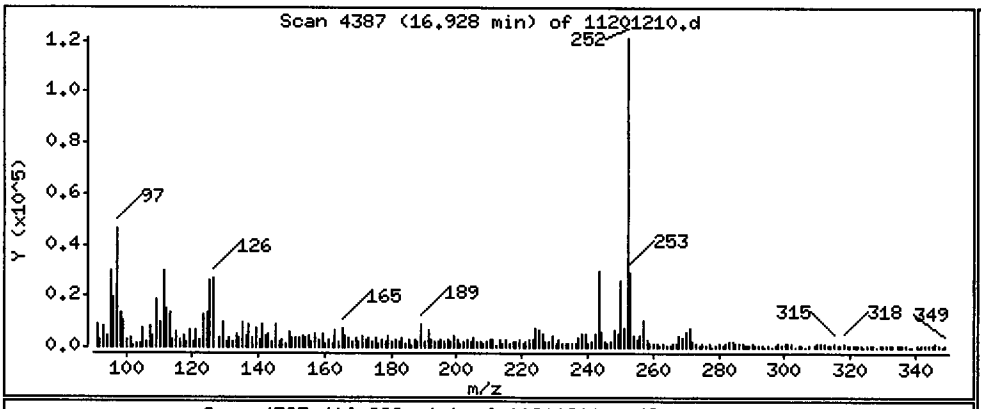
Operator: JZ

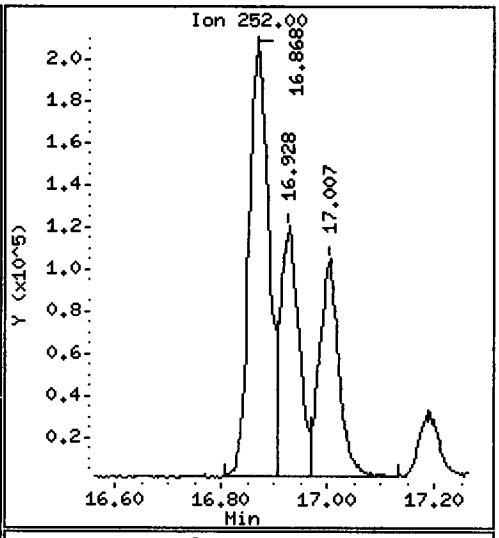
Column phase: ZB-5msi

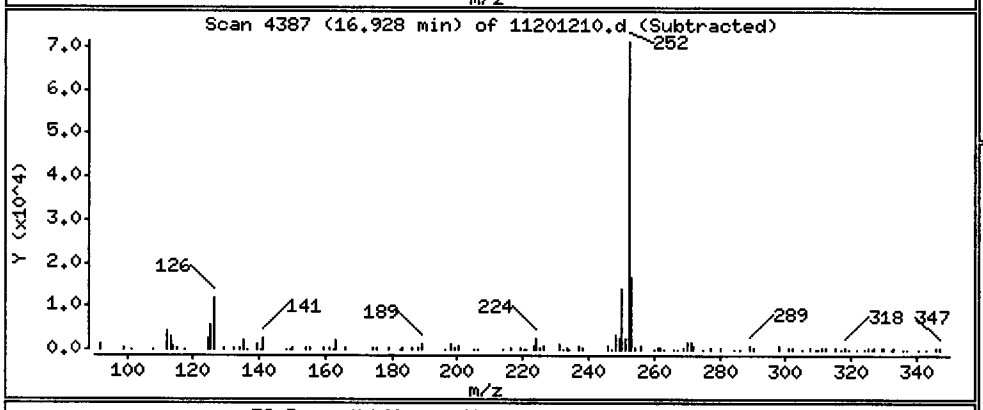
Column diameter: 0.25

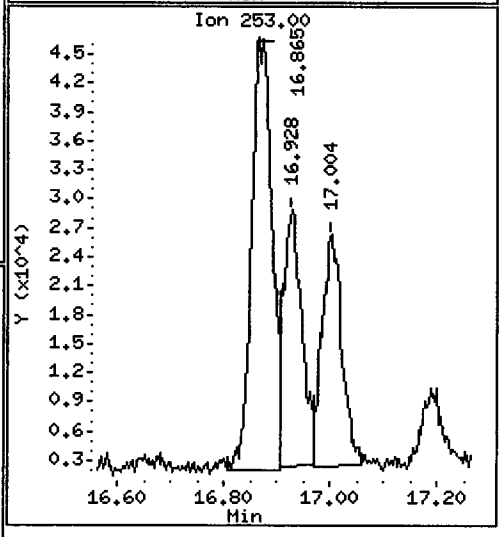
52 Benzo(k)fluoranthene

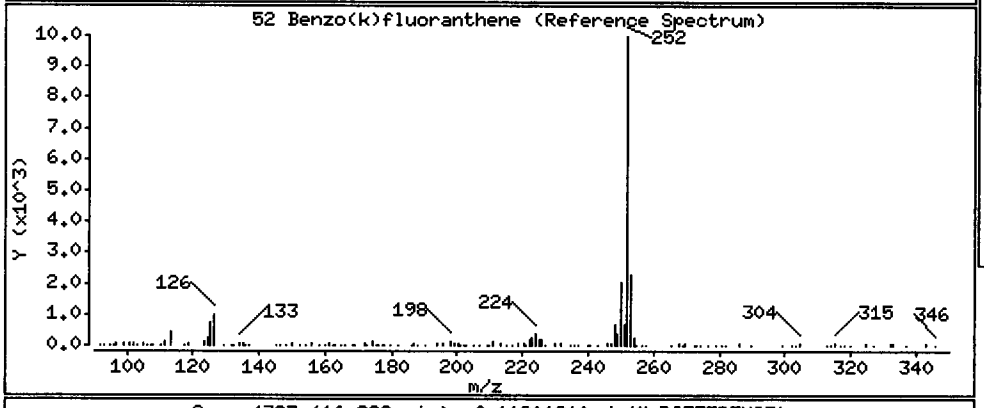
Concentration: 136.6 ug/kg

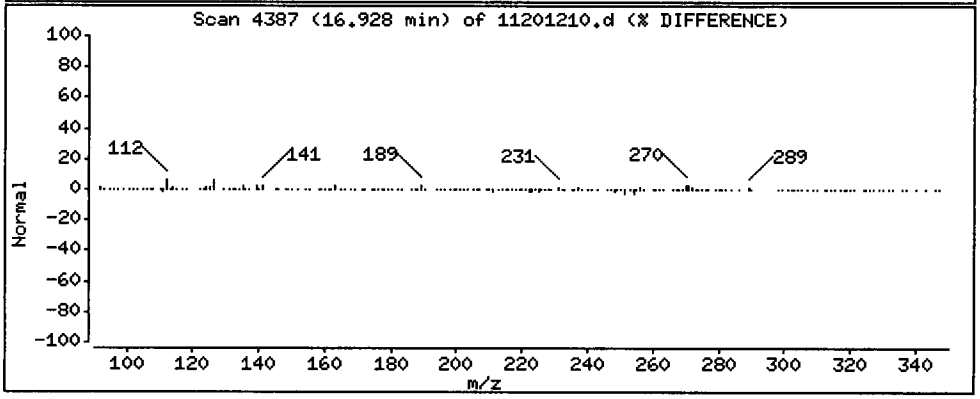












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

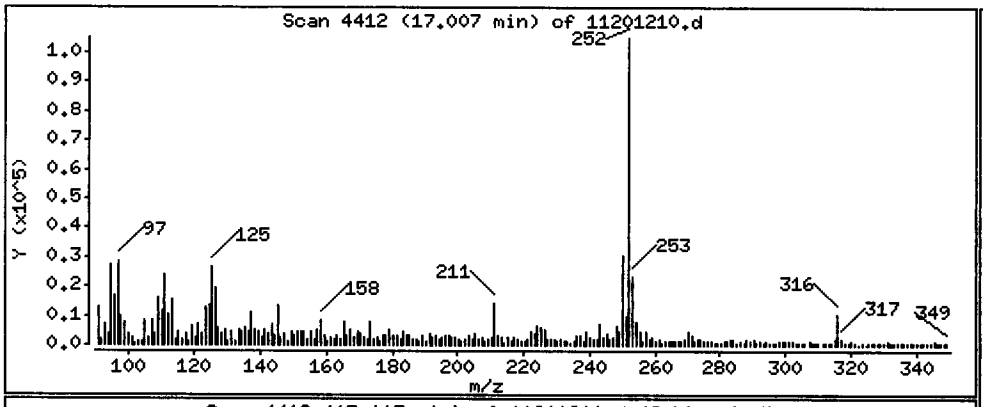
Operator: JZ

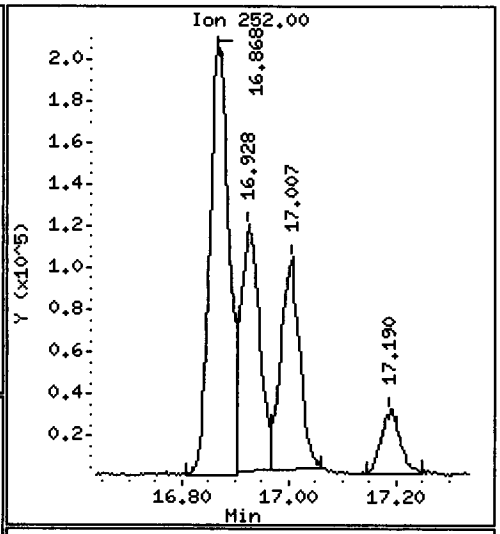
Column phase: ZB-5msi

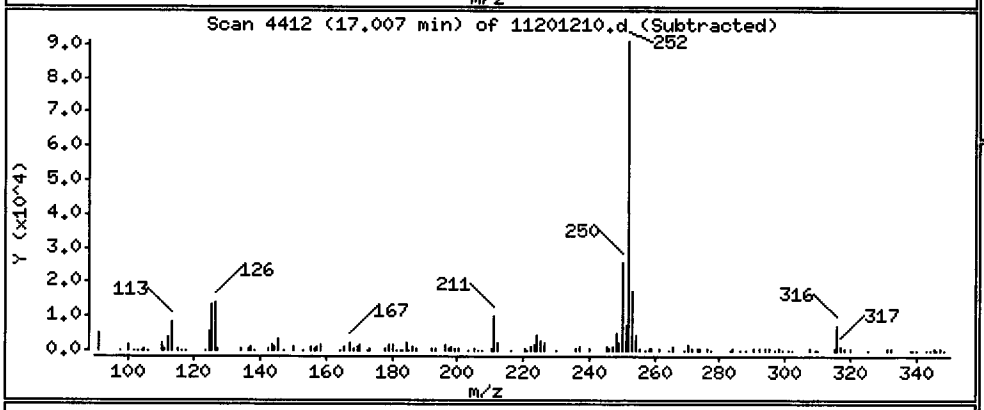
Column diameter: 0.25

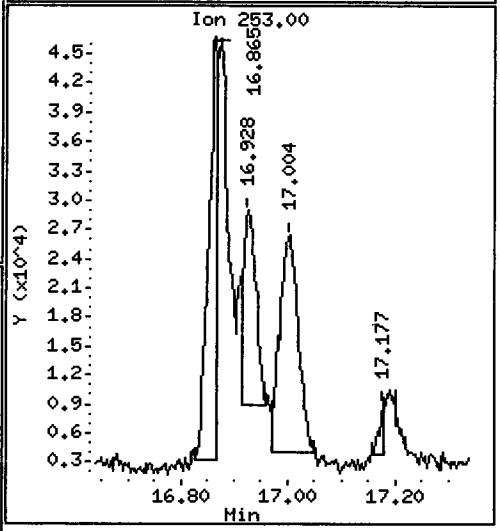
251 Benzo(j)fluoranthene

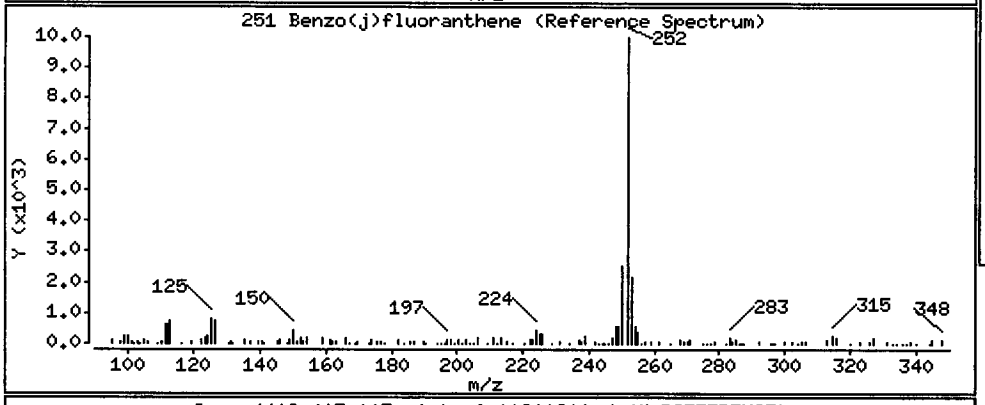
Concentration: 109.6 ug/kg

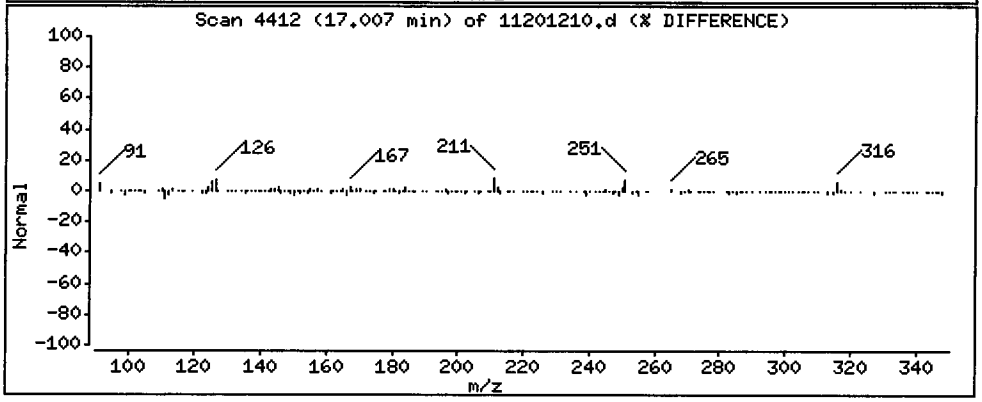












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

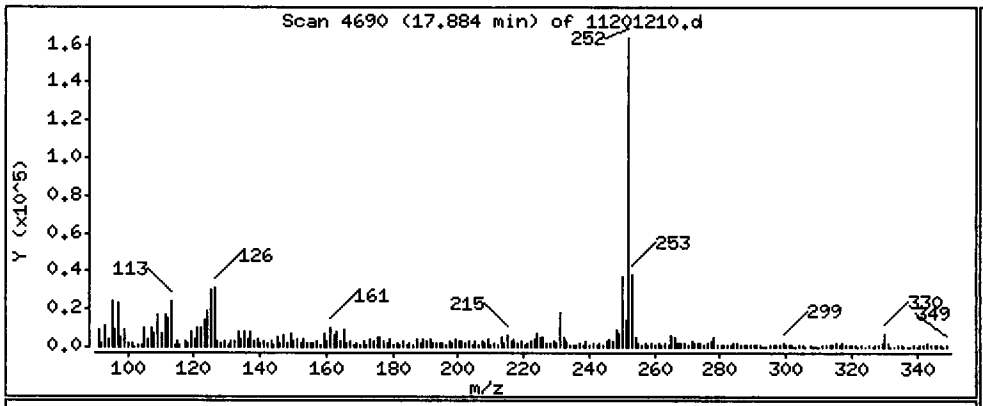
Operator: JZ

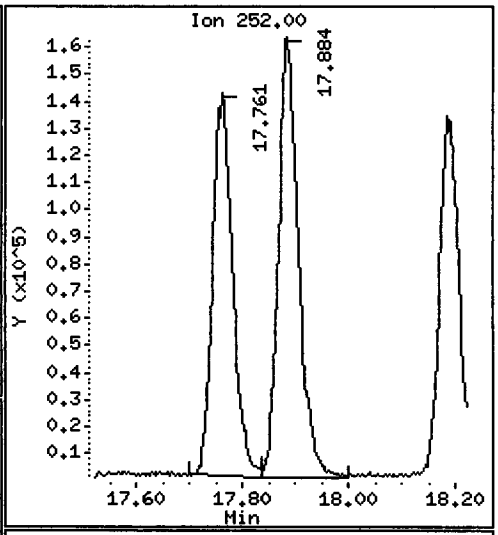
Column phase: ZB-5msi

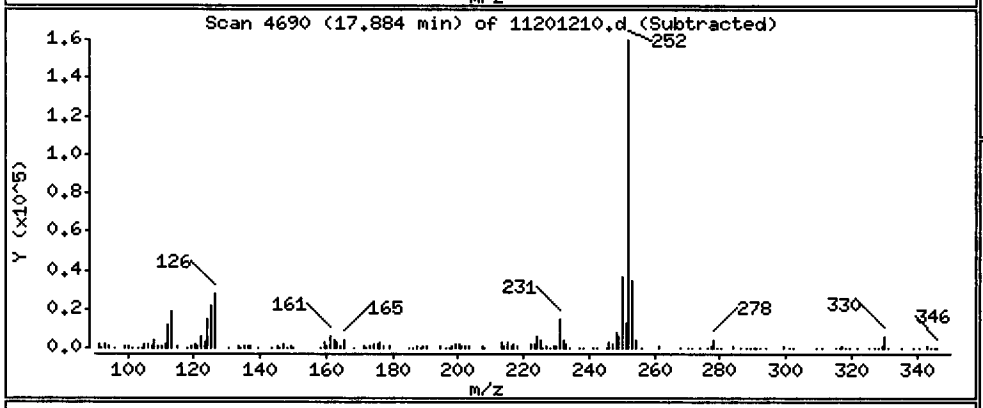
Column diameter: 0.25

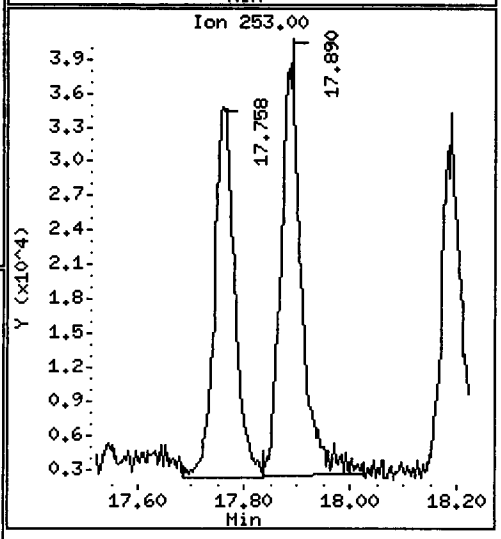
54 Benzo(a)pyrene

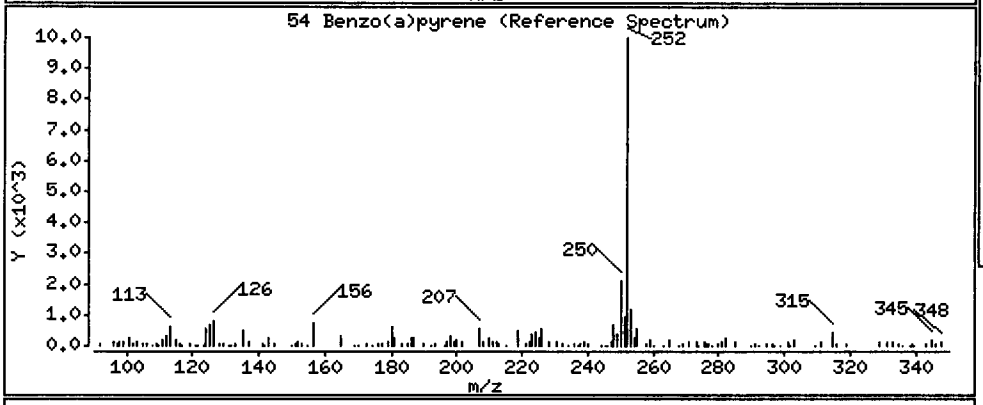
Concentration: 216.1 ug/kg

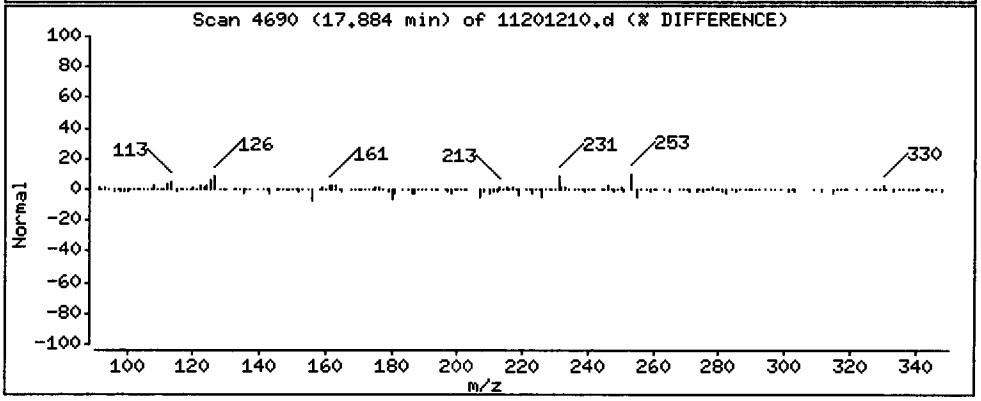












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

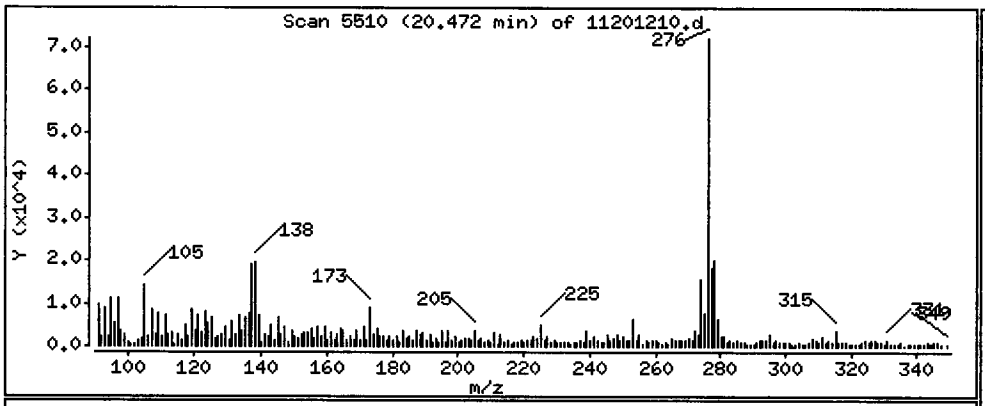
Operator: JZ

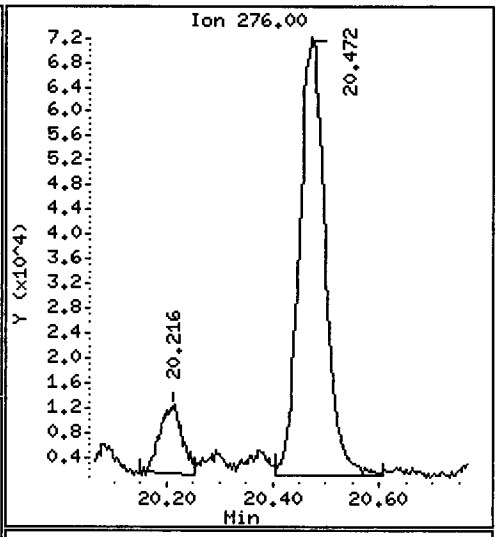
Column phase: ZB-5msi

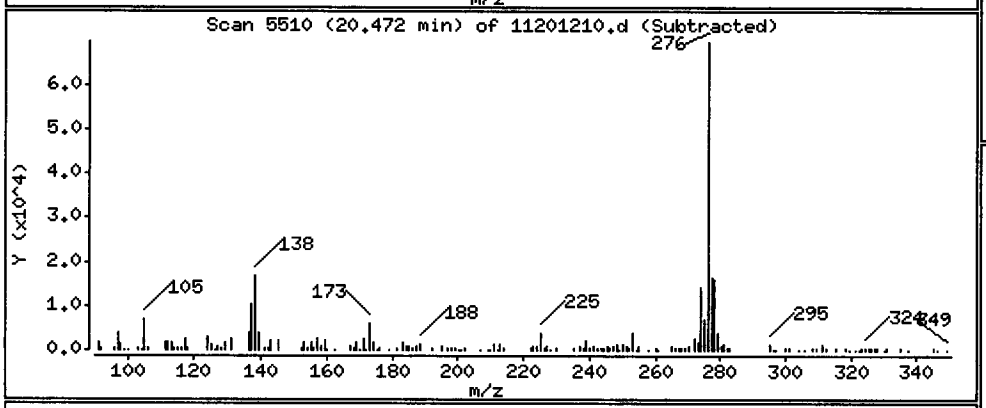
Column diameter: 0.25

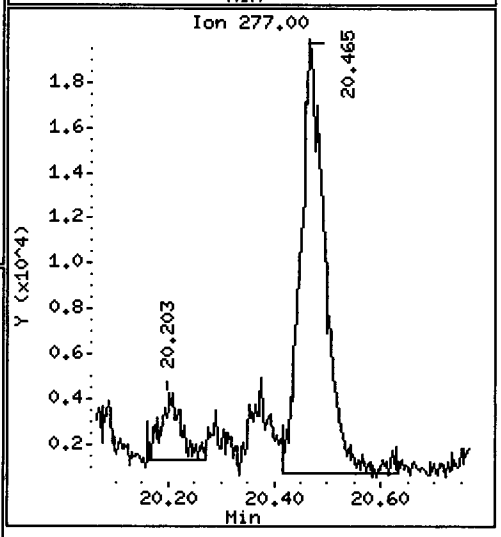
63 Indeno(1,2,3-cd)pyrene

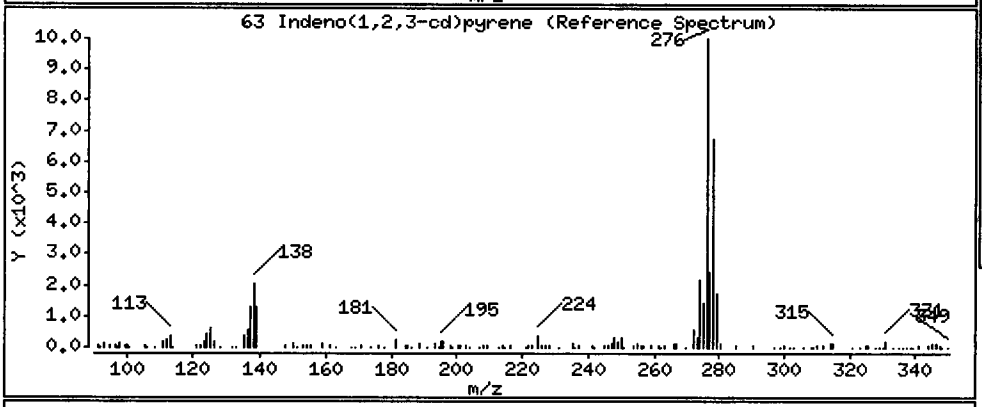
Concentration: 97.40 ug/kg

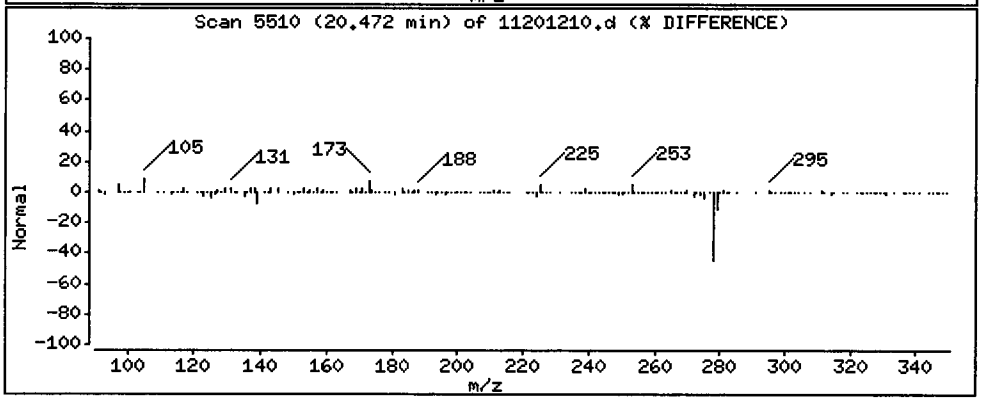












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

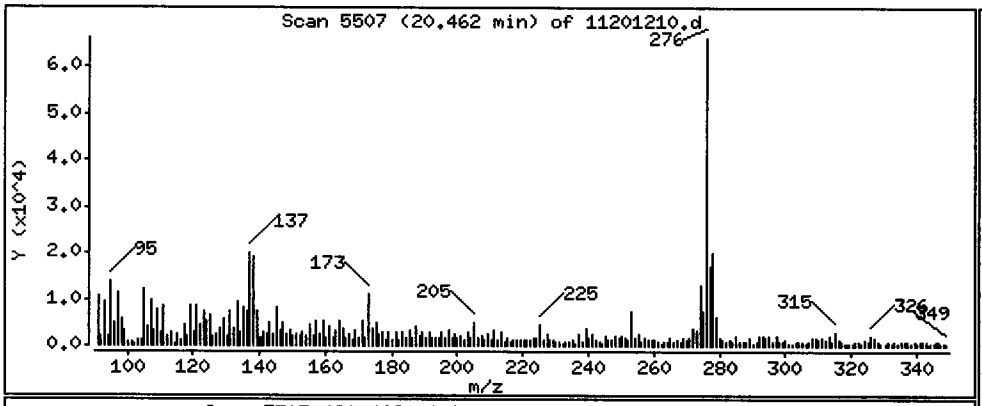
Operator: JZ

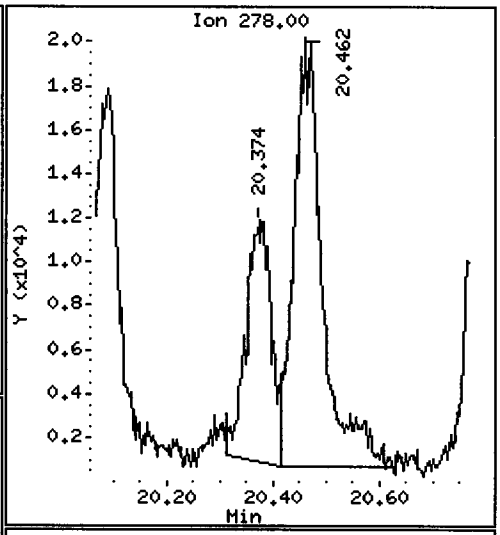
Column phase: ZB-5msi

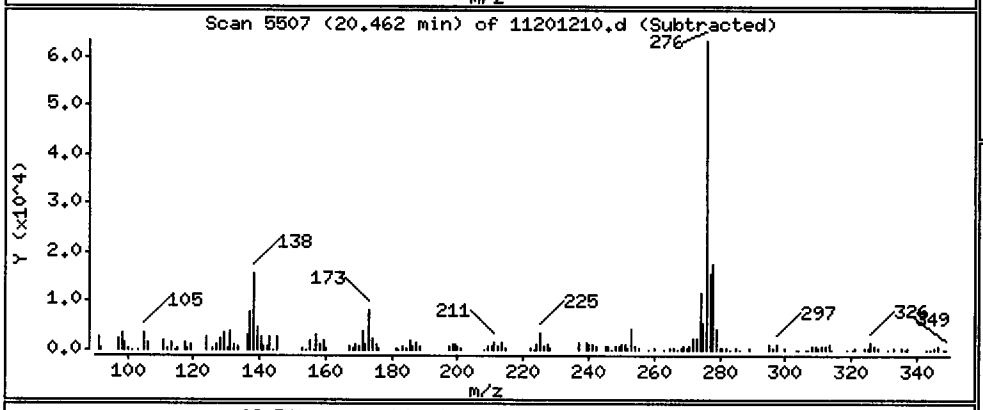
Column diameter: 0.25

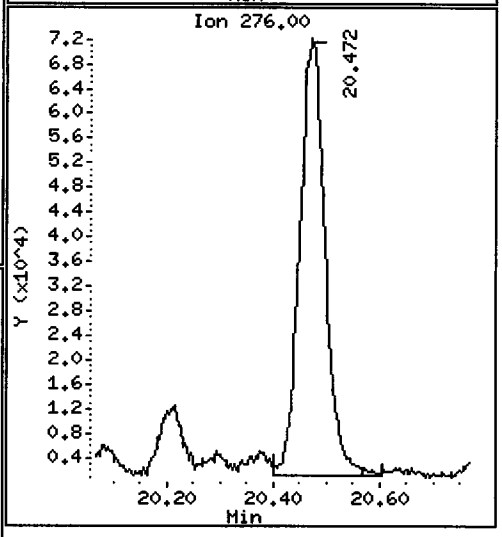
62 Dibenzo(a,h)anthracene

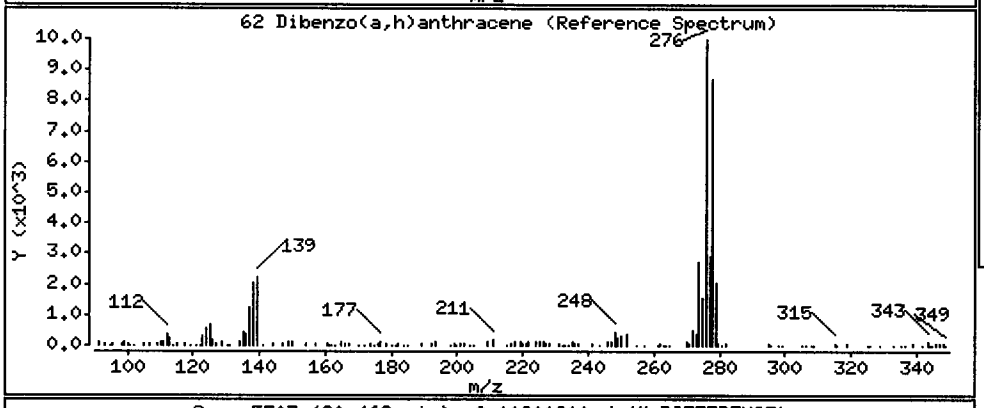
Concentration: 36.96 ug/kg

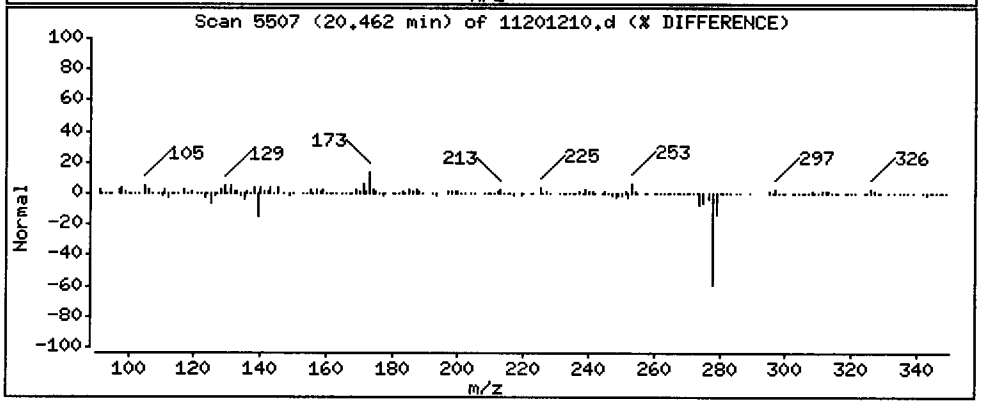












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

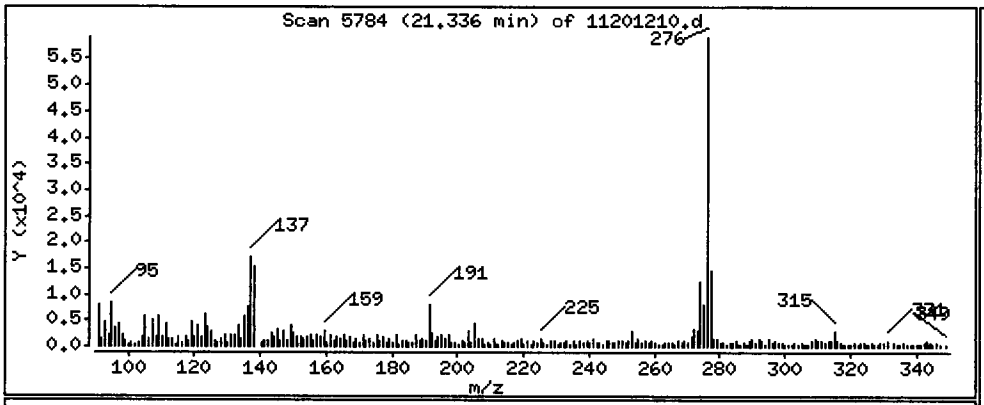
Operator: JZ

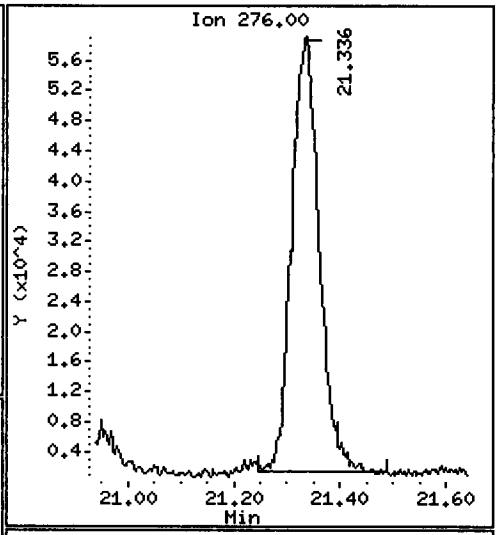
Column phase: ZB-5msi

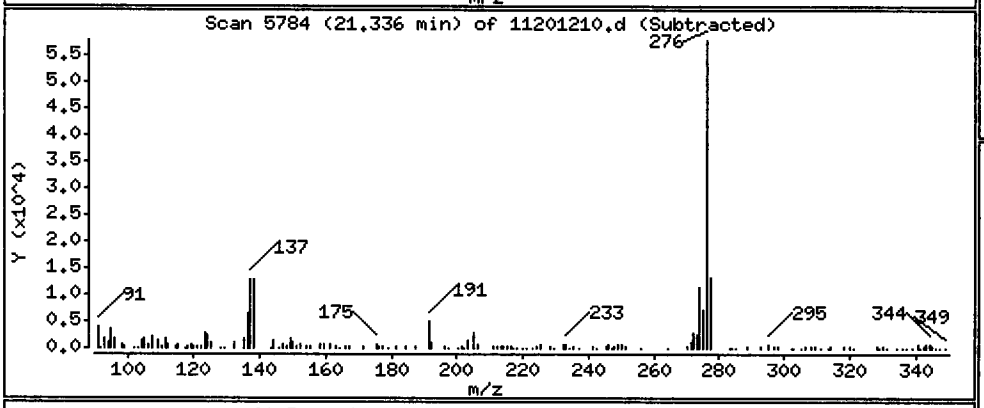
Column diameter: 0.25

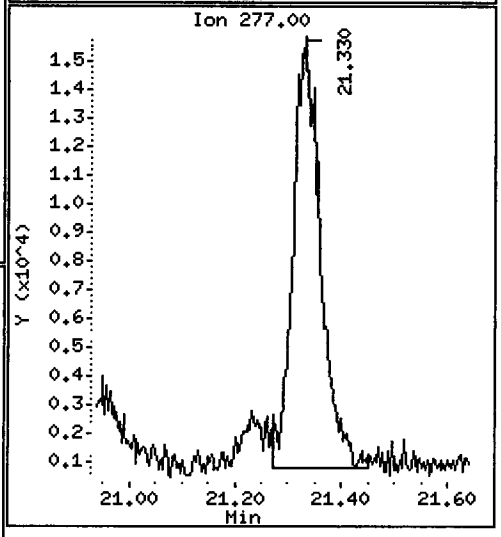
61 Benzo(g,h,i)perylene

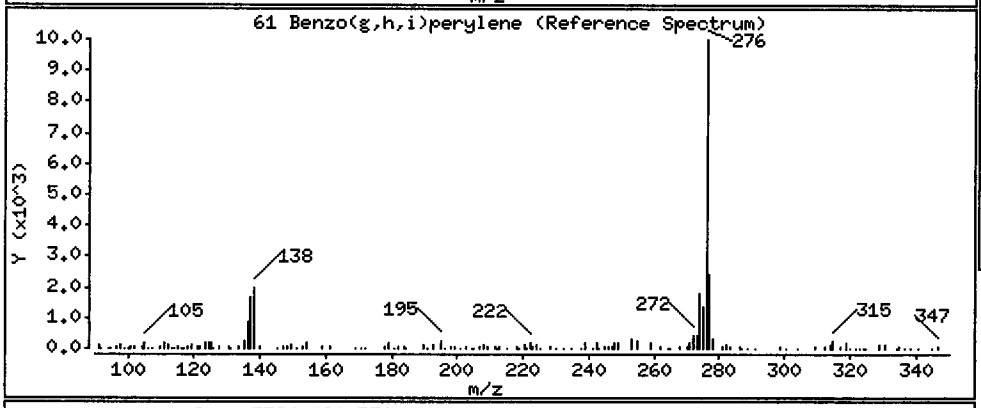
Concentration: 101.7 ug/kg

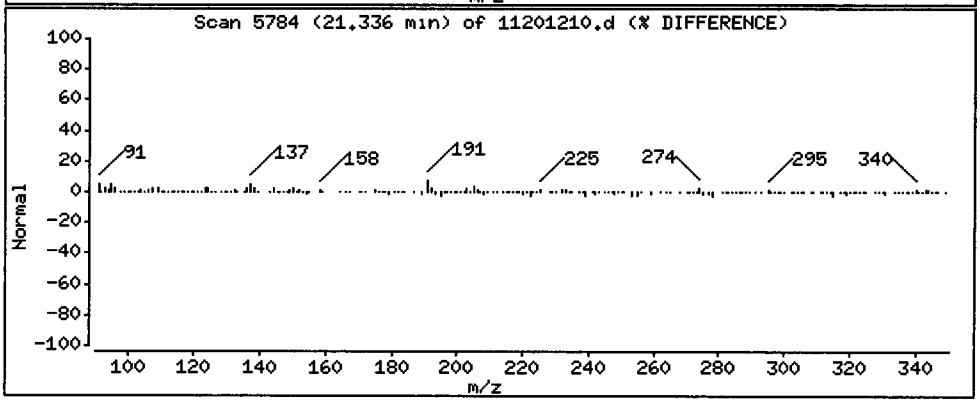












Data File: /chem3/nt11.i/20121120.b/11201210.d

Date : 20-NOV-2012 16:40

Client ID: HT-04-S-C-121106

Instrument: nt11.i

Sample Info: VR38D,3,

Volume Injected (uL): 1.0

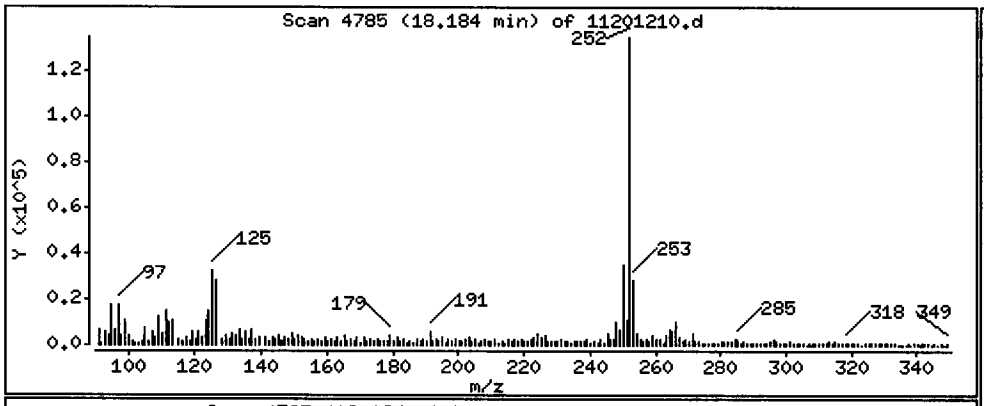
Operator: JZ

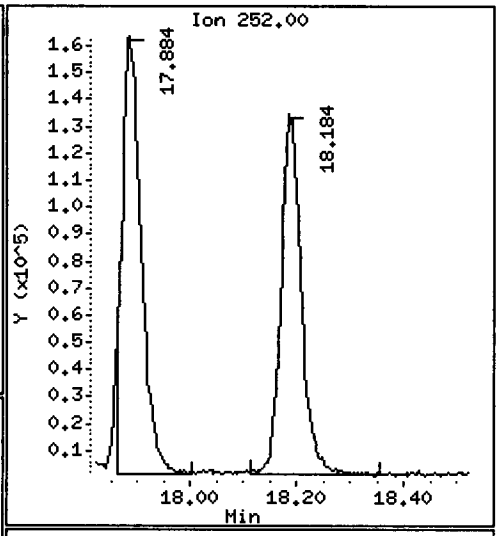
Column phase: ZB-5msi

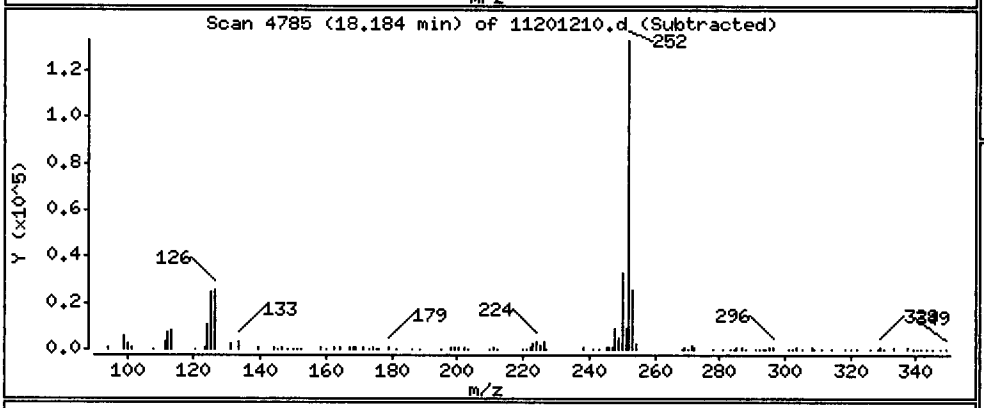
Column diameter: 0.25

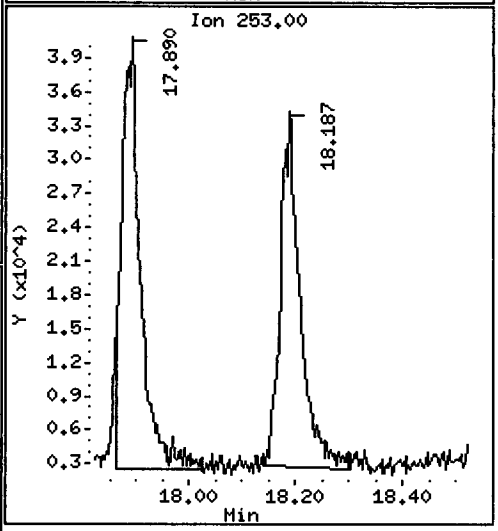
57 Perylene

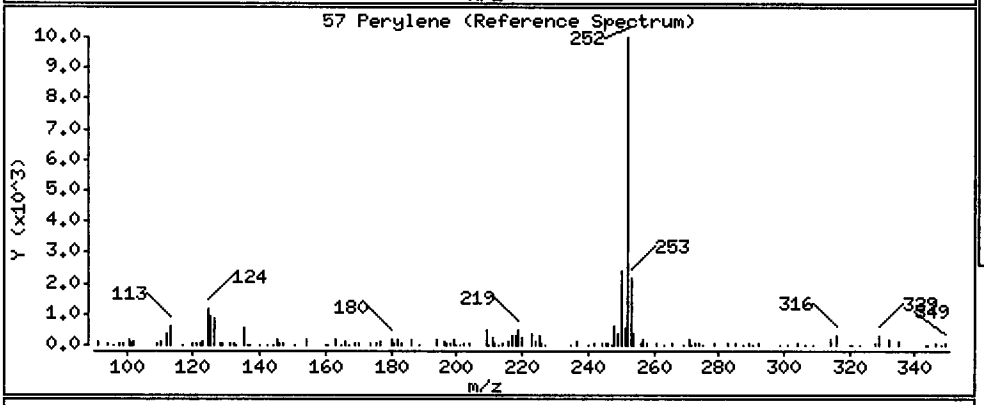
Concentration: 172.2 ug/kg

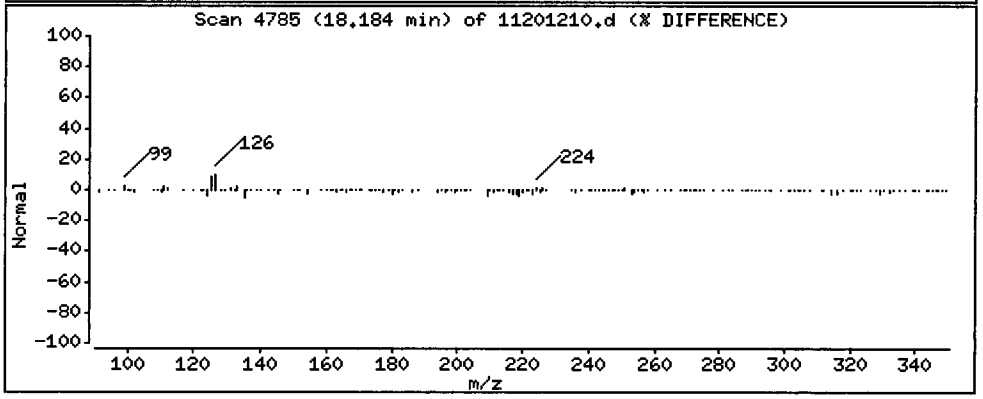












CO-ELUTION SUMMARY FOR FILE - 11201210.d

Lab ID: VR38D, Method: FSIMPNA111512.m, Instrument: nt11.i, Date: 20-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Butyl Tin Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: VR38

Incorporated
Analytical Chemists and
Consultants

Tributyl Tin – Soil / Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test TBT # 4 (TBTSDMI)

In-House (4-6ppb)

ARI Job No(s) VR38, VR58 Page 1 of ___ Batch set up by: SP

Bottle #	Extraction Requirements	Weight Extracted (eq. to 5g dry wt)	Final Effective Volume	Volume to Lab	Comments	Verify Client ID
	VR38 MBS	5.00g	0.5mL	0.5mL	(Blanks=Solvent Only)	NG 11/13/12 Analyst/Date
	SBS	5.00g	0.5mL	0.5mL	(Blanks=Solvent Only)	Microwave
	~~SBSDup~~	~~5.00g~~	~~0.5mL~~	~~0.5mL~~	~~(Blanks=Solvent Only)~~	NG 11/13/12 Analyst/Date
	~~QLS~~	~~5.00g~~	~~0.5mL~~	~~0.5mL~~	~~(Blanks=Solvent Only)~~	TurboVap 1(2)3
5	VR38 J	7.14	0.5mL	0.5mL		Hexane Exchange (15mL)
5	K	6.21	0.5mL	0.5mL		WW 11/13/12 Analyst/Date
5	KmS	6.18	0.5mL	0.5mL		HexMgBr Addition Vortex 45min +Overnight
5	KmSD	6.11	0.5mL	0.5mL		WW 11/13/12 Analyst/Date
5	VR58 A	9.18	0.5mL	0.5mL	see Analyst note	(REQ) Derivitize (4mL)
5	B	26.05	0.5mL	0.5mL	see Analyst note	CJZ 11/14/12 Analyst/Date
5	C	17.21	0.5mL	0.5mL	see Analyst note	(REQ) Alumina Clean (2mL)
5	D	21.11	0.5mL	0.5mL	see Analyst note	CJZ 11/14/12 Analyst/Date
5	E	21.20	0.5mL	0.5mL		TurboVap 1(2)3
5	G	7.22	0.5mL	0.5mL	CJZ 11/14/12	Post Alumina Cleanup
			0.5mL	0.5mL		CJZ 11/14/12 Analyst/Date
Analyst/Date	NG 11/13/12		CJZ 11/14/12	CJZ 11/14/12		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	L (1993-4)	2.5µg/mL	100µL	11/23/12	M	SP
Spike	8 (1916-2)	2.5µg/mL	100µL	11/23/12	M	SP
~~QLS Spike~~	3 ( )	0.5µg/mL	~~40µL~~			

Extraction Time: 1430 Balance ID: B139298002

SPECIAL INSTRUCTIONS: NOTE: TBT Extractions must be completed within 48 hours!
1. *Blanks=Solvent Only (NO Sulfate).* 2. Weigh samples into 100mL beakers-dry with Sodium Sulfate. 3. Pre-Rinse microwave vessel with 0.10% Tropolone in DCM. 4. Transfer soil to microwave vessel. 5. Add 0.10% Tropolone in DCM to vessel until solvent is 1" above soil layer after homogenization). 6. Add surr/spike. 7. Microwave on appropriate power setting determined by # of samples. 8. After microwave-Re-homogenize while hot then let cool 15 min. in cold water bath. 9. Decant into 0.10% troplone rinsed turbo tube with sm. Funnel containing glasswool and 1" sodium sulfate. 10. Add (2) 10mL Hexane rinses to vessel and transfer to turbo tube. 11. TV to 2mL and add 15mL Hexane (X1)-mix well. 12. TurboVap to 3mL-Transfer with Hexane to 40mL VOA vial. 13. Derivitize=1 ½ pipet HexMgBr (Mix by hand) then Vortex. Let sit 45min (vortex every 10 min) Then let sit overnite in fridge. 14. Derivitize: Add (2) pipet 1:1 HCL. Vortex. Draw off/discard HCL. Add 1 pipet 1:1 HCL and 5mL DI H2O. Vortex. Draw off/discard H20. Add 5mL DI H2O. Vortex. Draw off/discard H2O. 15. Add sodium sulfate-Let sit 15min. 16. Turbovap to 2mL. 17. 7.5g 0% Alumina Clean-up Required. (Collect 6mL). 18. TurboVap. 19. Vial in hexane.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No: LR38 Client ID: Anchor QEA, LLC

Parameter: TBT Client Project: City of Kenmore Sediment

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[ ] No Anomalies (standard soil/wet sediment/sand/gravel)= A, B, C, D, E, F, G, H, I, J, K	YL 11/07/12
[ ] Standing Water Decanted (Not shared)= A, B, C, D, E, F, G, H, I, J, K.	YL 11/07/12
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[ ] Rocks (%+size)? E, 15-1% small pebbles, 1% small pebbles F, G, H, I, J, K.	YL 11/07/12
[ ] Organics (Leaves/sticks/grass)= C.	YL 11/07/12
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
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)	

Butyl Tin Raw Data
Initial Calibration

ARI Job ID: VR38

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): 10.6.12 Internal Standard ID 1961-1 Expiration 3.17.13

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
Ari Stocks	1960-2	3.17.13			

Detail problems, corrective actions and/or other pertinent information below:

Analyst: VB **Date:** 10.9.12

Reviewer: [signature] **Date:** 10/9/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt12.i/20121006.b/lowbts.m
Batch File: /chem1/nt12.i/20121006.b
Inst ID: nt12.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	ic1006a	ic1006b	ic1006c	ic1006d	ic1006e	ic1006f
INJ.DATE:	06-OCT-2012	06-OCT-2012	06-OCT-2012	06-OCT-2012	06-OCT-2012	06-OCT-2012
INJ.TIME:	14:05	14:18	14:32	14:46	15:00	15:14

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$	1 Tripropyl Tin (Hexyl)	6.157	6.169	6.169	6.169	6.169	6.169	6.157	6.034-6.281	6.167	0.005
	2 Tetrabutyl Tin	6.376	6.388	6.388	6.388	6.388	6.388	6.376	6.249-6.504	6.386	0.005
	3 Tributyl Tin (Hexyl)	7.159	7.159	7.159	7.159	7.159	7.159	7.159	7.015-7.302	7.159	0.000
*	4 Tetrapentyl Tin	7.801	7.814	7.814	7.814	7.814	7.814	7.801	7.645-7.957	7.812	0.006
	5 Dibutyl Tin (Hexyl)	7.854	7.854	7.854	7.854	7.854	7.854	7.854	7.697-8.011	7.854	0.000
$	6 Tripentyl Tin (Hexyl)	8.136	8.149	8.149	8.149	8.149	8.149	8.136	7.973-8.298	8.147	0.006
	7 Butyl Tin (Hexyl)	8.484	8.485	8.484	8.484	8.485	8.485	8.484	8.315-8.654	8.484	0.000
*	8 p-Terphenyl-d14	8.766	8.780	8.779	8.779	8.780	8.780	8.766	8.591-8.941	8.777	0.006

Reviewer 1 VD Date: 10.9.12
Reviewer 2 [signature] Date: 10/9/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt12.i/20121006.b

ARI Job No.: TBT Method: lowbts.m Instrument: nt12.i Date: 06-OCT-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1405	ic1006a.d	TBT 1		1	NO MANUAL INTEGRATION
1418	ic1006b.d	TBT 4		1	NO MANUAL INTEGRATION
1432	ic1006c.d	TBT .05		1	NO MANUAL INTEGRATION
1446	ic1006d.d	TBT 2		1	NO MANUAL INTEGRATION
1500	ic1006e.d	TBT .2		1	NO MANUAL INTEGRATION
1514	ic1006f.d	TBT .5		1	NO MANUAL INTEGRATION
1351	df1006.d	DFTPP 25		1	NO MANUAL INTEGRATION

Analytical Resources Inc.: Organics Instrument Log

NT-12 Serial No.:GC=US00032558, MS= US01180091

Date: 10.6.12 Analysis: TBTS Analyst: VD

GC Program: BTS Column No: 230930 Column Type: ZB-5ms

Instrument Tune (.U or .CT.): 120927.U EM Voltage: 1900

Calibration File: df1006 Curve Date: 10.6.12 Injection Vol.: 2ul

IS/SS	Ical/Ccal	LCS/ICV
1961-1	1960-2	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt

	Time	Filename	LabID	ClientId	DF				
1	1351	df1006.d	DFTPP 25		1	NO ISTDS FOUND			
2	1405	ic1006a.d	TBT 1		1	7.80	343457	8.77	317005
3	1418	ic1006b.d	TBT 4		1	7.81	369658	8.78	314201
4	1432	ic1006c.d	TBT .05		1	7.81	316414	8.76	301375
5	1446	ic1006d.d	TBT 2		1	7.81	348442	8.78	324906
6	1500	ic1006e.d	TBT .2		1	7.81	311467	8.78	295038
7	1514	ic1006f.d	TBT .5		1	7.81	332130	8.78	306646
8	1528	vl06mb.d	VL06MBS1	VL06MBS1	1	7.81	334888	8.78	326266
9	1542	vl06sb.d	VL06LCS81	VL06LCS81	1	7.81	340730	8.78	323326
10	1555	vl06sbd.d	VL06LCSDS1	VL06LCSDS1	1	7.81	327578	8.78	321003
11	1609	vl06a.d	VL06A	SC-56(-14 to	1	7.81	352642	8.78	339311
12	1623	vl06b.d	VL06B	SC-58(-14 to	1	7.81	385988	8.78	371667
13	1637	vl06c.d	VL06C	SC-59(-14 to	1	7.88	200040	8.86	76977
14	1651	vl06d.d	VL06D	DUP-2	1	7.88	329263	8.85	204870
15	1705	vl06e.d	VL06E	SC-60(-12 to	1	7.81	708230	8.78	612596
16	1718	vl06f.d	VL06F	SC-61(-12 to	1	7.81	663931	8.78	622116
17	1732	vl06fms.d	VL06FMS	SC-61(-12 to	1	7.81	635458	8.78	610757
18	1746	vl06fmsd.d	VL06FMSD	SC-61(-12 to	1	7.81	649189	8.78	615661
19	1800	vl06g.d	VL06G	SC-63(-12 to	1	7.81	606116	8.78	581692
20	1814	vl06h.d	VL06H	SC-64(-11 to	1	7.81	615402	8.78	601289
21	1828	vl06i.d	VL06I	SC-64(-12 to	1	7.81	614287	8.78	579767
22	1841	vl06j.d	VL06J	SC-65(-11 to	1	7.81	619253	8.78	593920
23	1855	vl06l.d	VL06L	SC-65(-12 to	1	7.81	581300	8.78	565648
24	1909	vl06m.d	VL06M	SC-66(-9 to	1	7.81	596104	8.78	557170
25	1923	vl06n.d	VL06N	SC-66(-10.5	1	7.81	604820	8.78	560292
26	1937	vl06o.d	VL06O	SC-66(-12 to	1	7.81	604492	8.78	567423
27	1950	vl06p.d	VL06P	SC-67(-10 to	1	7.81	584653	8.78	567975
28	2004	vl06q.d	VL06Q	SC-67(-10.5	1	7.81	571646	8.78	531446
29	2018	vl06r.d	VL06R	SC-67(-12 to	1	7.81	574210	8.78	534368
30	2032	vl06s.d	VL06S	SC-68(-13.4	1	7.81	521996	8.78	498045

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Start a new page

S

VD 10.9.12

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2012 14:05
End Cal Date : 06-OCT-2012 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt12.i/20121006.b/lowbts.m
Cal Date : 06-Oct-2012 16:35 van
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt12.i/20121006.b/ic1006c.d
Level 2: /chem1/nt12.i/20121006.b/ic1006e.d
Level 3: /chem1/nt12.i/20121006.b/ic1006f.d
Level 4: /chem1/nt12.i/20121006.b/ic1006a.d
Level 5: /chem1/nt12.i/20121006.b/ic1006d.d
Level 6: /chem1/nt12.i/20121006.b/ic1006b.d

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	___ RRF	% RSD
2 Tetrabutyl Tin	0.65231	0.69664	0.74871	0.79144	0.75496	0.73020	0.72904	6.689
3 Tributyl Tin (Hexyl)	0.54991	0.59188	0.66714	0.68416	0.68362	0.66395	0.64011	8.724
5 Dibutyl Tin (Hexyl)	0.04585	0.04882	0.05314	0.05325	0.05212	0.05463	0.05130	6.451
7 Butyl Tin (Hexyl)	0.06016	0.06674	0.08094	0.08359	0.08296	0.09032	0.07745	14.827
$ 1 Tripropyl Tin (Hexyl)	0.64713	0.67455	0.71183	0.75654	0.72109	0.68958	0.70012	5.470
$ 6 Tripentyl Tin (Hexyl)	0.05458	0.06040	0.07168	0.07068	0.07198	0.07903	0.06806	13.074

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt12.i/20121006.b

Instrument: nt12.i Date: 06-OCT-2012 Method: lowbts.m

INITIAL CAL: 06-OCT-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 06-OCT-2012

Compound	%D
NO Q-FLAGS	

Data File: /chem1/nt12.i/20121006.b/df1006.d

Date : 06-OCT-2012 13:51

Client ID:

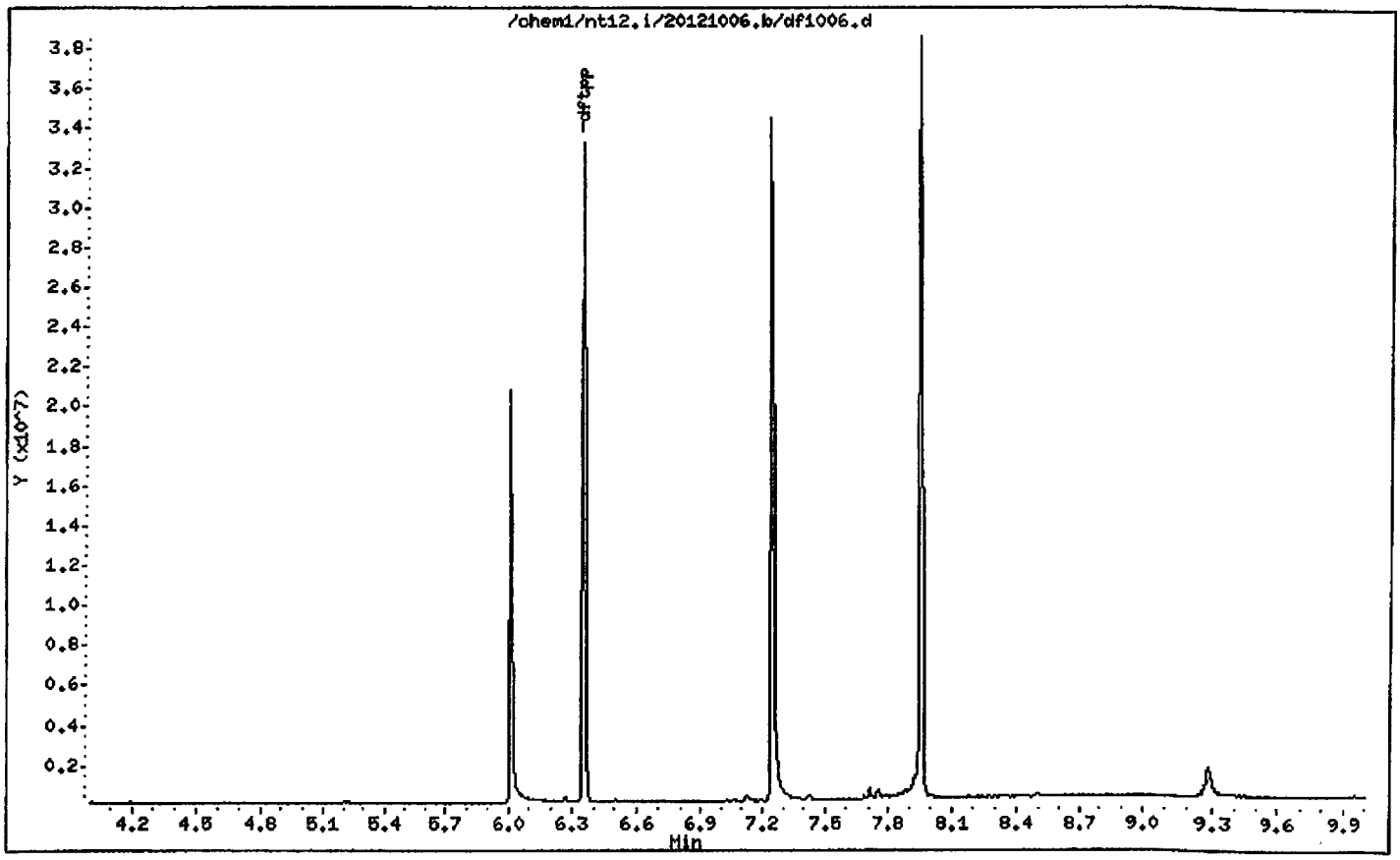
Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt12.i/20121006.b/df1006.d

Date : 06-OCT-2012 13:51

Client ID:

Instrument: nt12.i

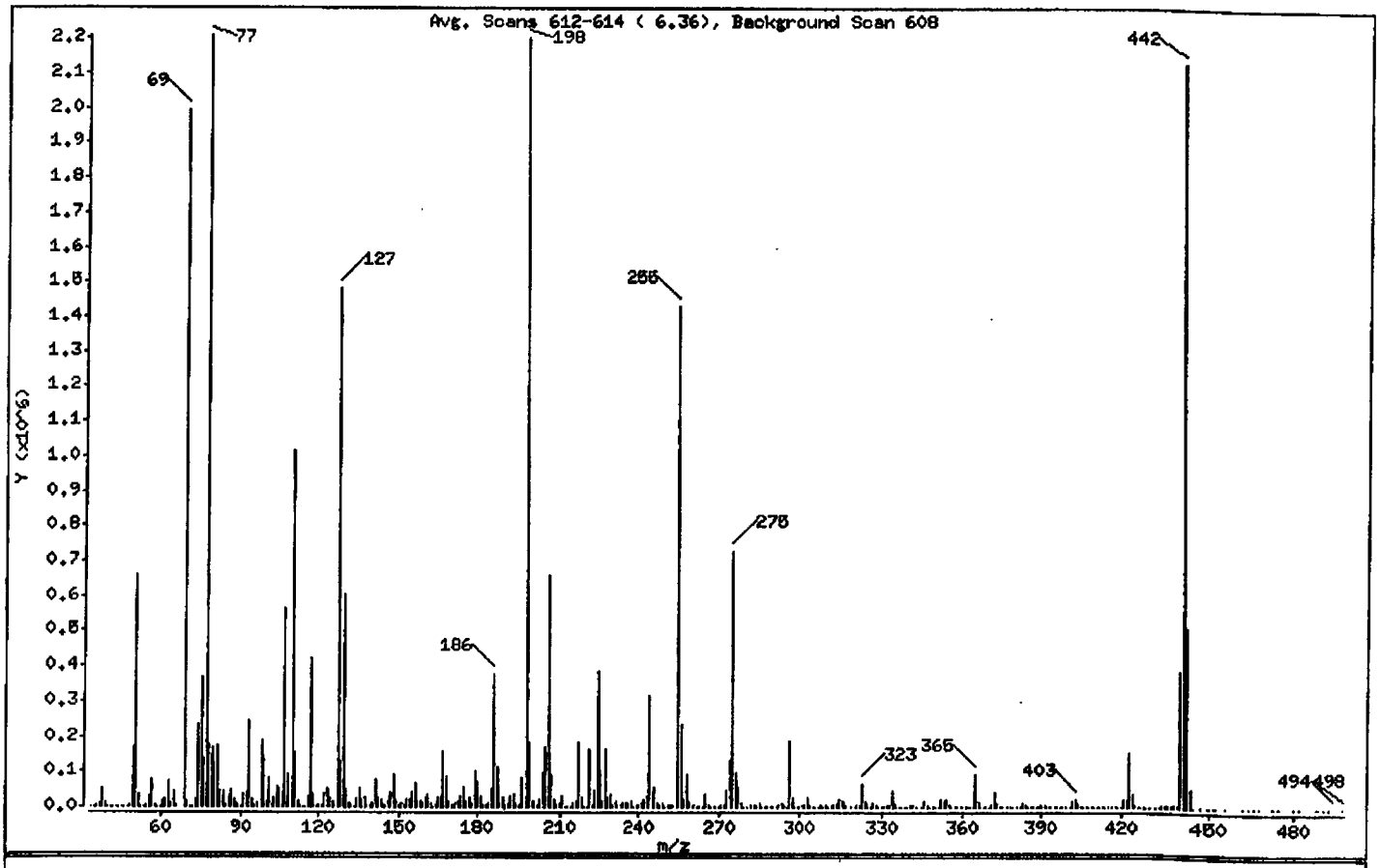
Sample Info: DFTPP 25

Operator: VTS

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	28.81
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	89.83
70	Less than 2.00% of mass 69	0.53 (0.59)
127	10.00 - 80.00% of mass 198	65.60
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	8.17
275	10.00 - 60.00% of mass 198	33.43
365	Greater than 1.00% of mass 198	4.54
441	0.01 - 24.00% of mass 442	19.82 (17.48)
442	50.00 - 200.00% of mass 198	113.40
443	15.00 - 24.00% of mass 442	26.04 (22.96)

Data File: /chem1/nt12.i/20121006.b/df1006.d

Date : 06-OCT-2012 13:51

Client ID:

Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5ms1

Column diameter: 0.25

Data File: df1006.d
Spectrum: Avg. Scans 612-614 (6.36), Background Scan 608
Location of Maximum: 77.00
Number of points: 419

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	393	145.00	5090	251.00	2672	360.00	907
36.00	1371	146.00	12768	252.00	3296	361.00	834
37.00	4924	147.00	39784	253.00	6711	362.00	1201
38.00	10644	148.00	91480	255.00	1427968	363.00	41
39.00	51704	149.00	20984	256.00	231040	364.00	149
40.00	9216	150.00	4170	257.00	18192	365.00	93624
41.00	1418	151.00	11701	258.00	90680	366.00	15056
42.00	968	152.00	4152	259.00	14616	367.00	1071
43.00	553	153.00	21800	260.00	2465	368.00	64
44.00	1822	154.00	20384	261.00	2570	369.00	1104
45.00	1001	155.00	41592	262.00	563	370.00	2179
46.00	597	156.00	68304	263.00	1160	371.00	5670
47.00	531	157.00	13283	264.00	2179	372.00	38120
48.00	1180	158.00	14897	265.00	36616	373.00	7990
49.00	4311	159.00	9015	266.00	7485	374.00	531
50.00	169000	160.00	28352	267.00	1602	375.00	543
51.00	689328	161.00	36040	268.00	2386	377.00	1824
52.00	36400	162.00	11222	269.00	74	378.00	526
53.00	2243	163.00	1179	270.00	2117	379.00	61
54.00	781	164.00	3880	271.00	4949	381.00	462
55.00	8392	165.00	26112	272.00	3444	382.00	186
56.00	31680	166.00	23512	273.00	44944	383.00	10512
57.00	74824	167.00	154752	274.00	134144	384.00	3287
58.00	4199	168.00	83760	275.00	731584	385.00	489
59.00	670	169.00	13223	276.00	96016	386.00	561
60.00	423	170.00	6262	277.00	54440	387.00	8
61.00	17392	171.00	5407	278.00	9418	388.00	218
62.00	22480	172.00	11589	279.00	2608	389.00	326
63.00	72656	173.00	12908	280.00	304	390.00	5667
64.00	8042	174.00	28368	282.00	3359	391.00	2752
65.00	38648	175.00	55424	283.00	5901	392.00	2399
66.00	2824	176.00	16432	284.00	4420	393.00	771
69.00	1993728	177.00	26776	285.00	10572	395.00	536
70.00	13412	178.00	8471	286.00	1388	396.00	94
71.00	1602	179.00	103552	287.00	354	397.00	1256

Data File: /chem1/nt12.i/20121006.b/df1006.d

Date : 06-OCT-2012 13:51

Client ID:

Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1006.d

Spectrum: Avg. Scans 612-614 (6.36), Background Scan 608

Location of Maximum: 77.00

Number of points: 419

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	2462	180.00	71344	288.00	1243	398.00	352
73.00	19776	181.00	32800	289.00	1930	399.00	114
74.00	233152	182.00	5860	290.00	1540	401.00	1994
75.00	363584	183.00	3823	291.00	1927	402.00	15008
76.00	136768	184.00	9900	292.00	3676	403.00	21552
77.00	2206208	185.00	52040	293.00	11773	404.00	9648
78.00	176128	186.00	373824	294.00	3330	405.00	890
79.00	168384	187.00	112752	295.00	1488	406.00	489
80.00	122684	188.00	10004	296.00	187648	407.00	107
81.00	172416	189.00	24344	297.00	25768	408.00	295
82.00	45040	190.00	4166	298.00	2258	409.00	128
83.00	40312	191.00	11813	299.00	783	410.00	736
84.00	5692	192.00	32688	300.00	265	411.00	786
85.00	26568	193.00	37544	301.00	2910	412.00	217
86.00	45176	194.00	9276	302.00	3754	413.00	83
87.00	22328	195.00	6812	303.00	24536	414.00	225
88.00	8234	196.00	80096	304.00	7248	415.00	1098
89.00	4192	198.00	2199552	305.00	1466	417.00	819
90.00	326	199.00	184192	306.00	390	418.00	13
91.00	36392	200.00	15488	307.00	379	419.00	720
92.00	40840	201.00	14251	308.00	2978	420.00	293
93.00	243904	202.00	3256	309.00	1551	421.00	21288
94.00	20232	203.00	18064	310.00	3619	422.00	21088
95.00	4659	204.00	94480	311.00	399	423.00	154688
96.00	11060	205.00	165632	312.00	268	424.00	33344
98.00	187584	206.00	659456	313.00	3283	425.00	3440
99.00	141440	207.00	89912	314.00	9531	426.00	659
100.00	12831	208.00	21472	315.00	20088	427.00	1018
101.00	82256	209.00	5957	316.00	13736	428.00	437
102.00	3884	210.00	12005	317.00	3361	429.00	293
103.00	26680	211.00	28768	319.00	390	430.00	1020
104.00	55000	212.00	606	320.00	516	431.00	844
105.00	50080	213.00	2454	321.00	4786	432.00	1689
106.00	5598	214.00	714	322.00	5651	433.00	774
107.00	564736	215.00	8551	323.00	64200	434.00	1663

Data File: /ohem1/nt12.i/20121006.b/df1006.d

Date : 06-OCT-2012 13:51

Client ID:

Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5ms1

Column diameter: 0.25

Data File: df1006.d

Spectrum: Avg. Scans 612-614 (6.36), Background Scan 608

Location of Maximum: 77.00

Number of points: 419

m/z	Y	m/z	Y	m/z	Y	m/z	Y
108.00	90952	216.00	13792	324.00	13273	435.00	2922
110.00	1013888	217.00	184896	325.00	1100	436.00	2643
111.00	150208	218.00	23888	326.00	1194	437.00	3300
112.00	16363	219.00	1739	327.00	12066	438.00	5664
113.00	6641	220.00	1145	328.00	6036	439.00	4694
114.00	1303	221.00	161792	329.00	1681	440.00	2991
115.00	1045	222.00	5881	330.00	645	441.00	384128
116.00	31728	223.00	44952	331.00	536	442.00	2131968
117.00	423104	224.00	387264	332.00	3835	443.00	513984
118.00	33152	225.00	102912	333.00	6731	444.00	50584
119.00	1872	226.00	14035	334.00	43368	445.00	2096
120.00	7058	227.00	164224	335.00	11628	447.00	239
121.00	3057	228.00	25960	336.00	1985	449.00	357
122.00	37504	229.00	35712	337.00	108	450.00	175
123.00	49184	230.00	5453	338.00	449	451.00	255
124.00	22888	231.00	15664	339.00	1061	452.00	32
125.00	16952	232.00	3079	340.00	556	455.00	76
127.00	1479680	233.00	3022	341.00	6862	461.00	80
128.00	126576	234.00	9701	342.00	2915	463.00	123
129.00	601600	235.00	9523	343.00	723	465.00	209
130.00	49192	236.00	9756	345.00	369	467.00	131
131.00	9881	237.00	14450	346.00	15132	472.00	22
132.00	5775	238.00	2250	347.00	3590	473.00	94
133.00	1297	239.00	5780	348.00	635	474.00	225
134.00	17800	240.00	5054	349.00	175	475.00	165
135.00	50744	241.00	9892	350.00	562	480.00	107
136.00	18192	242.00	21768	351.00	1595	482.00	138
137.00	25560	243.00	28648	352.00	19232	486.00	72
138.00	6464	244.00	314496	353.00	15355	488.00	204
139.00	3715	245.00	42440	354.00	21784	489.00	148
140.00	8534	246.00	56488	355.00	4316	491.00	153
141.00	76720	247.00	12565	356.00	673	493.00	82
142.00	26112	248.00	3107	357.00	589	494.00	345
143.00	19128	249.00	11813	358.00	262	498.00	135
144.00	4459	250.00	2063	359.00	1534		

Data File: /chem1/nt12.i/20121006.b/df1006.d

Date : 06-OCT-2012 13:51

Client ID:

Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1006.d

Spectrum: Avg. Scans 612-614 (6.36), Background Scan 608

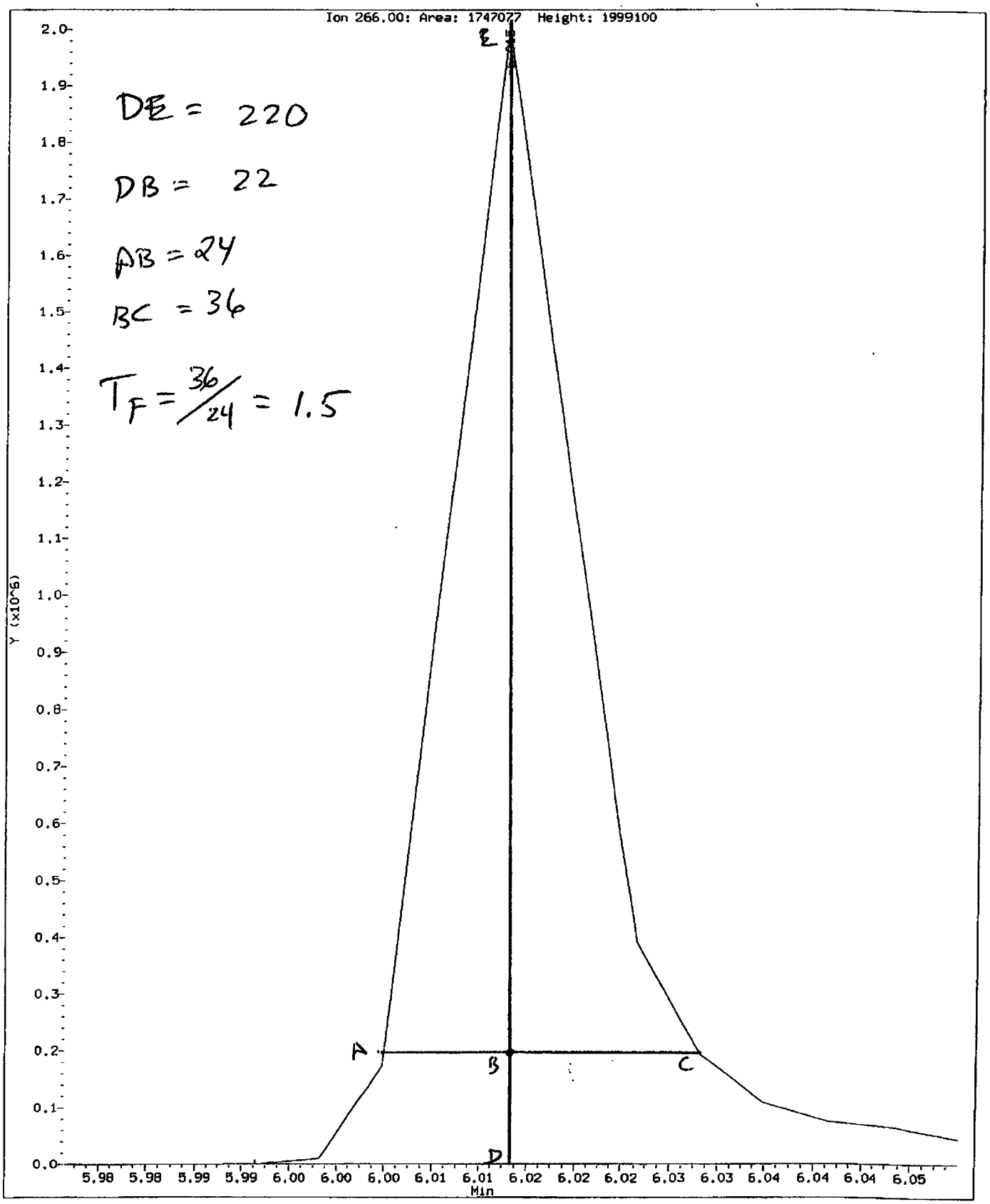
Location of Maximum: 77.00

Number of points: 419

m/z	Y	m/z	Y	m/z	Y	m/z	Y

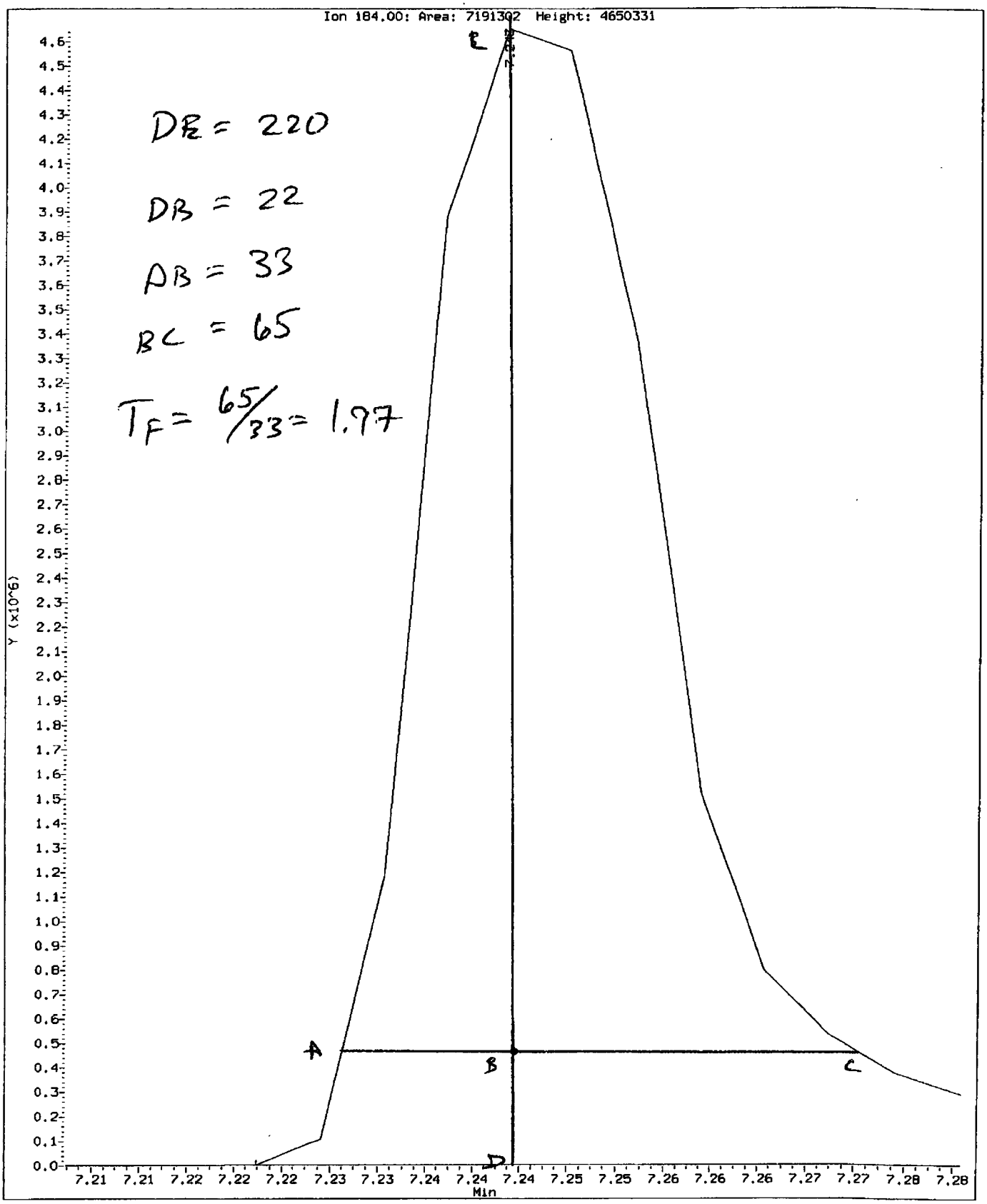
Data File: /chem1/nt12.i/20121006.b/ddt.b/df1006.d
Injection Date: 06-OCT-2012 13:51
Instrument: nt12.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt12.i/20121006.b/ddt.b/df1006.d
Injection Date: 06-OCT-2012 13:51
Instrument: nt12.i
Client Sample ID:

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt12.i/20121006.b/ddt.b/df1006.d ARI ID: DFTPP 25
Method: /chem1/nt12.i/20121006.b/ddt.b/sw846ddt.m Misc:
Analysis Date: 06-OCT-2012 13:51 Instrument: nt12.i

COMPOUND	RT	AREA
Pentachlorophenol	6.015	1747077
Benzidine	7.243	7191302
4,4'-DDE	7.425	19851
4,4'-DDD	7.708	75249
4,4'-DDT	7.959	4160178

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(19851 + 75249) * 100}{(19851 + 75249 + 4160178)}$$

DDT Percent Breakdown = 2.2 %

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121006.b/ic1006a.d
Lab Smp Id: TBT 1
Inj Date : 06-OCT-2012 14:05
Operator : VTS Inst ID: nt12.i
Smp Info : TBT 1
Misc Info :
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121006.b/lowbts.m
Meth Date : 06-Oct-2012 16:36 van Quant Type: ISTD
Cal Date : 06-OCT-2012 14:05 Cal File: ic1006a.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$	1 Tripropyl Tin (Hexyl)	291	6.157	6.157	(0.789)	129920	1.00000	1.000
	2 Tetrabutyl Tin	289	6.376	6.376	(0.817)	135913	1.00000	1.000
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.918)	117489	1.00000	1.000
*	4 Tetrapentyl Tin	333	7.801	7.801	(1.000)	343457	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.896)	168805	2.00000	2.000
$	6 Tripentyl Tin (Hexyl)	347	8.136	8.136	(0.928)	224056	2.00000	2.000
	7 Butyl Tin (Hexyl)	347	8.484	8.484	(0.968)	264989	2.00000	2.000
*	8 p-Terphenyl-d14	244	8.766	8.766	(1.000)	317005	0.20000	

VT
10.9.12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: ic1006a.d
Lab Smp Id: TBT 1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121006.b/lowbts.m
Misc Info:

Calibration Date: 06-OCT-2012
Calibration Time: 14:05
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

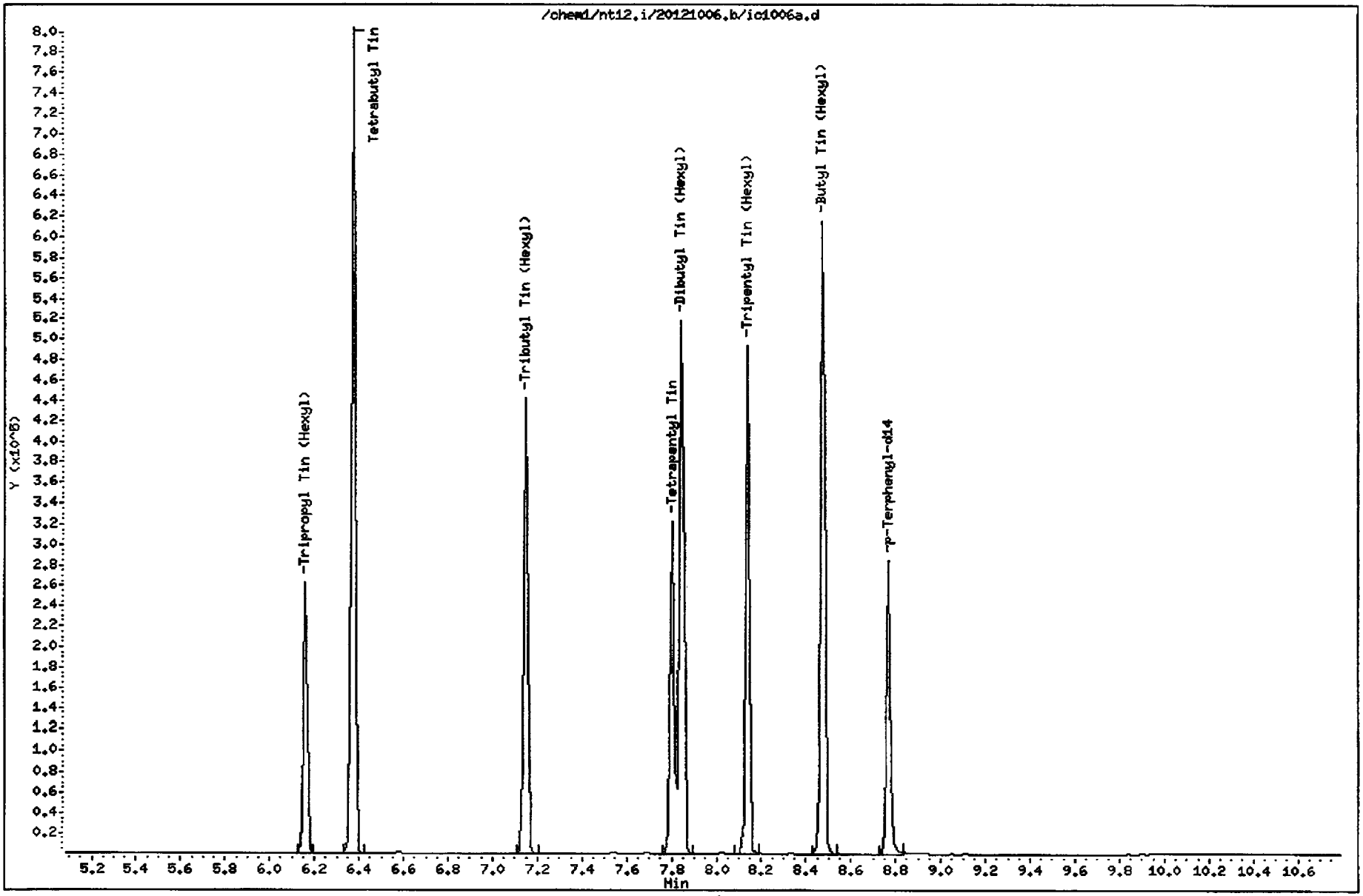
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	343457	0.00
8 p-Terphenyl-d14	317005	158502	634010	317005	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.80	7.30	8.30	7.80	0.00
8 p-Terphenyl-d14	8.77	8.27	9.27	8.77	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/nt12.i/20121006.b/ic1006a.d
Date : 06-OCT-2012 14:05
Client ID:
Sample Info: TBT 1

Instrument: nt12.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic1006a.d

Lab ID: TBT 1, Method: lowbts.m, Instrument: nt12.i, Date: 06-OCT-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121006.b/ic1006b.d
Lab Smp Id: TBT 4
Inj Date : 06-OCT-2012 14:18
Operator : VTS Inst ID: nt12.i
Smp Info : TBT 4
Misc Info :
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121006.b/lowbts.m
Meth Date : 06-Oct-2012 16:36 van Quant Type: ISTD
Cal Date : 06-OCT-2012 14:18 Cal File: ic1006b.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.157	(0.789)	509819	4.00000	3.815
	2 Tetrabutyl Tin	289	6.388	6.376	(0.817)	539848	4.00000	3.839
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.916)	490867	4.00000	3.940
*	4 Tetrapentyl Tin	333	7.814	7.801	(1.000)	369658	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.895)	686539	8.00000	8.102
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.136	(0.928)	993202	8.00000	8.446
	7 Butyl Tin (Hexyl)	347	8.485	8.484	(0.966)	1135173	8.00000	8.310
*	8 p-Terphenyl-d14	244	8.780	8.766	(1.000)	314201	0.20000	

VD
10.9.12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: ic1006b.d
Lab Smp Id: TBT 4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121006.b/lowbts.m
Misc Info:

Calibration Date: 06-OCT-2012
Calibration Time: 14:05

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	369658	7.63
8 p-Terphenyl-d14	317005	158502	634010	314201	-0.88

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.80	7.30	8.30	7.81	0.17
8 p-Terphenyl-d14	8.77	8.27	9.27	8.78	0.15

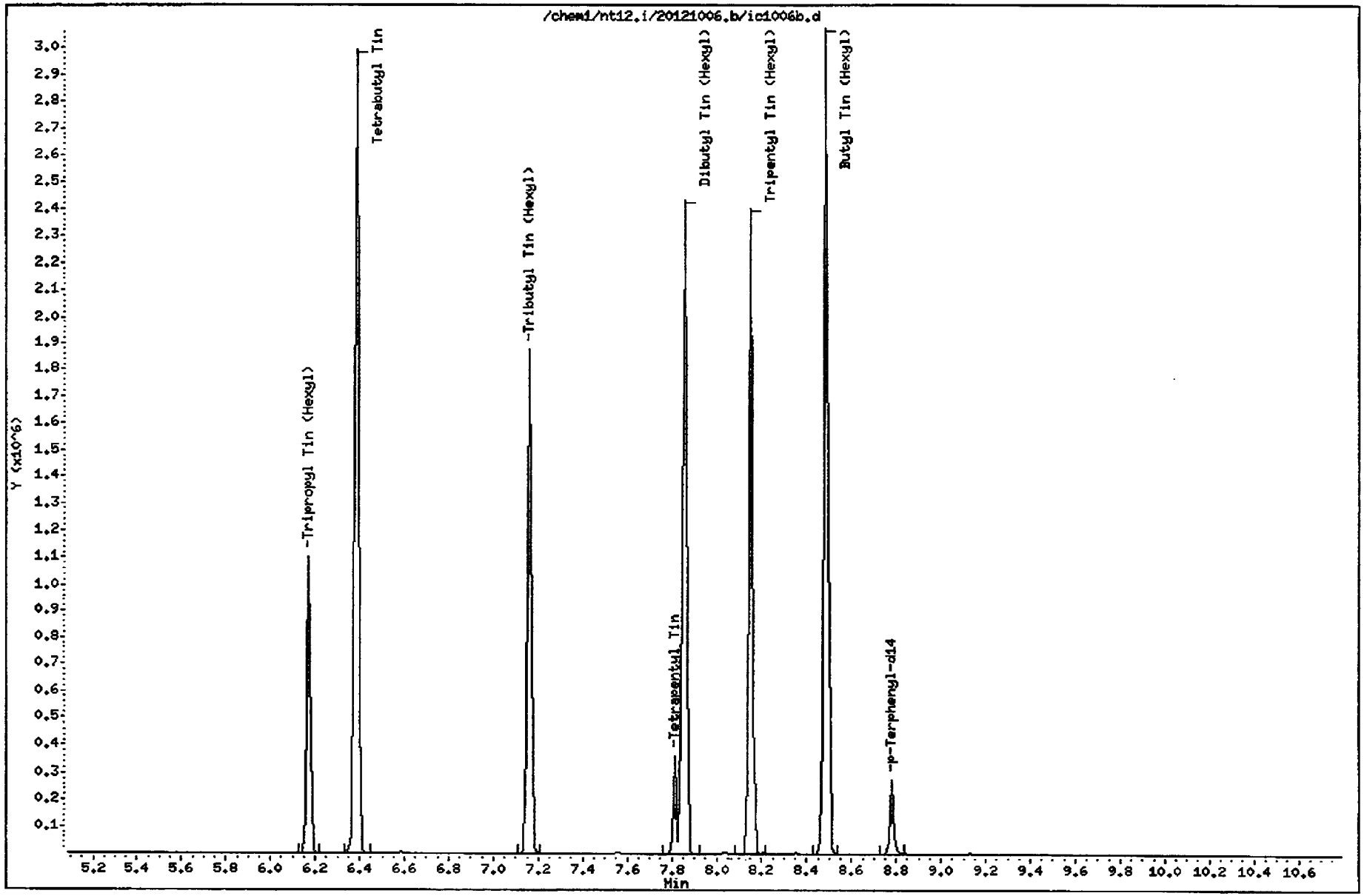
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt12.i/20121006.b/ic1006b.d
Date : 06-OCT-2012 14:18
Client ID:
Sample Info: TBT 4

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic1006b.d

Lab ID: TBT 4, Method: lowbts.m, Instrument: nt12.i, Date: 06-OCT-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121006.b/ic1006c.d
Lab Smp Id: TBT .05
Inj Date : 06-OCT-2012 14:32
Operator : VTS Inst ID: nt12.i
Smp Info : TBT .05
Misc Info :
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121006.b/lowbts.m
Meth Date : 06-Oct-2012 16:36 van Quant Type: ISTD
Cal Date : 06-OCT-2012 14:32 Cal File: ic1006c.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.157	(0.789)	5119	0.05000	0.04637
	2 Tetrabutyl Tin	289	6.388	6.376	(0.817)	5160	0.05000	0.04501
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.916)	4350	0.05000	0.04346
*	4 Tetrapentyl Tin	333	7.814	7.801	(1.000)	316414	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.895)	6909	0.10000	0.08948
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.136	(0.928)	8225	0.10000	0.08016
	7 Butyl Tin (Hexyl)	347	8.484	8.484	(0.966)	9066	0.10000	0.07711
*	8 p-Terphenyl-d14	244	8.779	8.766	(1.000)	301375	0.20000	

VT 10.9.12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: ic1006c.d
Lab Smp Id: TBT .05
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121006.b/lowbts.m
Misc Info:

Calibration Date: 06-OCT-2012
Calibration Time: 14:05
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	316414	-7.87
8 p-Terphenyl-d14	317005	158502	634010	301375	-4.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.80	7.30	8.30	7.81	0.17
8 p-Terphenyl-d14	8.77	8.27	9.27	8.78	0.15

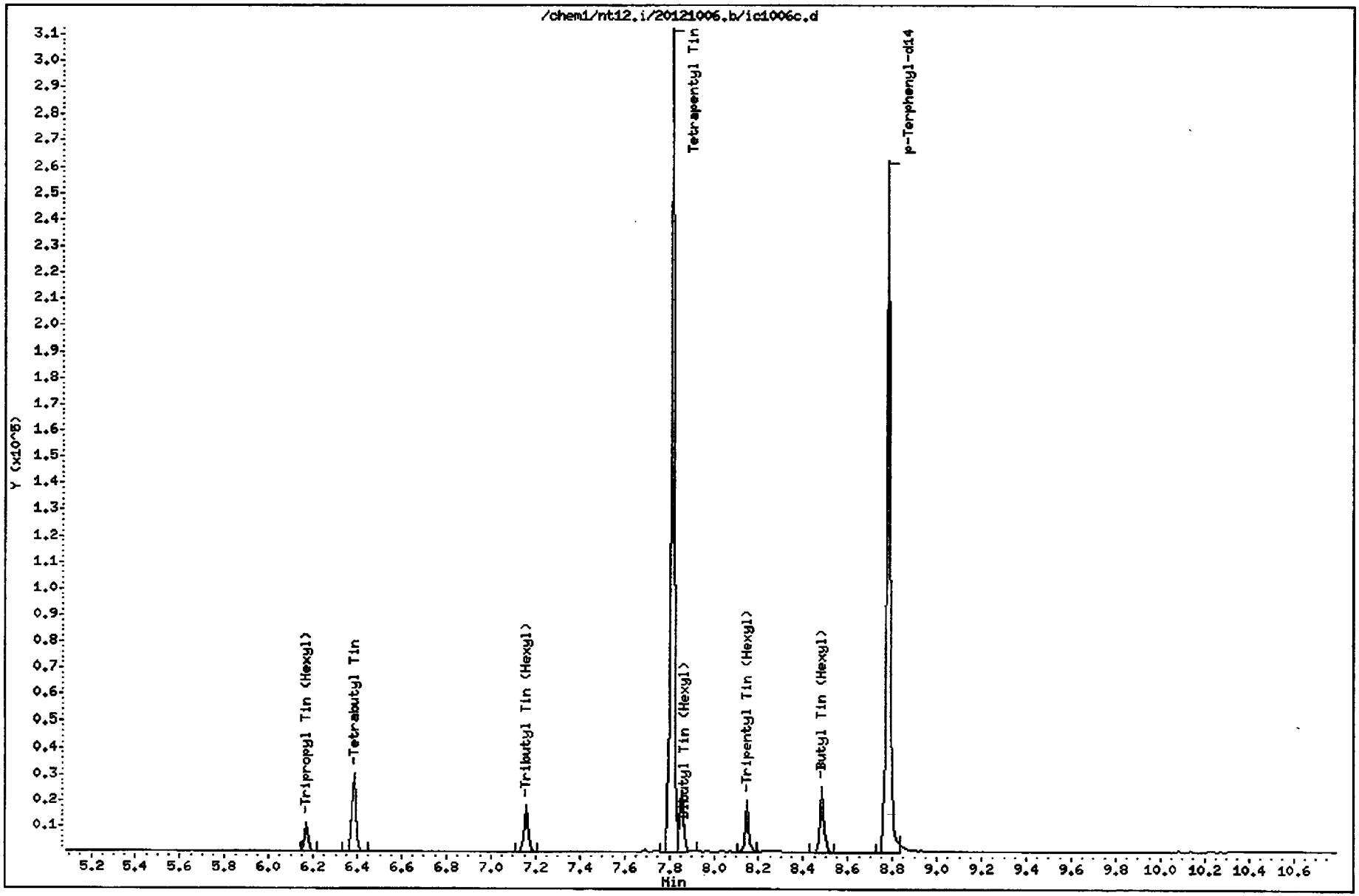
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt12.i/20121006.b/ic1006c.d
Date : 06-OCT-2012 14:32
Client ID:
Sample Info: TBT .05

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic1006c.d

Lab ID: TBT .05, Method: lowbts.m, Instrument: nt12.i, Date: 06-OCT-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121006.b/ic1006d.d
Lab Smp Id: TBT 2
Inj Date : 06-OCT-2012 14:46
Operator : VTS Inst ID: nt12.i
Smp Info : TBT 2
Misc Info :
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121006.b/lowbts.m
Meth Date : 06-Oct-2012 16:36 van Quant Type: ISTD
Cal Date : 06-OCT-2012 14:46 Cal File: ic1006d.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.157	(0.789)	251259	2.00000	2.050
	2 Tetrabutyl Tin	289	6.388	6.376	(0.817)	263059	2.00000	2.062
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.916)	238201	2.00000	2.118
*	4 Tetrapentyl Tin	333	7.814	7.801	(1.000)	348442	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.895)	338689	4.00000	4.051
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.136	(0.928)	467708	4.00000	4.169
	7 Butyl Tin (Hexyl)	347	8.484	8.484	(0.966)	539053	4.00000	4.187
*	8 p-Terphenyl-d14	244	8.779	8.766	(1.000)	324906	0.20000	

VD
10-9-12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: ic1006d.d
Lab Smp Id: TBT 2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121006.b/lowbts.m
Misc Info:

Calibration Date: 06-OCT-2012
Calibration Time: 14:05

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	348442	1.45
8 p-Terphenyl-d14	317005	158502	634010	324906	2.49

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.80	7.30	8.30	7.81	0.17
8 p-Terphenyl-d14	8.77	8.27	9.27	8.78	0.15

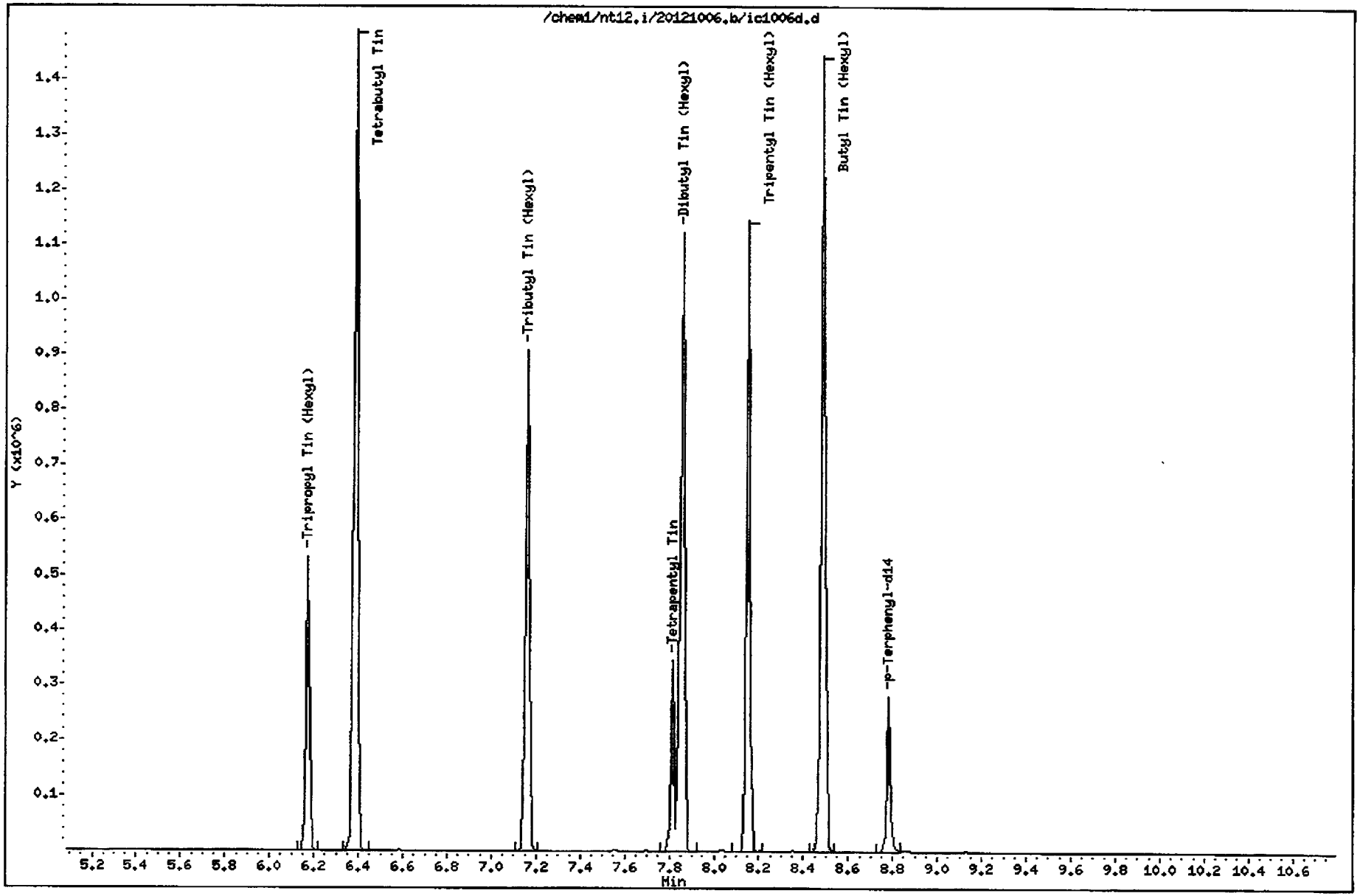
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt12.i/20121006.b/ic1006d.d
Date : 06-OCT-2012 14:46
Client ID:
Sample Info: TBT 2

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic1006d.d

Lab ID: TBT 2, Method: lowbts.m, Instrument: nt12.i, Date: 06-OCT-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121006.b/ic1006e.d
Lab Smp Id: TBT .2
Inj Date : 06-OCT-2012 15:00
Operator : VTS Inst ID: nt12.i
Smp Info : TBT .2
Misc Info :
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121006.b/lowbts.m
Meth Date : 06-Oct-2012 16:36 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:00 Cal File: ic1006e.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.sub
Target Version: 3.50

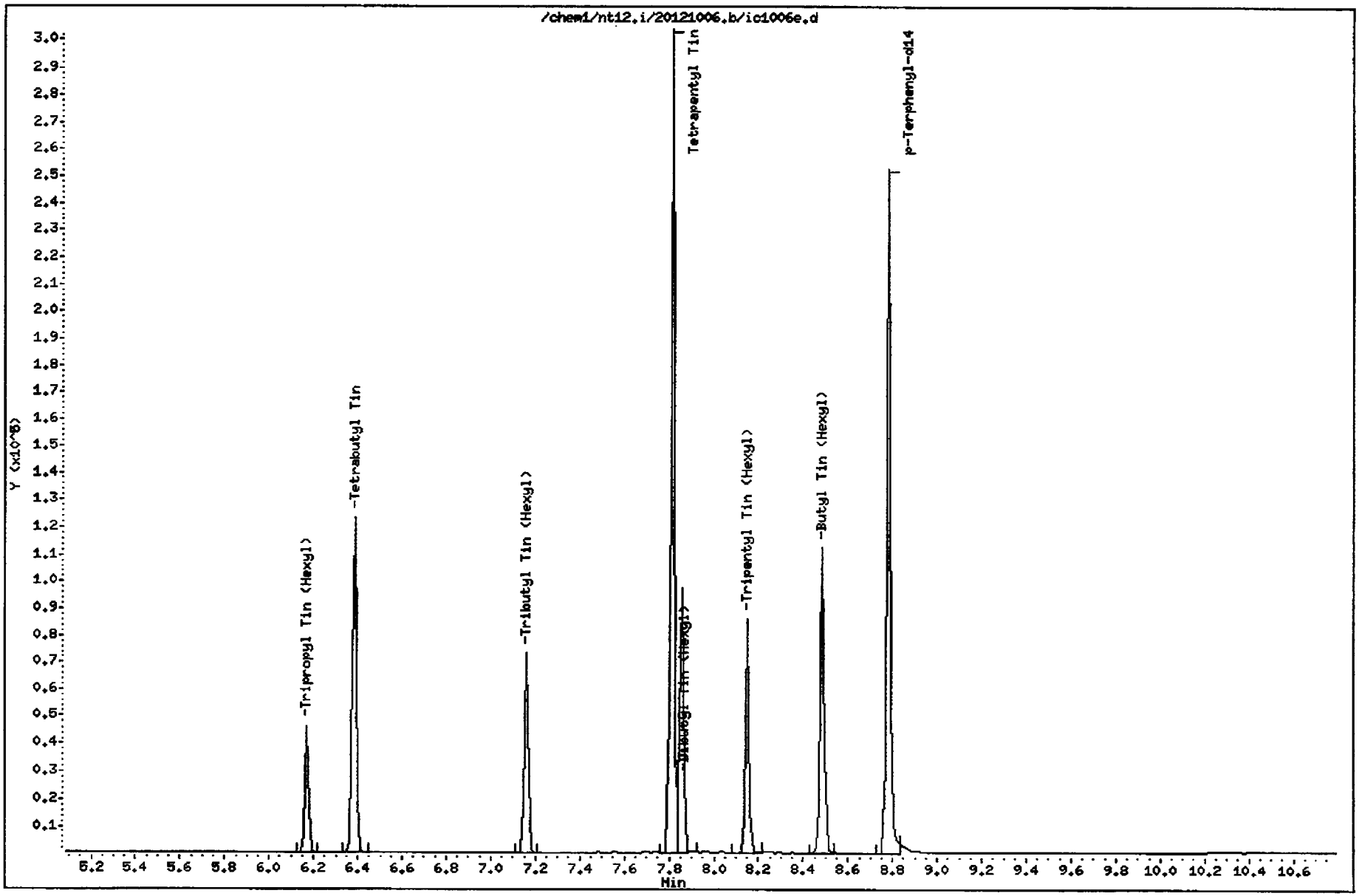
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.157	(0.789)	21010	0.20000	0.1933
	2 Tetrabutyl Tin	289	6.388	6.376	(0.817)	21698	0.20000	0.1921
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.916)	18435	0.20000	0.1865
*	4 Tetrapentyl Tin	333	7.814	7.801	(1.000)	311467	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.895)	28809	0.40000	0.3834
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.136	(0.928)	35641	0.40000	0.3588
	7 Butyl Tin (Hexyl)	347	8.485	8.484	(0.966)	39381	0.40000	0.3478
*	8 p-Terphenyl-d14	244	8.780	8.766	(1.000)	295038	0.20000	

LD
10.9.12

Data File: /chem1/nt12.i/20121006.b/ic1006e.d
Date : 06-OCT-2012 15:00
Client ID:
Sample Info: TBT .2

Instrument: nt12.i
Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: ic1006e.d
Lab Smp Id: TBT .2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121006.b/lowbts.m
Misc Info:

Calibration Date: 06-OCT-2012
Calibration Time: 14:05
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	311467	-9.31
8 p-Terphenyl-d14	317005	158502	634010	295038	-6.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.80	7.30	8.30	7.81	0.17
8 p-Terphenyl-d14	8.77	8.27	9.27	8.78	0.15

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.

CO-ELUTION SUMMARY FOR FILE - ic1006e.d

Lab ID: TBT .2, Method: lowbts.m, Instrument: nt12.i, Date: 06-OCT-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121006.b/ic1006f.d
Lab Smp Id: TBT .5
Inj Date : 06-OCT-2012 15:14
Operator : VTS Inst ID: nt12.i
Smp Info : TBT .5
Misc Info :
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121006.b/lowbts.m
Meth Date : 06-Oct-2012 16:36 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:14 Cal File: ic1006f.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.157	(0.789)	59105	0.50000	0.5084
	2 Tetrabutyl Tin	289	6.388	6.376	(0.817)	62167	0.50000	0.5135
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.916)	55394	0.50000	0.5211
*	4 Tetrapentyl Tin	333	7.814	7.801	(1.000)	332130	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.895)	81476	1.00000	1.036
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.136	(0.928)	109905	1.00000	1.053
	7 Butyl Tin (Hexyl)	347	8.485	8.484	(0.966)	124102	1.00000	1.045
*	8 p-Terphenyl-d14	244	8.780	8.766	(1.000)	306646	0.20000	

VD
10.9.12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: ic1006f.d
Lab Smp Id: TBT .5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121006.b/lowbts.m
Misc Info:

Calibration Date: 06-OCT-2012
Calibration Time: 14:05
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	332130	-3.30
8 p-Terphenyl-d14	317005	158502	634010	306646	-3.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.80	7.30	8.30	7.81	0.17
8 p-Terphenyl-d14	8.77	8.27	9.27	8.78	0.16

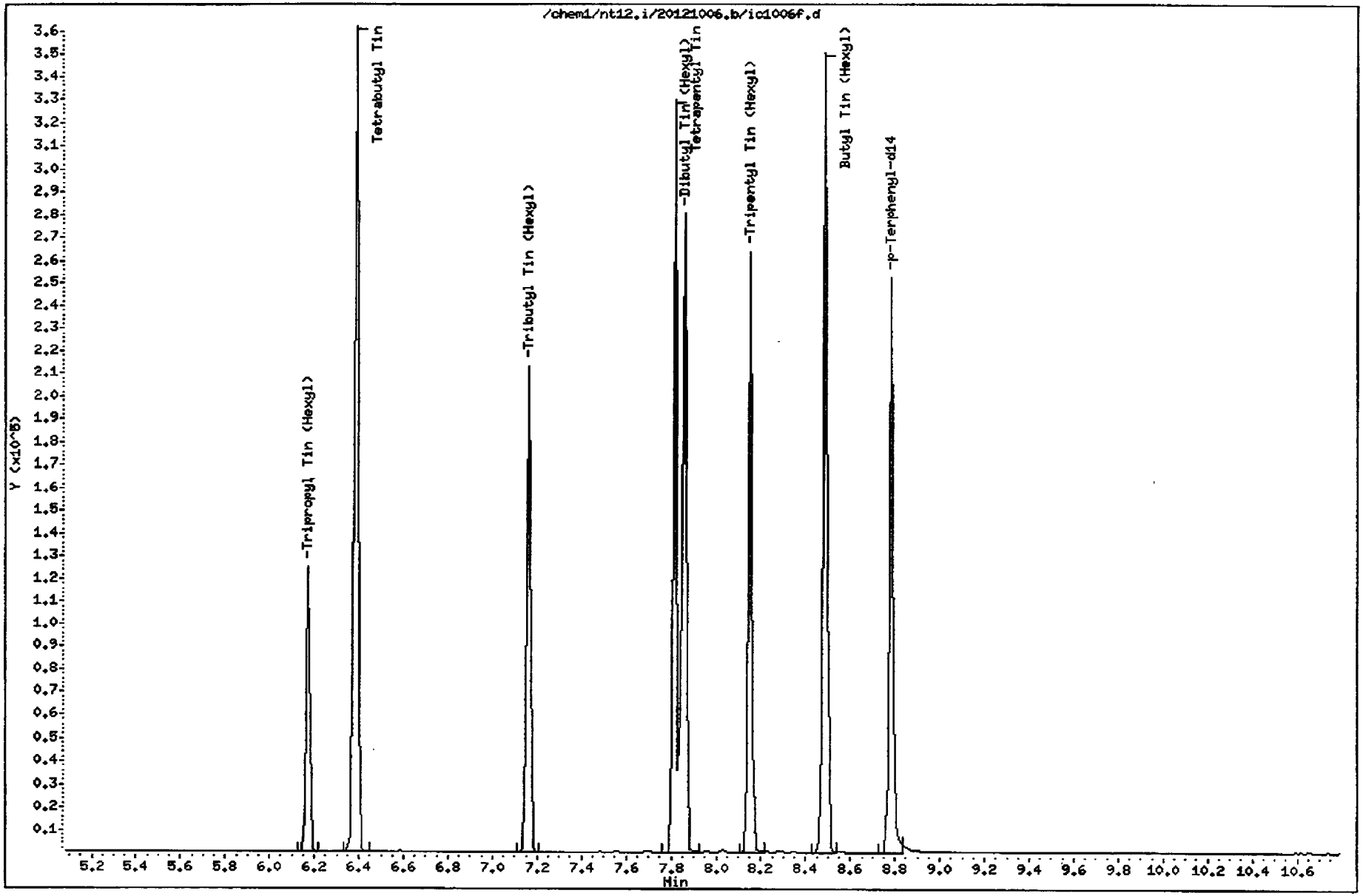
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt12.i/20121006.b/ic1006f.d
Date : 06-OCT-2012 15:14
Client ID:
Sample Info: TBT .5

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic1006f.d

Lab ID: TBT .5, Method: lowbts.m, Instrument: nt12.i, Date: 06-OCT-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Butyl Tin Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: VR38 Client ID: Anchor

ARI SOP: **801S**(SIM-PNA) (**802S**(Butyl Tins)) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): TBT

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 (NT12)

Curve Date: 10·6·12 Analysis Start Date: 11·14·12

DFTPP Tune Meets Criteria?	(YES) / NO	Internal Standard Meets Criteria?	(YES) / NO
DDT Breakdown <20%?	(YES) / NO / NA	Method Blank In Control?	(YES) / NO
Peak Tailing Factor ≤2?	(YES) / NO / NA	LCS / LCSD Recovery In Control?	(YES) / NO
ICal acceptable?	(YES) / NO	CCal acceptable?	(YES) / NO
Q flag applied?	YES / (NO)	Q flag applied?	YES / (NO)
Surrogate Recovery in Control?	(YES) / NO	Special Analysis Criteria Met?	(YES) / NO / NA
Manual Integrations for ICal?	YES / (NO)	Manual Integrations for Samples?	Yes / (NO)

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

- Batched w/ job # VR38

Additional Details on Reverse: Yes / No

Analyst: VD **Date:** 11·15·12

Reviewer: [signature] **Date:** 11/15/12

VR38:011NG

Analytical Resources Inc.: Organics Instrument Log

NT-12 Serial No.:GC=US00032558, MS= US01180091

Date: 11.14.12 Analysis: TBTs Analyst: VD

GC Program: BTS Column No: 230930 Column Type: ZB-5ms

Instrument Tune (.U or .CT.): 120927.U EM Voltage: 1824.0

Calibration File: df1114 Curve Date: 10.6.12 Injection Vol.: 2 uL

IS/SS	Ical/Ccal	LCS/ICV
1961-1	1960-2	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt

	Time	Filename	LabID	ClientId	DF				
1	1138	df1114.d	DFTPP 25		1	NO ISTDS FOUND			
2	1151	cc1114.d	TBT 1		1	7.81	348078	8.78	335859
3	1220	vo93mb.d	VO93MBS1	VO93MBS1	1	7.79	339443	8.75	318990
4	1234	vo93sb.d	VO93LCSS1	VO93LCSS1	1	7.76	342490	8.73	316679
5	1248	vo93am.d	VO93AM	SPE073-30G	1	7.77	340531	8.74	320824
6	1302	vs00mb.d	VS00MBW1	VS00MBW1	1	7.79	352085	8.75	336594
7	1316	vs00sb.d	VS00LCSW1	VS00LCSW1	1	7.76	318230	8.73	249648
8	1330	vs00sbd.d	VS00LCSDW1	VS00LCSDW1	1	7.79	347564	8.75	328427
9	1344	vs00a.d	VS00A	MW107-201211	1	7.79	362738	8.75	337631
10	1358	vs00b.d	VS00B	MW4-20121106	1	7.76	350441	8.73	326423
11	1411	vs00c.d	VS00C	MW104-201211	1	7.77	363474	8.74	341661
12	1425	vs00d.d	VS00D	MW105-201211	1	7.79	366695	8.75	339119
13	1439	vs01a.d	VS01A	MW103-201211	1	7.80	366525	8.77	336596
14	1453	vs01b.d	VS01B	MW5-20121105	1	7.80	364708	8.77	337215
15	1507	vs01c.d	VS01C	MW101-201211	1	7.80	373141	8.77	343306
16	1521	vs01d.d	VS01D	MW102-201211	1	7.80	376429	8.77	344319
17	1534	vs01e.d	VS01E	MW106-201211	1	7.80	363875	8.77	341665
18	1548	vr38mb.d	VR38MBS1	VR38MBS1	1	7.80	372403	8.77	344209
19	1602	vr38sb.d	VR38LCSS1	VR38LCSS1	1	7.80	363079	8.77	335464
20	1616	vr38j.d	VR38J	HT-06-S-E-12	1	7.80	367009	8.77	348335
21	1630	vr38k.d	VR38K	HT-07-S-E-12	1	7.80	364472	8.77	340114
22	1643	vr38kms.d	VR38KMS	HT-07-S-E-12	1	7.80	377212	8.77	349164
23	1657	vr38kmsd.d	VR38KMSD	HT-07-S-E-12	1	7.80	384249	8.77	348526
24	1711	vr58a.d	VR58A	SG-10-S-E-12	1	7.80	373082	8.77	352219
25	1725	vr58b.d	VR58B	SG-11-S-E-12	1	7.80	390935	8.78	373865
26	1739	vr58c.d	VR58C	SG-12-S-E-12	1	7.80	397853	8.78	378443
27	1752	vr58d.d	VR58D	SG-13-S-E-12	1	7.80	404376	8.78	410881
28	1806	vr58e.d	VR58E	SG-13-S-E-du	1	7.80	396662	8.78	389934
29	1820	vr58g.d	VR58G	SG-15-S-E-12	1	7.80	390399	8.78	371267

Every line must contai
Start a new page for ea

VD 11.15.12
VR38A D1107

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt12.i/20121114.b

ARI Job No.: DFTP Method: DF8270.m Instrument: nt12.i Date: 14-NOV-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1138	df1114.d	DFTPP 25		1	NO MANUAL INTEGRATION
1151	cc1114.d	TBT 1		1	NO MANUAL INTEGRATION
1616	vr38j.d	VR38J	HT-06-S-E-	1	NO MANUAL INTEGRATION
1630	vr38k.d	VR38K	HT-07-S-E-	1	NO MANUAL INTEGRATION
1643	vr38kms.d	VR38KMS	HT-07-S-E-	1	NO MANUAL INTEGRATION
1657	vr38kmsd.d	VR38KMSD	HT-07-S-E-	1	NO MANUAL INTEGRATION
1548	vr38mb.d	VR38MBS1	VR38MBS1	1	NO MANUAL INTEGRATION
1602	vr38sb.d	VR38LCSS1	VR38LCSS1	1	NO MANUAL INTEGRATION
1711	vr58a.d	VR58A	SG-10-S-E-	1	NO MANUAL INTEGRATION
1725	vr58b.d	VR58B	SG-11-S-E-	1	NO MANUAL INTEGRATION
1739	vr58c.d	VR58C	SG-12-S-E-	1	NO MANUAL INTEGRATION
1752	vr58d.d	VR58D	SG-13-S-E-	1	Butyl Tin (Hexyl),
1806	vr58e.d	VR58E	SG-13-S-E-	1	Butyl Tin (Hexyl),
1820	vr58g.d	VR58G	SG-15-S-E-	1	NO MANUAL INTEGRATION

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt12.i/20121114.b

Instrument: nt12.i Date: 14-NOV-2012 Method: lowbts.m

INITIAL CAL: 06-OCT-2012

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 14-NOV-2012

Compound	%D
NO Q-FLAGS	

Data File: /chem1/nt12.i/20121114.b/df1114.d

Date : 14-NOV-2012 11:38

Client ID:

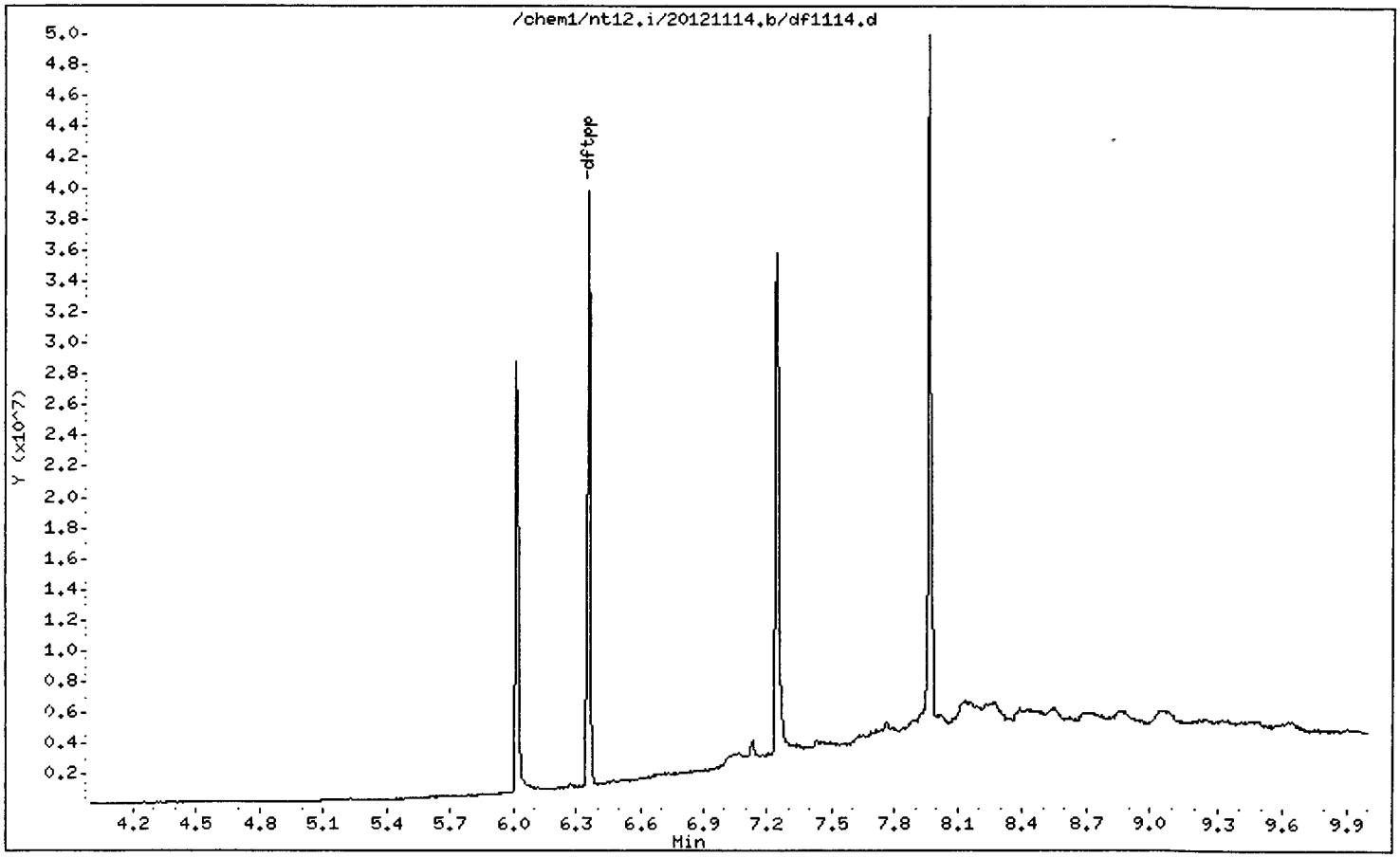
Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt12.i/20121114.b/df1114.d

Date : 14-NOV-2012 11:38

Client ID:

Instrument: nt12.i

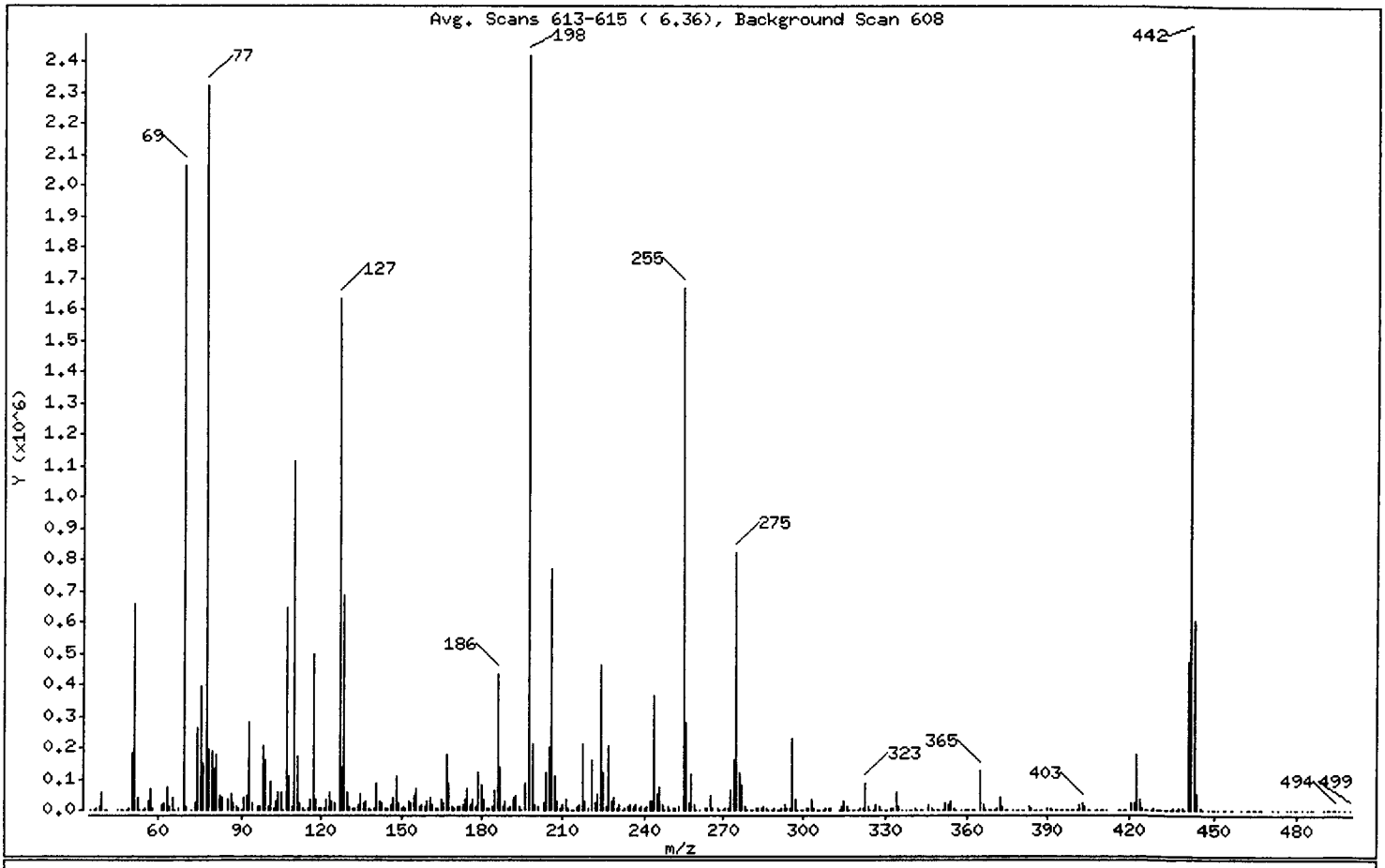
Sample Info: DFTPP 25

Operator: VTS

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	27.64
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	88.88
70	Less than 2.00% of mass 69	0.53 (0.59)
127	10.00 - 80.00% of mass 198	67.45
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	8.52
275	10.00 - 60.00% of mass 198	33.09
365	Greater than 1.00% of mass 198	5.22
441	0.01 - 24.00% of mass 442	19.44 (18.34)
442	50.00 - 200.00% of mass 198	106.01
443	15.00 - 24.00% of mass 442	24.76 (23.36)

Data File: /chem1/nt12.i/20121114.b/df1114.d

Date : 14-NOV-2012 11:38

Client ID:

Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5ms1

Column diameter: 0.25

Data File: df1114.d
Spectrum: Avg. Scans 613-615 (6.36), Background Scan 608
Location of Maximum: 442.00
Number of points: 418

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	236	149.00	24080	258.00	113032	370.00	2587
36.00	165	150.00	4214	259.00	17752	371.00	7529
37.00	5592	151.00	9940	260.00	1006	372.00	42120
38.00	13713	152.00	5084	261.00	2817	373.00	12117
39.00	55760	153.00	30496	263.00	3284	374.00	396
40.00	2192	154.00	20688	264.00	3387	375.00	676
41.00	938	155.00	46088	265.00	47312	377.00	1171
45.00	941	156.00	69464	266.00	6777	378.00	970
46.00	416	157.00	11916	268.00	3669	379.00	85
47.00	128	158.00	15414	269.00	610	380.00	226
48.00	508	159.00	13174	270.00	1235	381.00	509
49.00	5052	160.00	27792	271.00	6590	383.00	9396
50.00	183360	161.00	37872	272.00	7014	384.00	4076
51.00	657728	162.00	14409	273.00	60536	385.00	1675
52.00	42024	163.00	3005	274.00	157888	386.00	567
53.00	1474	164.00	5581	275.00	823104	387.00	104
54.00	1169	165.00	35504	276.00	118272	388.00	295
55.00	6482	166.00	25088	277.00	79104	390.00	6927
56.00	29504	167.00	177600	278.00	11242	391.00	3816
57.00	69928	168.00	86816	279.00	2441	392.00	2661
58.00	3808	169.00	11439	280.00	414	393.00	1113
59.00	1330	170.00	6333	281.00	1274	394.00	122
61.00	19424	171.00	8978	282.00	2878	395.00	337
62.00	25112	172.00	12760	283.00	7732	396.00	524
63.00	71560	173.00	19216	284.00	5553	397.00	227
64.00	11837	174.00	33640	285.00	12273	398.00	201
65.00	39184	175.00	66944	286.00	3029	399.00	639
66.00	1200	176.00	18624	287.00	536	400.00	120
67.00	5008	177.00	36384	288.00	1123	401.00	2397
69.00	2063872	178.00	8894	289.00	2902	402.00	17592
70.00	13728	179.00	120432	290.00	1979	403.00	23864
72.00	1257	180.00	79776	291.00	2118	404.00	8627
73.00	20552	181.00	34456	292.00	3225	405.00	1497
74.00	264128	182.00	6372	293.00	19392	406.00	100
75.00	397440	183.00	4013	294.00	3681	408.00	797

Data File: /chem1/nt12.i/20121114.b/df1114.d

Date : 14-NOV-2012 11:38

Client ID:

Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1114.d
Spectrum: Avg. Scans 613-615 (6.36), Background Scan 608
Location of Maximum: 442.00
Number of points: 418

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	147904	184.00	10919	295.00	3845	409.00	650
77.00	2322432	185.00	60888	296.00	231232	410.00	1103
78.00	193920	186.00	437184	297.00	35296	411.00	692
79.00	188992	187.00	137152	298.00	2604	412.00	369
80.00	134016	188.00	13920	299.00	1193	416.00	83
81.00	177152	189.00	28328	300.00	986	417.00	1050
82.00	46744	190.00	4564	301.00	2921	418.00	271
83.00	37312	191.00	12633	302.00	4255	419.00	1536
85.00	33216	192.00	39976	303.00	31976	421.00	21672
86.00	51024	193.00	45856	304.00	5973	422.00	24472
87.00	21776	194.00	10257	305.00	1248	423.00	175104
88.00	9128	195.00	1139	306.00	25	424.00	36904
89.00	3903	196.00	87992	307.00	483	425.00	3278
90.00	205	198.00	2418688	308.00	3101	426.00	664
91.00	38856	199.00	210688	309.00	2964	427.00	1664
92.00	44928	200.00	16250	310.00	3175	428.00	942
93.00	282816	201.00	13277	312.00	1030	429.00	3487
94.00	21424	203.00	22344	313.00	1544	430.00	140
96.00	12146	204.00	118640	314.00	11428	431.00	782
97.00	11154	205.00	200448	315.00	26528	432.00	1685
98.00	208192	206.00	770560	316.00	11728	433.00	913
99.00	158400	207.00	106256	317.00	2286	434.00	1270
100.00	14020	208.00	28416	318.00	728	435.00	2534
101.00	90304	209.00	8378	319.00	1937	436.00	4023
102.00	5361	210.00	15213	320.00	1061	437.00	904
103.00	29792	211.00	32328	321.00	7025	438.00	6526
104.00	57456	212.00	3823	322.00	3278	439.00	6711
105.00	57608	213.00	1669	323.00	87192	440.00	1853
106.00	1503	214.00	651	324.00	13532	441.00	472896
107.00	645888	215.00	10849	325.00	2026	442.00	2488320
108.00	108824	216.00	16944	326.00	2846	443.00	606144
109.00	13152	217.00	211520	327.00	18056	444.00	54040
110.00	1116672	218.00	27576	328.00	10171	445.00	3371
111.00	171392	219.00	4737	329.00	951	446.00	396
112.00	22040	221.00	159616	330.00	1045	448.00	136

Date : 14-NOV-2012 11:38

Client ID: Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5msi Column diameter: 0.25

Data File: df1114.d
Spectrum: Avg. Scans 613-615 (6.36), Background Scan 608
Location of Maximum: 442.00
Number of points: 418

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	6911	222.00	24056	331.00	1161	449.00	381
114.00	1718	223.00	53896	332.00	6172	450.00	14
115.00	3543	224.00	461888	333.00	7931	451.00	626
116.00	32552	225.00	118928	334.00	54752	453.00	309
117.00	495488	226.00	13503	335.00	13126	454.00	261
118.00	32968	227.00	204160	336.00	2450	456.00	830
119.00	5731	228.00	30896	338.00	144	457.00	383
120.00	7479	229.00	39280	339.00	1448	460.00	278
121.00	4781	230.00	5609	340.00	1072	462.00	106
122.00	36904	231.00	18576	341.00	8191	463.00	357
123.00	56112	232.00	2767	342.00	2698	464.00	57
124.00	26224	233.00	4832	343.00	1701	465.00	467
125.00	20824	234.00	11367	344.00	472	466.00	163
127.00	1634816	235.00	18512	346.00	19064	467.00	90
128.00	134848	236.00	11200	347.00	3803	468.00	250
129.00	688960	237.00	17024	348.00	788	471.00	81
130.00	58768	238.00	3110	349.00	152	473.00	287
131.00	12130	239.00	9891	350.00	981	476.00	303
132.00	6277	240.00	6678	351.00	1551	478.00	289
133.00	3360	241.00	12247	352.00	23368	479.00	479
134.00	18800	242.00	27112	353.00	15385	480.00	56
135.00	53504	243.00	27712	354.00	26352	482.00	385
136.00	24720	244.00	363392	355.00	5478	484.00	313
137.00	26512	245.00	49632	356.00	838	485.00	373
138.00	8098	246.00	77088	358.00	565	486.00	487
139.00	1606	247.00	15198	359.00	1801	490.00	192
140.00	7766	248.00	2425	360.00	845	491.00	83
141.00	88232	249.00	13033	361.00	2052	492.00	123
142.00	28592	250.00	778	362.00	571	493.00	109
143.00	20304	251.00	3960	363.00	1397	494.00	508
144.00	6388	252.00	3772	365.00	126440	495.00	263
145.00	3946	253.00	12595	366.00	19576	497.00	96
146.00	14557	255.00	1672192	367.00	1297	499.00	311
147.00	41944	256.00	279424	368.00	105		
148.00	110072	257.00	22368	369.00	1314		

Date : 14-NOV-2012 11:38

Client ID:

Instrument: nt12.i

Sample Info: DFTPP 25

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df1114.d

Spectrum: Avg. Scans 613-615 (6.36), Background Scan 608

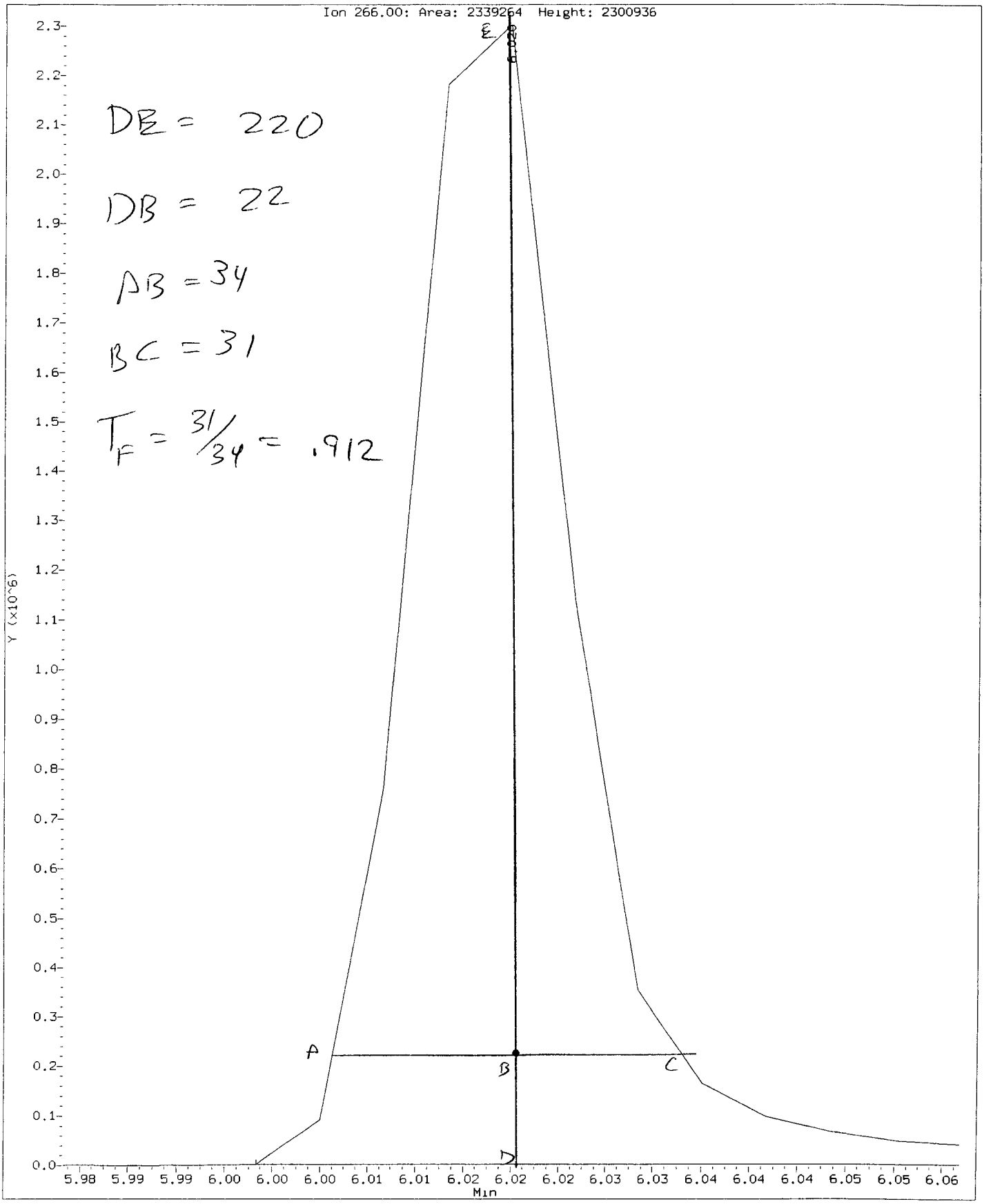
Location of Maximum: 442.00

Number of points: 418

m/z	Y	m/z	Y	m/z	Y	m/z	Y

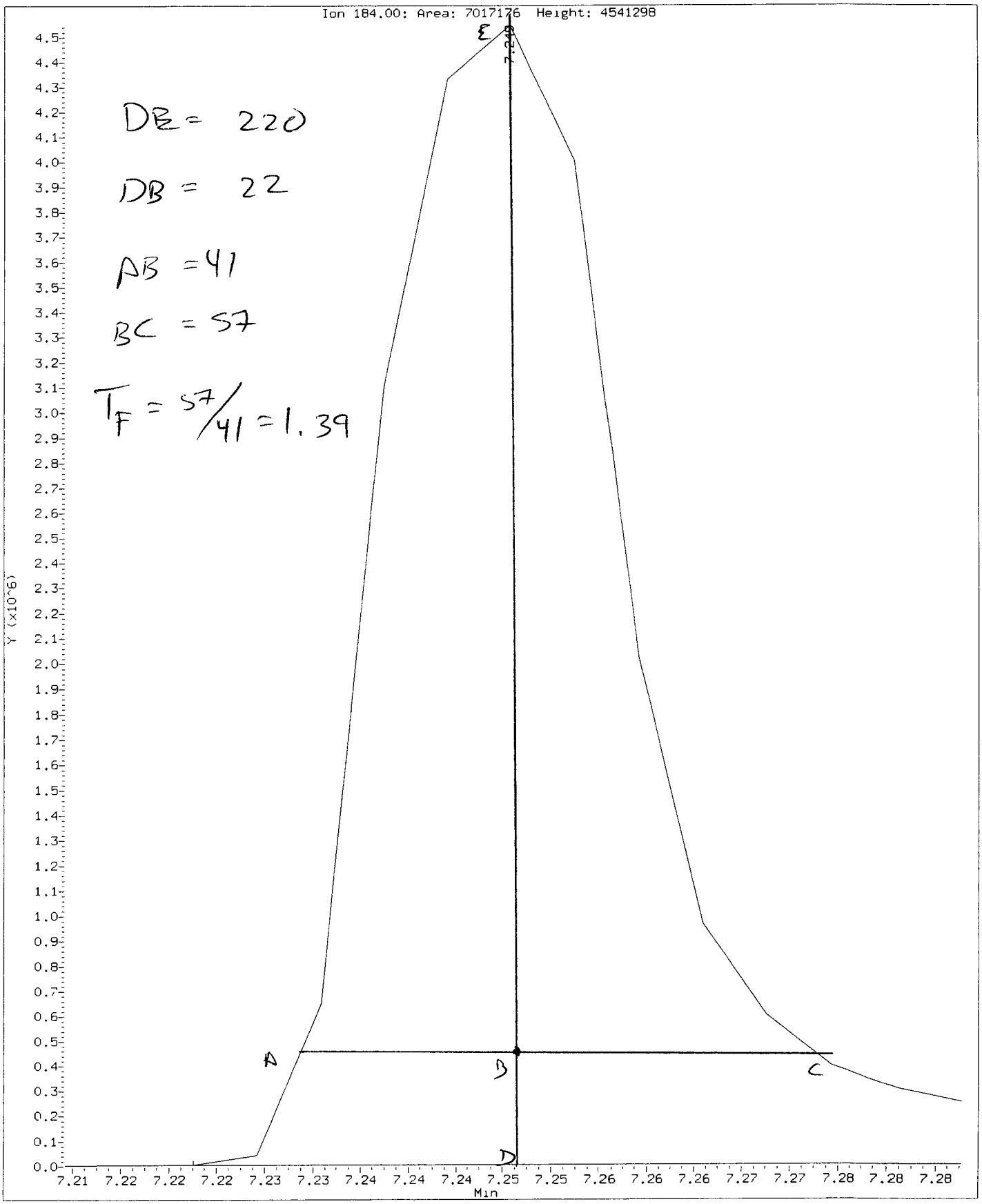
Data File: /chem1/nt12.i/20121114.b/ddt.b/df1114.d
Injection Date: 14-NOV-2012 11:38
Instrument: nt12.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt12.i/20121114.b/ddt.b/df1114.d
Injection Date: 14-NOV-2012 11:38
Instrument: nt12.i
Client Sample ID:

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt12.i/20121114.b/ddt.b/df1114.d ARI ID: DFTPP 25
Method: /chem1/nt12.i/20121114.b/ddt.b/sw846ddt.m Misc:
Analysis Date: 14-NOV-2012 11:38 Instrument: nt12.i

COMPOUND	RT	AREA
Pentachlorophenol	6.020	2339264
Benzidine	7.249	7017176
4,4'-DDE	7.430	33354
4,4'-DDD	7.762	66779
4,4'-DDT	7.970	4740940

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 33354 + 66779) * 100}{(\ 33354 + 66779 + 4740940)}$$

DDT Percent Breakdown = 2.1 %

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121114.b/cc1114.d
Lab Smp Id: TBT 1
Inj Date : 14-NOV-2012 11:51
Operator : VTS Inst ID: nt12.i
Smp Info : TBT 1
Misc Info :
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121114.b/lowbts.m
Meth Date : 14-Nov-2012 12:24 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:14 Cal File: ic1006f.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.169	(0.789)	131507	1.00000	1.079
	2 Tetrabutyl Tin	289	6.388	6.388	(0.817)	135954	1.00000	1.072
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.916)	128972	1.00000	1.158
*	4 Tetrapentyl Tin	333	7.814	7.814	(1.000)	348078	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.895)	169481	2.00000	1.967
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.149	(0.928)	235079	2.00000	2.057
	7 Butyl Tin (Hexyl)	347	8.484	8.484	(0.966)	272976	2.00000	2.099
*	8 p-Terphenyl-d14	244	8.779	8.779	(1.000)	335859	0.20000	

JD 11.14.12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: cc1114.d
Lab Smp Id: TBT 1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info:

Calibration Date: 14-NOV-2012
Calibration Time: 11:51
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	348078	1.35
8 p-Terphenyl-d14	317005	158502	634010	335859	5.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.81	7.31	8.31	7.81	0.00
8 p-Terphenyl-d14	8.78	8.28	9.28	8.78	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.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt12.i Injection Date: 14-NOV-2012 11:51
Lab File ID: cc1114.d Init. Cal. Date(s): 06-OCT-2012 06-OCT-2012
Analysis Type: Init. Cal. Times: 14:05 15:14
Lab Sample ID: TBT 1 Quant Type: ISTD
Method: /chem1/nt12.i/20121114.b/lowbts.m

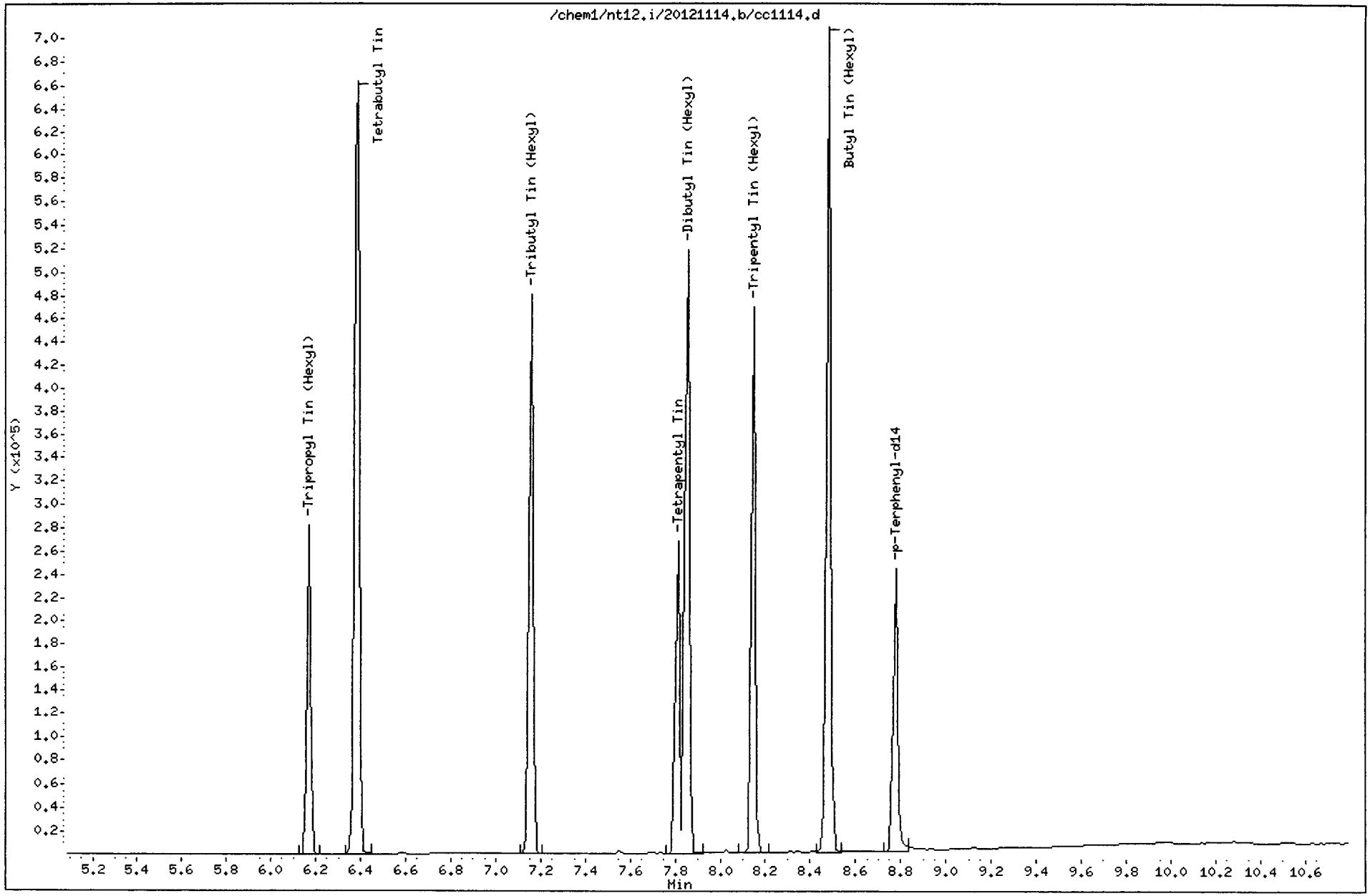
COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 Tripropyl Tin (Hexyl)	0.70012	0.75562	0.005	7.92736	20.00000	Averaged
2 Tetrabutyl Tin	0.72904	0.78117	0.010	7.15050	20.00000	Averaged
3 Tributyl Tin (Hexyl)	0.64011	0.74105	0.005	15.77009	20.00000	Averaged
5 Dibutyl Tin (Hexyl)	0.05130	0.05046	0.005	-1.63638	20.00000	Averaged
$ 6 Tripentyl Tin (Hexyl)	0.06806	0.06999	0.010	2.84415	20.00000	Averaged
7 Butyl Tin (Hexyl)	0.07745	0.08128	0.005	4.93834	20.00000	Averaged

Data File: /chem1/nt12.i/20121114.b/cc1114.d
Date : 14-NOV-2012 11:51
Client ID:
Sample Info: TBT 1

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - cc1114.d

Lab ID: TBT 1, Method: lowbts.m, Instrument: nt12.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121114.b/vr38mb.d
Lab Smp Id: VR38MBS1 Client Smp ID: VR38MBS1
Inj Date : 14-NOV-2012 15:48
Operator : VTS Inst ID: nt12.i
Smp Info : VR38MBS1
Misc Info : 12-22277
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121114.b/lowbts.m
Meth Date : 14-Nov-2012 17:02 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:14 Cal File: ic1006f.d
Als bottle: 19 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.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	500.00000	Effective Final Volume of extract (uL)
Ws	5.00000	Dry Weight of sample extracted (g)
M	0.00000	Percent moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.169	(0.791)	52605	0.40353	40.35
	2 Tetrabutyl Tin	289	Compound Not Detected.					
	3 Tributyl Tin (Hexyl)	319	Compound Not Detected.					
*	4 Tetrapentyl Tin	333	7.801	7.814	(1.000)	372403	2.00000	
	5 Dibutyl Tin (Hexyl)	347	Compound Not Detected.					
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.149	(0.930)	52869	0.45137	45.14
	7 Butyl Tin (Hexyl)	347	Compound Not Detected.					
*	8 p-Terphenyl-d14	244	8.766	8.779	(1.000)	344209	0.20000	

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: vr38mb.d
Lab Smp Id: VR38MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

Calibration Date: 14-NOV-2012
Calibration Time: 11:51
Client Smp ID: VR38MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	372403	8.43
8 p-Terphenyl-d14	317005	158502	634010	344209	8.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.81	7.31	8.31	7.80	-0.17
8 p-Terphenyl-d14	8.78	8.28	9.28	8.77	-0.15

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: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38MBS1 Client Smp ID: VR38MBS1
Level: LOW Operator: VTS
Data Type: MS DATA SampleType: BLANK
SpikeList File: tbtsed.spk Quant Type: ISTD
Sublist File: SED.sub
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

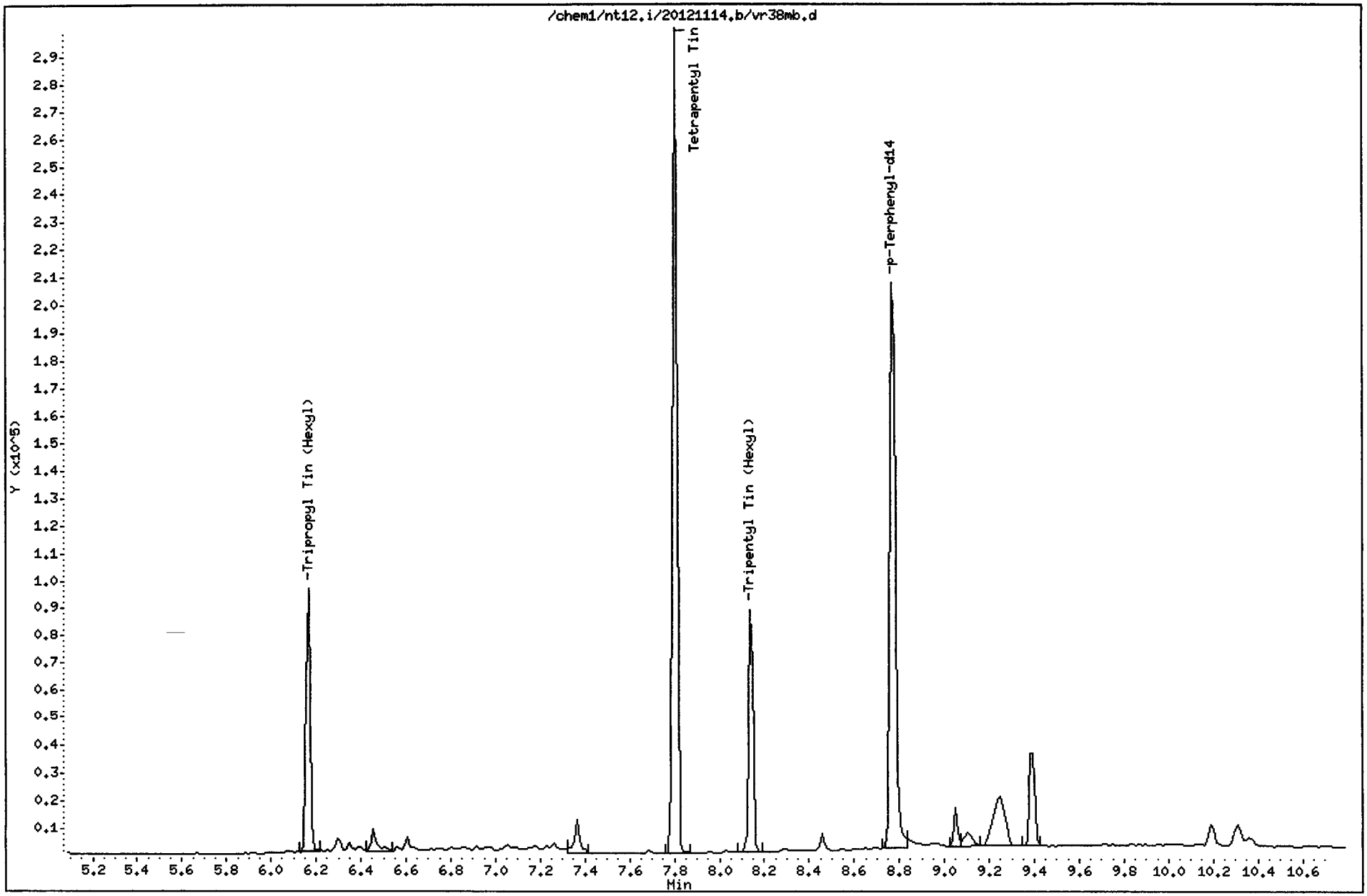
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 Tripropyl Tin (Hex	58.80	40.35	68.63	32-104
$ 6 Tripentyl Tin (Hex	56.80	45.14	79.47	25-140

Data File: /chem1/nt12.i/20121114.b/vr38mb.d
Date : 14-NOV-2012 15:48
Client ID: VR38MBS1
Sample Info: VR38MBS1

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - vr38mb.d

Lab ID: VR38MBS1, Method: lowbts.m, Instrument: nt12.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121114.b/vr38sb.d
Lab Smp Id: VR38LCSS1 Client Smp ID: VR38LCSS1
Inj Date : 14-NOV-2012 16:02
Operator : VTS Inst ID: nt12.i
Smp Info : VR38LCSS1
Misc Info : 12-22277
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121114.b/lowbts.m
Meth Date : 14-Nov-2012 17:02 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:14 Cal File: ic1006f.d
Als bottle: 20 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.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	500.00000	Effective Final Volume of extract (uL)
Ws	5.00000	Dry Weight of sample extracted (g)
M	0.00000	Percent moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.169	(0.791)	55500	0.43667	43.67
	2 Tetrabutyl Tin	289	Compound Not Detected.					
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.918)	58574	0.50406	50.41
*	4 Tetrapentyl Tin	333	7.801	7.814	(1.000)	363079	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.896)	44562	0.51787	51.79
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.149	(0.930)	54720	0.47935	47.93
	7 Butyl Tin (Hexyl)	347	8.485	8.484	(0.968)	58401	0.44954	44.95
*	8 p-Terphenyl-d14	244	8.766	8.779	(1.000)	335464	0.20000	

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: vr38sb.d
Lab Smp Id: VR38LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

Calibration Date: 14-NOV-2012
Calibration Time: 11:51
Client Smp ID: VR38LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	363079	5.71
8 p-Terphenyl-d14	317005	158502	634010	335464	5.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.81	7.31	8.31	7.80	-0.17
8 p-Terphenyl-d14	8.78	8.28	9.28	8.77	-0.15

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: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38LCSS1 Client Smp ID: VR38LCSS1
Level: LOW Operator: VTS
Data Type: MS DATA SampleType: LCS
SpikeList File: tbtsed.spk Quant Type: ISTD
Sublist File: SED.sub
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Tributyl Tin (Hexy	57.60	50.41	87.51	40-144
5 Dibutyl Tin (Hexyl	66.40	51.79	77.99	34-115
7 Butyl Tin (Hexyl)	76.40	44.95	58.84	10-111

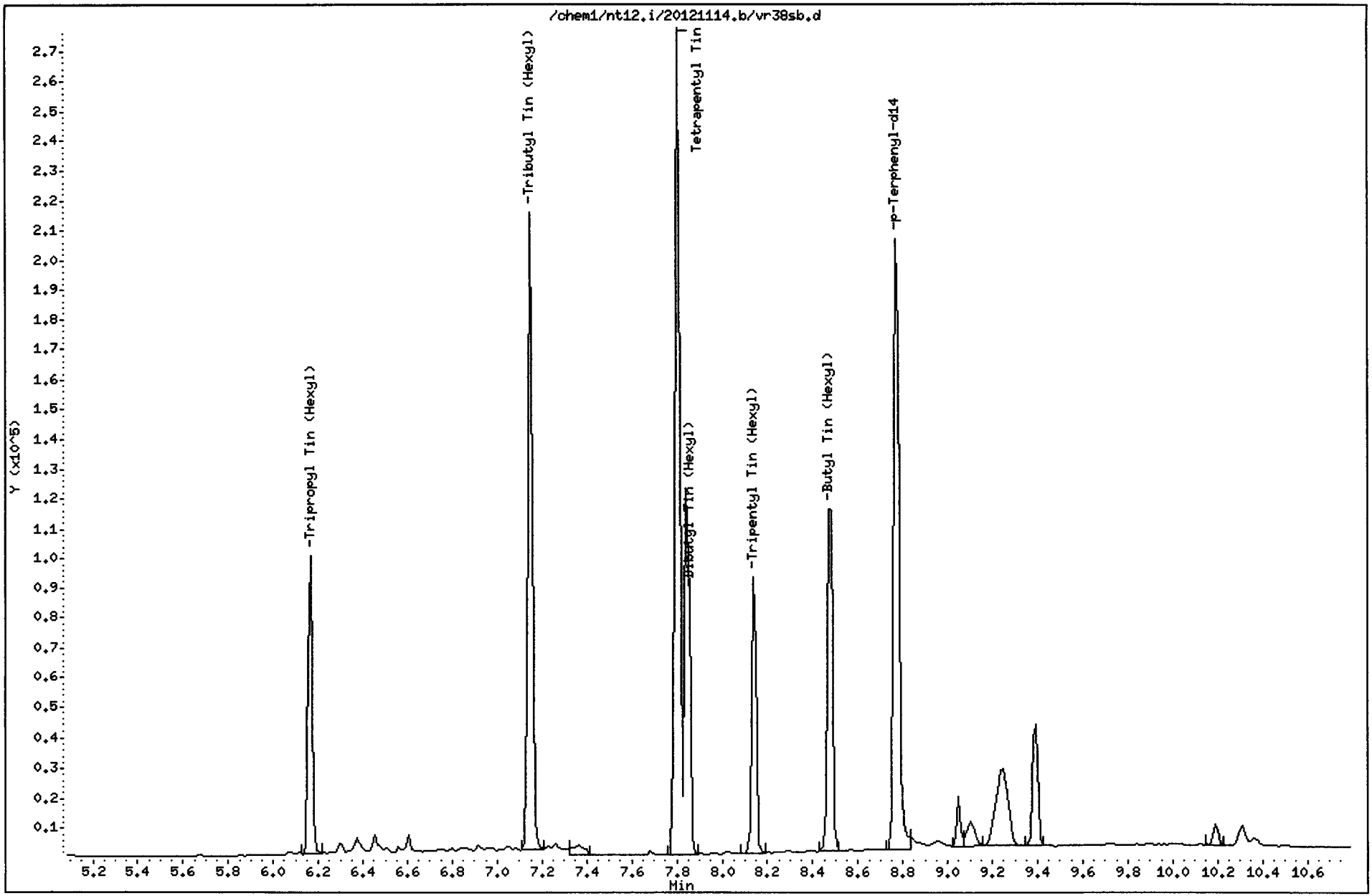
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 Tripropyl Tin (Hex	58.80	43.67	74.26	32-104
$ 6 Tripentyl Tin (Hex	56.80	47.93	84.39	25-140

Data File: /chem1/nt12.i/20121114.b/vr38sb.d
Date : 14-NOV-2012 16:02
Client ID: VR38LCSS1
Sample Info: VR38LCSS1

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - vr38sb.d

Lab ID: VR38LCSS1, Method: lowbts.m, Instrument: nt12.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121114.b/vr38j.d
Lab Smp Id: VR38J Client Smp ID: HT-06-S-E-121106
Inj Date : 14-NOV-2012 16:16
Operator : VTS Inst ID: nt12.i
Smp Info : VR38J
Misc Info : 12-22276
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121114.b/lowbts.m
Meth Date : 14-Nov-2012 17:02 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:14 Cal File: ic1006f.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.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	500.00000	Effective Final Volume of extract (uL)
Ws	7.14000	Dry Weight of sample extracted (g)
M	0.00000	Percent moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.169	(0.791)	55150	0.42927	30.06
	2 Tetrabutyl Tin	289	Compound Not Detected.					
	3 Tributyl Tin (Hexyl)	319	Compound Not Detected.					
*	4 Tetrapentyl Tin	333	7.801	7.814	(1.000)	367009	2.00000	
	5 Dibutyl Tin (Hexyl)	347	Compound Not Detected.					
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.149	(0.930)	51528	0.43471	30.44
	7 Butyl Tin (Hexyl)	347	Compound Not Detected.					
*	8 p-Terphenyl-d14	244	8.766	8.779	(1.000)	348335	0.20000	

11.5.12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: vr38j.d
Lab Smp Id: VR38J
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22276

Calibration Date: 14-NOV-2012
Calibration Time: 11:51
Client Smp ID: HT-06-S-E-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	367009	6.86
8 p-Terphenyl-d14	317005	158502	634010	348335	9.88

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.81	7.31	8.31	7.80	-0.17
8 p-Terphenyl-d14	8.78	8.28	9.28	8.77	-0.15

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: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38J Client Smp ID: HT-06-S-E-121106
Level: LOW Operator: VTS
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: tbtsed.spk Quant Type: ISTD
Sublist File: SED.sub
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22276

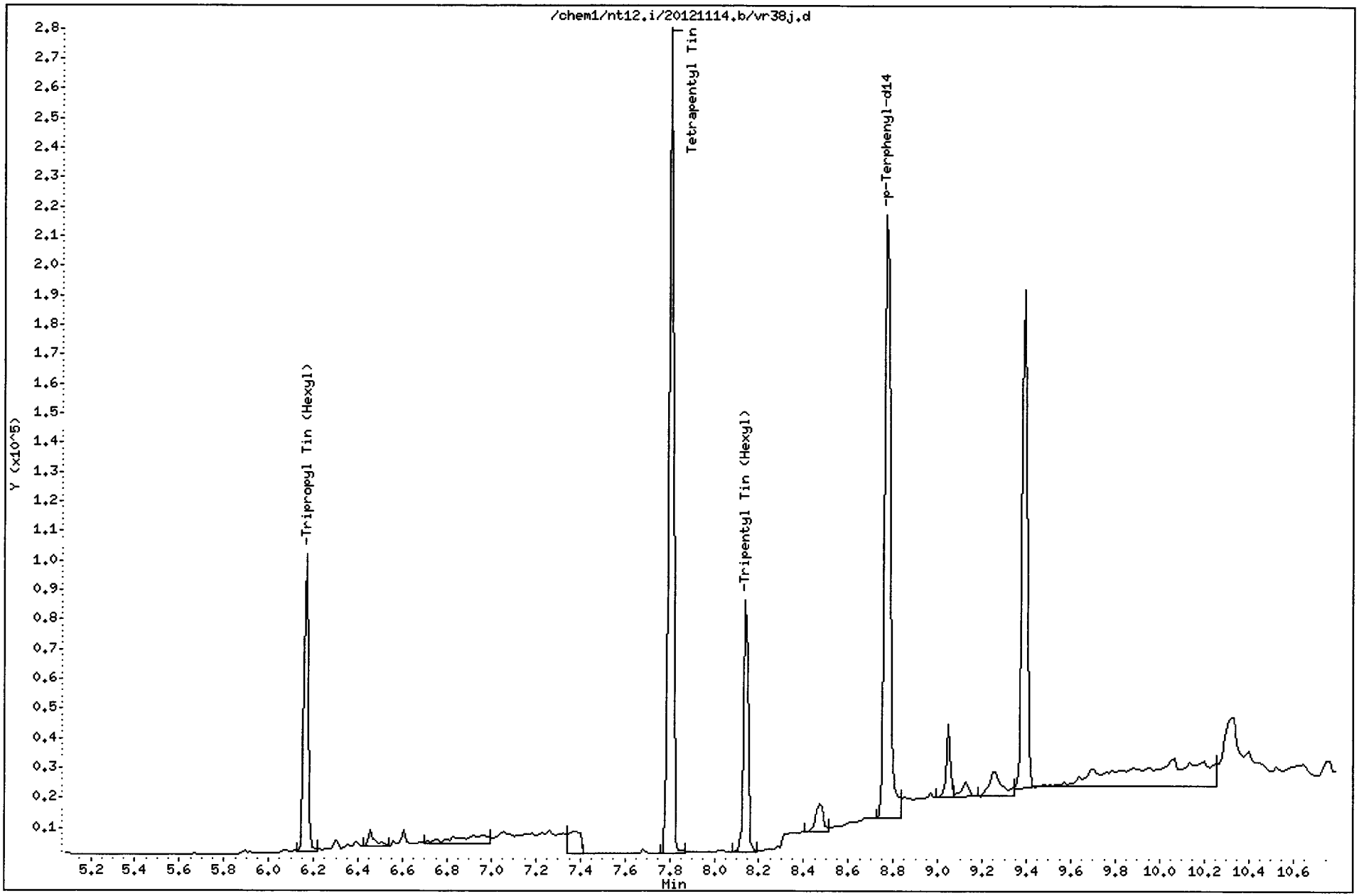
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 Tripropyl Tin (Hex	41.18	30.06	73.00	32-104
$ 6 Tripentyl Tin (Hex	39.78	30.44	76.53	25-140

Data File: /chem1/nt12.i/20121114.b/vr38j.d
Date : 14-NOV-2012 16:16
Client ID: HT-06-S-E-121106
Sample Info: VR38J

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - vr38j.d

Lab ID: VR38J, Method: lowbts.m, Instrument: nt12.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121114.b/vr38k.d
Lab Smp Id: VR38K Client Smp ID: HT-07-S-E-121106
Inj Date : 14-NOV-2012 16:30
Operator : VTS Inst ID: nt12.i
Smp Info : VR38K
Misc Info : 12-22277
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121114.b/lowbts.m
Meth Date : 14-Nov-2012 17:02 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:14 Cal File: ic1006f.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.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	500.00000	Effective Final Volume of extract (uL)
Ws	6.22000	Dry Weight of sample extracted (g)
M	16.50000	Percent moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.169	(0.791)	54445	0.42673	41.08
	2 Tetrabutyl Tin	289	Compound Not Detected.					
	3 Tributyl Tin (Hexyl)	319	Compound Not Detected.					
*	4 Tetrapentyl Tin	333	7.801	7.814	(1.000)	364472	2.00000	
	5 Dibutyl Tin (Hexyl)	347	Compound Not Detected.					
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.149	(0.930)	49583	0.42841	41.24
	7 Butyl Tin (Hexyl)	347	8.484	8.484	(0.968)	6910	0.05246	5.051 – Nbutyl
*	8 p-Terphenyl-d14	244	8.766	8.779	(1.000)	340114	0.20000	

11-15-12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: vr38k.d
Lab Smp Id: VR38K
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

Calibration Date: 14-NOV-2012
Calibration Time: 11:51
Client Smp ID: HT-07-S-E-121106
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	364472	6.12
8 p-Terphenyl-d14	317005	158502	634010	340114	7.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.81	7.31	8.31	7.80	-0.17
8 p-Terphenyl-d14	8.78	8.28	9.28	8.77	-0.15

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: VR38
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: VR38K Client Smp ID: HT-07-S-E-121106
Level: LOW Operator: VTS
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: tbtsed.spk Quant Type: ISTD
Sublist File: SED.sub
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

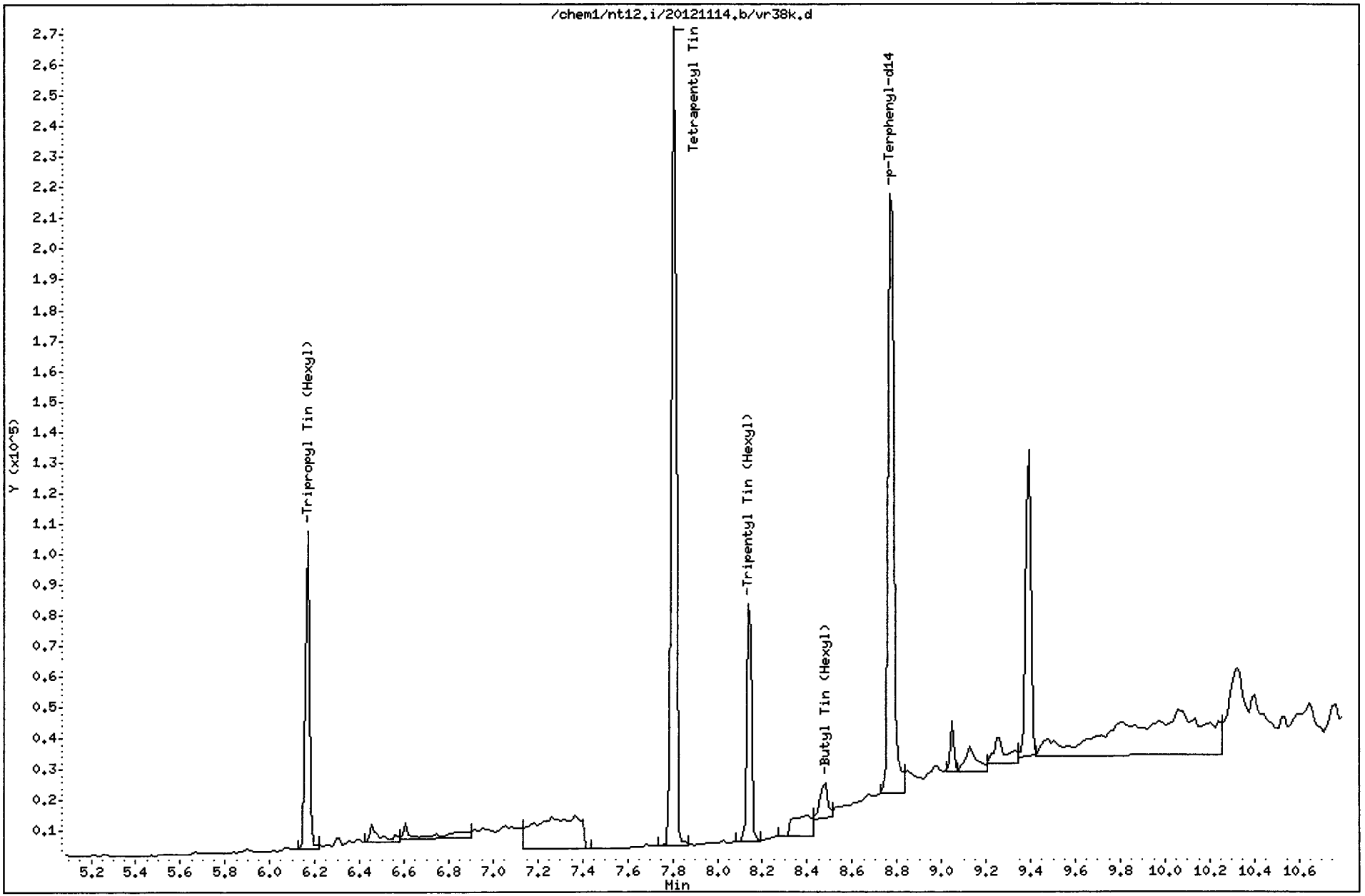
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 Tripropyl Tin (Hex	56.61	41.08	72.57	32-104
$ 6 Tripentyl Tin (Hex	54.68	41.24	75.42	25-140

Data File: /chem1/nt12.i/20121114.b/vr38k.d
Date : 14-NOV-2012 16:30
Client ID: HT-07-S-E-121106
Sample Info: VR38K

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - vr38k.d

Lab ID: VR38K, Method: lowbts.m, Instrument: nt12.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121114.b/vr38kms.d
Lab Smp Id: VR38KMS Client Smp ID: HT-07-S-E-12110 MS
Inj Date : 14-NOV-2012 16:43
Operator : VTS Inst ID: nt12.i
Smp Info : VR38KMS
Misc Info : 12-22277
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121114.b/lowbts.m
Meth Date : 14-Nov-2012 17:02 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:14 Cal File: ic1006f.d
Als bottle: 23 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.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	500.00000	Effective Final Volume of extract (uL)
Ws	6.18000	Dry Weight of sample extracted (g)
M	0.00000	Percent moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.169	(0.791)	57792	0.43766	35.41
	2 Tetrabutyl Tin	289	Compound Not Detected.					
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.918)	58327	0.48313	39.09
*	4 Tetrapentyl Tin	333	7.801	7.814	(1.000)	377212	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.896)	44307	0.49470	40.02
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.149	(0.930)	53607	0.45117	36.50
	7 Butyl Tin (Hexyl)	347	8.484	8.484	(0.968)	63608	0.47041	38.06
*	8 p-Terphenyl-d14	244	8.766	8.779	(1.000)	349164	0.20000	

VD 11-15-12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: vr38kms.d
Lab Smp Id: VR38KMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

Calibration Date: 14-NOV-2012
Calibration Time: 11:51
Client Smp ID: HT-07-S-E-12110
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	377212	9.83
8 p-Terphenyl-d14	317005	158502	634010	349164	10.14

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.81	7.31	8.31	7.80	-0.17
8 p-Terphenyl-d14	8.78	8.28	9.28	8.77	-0.15

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
Client SDG: VR38
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: VR38KMS
Client Smp ID: HT-07-S-E-12110 MS
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: MS
SpikeList File: tbtsed.spk
Quant Type: ISTD
Sublist File: SED.sub
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Tributyl Tin (Hexy	46.60	39.09	83.88	40-144
5 Dibutyl Tin (Hexyl	53.72	40.02	74.50	34-115
7 Butyl Tin (Hexyl)	61.81	38.06	61.57	10-111

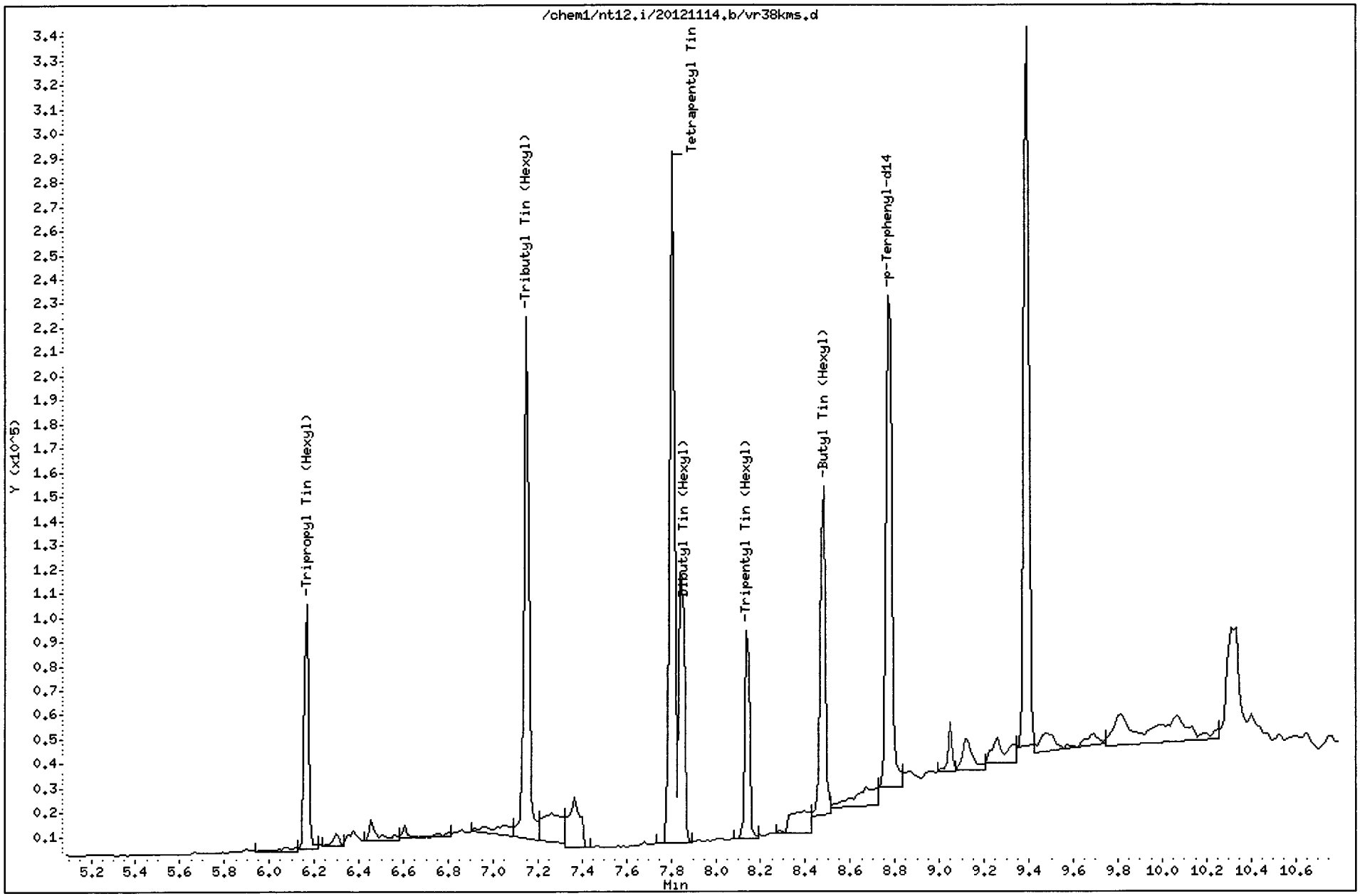
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 Tripropyl Tin (Hex	47.57	35.41	74.43	32-104
$ 6 Tripentyl Tin (Hex	45.95	36.50	79.43	25-140

Data File: /chem1/nt12.i/20121114.b/vr38kms.d
Date : 14-NOV-2012 16:43
Client ID: HT-07-S-E-12110 MS
Sample Info: VR38KMS

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - vr38kms.d

Lab ID: VR38KMS, Method: lowbts.m, Instrument: nt12.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Krone-1988

Data file : /chem1/nt12.i/20121114.b/vr38kmsd.d
Lab Smp Id: VR38KMSD Client Smp ID: HT-07-S-E-12110 MSD
Inj Date : 14-NOV-2012 16:57
Operator : VTS Inst ID: nt12.i
Smp Info : VR38KMSD
Misc Info : 12-22277
Comment : 2 ul Injection
Method : /chem1/nt12.i/20121114.b/lowbts.m
Meth Date : 14-Nov-2012 17:02 van Quant Type: ISTD
Cal Date : 06-OCT-2012 15:14 Cal File: ic1006f.d
Als bottle: 24 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SED.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	500.00000	Effective Final Volume of extract (uL)
Ws	6.11000	Dry Weight of sample extracted (g)
M	0.00000	Percent moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 Tripropyl Tin (Hexyl)	291	6.169	6.169	(0.791)	56218	0.41795	34.20
	2 Tetrabutyl Tin	289	Compound Not Detected.					
	3 Tributyl Tin (Hexyl)	319	7.159	7.159	(0.918)	57261	0.46561	38.10
*	4 Tetrapentyl Tin	333	7.801	7.814	(1.000)	384249	2.00000	
	5 Dibutyl Tin (Hexyl)	347	7.854	7.854	(0.896)	42044	0.47029	38.49
$	6 Tripentyl Tin (Hexyl)	347	8.149	8.149	(0.930)	52261	0.44065	36.06
	7 Butyl Tin (Hexyl)	347	8.485	8.484	(0.968)	65916	0.48837	39.97
*	8 p-Terphenyl-d14	244	8.766	8.779	(1.000)	348526	0.20000	

VD
11-15-12

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: vr38kmsd.d
Lab Smp Id: VR38KMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

Calibration Date: 14-NOV-2012
Calibration Time: 11:51
Client Smp ID: HT-07-S-E-12110
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	343457	171728	686914	384249	11.88
8 p-Terphenyl-d14	317005	158502	634010	348526	9.94

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
4 Tetrapentyl Tin	7.81	7.31	8.31	7.80	-0.17
8 p-Terphenyl-d14	8.78	8.28	9.28	8.77	-0.15

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: VR38KMSD
Level: LOW
Data Type: MS DATA
SpikeList File: tbtsed.spk
Sublist File: SED.sub
Method File: /chem1/nt12.i/20121114.b/lowbts.m
Misc Info: 12-22277

Client SDG: VR38
Fraction: SV
Client Smp ID: HT-07-S-E-12110 MSD
Operator: VTS
SampleType: MSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Tributyl Tin (Hexy	47.14	38.10	80.84	40-144
5 Dibutyl Tin (Hexyl	54.34	38.49	70.83	34-115
7 Butyl Tin (Hexyl)	62.52	39.97	63.92	10-111

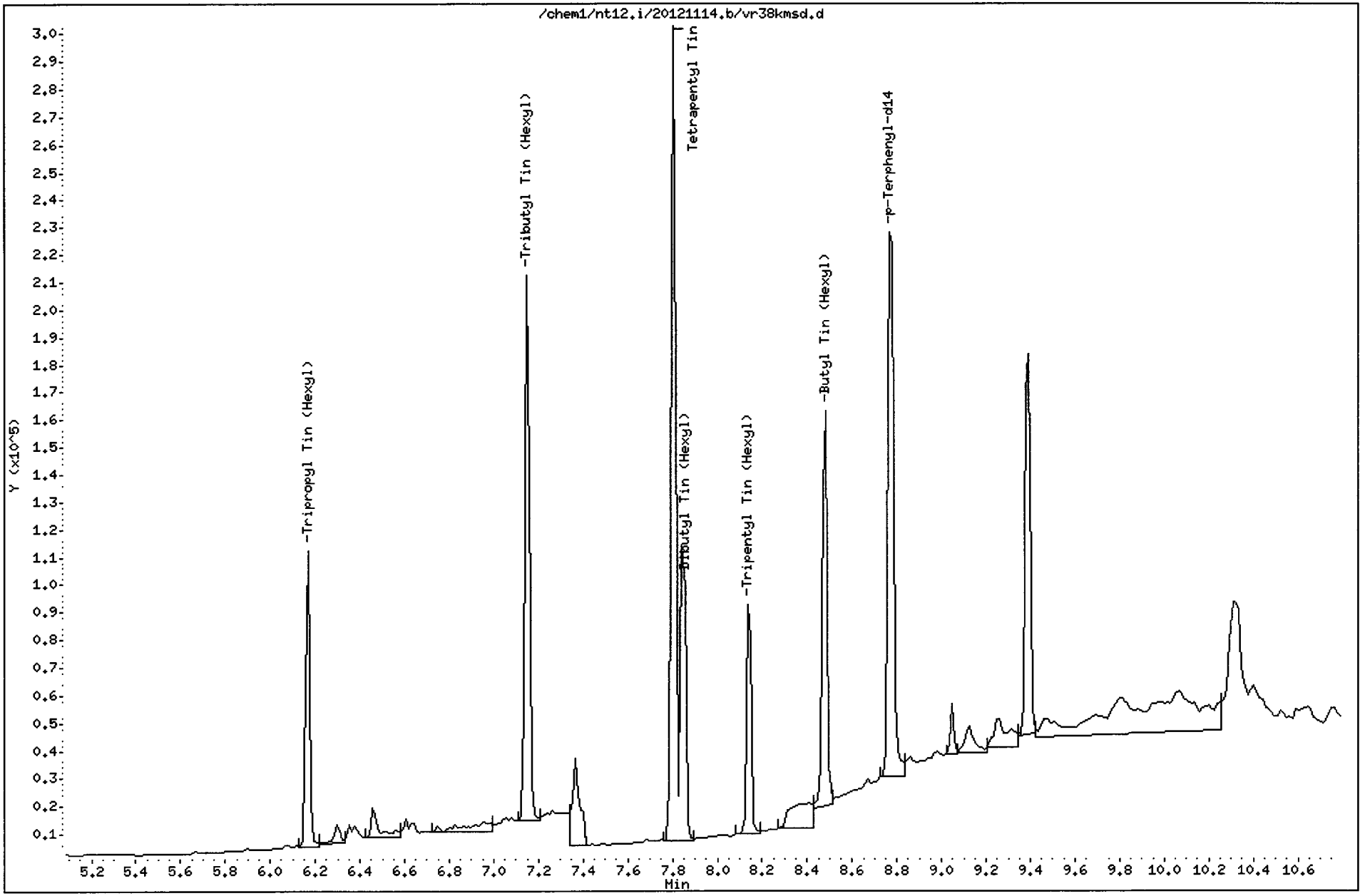
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 Tripropyl Tin (Hex	48.12	34.20	71.08	32-104
$ 6 Tripentyl Tin (Hex	46.48	36.06	77.58	25-140

Data File: /chem1/nt12.i/20121114.b/vr38kmsd.d
Date : 14-NOV-2012 16:57
Client ID: HT-07-S-E-12110 MSD
Sample Info: VR38KMSD

Instrument: nt12.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - vr38kmsd.d

Lab ID: VR38KMSD, Method: lowbts.m, Instrument: nt12.i, Date: 14-NOV-2012

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Dioxin Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Dioxin / Furan Bench Sheet EPA Methods 8290 & 1613B
Solid Samples

ARI Job No(s): VR38

Matrix (circle one)	Soil	(Sediment)	Oil	Tissue
Extraction Method	Start Time/Date:		End Time/Date:	
(Soxhlet)	13:32 11/16/12		0625 11/17/12	

Reagent / Standard	NA	ID / Lot Number	Initials	Date
Analytical Balance		SN 24650344	PD	11/16/12
Purified Sand		3/14/12	PD	11/16/12
Toluene		I7887	PD	11/16/12
Hexane		I 7866	JW	11/17/12
CH_2Cl_2		I7933	PD	11/19/12
H_2SO_4		I7883	PD	11/19/12
Na_2SO_4		11/6/12	PD	11/19/12
Glasswool		5/18/12	PD	11/19/12
10 % $AgNO_3$	✓			
Basic Silica		G933	PD	11/19/12
Acid Silica		H014	PD	11/19/12
0% Silica		I7764	PD	11/19/12
Activated Florisil		H013	PD	11/19/12
Dual Carbon Column	✓			
Other (PAR-SRM)		VN08A	PD	11/16/12
Nonane		I5167	JW	11/21/12

Bottle ID	ARI Sample ID	Sample Weight (eq to dry wt)	Roto Vap	Final Vol.	H20 Trap Vol (mL)	Comments
11/16/12	VR38 MB	10.00g	(1) 1 2	10uL	0.5	
↓	↓ OPR	10.00g	1 1 (2)	10uL	0.5	
	~~QLS~~	~~10.00g~~	~~1 1 2~~	~~10uL~~		
3	VR38SRM	10.02	(1) 1 2	10uL	0.2	
	A	12.76	(1) 1 2	10uL	2.8	
	B	11.97	1 (2)	10uL	3.0	
	C	13.59	(1) 1 2	10uL	4.2	
	D	16.93	1 (2)	10uL	7.8	
	E	12.54	(1) 1 2	10uL	2.4	
	F	12.12	1 (2)	10uL	2.4	
	G	17.61	(1) 1 2	10uL	4.2	
	H	11.81	1 (2)	10uL	2.0	
	I	12.09	(1) 1 2	10uL	2.8	
	J	12.55	1 (2)	10uL	2.4	
	K	13.01	(1) 1 2	10uL	2.4	
	Kdup	12.04	1 (2)	10uL	2.2	
			1 1 2	10uL		
			1 1 2	10uL		
			1 1 2	10uL		
			1 1 2	10uL		
			1 1 2	10uL		
			1 1 2	10uL		
			1 1 2	10uL		
			1 1 2	10uL		
Prep Analyst/Date	PD 11/16/12		JW 11/17/12	JW 11/21/12	JW 11/17/12	

Reagent / Standard	Vol	ID / Lot Number	Solution Conc.	Expiration Date	Initials	Date	Witness
Recovery Standard	1.0 mL	2035-3	2/4ng/mL	11/3/13	PD	11/16/12	WW
Ongoing Precision /Recovery	20 µL	~~1954~~ 1954-3	10/50/100ng/mL	2/27/13	PD	11/16/12	WW
~~QLS Standard~~	~~10 µL~~	211	~~0.5/2.5/5ng/mL~~				
Clean-up Standard	1.0 mL	2035-4	0.8ng/mL	11/3/13	PDx2	11/19/12	PD
Internal Standard	10 µL		200ng/mL				

Verify Client ID	
Analyst/Date	PD 11/16/12
Acid Clean	
	(Y)/N
Analyst/Date	PD 11/19/12
Silica-Florisil	
	(Y)/N
Analyst/Date	PD 11/19/12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No: VR38 Client ID: Anchor QEA, LLC

Parameter: Dioxin 1613B Client Project: City of Kenmore Sediment

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[X] No Anomalies (standard soil/wet sediment/sand/gravel)= A, B, C, D, E, F, G, H, I, J, K	YL 11/07/12
[X] Standing Water Decanted (Not shared)= A, B, C, D, E, F, G, H, I, J, K.	YL 11/07/12
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[X] Rocks (%+size)? E, 15% Small pebbles 2% small pebbles F, G, H, I, J, K.	YL 11/07/12
[X] Organics (Leaves/sticks/grass)= C.	YL 11/07/12
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
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)	

Dioxin Raw Data
Initial Calibration

ARI Job ID: VR38

HR-GC/MS Analyst Notes / Corrective Action Log

ARI Project ID: _____ Client ID: _____

ARI SOP: **806S** (Dioxins)

Parameter(s): Dioxin Curve 11/23/12

Instrument: **AutoSpec01**

Curve Date: 11/23/12 Analysis Start Date: _____

Internal Standard Meets Criteria?	YES / NO	Method Blank in Control?	YES / NO
Extraction Std Recovery in Control?	YES / NO	IPR / OPR Recovery in Control?	YES / NO
ICal acceptable?	YES / NO	CCal acceptable?	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes /NO
Special Analysis Criteria Met?	YES / NO / NA		

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

- All cmpds 6 pts: CSL – CS5
- All < 20% RSD
- Man. Int. for HpD in CSL.

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 11/26/12

Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Organics Instrument Log

AutoSpec01 Serial No.:GC=CN10921030, MS=P764

Date: 11/23/12 Analysis: Dioxins Analyst: JH

GC Program: 8290C Column No: 1081305 Column Type: RTX Dioxin2

Inj Vol: 1 µL Instrument Tune (IPR): 101128290B Detector Voltage: 350

Resolution Check Files: 10:33, 21:14 Curve Date: 11/23/12

IS/SS	Ical/Ccal	LCS/ICV
I7908	I7214	
	1997-2	

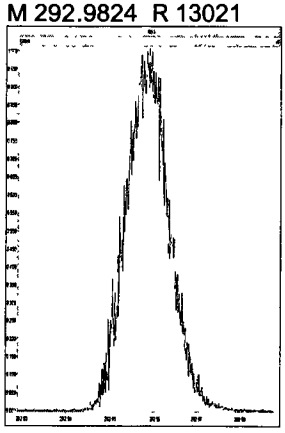
1	23-Nov-12	10:34:06	12112302	PCDFS	39.6	39.6	17084
2	23-Nov-12	11:24:26	12112303	CS3	39.6	39.6	2672022
3	23-Nov-12	12:16:42	12112304	ISC01	2.5		
4	23-Nov-12	14:07:24	12112305	CSL	39.6	39.6	3137527
5	23-Nov-12	15:02:34	12112306	CS1	39.6	39.6	3300814
6	23-Nov-12	15:55:02	12112307	CS2	39.6	39.6	3479761
7	23-Nov-12	16:45:35	12112308	CS3	39.6	39.6	2679815
8	23-Nov-12	17:37:45	12112309	CS4	39.6	39.6	3593846
9	23-Nov-12	18:30:06	12112310	CS5	39.6	39.6	8062691
10	23-Nov-12	19:22:21	12112311	ICV	39.6	39.6	2719432

JH 11/29/12

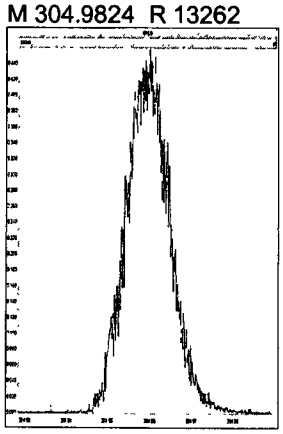
Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks in StarLIMS

Printed: Friday, November 23, 2012 10:33:01 Pacific Standard Time

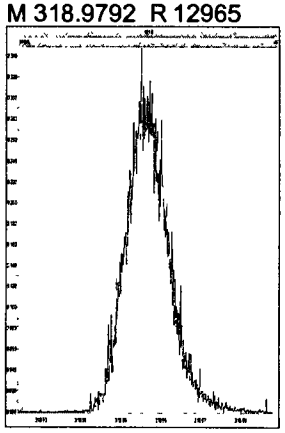
M 292.9824 R 13021



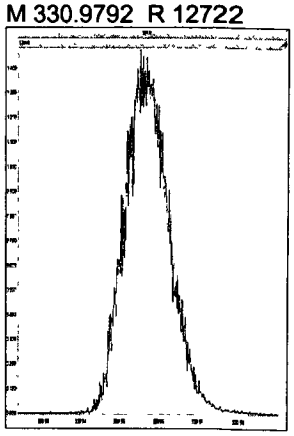
M 304.9824 R 13262



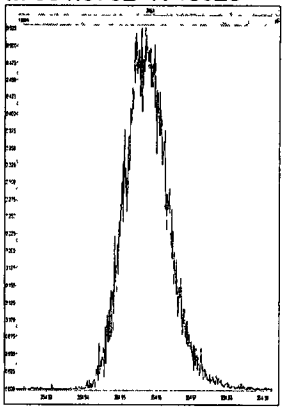
M 318.9792 R 12965



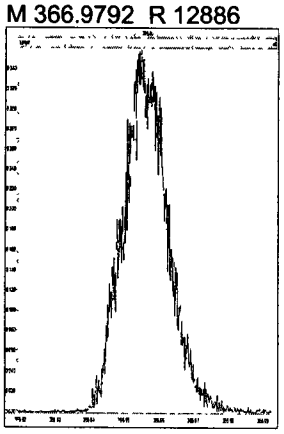
M 330.9792 R 12722



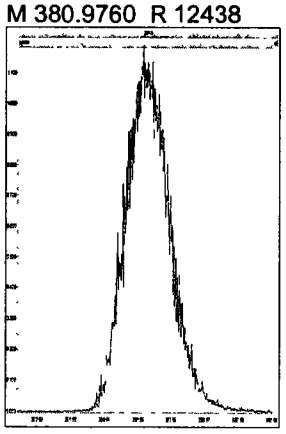
M 354.9792 R 13023



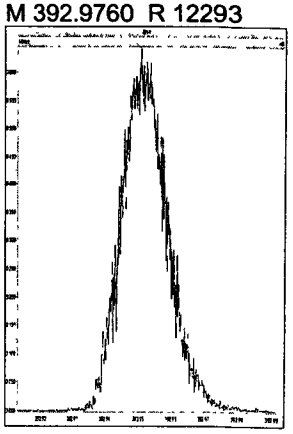
M 366.9792 R 12886



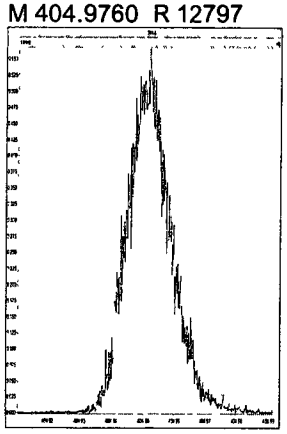
M 380.9760 R 12438



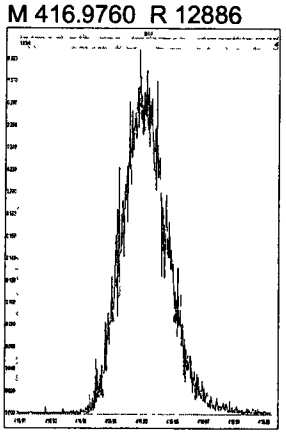
M 392.9760 R 12293



M 404.9760 R 12797



M 416.9760 R 12886



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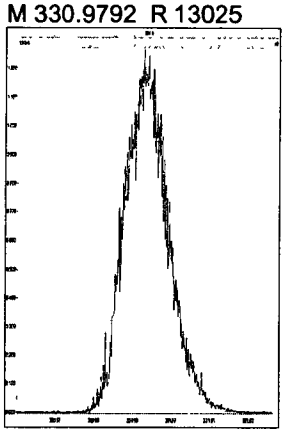
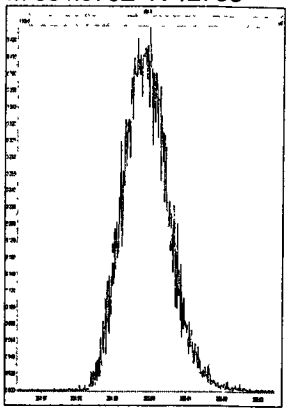


M 354.9792 R 12788



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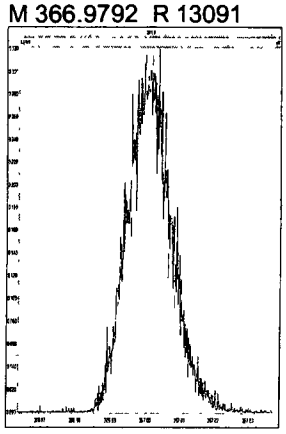

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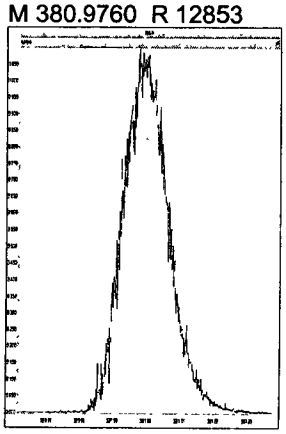

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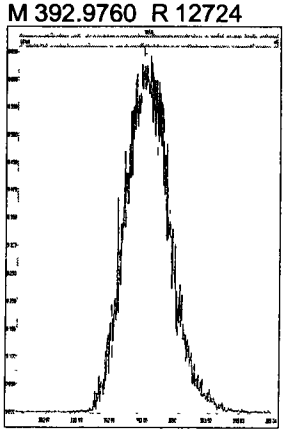
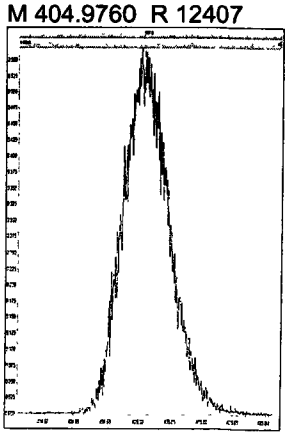
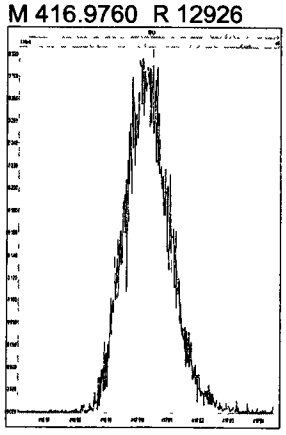


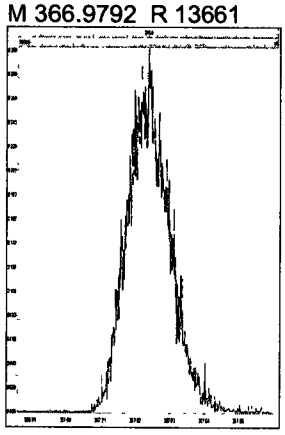
M 404.9760 R 12407



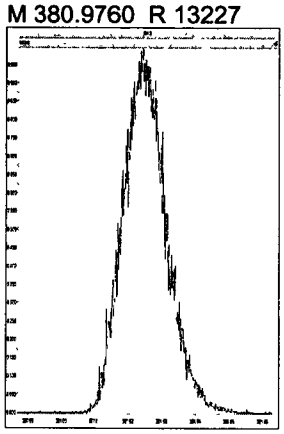
M 416.9760 R 12926



M 366.9792 R 13661



M 380.9760 R 13227



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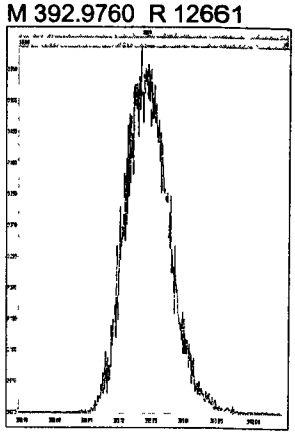

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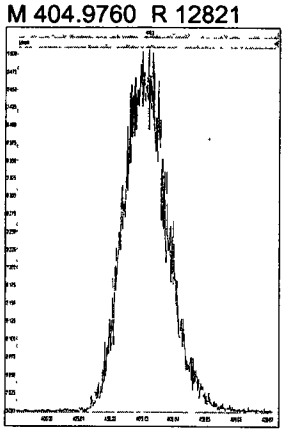

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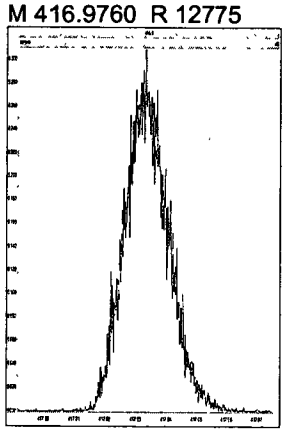
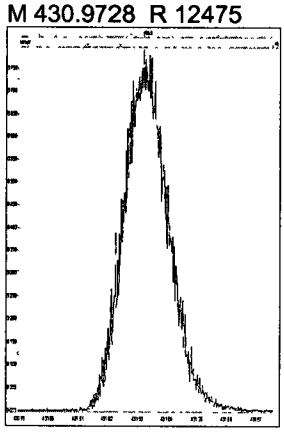


M 430.9728 R 12475



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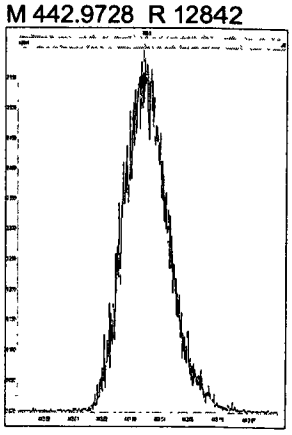

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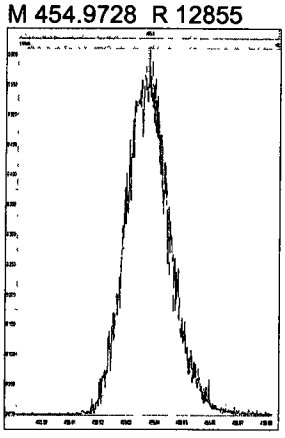

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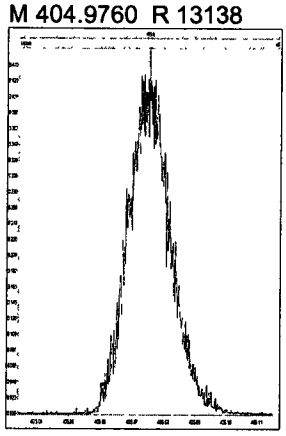

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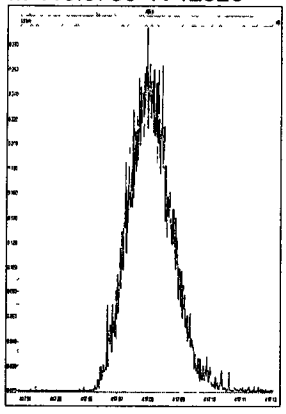

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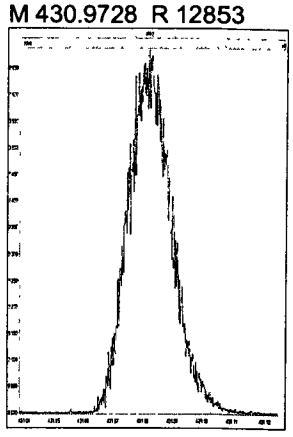

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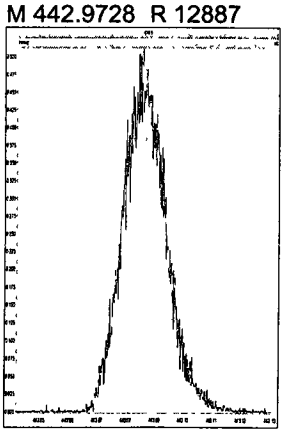

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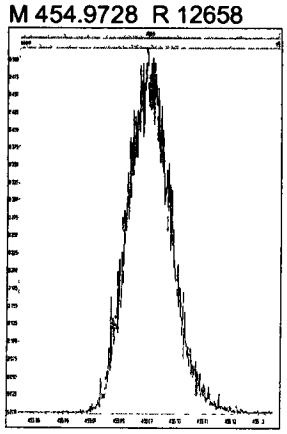
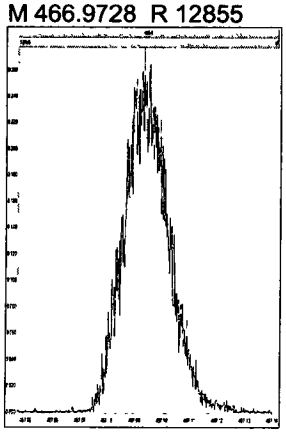
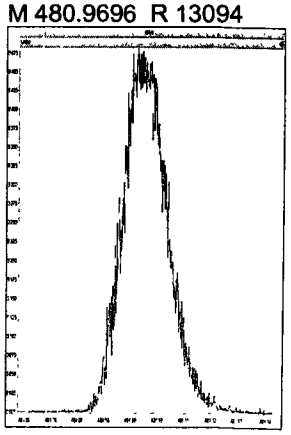


M 466.9728 R 12855



M 480.9696 R 13094



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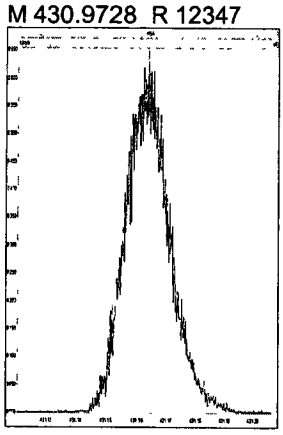
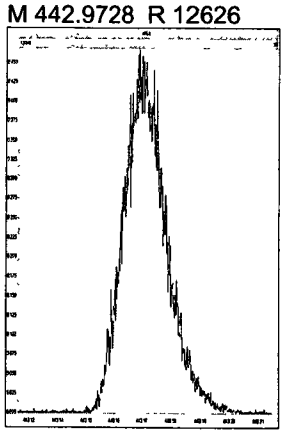


M 442.9728 R 12626



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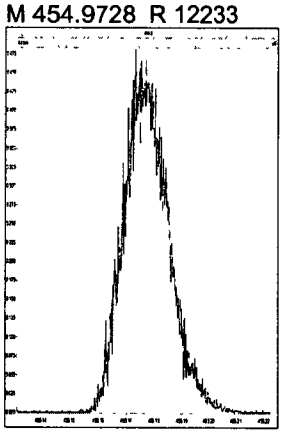

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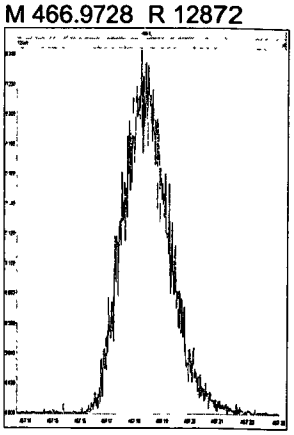
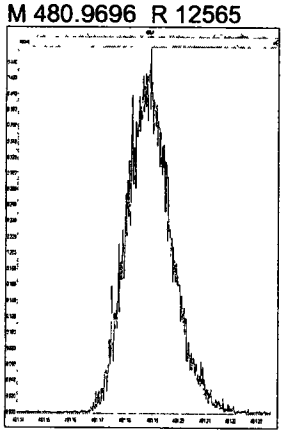


M 480.9696 R 12565



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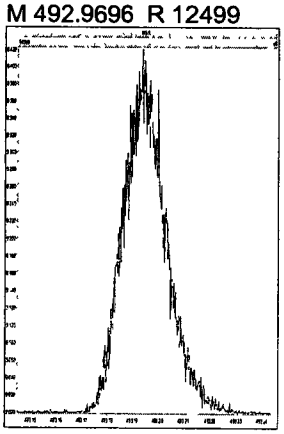
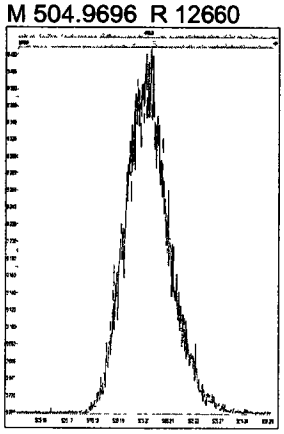


M 504.9696 R 12660



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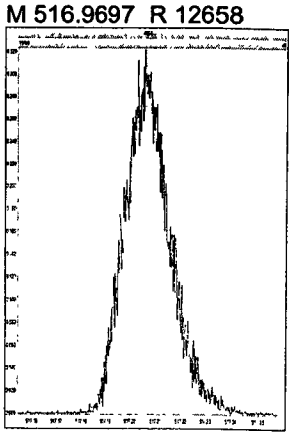

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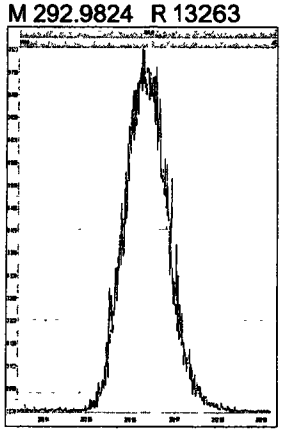
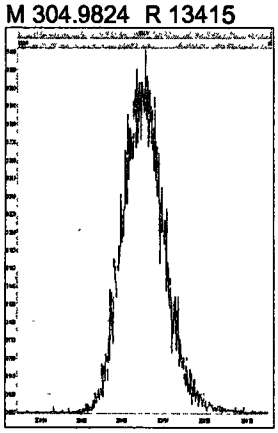
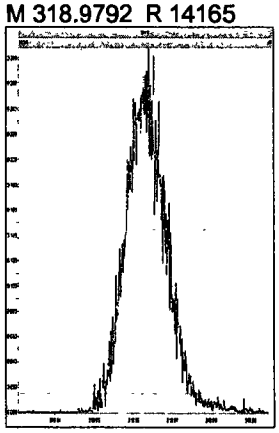


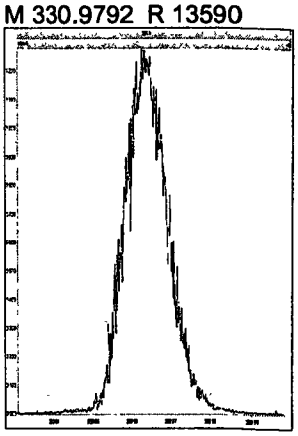
M 304.9824 R 13415



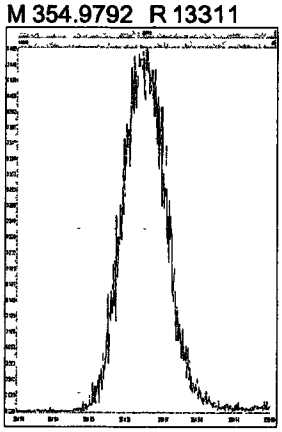
M 318.9792 R 14165



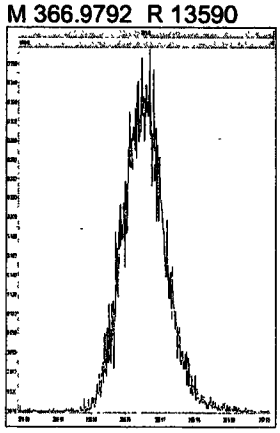
M 330.9792 R 13590



M 354.9792 R 13311



M 366.9792 R 13590



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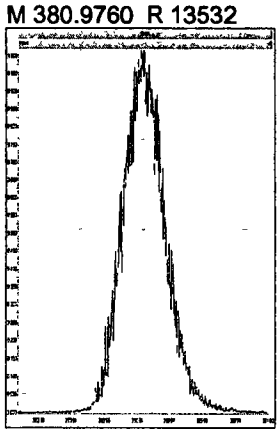

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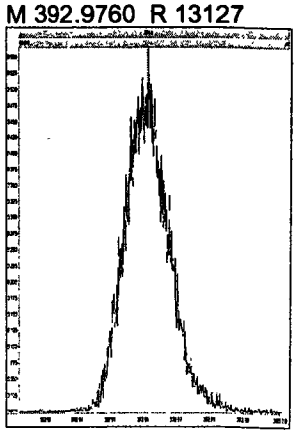
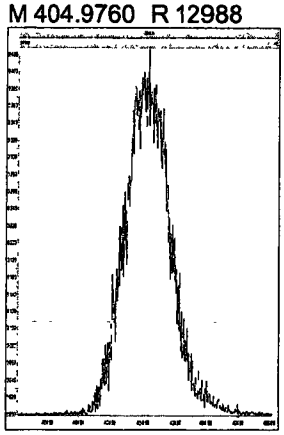
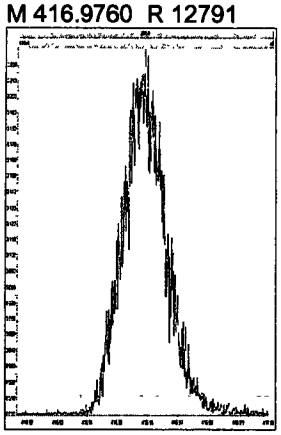


M 404.9760 R 12988



M 416.9760 R 12791



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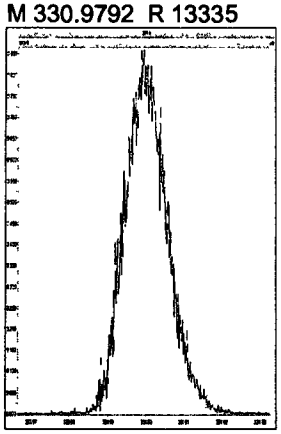

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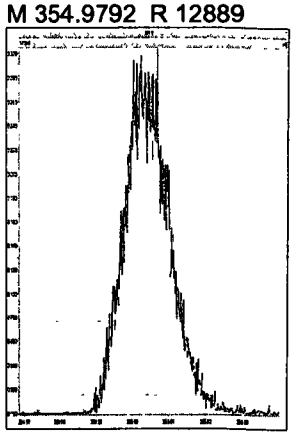

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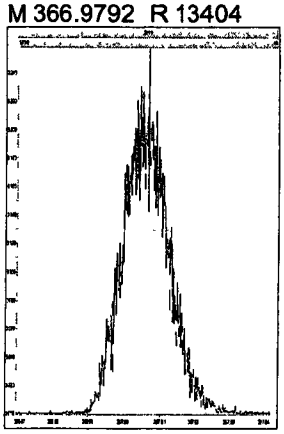

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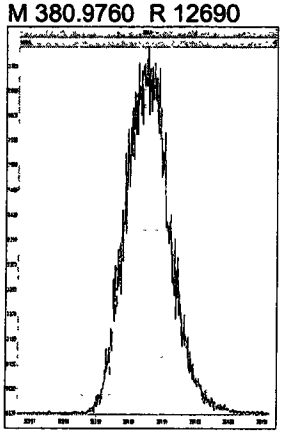

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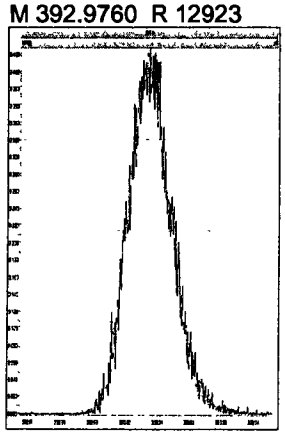

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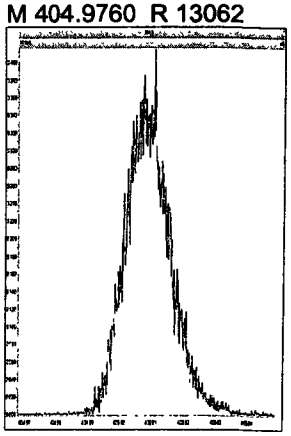

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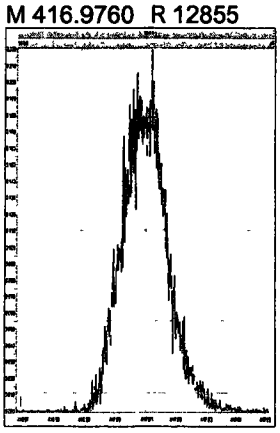
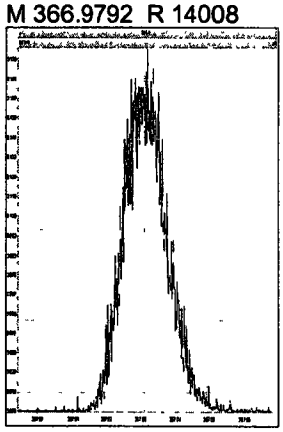
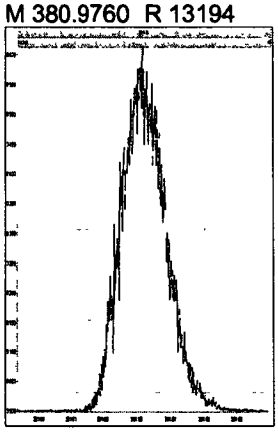


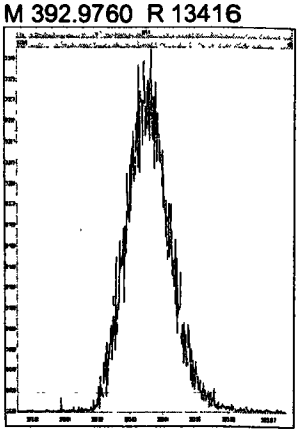
M 366.9792 R 14008



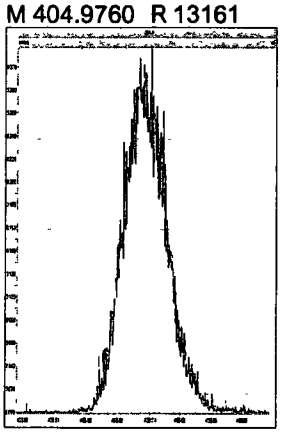
M 380.9760 R 13194



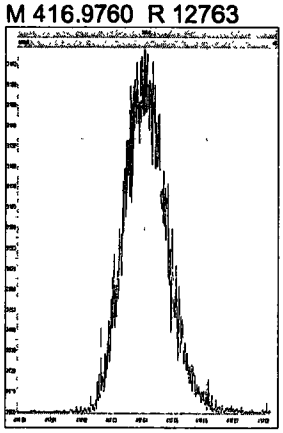
M 392.9760 R 13416



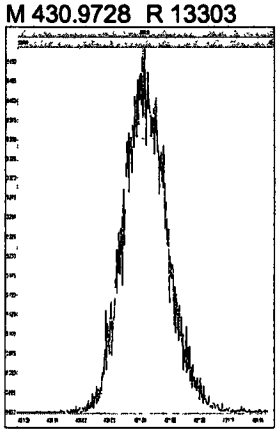
M 404.9760 R 13161



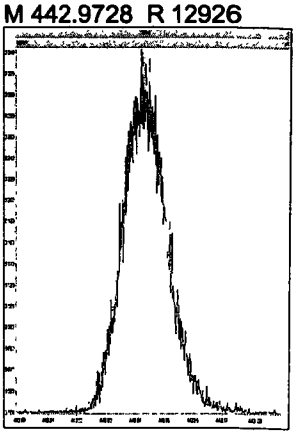
M 416.9760 R 12763



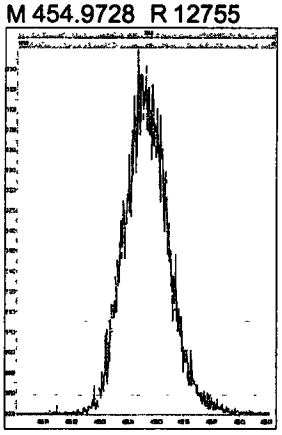
M 430.9728 R 13303



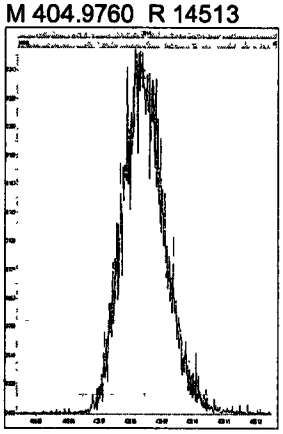
M 442.9728 R 12926



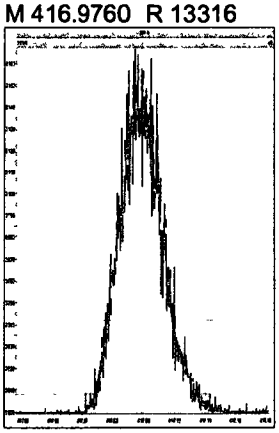
M 454.9728 R 12755



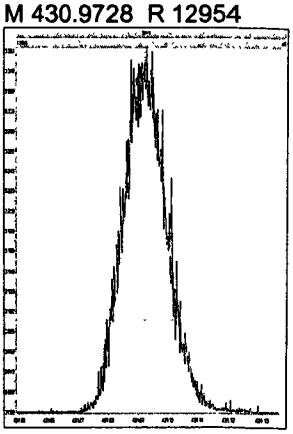
M 404.9760 R 14513



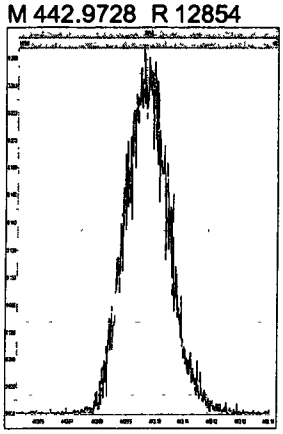
M 416.9760 R 13316



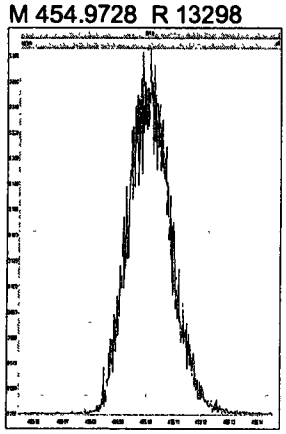
M 430.9728 R 12954



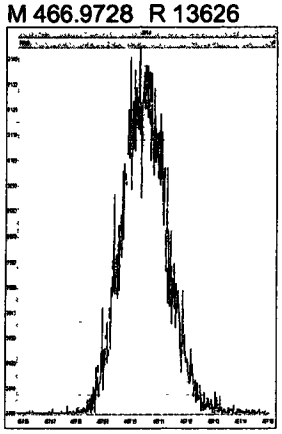
M 442.9728 R 12854



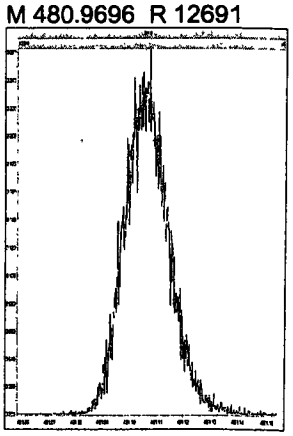
M 454.9728 R 13298



M 466.9728 R 13626



M 480.9696 R 12691



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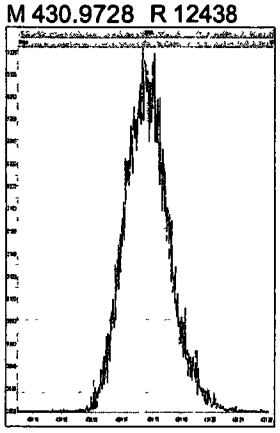
M 430.9728 R 12438



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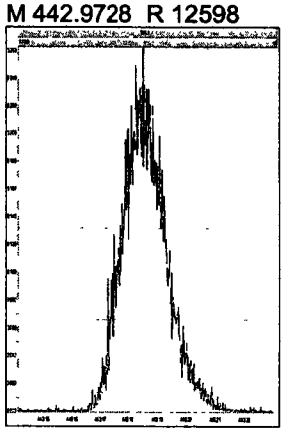
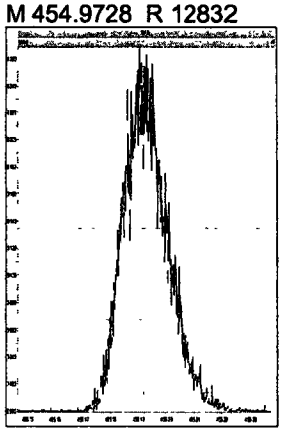
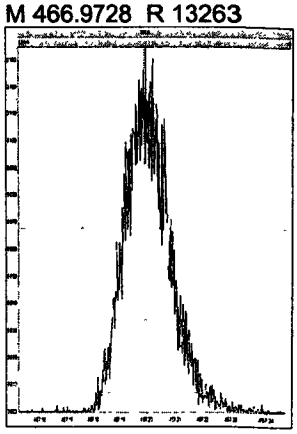


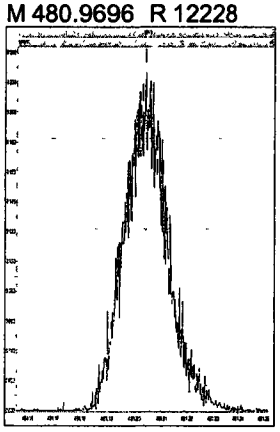
M 454.9728 R 12832



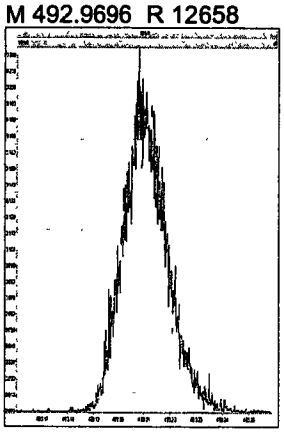
M 466.9728 R 13263



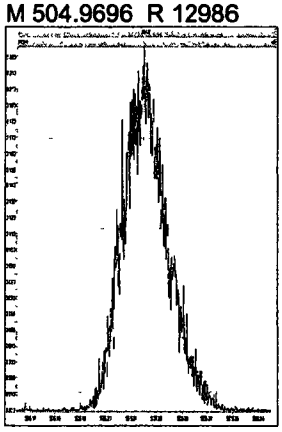
M 480.9696 R 12228



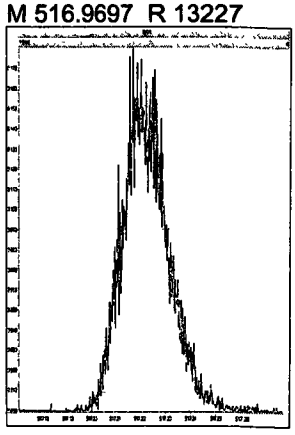
M 492.9696 R 12658

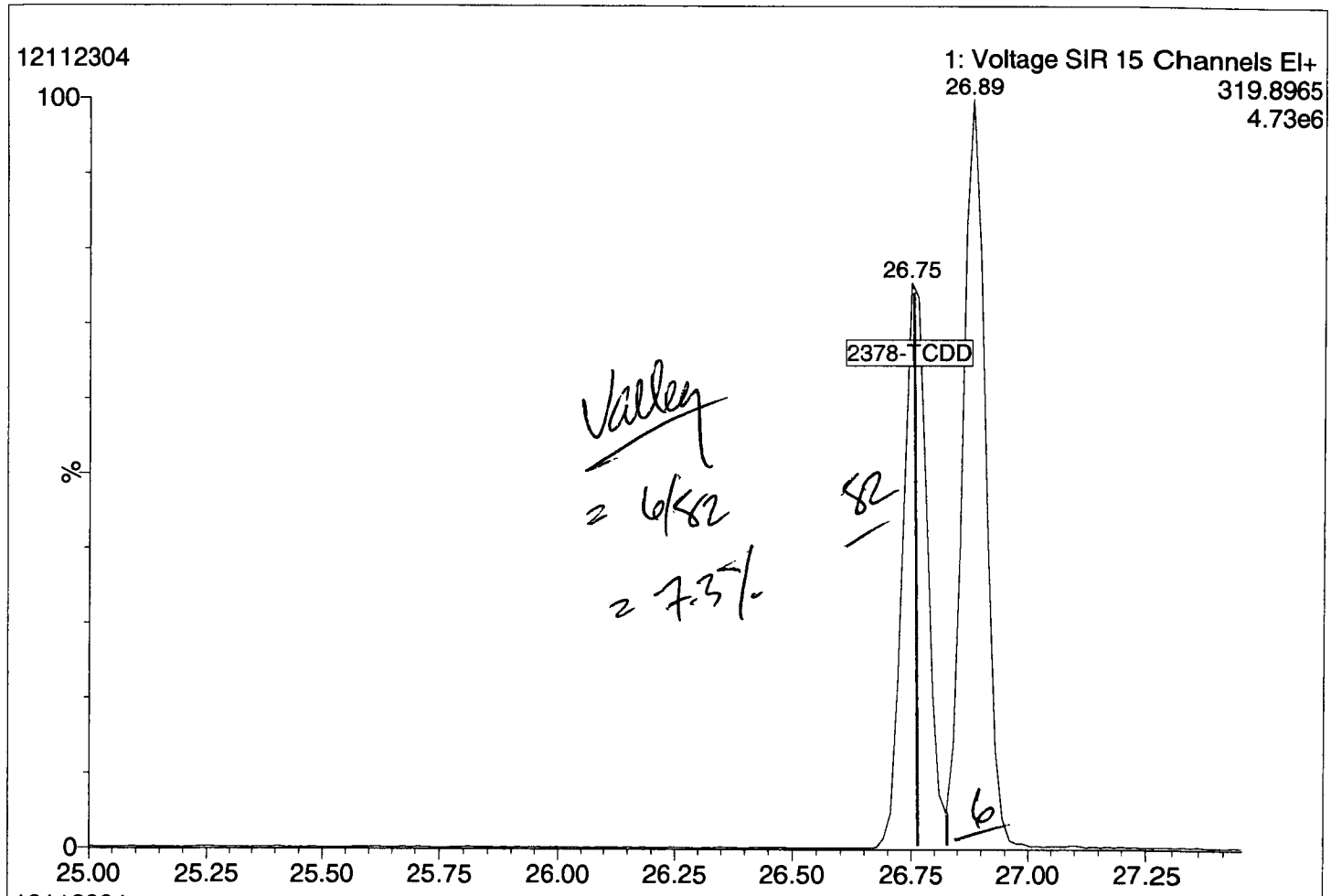


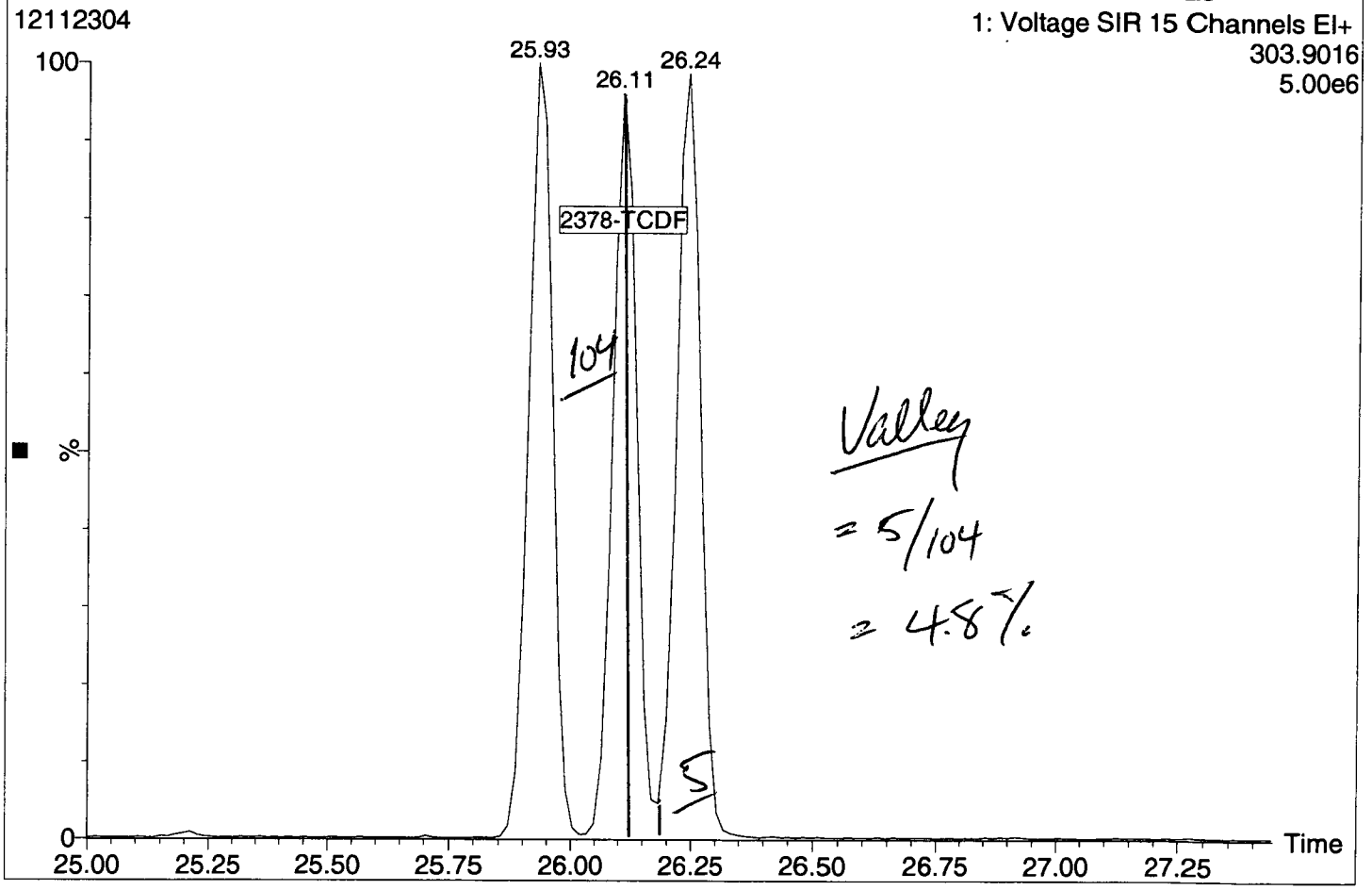
M 504.9696 R 12986

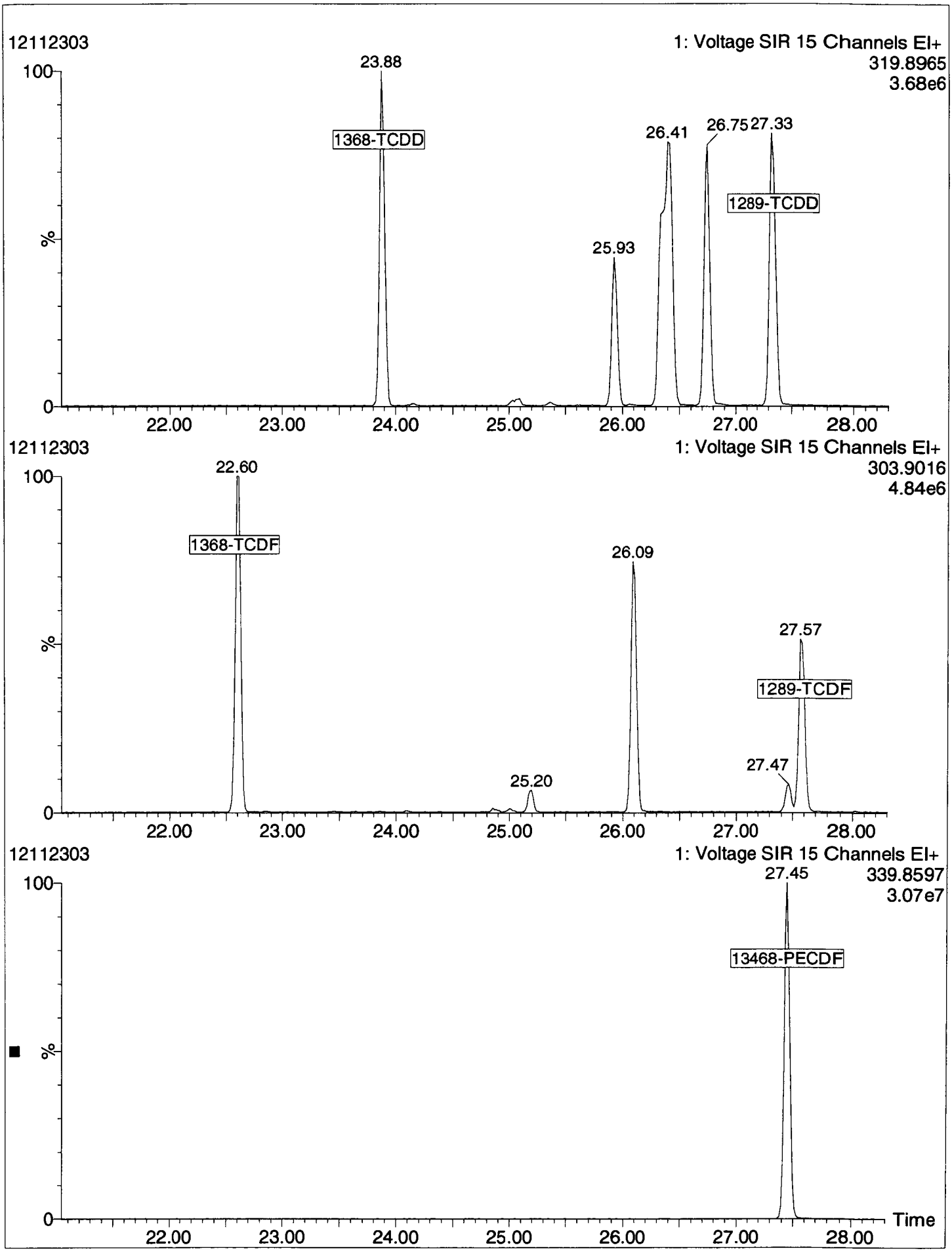


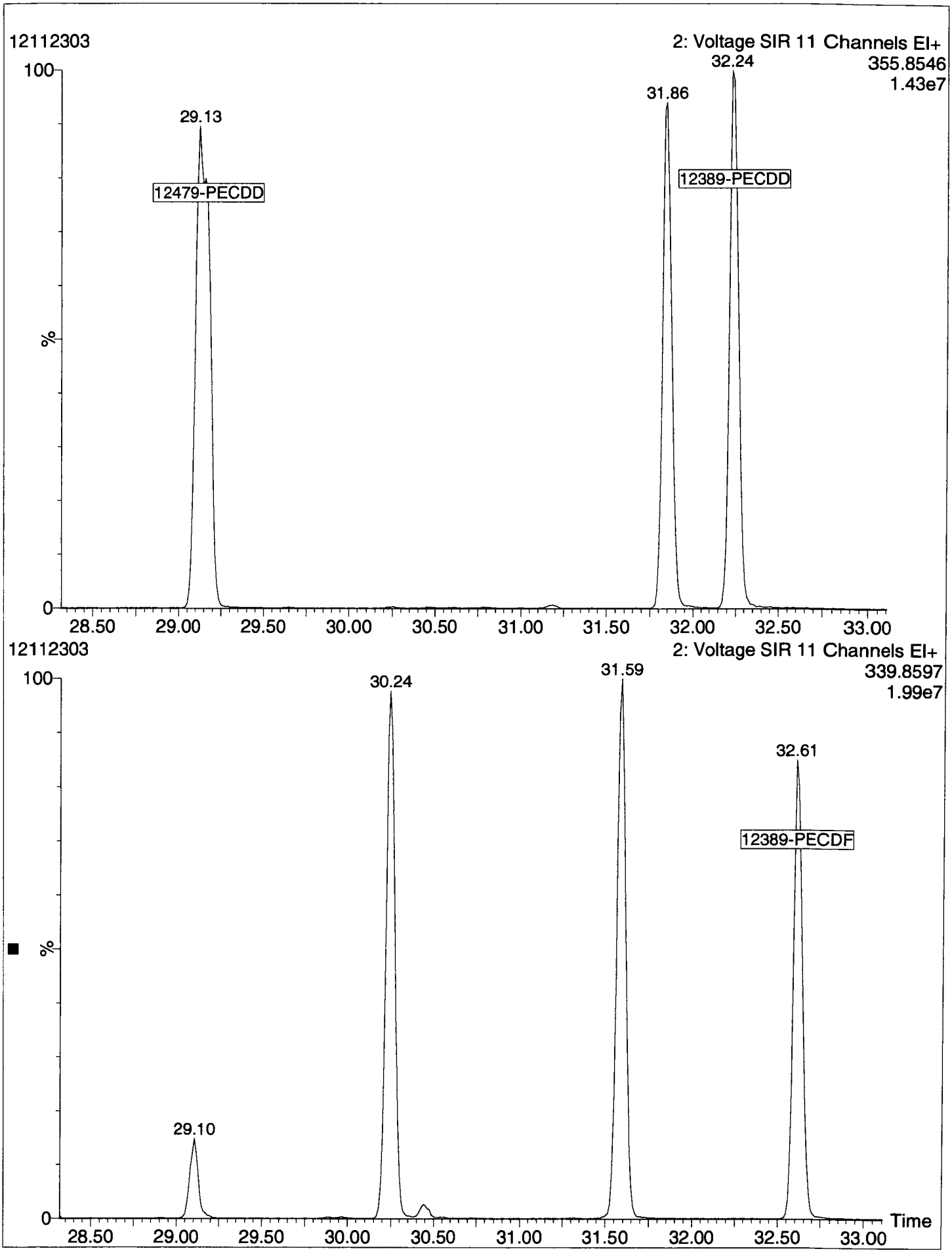
M 516.9697 R 13227

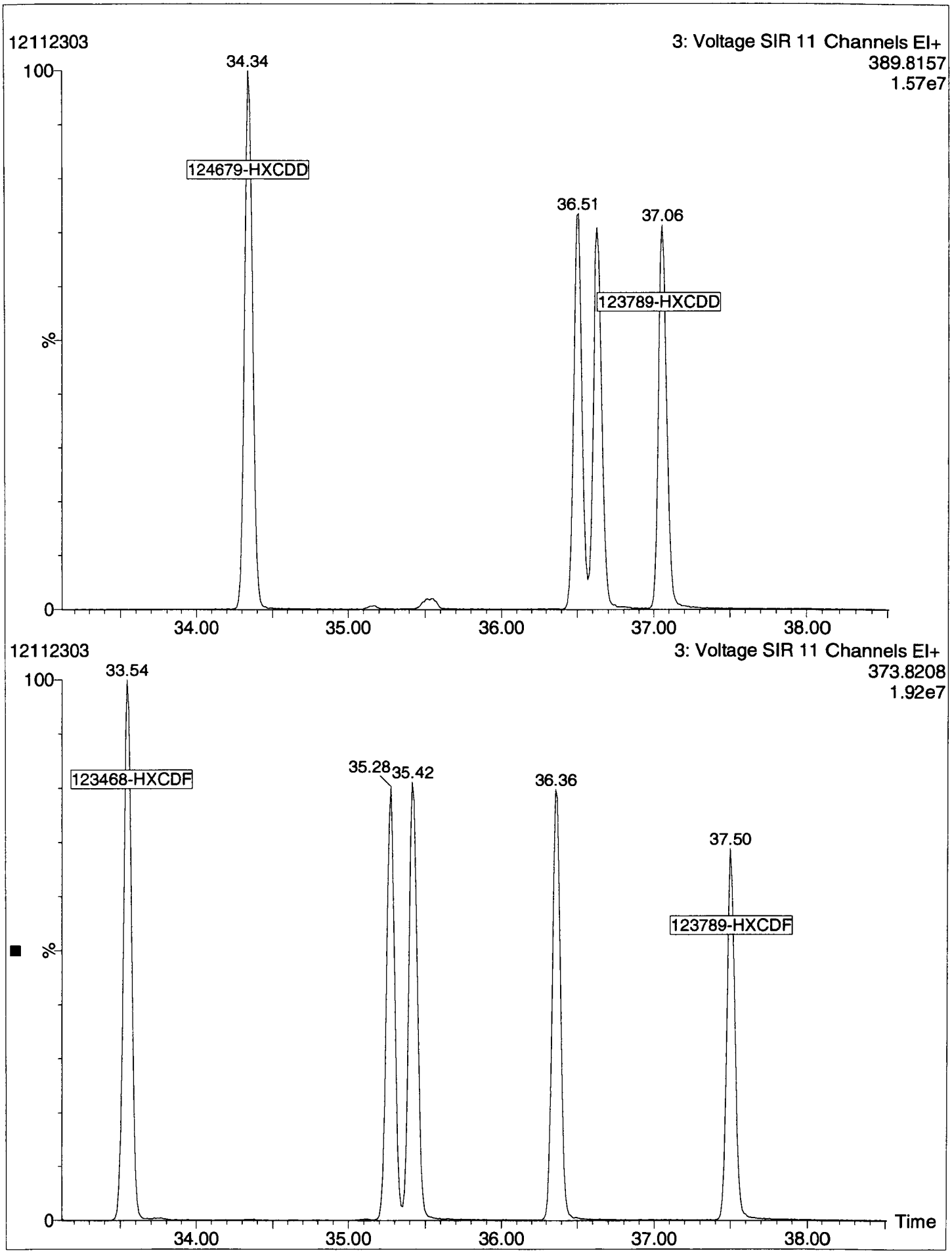


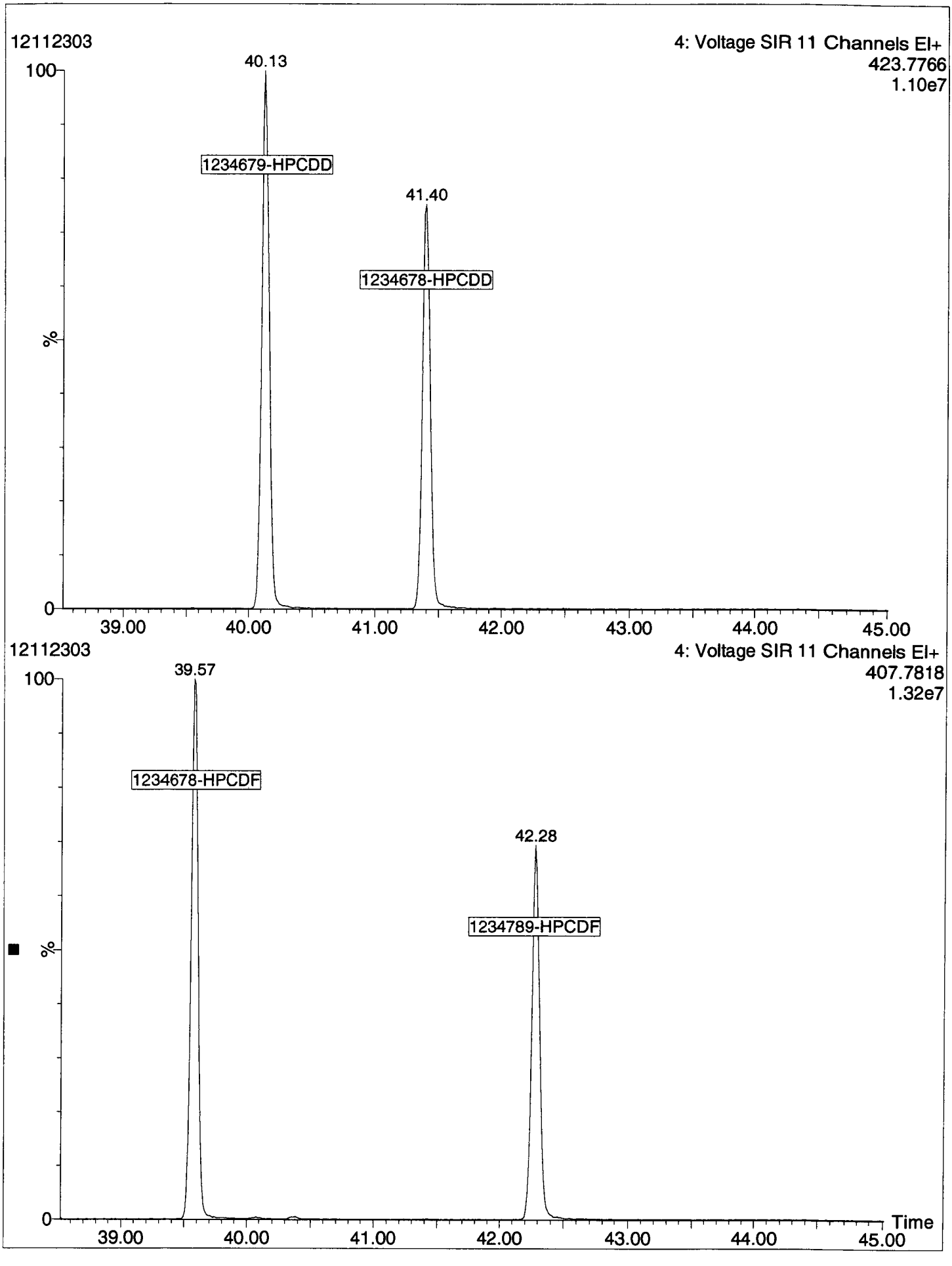

12112304
1: Voltage SIR 15 Channels EI+
319.8965
4.73e6
26.89
26.75
2378-TCDD
100
%
0
25.00
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
27.25
Valley
= 6/82
= 7.3%
82
6


12112304
1: Voltage SIR 15 Channels EI+
303.9016
5.00e6
25.93
26.11
26.24
2378-TCDF
100
%
0
Time
25.00
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
27.25
104
5
Valley
= 5/104
= 4.8%


12112303
1: Voltage SIR 15 Channels EI+
319.8965
3.68e6
23.88
1368-TCDD
26.41
26.75
27.33
1289-TCDD
25.93
100
%
0
22.00
23.00
24.00
25.00
26.00
27.00
28.00
12112303
1: Voltage SIR 15 Channels EI+
303.9016
4.84e6
22.60
1368-TCDF
26.09
27.57
1289-TCDF
27.47
25.20
100
%
0
22.00
23.00
24.00
25.00
26.00
27.00
28.00
12112303
1: Voltage SIR 15 Channels EI+
339.8597
3.07e7
27.45
13468-PECDF
100
%
0
Time
22.00
23.00
24.00
25.00
26.00
27.00
28.00


12112303
2: Voltage SIR 11 Channels EI+
355.8546
1.43e7
100
%
0
29.13
12479-PECDD
31.86
32.24
12389-PECDD
28.50
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
33.00
12112303
2: Voltage SIR 11 Channels EI+
339.8597
1.99e7
100
%
0
29.10
30.24
31.59
32.61
12389-PECDF
Time
28.50
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
33.00


12112303
3: Voltage SIR 11 Channels EI+
389.8157
1.57e7
100
%
0
34.34
124679-HXCDD
36.51
37.06
123789-HXCDD
34.00
35.00
36.00
37.00
38.00
12112303
3: Voltage SIR 11 Channels EI+
373.8208
1.92e7
100
%
0
33.54
123468-HXCDF
35.28
35.42
36.36
37.50
123789-HXCDF
Time
34.00
35.00
36.00
37.00
38.00


12112303
4: Voltage SIR 11 Channels EI+
423.7766
1.10e7
40.13
1234679-HPCDD
41.40
1234678-HPCDD
100
%
0
39.00
40.00
41.00
42.00
43.00
44.00
45.00
12112303
4: Voltage SIR 11 Channels EI+
407.7818
1.32e7
39.57
1234678-HPCDF
42.28
1234789-HPCDF
100
%
0
Time
39.00
40.00
41.00
42.00
43.00
44.00
45.00

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:22 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
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Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

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	12378-PeCDF	30.244	1.000	13232	9002	22234	bb	0.896	1.470	1.550	NO	120.9	0.502	0.502
	23478-PeCDF	31.604	1.001	14060	9420	23480	bb	0.926	1.492	1.550	NO	119.8	0.525	0.525
	123478-HxCDF	35.275	1.001	10621	8655	19276	bd	1.068	1.227	1.240	NO	99.2	0.496	0.496
	234678-HxCDF	36.361	1.000	10351	8987	19338	bb	1.037	1.152	1.240	NO	94.2	0.492	0.492
	123678-HxCDF	35.429	1.001	10585	8952	19538	db	1.035	1.182	1.240	NO	94.6	0.493	0.493
	123789-HxCDF	37.500	1.000	9311	7489	16801	bb	0.987	1.243	1.240	NO	85.3	0.490	0.490
	1234678-HpCDF	39.572	1.000	10429	9919	20348	bb	1.232	1.051	1.050	NO	246.1	0.509	0.509
	1234789-HpCDF	42.290	1.001	7252	7572	14824	bb	1.215	0.958	1.050	NO	137.5	0.489	0.489
	OCDF	47.620	1.006	11389	14077	25466	bb	1.138	0.809	0.890	NO	121.1	0.979	0.979
	2378-TCDD	26.750	1.001	2061	2675	4736	bb	1.049	0.770	0.770	NO	20.2	0.109	0.109
	12378-PeCDD	31.855	1.001	9330	6316	15646	bb	0.998	1.477	1.550	NO	58.1	0.497	0.497
	123478-HxCDD	36.514	1.001	7902	6024	13926	bd	0.971	1.312	1.240	NO	76.4	0.469	0.469
	123678-HxCDD	36.635	1.000	8132	5933	14065	db	0.918	1.370	1.240	NO	84.8	0.487	0.487
	123789-HxCDD	37.062	1.012	7855	6930	14785	bb	0.932	1.133	1.240	NO	74.0	0.511	0.511
	1234678-HpCDD	41.403	1.001	6787	7558	14345	MM	1.017	0.898	1.050	NO	94.8	0.529	0.529
	OCDD	47.360	1.001	11430	12431	23860	bb	1.008	0.919	0.890	NO	160.1	1.035	1.035
	13C-2378-TCDF	26.093	1.007	2828660	3619955	6448615	bb	1.473	0.781	0.770	NO	3101.3		100.398
	13C-12378-PeCDF	30.233	1.167	3008237	1937844	4946081	bb	1.148	1.552	1.550	NO	11982.4		98.789
	13C-23478-PeCDF	31.571	1.218	2946904	1886759	4833663	bb	1.113	1.562	1.550	NO	11263.7		99.593
	13C-123478-HxCDF	35.254	0.951	1246027	2393443	3639470	bd	1.209	0.521	0.510	NO	4957.8		95.946
	13C-123678-HxCDF	35.407	0.956	1322227	2510932	3833159	db	1.269	0.527	0.510	NO	5296.4		96.302
	13C-234678-HxCDF	36.349	0.981	1301939	2491248	3793187	bb	1.236	0.523	0.510	NO	5273.9		97.829
	13C-123789-HxCDF	37.489	1.012	1196154	2281905	3478058	bb	1.107	0.524	0.510	NO	4910.8		100.165
	13C-1234678-HpCDF	39.561	1.068	1007048	2236531	3243579	bb	1.051	0.450	0.440	NO	4140.9		98.352
	13C-1234789-HpCDF	42.269	1.141	780470	1716306	2496776	bb	0.815	0.455	0.440	NO	2662.4		97.677
	13C-1234-TCDD	25.914	0.000	1924593	2437145	4361738	bb	1.000	0.790	0.770	NO	3730.8		100.000
	13C-2378-TCDD	26.736	1.032	1812636	2336375	4149011	bb	0.946	0.776	0.770	NO	3358.5		100.581
	13C-12378-PeCDD	31.834	1.228	1933049	1219518	3152566	bb	0.721	1.585	1.550	NO	12611.4		100.292
	13C-123478-HxCDD	36.492	0.985	1707469	1348165	3055633	bd	0.991	1.266	1.240	NO	3619.9		98.289
	13C-123678-HxCDD	36.624	0.988	1743110	1403686	3146797	db	1.025	1.242	1.240	NO	3657.2		97.880
	13C-1234678-HpCDD	41.381	1.117	1370276	1297335	2667611	bb	0.866	1.056	1.050	NO	7173.0		98.161
	13C-OCDD	47.324	1.277	2150377	2420502	4570879	bb	0.769	0.888	0.890	NO	10573.6		189.417

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
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Printed: Monday, November 26, 2012 09:26:22 Pacific Standard Time

Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

	13C-123789-HxCDD	37.051	0.000	1748085	1389442	3137527	bb	1.000	1.258	1.240	NO	3635.0		100.000
	Total-tetrafurans			2721				0.877					0.111	0.111
	Total-penta1			0										
	Total-pentafurans			27292				0.911					1.030	1.026
	Total-hexafurans			40868				1.032					1.970	1.970
	Total-heptafurans			17682				1.223					0.998	0.998
	Total-Furans			99953				1.041					5.088	5.084
	Total-tetradioxins			2061				1.049					0.109	0.109
	Total-pentadioxins			9330				0.998					0.497	0.497
	Total-hexadioxins			23888				0.940					1.468	1.468
	Total-heptadioxins			6787				1.017					0.529	0.529
	Total-Dioxins			53495				0.985					3.638	3.638
	Total-TEQ			153448									8.726	8.722
	37CL-2378-TCDD	26.750	1.032	4783		4783		1.044				15.0		0.105
	FUNCTION1 PFK			609450										
	FUNCTION2 PFK			1441384										0.000
	FUNCTION3 PFK			894386										0.000
	FUNCTION4 PFK			1005733										
	FUNCTION5 PFK			2477494										
	FUNCTION1 HXCDPE			1692										0.000
	FUNCTION1 HPCDPE			2571										0.000
	FUNCTION2 HPCDPE			1054										0.000
	FUNCTION3 OCDPE			157										0.000
	FUNCTION4 NCDPE			401										0.000
	FUNCTION5 DCDPE			0										

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
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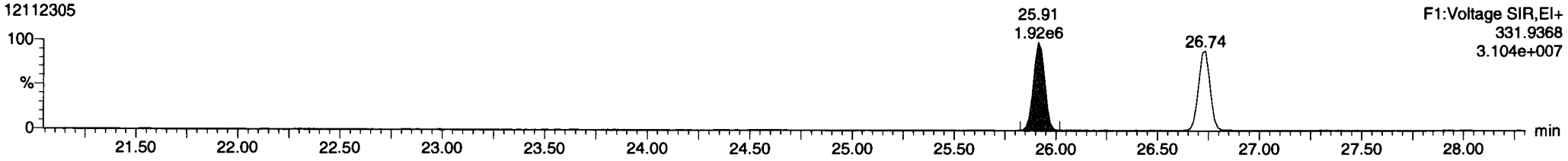
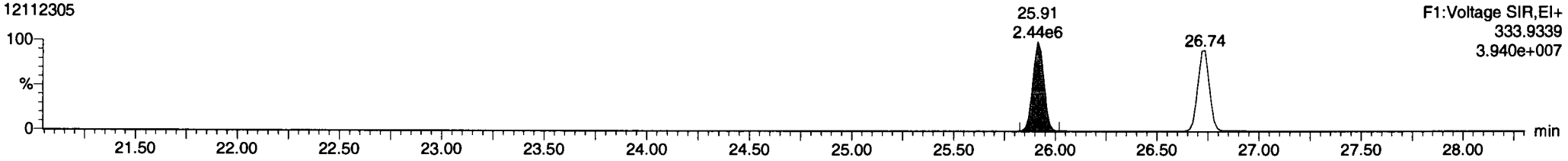
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

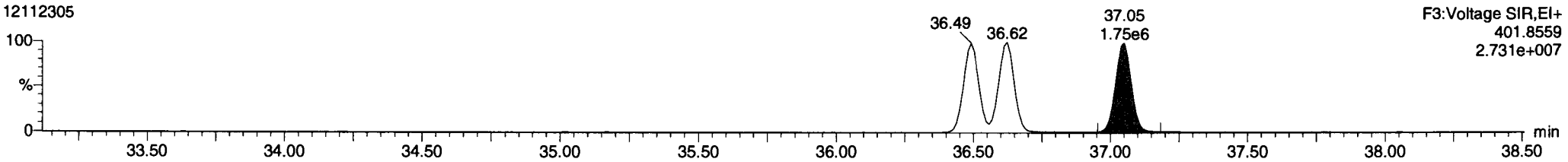
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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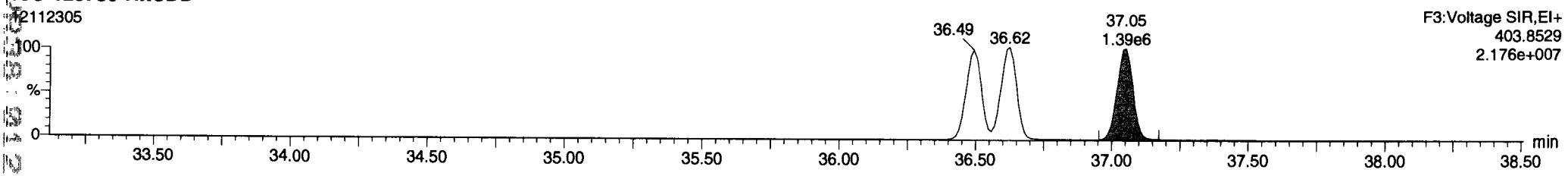

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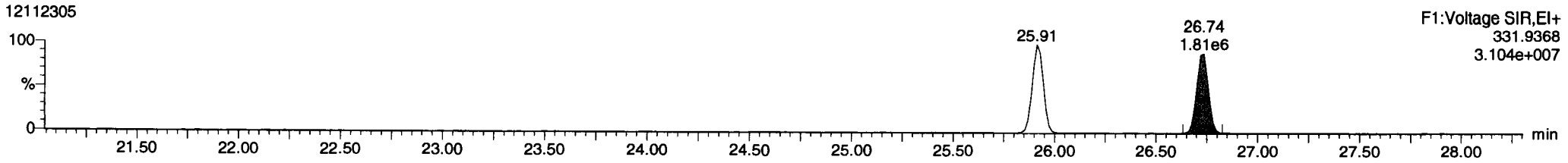
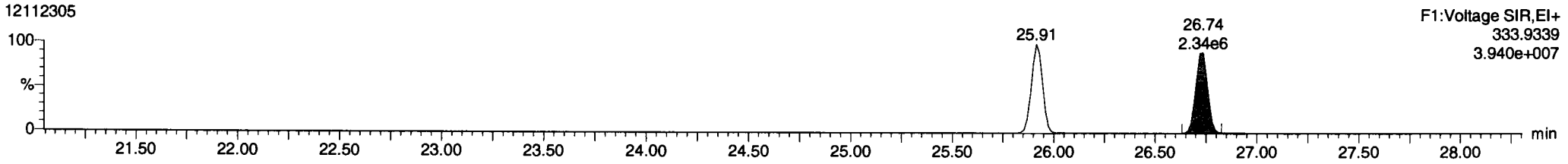
Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

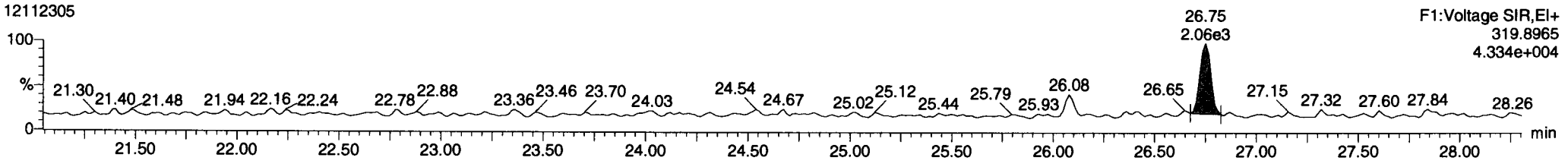
13C-2378-TCDD



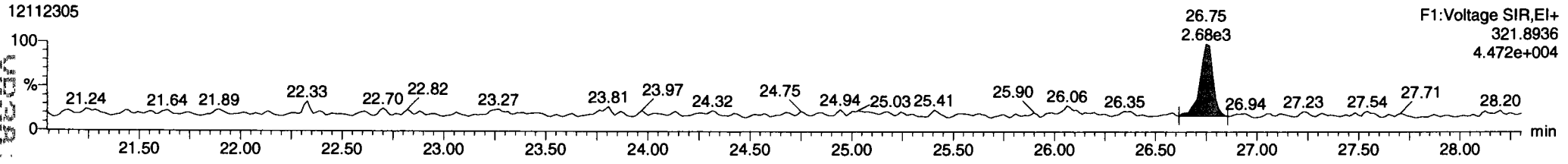
13C-2378-TCDD



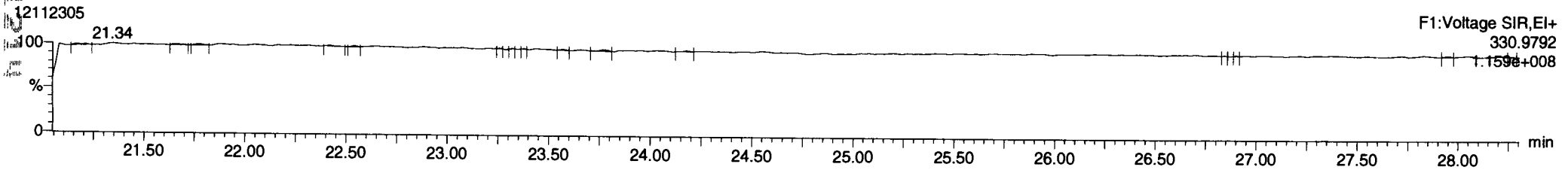
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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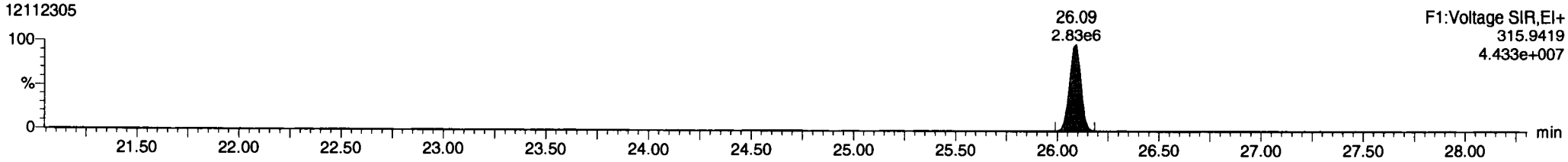
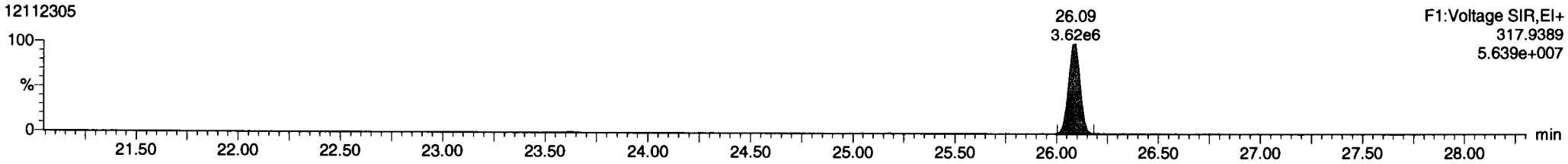
Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

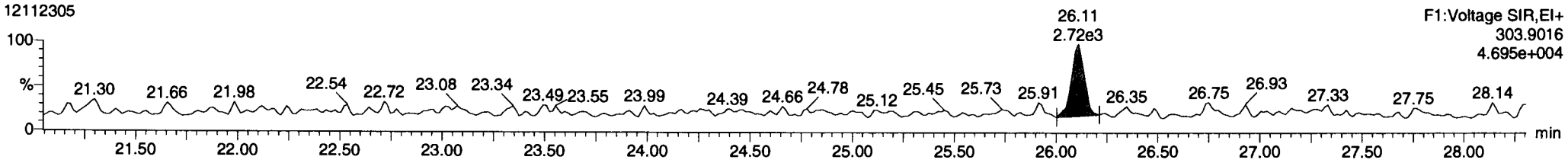
13C-2378-TCDF



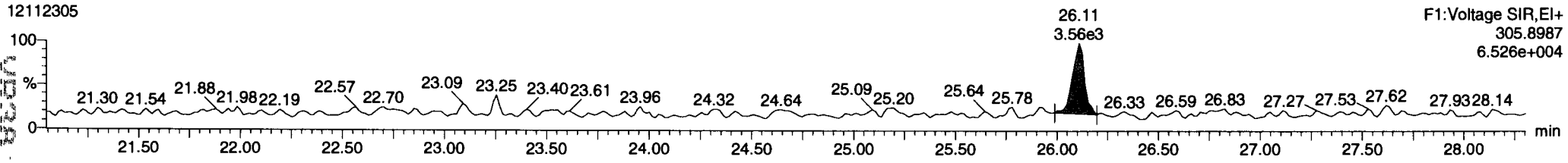
13C-2378-TCDF



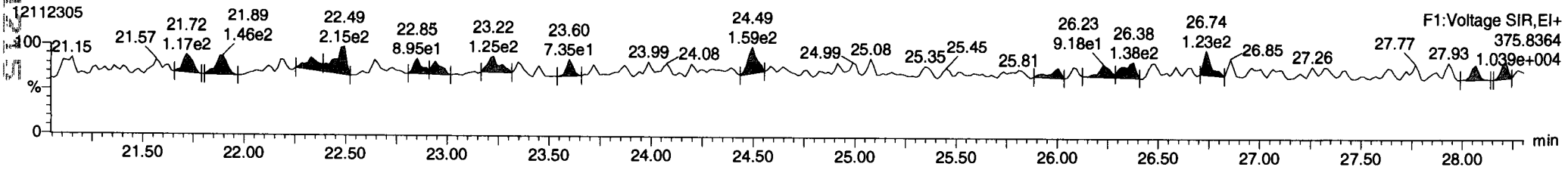
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121123IC.qld
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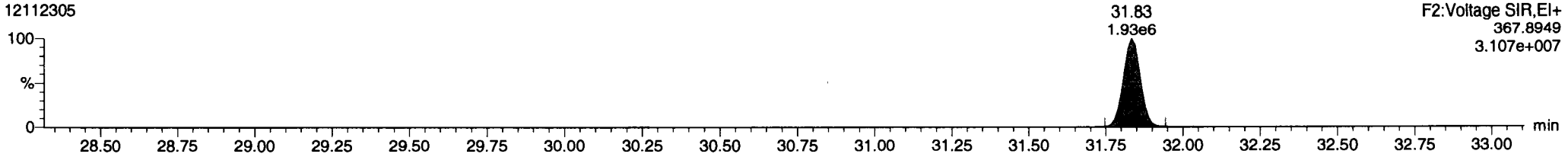
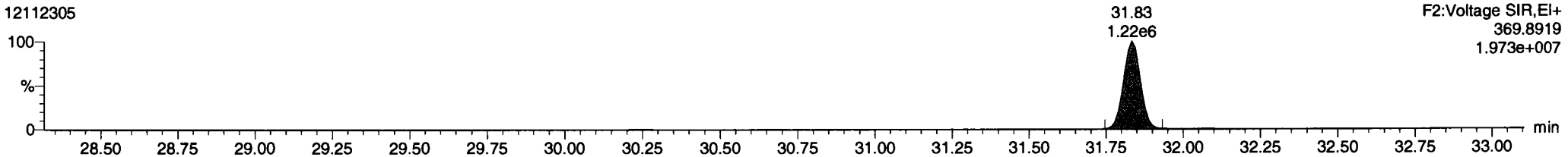
Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

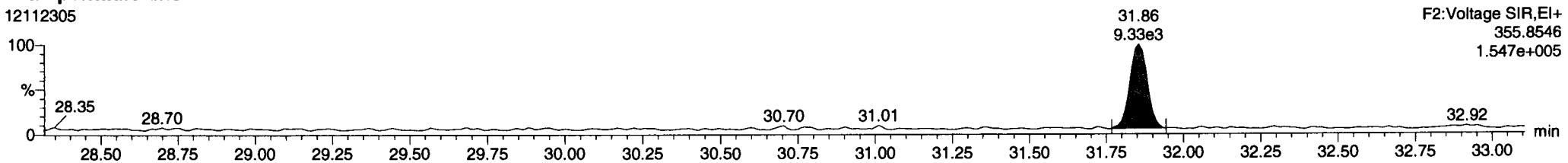
13C-12378-PeCDD



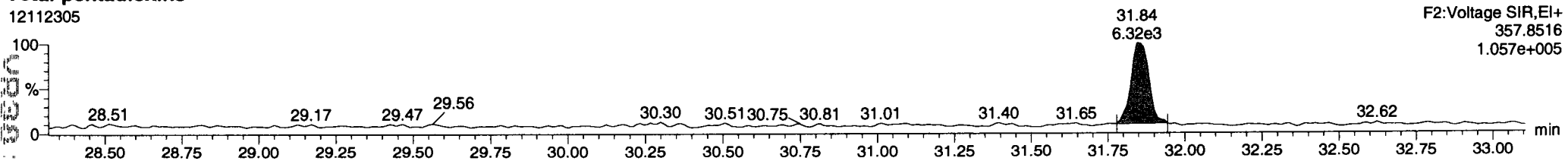
13C-12378-PeCDD



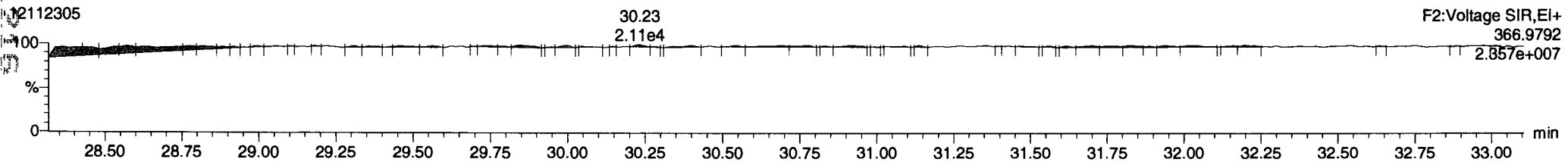
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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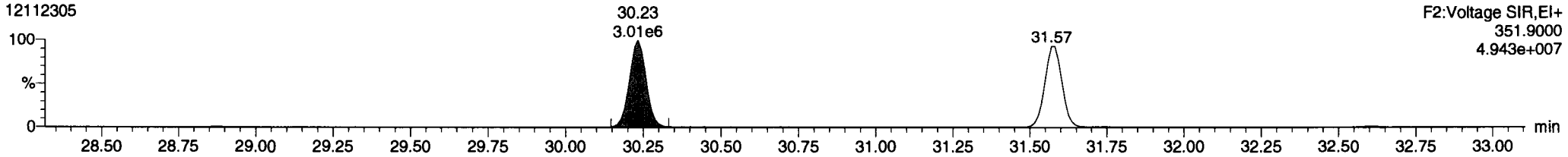
Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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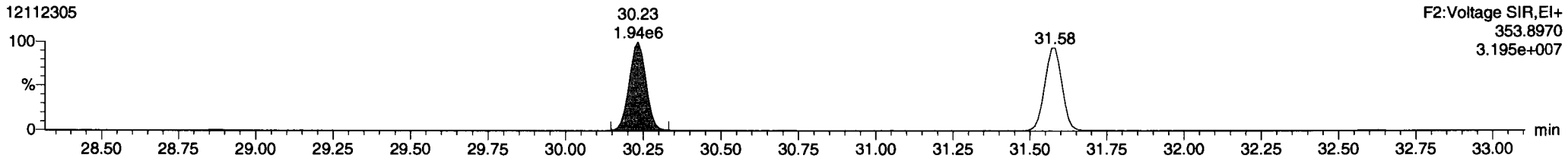
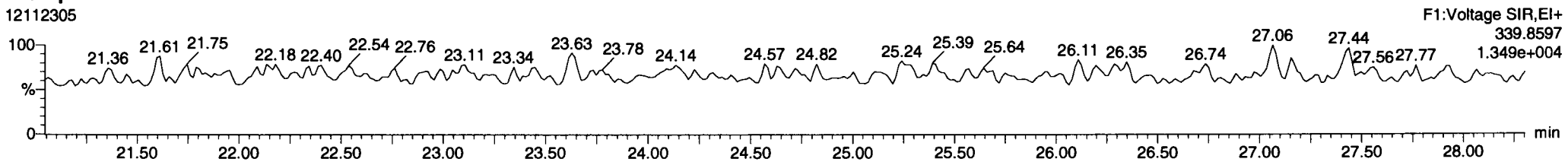
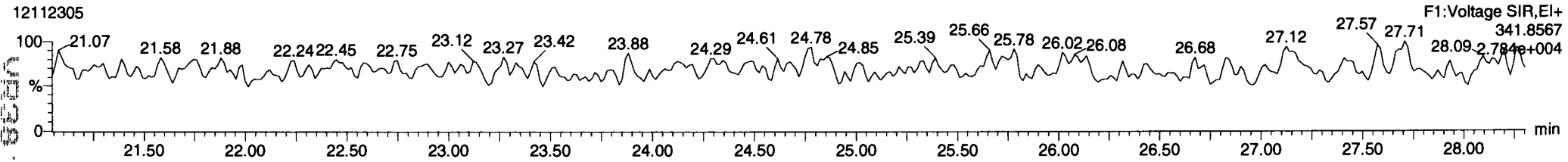


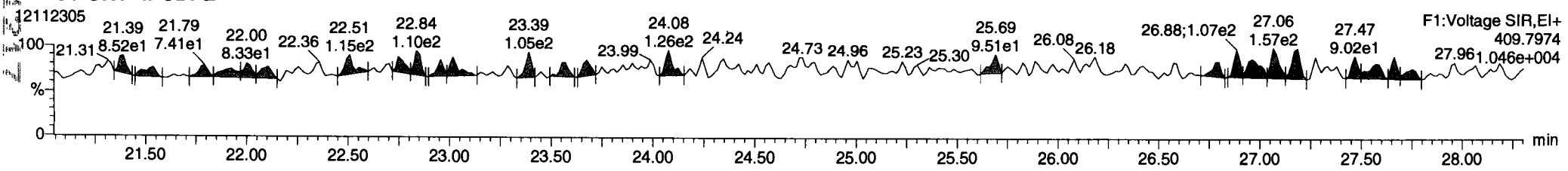
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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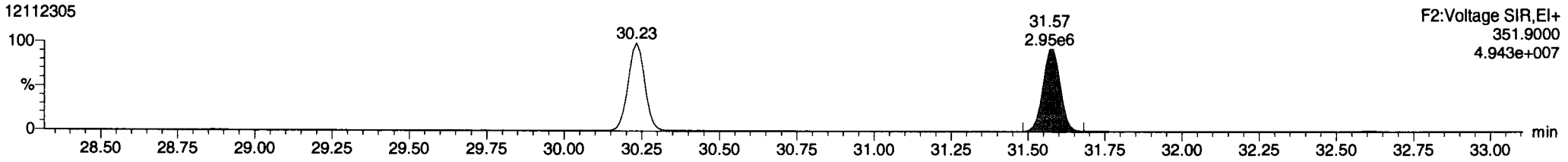
13C-23478-PeCDF



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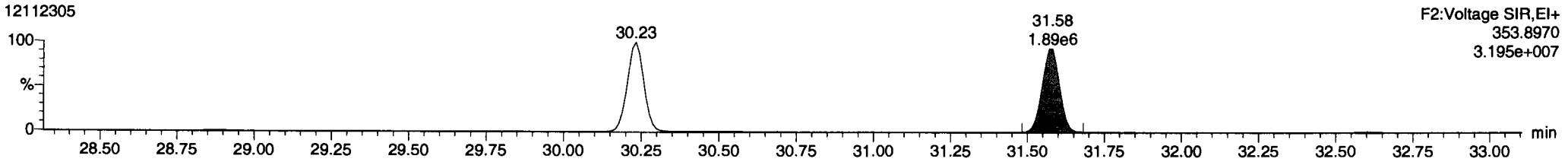
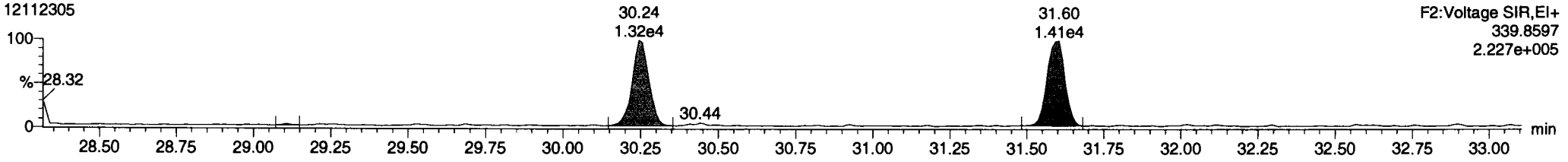
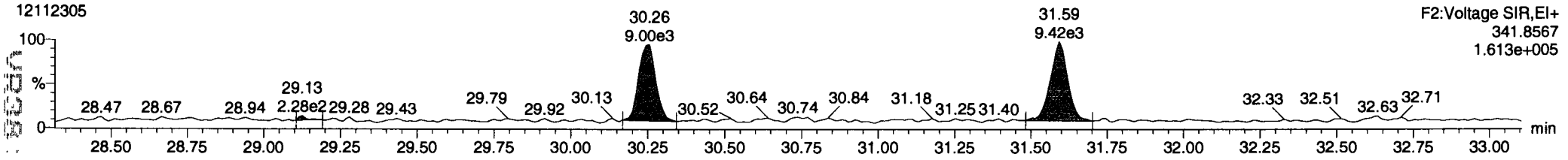


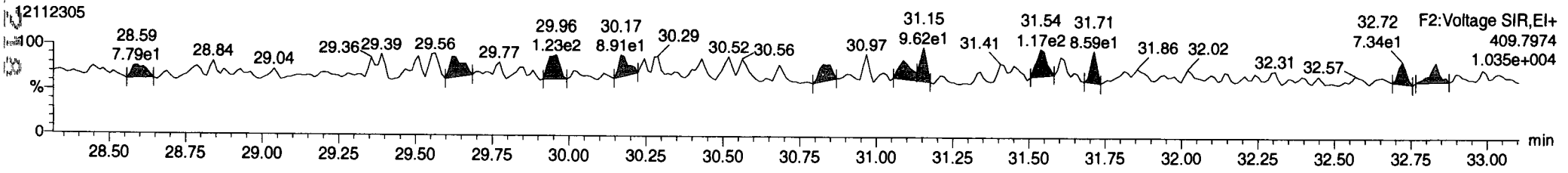
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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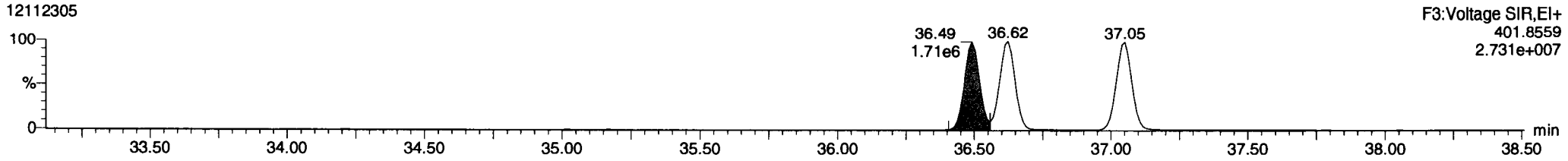
13C-123478-HxCDD



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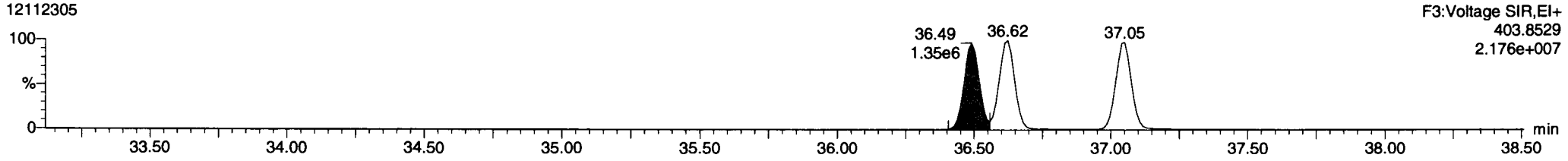
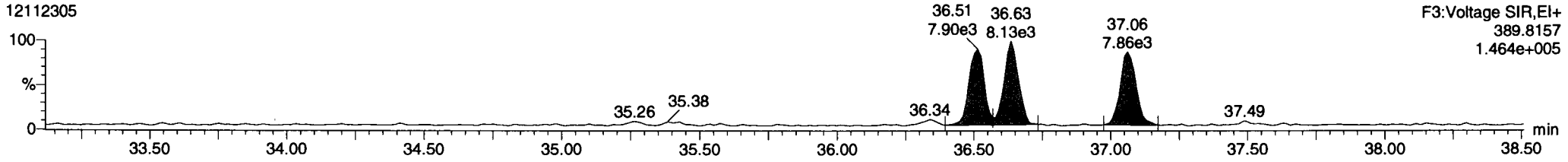
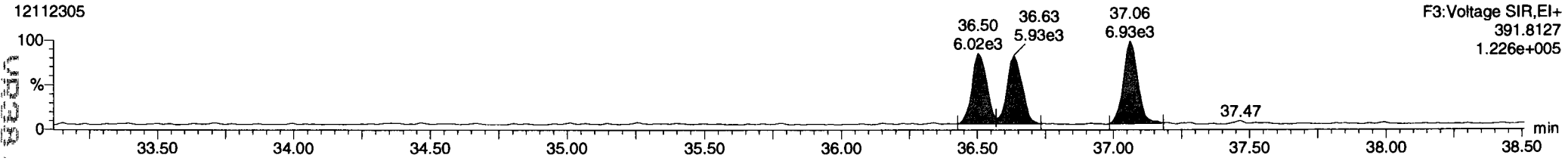


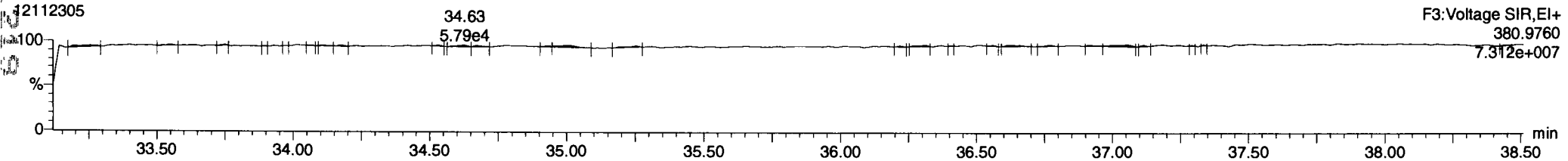
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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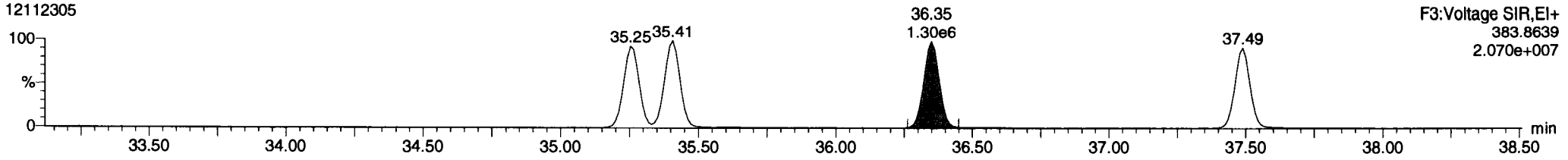
13C-234678-HxCDF



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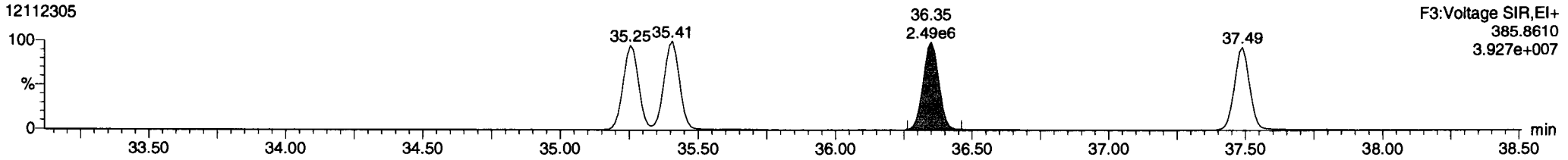
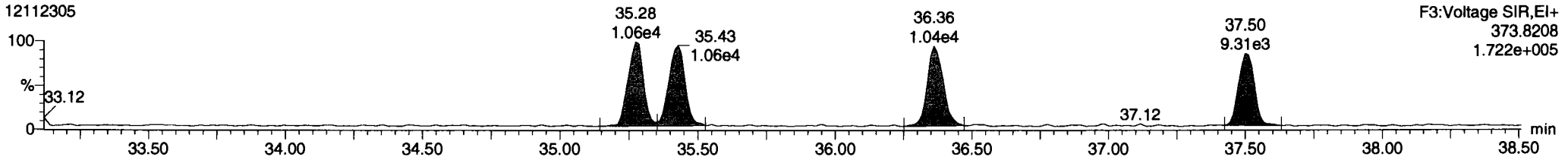
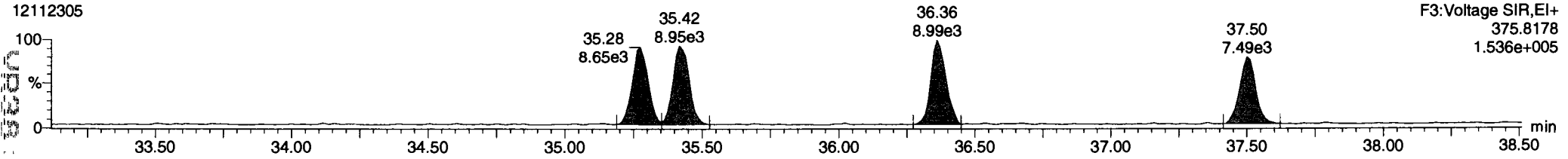


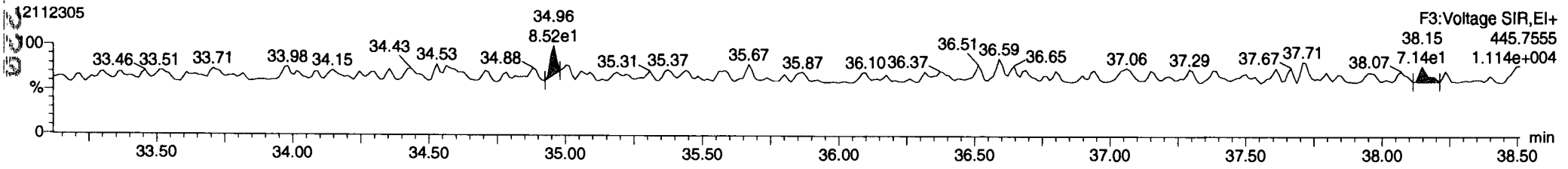
Total-hexafurans



Total-hexafurans



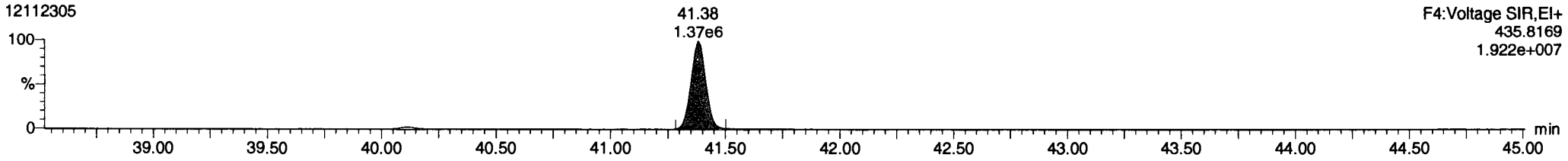
FUNCTION3 OCDPE



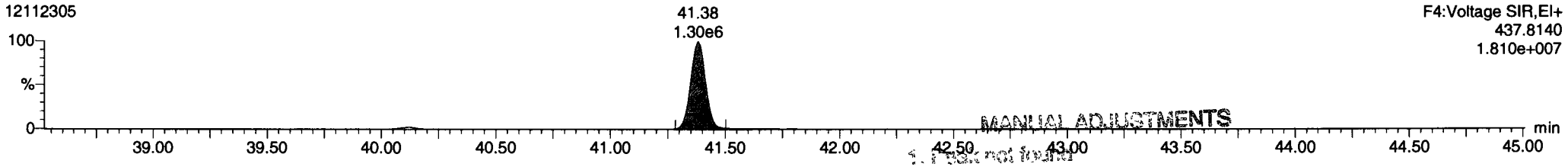
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:22 Pacific Standard Time

Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDD



13C-1234678-HpCDD

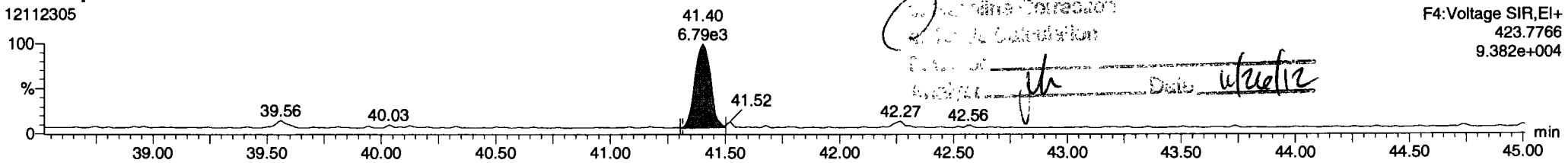


MANUAL ADJUSTMENTS

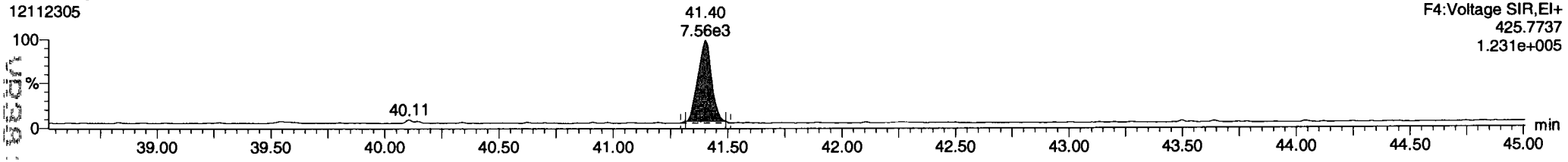
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Poor Calibration
5. Other

Date 12/6/12

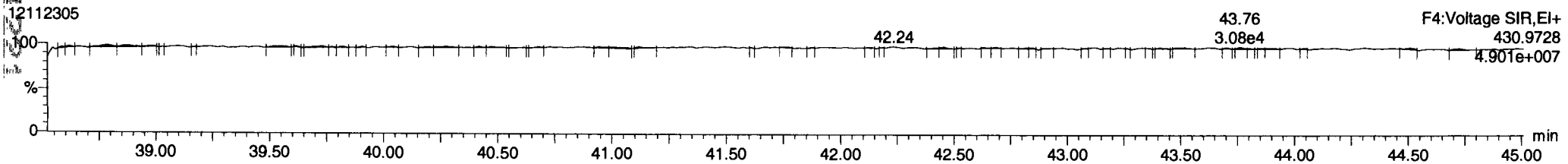
Total-heptadioxins



Total-heptadioxins



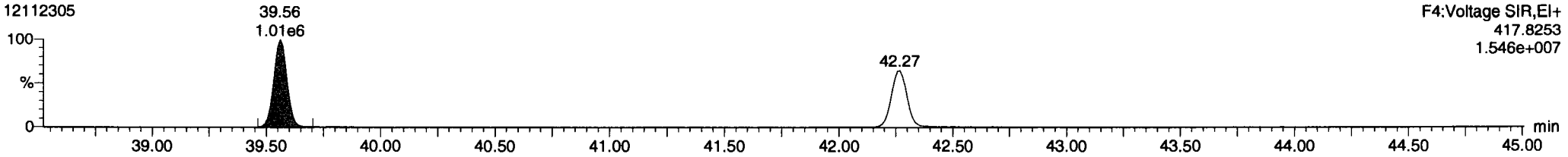
FUNCTION4 PFK



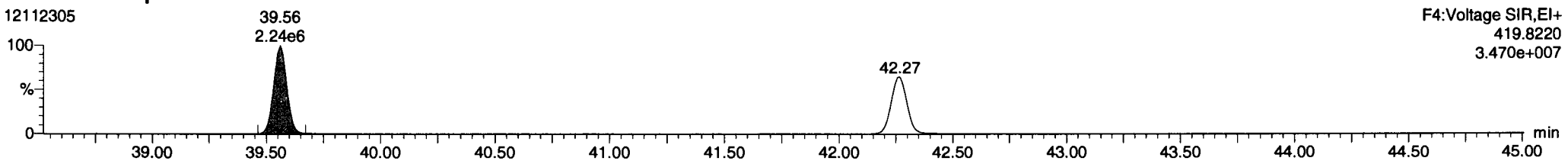
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:22 Pacific Standard Time

Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

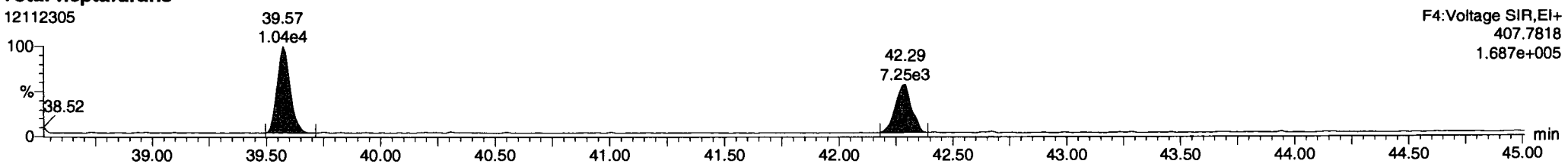
13C-1234678-HpCDF



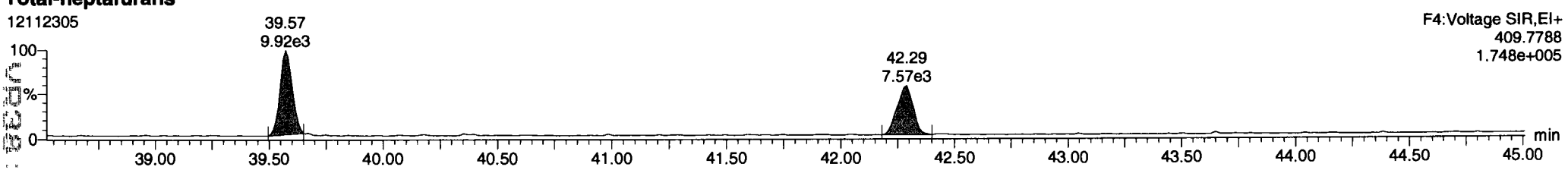
13C-1234678-HpCDF



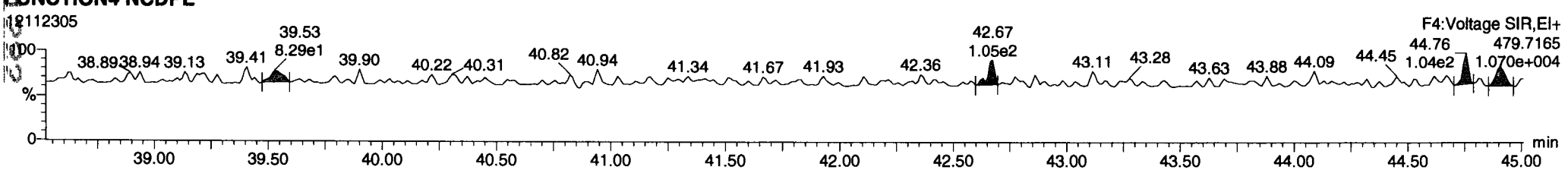
Total-heptafurans



Total-heptafurans



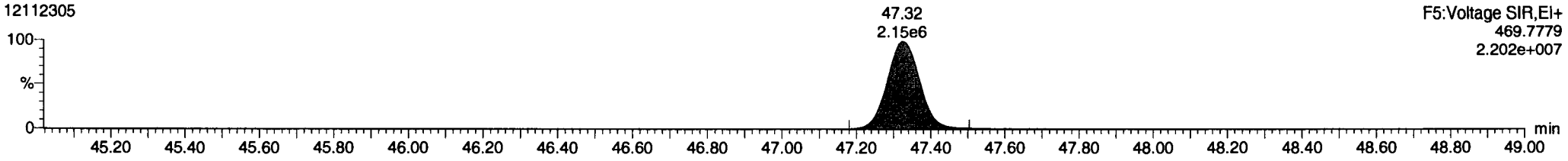
FUNCTION4 NCDPE



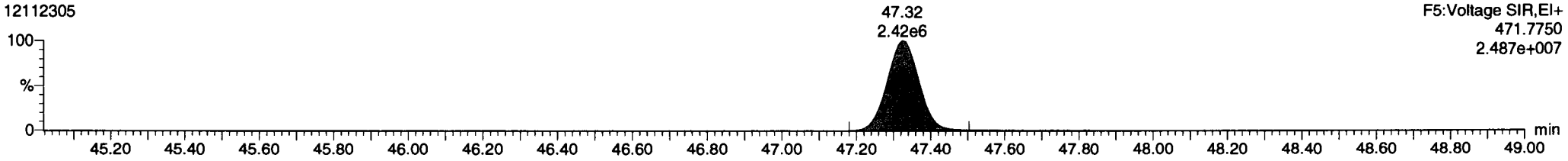
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:22 Pacific Standard Time

Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

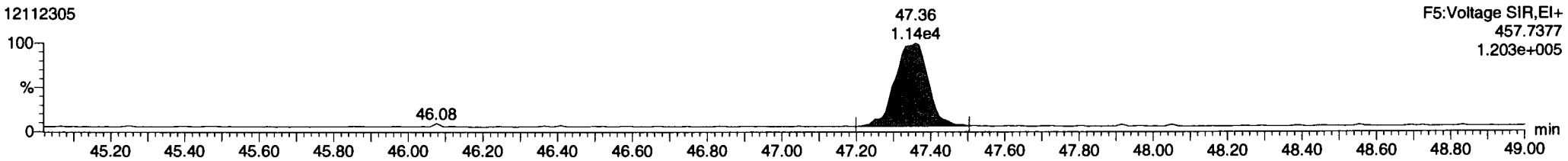
13C-OCDD



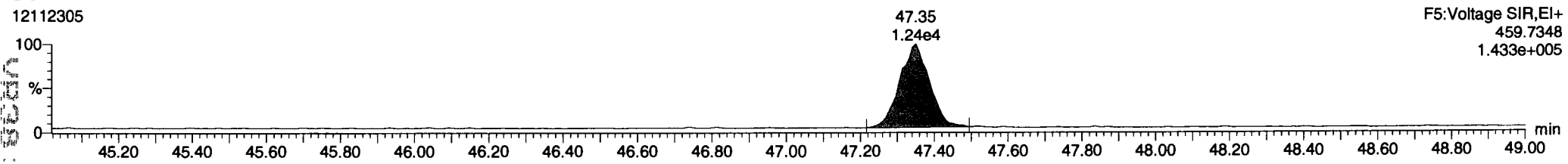
13C-OCDD



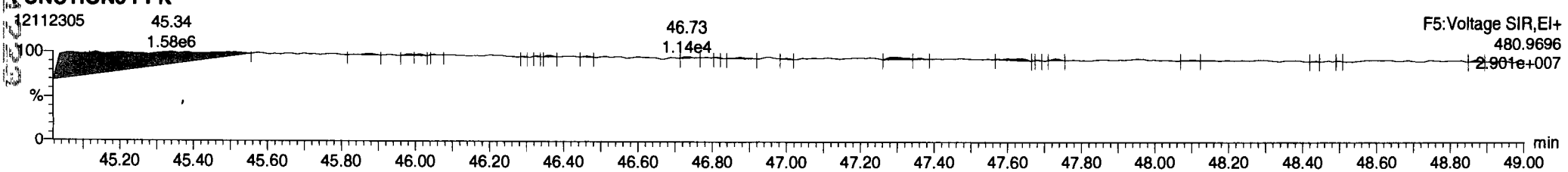
OCDD



OCDD



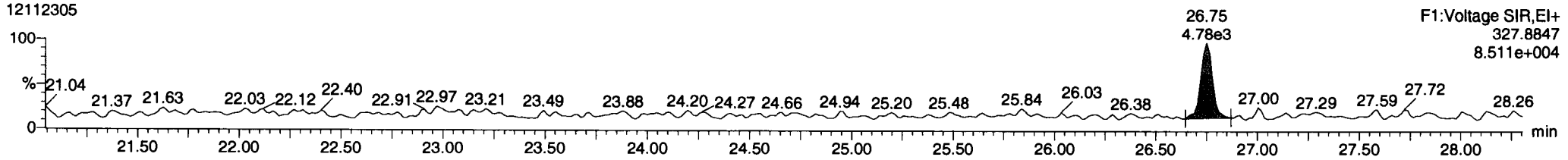
FUNCTION5 PFK



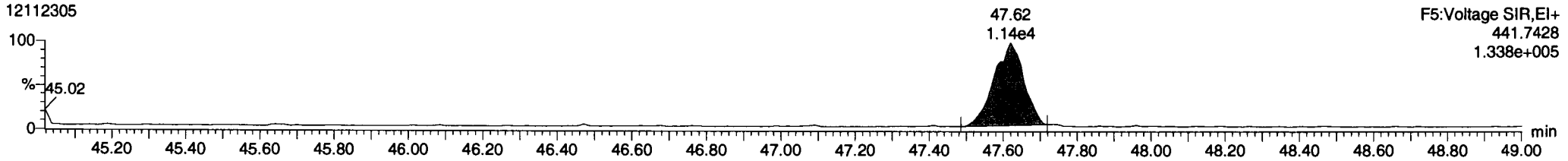
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:22 Pacific Standard Time

Name: 12112305, Date: 23-Nov-2012, Time: 14:07:24, ID: CSL, Conditions: AUTOSPEC01, User: pk

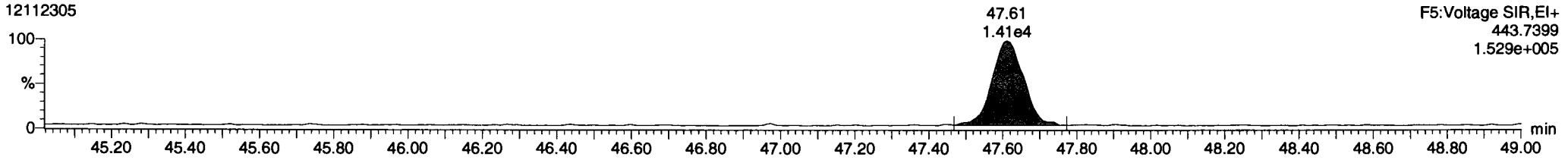
37CL-2378-TCDD



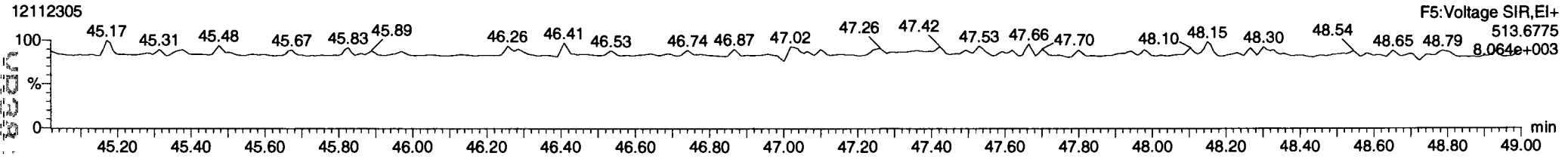
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:35:31 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

	2378-TCDF	26.108	1.001	12216	16488	28703	bb	0.877	0.741	0.770	NO	56.2	0.459	0.459
	12378-PeCDF	30.244	1.000	72435	48313	120749	bb	0.896	1.499	1.550	NO	620.7	2.487	2.487
	23478-PeCDF	31.593	1.000	68720	48070	116791	bb	0.926	1.430	1.550	NO	595.2	2.403	2.403
	123478-HxCDF	35.276	1.001	57730	49910	107640	bd	1.068	1.157	1.240	NO	433.9	2.455	2.455
	234678-HxCDF	36.372	1.001	55055	48545	103600	bb	1.037	1.134	1.240	NO	422.0	2.435	2.435
	123678-HxCDF	35.429	1.001	57608	49995	107603	db	1.035	1.152	1.240	NO	430.2	2.439	2.439
	123789-HxCDF	37.512	1.001	47713	39685	87398	bb	0.987	1.202	1.240	NO	358.3	2.442	2.442
	1234678-HpCDF	39.583	1.001	51567	52049	103616	bd	1.232	0.991	1.050	NO	603.9	2.459	2.459
	1234789-HpCDF	42.280	1.000	38385	39804	78188	bb	1.215	0.964	1.050	NO	434.8	2.463	2.463
	OCDF	47.611	1.006	61819	69999	131818	bb	1.138	0.883	0.890	NO	82.5	4.825	4.825
	2378-TCDD	26.750	1.001	10226	13178	23404	bb	1.049	0.776	0.770	NO	97.9	0.490	0.490
	12378-PeCDD	31.856	1.001	50367	32017	82384	bb	0.998	1.573	1.550	NO	292.8	2.446	2.446
	123478-HxCDD	36.514	1.001	43836	34707	78543	bd	0.971	1.263	1.240	NO	416.9	2.474	2.474
	123678-HxCDD	36.646	1.001	43336	34466	77802	db	0.918	1.257	1.240	NO	405.1	2.510	2.510
	123789-HxCDD	37.062	1.012	41351	34177	75528	bb	0.932	1.210	1.240	NO	381.7	2.437	2.437
	1234678-HpCDD	41.403	1.001	33892	34520	68411	bb	1.017	0.982	1.050	NO	538.0	2.405	2.405
	OCDD	47.351	1.001	57896	62884	120780	bb	1.008	0.921	0.890	NO	852.2	4.988	4.988
	13C-2378-TCDF	26.093	1.007	3125337	4012399	7137736	bb	1.473	0.779	0.770	NO	4237.5		97.416
	13C-12378-PeCDF	30.233	1.167	3301785	2114999	5416784	bb	1.148	1.561	1.550	NO	17270.4		94.843
	13C-23478-PeCDF	31.582	1.219	3201033	2046897	5247930	bb	1.113	1.564	1.550	NO	16628.6		94.788
	13C-123478-HxCDF	35.254	0.951	1405431	2698855	4104286	bd	1.209	0.521	0.510	NO	5175.9		102.848
	13C-123678-HxCDF	35.407	0.956	1463292	2800353	4263645	db	1.269	0.522	0.510	NO	5333.5		101.818
	13C-234678-HxCDF	36.350	0.981	1412262	2692036	4104298	bb	1.236	0.525	0.510	NO	5178.3		100.616
	13C-123789-HxCDF	37.490	1.012	1247355	2380299	3627653	bb	1.107	0.524	0.510	NO	4683.8		99.305
	13C-1234678-HpCDF	39.561	1.068	1057891	2363308	3421199	bb	1.051	0.448	0.440	NO	6262.1		98.606
	13C-1234789-HpCDF	42.269	1.141	806343	1806364	2612707	bb	0.815	0.446	0.440	NO	4051.9		97.157
	13C-1234-TCDD	25.914	0.000	2193198	2782410	4975608	bb	1.000	0.788	0.770	NO	3879.5		100.000
	13C-2378-TCDD	26.736	1.032	1993810	2554211	4548021	bb	0.946	0.781	0.770	NO	3472.1		96.652
	13C-12378-PeCDD	31.834	1.228	2063451	1310850	3374301	bb	0.721	1.574	1.550	NO	13022.7		94.102
	13C-123478-HxCDD	36.492	0.985	1822913	1447254	3270167	bd	0.991	1.260	1.240	NO	4399.1		99.986
	13C-123678-HxCDD	36.624	0.988	1868627	1508180	3376807	db	1.025	1.239	1.240	NO	4451.9		99.839
	13C-1234678-HpCDD	41.381	1.117	1435075	1362100	2797175	bb	0.866	1.054	1.050	NO	5709.2		97.837
	13C-OCDD	47.324	1.277	2276928	2525708	4802636	bb	0.769	0.901	0.890	NO	9263.8		189.175

Dataset: P:\DIOXIN8290.PRO\121123IC.qld

Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time

Printed: Monday, November 26, 2012 09:35:31 Pacific Standard Time

Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

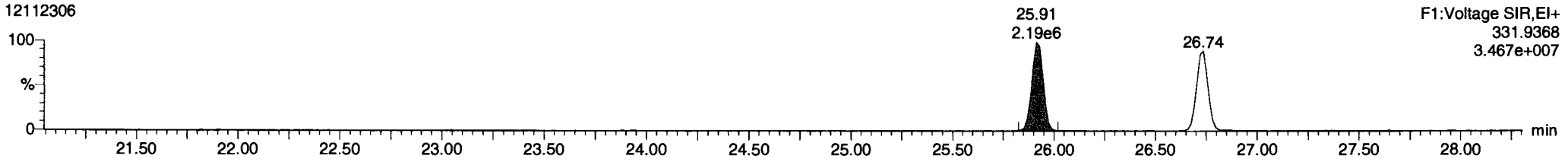
	13C-123789-HxCDD	37.051	0.000	1833369	1467445	3300814	bb	1.000	1.249	1.240	NO	4356.6		100.000
	Total-tetrafurans			12216				0.877					0.459	0.459
	Total-penta1			0									0.003	0.000
	Total-pentafurans			141156				0.911					4.917	4.890
	Total-hexafurans			218106				1.032					9.771	9.771
	Total-heptafurans			90098				1.223					4.929	4.929
	Total-Furans			523394				1.041					24.904	24.875
	Total-tetradioxins			10713				1.049					0.519	0.515
	Total-pentadioxins			50367				0.998					2.446	2.446
	Total-hexadioxins			128522				0.940					7.440	7.421
	Total-heptadioxins			33892				1.017					2.405	2.405
	Total-Dioxins			281389				0.985					17.798	17.775
	Total-TEQ			804783									42.702	42.650
	37CL-2378-TCDD	26.750	1.032	25878		25878		1.044				121.7		0.498
	FUNCTION1 PFK			2955590										
	FUNCTION2 PFK			179826										0.000
	FUNCTION3 PFK			1137925										0.000
	FUNCTION4 PFK			658912										
	FUNCTIONS5 PFK			424915										
	FUNCTION1 HXCDPE			1010										0.000
	FUNCTION1 HPCDPE			1355										0.000
	FUNCTION2 HPCDPE			1117										0.000
	FUNCTION3 OCDPE			324										0.000
	FUNCTION4 NCDPE			0										
	FUNCTION5 DCDPE			0										

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:35:31 Pacific Standard Time

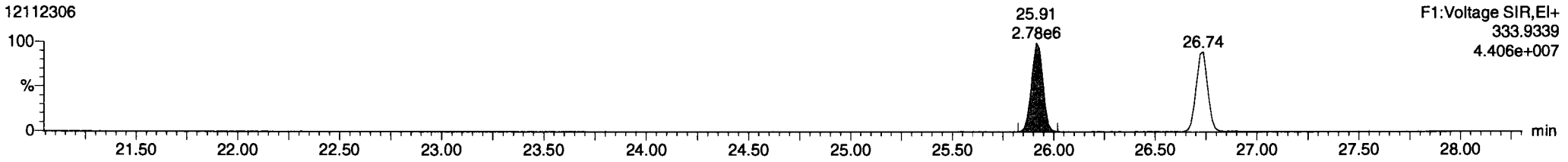
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

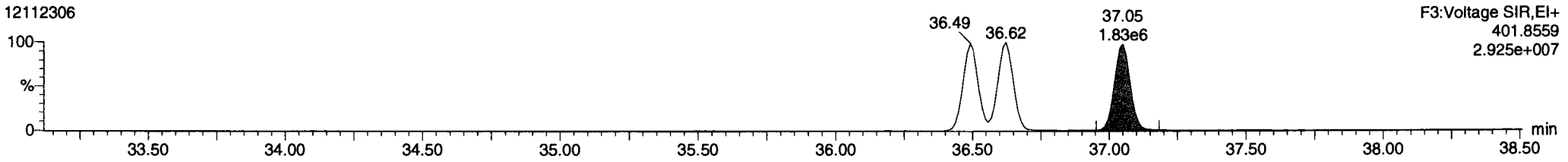
13C-1234-TCDD



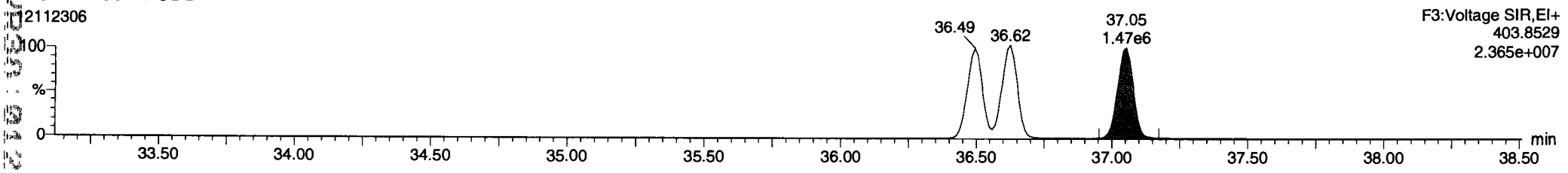
13C-1234-TCDD



13C-123789-HxCDD



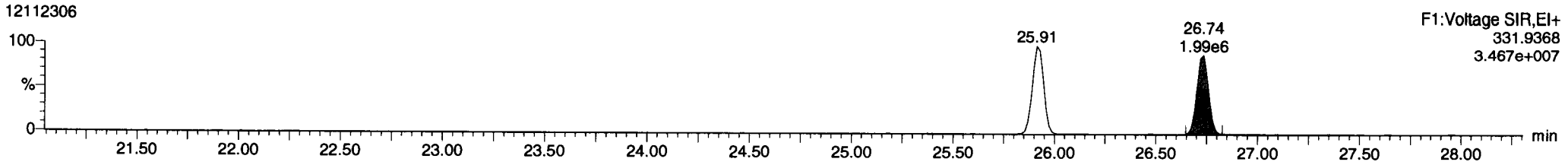
13C-123789-HxCDD



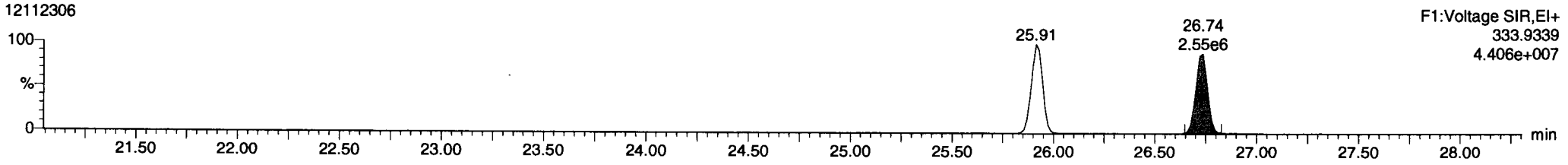
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:35:31 Pacific Standard Time

Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

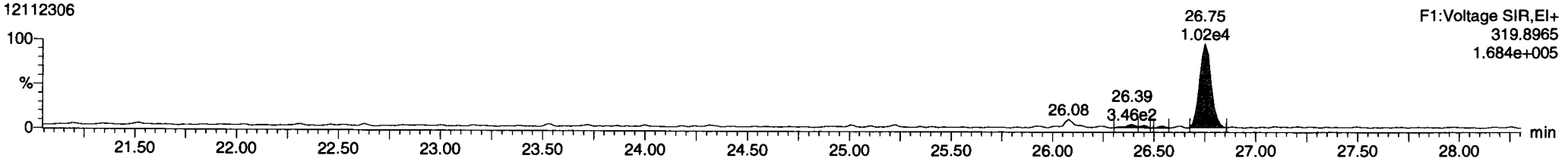
13C-2378-TCDD



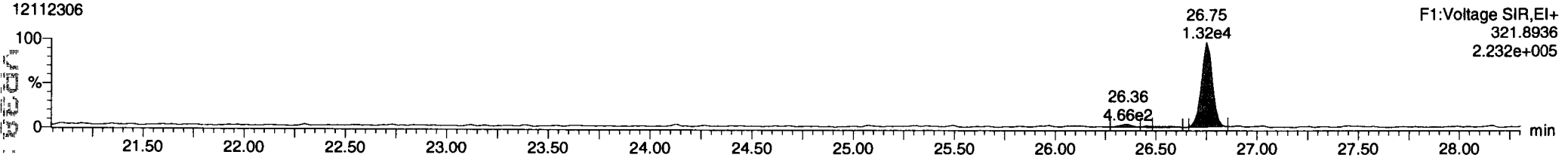
13C-2378-TCDD



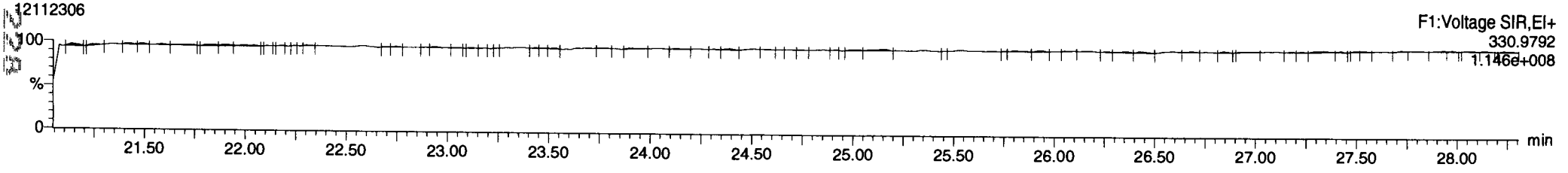
Total-tetradioxins



Total-tetradioxins



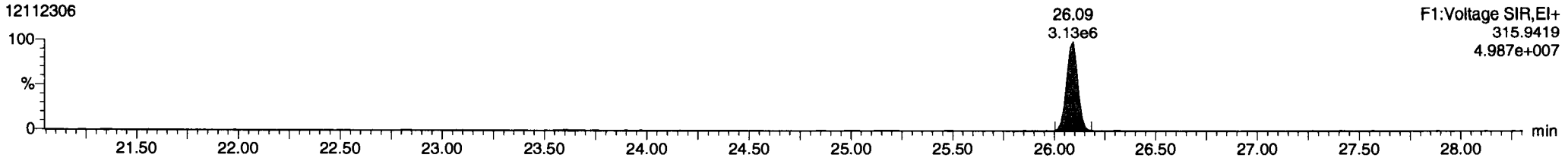
FUNCTION1 PFK



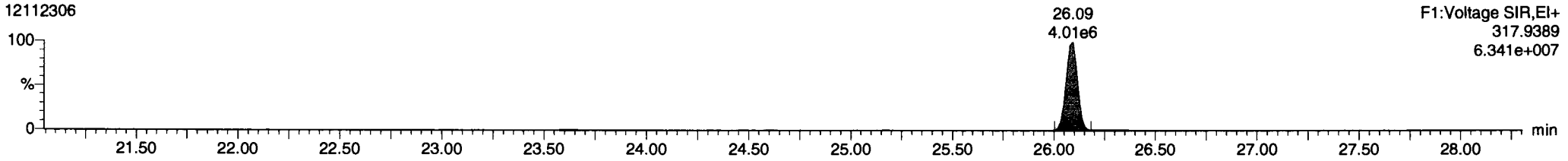
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:35:31 Pacific Standard Time

Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

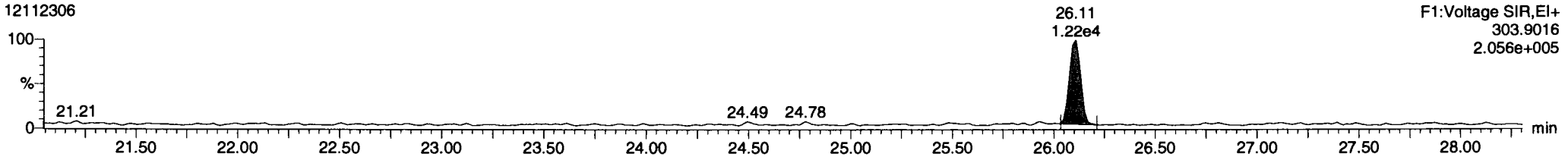
13C-2378-TCDF



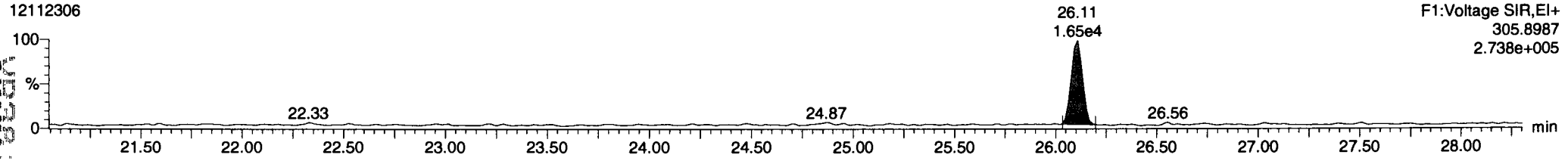
13C-2378-TCDF



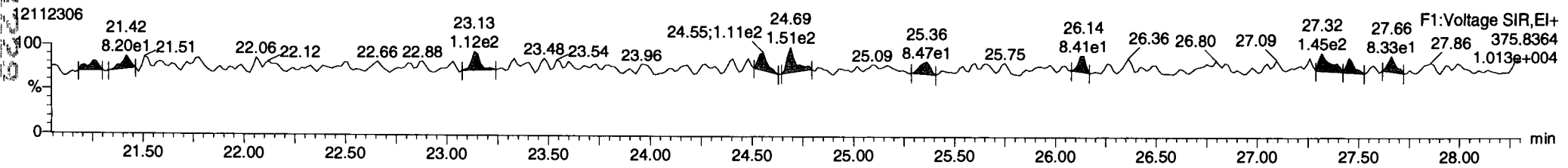
Total-tetrafurans



Total-tetrafurans



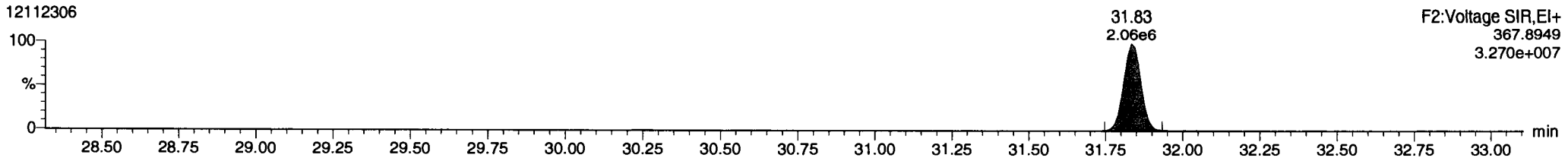
FUNCTION1 HXCDPE



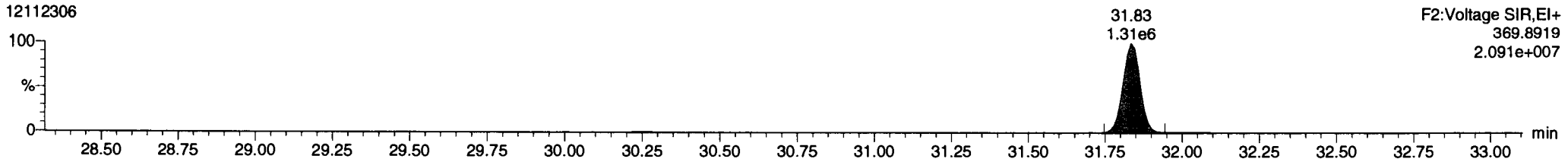
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:35:31 Pacific Standard Time

Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

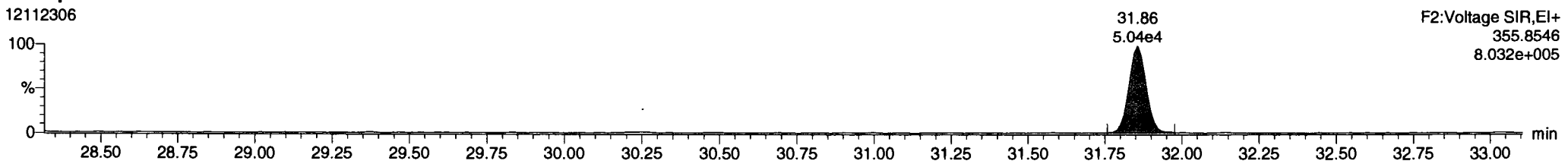
13C-12378-PeCDD



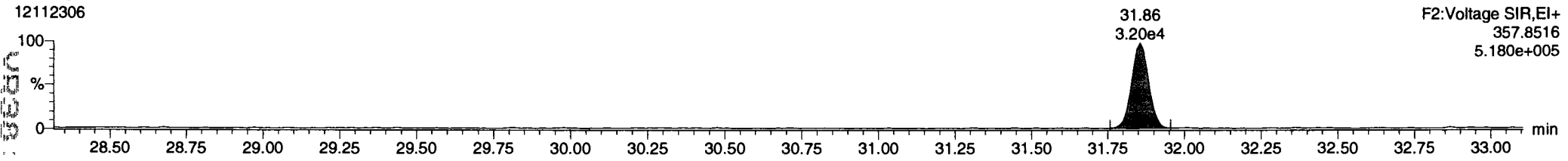
13C-12378-PeCDD



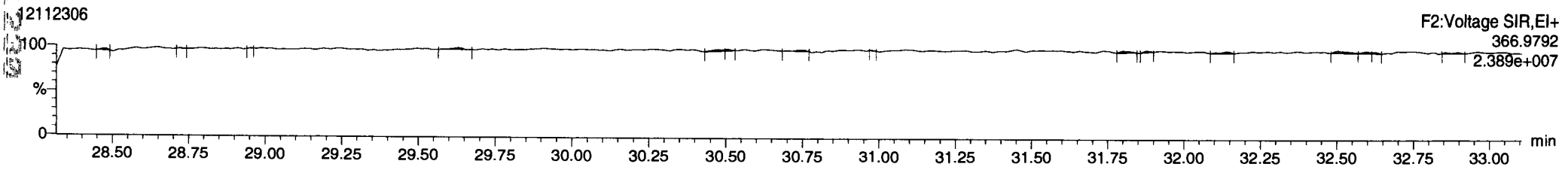
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
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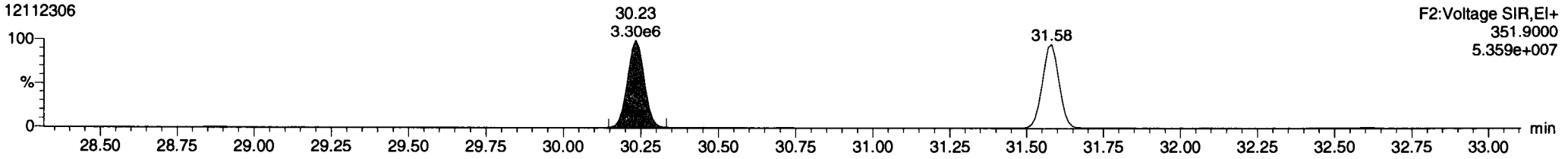
Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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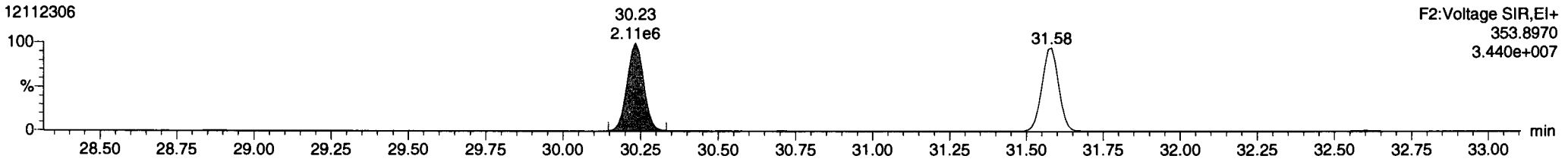
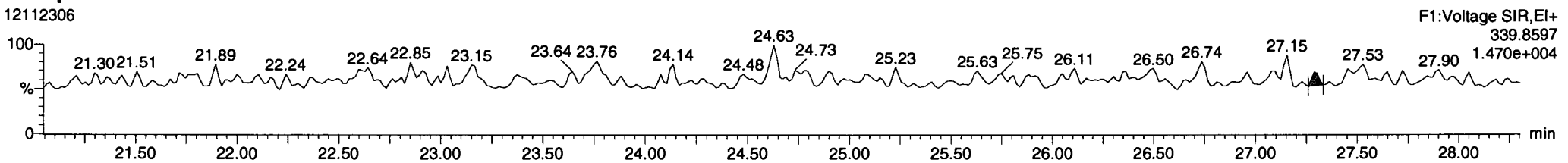
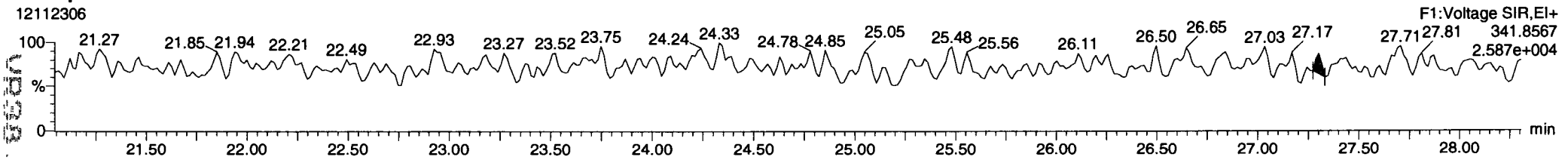


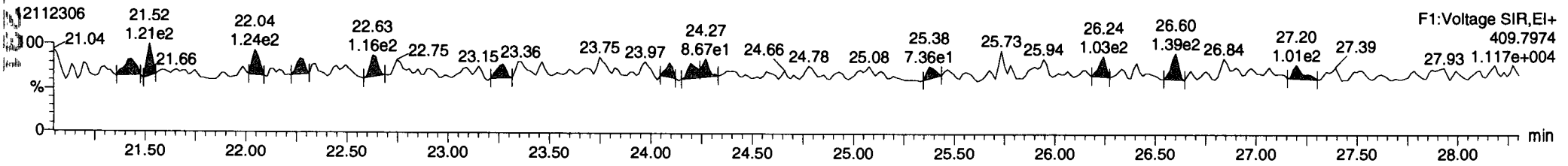
Total-penta1



Total-penta1



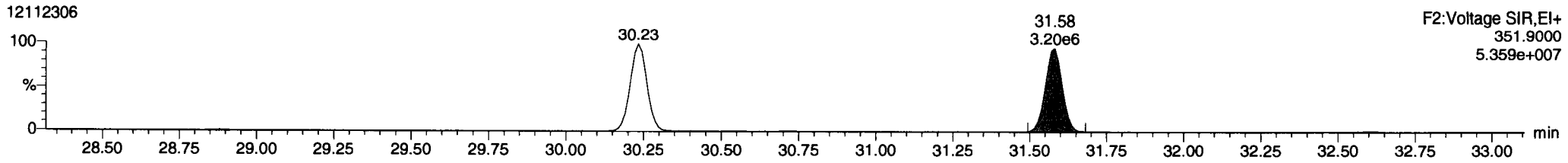
FUNCTION1 HPCDPE



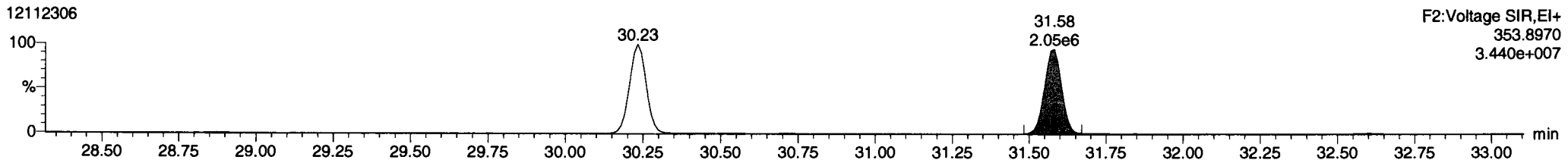
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:35:31 Pacific Standard Time

Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

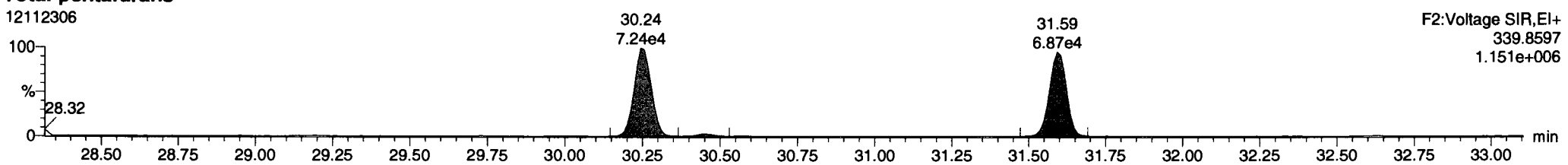
13C-23478-PeCDF



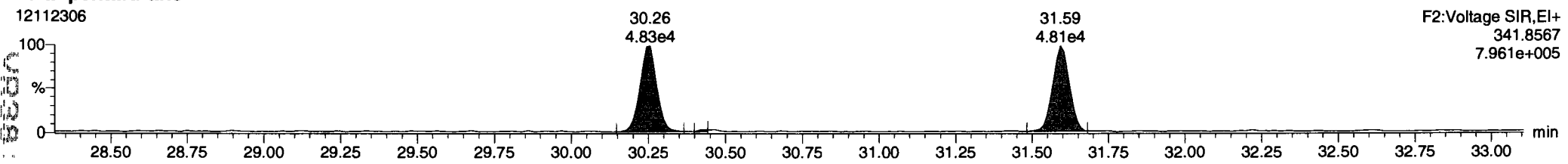
13C-23478-PeCDF



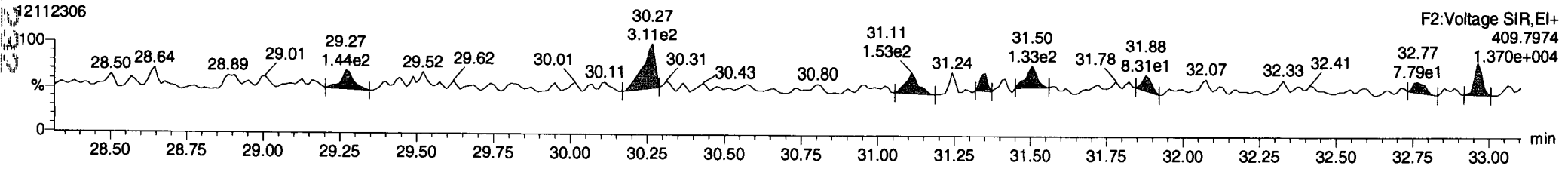
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
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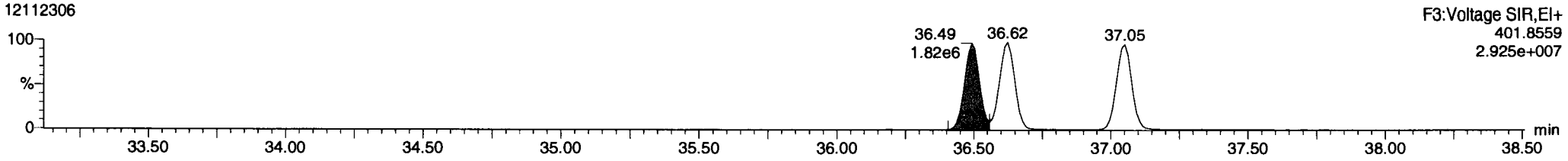
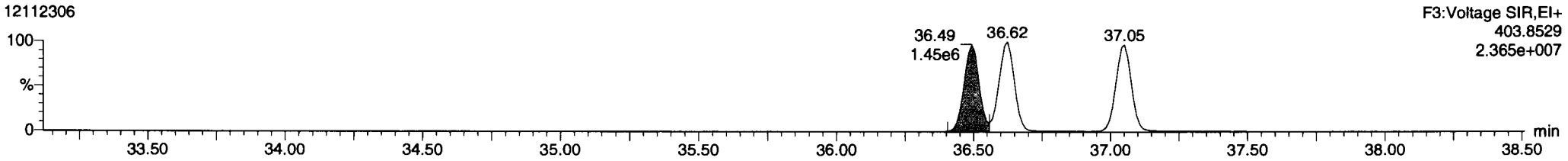
Name: 12112306, Date: 23-Nov-2012, Time: 15:02:34, ID: CS1, Conditions: AUTOSPEC01, User: pk

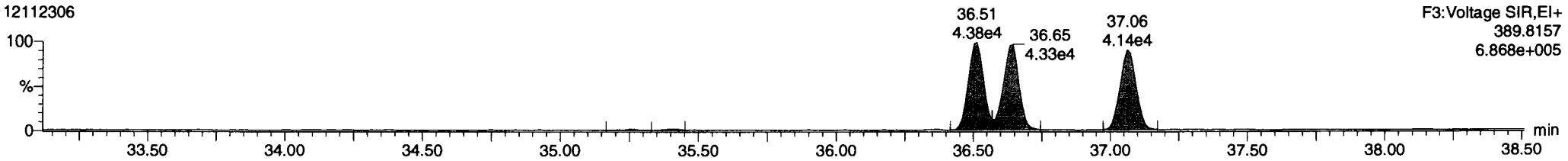
13C-123478-HxCDD



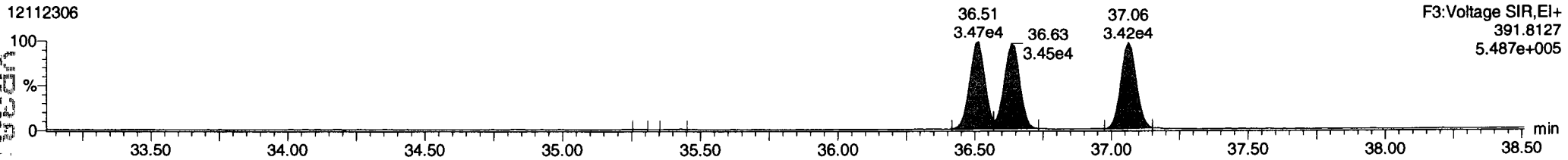
13C-123478-HxCDD



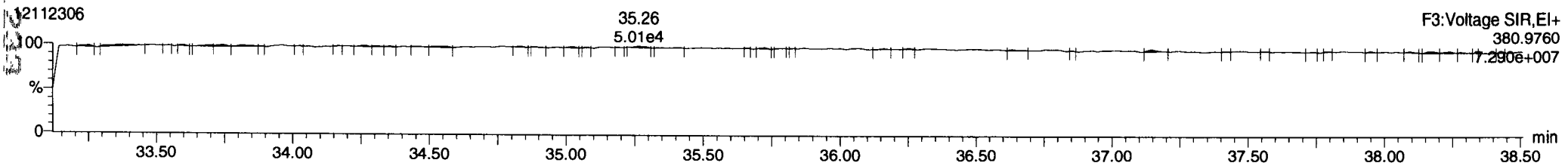
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:43 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112307, Date: 23-Nov-2012, Time: 15:55:02, ID: CS2, Conditions: AUTOSPEC01, User: pk

	2378-TCDF	26.108	1.001	51837	72489	124327	bb	0.877	0.715	0.770	NO	345.2	1.956	1.956
	12378-PeCDF	30.256	1.000	281153	192278	473431	bb	0.896	1.462	1.550	NO	2392.0	9.742	9.742
	23478-PeCDF	31.604	1.001	282981	194793	477774	bb	0.926	1.453	1.550	NO	2353.8	9.716	9.716
	123478-HxCDF	35.287	1.001	238121	200406	438527	bd	1.068	1.188	1.240	NO	1846.2	9.869	9.869
	234678-HxCDF	36.373	1.000	241007	201891	442898	bd	1.037	1.194	1.240	NO	1849.6	9.964	9.964
	123678-HxCDF	35.430	1.000	239972	200501	440473	db	1.035	1.197	1.240	NO	1872.0	9.795	9.795
	123789-HxCDF	37.513	1.000	211399	175671	387069	bd	0.987	1.203	1.240	NO	1673.8	10.002	10.002
	1234678-HpCDF	39.584	1.000	217217	224957	442174	bb	1.232	0.966	1.050	NO	2178.2	9.748	9.748
	1234789-HpCDF	42.292	1.001	177429	180863	358291	bb	1.215	0.981	1.050	NO	1554.9	9.872	9.872
	OCDF	47.620	1.006	287498	335589	623087	bb	1.138	0.857	0.890	NO	1773.2	19.749	19.749
	2378-TCDD	26.751	1.001	39415	52619	92034	bb	1.049	0.749	0.770	NO	513.8	1.918	1.918
	12378-PeCDD	31.867	1.001	204983	133070	338053	bb	0.998	1.540	1.550	NO	1626.8	9.917	9.917
	123478-HxCDD	36.515	1.000	183339	145606	328945	bd	0.971	1.259	1.240	NO	1719.6	10.010	10.010
	123678-HxCDD	36.646	1.001	176782	144059	320841	db	0.918	1.227	1.240	NO	1698.4	9.844	9.844
	123789-HxCDD	37.074	1.012	172609	145821	318430	bb	0.932	1.184	1.240	NO	1635.7	9.850	9.850
	1234678-HpCDD	41.404	1.000	158131	150290	308420	bd	1.017	1.052	1.050	NO	1904.4	9.780	9.780
	OCDD	47.351	1.000	256998	287575	544573	bb	1.008	0.894	0.890	NO	2315.8	19.472	19.472
	13C-2378-TCDF	26.093	1.006	3199308	4052299	7251607	bb	1.473	0.789	0.770	NO	5844.0		104.358
	13C-12378-PeCDF	30.245	1.166	3311487	2111169	5422656	bb	1.148	1.569	1.550	NO	17141.8		100.114
	13C-23478-PeCDF	31.582	1.218	3236019	2073470	5309490	bb	1.113	1.561	1.550	NO	16657.4		101.121
	13C-123478-HxCDF	35.265	0.952	1414831	2744770	4159601	bd	1.209	0.516	0.510	NO	6165.5		98.873
	13C-123678-HxCDF	35.419	0.956	1483929	2862757	4346687	db	1.269	0.518	0.510	NO	6455.2		98.463
	13C-234678-HxCDF	36.361	0.981	1475325	2812086	4287412	bb	1.236	0.525	0.510	NO	6374.8		99.700
	13C-123789-HxCDF	37.501	1.012	1349021	2573186	3922207	bb	1.107	0.524	0.510	NO	5790.9		101.847
	13C-1234678-HpCDF	39.573	1.068	1132555	2549678	3682233	bb	1.051	0.444	0.440	NO	5683.3		100.672
	13C-1234789-HpCDF	42.270	1.141	916417	2070563	2986980	bb	0.815	0.443	0.440	NO	3962.3		105.362
	13C-1234-TCDD	25.929	0.000	2086833	2631897	4718730	bb	1.000	0.793	0.770	NO	5013.4		100.000
	13C-2378-TCDD	26.736	1.031	2001661	2571492	4573154	bb	0.946	0.778	0.770	NO	4839.6		102.476
	13C-12378-PeCDD	31.845	1.228	2088989	1326662	3415651	bb	0.721	1.575	1.550	NO	16001.3		100.440
	13C-123478-HxCDD	36.504	0.985	1896092	1488803	3384895	bd	0.991	1.274	1.240	NO	5136.1		98.172
	13C-123678-HxCDD	36.625	0.988	1972501	1577307	3549809	db	1.025	1.250	1.240	NO	5271.8		99.557
	13C-1234678-HpCDD	41.393	1.117	1597492	1503824	3101316	bb	0.866	1.062	1.050	NO	6422.5		102.896
	13C-OCDD	47.333	1.277	2614910	2932031	5546941	bb	0.769	0.892	0.890	NO	12875.0		207.258

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:43 Pacific Standard Time

Name: 12112307, Date: 23-Nov-2012, Time: 15:55:02, ID: CS2, Conditions: AUTOSPEC01, User: pk

[redacted]	13C-123789-HxCDD	37.052	0.000	1933322	1546439	3479761	bb	1.000	1.250	1.240	NO	5177.2		100.000
[redacted]	Total-tetrafurans			51837				0.877					1.978	1.956
[redacted]	Total-penta1			0									0.006	0.000
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[redacted]	Total-hexafurans			930498				1.032					39.637	39.631
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[redacted]	Total-tetradioxins			39415				1.049					1.965	1.918
[redacted]	Total-pentadioxins			204983				0.998					9.917	9.917
[redacted]	Total-hexadioxins			532730				0.940					29.735	29.705
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[redacted]	Total-TEQ			3428645									171.758	171.481
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[redacted]	FUNCTION1 PFK			57956416										
[redacted]	FUNCTION2 PFK			185486										0.000
[redacted]	FUNCTION3 PFK			717138										0.000
[redacted]	FUNCTION4 PFK			0										
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[redacted]	FUNCTION1 HXCDPE			649										0.000
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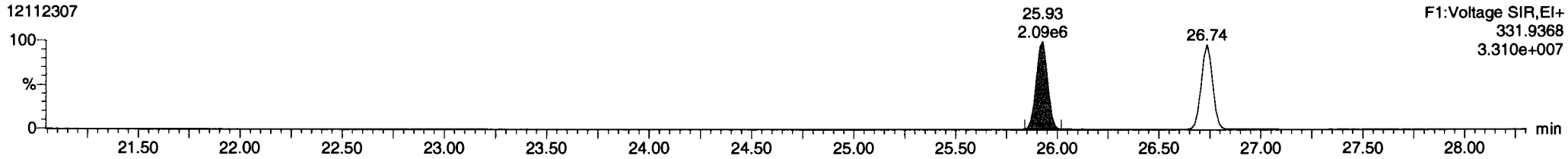
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:43 Pacific Standard Time

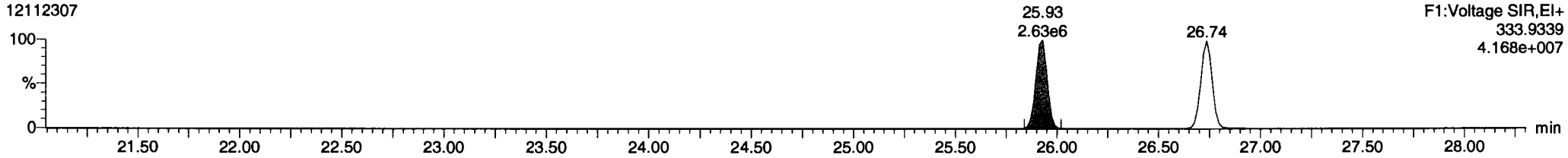
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112307, Date: 23-Nov-2012, Time: 15:55:02, ID: CS2, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



13C-1234-TCDD



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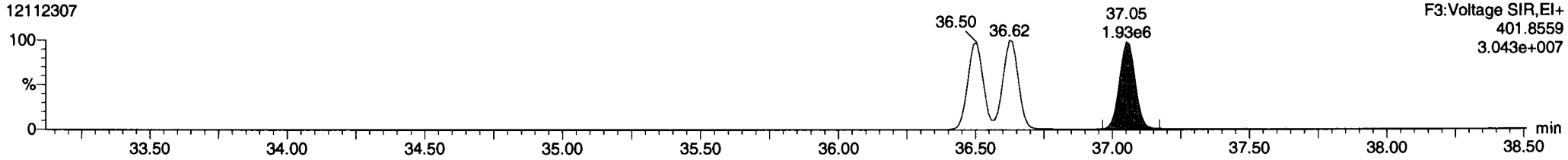
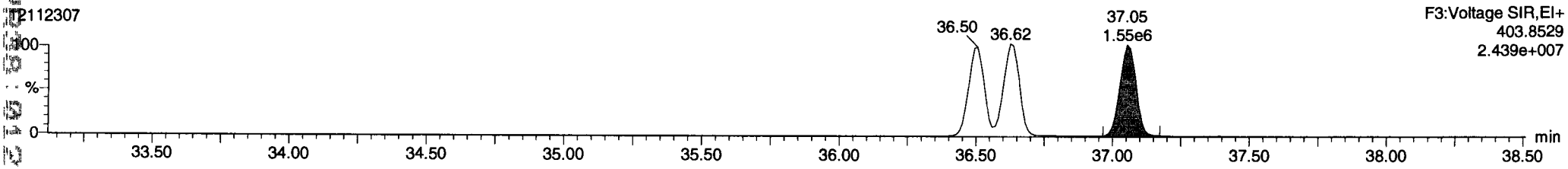


13C-123789-HxCDD



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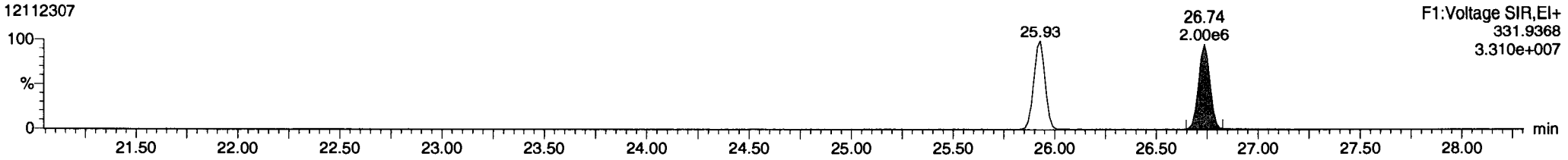
Printed: Monday, November 26, 2012 09:26:43 Pacific Standard Time

Name: 12112307, Date: 23-Nov-2012, Time: 15:55:02, ID: CS2, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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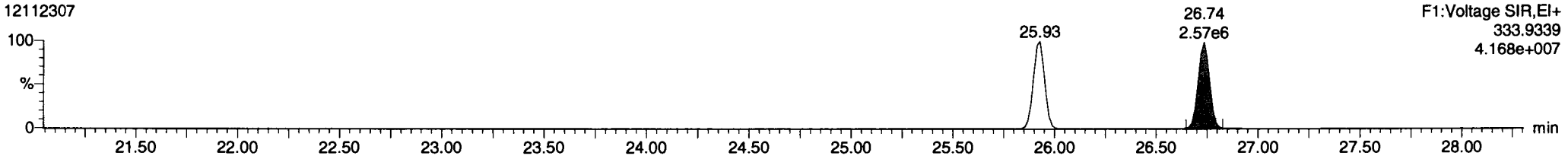
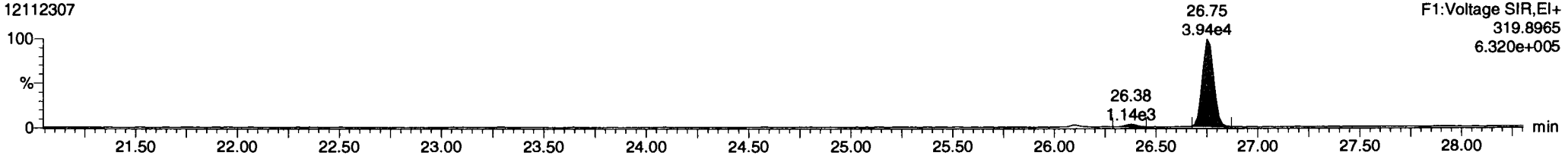
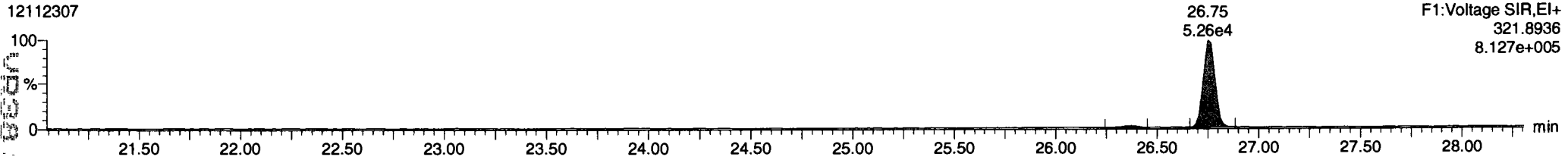


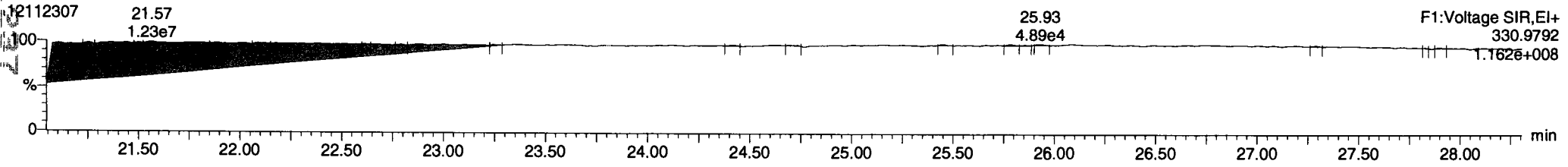
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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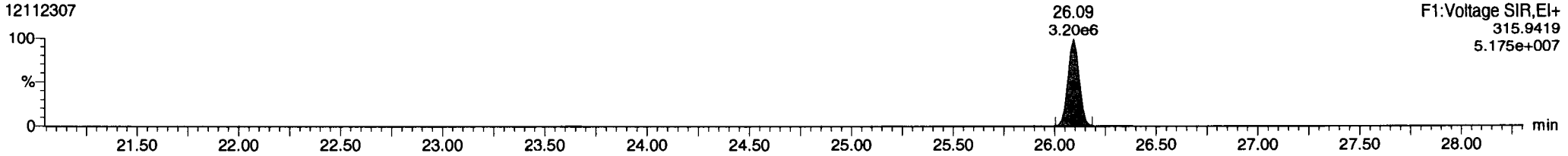
Name: 12112307, Date: 23-Nov-2012, Time: 15:55:02, ID: CS2, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF



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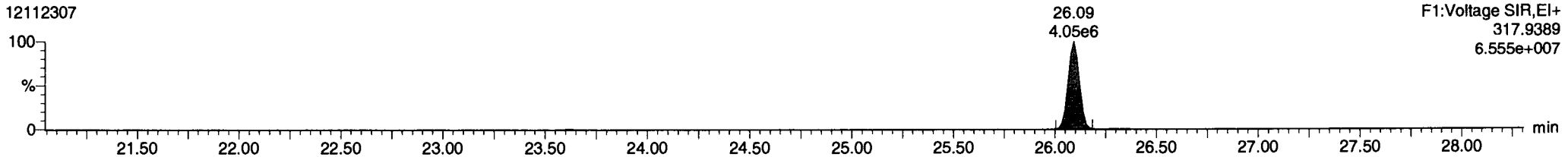
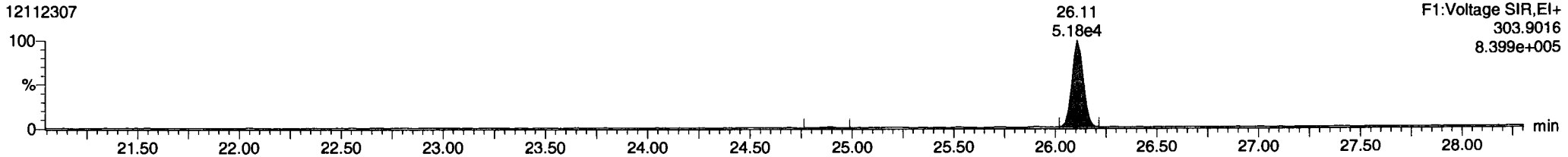
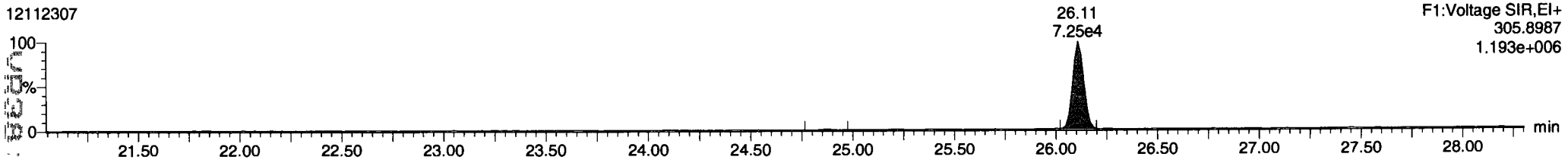


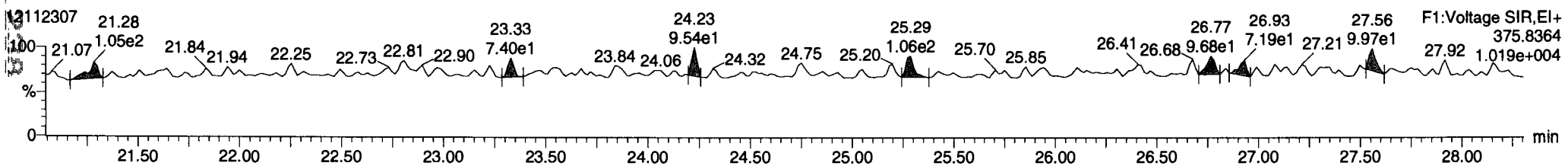
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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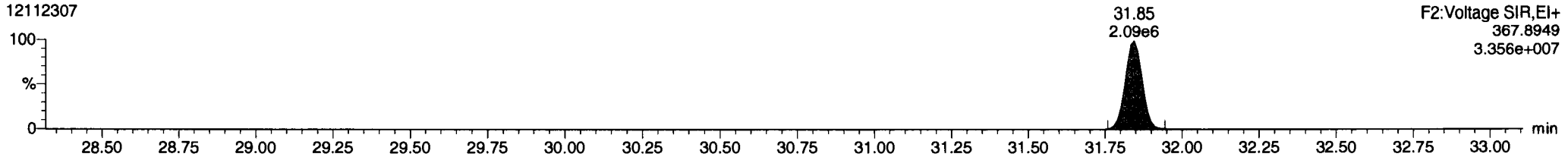
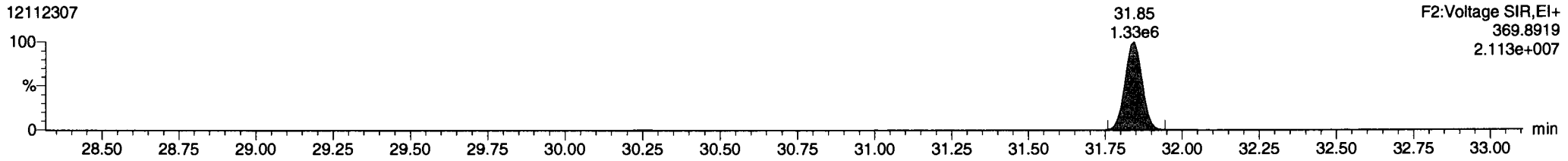
Name: 12112307, Date: 23-Nov-2012, Time: 15:55:02, ID: CS2, Conditions: AUTOSPEC01, User: pk

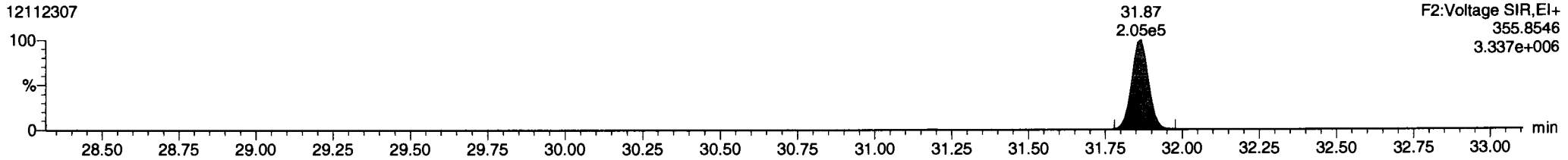
13C-12378-PeCDD



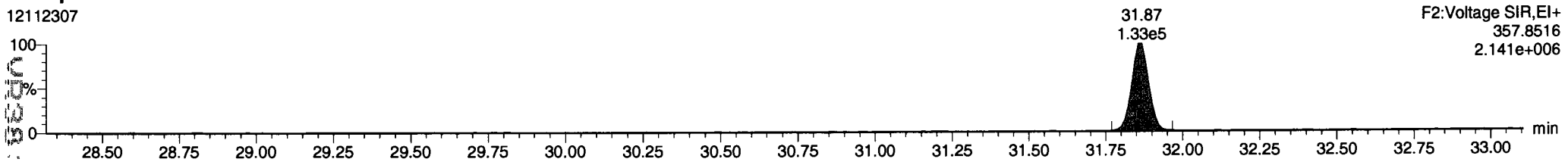
13C-12378-PeCDD



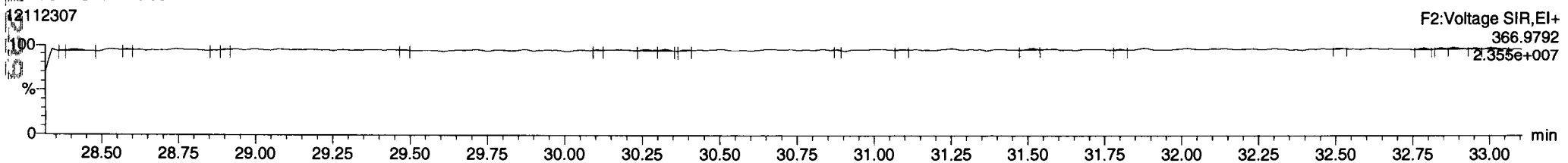
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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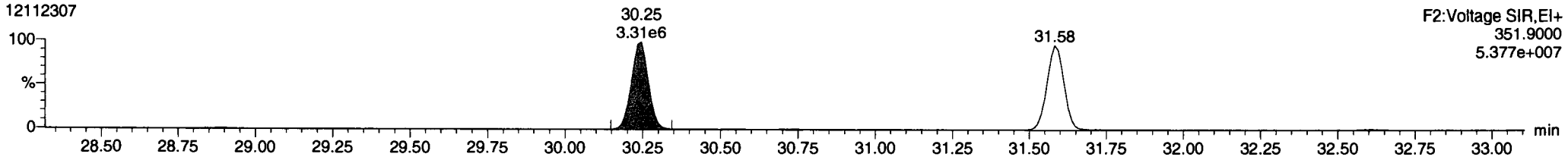
13C-12378-PeCDF



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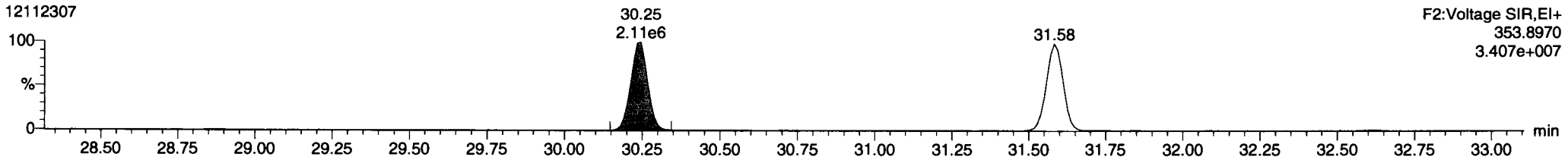
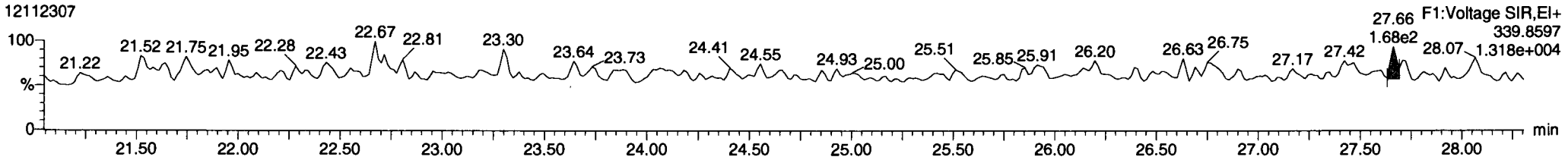
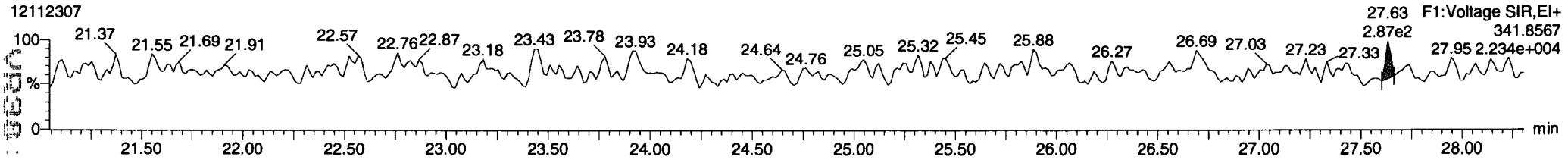


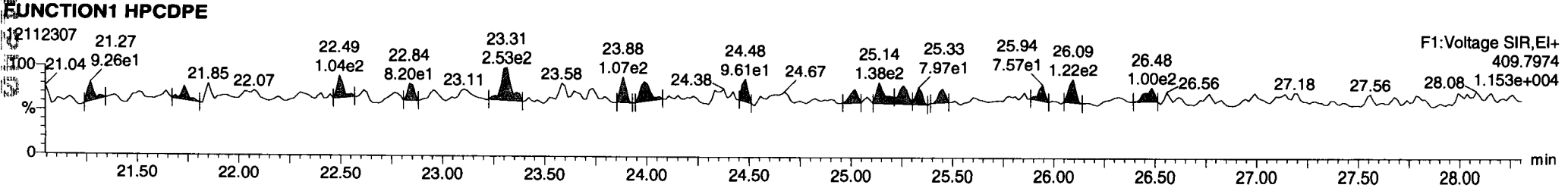
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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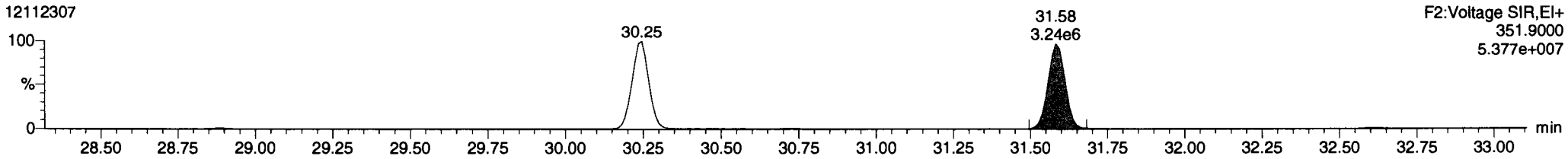
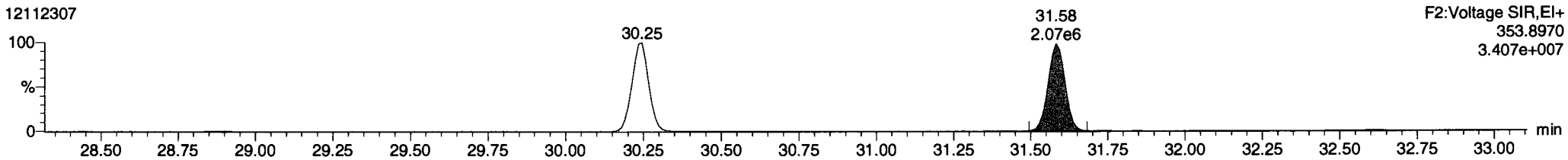
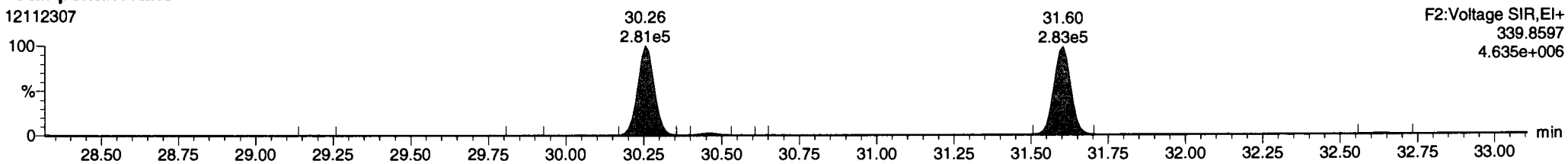
13C-23478-PeCDF



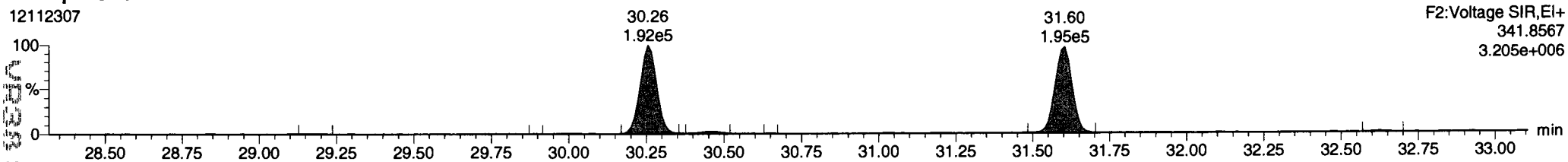
13C-23478-PeCDF



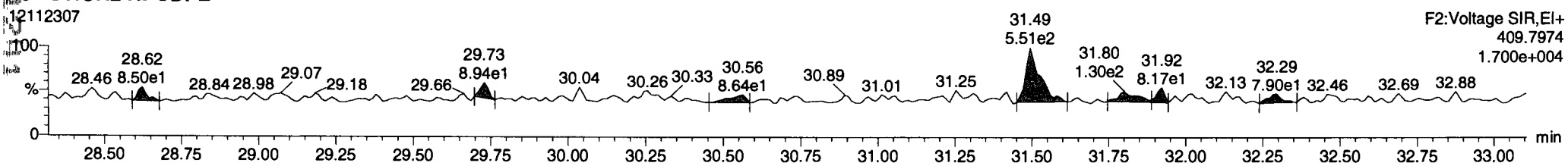
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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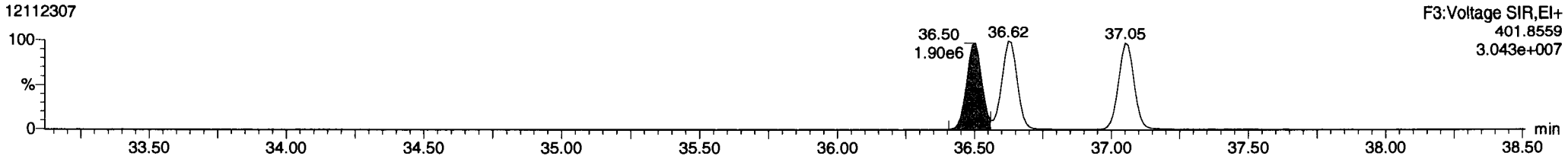
13C-123478-HxCDD



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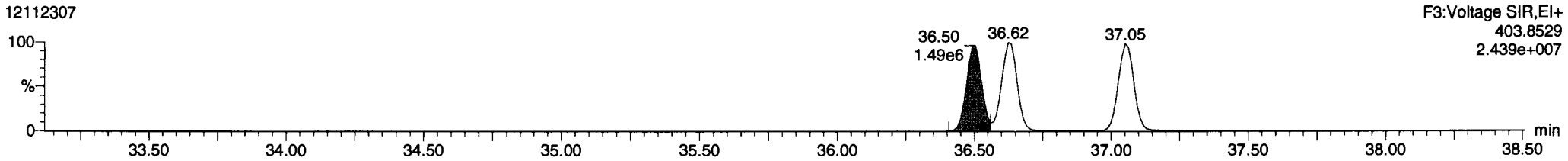
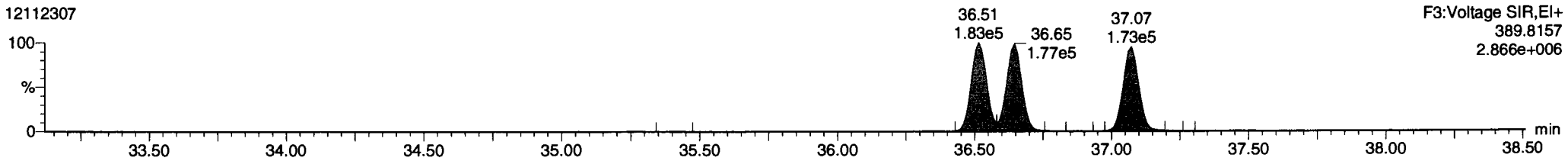
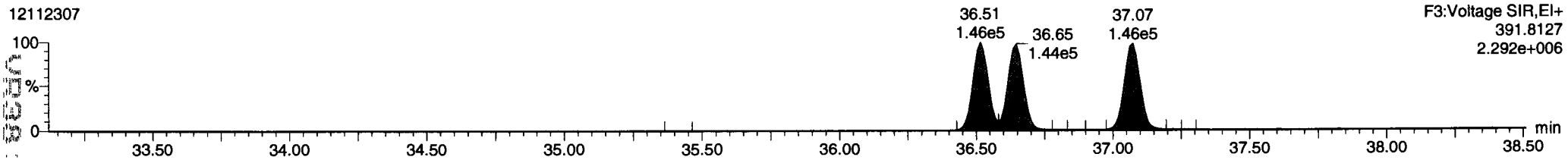


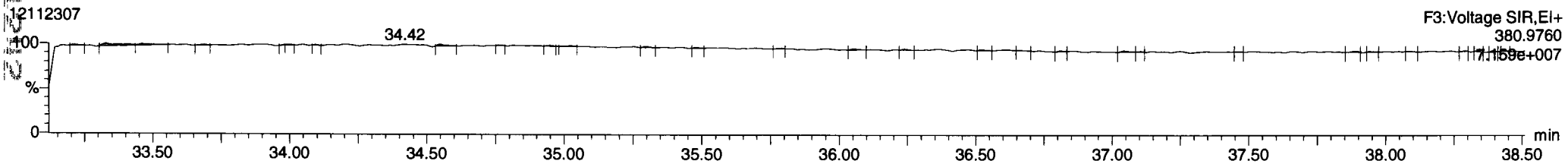
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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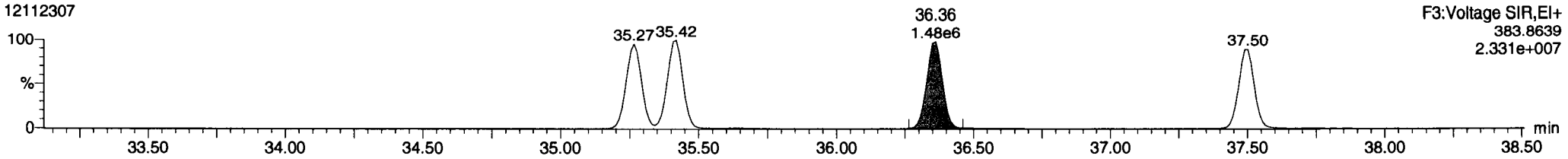
13C-234678-HxCDF



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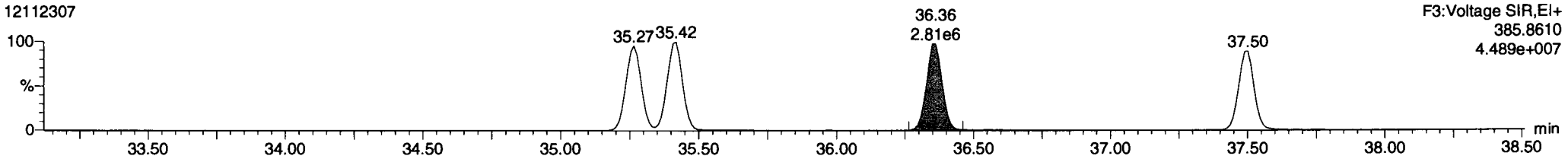
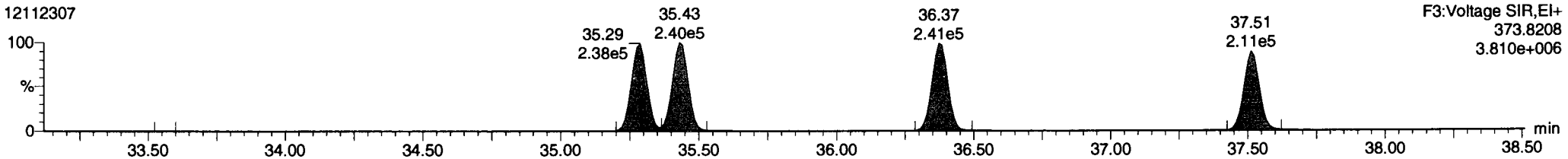
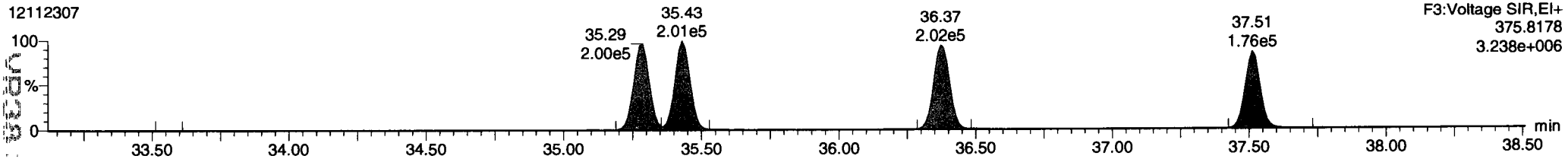


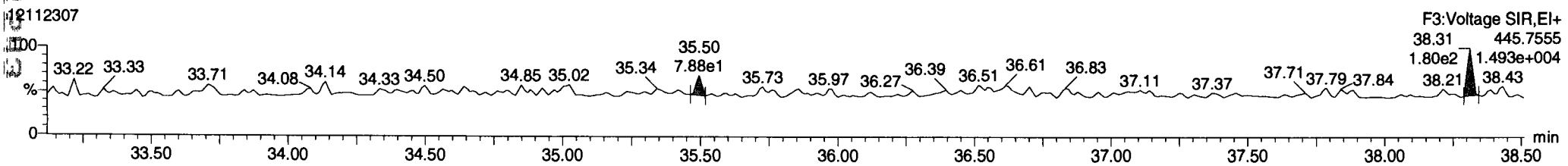
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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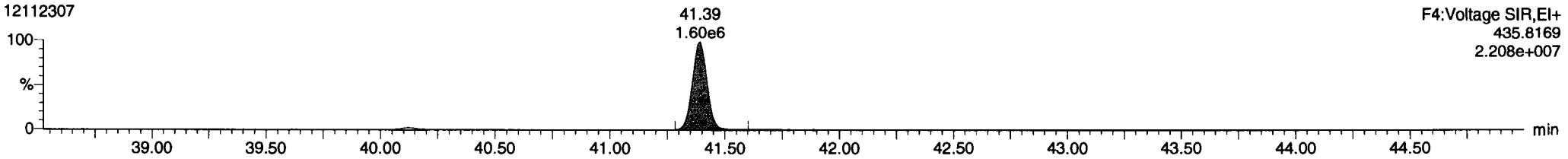
13C-1234678-HpCDD



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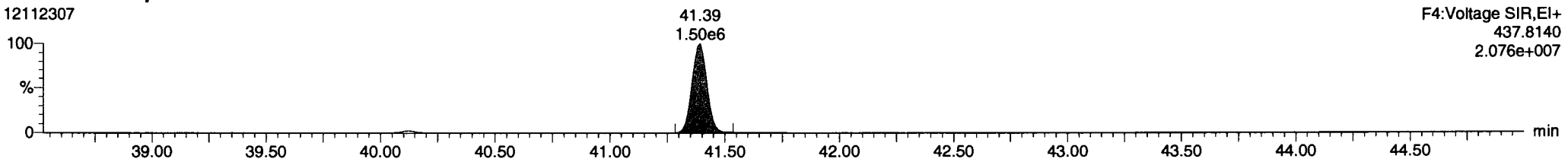
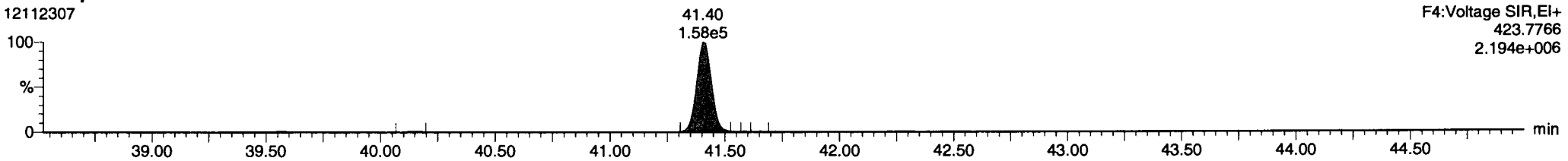
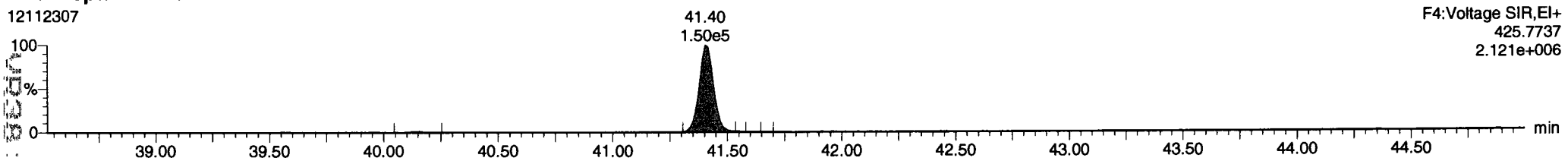


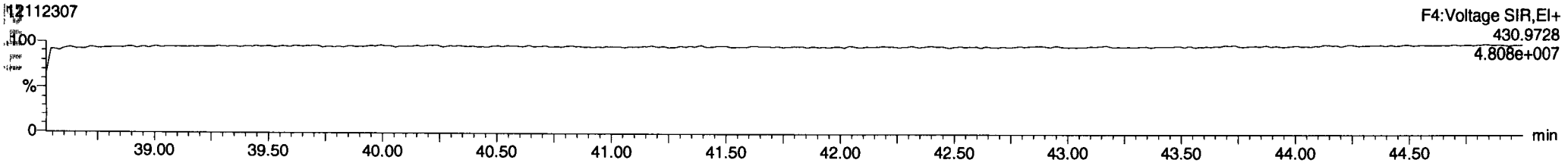
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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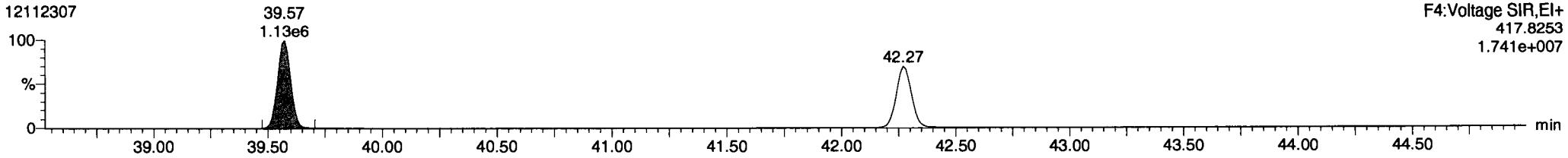
13C-1234678-HpCDF



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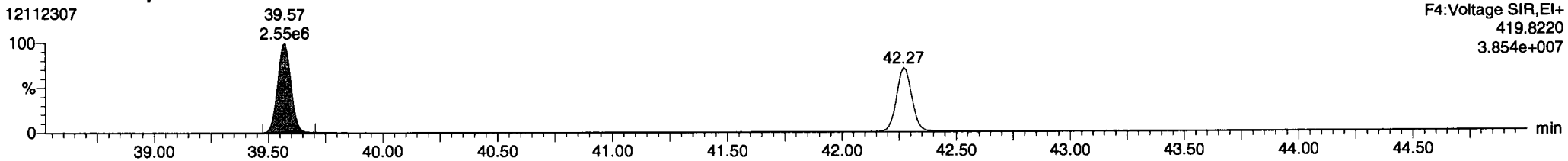

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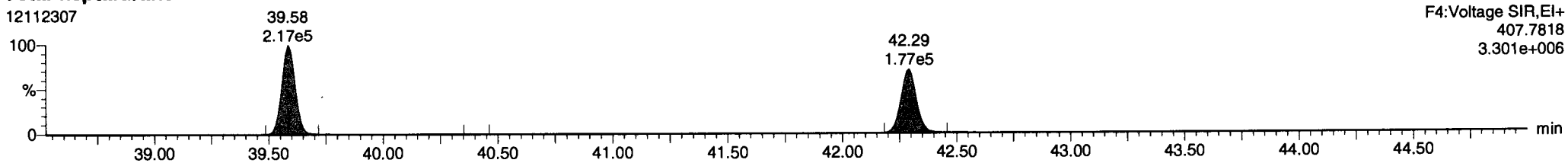

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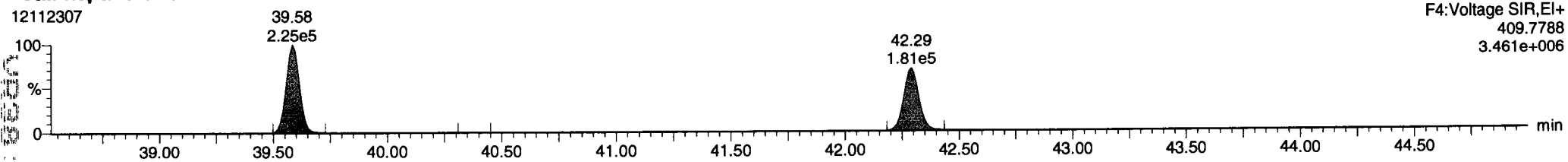

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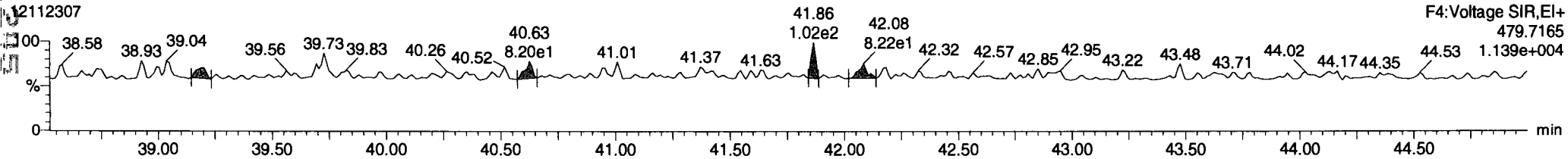
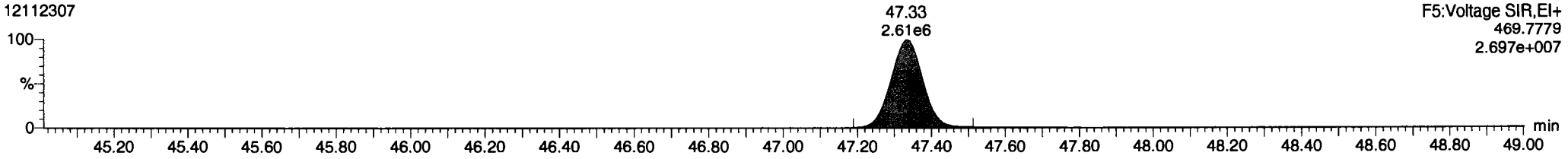


Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:43 Pacific Standard Time

Name: 12112307, Date: 23-Nov-2012, Time: 15:55:02, ID: CS2, Conditions: AUTOSPEC01, User: pk

13C-OCDD



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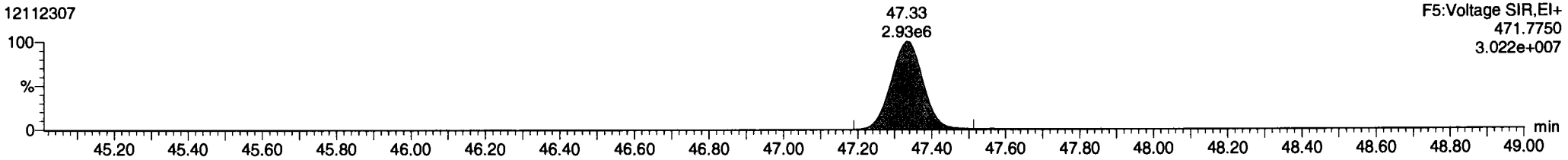

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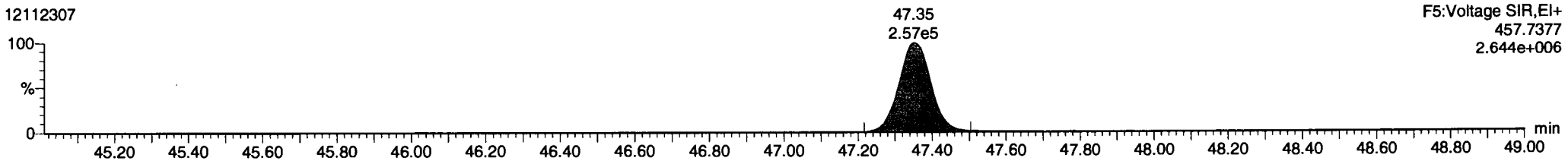

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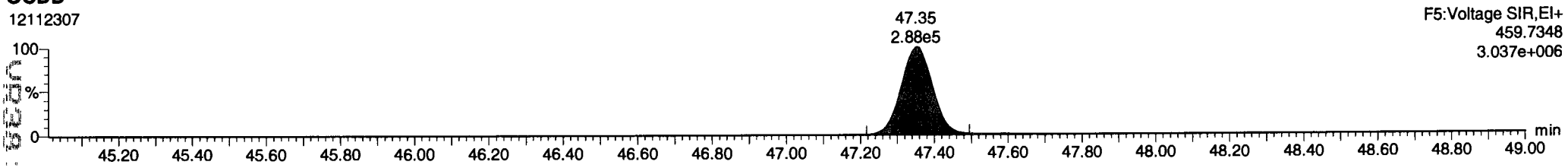

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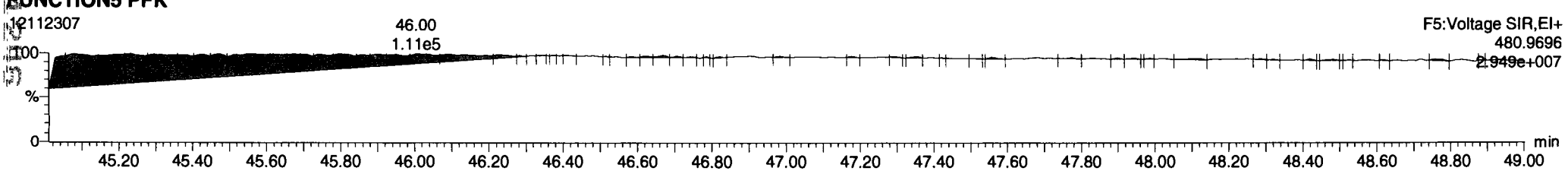

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Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
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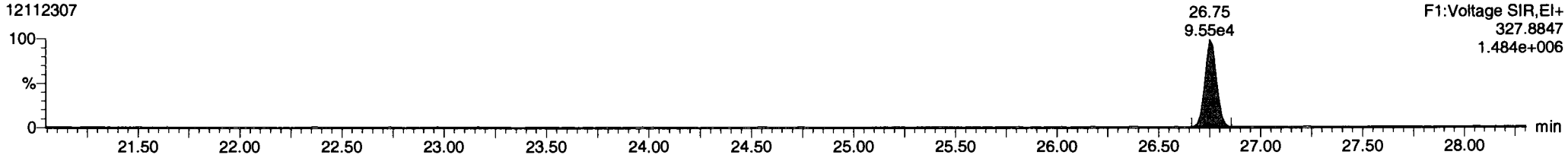
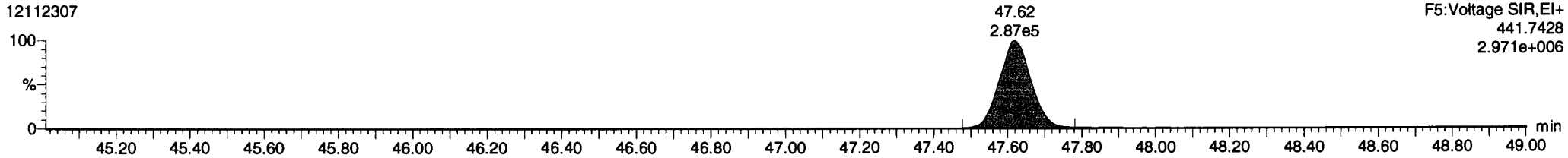
Name: 12112307, Date: 23-Nov-2012, Time: 15:55:02, ID: CS2, Conditions: AUTOSPEC01, User: pk

37CL-2378-TCDD



OCDF



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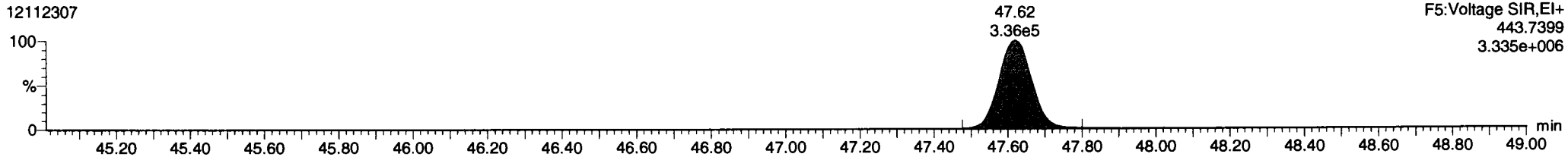
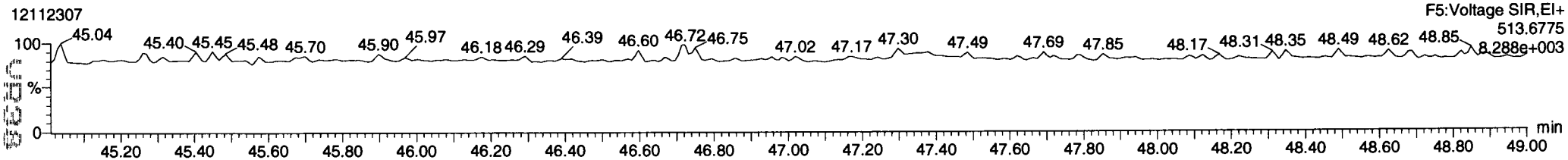


FUNCTION5 DCDPE



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Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:53 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112308, Date: 23-Nov-2012, Time: 16:45:35, ID: CS3, Conditions: AUTOSPEC01, User: pk

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[redacted]	12378-PeCDF	30.233	1.000	1156210	781358	1937568	bb	0.896	1.480	1.550	NO	4686.8	49.802	49.802
[redacted]	23478-PeCDF	31.582	1.001	1137087	772882	1909968	bb	0.926	1.471	1.550	NO	4541.5	49.602	49.602
[redacted]	123478-HxCDF	35.265	1.001	936705	786783	1723488	bd	1.068	1.191	1.240	NO	3405.1	49.310	49.310
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[redacted]	123789-HxCDF	37.490	1.000	789335	660161	1449496	bb	0.987	1.196	1.240	NO	2880.5	49.490	49.490
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[redacted]	12378-PeCDD	31.845	1.001	813777	521830	1335607	bb	0.998	1.559	1.550	NO	3776.6	49.810	49.810
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[redacted]	123789-HxCDD	37.051	1.012	701043	562904	1263946	bb	0.932	1.245	1.240	NO	3135.6	50.797	50.797
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[redacted]	13C-2378-TCDF	26.078	1.007	2563645	3282954	5846599	bb	1.473	0.781	0.770	NO	4087.7		99.879
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[redacted]	13C-1234678-HpCDD	41.370	1.117	1174691	1121641	2296332	bb	0.866	1.047	1.050	NO	6566.4		98.931
[redacted]	13C-OCDD	47.306	1.278	1831116	2048884	3880000	bb	0.769	0.894	0.890	NO	11336.5		188.249

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:26:53 Pacific Standard Time

Name: 12112308, Date: 23-Nov-2012, Time: 16:45:35, ID: CS3, Conditions: AUTOSPEC01, User: pk

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[redacted]	Total-penta1			1743492									73.434	73.434
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[redacted]	Total-tetradioxins			956279				1.049					55.889	55.542
[redacted]	Total-pentadioxins			2917842				0.998					178.867	178.715
[redacted]	Total-hexadioxins			3044627				0.940					220.722	219.478
[redacted]	Total-heptadioxins			1276742				1.017					107.268	107.268
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[redacted]	FUNCTION1 PFK			3607643										
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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

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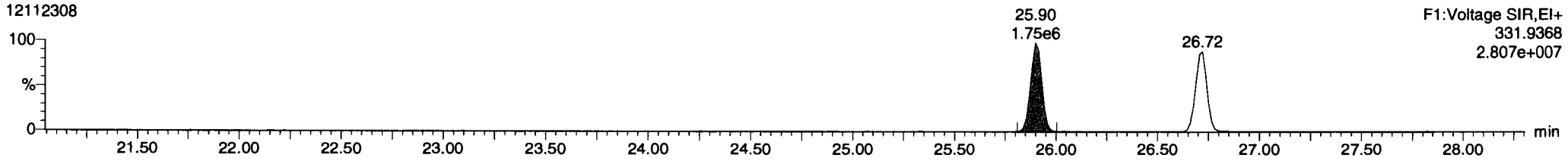
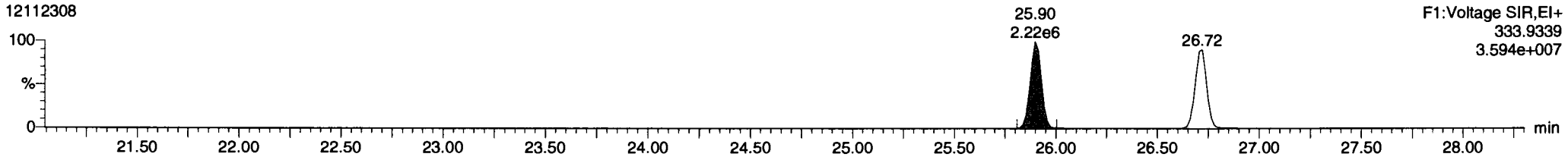
13C-1234-TCDD



13C-1234-TCDD



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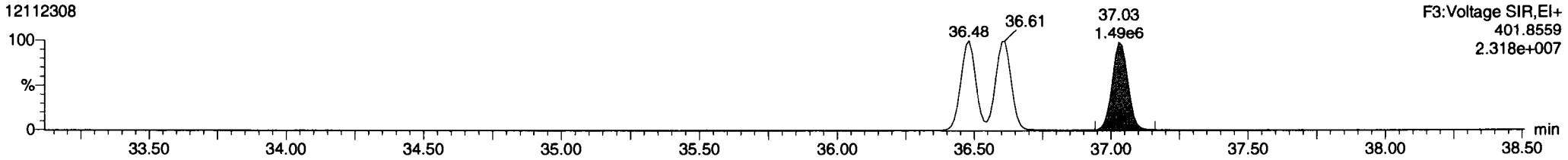

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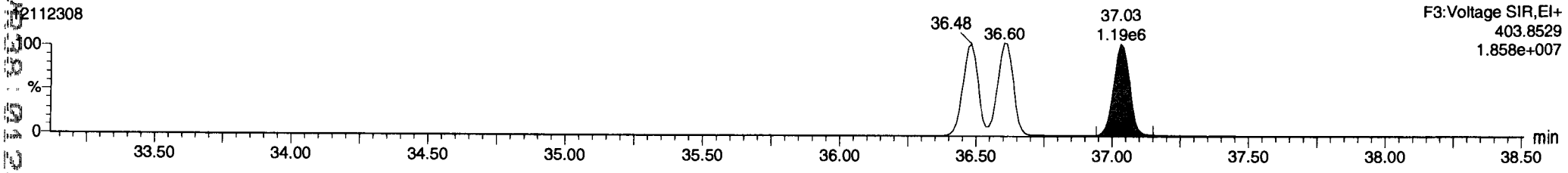

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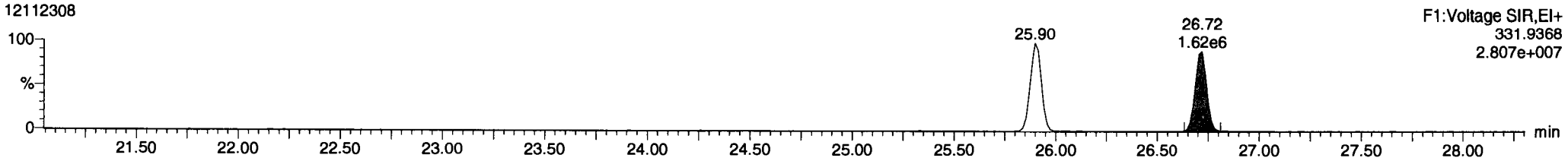
13C-2378-TCDD



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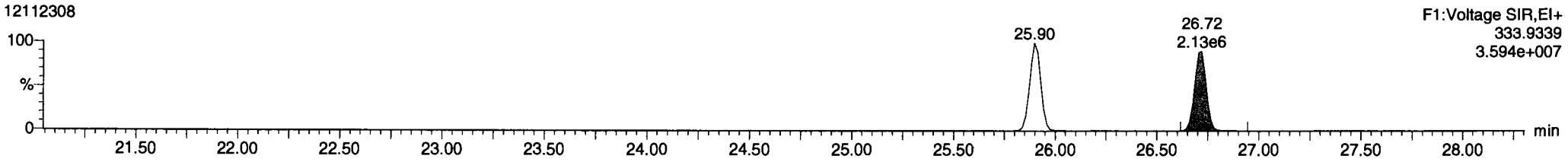
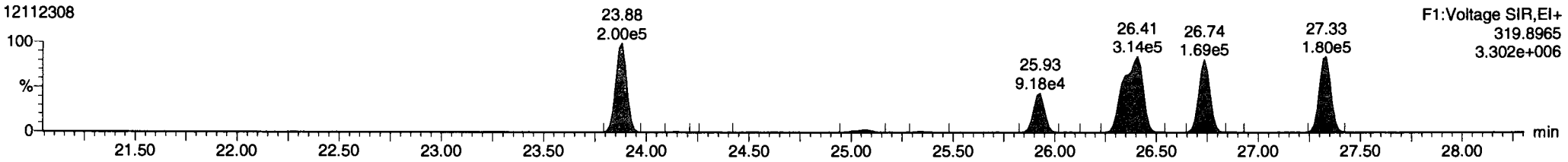
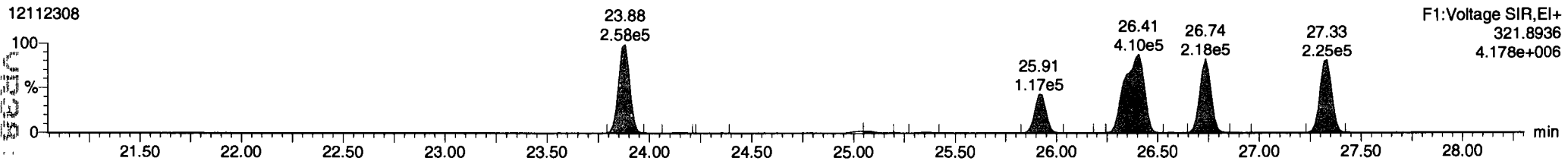


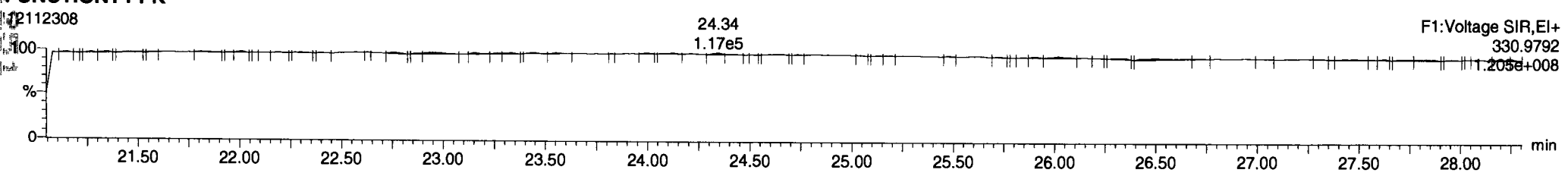
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
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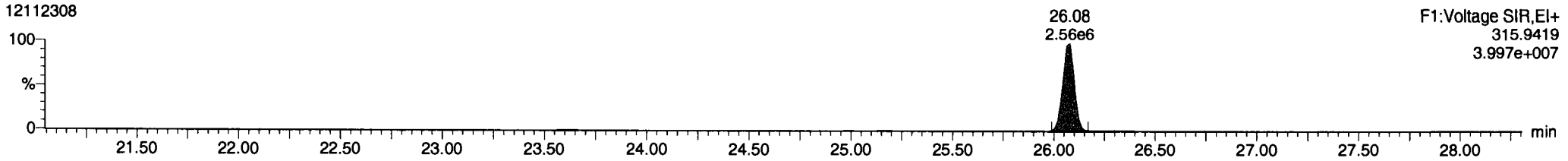
Name: 12112308, Date: 23-Nov-2012, Time: 16:45:35, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF



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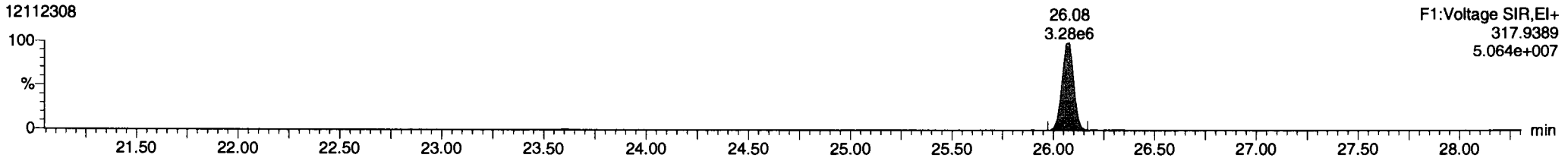
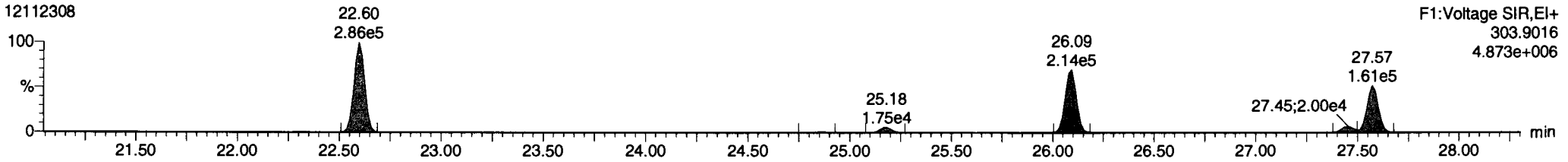
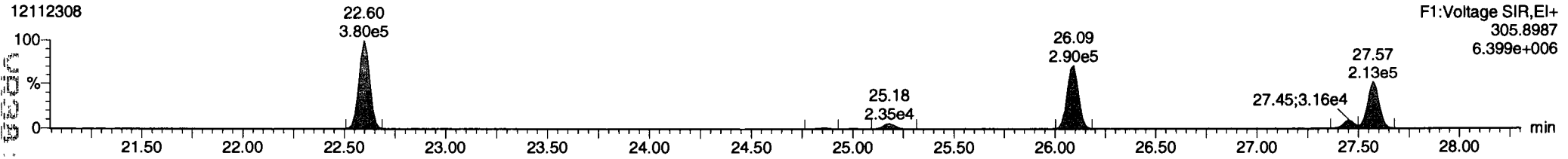


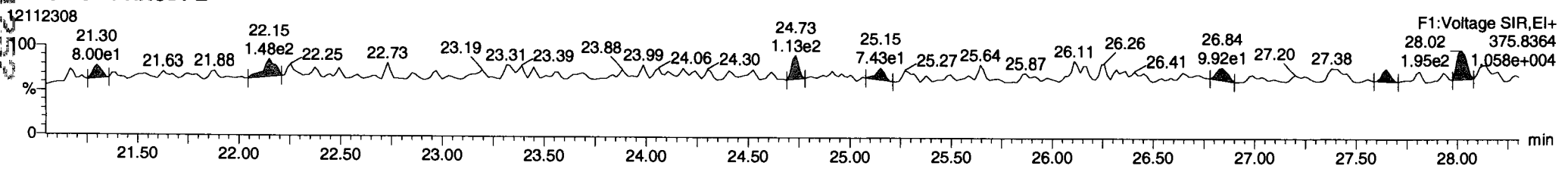
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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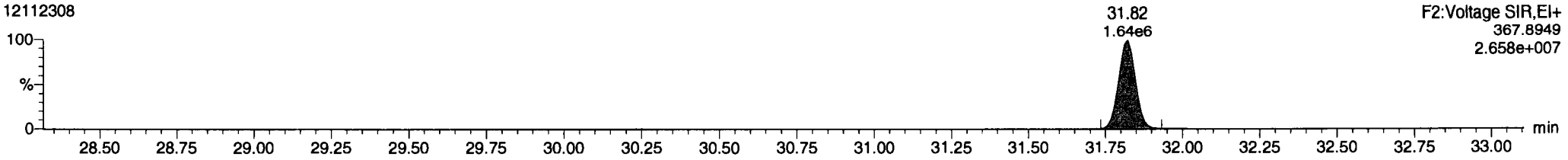
Printed: Monday, November 26, 2012 09:26:53 Pacific Standard Time

Name: 12112308, Date: 23-Nov-2012, Time: 16:45:35, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD



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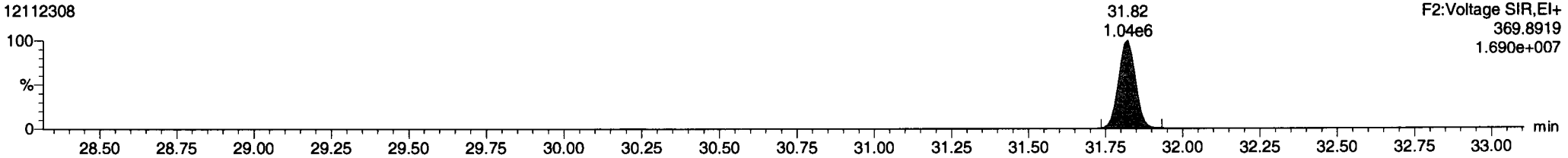
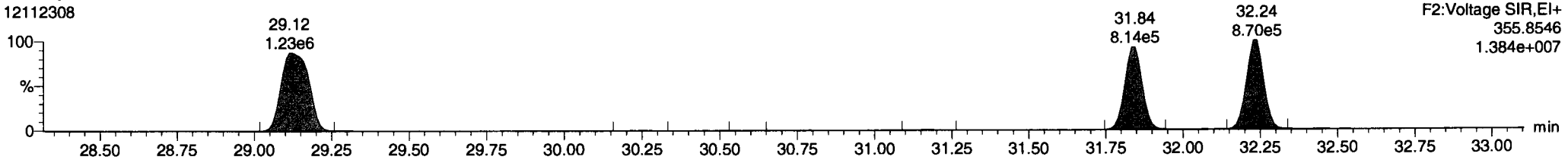
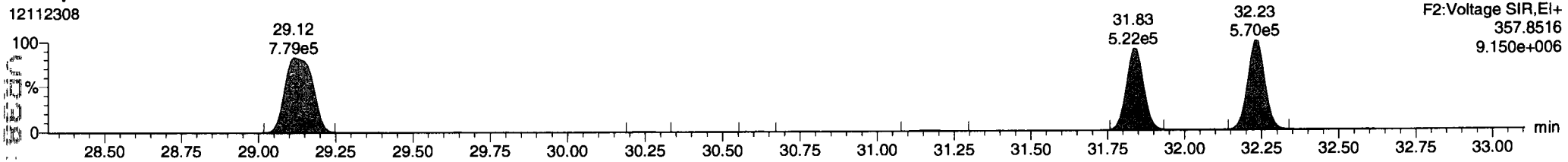


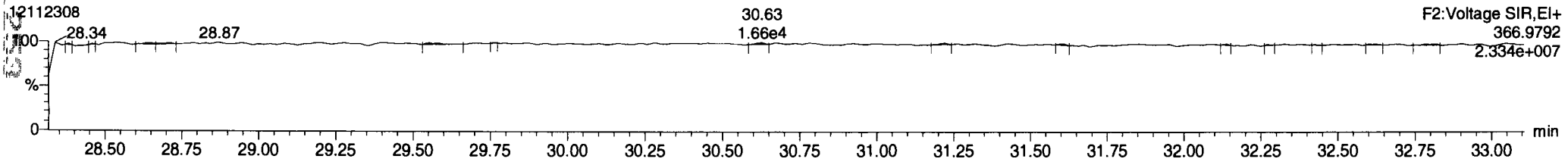
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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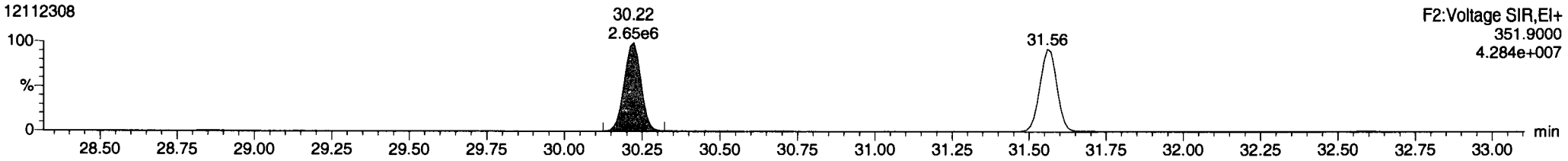
13C-12378-PeCDF



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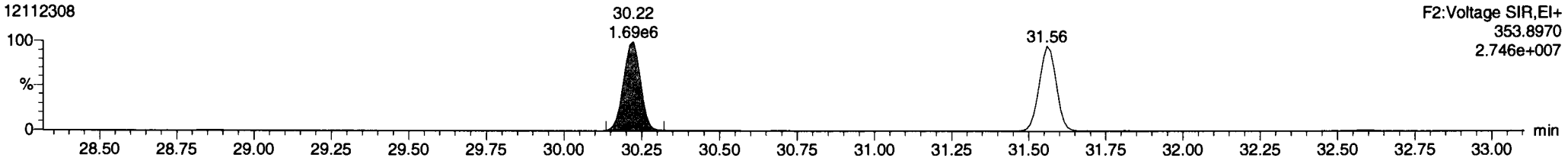
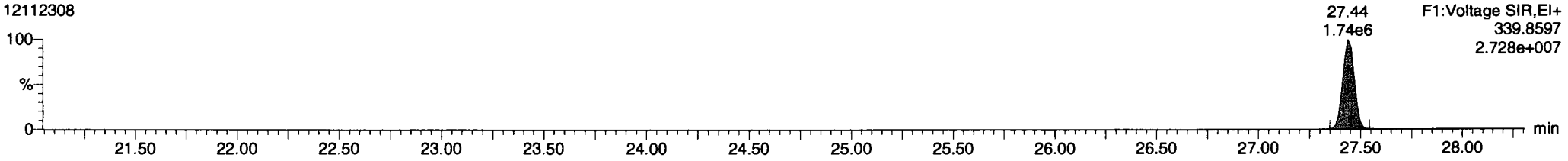


Total-penta1



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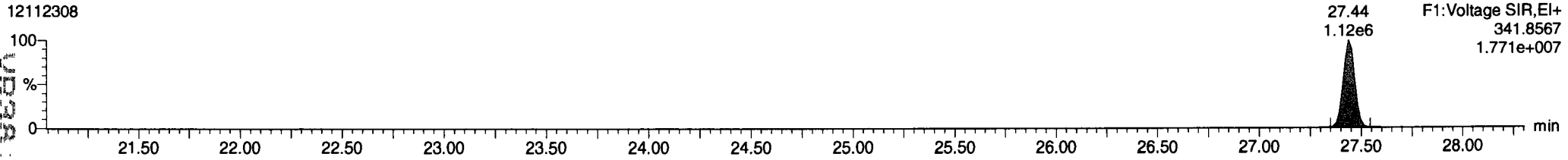
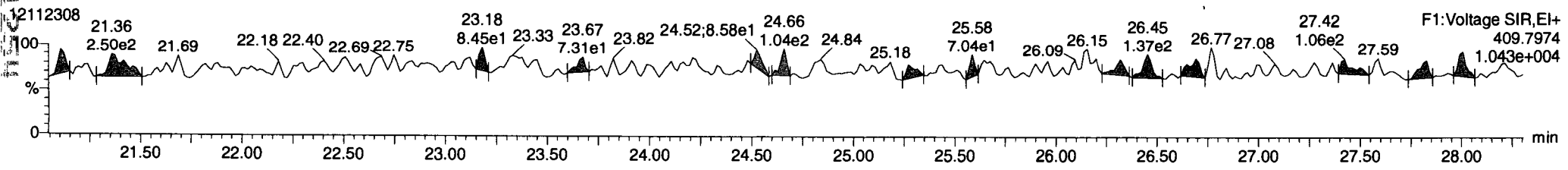


FUNCTION1 HPCDPE



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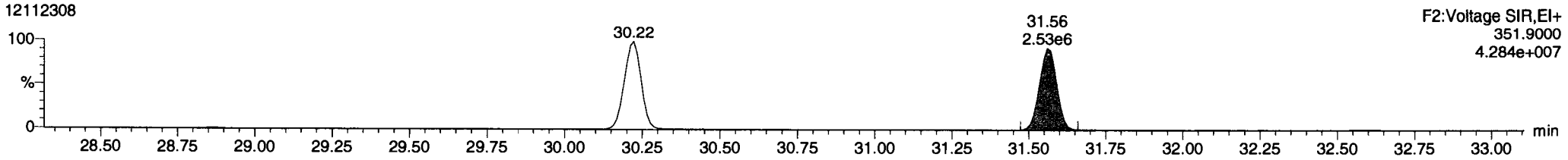
13C-23478-PeCDF



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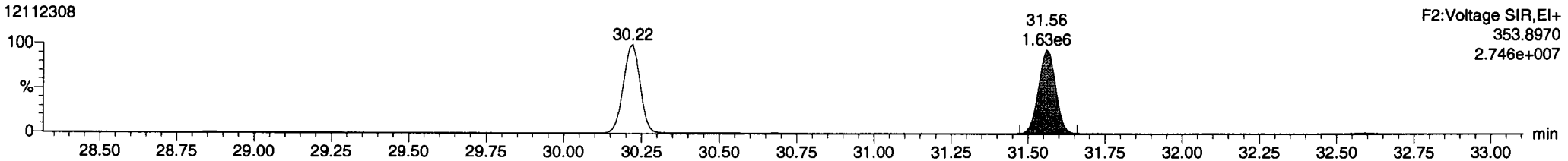
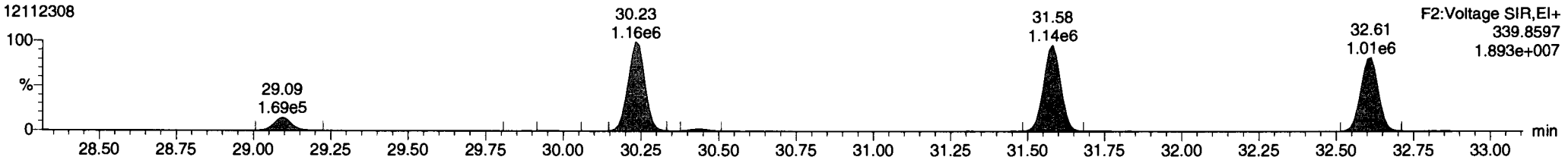
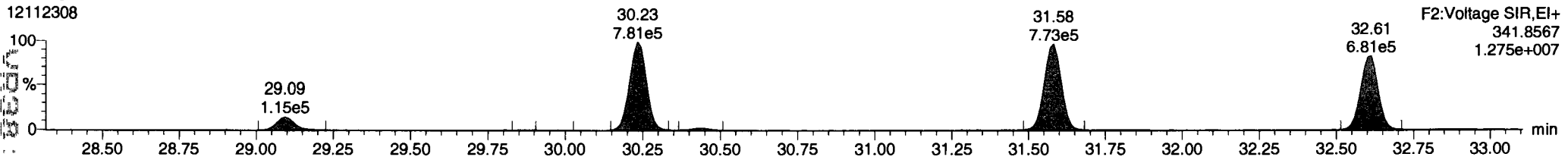


Total-pentafurans



Total-pentafurans



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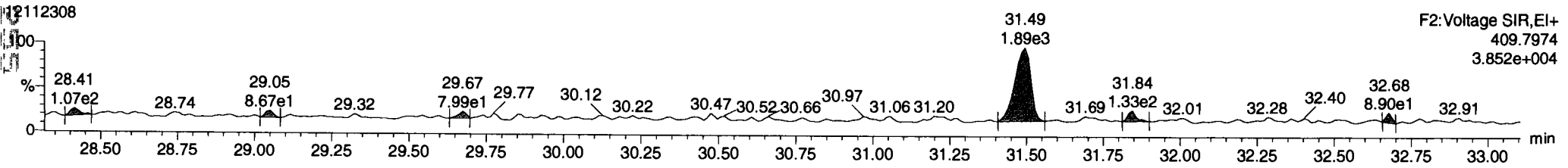

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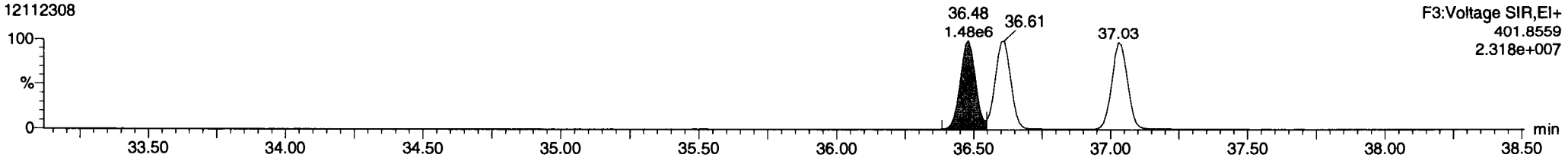
13C-123478-HxCDD



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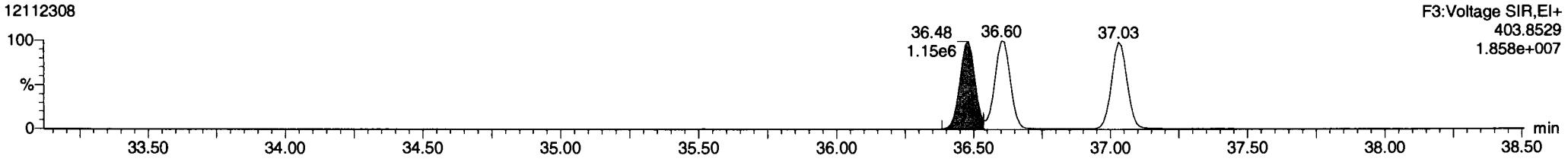
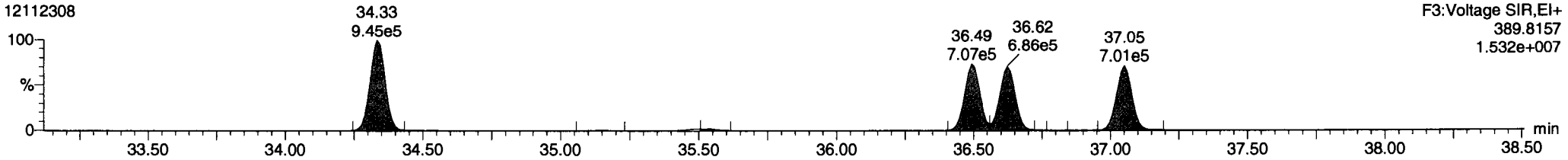
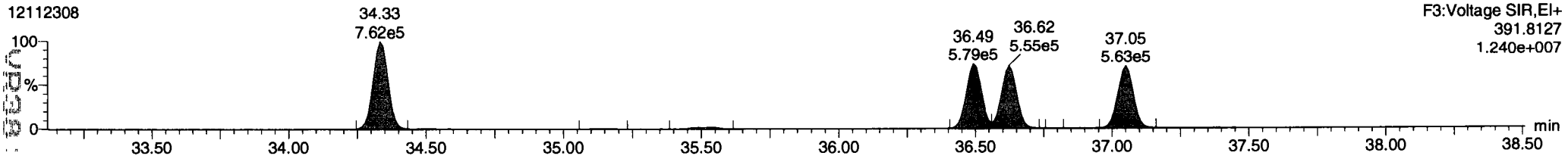


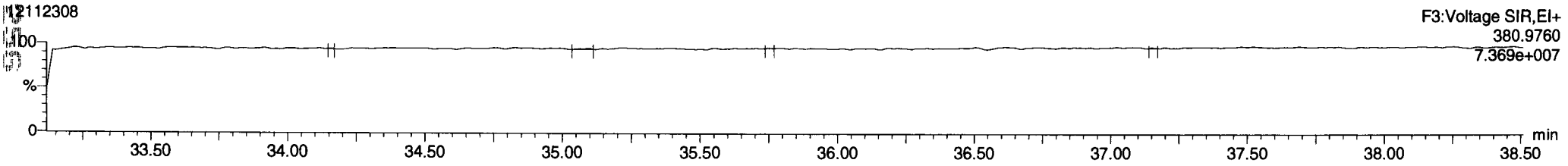
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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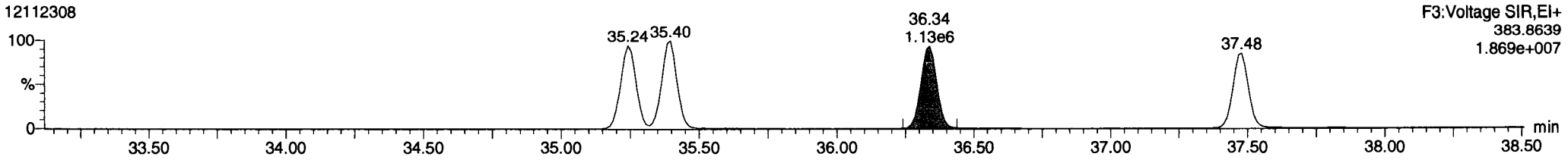
13C-234678-HxCDF



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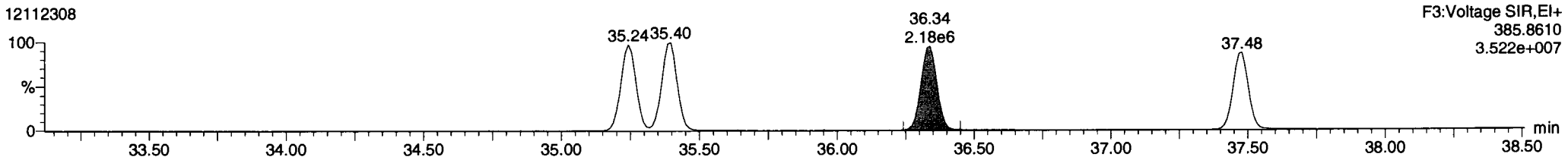
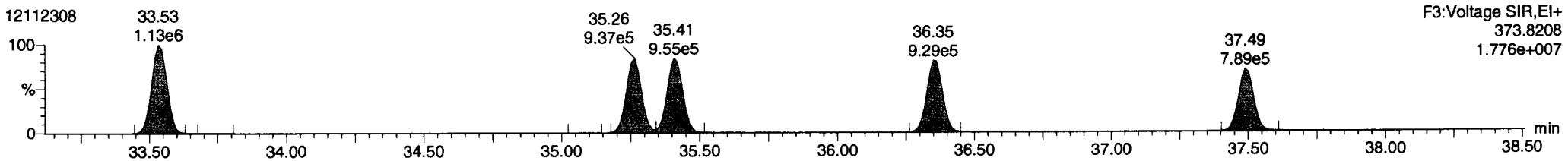
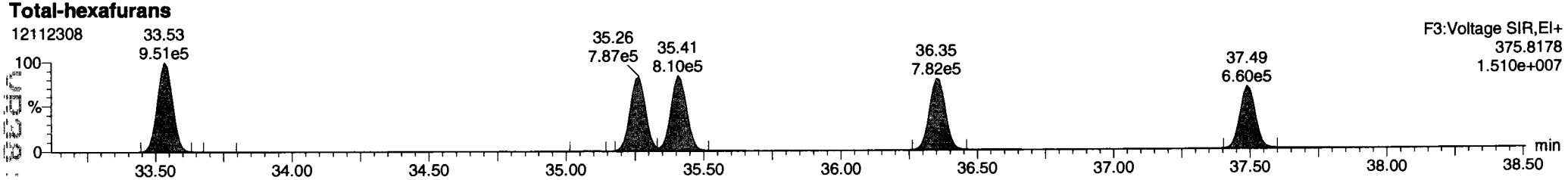


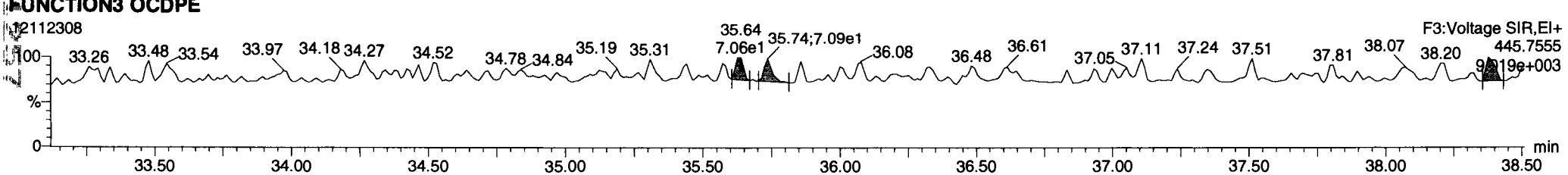
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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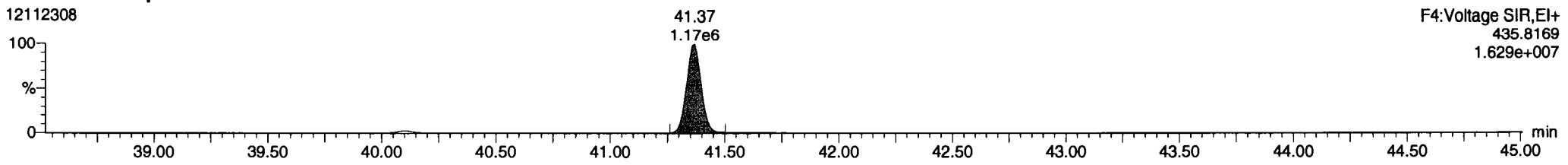
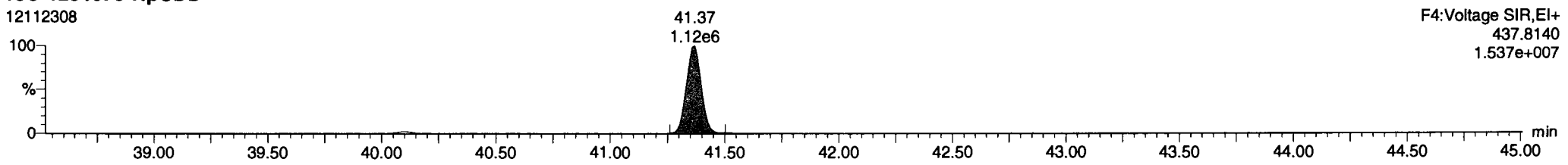
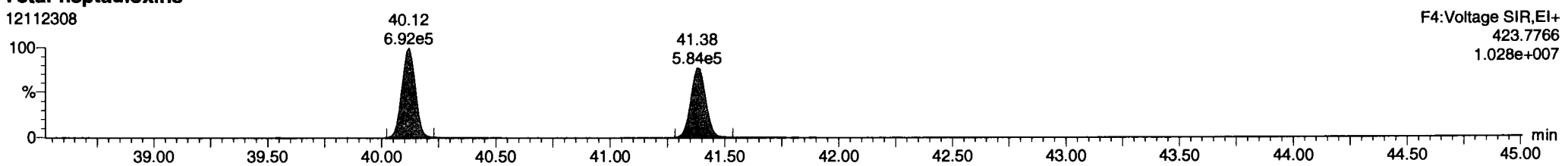
13C-1234678-HpCDD



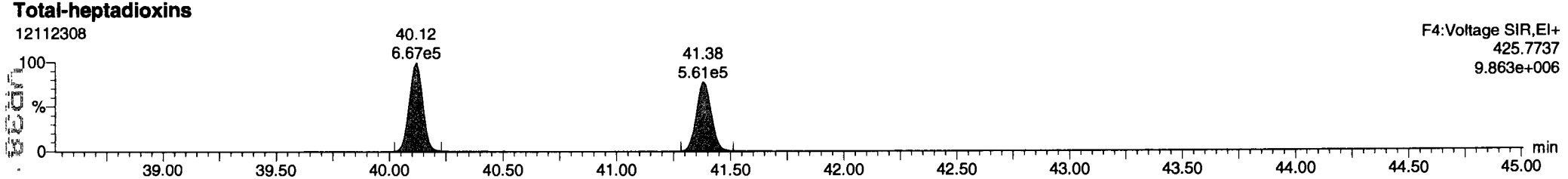
13C-1234678-HpCDD



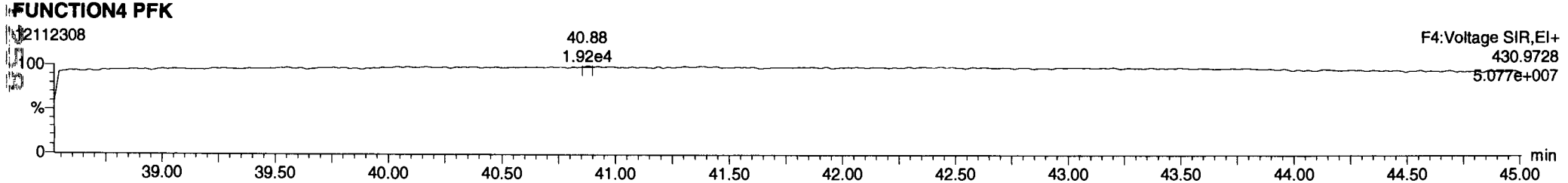
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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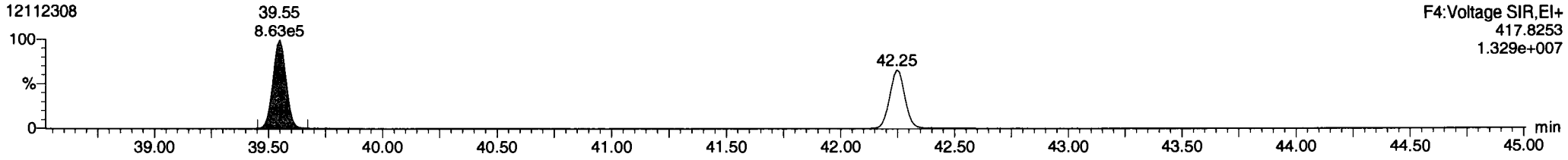
13C-1234678-HpCDF



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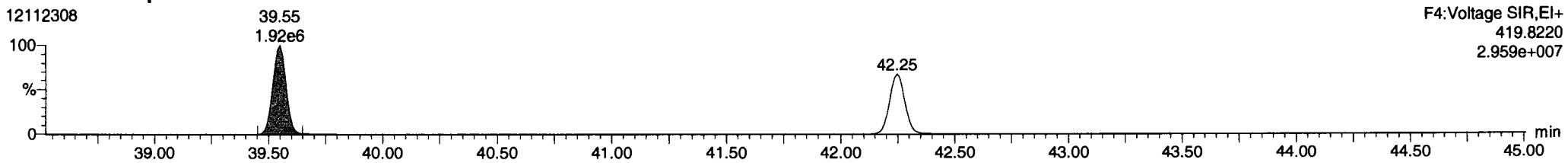
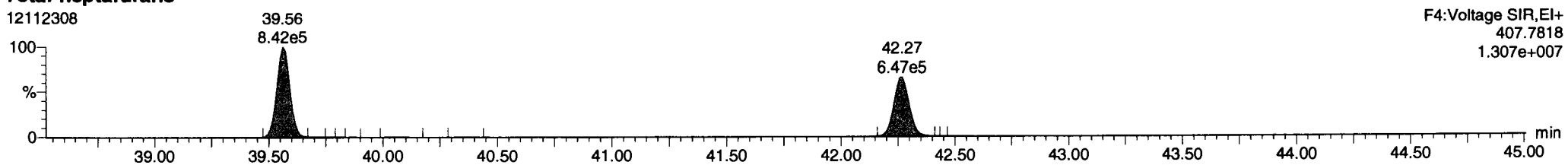
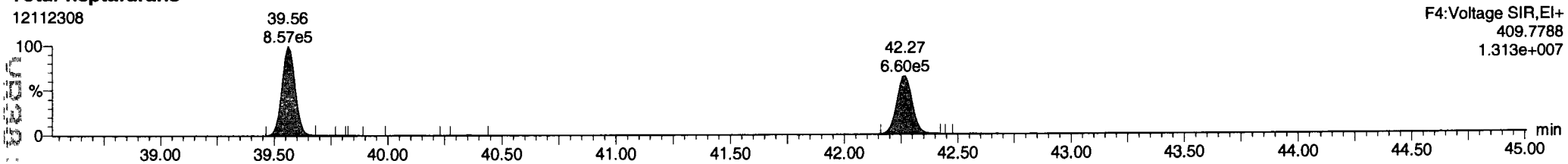


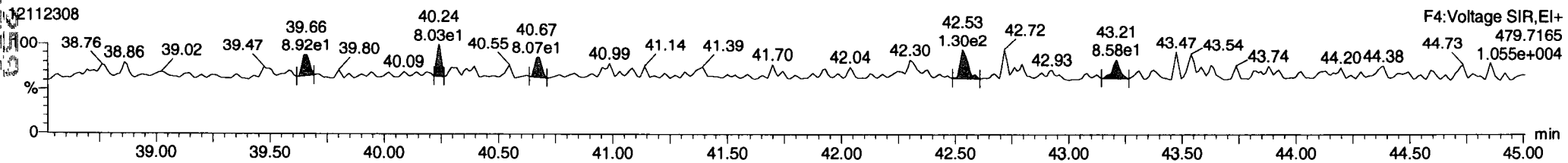
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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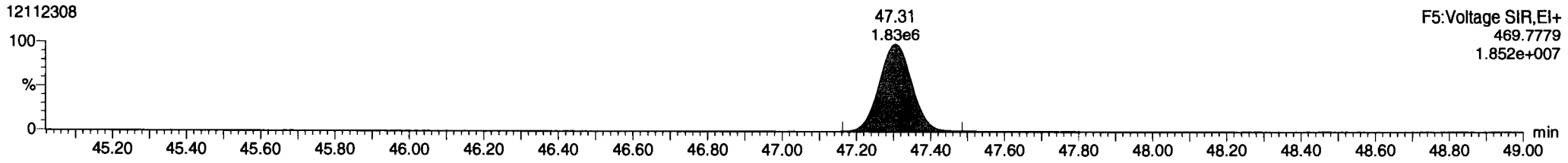
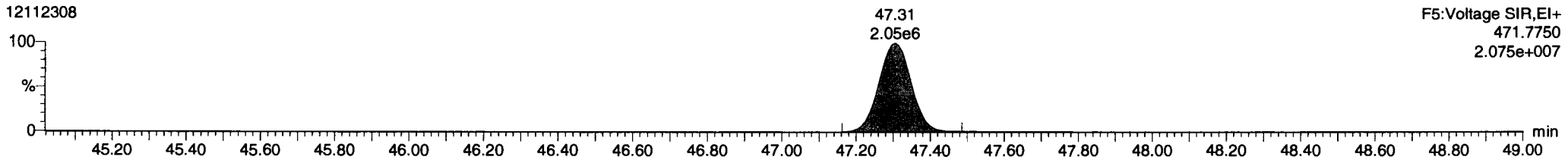
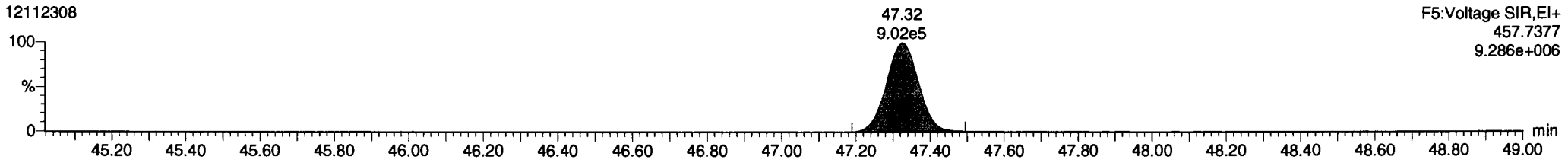
13C-OCDD



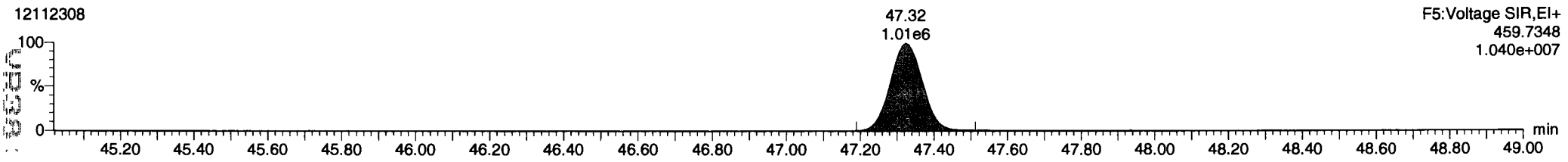
13C-OCDD



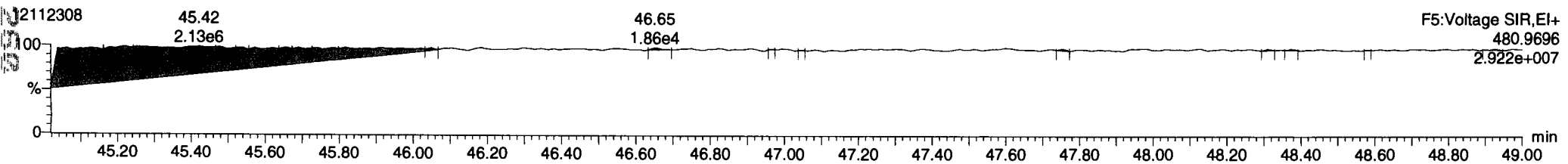
OCDD



OCDD



FUNCTION5 PFK



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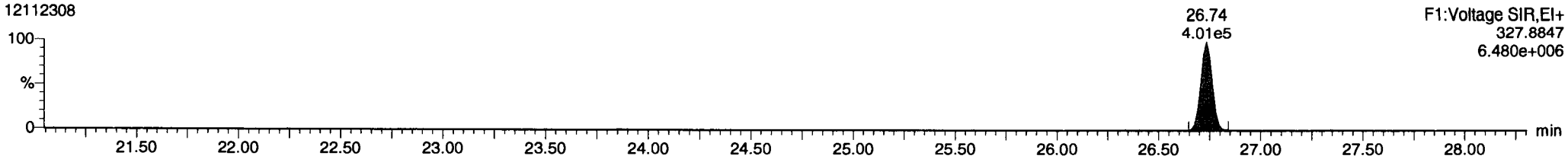
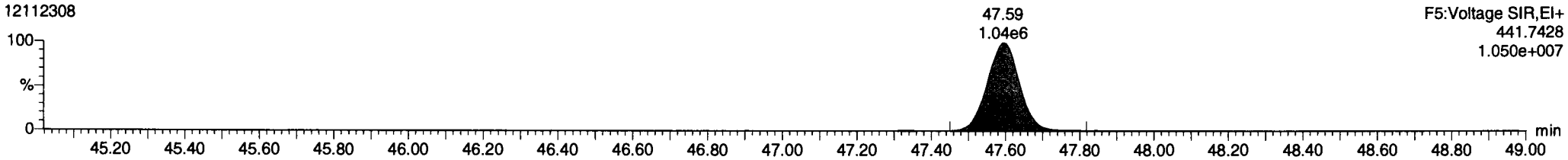
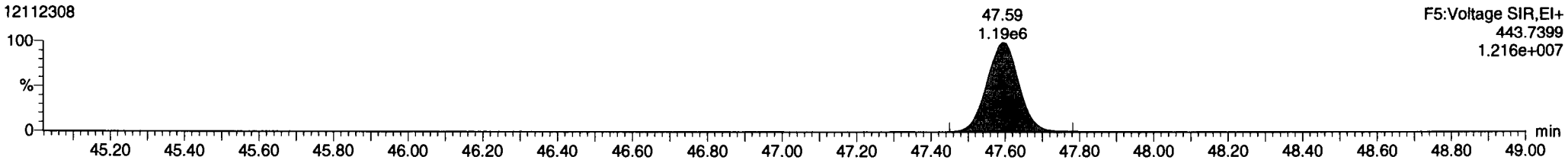
37CL-2378-TCDD



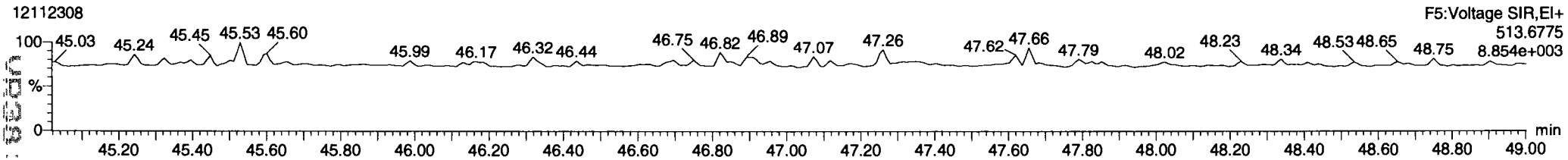
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:27:03 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

	2378-TCDF	26.093	1.001	1117860	1497779	2615639	bb	0.877	0.746	0.770	NO	8059.1	39.990	39.990
	12378-PeCDF	30.245	1.001	6343723	4269835	10613557	bb	0.896	1.486	1.550	NO	22811.2	203.505	203.505
	23478-PeCDF	31.593	1.001	6234505	4215507	10450011	bb	0.926	1.479	1.550	NO	22005.3	202.636	202.636
	123478-HxCDF	35.265	1.000	5317316	4476351	9793666	bd	1.068	1.188	1.240	NO	17195.3	203.637	203.637
	234678-HxCDF	36.361	1.001	5247941	4432393	9680333	bb	1.037	1.184	1.240	NO	16970.4	204.186	204.186
	123678-HxCDF	35.419	1.001	5499960	4628339	10128298	db	1.035	1.188	1.240	NO	17781.7	204.153	204.153
	123789-HxCDF	37.501	1.001	4297452	3632779	7930230	bb	0.987	1.183	1.240	NO	14043.5	204.299	204.299
	1234678-HpCDF	39.573	1.001	4819758	4888780	9708538	bb	1.232	0.986	1.050	NO	19650.9	203.139	203.139
	1234789-HpCDF	42.270	1.000	3619675	3638113	7257787	bb	1.215	0.995	1.050	NO	12806.7	204.960	204.960
	OCDF	47.602	1.006	6218504	7119846	13338349	bb	1.138	0.873	0.890	NO	12868.6	408.303	408.303
	2378-TCDD	26.751	1.001	862050	1111748	1973797	bb	1.049	0.775	0.770	NO	8164.0	39.463	39.463
	12378-PeCDD	31.845	1.000	4372135	2818741	7190876	bb	0.998	1.551	1.550	NO	20316.2	202.066	202.066
	123478-HxCDD	36.504	1.001	4101605	3279812	7381418	bd	0.971	1.251	1.240	NO	12325.4	206.621	206.621
	123678-HxCDD	36.636	1.001	3897877	3144878	7042755	db	0.918	1.239	1.240	NO	11555.1	201.284	201.284
	123789-HxCDD	37.052	1.012	3787462	3058311	6845773	bb	0.932	1.238	1.240	NO	10828.2	196.038	196.038
	1234678-HpCDD	41.393	1.001	3254680	3143964	6398644	bb	1.017	1.035	1.050	NO	13501.4	200.763	200.763
	OCDD	47.333	1.000	5433991	6142544	11576534	bb	1.008	0.885	0.890	NO	13610.4	399.776	399.776
	13C-2378-TCDF	26.078	1.006	3285554	4175837	7461391	bb	1.473	0.787	0.770	NO	9176.5		94.974
	13C-12378-PeCDF	30.223	1.166	3537723	2281843	5819566	bb	1.148	1.550	1.550	NO	14288.5		95.031
	13C-23478-PeCDF	31.571	1.218	3389366	2178976	5568342	bb	1.113	1.556	1.550	NO	13856.6		93.800
	13C-123478-HxCDF	35.254	0.952	1526218	2976137	4502355	bd	1.209	0.513	0.510	NO	7150.1		103.623
	13C-123678-HxCDF	35.397	0.956	1642576	3152757	4795332	db	1.269	0.521	0.510	NO	7473.8		105.178
	13C-234678-HxCDF	36.340	0.981	1567882	3005043	4572925	bb	1.236	0.522	0.510	NO	7191.1		102.964
	13C-123789-HxCDF	37.479	1.012	1360127	2574128	3934255	bb	1.107	0.528	0.510	NO	6415.3		98.917
	13C-1234678-HpCDF	39.551	1.068	1197221	2682361	3879581	bb	1.051	0.446	0.440	NO	6839.2		102.700
	13C-1234789-HpCDF	42.259	1.141	906193	2008202	2914395	bb	0.815	0.451	0.440	NO	4501.2		99.539
	13C-1234-TCDD	25.914	0.000	2356282	2978709	5334991	bb	1.000	0.791	0.770	NO	6432.6		100.000
	13C-2378-TCDD	26.721	1.031	2089038	2678050	4767087	bb	0.946	0.780	0.770	NO	5616.7		94.483
	13C-12378-PeCDD	31.834	1.228	2176707	1388954	3565661	bb	0.721	1.567	1.550	NO	11916.3		92.740
	13C-123478-HxCDD	36.482	0.985	2053056	1626840	3679895	bd	0.991	1.262	1.240	NO	6979.6		103.340
	13C-123678-HxCDD	36.613	0.988	2118569	1692415	3810984	db	1.025	1.252	1.240	NO	7107.5		103.488
	13C-1234678-HpCDD	41.371	1.117	1592480	1541752	3134232	bb	0.866	1.033	1.050	NO	8821.8		100.687
	13C-OCDD	47.315	1.277	2707585	3035714	5743298	bb	0.769	0.892	0.890	NO	11365.9		207.782

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
Printed: Monday, November 26, 2012 09:27:03 Pacific Standard Time

Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

34	13C-123789-HxCDD	37.041	0.000	1985056	1608789	3593846	bb	1.000	1.234	1.240	NO	6728.0		100.000
35	Total-tetrafurans			1133239				0.877					40.836	40.536
36	Total-penta1			0									0.015	0.000
37	Total-pentafurans			12805170				0.911					413.754	413.435
38	Total-hexafurans			20390854				1.032					817.624	817.414
39	Total-heptafurans			8461646				1.223					409.207	409.192
40	Total-Furans			49009411				1.041					2089.738	2088.881
41	Total-tetradioxins			886981				1.049					40.635	40.620
42	Total-pentadioxins			4384844				0.998					202.817	202.647
43	Total-hexadioxins			11786944				0.940					604.131	603.942
44	Total-heptadioxins			3275573				1.017					202.065	202.065
45	Total-Dioxins			25768332				0.985					1449.425	1449.051
46	Total-TEQ			74777743									3539.163	3537.932
47	37CL-2378-TCDD	26.736	1.032	2091817		2091817		1.044				12418.7		37.571
48	FUNCTION1 PFK			1187850										
49	FUNCTION2 PFK			60223										0.000
50	FUNCTION3 PFK			606171										0.000
51	FUNCTION4 PFK			311261										
52	FUNCTION5 PFK			410475										
53	FUNCTION1 HXCDPE			349										0.000
54	FUNCTION1 HPCDPE			2544										0.000
55	FUNCTION2 HPCDPE			10109										0.000
56	FUNCTION3 OCDPE			119										0.000
57	FUNCTION4 NCDPE			82										0.000
58	FUNCTION5 DCDPE			0										

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
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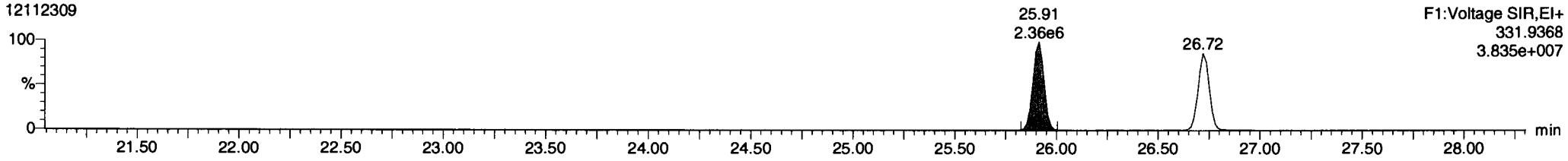
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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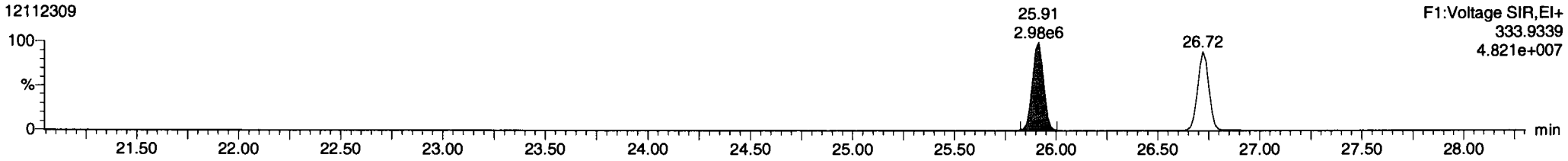

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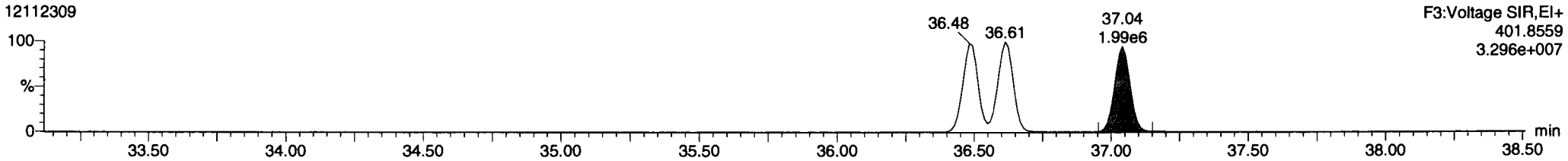

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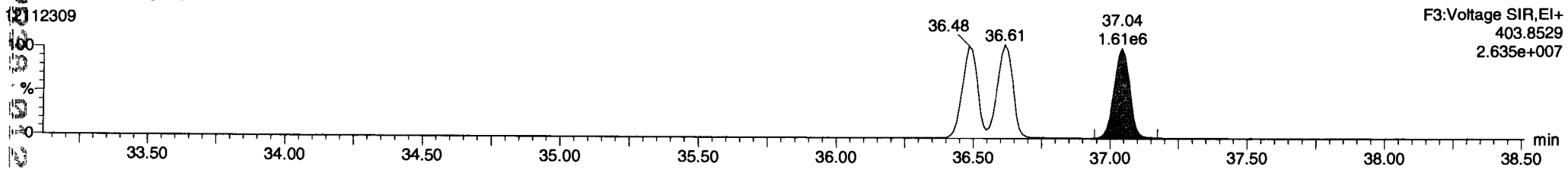

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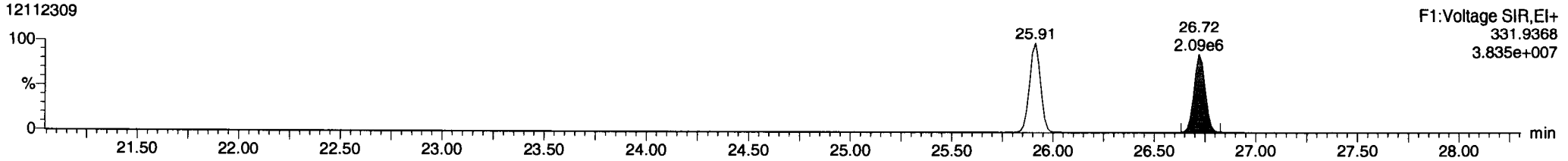
Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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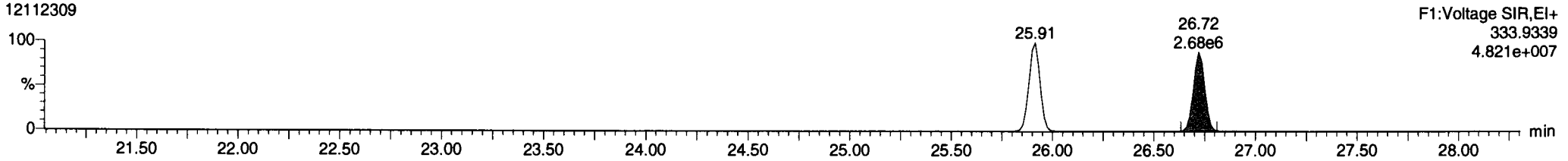
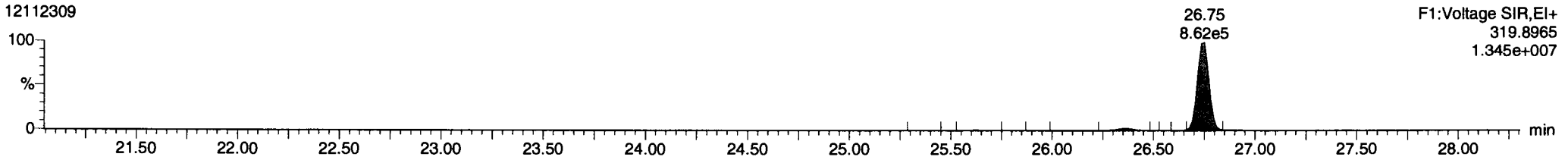
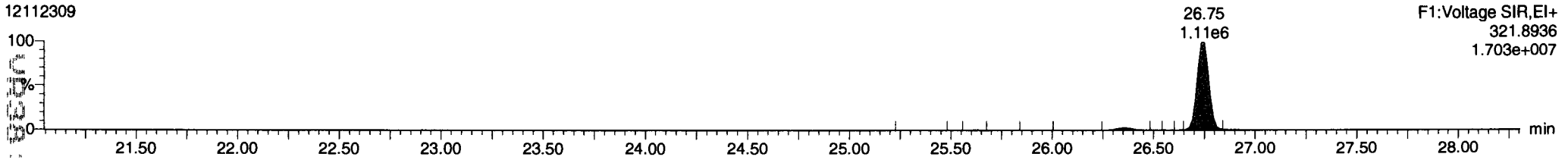


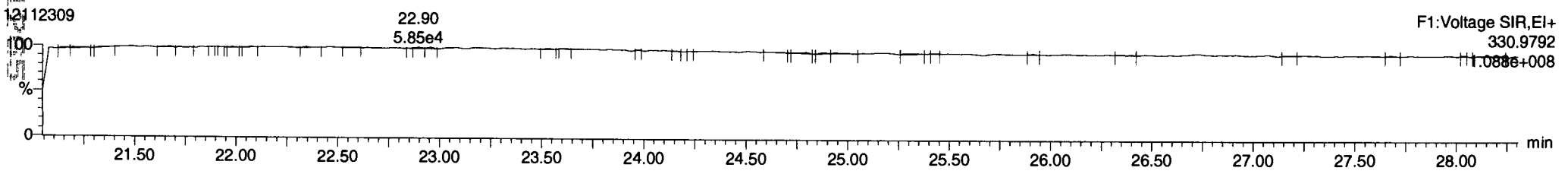
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121123IC.qld
Last Altered: Monday, November 26, 2012 09:23:14 Pacific Standard Time
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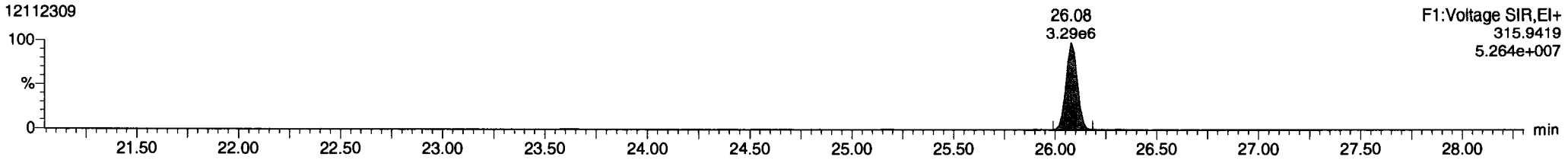
Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF



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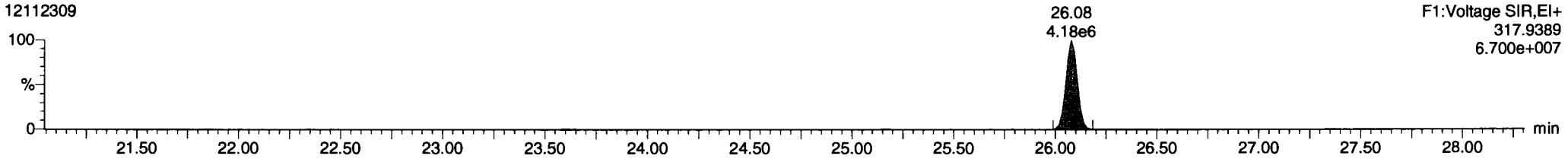
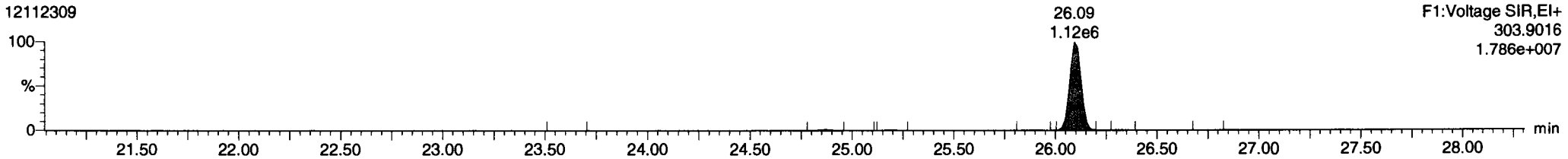
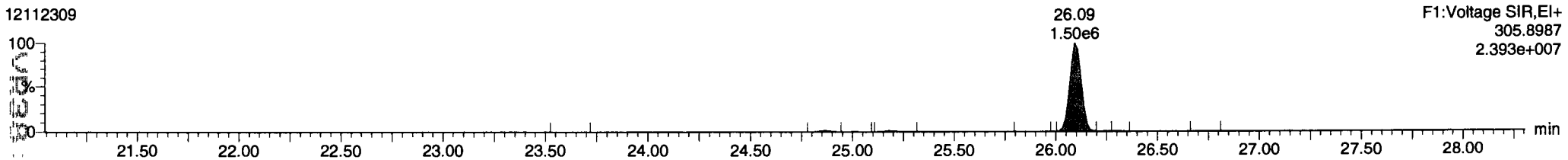


Total-tetrafurans



Total-tetrafurans



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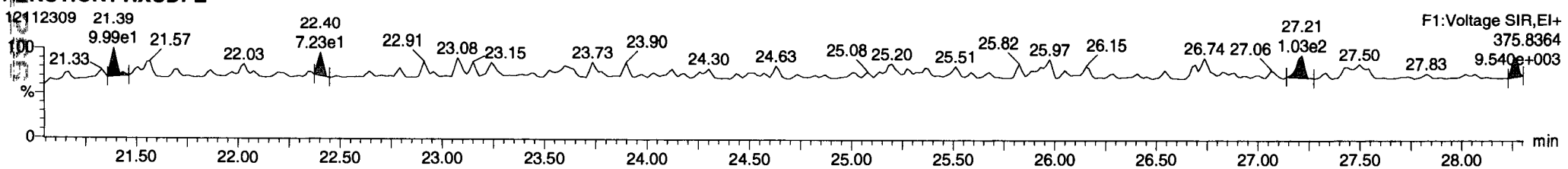

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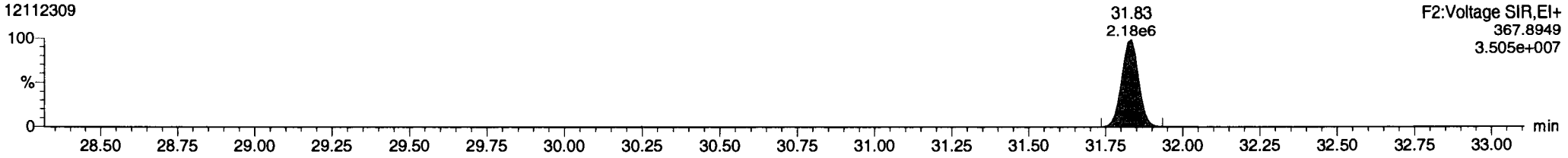
Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD



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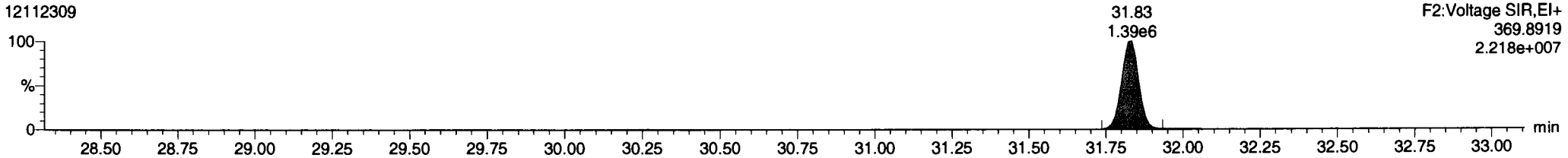
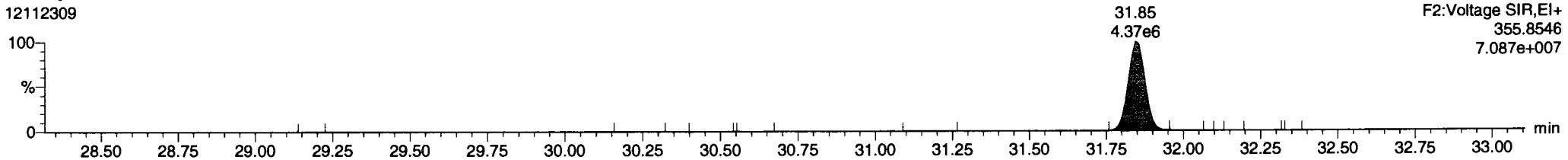
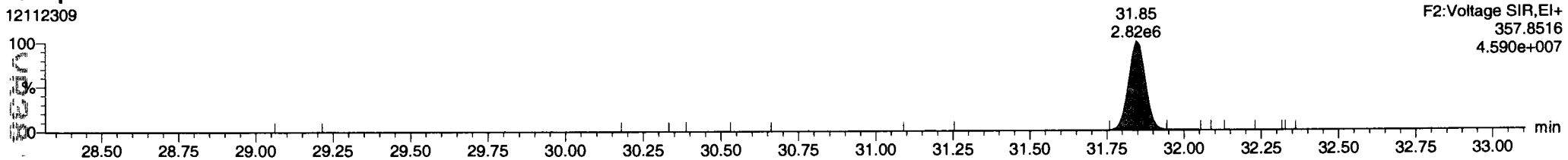


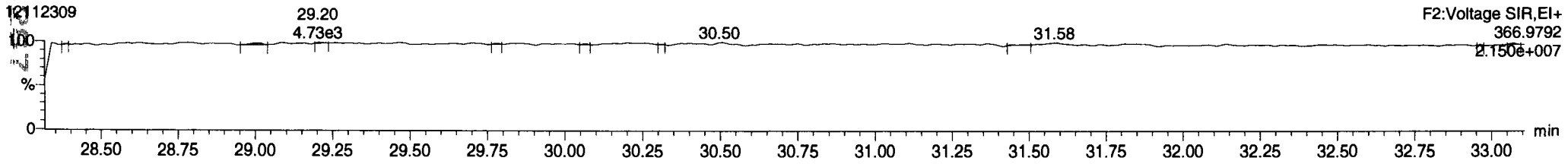
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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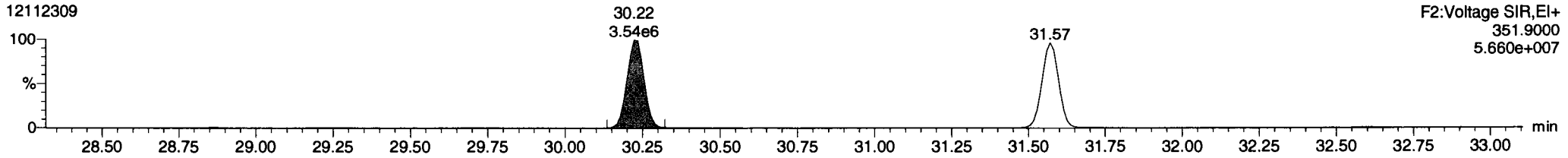
13C-12378-PeCDF



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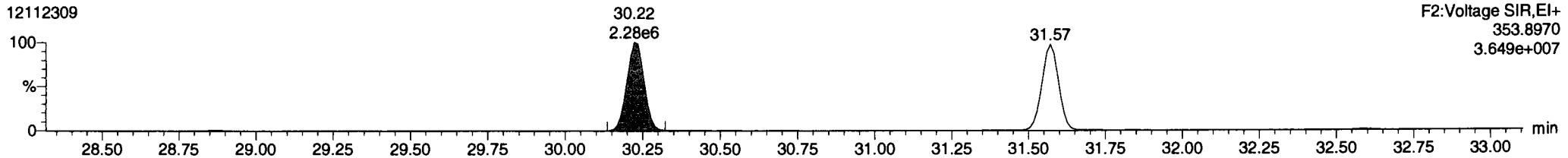
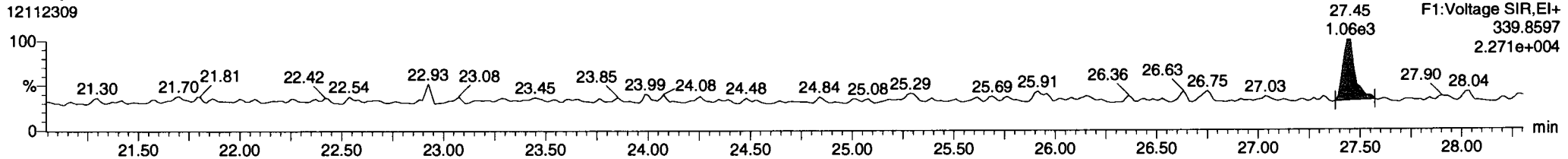
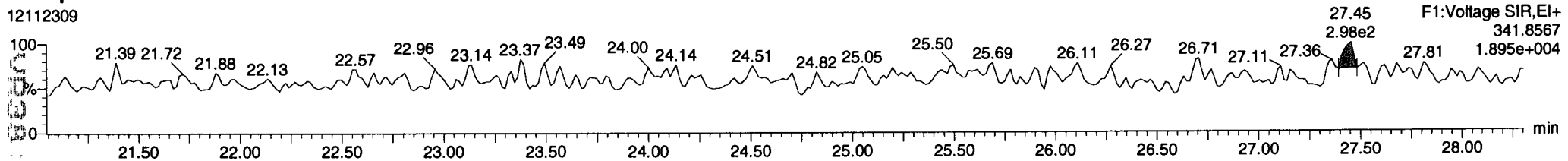


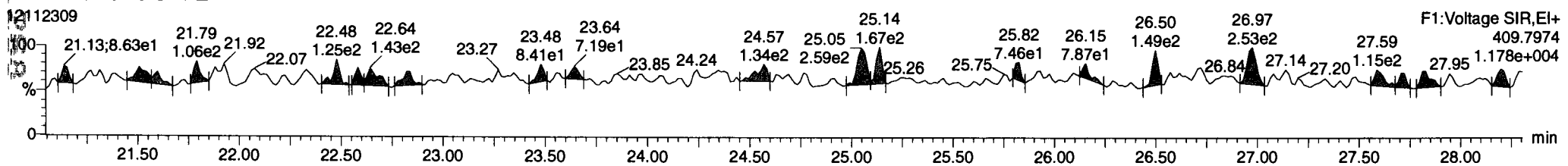
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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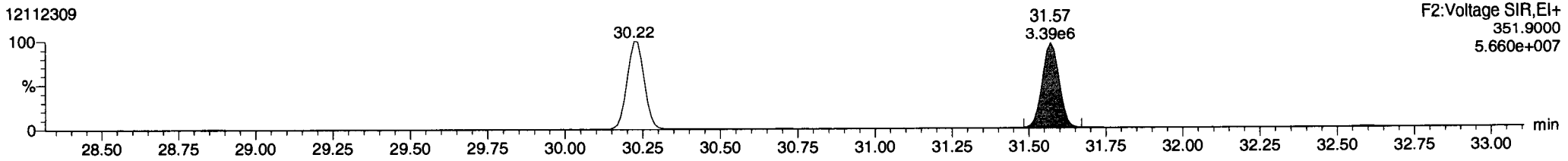
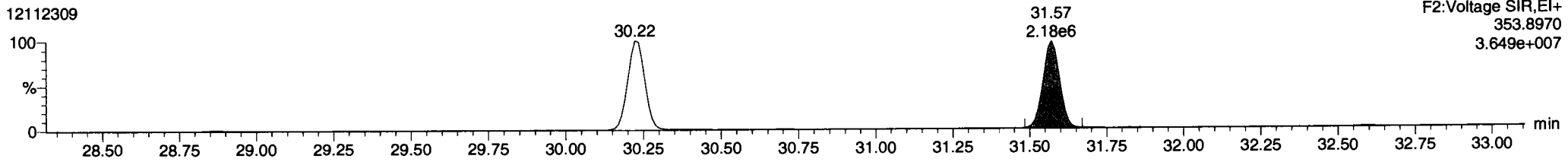
Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

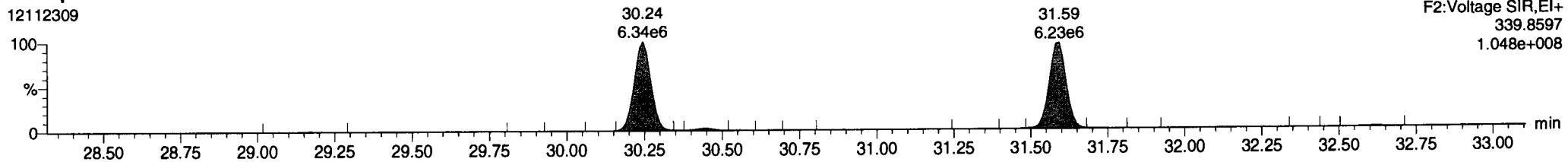
13C-23478-PeCDF



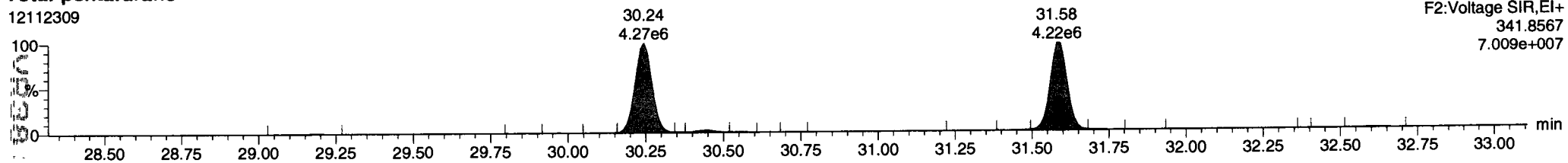
13C-23478-PeCDF



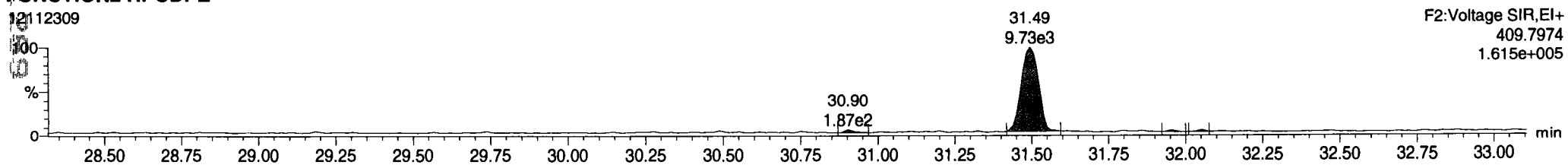
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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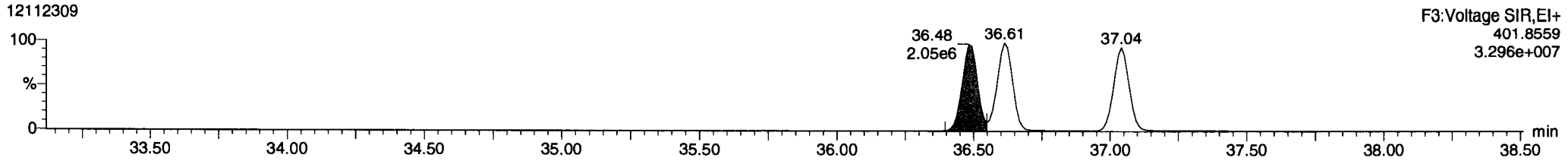
Printed: Monday, November 26, 2012 09:27:03 Pacific Standard Time

Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

13C-123478-HxCDD



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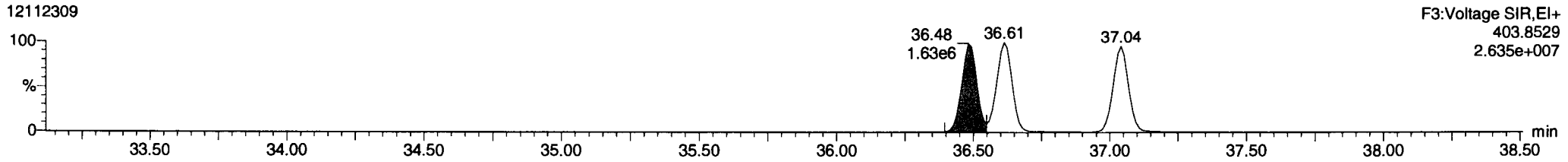
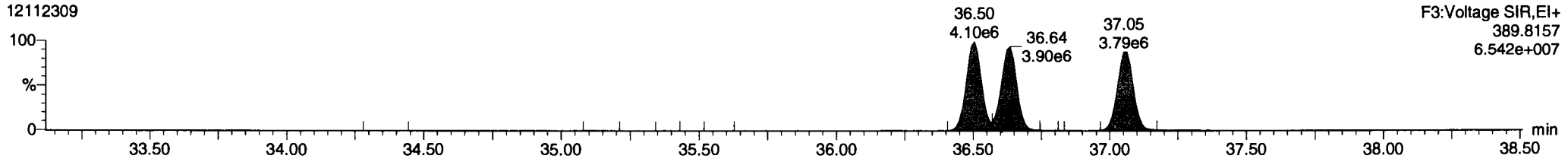
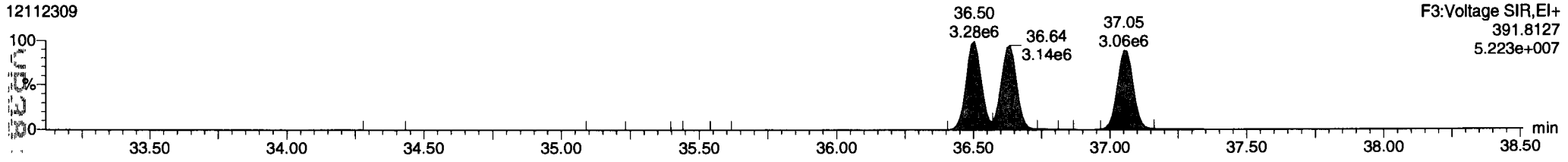


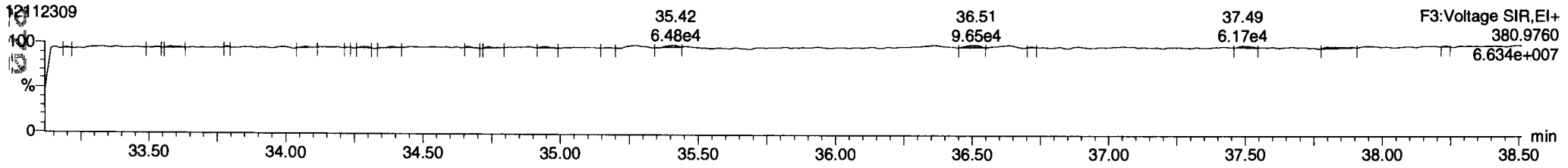
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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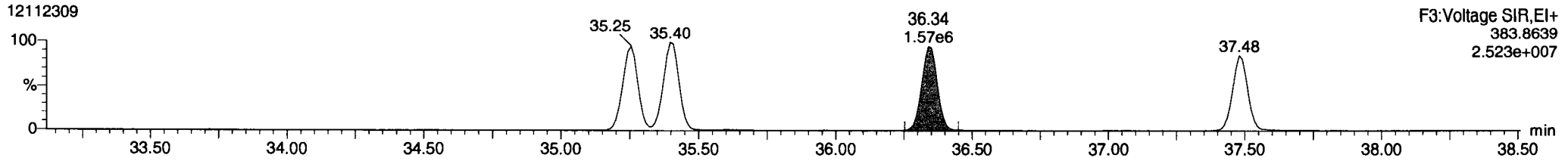
Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



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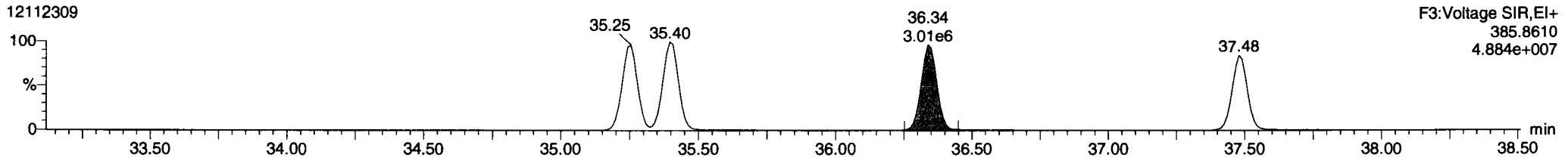
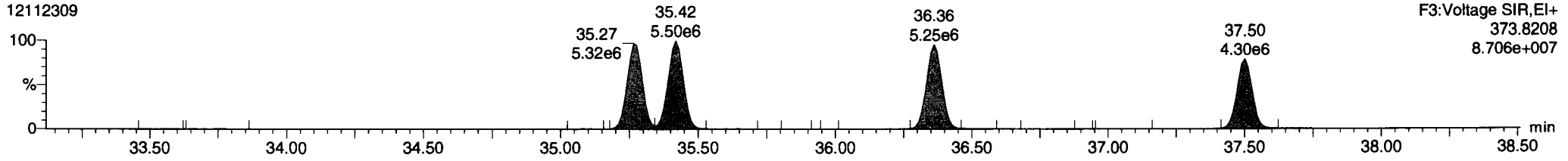
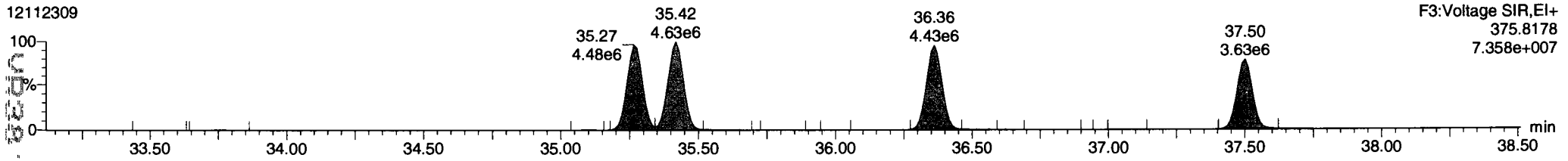


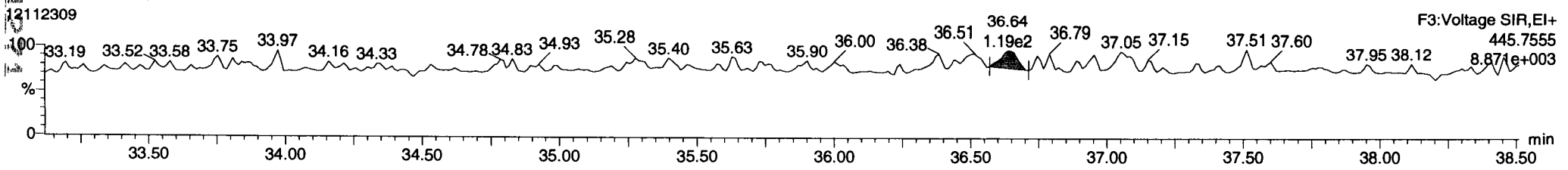
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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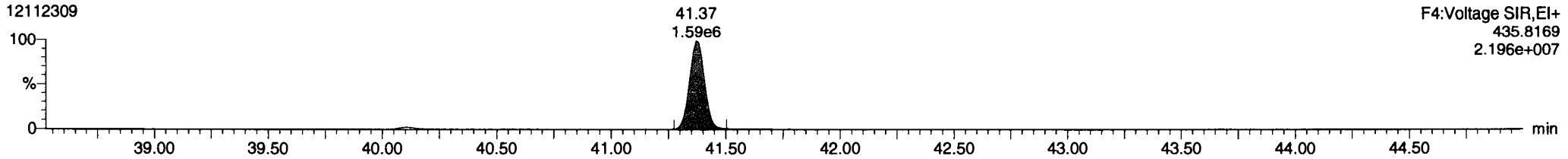
13C-1234678-HpCDD



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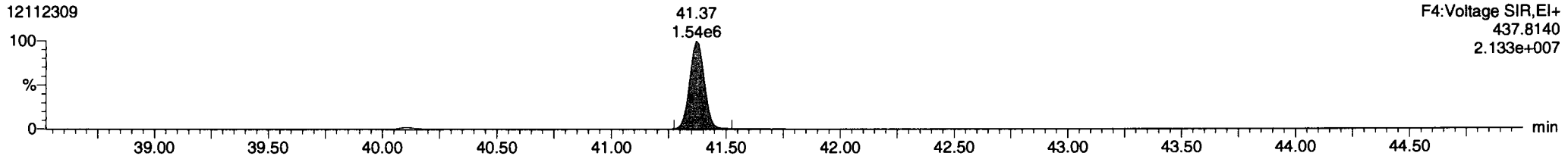

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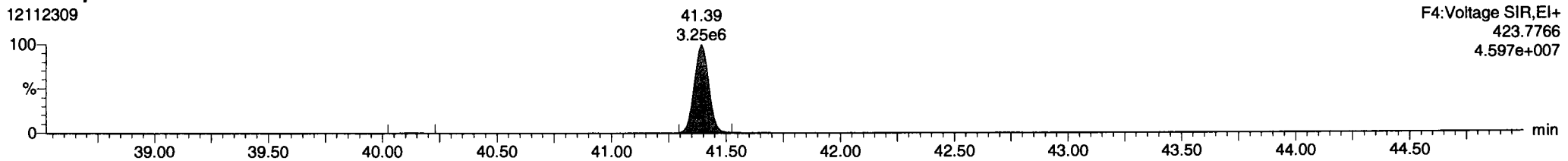

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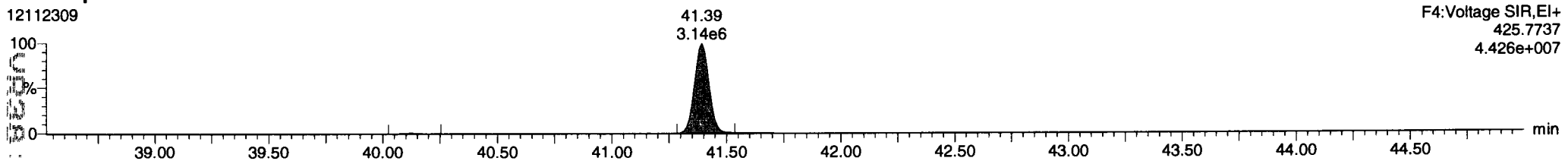
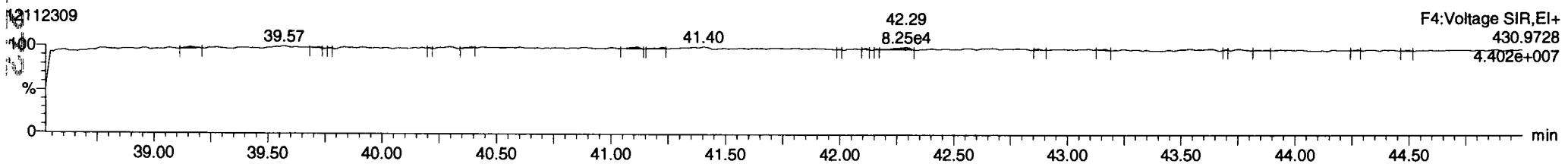


FUNCTION4 PFK



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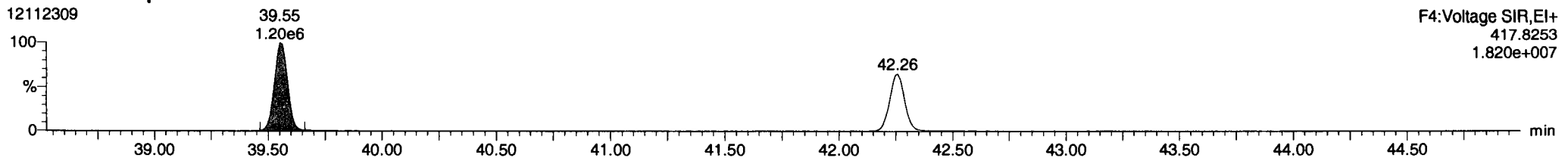
13C-1234678-HpCDF



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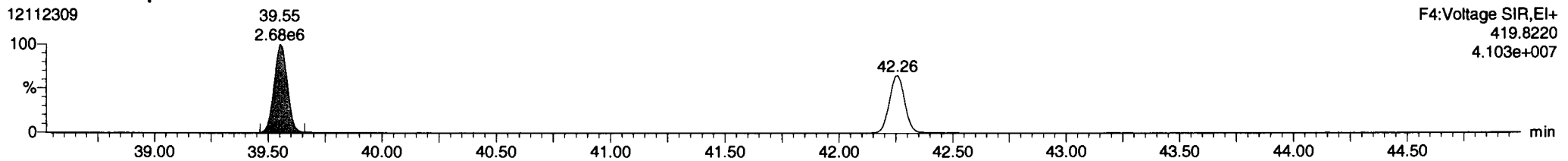
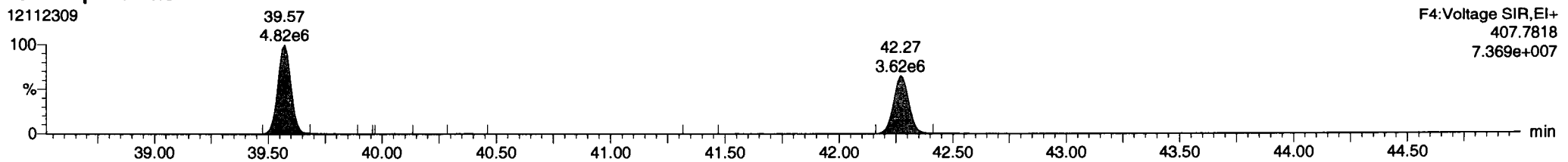


Total-heptafurans



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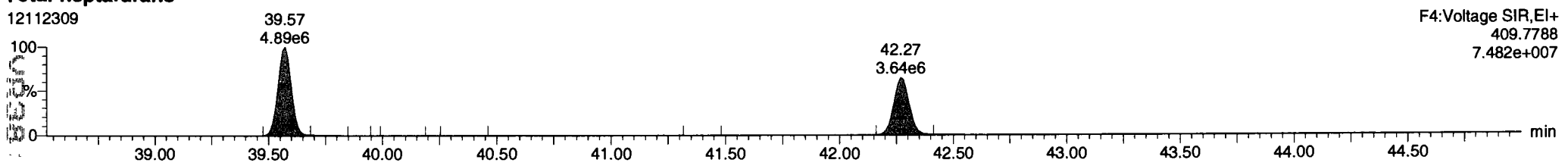
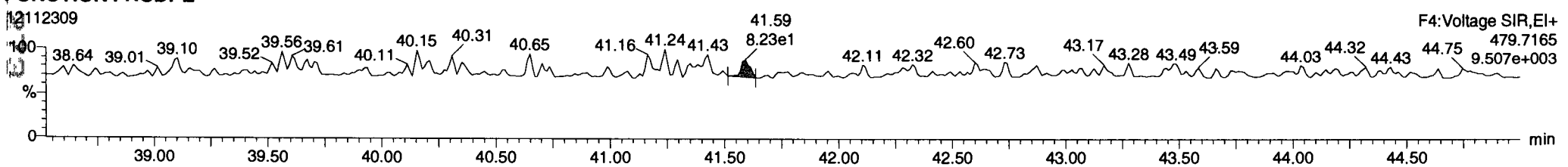


FUNCTION4 NCDPE



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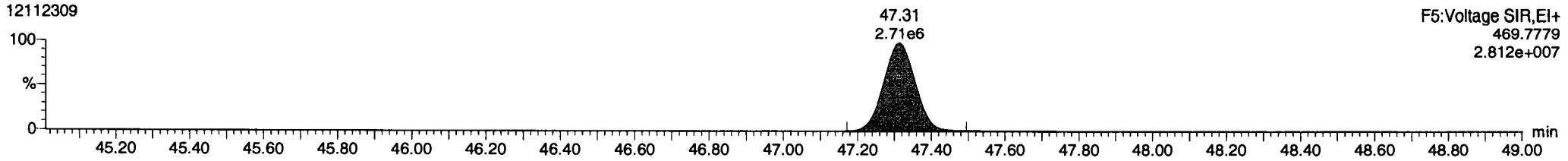
Name: 12112309, Date: 23-Nov-2012, Time: 17:37:45, ID: CS4, Conditions: AUTOSPEC01, User: pk

13C-OCDD



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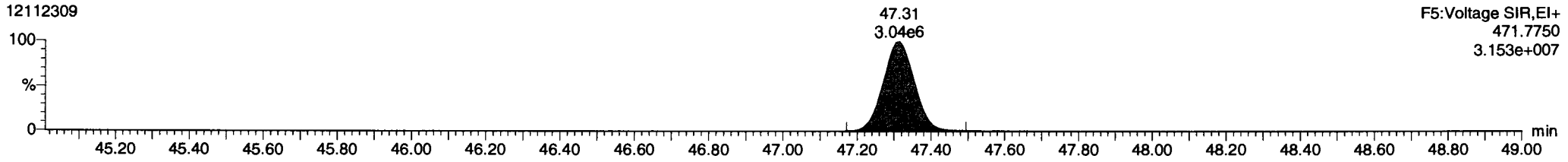

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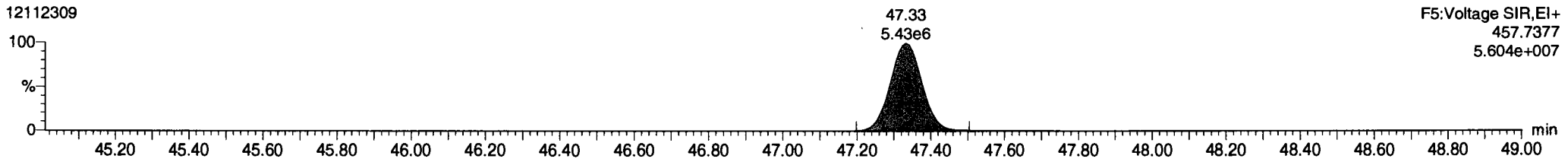

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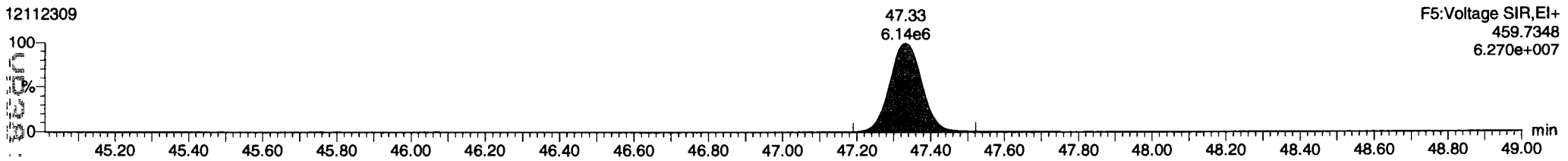
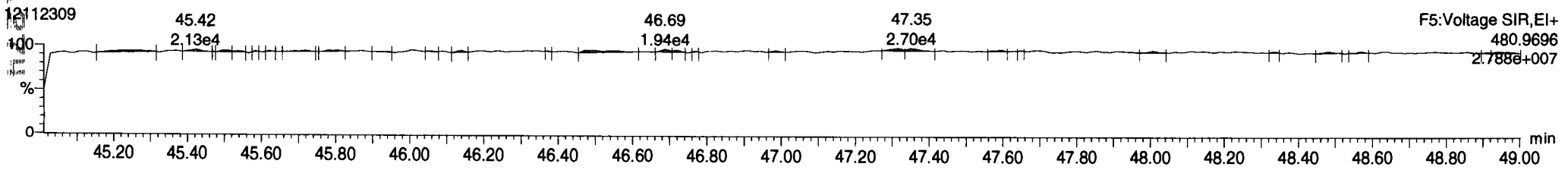


FUNCTION5 PFK



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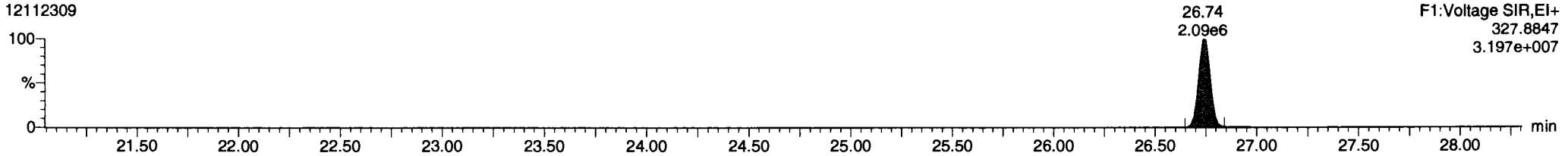
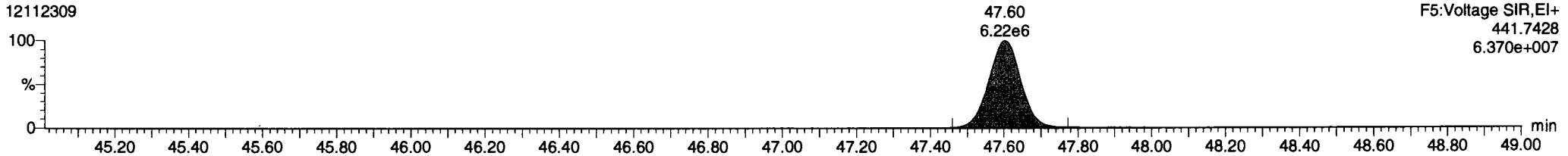
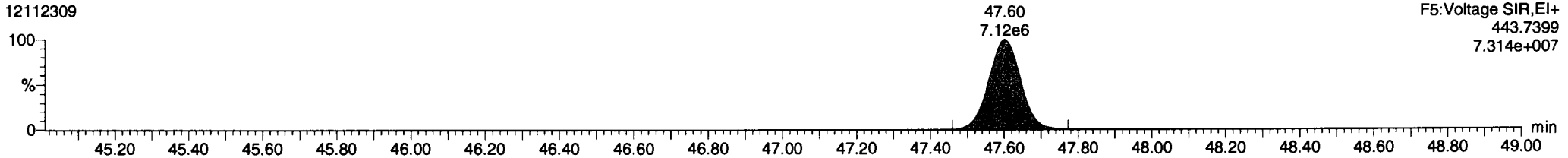
37CL-2378-TCDD



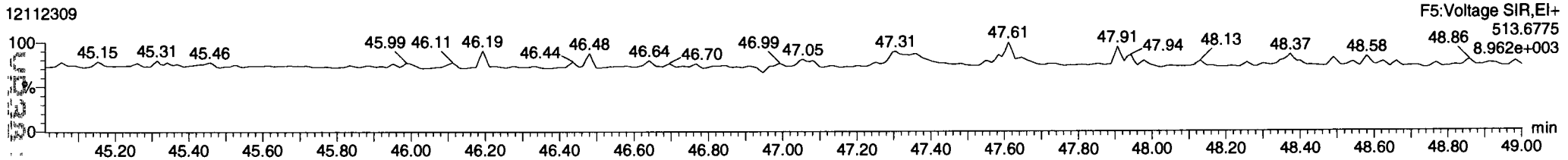
OCDF



OCDF



FUNCTION5 DCDPE



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Name: 12112310, Date: 23-Nov-2012, Time: 18:30:06, ID: CS5, Conditions: AUTOSPEC01, User: pk

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[redacted]	13C-2378-TCDD	26.721	1.031	3852857	4994901	8847757	bb	0.946	0.771	0.770	NO	11156.9		106.058
[redacted]	13C-12378-PeCDD	31.834	1.228	4602958	2939284	7542242	bb	0.721	1.566	1.550	NO	29088.9		118.642
[redacted]	13C-123478-HxCDD	36.493	0.985	4504004	3573475	8077478	bd	0.991	1.260	1.240	NO	17088.1		101.108
[redacted]	13C-123678-HxCDD	36.624	0.988	4613656	3704917	8318573	db	1.025	1.245	1.240	NO	17628.9		100.689
[redacted]	13C-1234678-HpCDD	41.382	1.117	3623856	3463615	7087471	bb	0.866	1.046	1.050	NO	6486.0		101.488
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Dataset: P:\DIOXIN8290.PRO\121123IC.qld
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	13C-123789-HxCDD	37.051	0.000	4474912	3587779	8062691	bb	1.000	1.247	1.240	NO	16908.9		100.000
	Total-tetrafurans			10328127				0.877					205.927	205.618
	Total-penta1			991									0.023	0.015
	Total-pentafurans			129098142				0.911					2060.420	2059.741
	Total-hexafurans			222220906				1.032					4135.653	4135.653
	Total-heptafurans			95047297				1.223					2048.226	2047.199
	Total-Furans			531292927				1.041					10523.284	10521.262
	Total-tetradioxins			8333050				1.049					205.919	205.852
	Total-pentadioxins			47152508				0.998					1030.935	1030.931
	Total-hexadioxins			131846862				0.940					3085.119	3084.964
	Total-heptadioxins			37557536				1.017					1020.645	1020.268
	Total-Dioxins			290066579				0.985					7372.559	7371.945
	Total-TEQ			821359507									17895.843	17893.207
	37CL-2378-TCDD	26.750	1.032	19823958		19823958		1.044				74958.3		215.343
	FUNCTION1 PFK			1019534										
	FUNCTION2 PFK			20556										0.000
	FUNCTION3 PFK			45047985										0.000
	FUNCTION4 PFK			20180373										
	FUNCTION5 PFK			256260										
	FUNCTION1 HXCDPE			5772										0.000
	FUNCTION1 HPCDPE			2057										0.000
	FUNCTION2 HPCDPE			84809										0.000
	FUNCTION3 OCDPE			10302										0.000
	FUNCTION4 NCDPE			1410										0.000
	FUNCTION5 DCDPE			2552										0.000

Dataset: P:\DIOXIN8290.PRO\121123IC.qld
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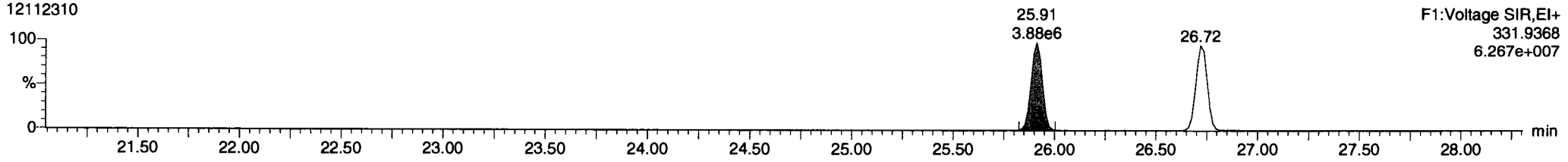
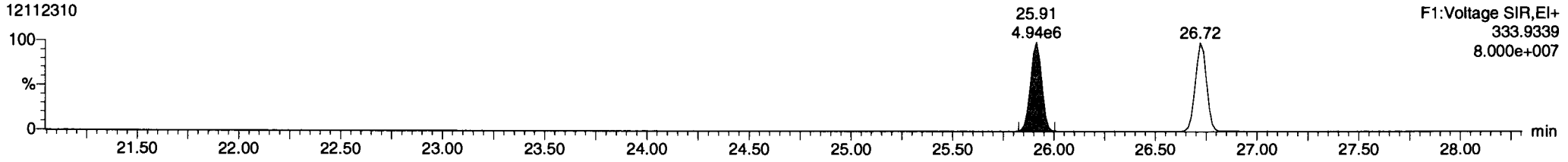
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112310, Date: 23-Nov-2012, Time: 18:30:06, ID: CS5, Conditions: AUTOSPEC01, User: pk

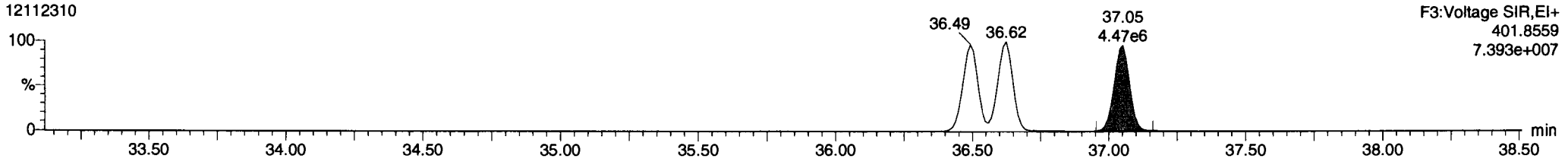
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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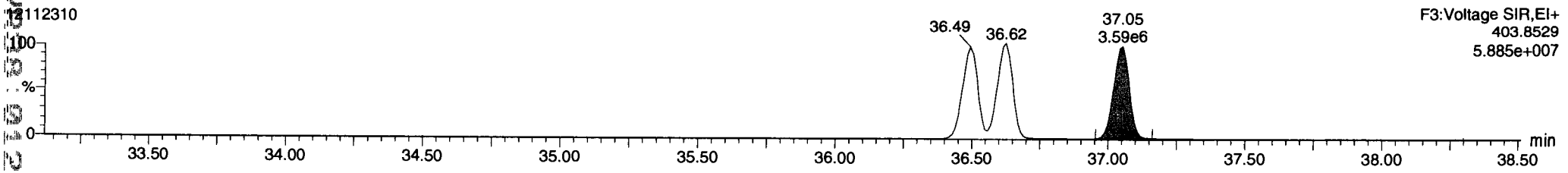

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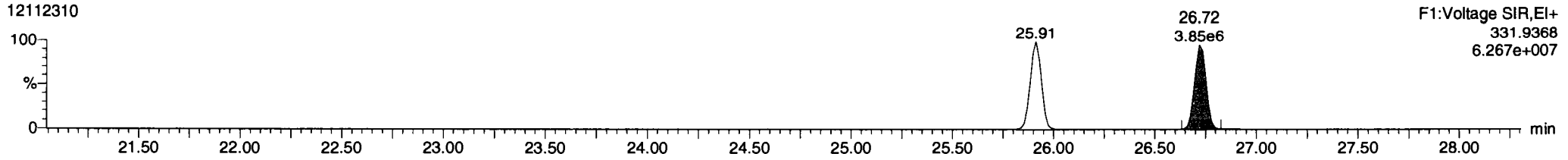
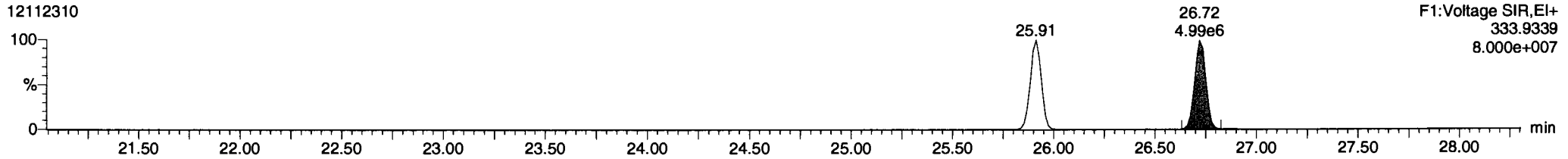
Name: 12112310, Date: 23-Nov-2012, Time: 18:30:06, ID: CS5, Conditions: AUTOSPEC01, User: pk

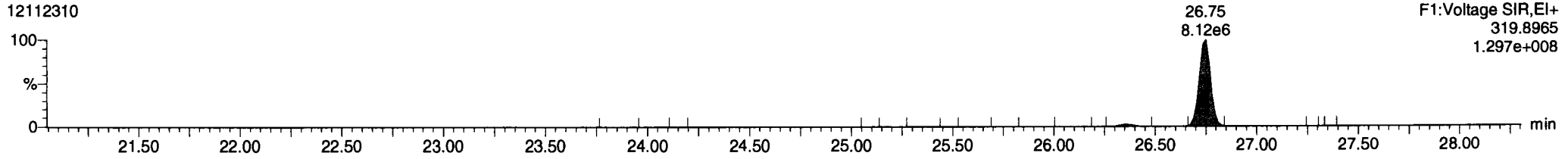
13C-2378-TCDD



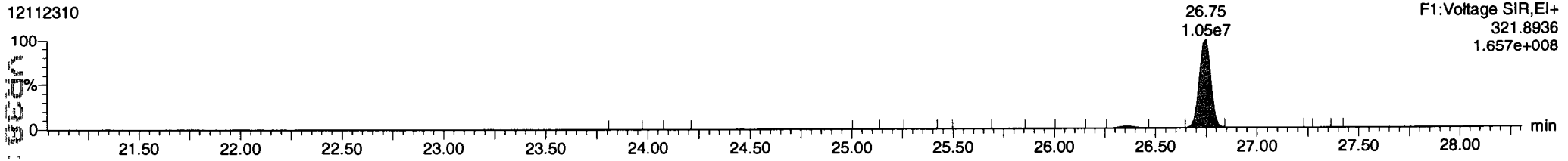
13C-2378-TCDD



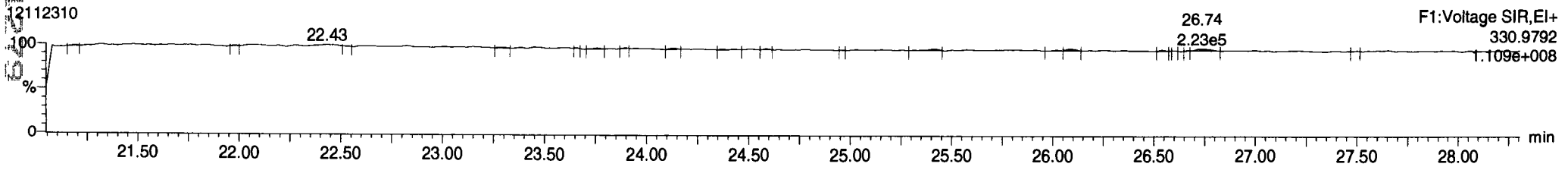
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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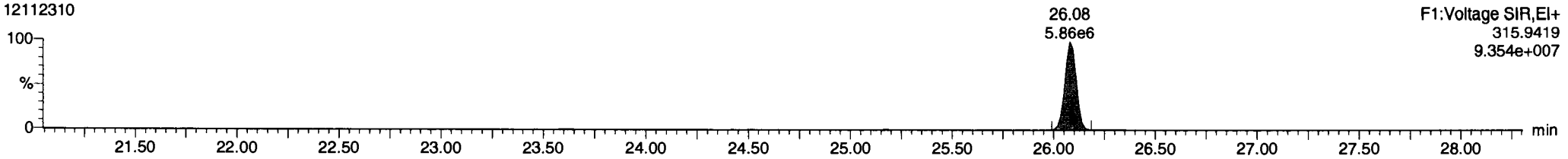
13C-2378-TCDF



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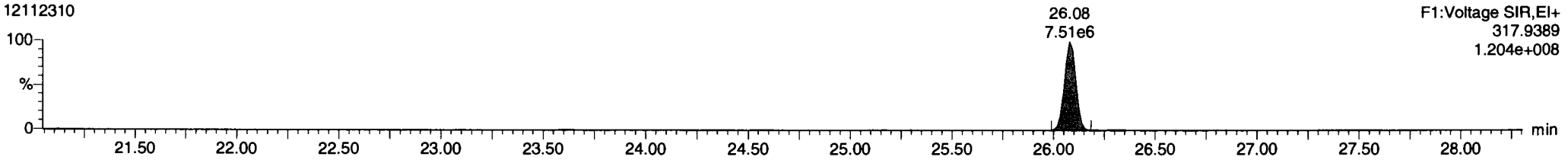
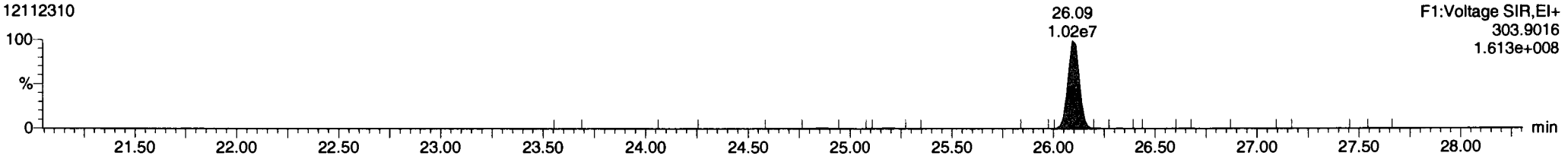
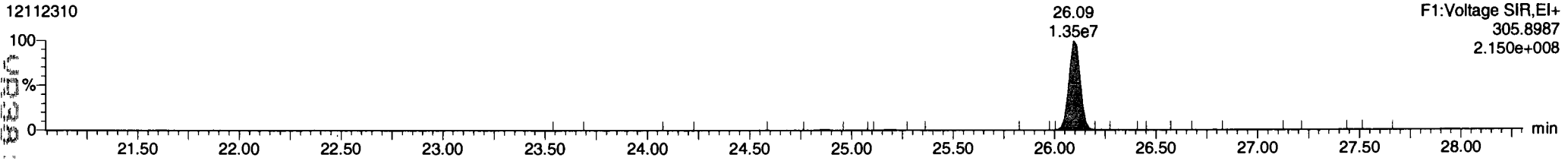


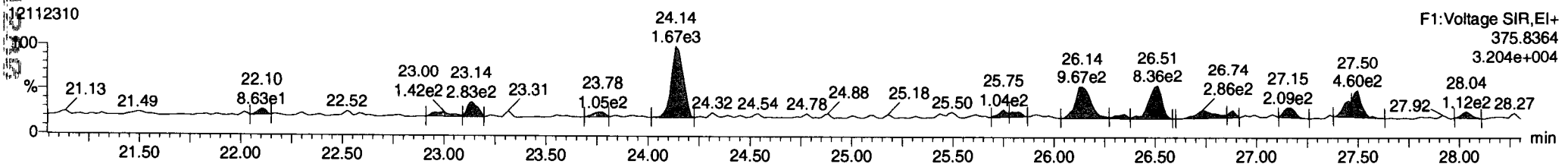
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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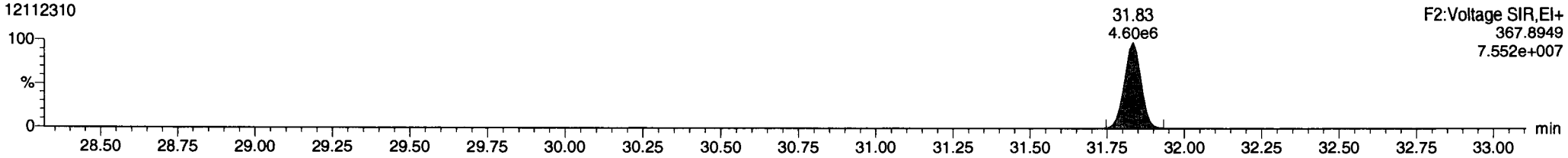
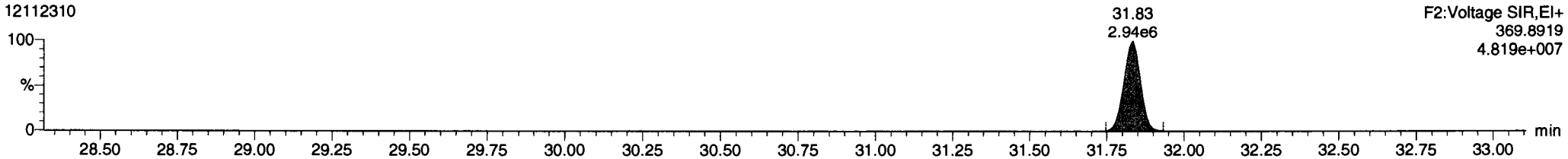
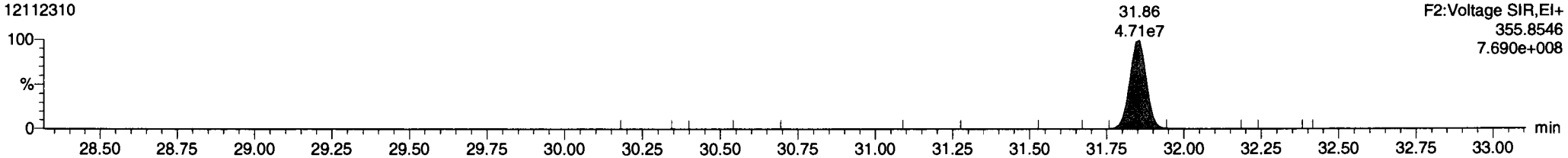
13C-12378-PeCDD



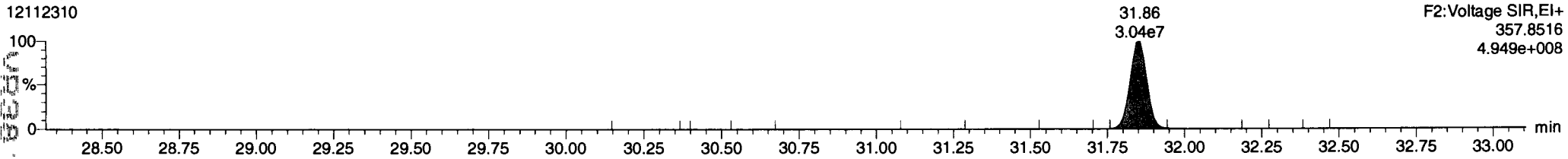
13C-12378-PeCDD



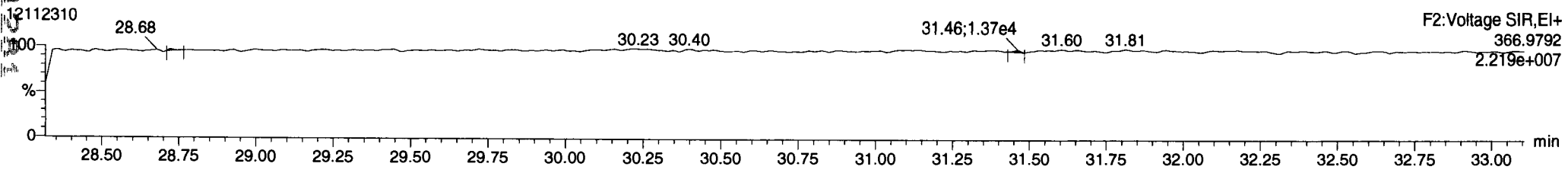
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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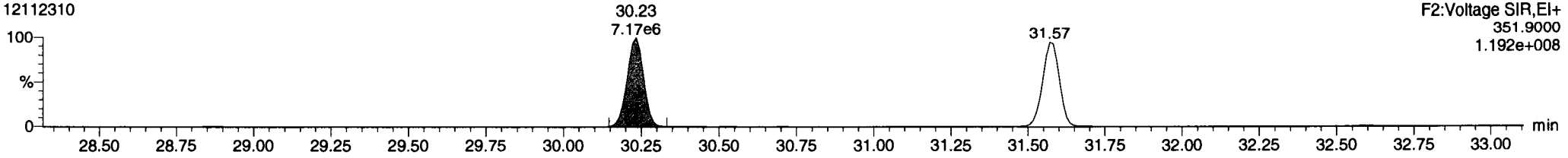
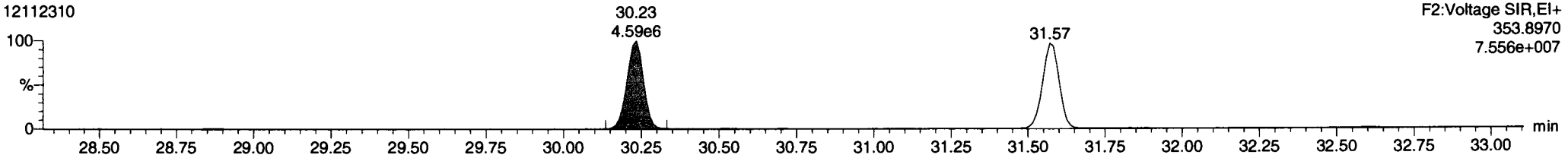
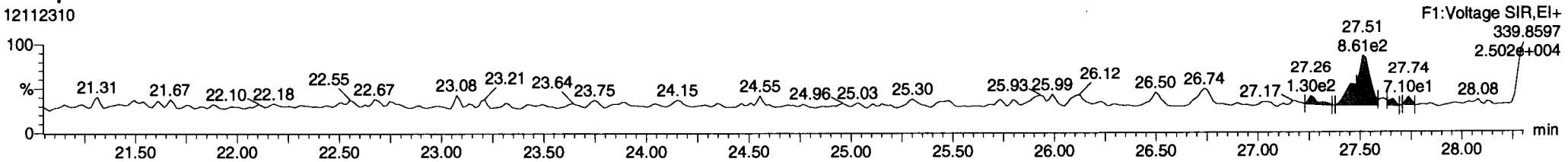
13C-12378-PeCDF



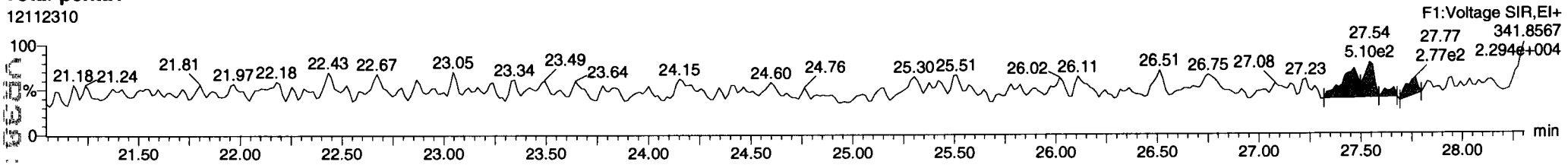
13C-12378-PeCDF



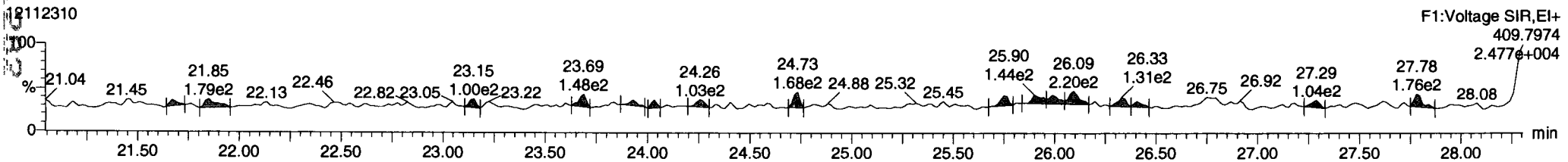
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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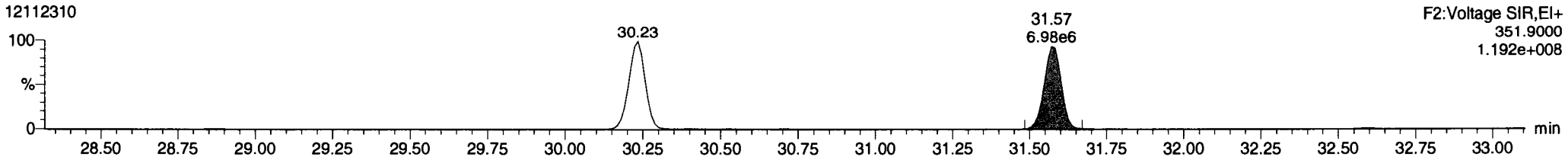
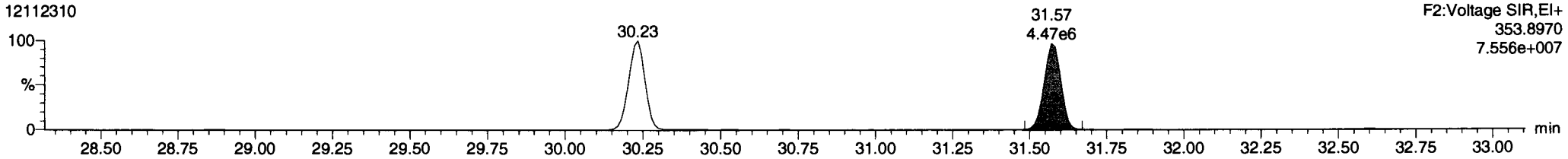
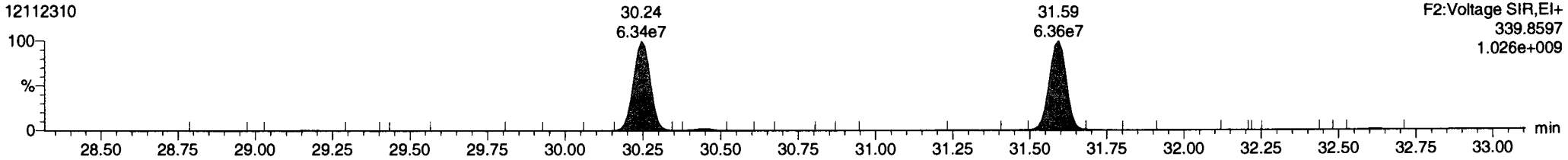
13C-23478-PeCDF



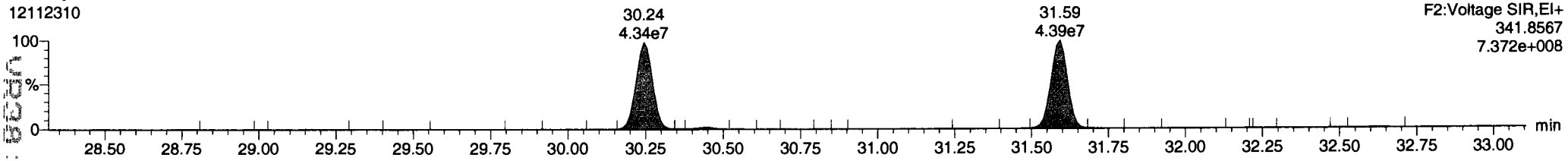
13C-23478-PeCDF



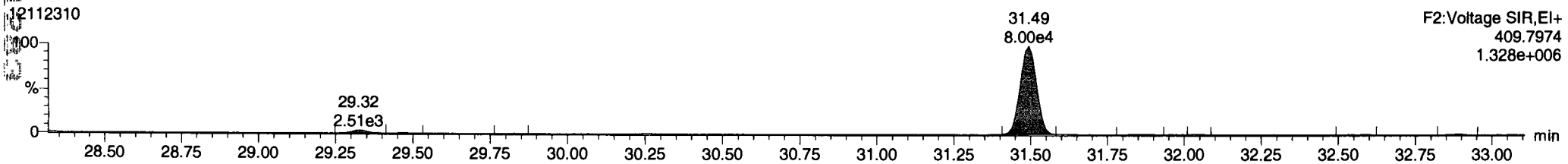
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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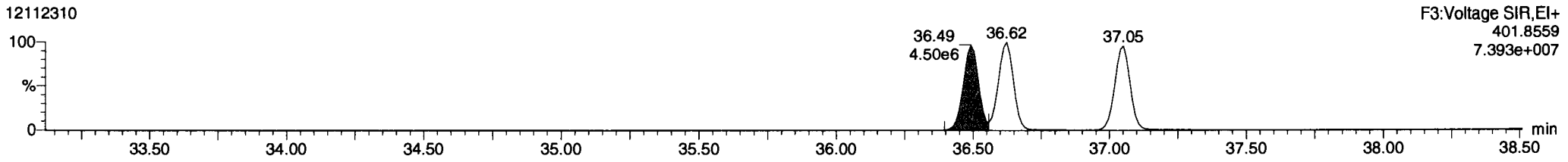
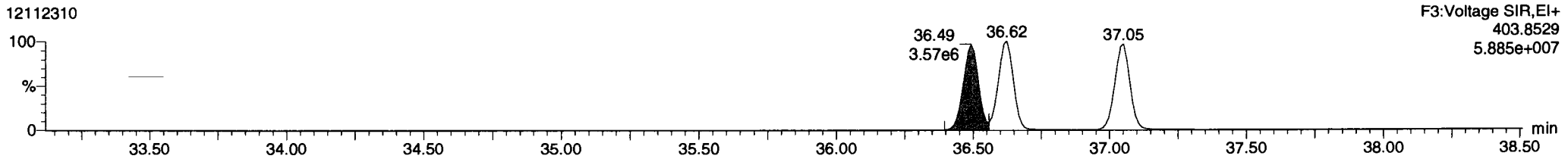
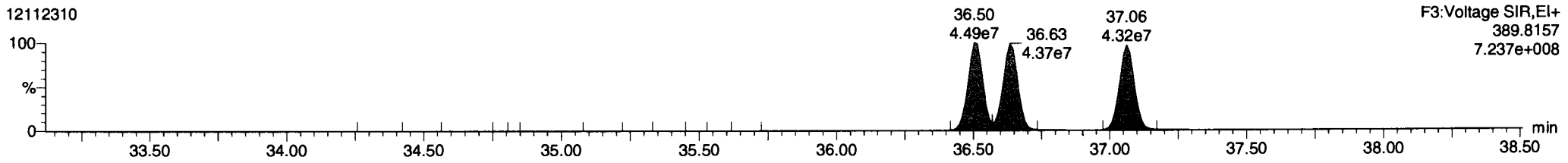
13C-123478-HxCDD



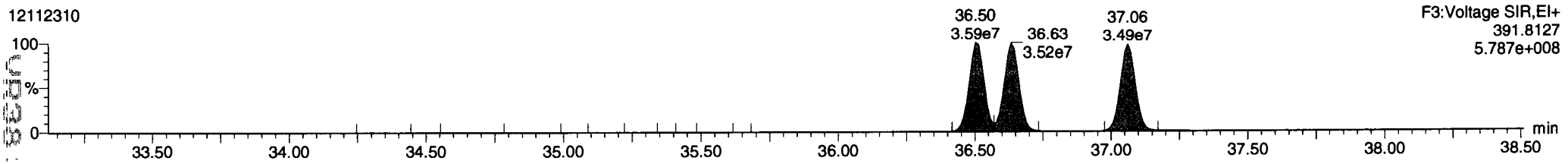
13C-123478-HxCDD



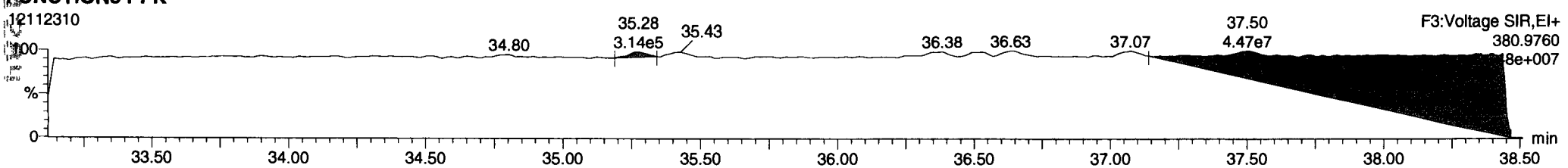
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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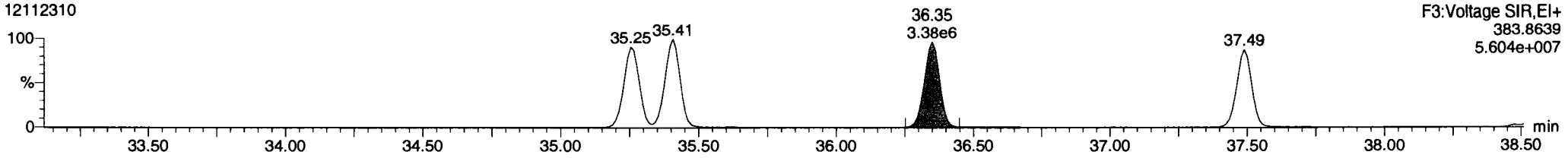
13C-234678-HxCDF



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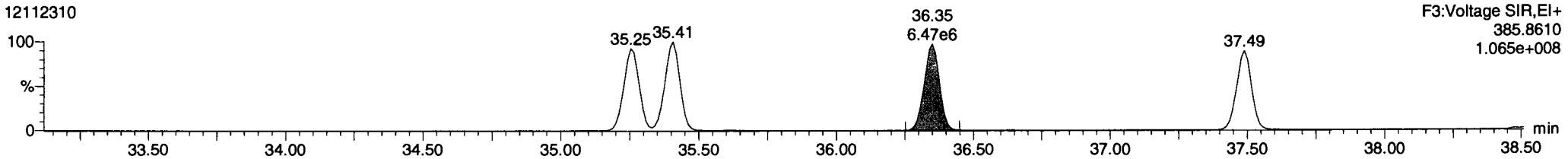
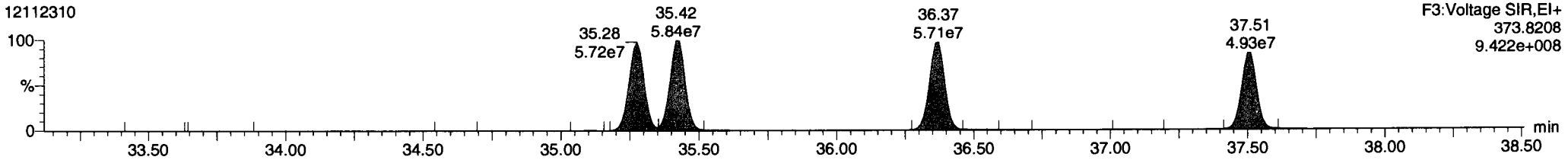
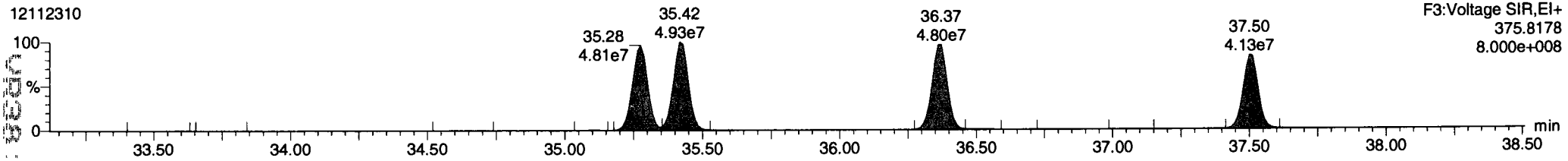


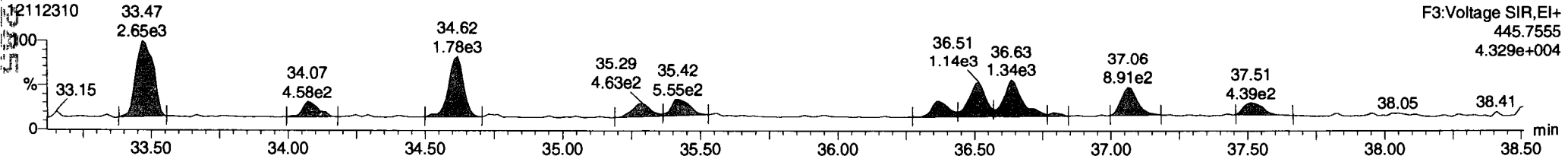
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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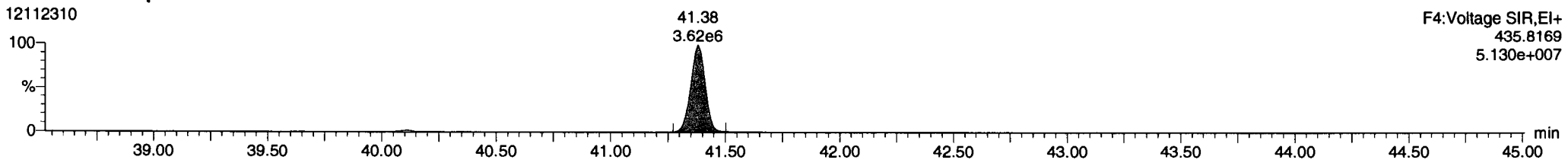
Printed: Monday, November 26, 2012 09:27:13 Pacific Standard Time

Name: 12112310, Date: 23-Nov-2012, Time: 18:30:06, ID: CS5, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDD



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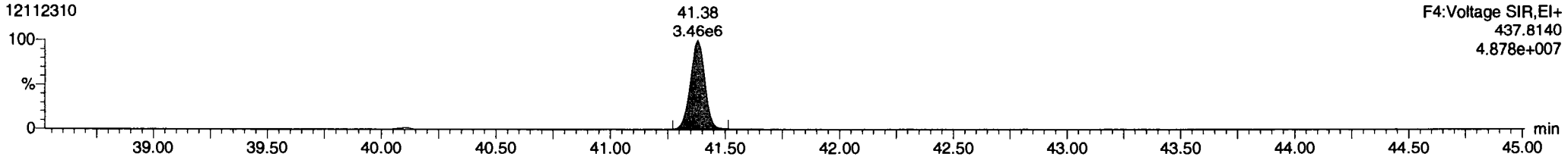
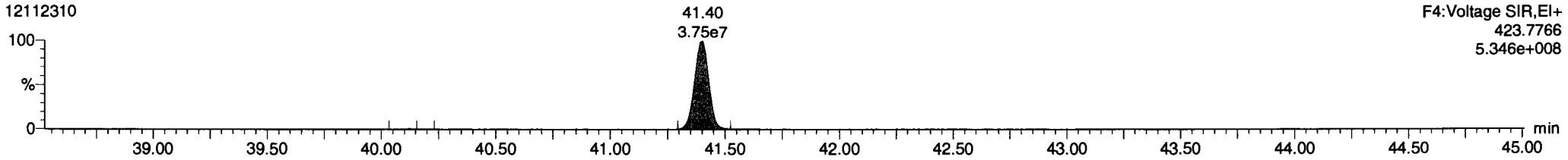


Total-heptadioxins



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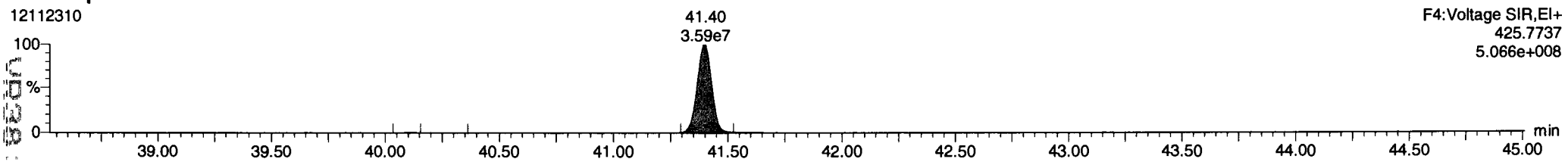
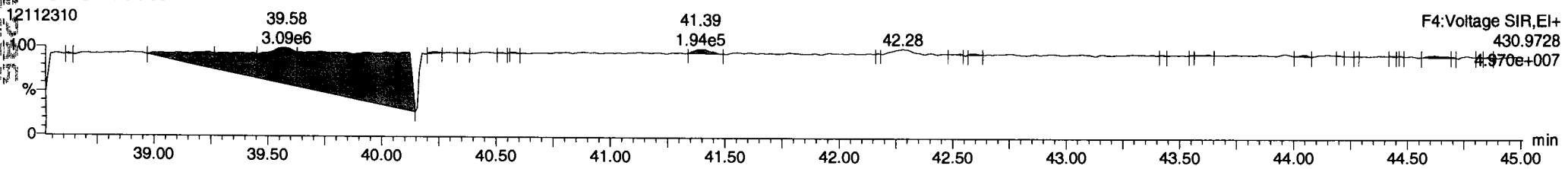


FUNCTION4 PFK



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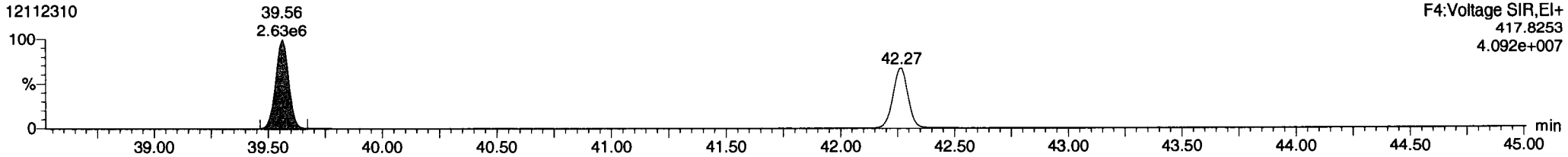
Name: 12112310, Date: 23-Nov-2012, Time: 18:30:06, ID: CS5, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF



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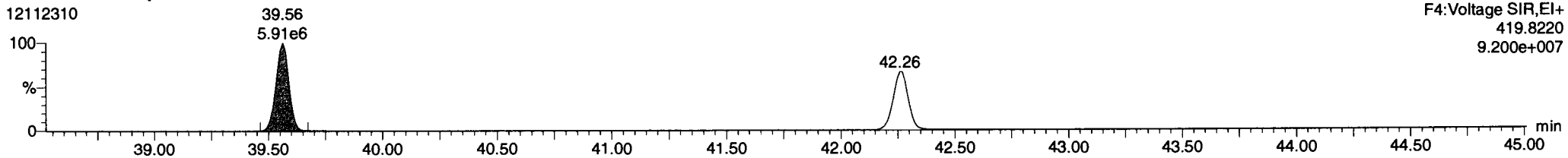

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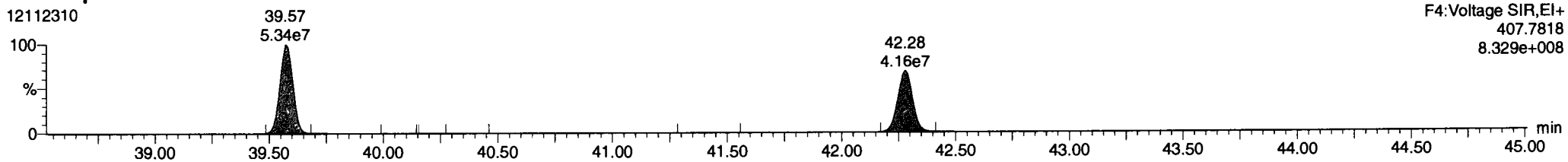

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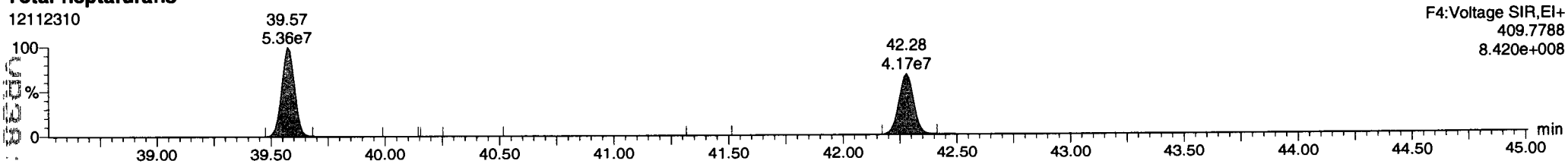
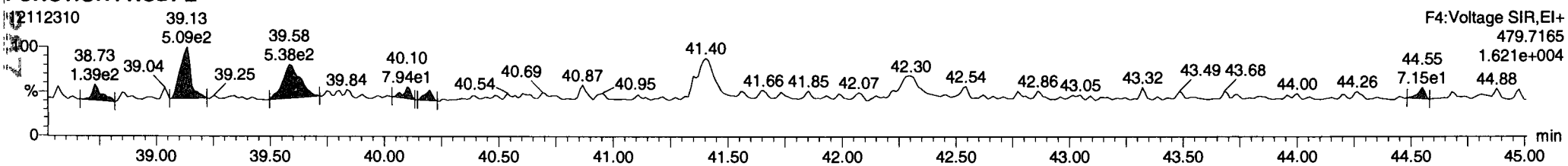


FUNCTION4 NCDPE



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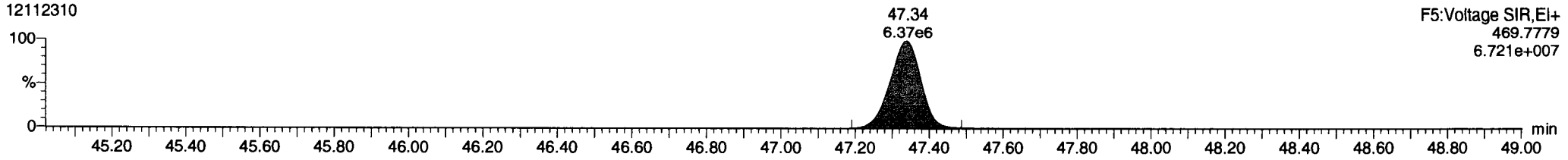
Name: 12112310, Date: 23-Nov-2012, Time: 18:30:06, ID: CS5, Conditions: AUTOSPEC01, User: pk

13C-OCDD



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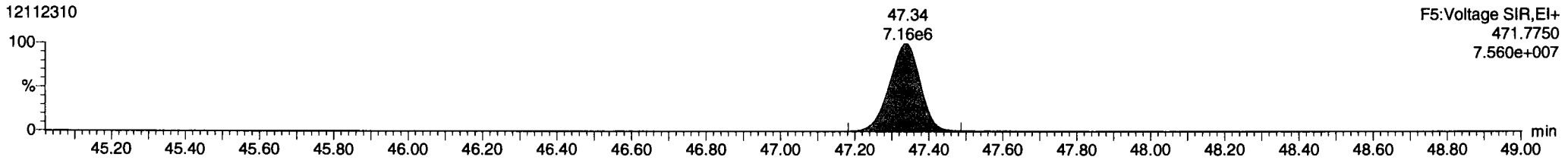

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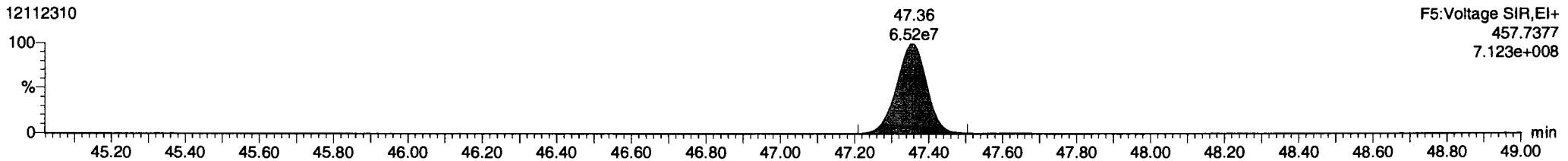

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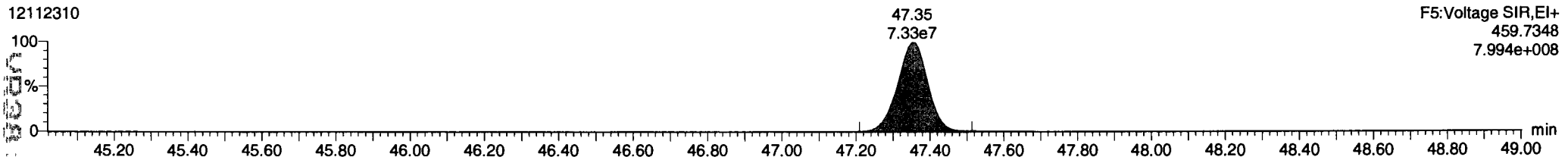
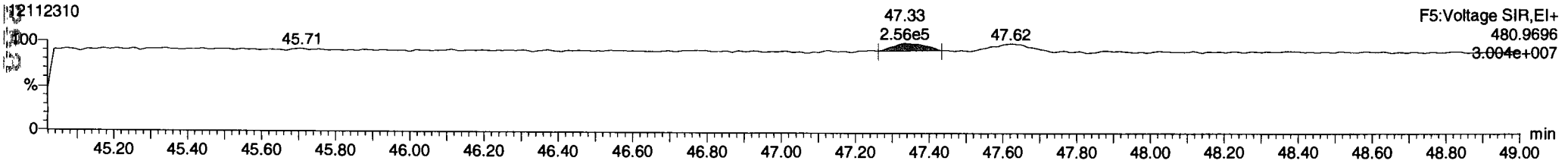


FUNCTION5 PFK



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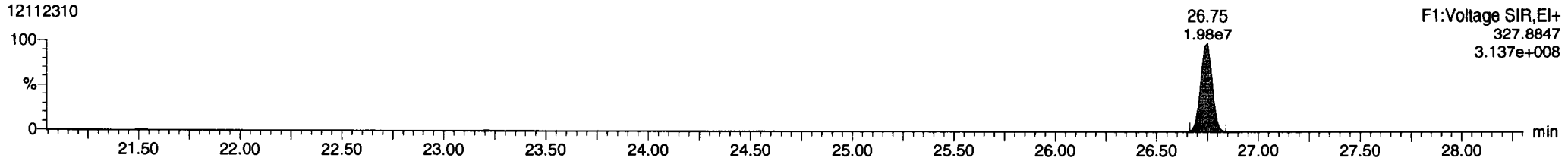
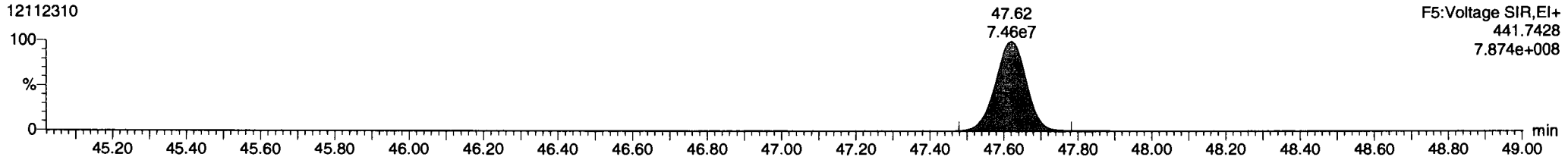
Name: 12112310, Date: 23-Nov-2012, Time: 18:30:06, ID: CS5, Conditions: AUTOSPEC01, User: pk

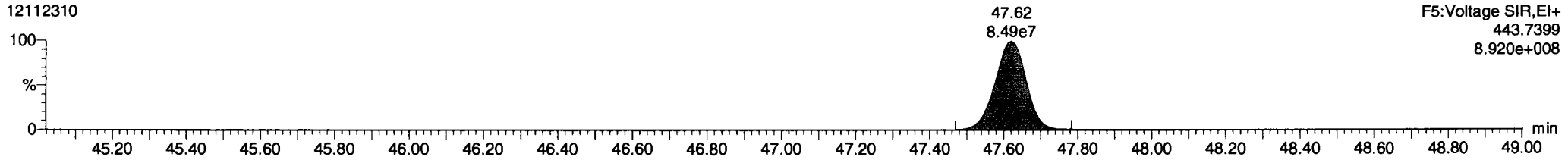
37CL-2378-TCDD



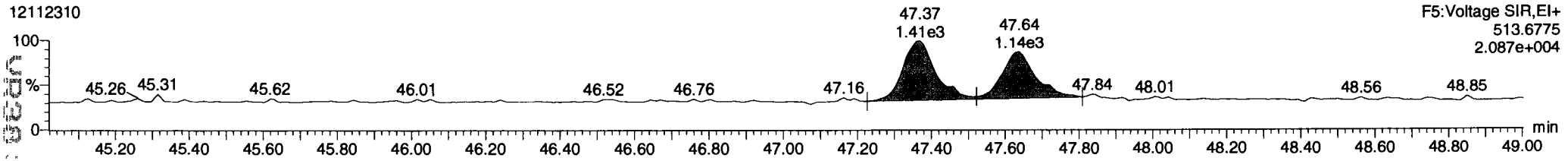
OCDF



OCDF



FUNCTION5 DCDPE



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Last Altered: Monday, November 26, 2012 09:36:55 Pacific Standard Time
Printed: Monday, November 26, 2012 09:55:55 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112311, Date: 23-Nov-2012, Time: 19:22:21, ID: ICV, Conditions: AUTOSPEC01, User: pk

	2378-TCDF	26.094	1.001	207939	281261	489200	bb	0.877	0.739	0.770	NO	884.0	10.621	10.621
	12378-PeCDF	30.245	1.000	1253696	845668	2099364	bb	0.896	1.482	1.550	NO	6097.0	56.022	56.022
	23478-PeCDF	31.594	1.001	1155540	777114	1932654	bb	0.926	1.487	1.550	NO	5490.8	50.929	50.929
	123478-HxCDF	35.265	1.000	1054963	894228	1949191	bd	1.068	1.180	1.240	NO	4841.6	56.248	56.248
	234678-HxCDF	36.362	1.000	982319	855205	1837524	bd	1.037	1.149	1.240	NO	4468.9	53.411	53.411
	123678-HxCDF	35.419	1.001	1070624	908027	1978651	db	1.035	1.179	1.240	NO	4943.2	53.412	53.412
	123789-HxCDF	37.502	1.001	825809	693835	1519645	bb	0.987	1.190	1.240	NO	3932.1	56.551	56.551
	1234678-HpCDF	39.574	1.001	928652	951801	1880453	bb	1.232	0.976	1.050	NO	5288.2	53.729	53.729
	1234789-HpCDF	42.281	1.001	692611	699692	1392303	bb	1.215	0.990	1.050	NO	3327.9	50.554	50.554
	OCDF	47.604	1.006	1207597	1399554	2607151	bb	1.138	0.863	0.890	NO	4177.7	109.575	109.575
	2378-TCDD	26.751	1.001	169622	224565	394187	bd	1.049	0.755	0.770	NO	1867.4	9.959	9.959
	12378-PeCDD	31.846	1.000	834118	535002	1369120	bb	0.998	1.559	1.550	NO	5829.7	47.623	47.623
	123478-HxCDD	36.504	1.000	768519	605429	1373948	bd	0.971	1.269	1.240	NO	5000.0	53.212	53.212
	123678-HxCDD	36.636	1.001	729327	580223	1309550	db	0.918	1.257	1.240	NO	4617.3	55.701	55.701
	123789-HxCDD	37.063	1.012	746620	607312	1353932	bb	0.932	1.229	1.240	NO	4597.5	55.634	55.634
	1234678-HpCDD	41.393	1.000	664113	633547	1297660	bb	1.017	1.048	1.050	NO	5937.7	50.353	50.353
	OCDD	47.334	1.000	1074224	1208372	2282596	bb	1.008	0.889	0.890	NO	5180.2	108.226	108.226
	13C-2378-TCDF	26.079	1.006	2311740	2942616	5254356	bb	1.473	0.786	0.770	NO	6975.9		79.080
	13C-12378-PeCDF	30.234	1.167	2554025	1627498	4181523	bb	1.148	1.569	1.550	NO	13108.9		80.737
	13C-23478-PeCDF	31.572	1.218	2508271	1589203	4097474	bb	1.113	1.578	1.550	NO	13200.7		81.612
	13C-123478-HxCDF	35.255	0.952	1115934	2128181	3244114	bd	1.209	0.524	0.510	NO	5212.9		98.672
	13C-123678-HxCDF	35.397	0.956	1239806	2340884	3580689	db	1.269	0.530	0.510	NO	5709.4		103.790
	13C-234678-HxCDF	36.351	0.981	1136315	2182102	3318418	bb	1.236	0.521	0.510	NO	5125.7		98.742
	13C-123789-HxCDF	37.480	1.012	935592	1788002	2723594	bb	1.107	0.523	0.510	NO	4360.0		90.496
	13C-1234678-HpCDF	39.552	1.068	874833	1966221	2841055	bb	1.051	0.445	0.440	NO	5391.3		99.391
	13C-1234789-HpCDF	42.259	1.141	691764	1574907	2266671	bb	0.815	0.439	0.440	NO	3726.6		102.309
	13C-1234-TCDD	25.914	0.000	1990450	2521577	4512026	bb	1.000	0.789	0.770	NO	5823.8		100.000
	13C-2378-TCDD	26.721	1.031	1640150	2132310	3772460	bb	0.946	0.769	0.770	NO	4681.6		88.407
	13C-12378-PeCDD	31.834	1.228	1768744	1111779	2880523	bb	0.721	1.591	1.550	NO	11548.2		88.585
	13C-123478-HxCDD	36.493	0.985	1489072	1170617	2659689	bd	0.991	1.272	1.240	NO	6814.7		98.706
	13C-123678-HxCDD	36.614	0.988	1427519	1133204	2560722	db	1.025	1.260	1.240	NO	6557.0		91.896
	13C-1234678-HpCDD	41.382	1.117	1315164	1219160	2534323	bb	0.866	1.079	1.050	NO	7546.6		107.594
	13C-OCDD	47.317	1.277	1968421	2214682	4183103	bd	0.769	0.889	0.890	NO	8836.8		199.998

Dataset: P:\DIOXIN8290.PRO\121123ICV.qld
Last Altered: Monday, November 26, 2012 09:36:55 Pacific Standard Time
Printed: Monday, November 26, 2012 09:55:55 Pacific Standard Time

Name: 12112311, Date: 23-Nov-2012, Time: 19:22:21, ID: ICV, Conditions: AUTOSPEC01, User: pk

	13C-123789-HxCDD	37.041	0.000	1518692	1200740	2719432	bb	1.000	1.265	1.240	NO	6813.4	100.000
	Total-tetrafurans			211548				0.877				10.858	10.812
	Total-penta1			0									
	Total-pentafurans			2428983				0.911				108.256	107.819
	Total-hexafurans			3933715				1.032				219.806	219.623
	Total-heptafurans			1625532				1.223				104.627	104.550
	Total-Furans			9407375				1.041				553.122	552.379
	Total-tetradioxins			170621				1.049				10.045	10.020
	Total-pentadioxins			834787				0.998				47.731	47.663
	Total-hexadioxins			2244466				0.940				164.610	164.547
	Total-heptadioxins			668464				1.017				50.682	50.682
	Total-Dioxins			4992562				0.985				381.293	381.137
	Total-TEQ			14399937								934.415	933.517
	37CL-2378-TCDD	26.751	1.032	404180		404180		1.044				2215.6	8.584
	FUNCTION1 PFK			79884198									
	FUNCTION2 PFK			90653									0.000
	FUNCTION3 PFK			672627									0.000
	FUNCTION4 PFK			0									
	FUNCTION5 PFK			763152									
	FUNCTION1 HXCDPE			866									0.000
	FUNCTION1 HPCDPE			8392									0.000
	FUNCTION2 HPCDPE			874									0.000
	FUNCTION3 OCDPE			347									0.000
	FUNCTION4 NCDPE			189									0.000
	FUNCTION5 DCDPE			0									

Dataset: P:\DIOXIN8290.PRO\121123ICV.qld
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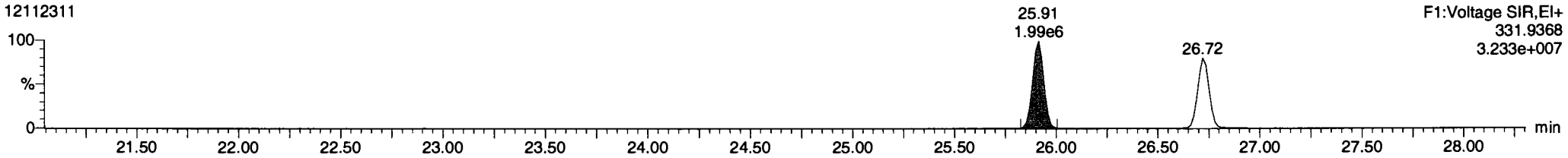
13C-1234-TCDD



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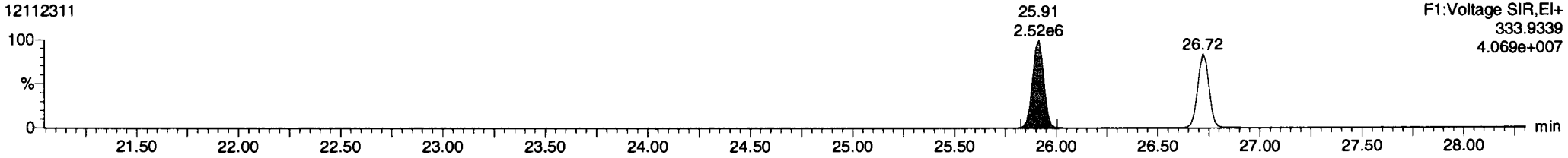

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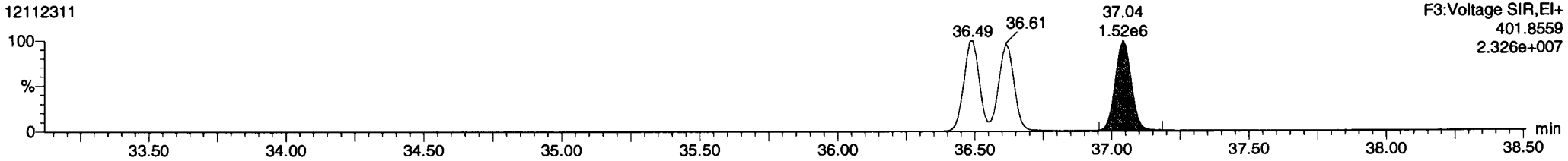

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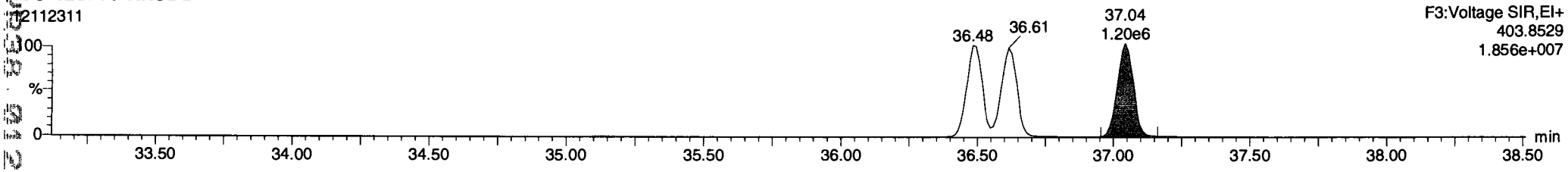

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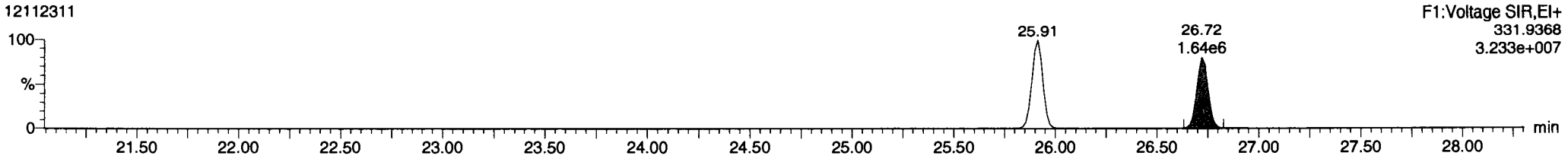
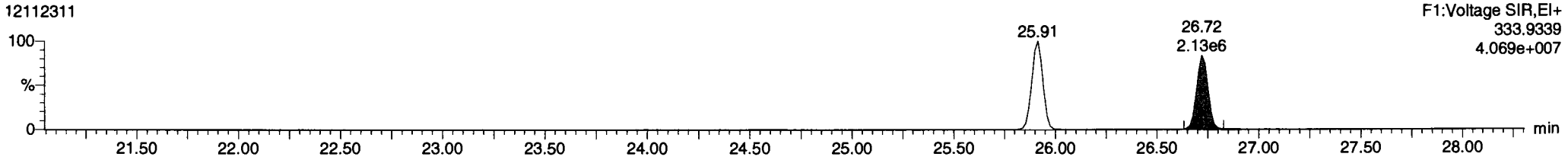
Name: 12112311, Date: 23-Nov-2012, Time: 19:22:21, ID: ICV, Conditions: AUTOSPEC01, User: pk

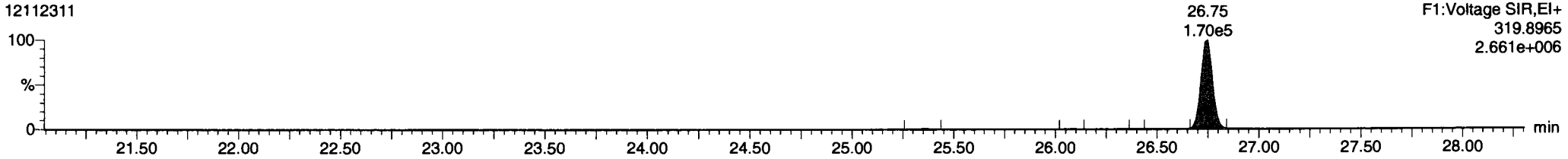
13C-2378-TCDD



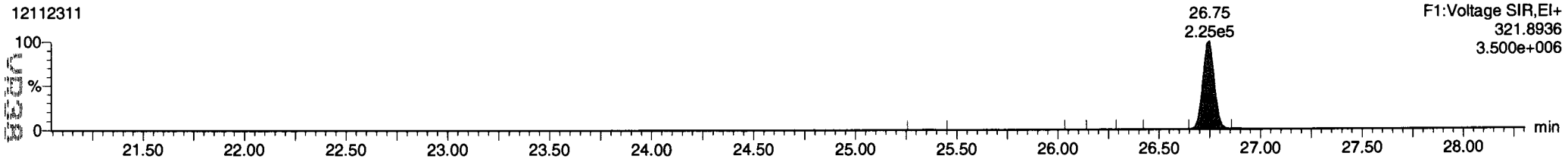
13C-2378-TCDD



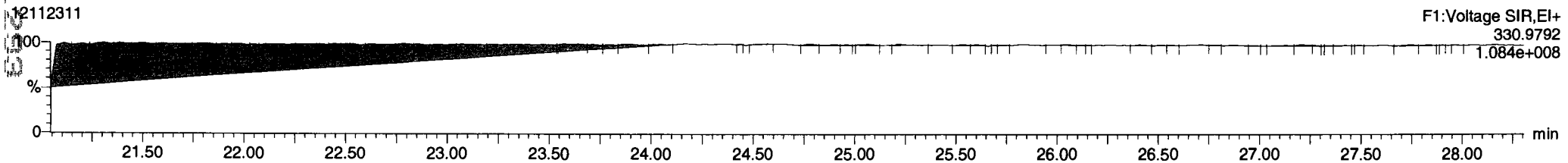
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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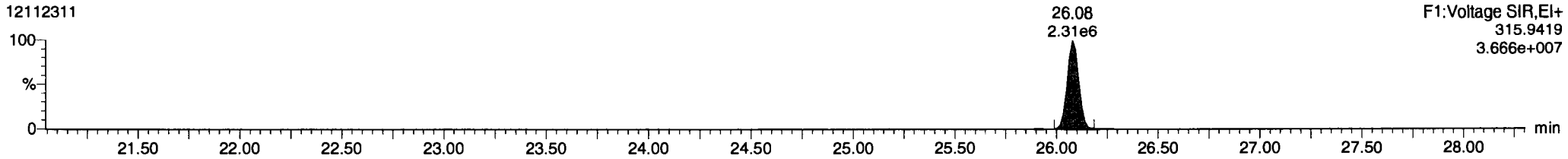
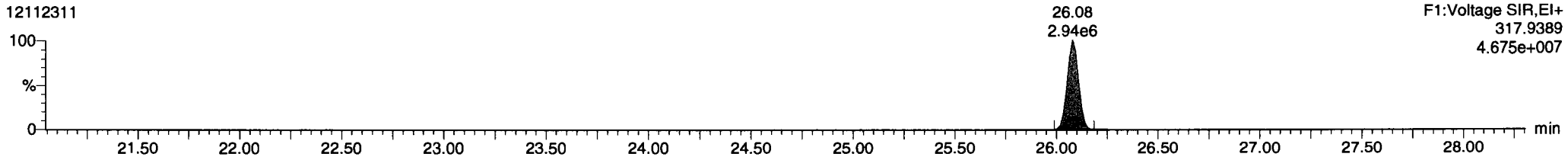
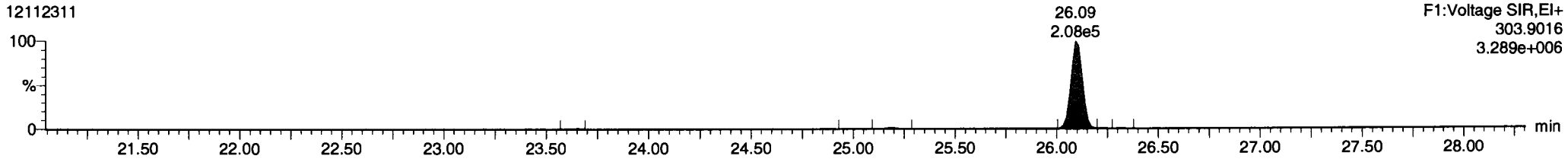
13C-2378-TCDF



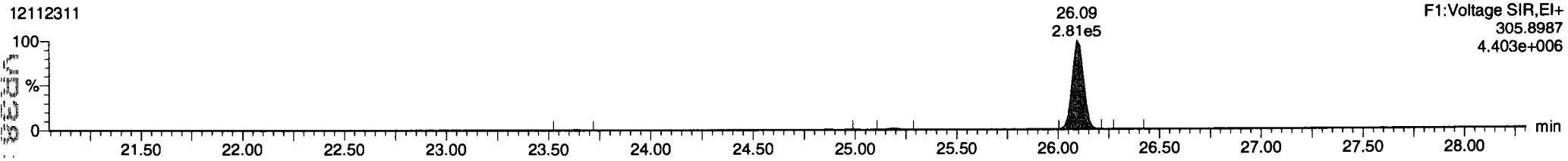
13C-2378-TCDF



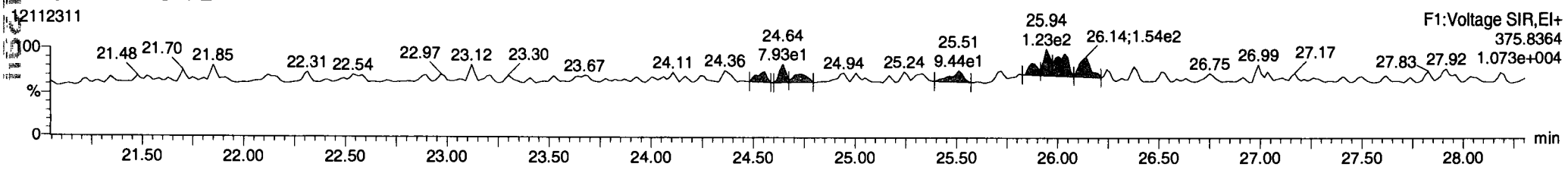
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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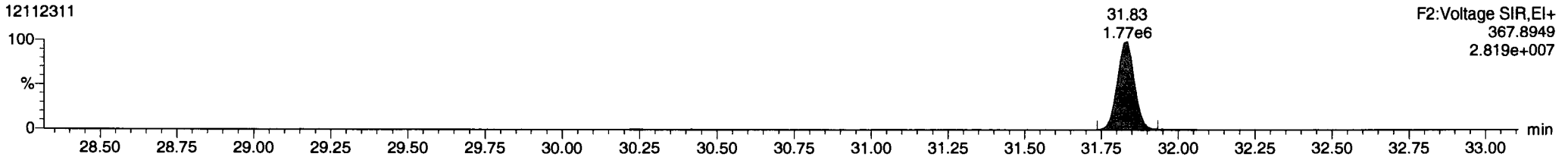
13C-12378-PeCDD



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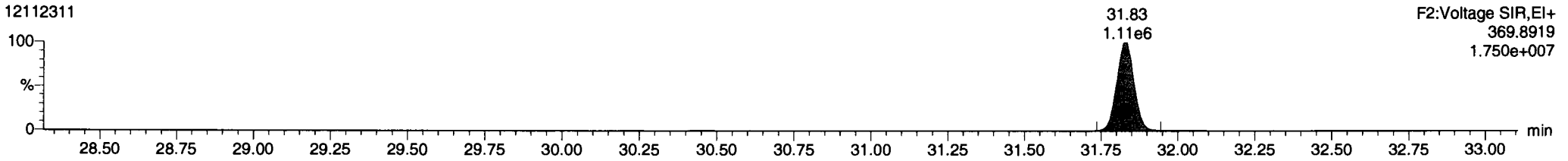
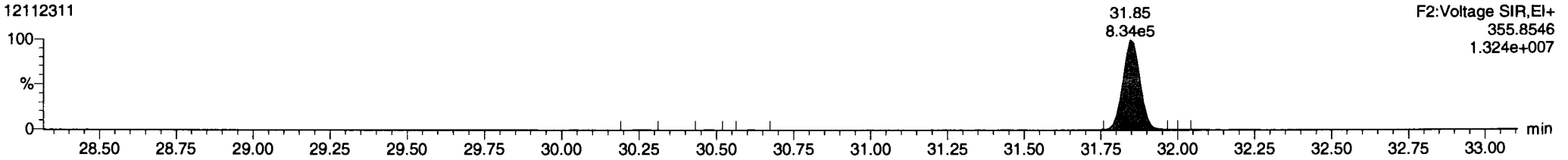
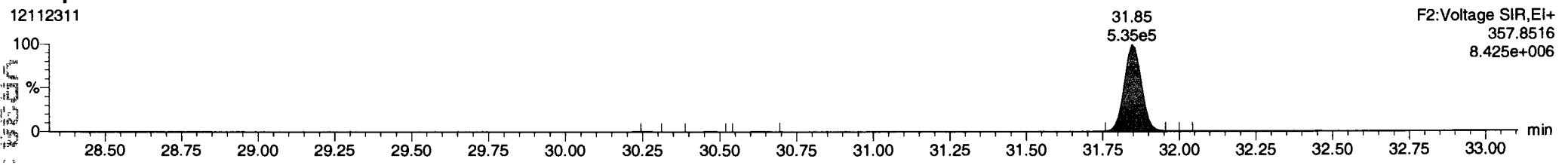


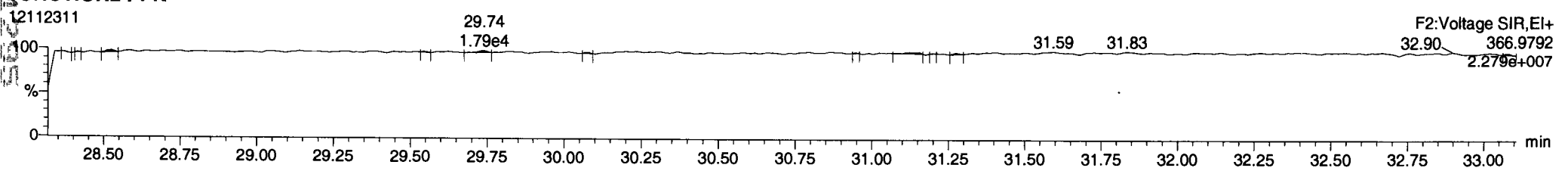
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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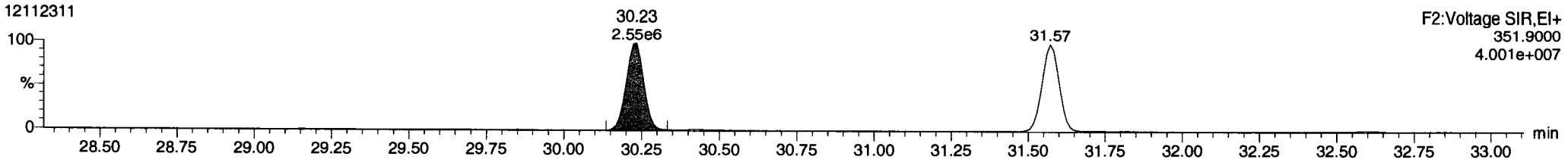
13C-12378-PeCDF



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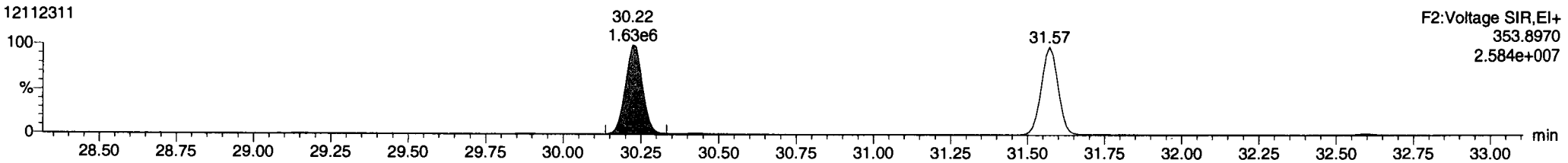
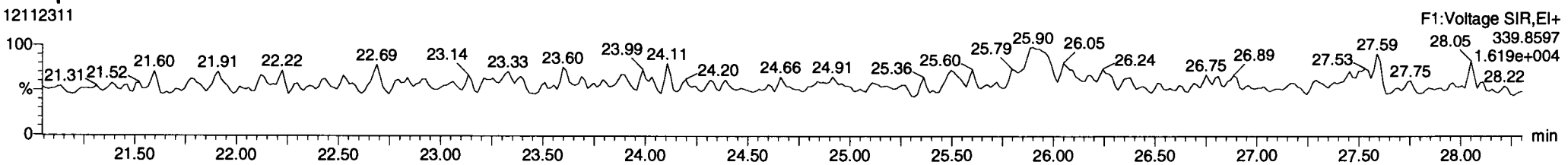
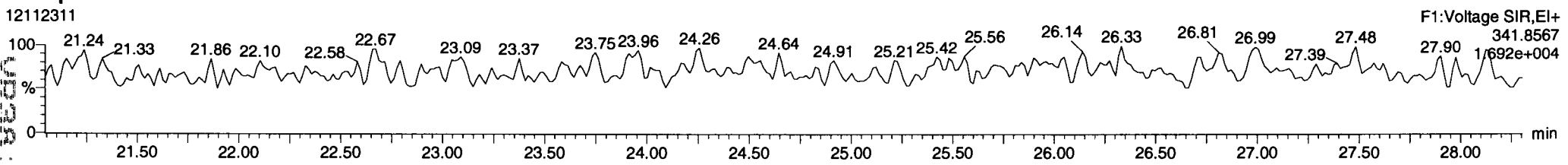


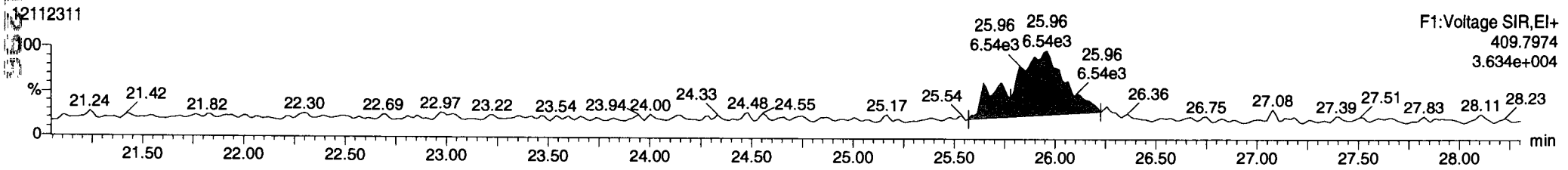
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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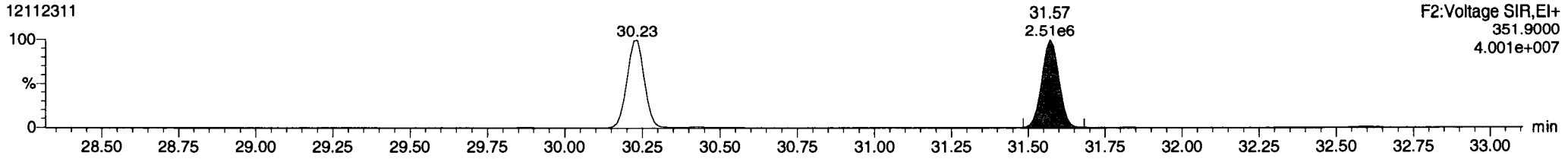
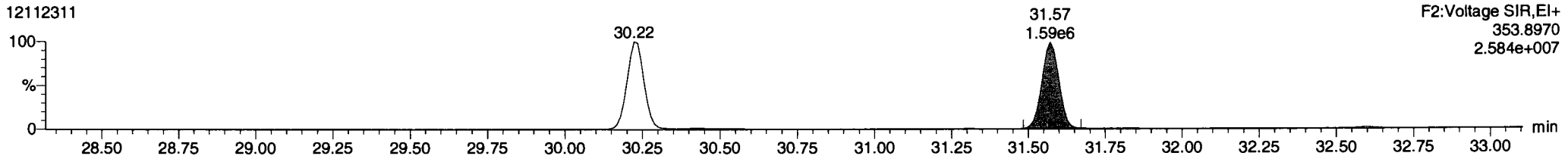
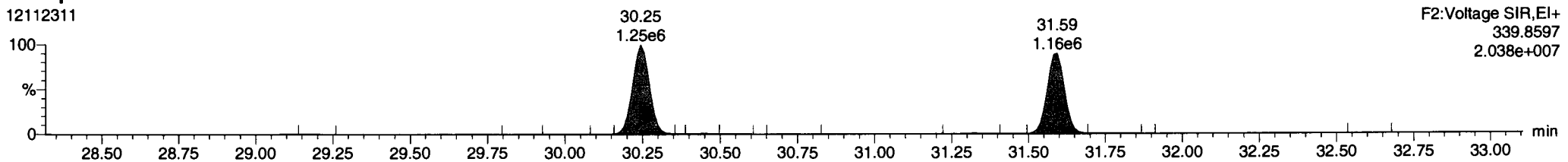
13C-23478-PeCDF



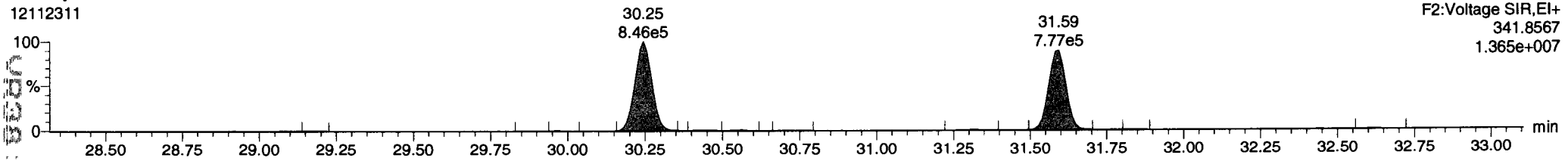
13C-23478-PeCDF



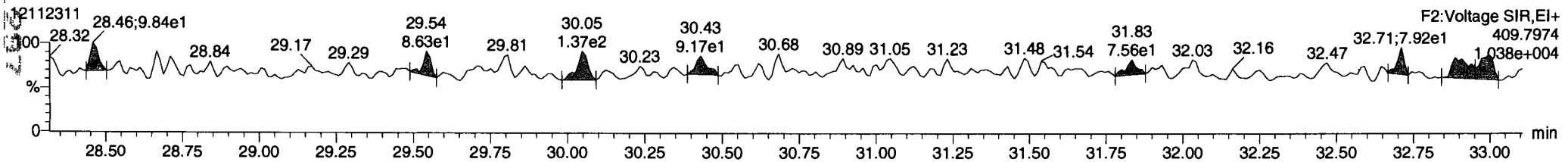
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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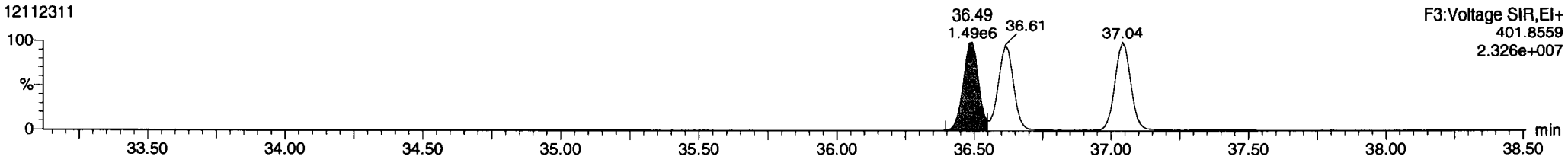
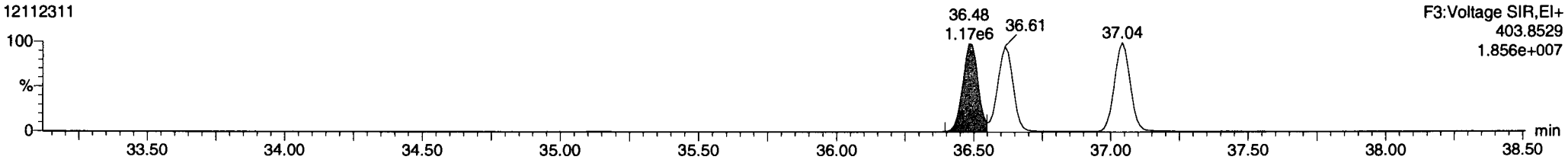
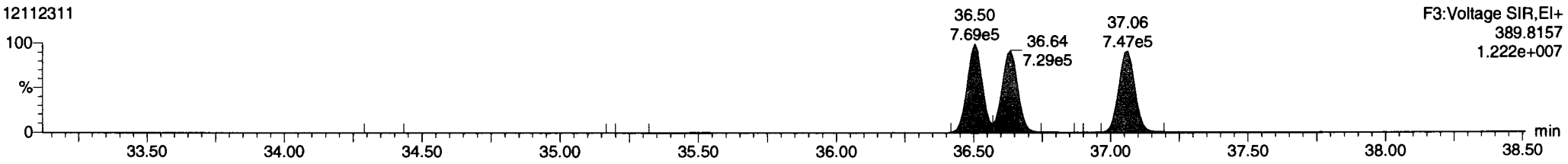
13C-123478-HxCDD



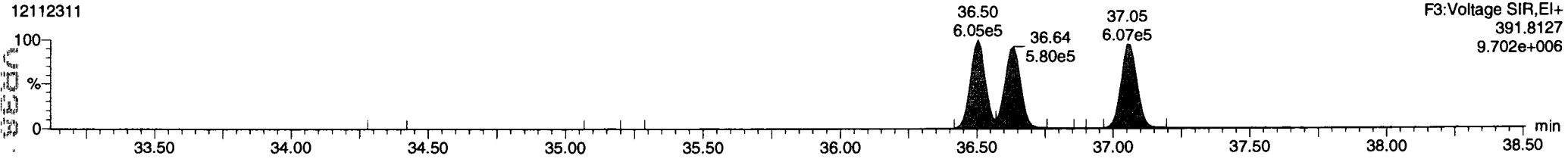
13C-123478-HxCDD



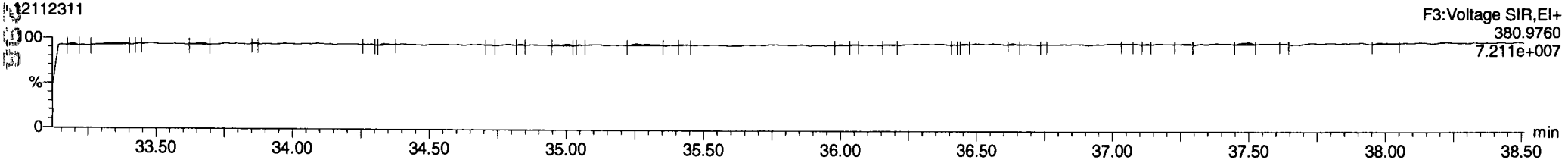
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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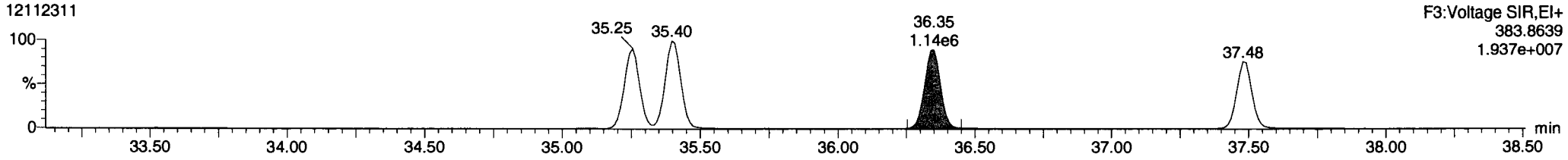
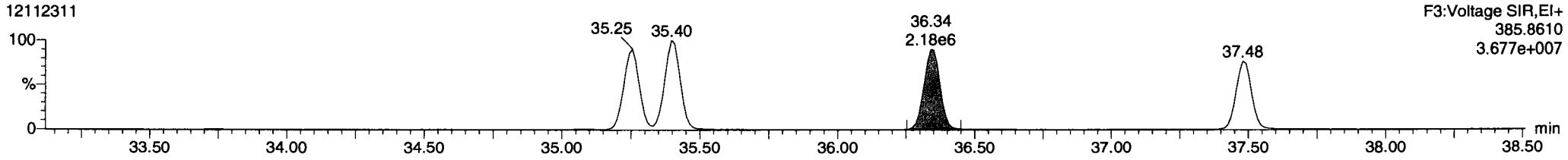
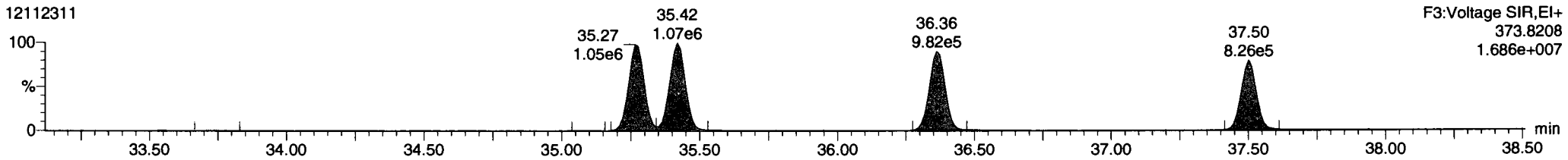
13C-234678-HxCDF



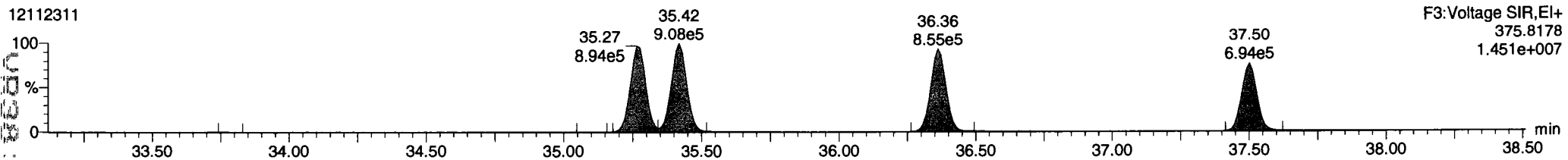
13C-234678-HxCDF



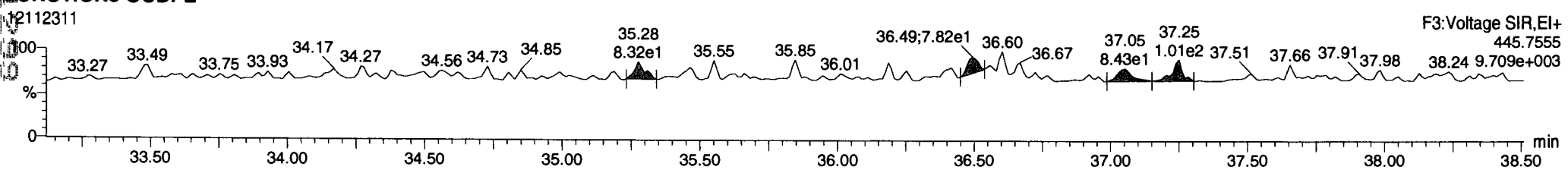
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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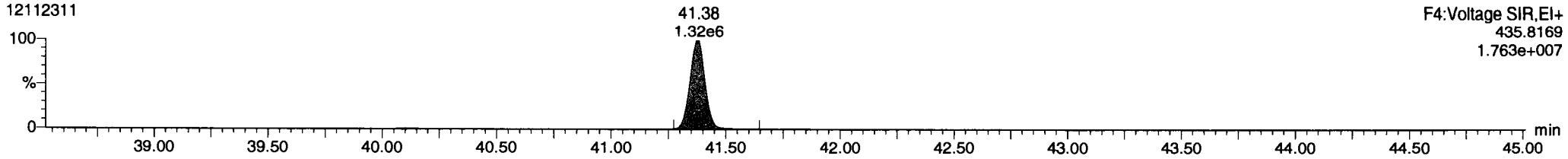
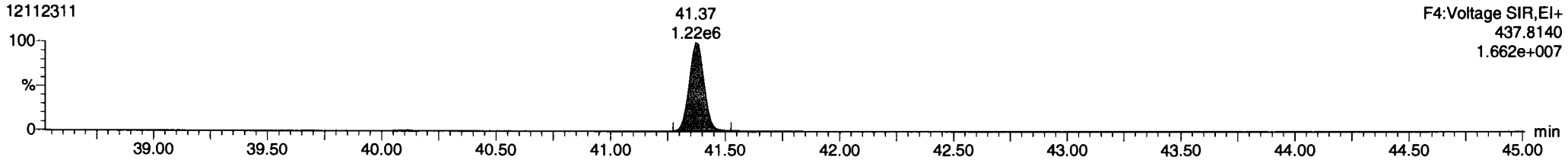
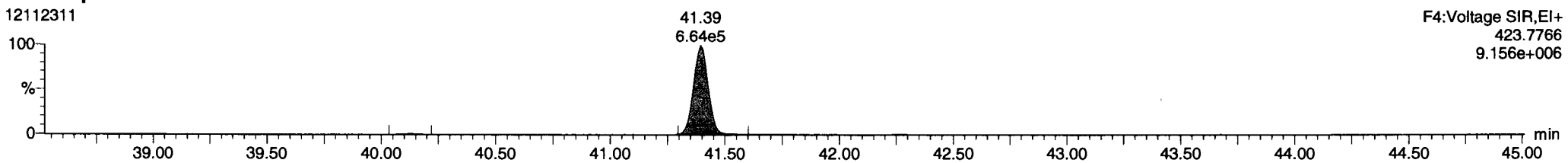
13C-1234678-HpCDD



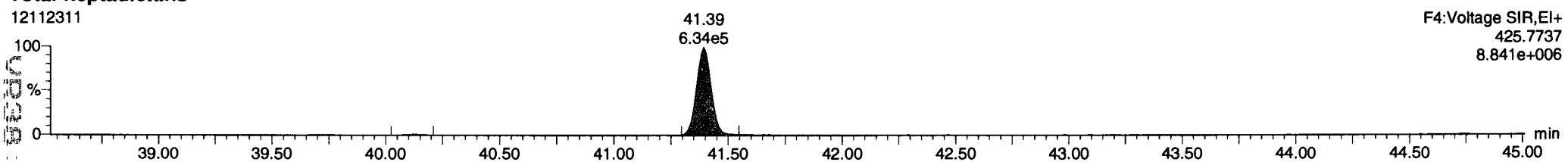
13C-1234678-HpCDD



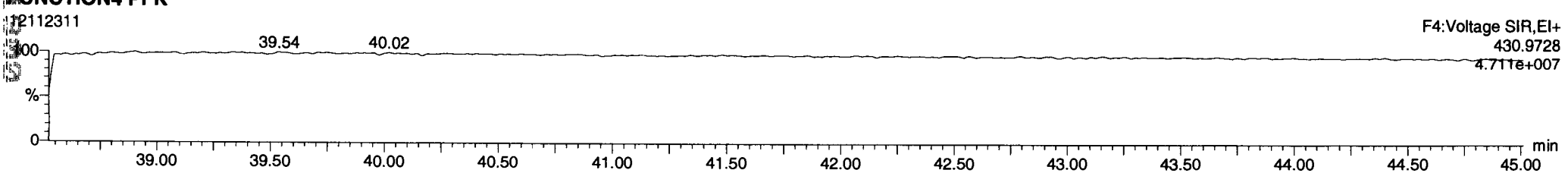
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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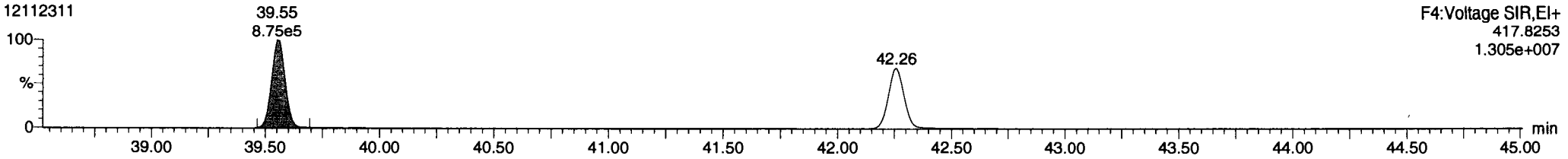
13C-1234678-HpCDF



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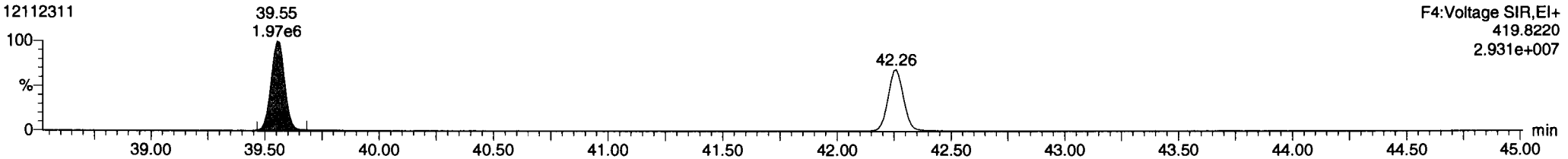
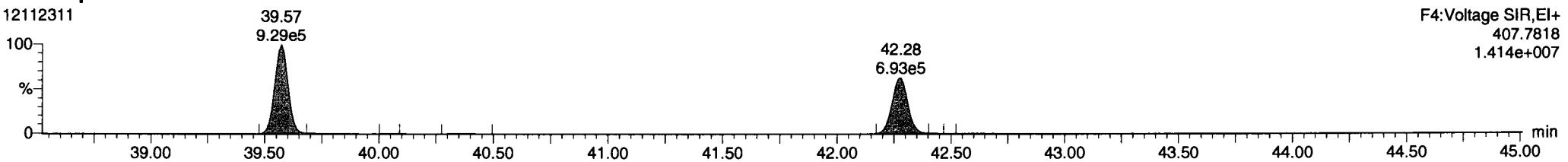
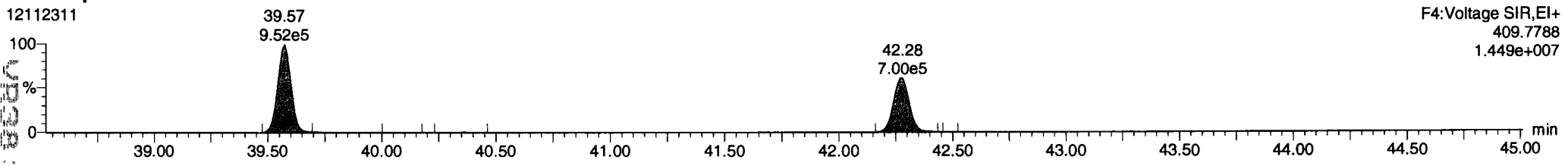


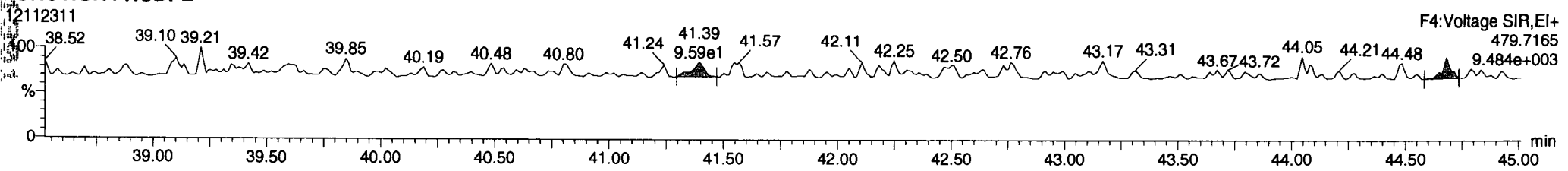
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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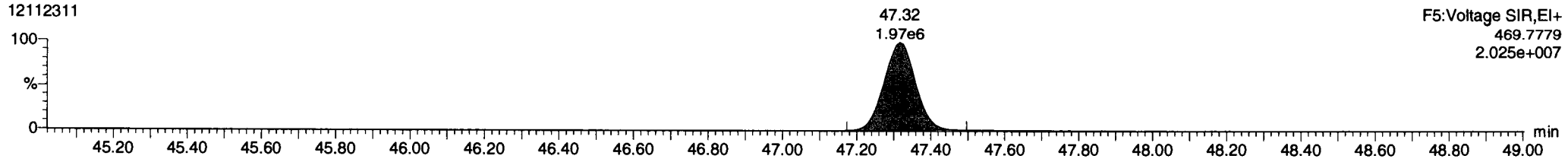

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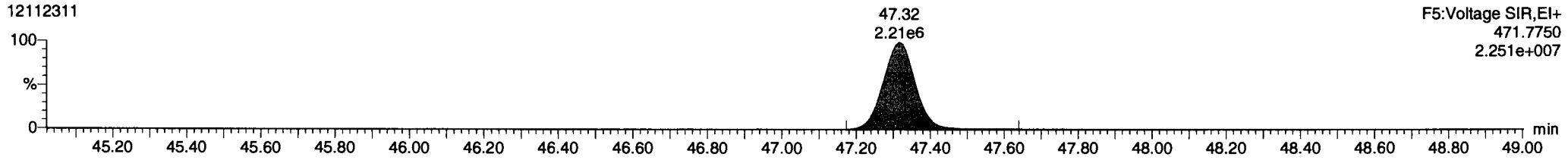

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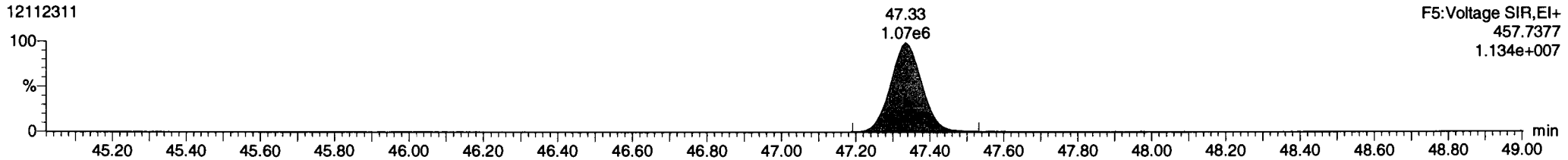

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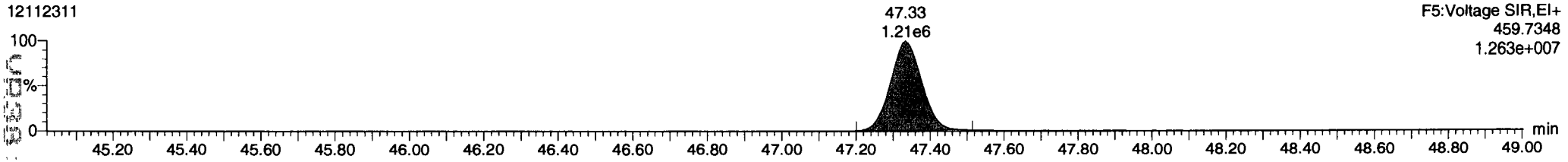
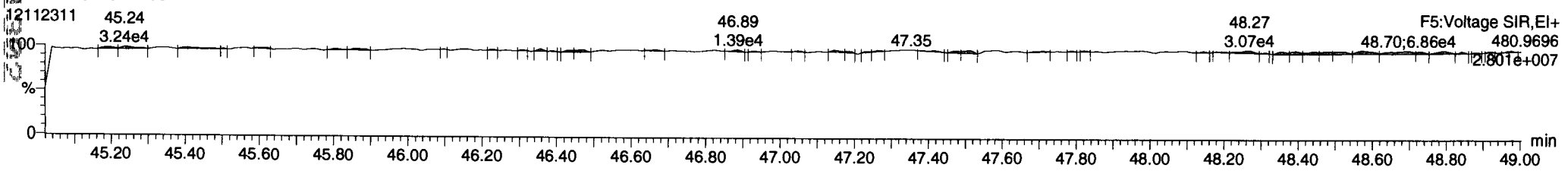


FUNCTION5 PFK



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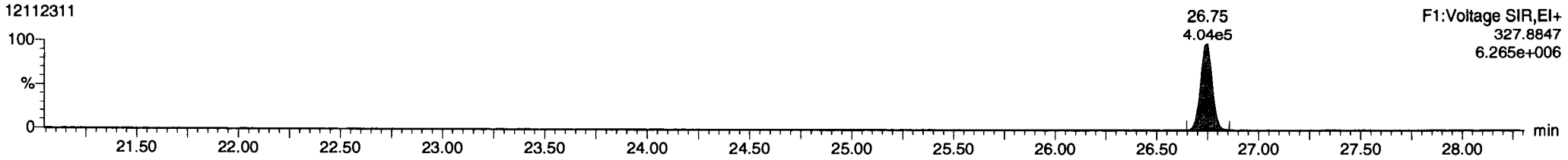

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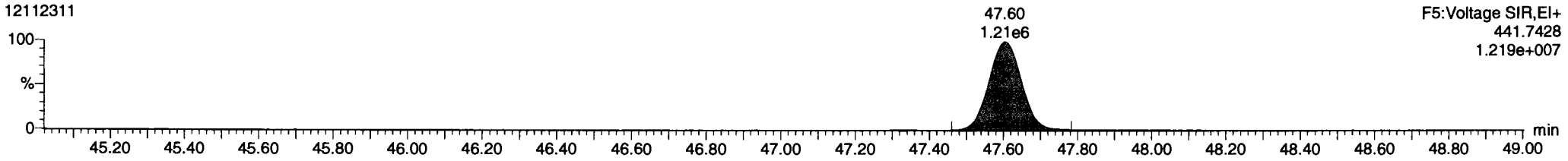

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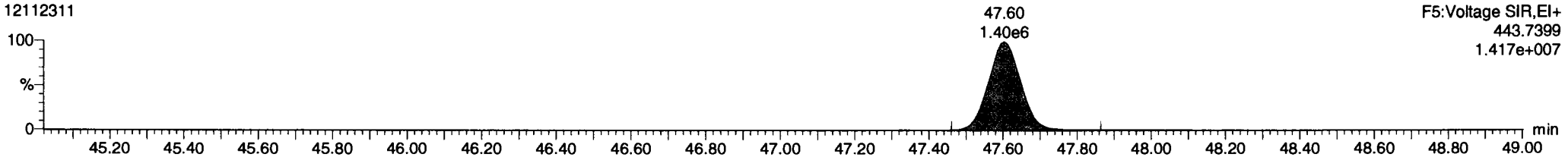
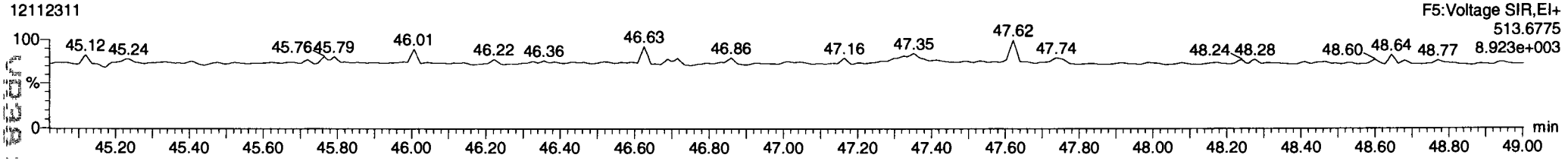


FUNCTION5 DCDPE



Dioxin Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: VR38

Analytical Chemists and Consultants

HR-GC/MS Analyst Notes / Corrective Action Log

ARI Project ID: 11238 Client ID: Archer

ARI SOP: **806S** (Dioxins)

Parameter(s): 1613

Instrument: **AutoSpec01**

Curve Date: 11/23/12 Analysis Start Date: 11/27/12

Internal Standard Meets Criteria?	(YES) / NO	Method Blank in Control?	(YES) / NO
Extraction Std Recovery in Control?	(YES) / NO	IPR / OPR Recovery in Control?	(YES) / NO
Cal acceptable?	(YES) / NO	CCal acceptable?	(YES) / NO
Manual Integrations for ICal?	(YES) / NO	Manual Integrations for Samples?	(Yes) / NO
Special Analysis Criteria Met?	YES / NO / (NA)		

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

OK.

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 12/3/12

Reviewer: MW **Date:** 12/4

Analytical Resources Inc.: Organics Instrument Log

AutoSpec01 Serial No.:GC=CN10921030, MS=P764

Date: 11/27/12 Analysis: Dioxins Analyst: JL

GC Program: 8290C Column No: 1081305 Column Type: RTX Dioxin2

Inj Vol: 1ul Instrument Tune (IPR): 101282908 Detector Voltage: 350

Resolution Check Files: 11:21, 20:25, 04:28 Curve Date: 11/23/12

IS/SS	Ical/Ccal	LCS/ICV
I7908	I7214	
	1997-2	

								Comments
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2	27-Nov-12	12:13:33	12112703	ISC01	25.9			
3	27-Nov-12	13:09:30	12112704	VR38MBS	25.9	25.9	3566717	
4	27-Nov-12	13:59:42	12112705	VR38OPR	25.9	25.9	3609749	
5	27-Nov-12	15:05:38	12112706	VR38SRM	25.9	25.9	4622528	
6	27-Nov-12	15:55:57	12112707	VR38A	25.9	25.9	4396099	
7	27-Nov-12	16:48:11	12112708	VR38B	25.9	25.9	4857906	
8	27-Nov-12	17:40:31	12112709	VR38C	25.9	25.9	4333679	
9	27-Nov-12	18:32:46	12112710	VR38D	25.9	25.9	4650260	
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11	27-Nov-12	20:25:33	12112712	VR38E	25.9	25.9	4165267	
12	27-Nov-12	21:21:01	12112713	VR38F	25.9	25.9	4270914	
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14	27-Nov-12	23:05:35	12112715	VR38H	25.9	25.9	3461179	
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16	28-Nov-12	00:50:37	12112717	VR38J	25.9	25.9	4283578	
17	28-Nov-12	01:42:50	12112718	VR38K	25.9	25.9	4091594	
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19	28-Nov-12	03:27:25	12112720	CS3	25.9	25.9	4510149	
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21	28-Nov-12	05:23:25	12112722	2041-1	25.9	25.9	3823453	
22	28-Nov-12	06:15:41	12112723	ACIS SI	25.9	25.9	3653859	
23	28-Nov-12	07:08:01	12112724	0 SI	25.9	25.9	3573131	

JL 11/29/12

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 StarLIMS

Printed: Tuesday, November 27, 2012 11:21:25 Pacific Standard Time

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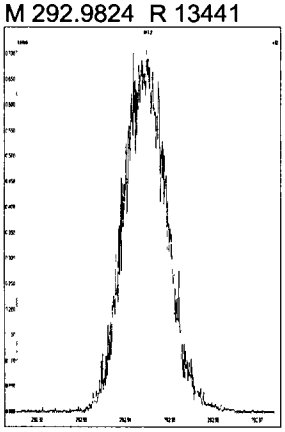

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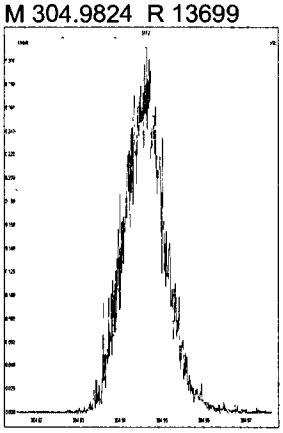

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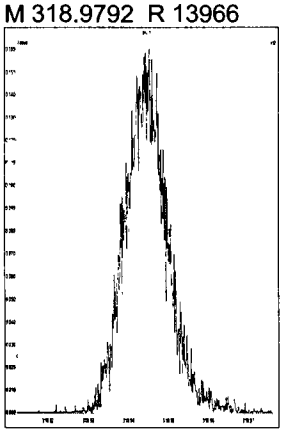

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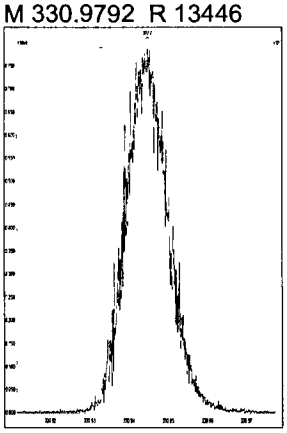

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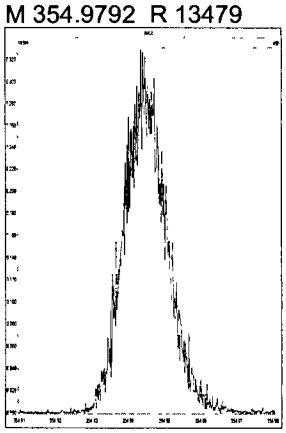

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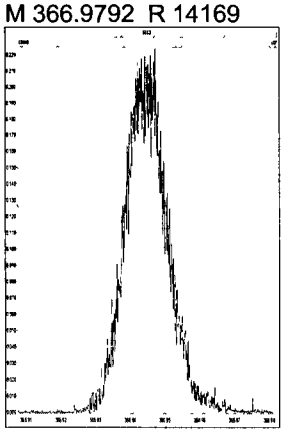

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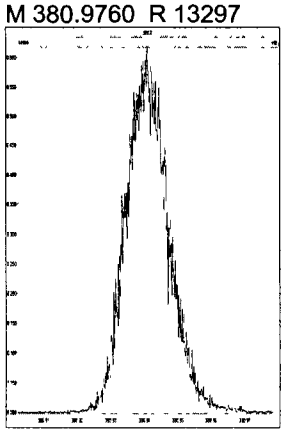

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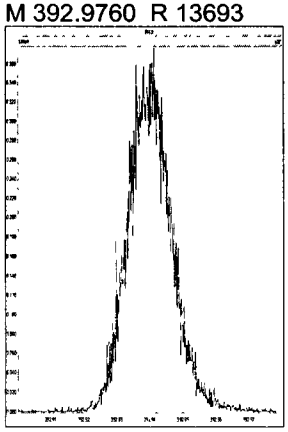

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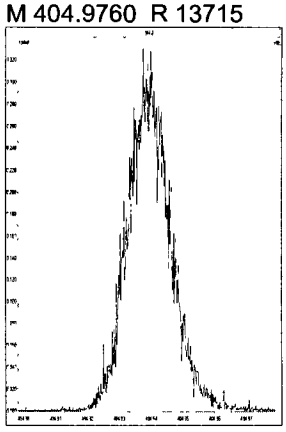

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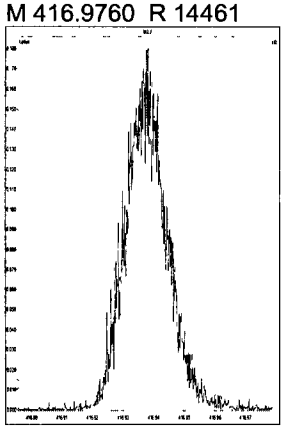

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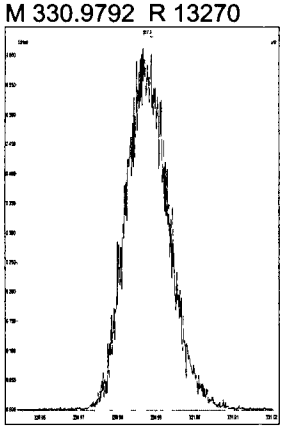

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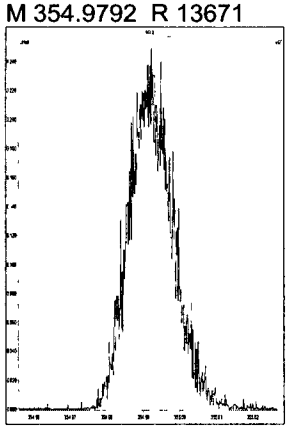

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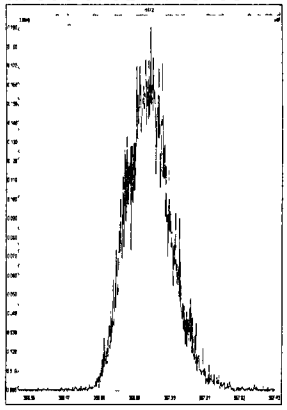

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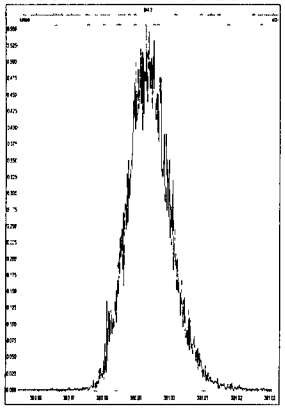

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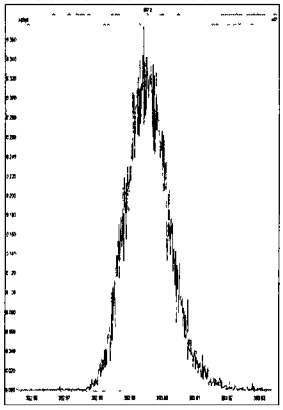

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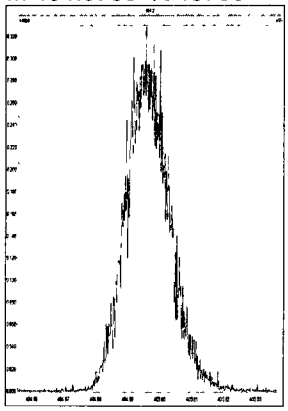

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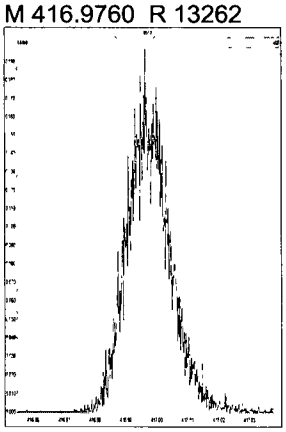

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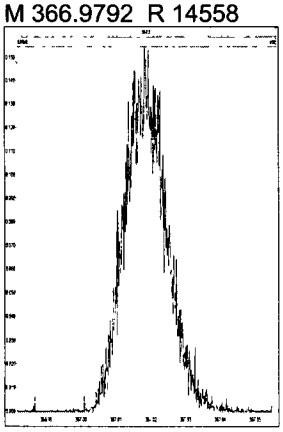

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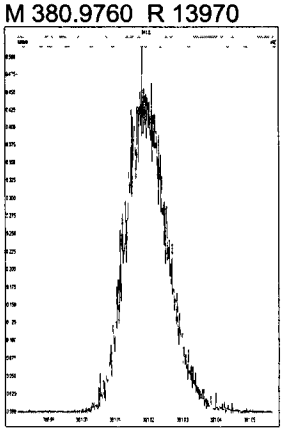

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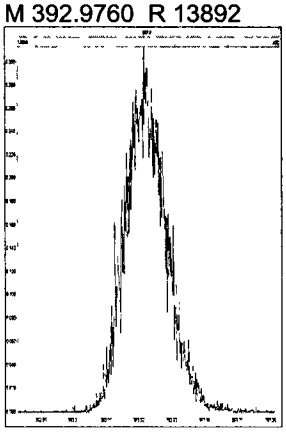

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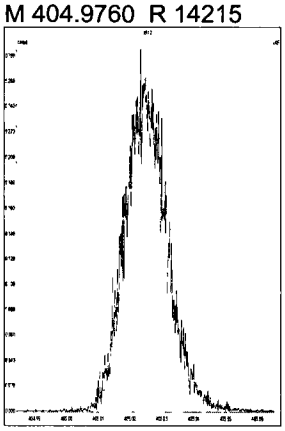

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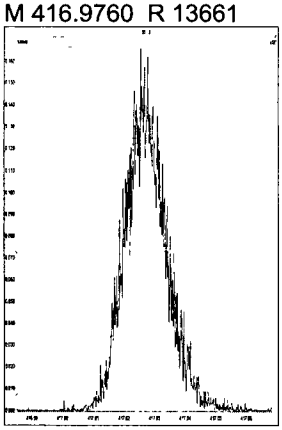

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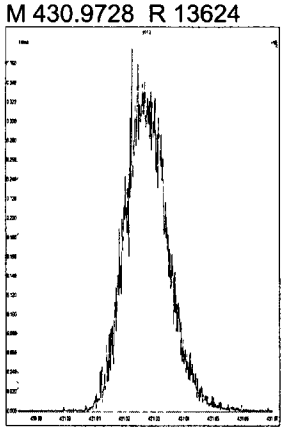

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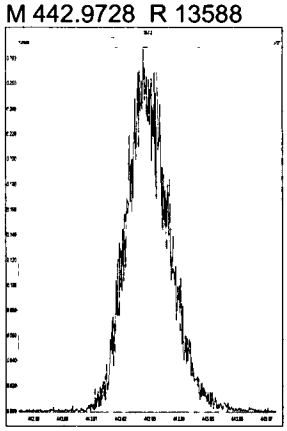

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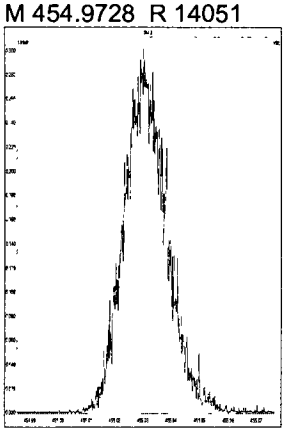

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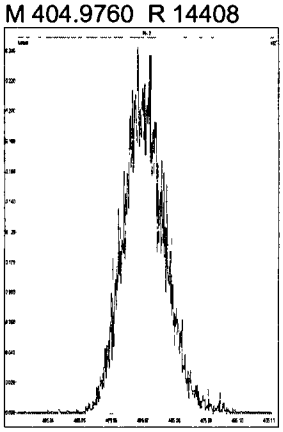

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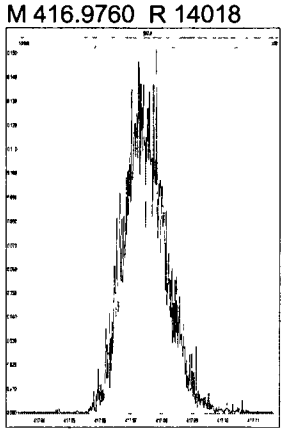

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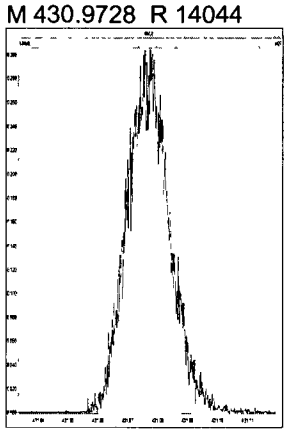

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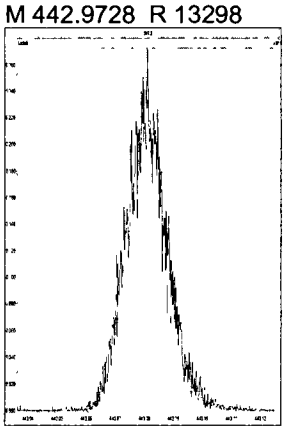

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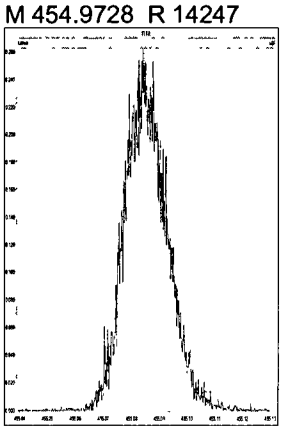
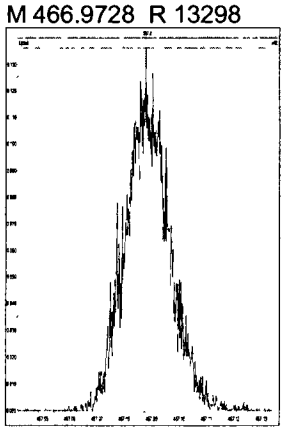
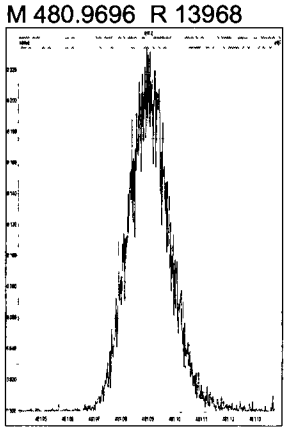


M 466.9728 R 13298

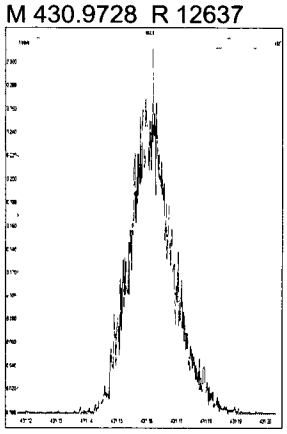


M 480.9696 R 13968

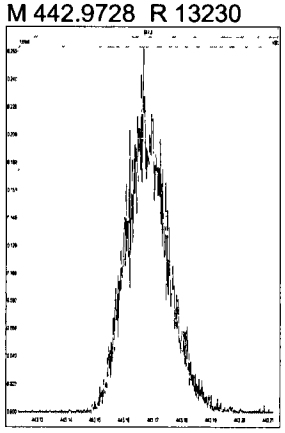


Printed: Tuesday, November 27, 2012 11:21:25 Pacific Standard Time

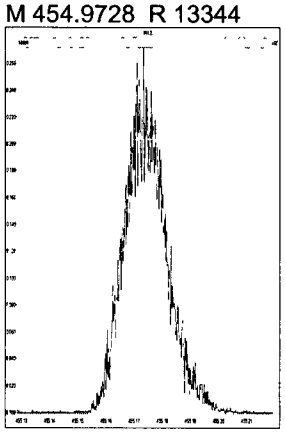
M 430.9728 R 12637



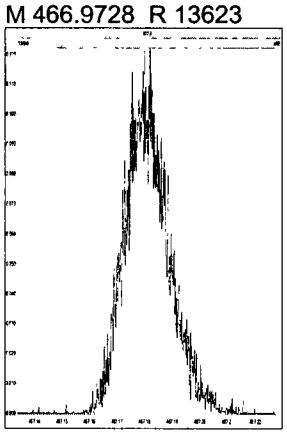
M 442.9728 R 13230



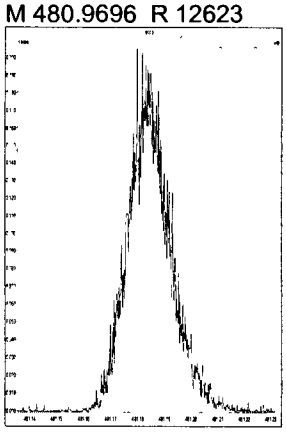
M 454.9728 R 13344



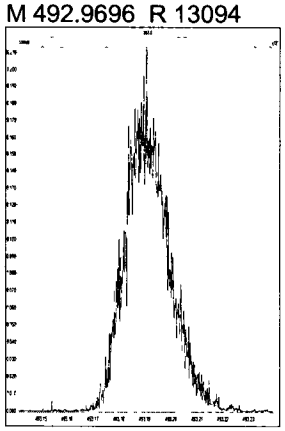
M 466.9728 R 13623



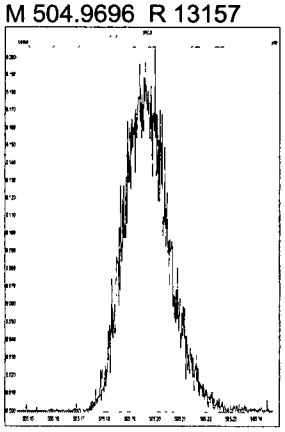
M 480.9696 R 12623



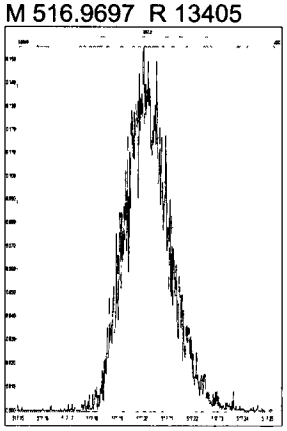
M 492.9696 R 13094

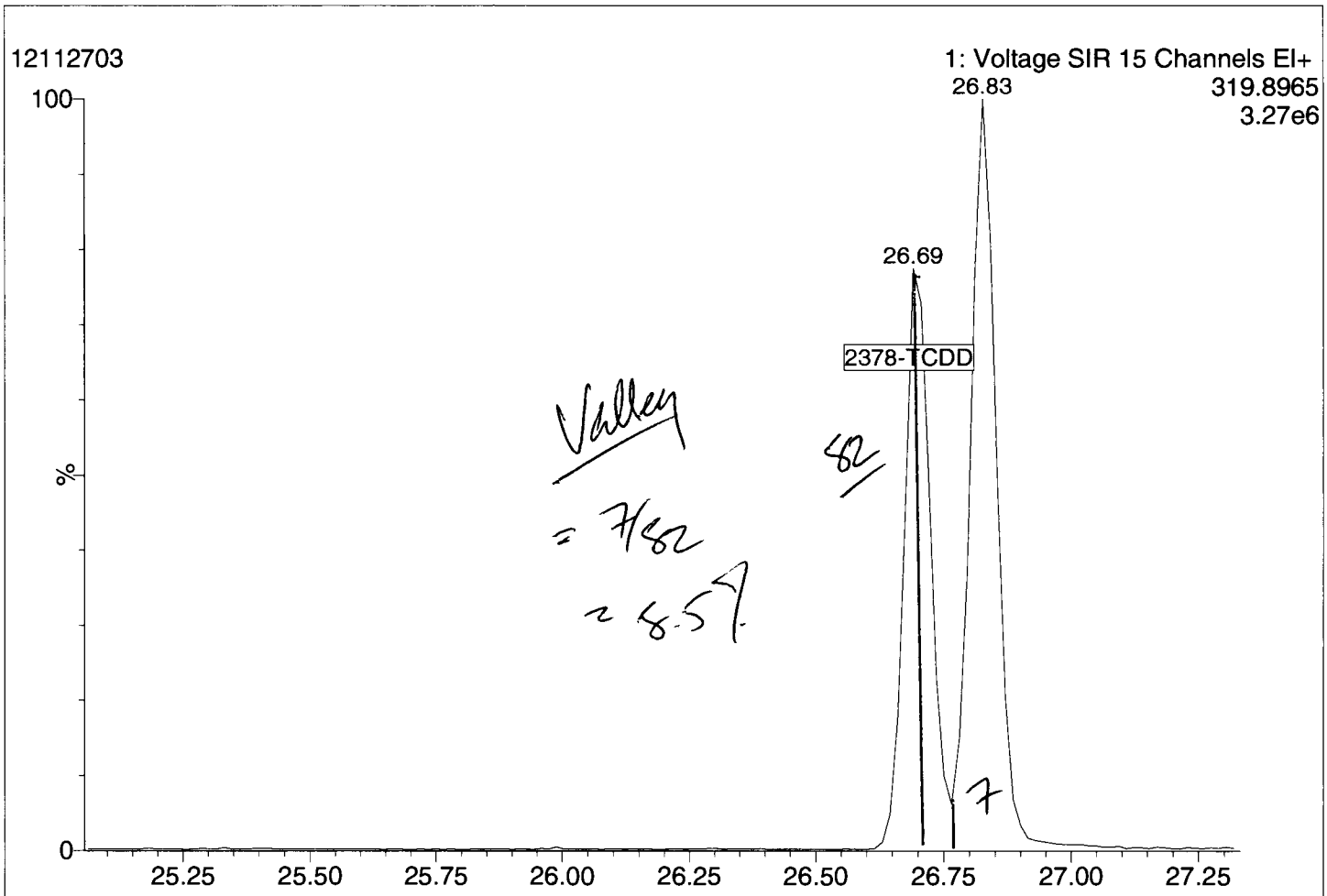


M 504.9696 R 13157



M 516.9697 R 13405





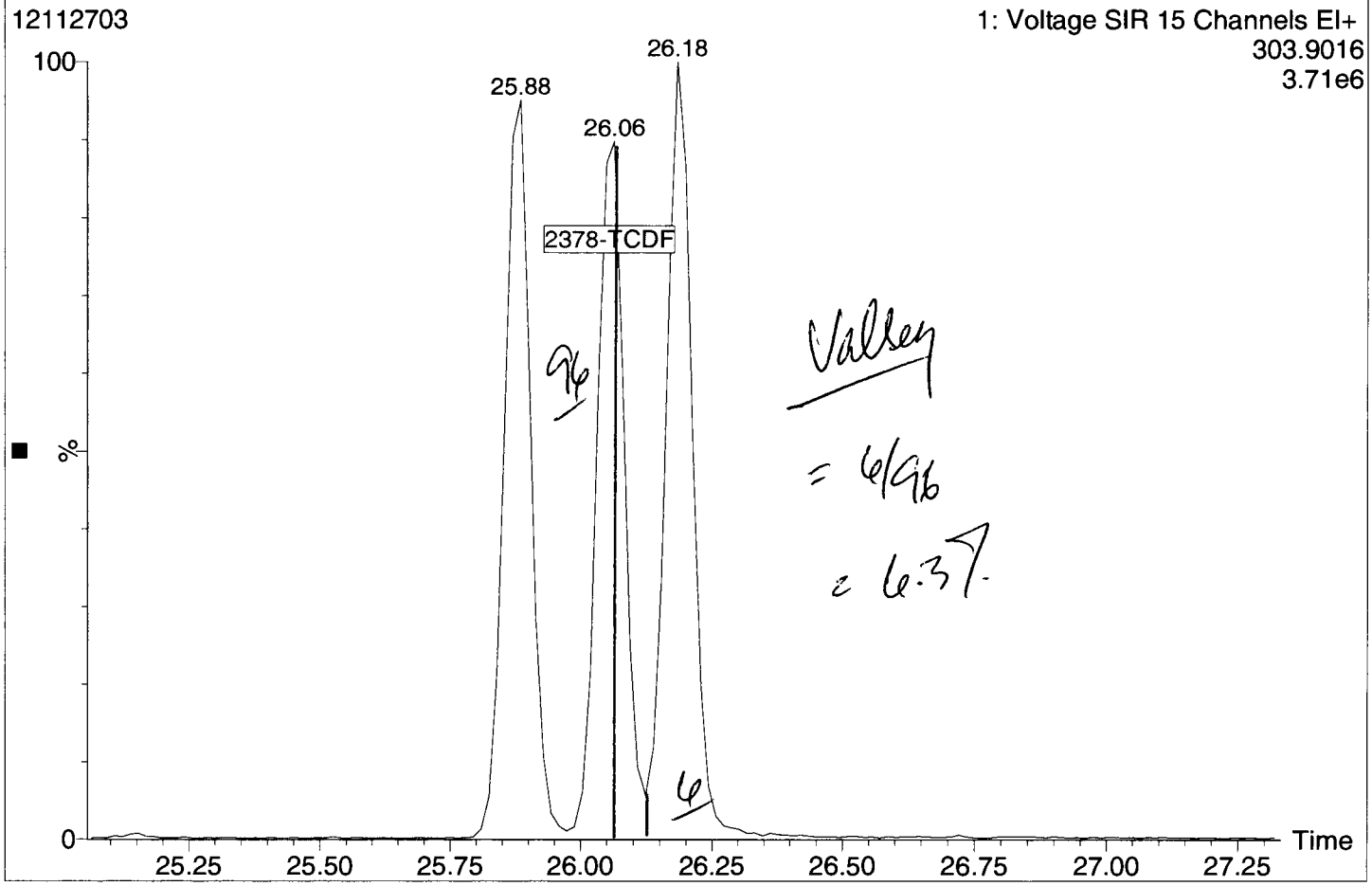
Valley

= 7/82

≈ 8.5%

82

7



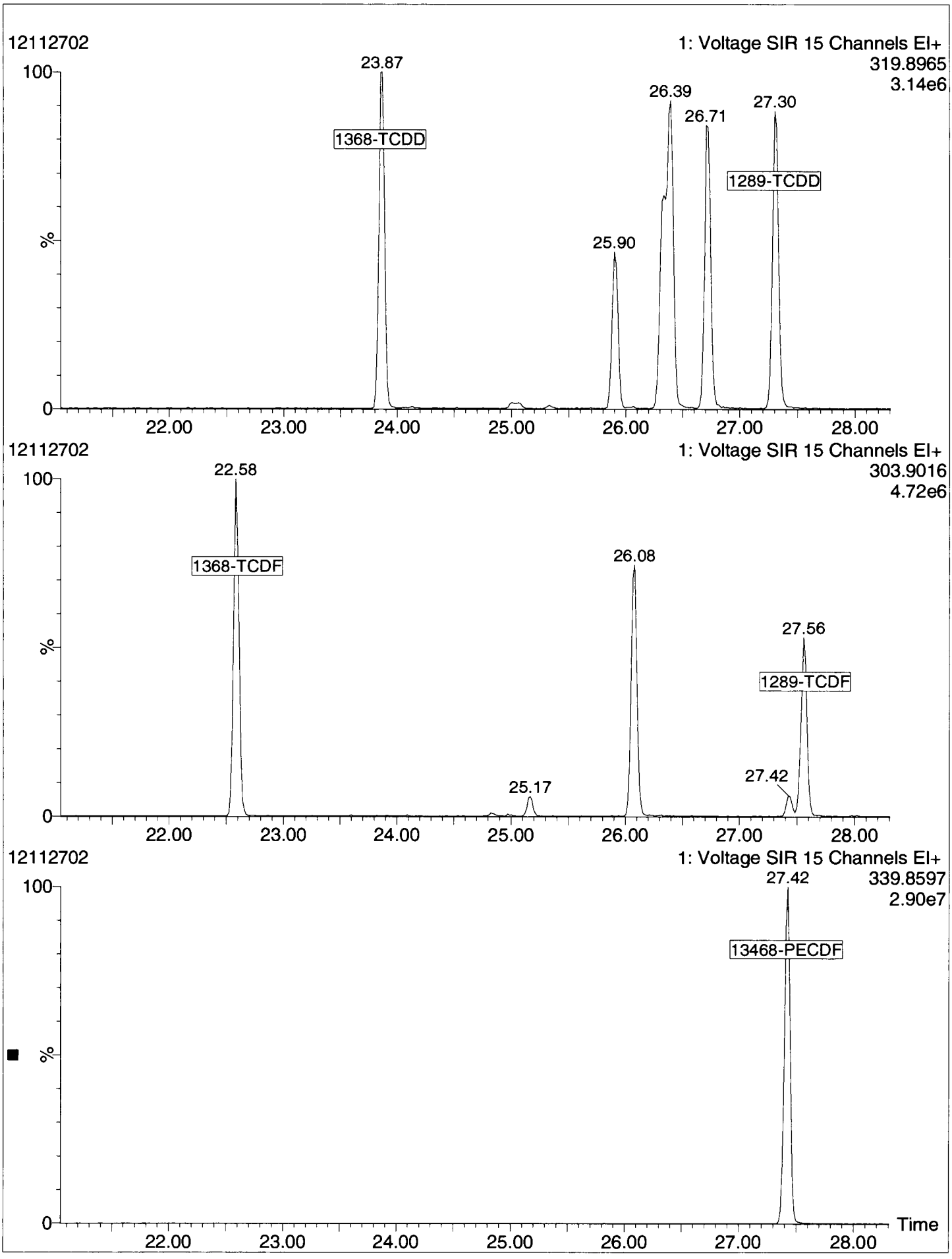
96

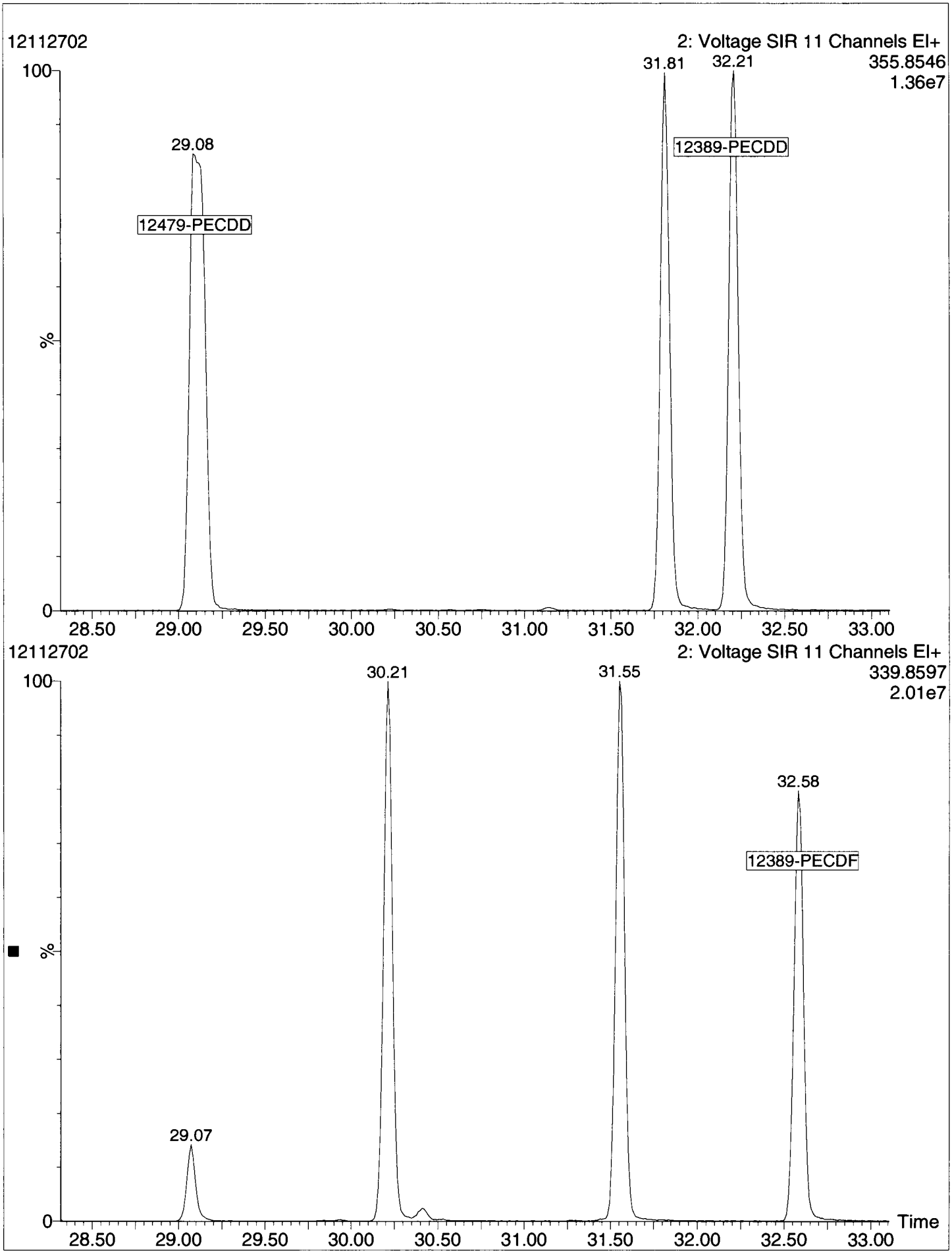
Valley

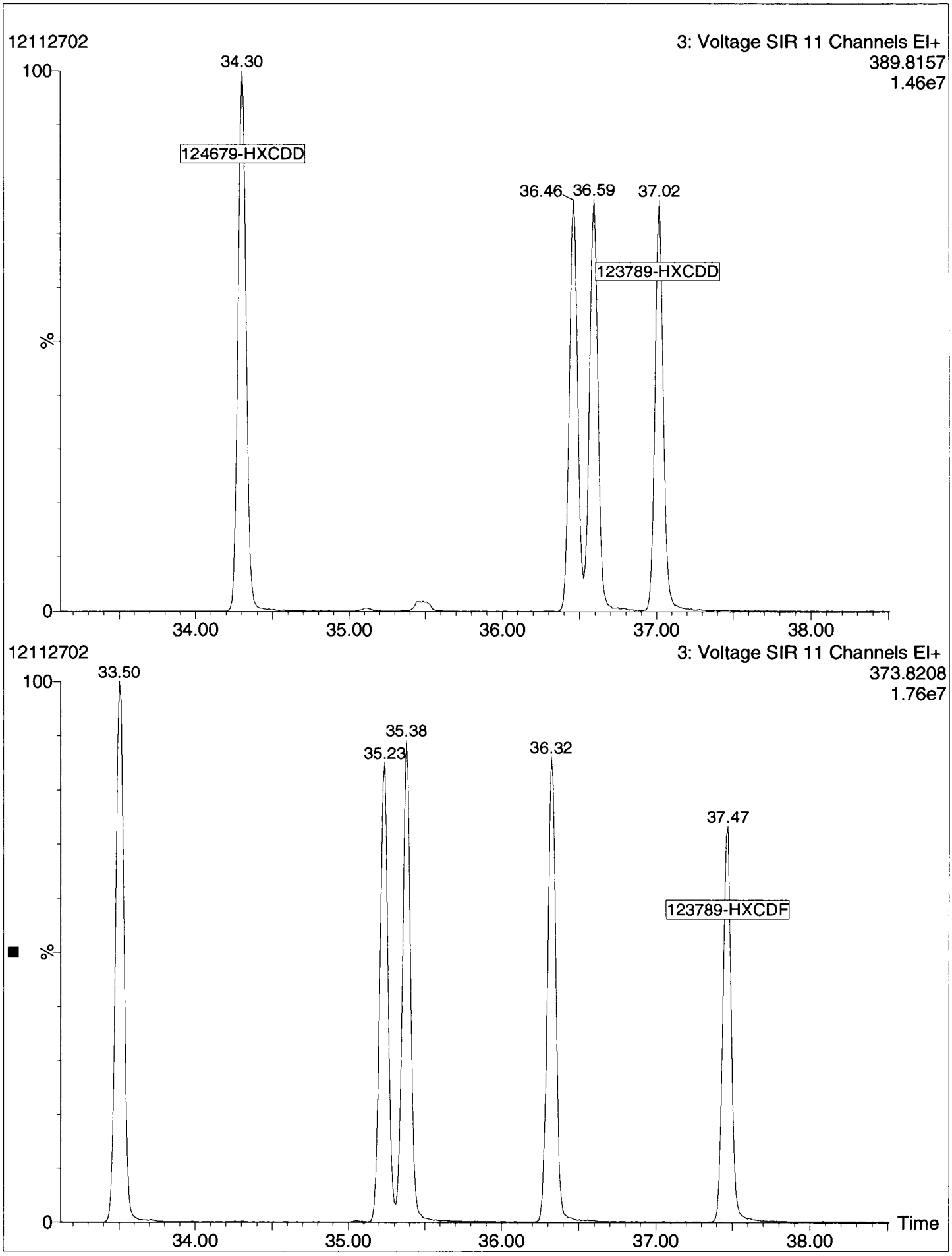
= 6/96

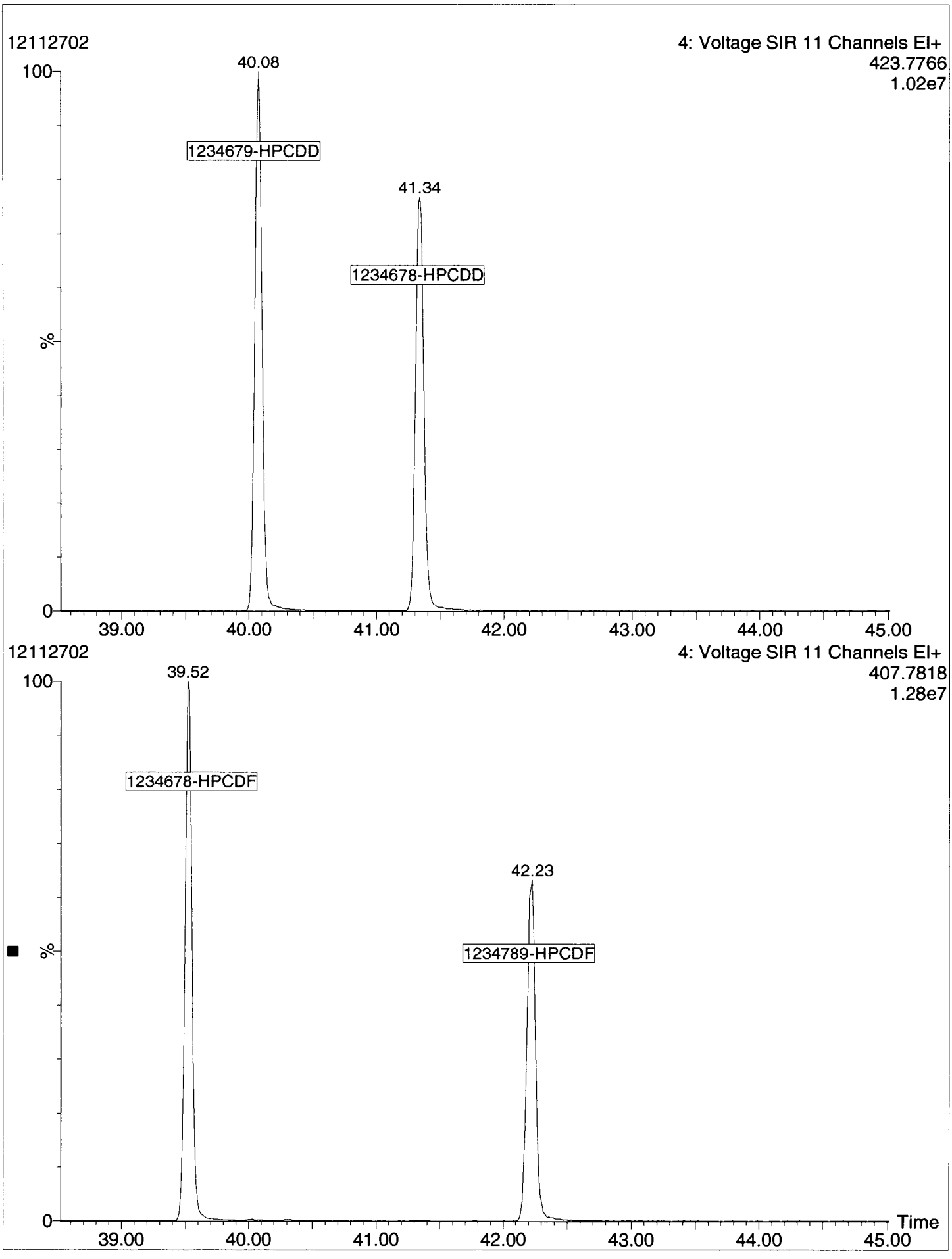
≈ 6.3%

6


12112702
1: Voltage SIR 15 Channels EI+
319.8965
3.14e6
100
%
0
23.87
1368-TCDD
26.39
26.71
27.30
1289-TCDD
25.90
22.00
23.00
24.00
25.00
26.00
27.00
28.00
12112702
1: Voltage SIR 15 Channels EI+
303.9016
4.72e6
100
%
0
22.58
1368-TCDF
26.08
27.56
1289-TCDF
25.17
27.42
22.00
23.00
24.00
25.00
26.00
27.00
28.00
12112702
1: Voltage SIR 15 Channels EI+
339.8597
2.90e7
100
%
0
27.42
13468-PECDF
Time
22.00
23.00
24.00
25.00
26.00
27.00
28.00


12112702
2: Voltage SIR 11 Channels EI+
355.8546
1.36e7
100
%
0
29.08
12479-PECDD
31.81
32.21
12389-PECDD
28.50
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
33.00
12112702
2: Voltage SIR 11 Channels EI+
339.8597
2.01e7
100
%
0
29.07
30.21
31.55
32.58
12389-PECDF
Time
28.50
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
33.00


12112702
3: Voltage SIR 11 Channels EI+
389.8157
1.46e7
100
34.30
124679-HXCDD
36.46
36.59
37.02
123789-HXCDD
%
0
34.00
35.00
36.00
37.00
38.00
12112702
3: Voltage SIR 11 Channels EI+
373.8208
1.76e7
100
33.50
35.38
35.23
36.32
37.47
123789-HXCDF
%
0
Time
34.00
35.00
36.00
37.00
38.00


12112702
4: Voltage SIR 11 Channels EI+
423.7766
1.02e7
40.08
1234679-HPCDD
41.34
1234678-HPCDD
100
%
0
39.00
40.00
41.00
42.00
43.00
44.00
45.00
12112702
4: Voltage SIR 11 Channels EI+
407.7818
1.28e7
39.52
1234678-HPCDF
42.23
1234789-HPCDF
100
%
0
Time
39.00
40.00
41.00
42.00
43.00
44.00
45.00

Dataset: P:\DIOXIN8290.PRO\121127OPEN.qld
Last Altered: Tuesday, November 27, 2012 12:21:06 Pacific Standard Time
Printed: Friday, November 30, 2012 15:16:04 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112702, Date: 27-Nov-2012, Time: 11:23:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

	Name	RT			Ion1 Area	Ion2 Area	Total Area								
1	2378-TCDF	26.078	1.001		205665	286154	491818	bb	0.877	0.719	0.770	NO	2008.0	9.882	9.882
2	12378-PeCDF	30.212	1.000		1176638	788588	1965226	bb	0.896	1.492	1.550	NO	6653.0	50.391	50.391
3	23478-PeCDF	31.549	1.000		1172393	785519	1957911	bb	0.926	1.492	1.550	NO	6584.6	49.692	49.692
4	123478-HxCDF	35.232	1.001		919462	774457	1693919	bd	1.068	1.187	1.240	NO	3415.1	50.367	50.367
5	234678-HxCDF	36.318	1.000		928798	781326	1710124	bb	1.037	1.189	1.240	NO	3451.9	50.630	50.630
6	123678-HxCDF	35.375	1.000		946575	807599	1754174	db	1.035	1.172	1.240	NO	3542.2	50.151	50.151
7	123789-HxCDF	37.469	1.001		790804	659015	1449819	bb	0.987	1.200	1.240	NO	2920.9	50.221	50.221
8	1234678-HpCDF	39.519	1.000		799830	823968	1623798	bd	1.232	0.971	1.050	NO	4344.3	48.505	48.505
9	1234789-HpCDF	42.215	1.000		630865	647313	1278178	bd	1.215	0.975	1.050	NO	2831.5	50.205	50.205
10	OCDF	47.514	1.006		1022136	1175874	2198009	bd	1.138	0.869	0.890	NO	4669.1	101.552	101.552
11	2378-TCDD	26.721	1.001		159039	203571	362609	bb	1.049	0.781	0.770	NO	1249.6	9.576	9.576
12	12378-PeCDD	31.812	1.001		815616	518902	1334518	bb	0.998	1.572	1.550	NO	3934.0	49.625	49.625
13	123478-HxCDD	36.460	1.001		692415	563075	1255490	bd	0.971	1.230	1.240	NO	3755.5	50.982	50.982
14	123678-HxCDD	36.592	1.001		692947	558804	1251751	dd	0.918	1.240	1.240	NO	3716.8	50.142	50.142
15	123789-HxCDD	37.019	1.012		684067	553542	1237608	bb	0.932	1.236	1.240	NO	3664.9	50.512	50.512
16	1234678-HpCDD	41.338	1.000		582149	546004	1128153	bb	1.017	1.066	1.050	NO	2713.1	50.146	50.146
17	OCDD	47.245	1.000		879519	1011742	1891261	bd	1.008	0.869	0.890	NO	3641.1	98.576	98.576
18	13C-2378-TCDF	26.063	1.007		2490474	3186974	5677448	bb	1.473	0.781	0.770	NO	9608.6		101.413
19	13C-12378-PeCDF	30.201	1.167		2653482	1698237	4351719	bb	1.148	1.563	1.550	NO	9634.2		99.722
20	13C-23478-PeCDF	31.538	1.218		2595617	1658690	4254307	bb	1.113	1.565	1.550	NO	9799.0		100.568
21	13C-123478-HxCDF	35.211	0.952		1070573	2077889	3148462	bd	1.209	0.515	0.510	NO	4038.3		99.347
22	13C-123678-HxCDF	35.364	0.956		1159764	2221130	3380894	db	1.269	0.522	0.510	NO	4279.6		101.666
23	13C-234678-HxCDF	36.307	0.981		1127120	2130871	3257992	bb	1.236	0.529	0.510	NO	4222.6		100.573
24	13C-123789-HxCDF	37.447	1.012		1001413	1924575	2925988	bb	1.107	0.520	0.510	NO	3805.8		100.860
25	13C-1234678-HpCDF	39.507	1.068		831852	1885646	2717498	bb	1.051	0.441	0.440	NO	5614.8		98.627
26	13C-1234789-HpCDF	42.204	1.141		660341	1434994	2095335	bb	0.815	0.460	0.440	NO	3732.1		98.115
27	13C-1234-TCDD	25.884	0.000		1670934	2130775	3801708	bb	1.000	0.784	0.770	NO	7251.4		100.000
28	13C-2378-TCDD	26.691	1.031		1578468	2030611	3609079	bb	0.946	0.777	0.770	NO	6519.9		100.381
29	13C-12378-PeCDD	31.791	1.228		1653317	1041160	2694478	bb	0.721	1.588	1.550	NO	11355.5		98.346
30	13C-123478-HxCDD	36.438	0.985		1413238	1123457	2536695	bd	0.991	1.258	1.240	NO	4186.1		97.665
31	13C-123678-HxCDD	36.570	0.988		1507982	1211075	2719057	db	1.025	1.245	1.240	NO	4432.5		101.231
32	13C-1234678-HpCDD	41.316	1.117		1128544	1083832	2212376	bb	0.866	1.041	1.050	NO	5168.2		97.441
33	13C-OCDD	47.227	1.276		1797642	2007597	3805239	bb	0.769	0.895	0.890	NO	9653.5		188.742

Dataset: P:\DIOXIN8290.PRO\121127OPEN.qld
Last Altered: Tuesday, November 27, 2012 12:21:06 Pacific Standard Time
Printed: Friday, November 30, 2012 15:16:04 Pacific Standard Time

Name: 12112702, Date: 27-Nov-2012, Time: 11:23:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

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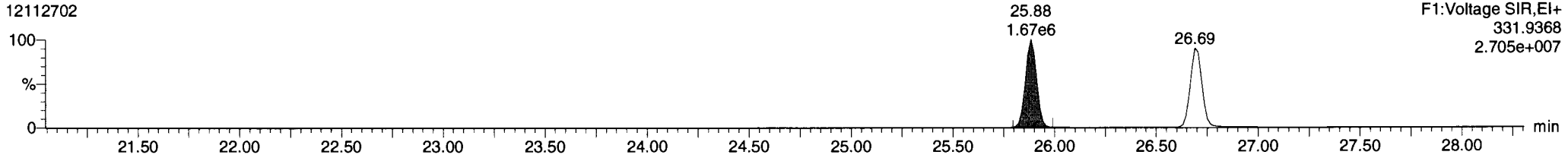
34	13C-123789-HxCDD	36.997	0.000	1451055	1170269	2621324	bb	1.000	1.240	1.240	NO	4334.1		100.000
35	Total-tetrafurans			640061				0.877					30.683	30.611
36	Total-penta1			1653928									69.144	69.139
37	Total-pentafurans			3536955				0.911					150.822	150.628
38	Total-hexafurans			4664205				1.032					261.801	261.772
39	Total-heptafurans			1430695				1.223					98.805	98.711
40	Total-Furans			12947980				1.041					712.823	712.412
41	Total-tetradioxins			893215				1.049					54.357	54.035
42	Total-pentadioxins			2856751				0.998					174.125	173.980
43	Total-hexadioxins			2985209				0.940					218.648	218.599
44	Total-heptadioxins			1241751				1.017					107.827	107.810
45	Total-Dioxins			8856445				0.985					653.533	653.000
46	Total-TEQ			21804425									1366.356	1365.412
47	37CL-2378-TCDD	26.721	1.032	393297		393297		1.044				2873.1		9.913
48	FUNCTION1 PFK			1176577										
49	FUNCTION2 PFK			413204										0.000
50	FUNCTION3 PFK			0										
51	FUNCTION4 PFK			1001984										
52	FUNCTION5 PFK			115261										
53	FUNCTION1 HXCDPE			256										0.000
54	FUNCTION1 HPCDPE			1247										0.000
55	FUNCTION2 HPCDPE			2713										0.000
56	FUNCTION3 OCDPE			168										0.000
57	FUNCTION4 NCDPE			74										0.000
58	FUNCTION5 DCDPE			0										

Dataset: P:\DIOXIN8290.PRO\121127OPEN.qld
Last Altered: Tuesday, November 27, 2012 12:21:06 Pacific Standard Time
Printed: Friday, November 30, 2012 15:16:04 Pacific Standard Time

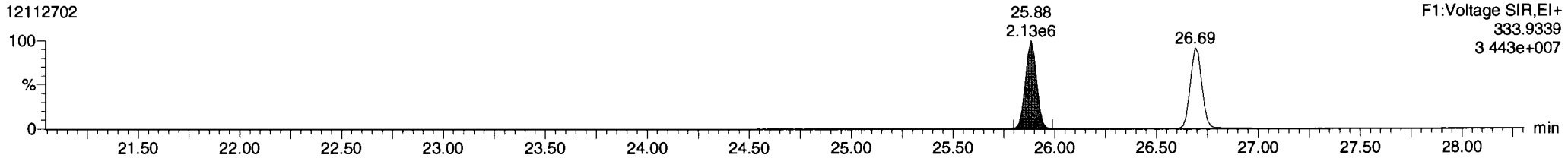
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112702, Date: 27-Nov-2012, Time: 11:23:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

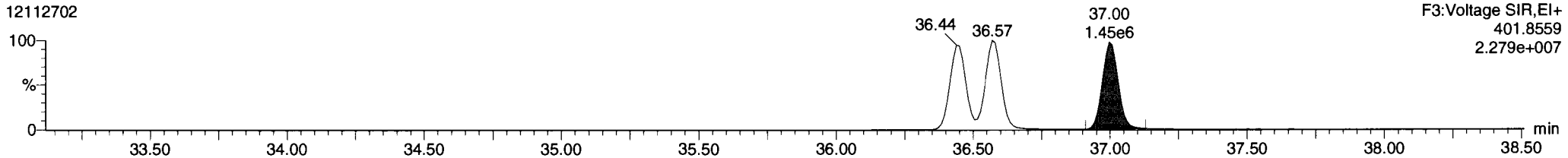
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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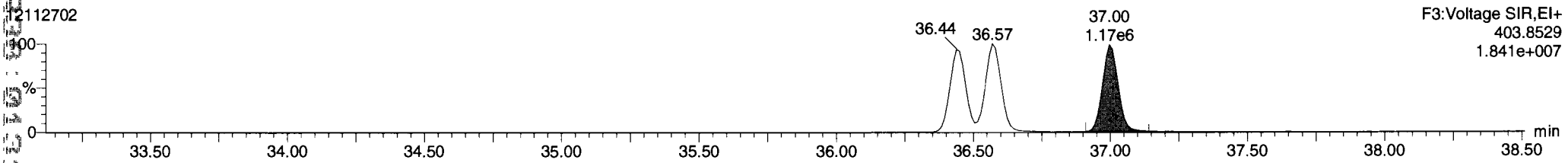

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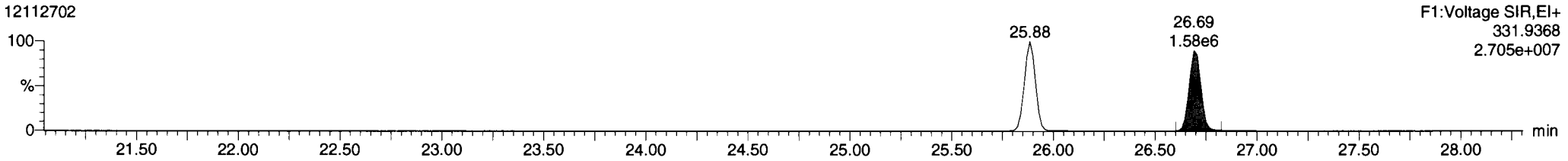
Last Altered: Tuesday, November 27, 2012 12:21:06 Pacific Standard Time
Printed: Friday, November 30, 2012 15:16:04 Pacific Standard Time

Name: 12112702, Date: 27-Nov-2012, Time: 11:23:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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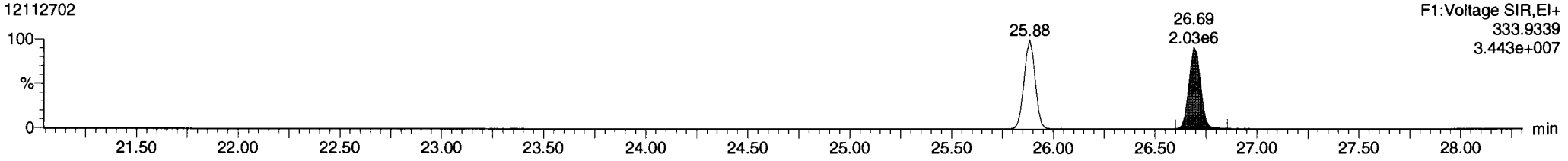
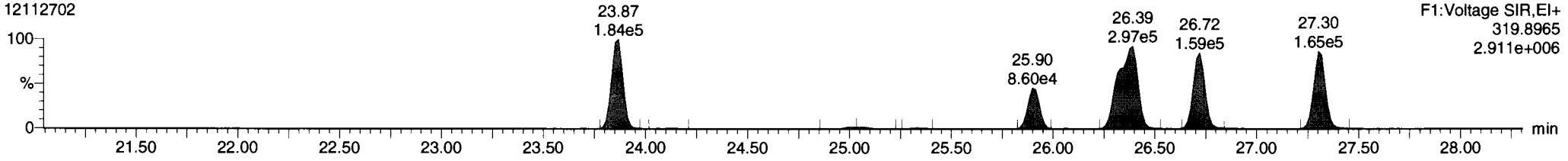
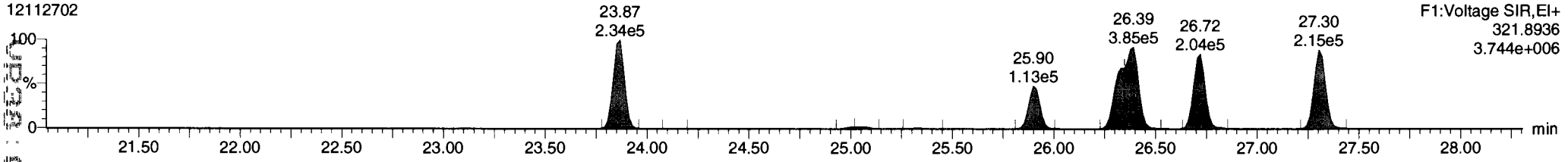


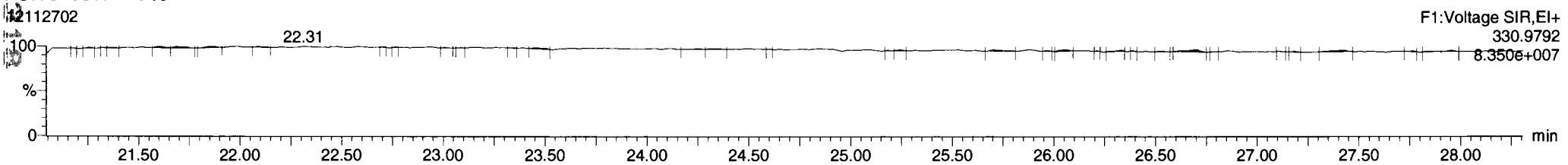
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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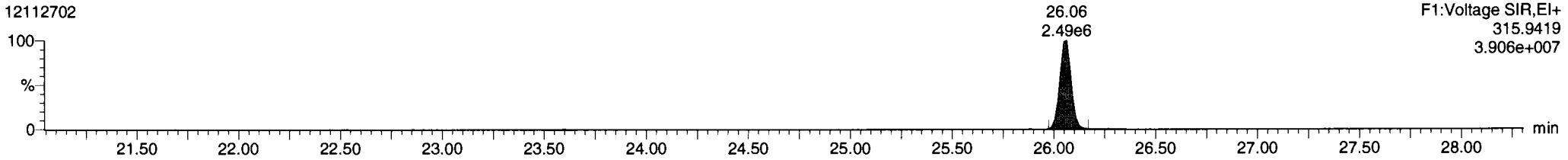
13C-2378-TCDF



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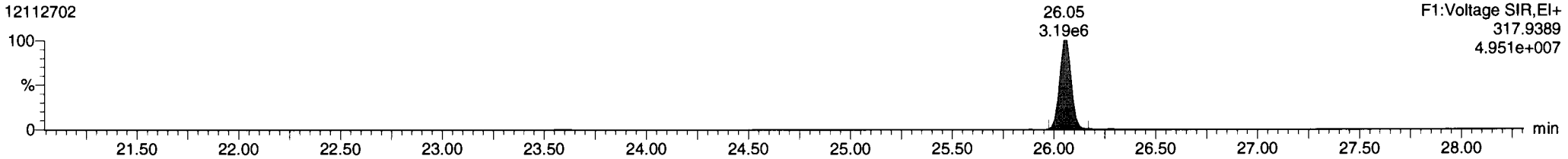
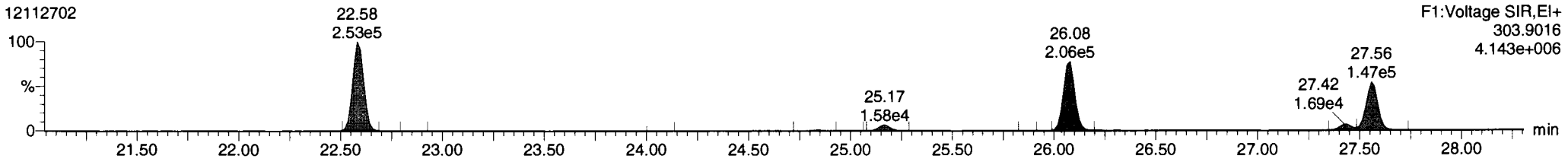
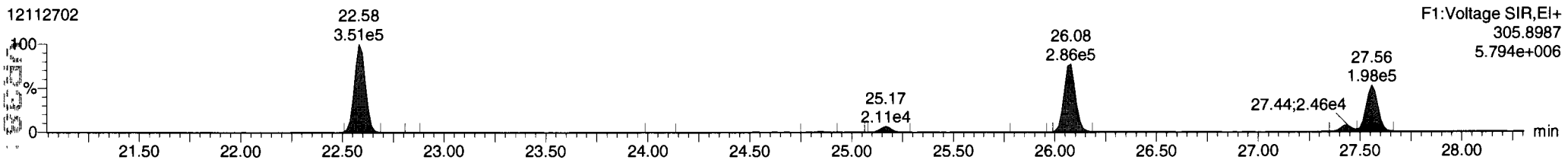


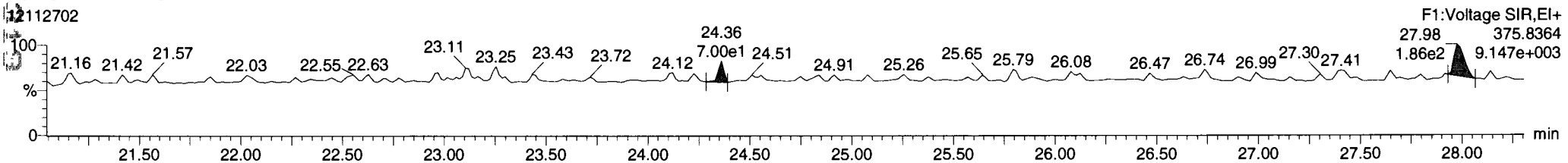
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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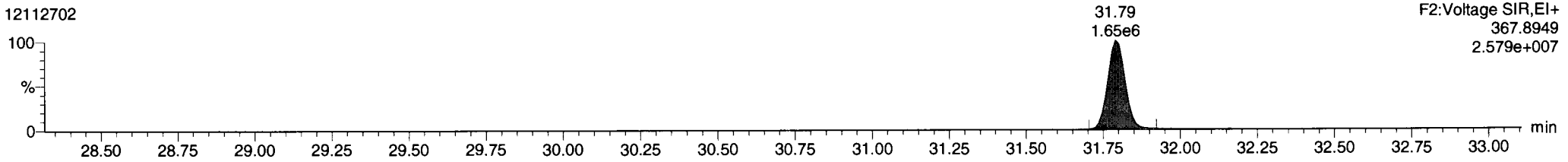
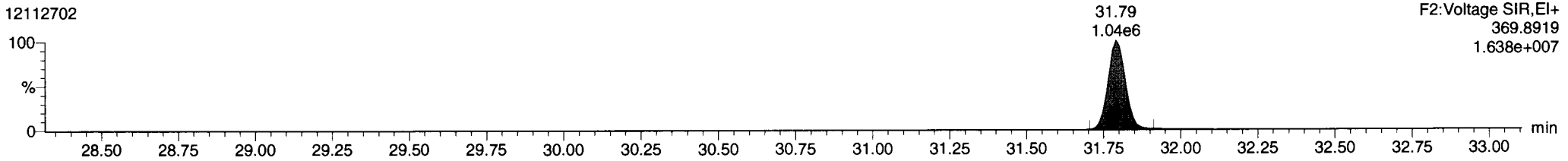
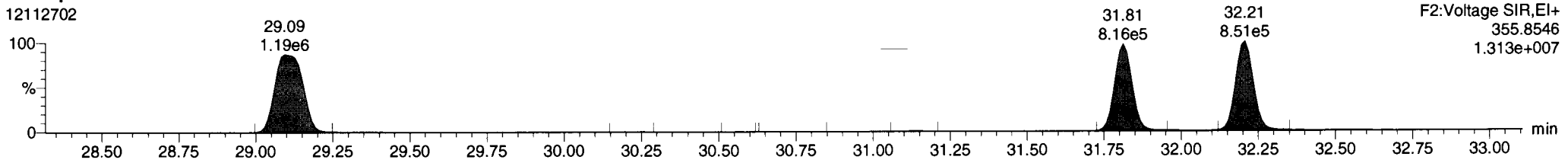
13C-12378-PeCDD



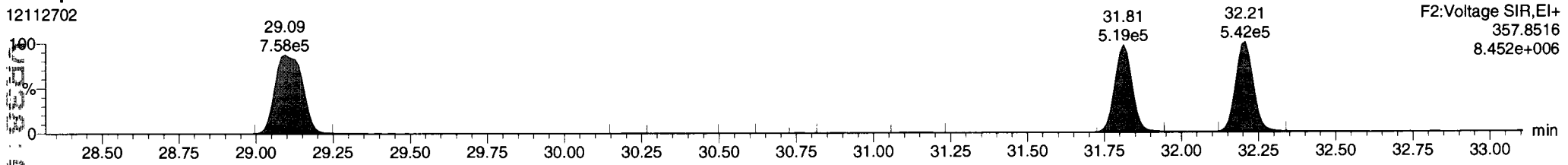
13C-12378-PeCDD



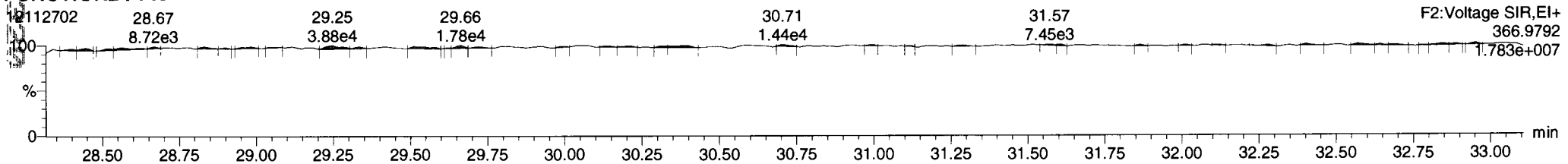
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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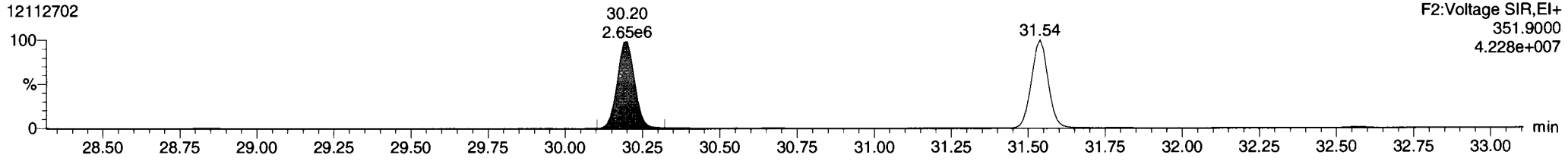
13C-12378-PeCDF



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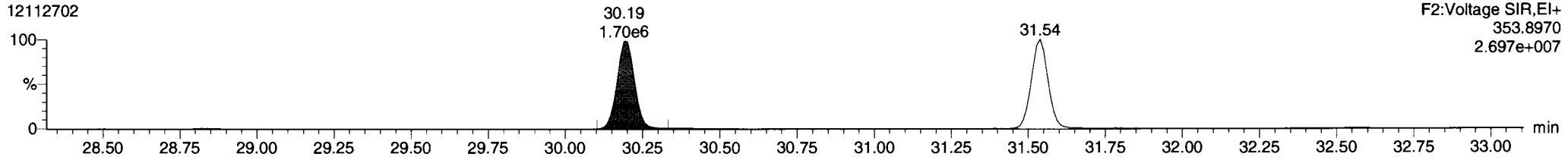
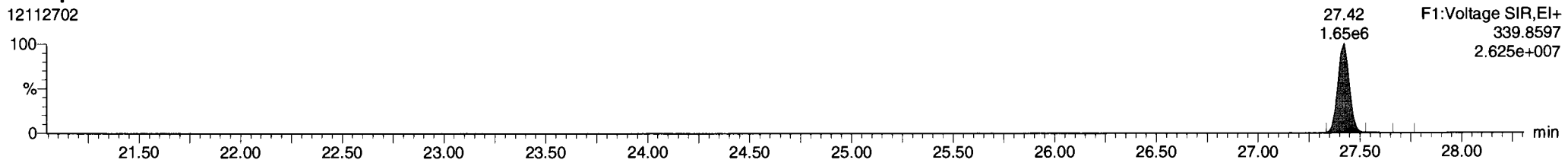
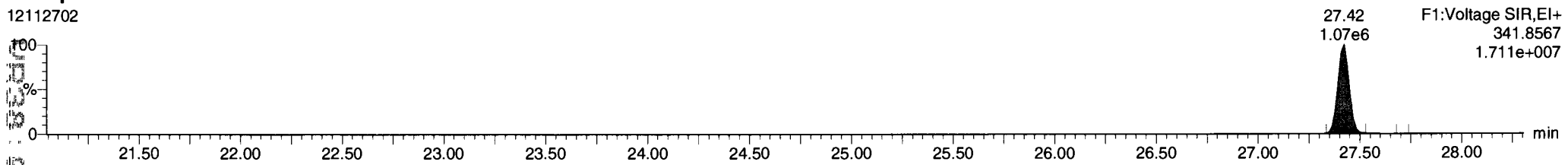


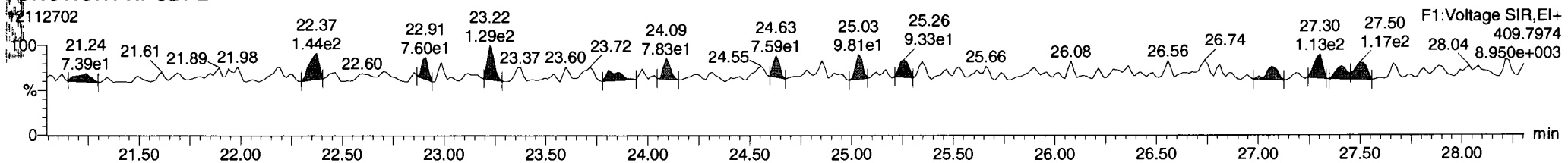
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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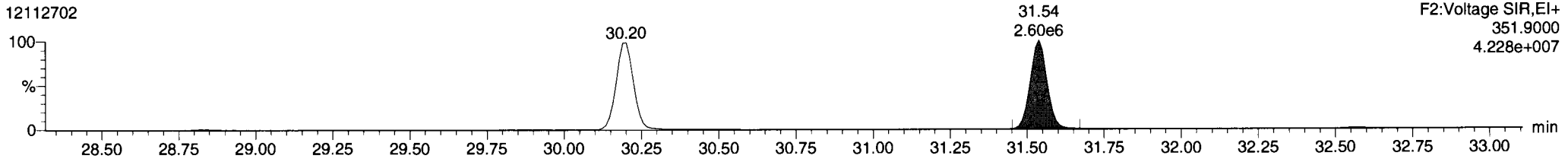
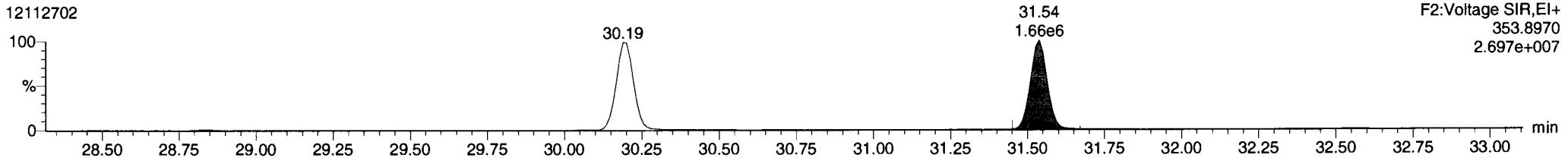
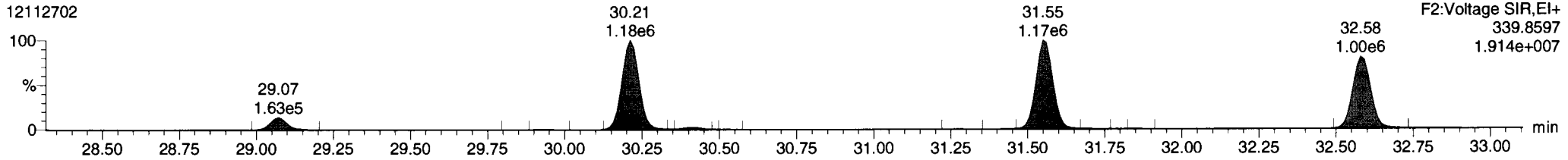
13C-23478-PeCDF



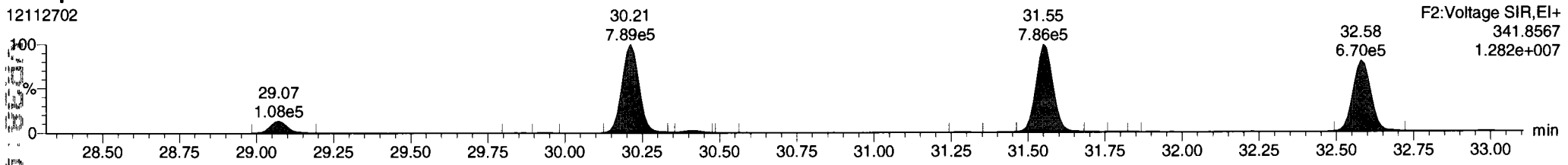
13C-23478-PeCDF



Total-pentafurans



Total-pentafurans



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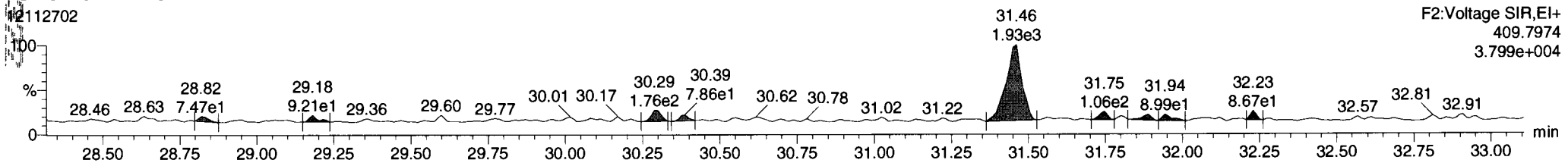

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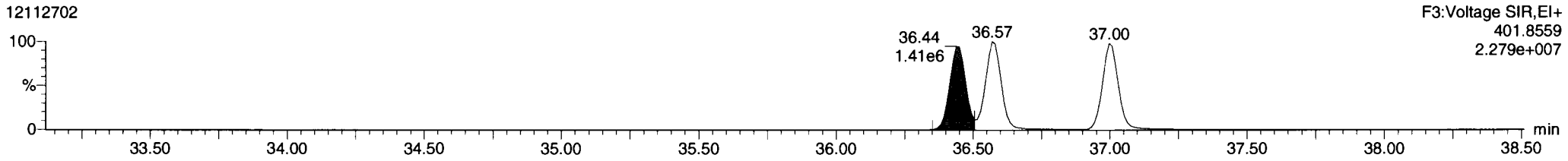
13C-123478-HxCDD



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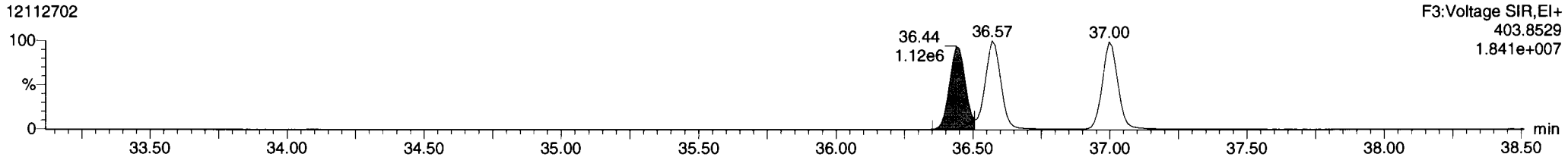
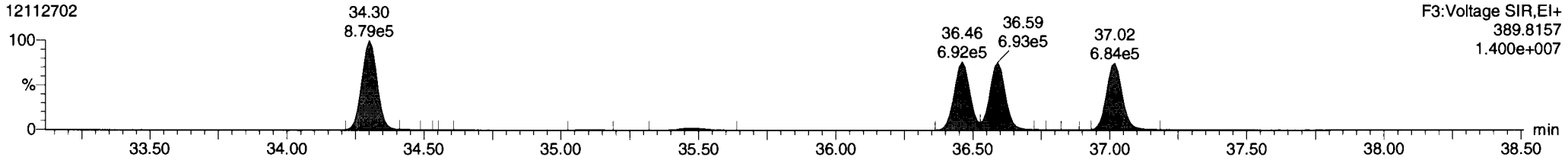
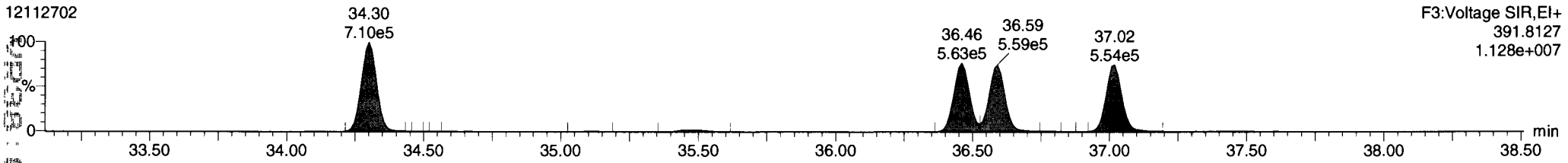


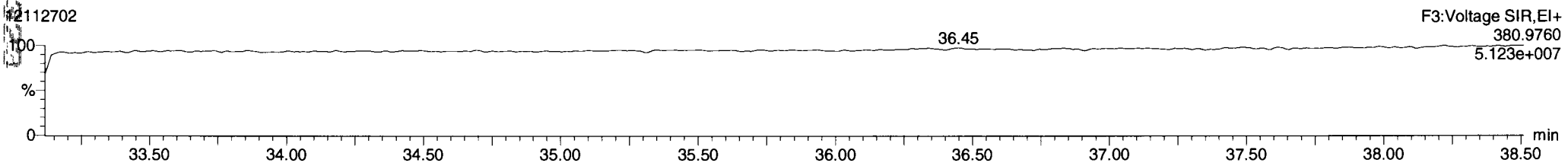
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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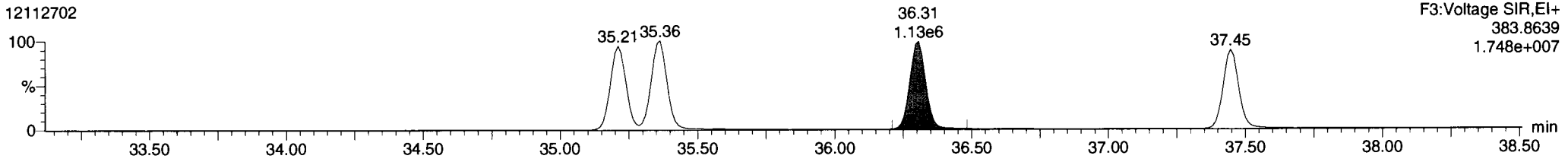
13C-234678-HxCDF



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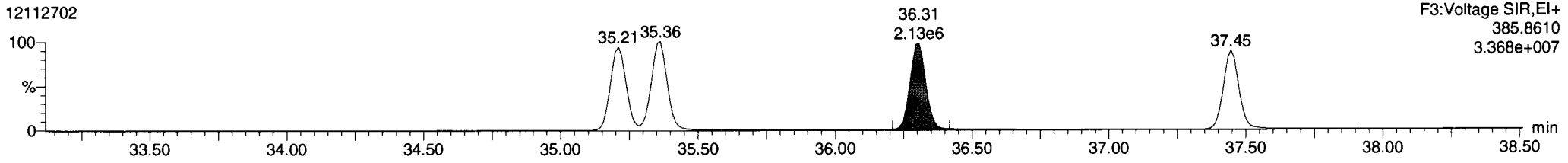
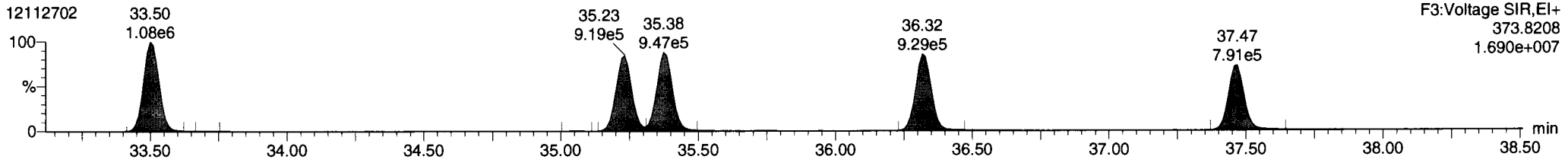
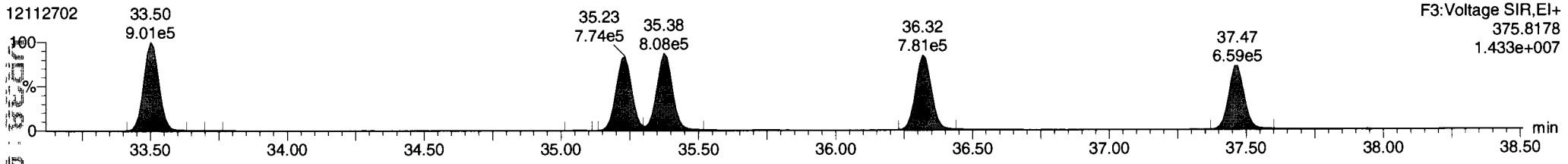


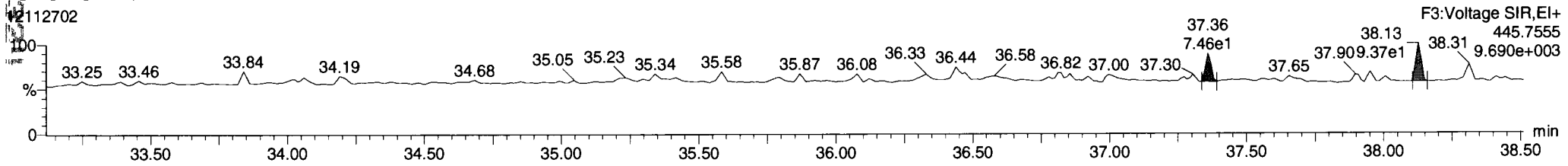
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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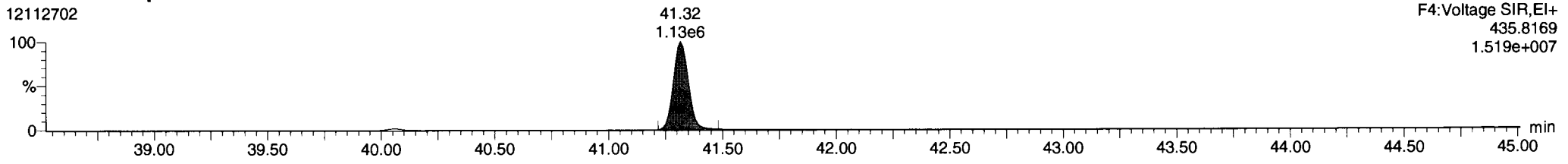
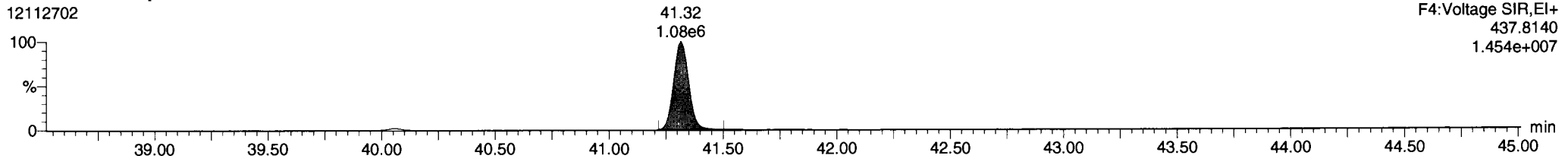
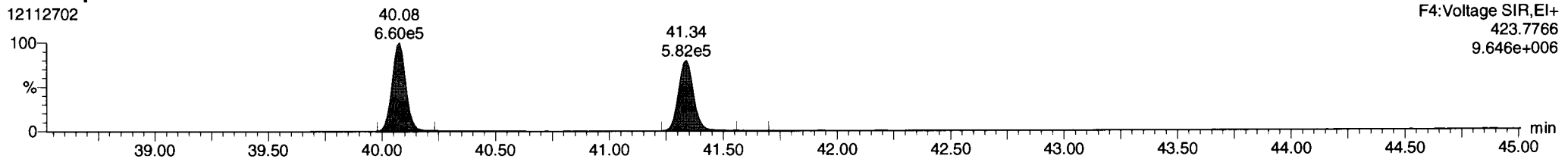
13C-1234678-HpCDD



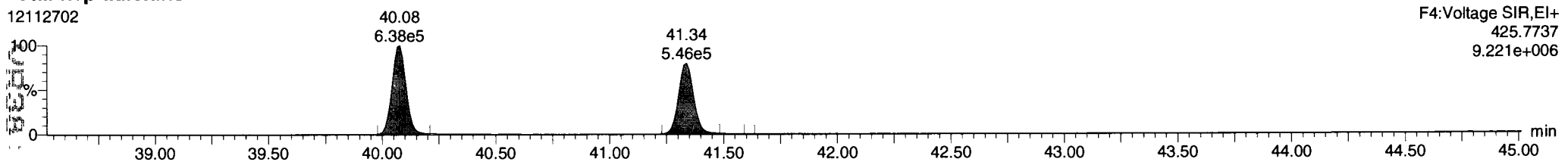
13C-1234678-HpCDD



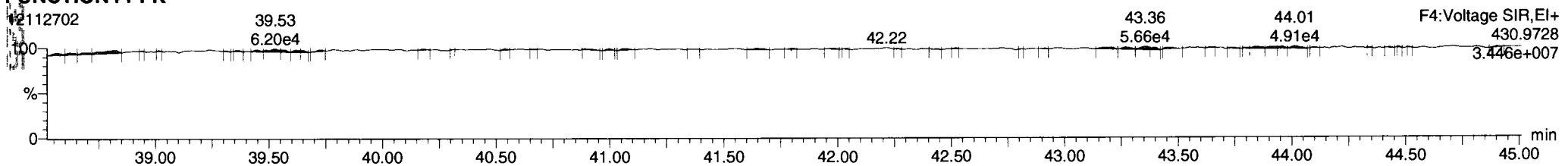
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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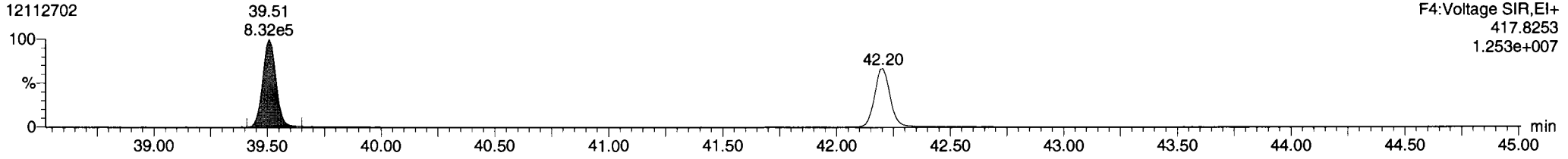

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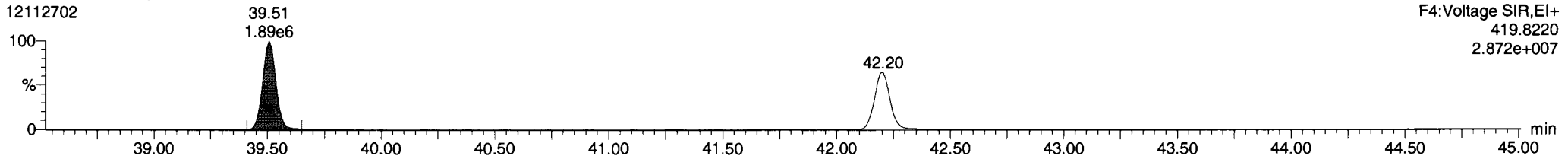
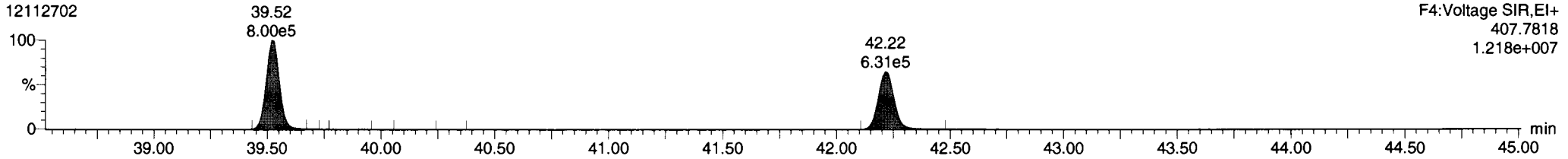


Total-heptafurans



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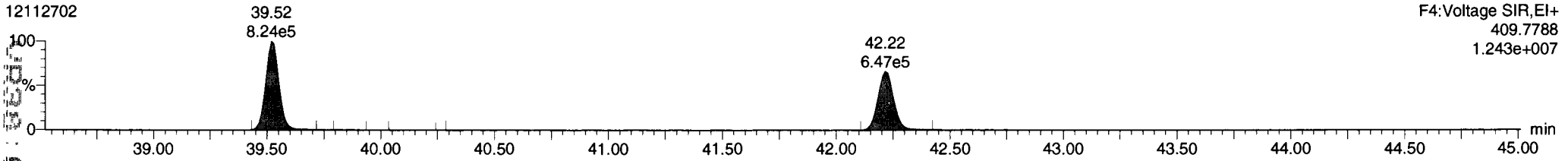
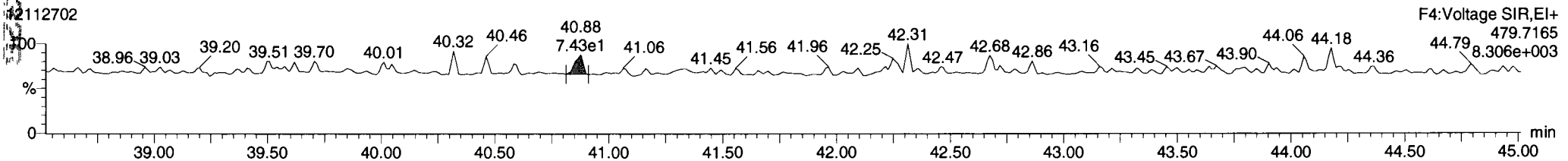


FUNCTION4 NCDPE



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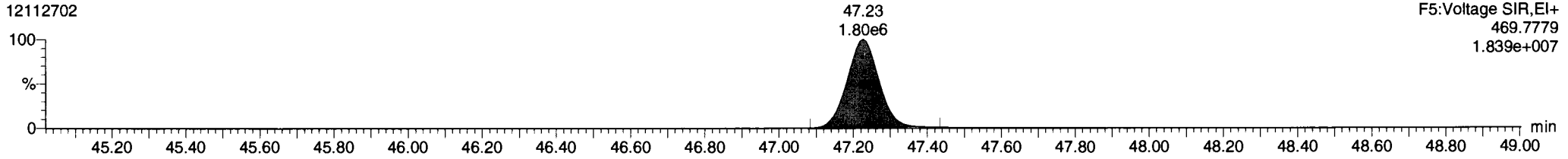
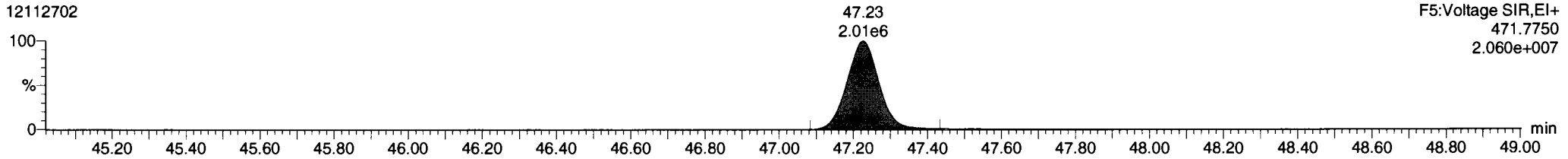
Name: 12112702, Date: 27-Nov-2012, Time: 11:23:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

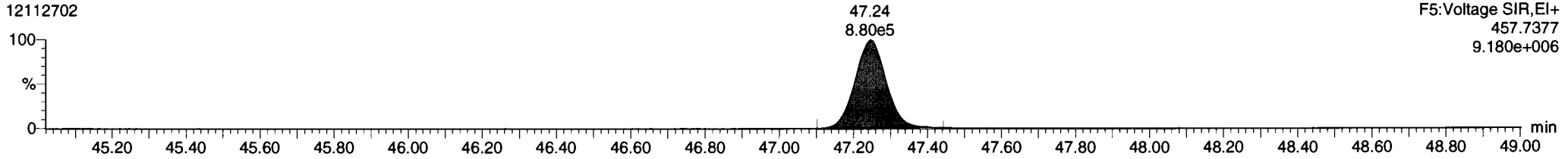
13C-OCDD



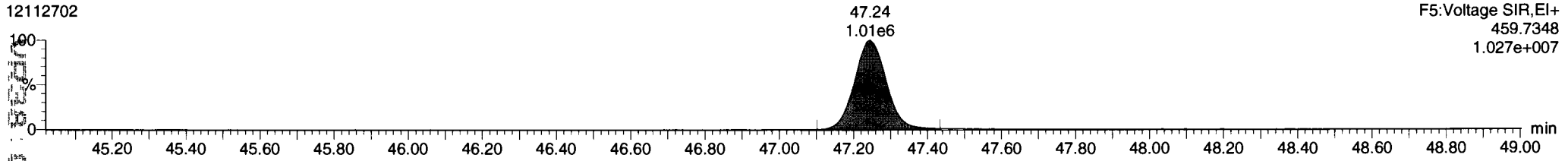
13C-OCDD



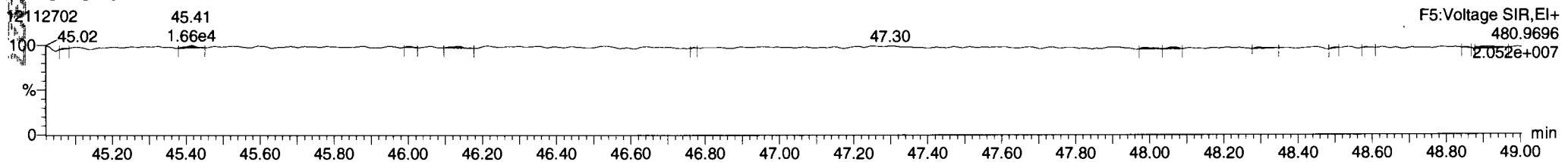
OCDD



OCDD



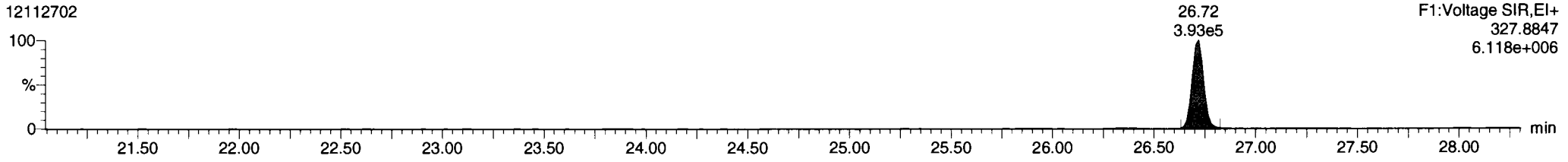
FUNCTION5 PFK



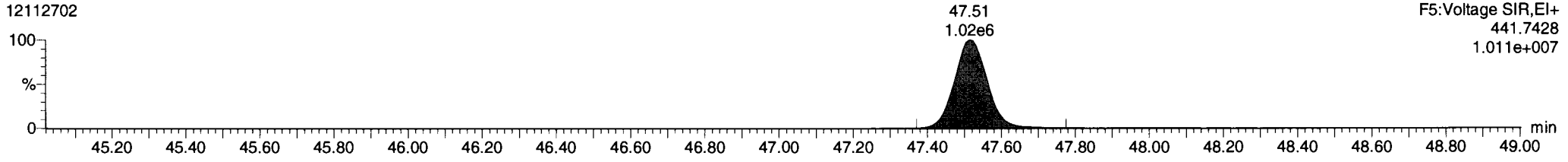
Dataset: P:\DIOXIN8290.PRO\121127OPEN.qld
Last Altered: Tuesday, November 27, 2012 12:21:06 Pacific Standard Time
Printed: Friday, November 30, 2012 15:16:04 Pacific Standard Time

Name: 12112702, Date: 27-Nov-2012, Time: 11:23:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

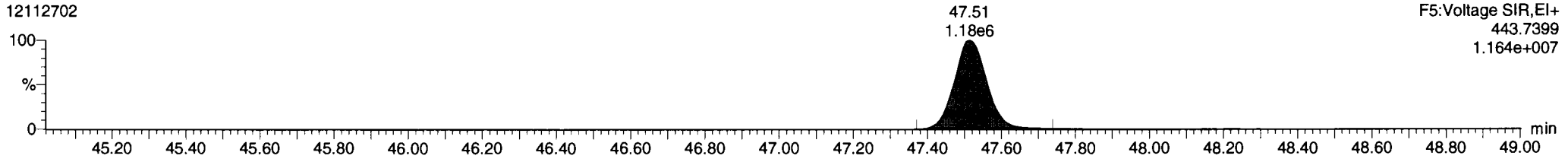
37CL-2378-TCDD



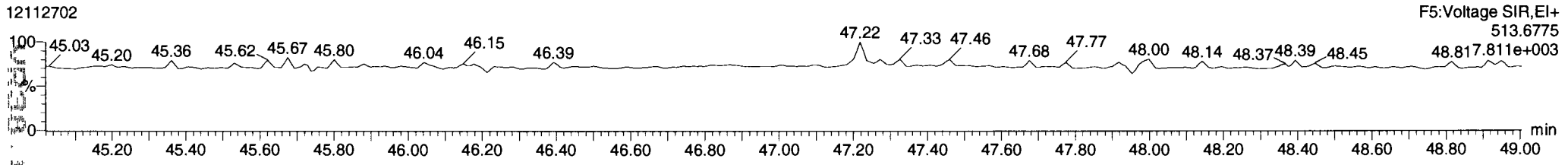
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

MK 11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

	Name	Exp RT	RRT	Ion1 Area	Ion2 Area	Total Area	In	RRF	Ratio	Prob%	Flag	S/N	Conc	Dil
1	2378-TCDF	26.078	1.001	268	320	588	db	0.877	0.836	0.770	NO	4.6	0.012	0.012
2	12378-PeCDF	30.212	1.001	286	331	617	db	0.896	0.867	1.550	YES	9.4	0.013	0.016
3	23478-PeCDF							0.926		1.550				
4	123478-HxCDF							1.068		1.240				
5	234678-HxCDF							1.037		1.240				
6	123678-HxCDF							1.035		1.240				
7	123789-HxCDF							0.987		1.240				
8	1234678-HpCDF	39.519	1.000	441	215	656	bb	1.232	2.052	1.050	YES	12.5	0.018	0.027
9	1234789-HpCDF							1.215		1.050				
10	OCDF							1.138		0.890				
11	2378-TCDD							1.049		0.770				
12	12378-PeCDD	31.801	1.000	119	117	236	bb	0.998	1.010	1.550	YES	2.9	0.008	0.010
13	123478-HxCDD							0.971		1.240				
14	123678-HxCDD							0.918		1.240				
15	123789-HxCDD							0.932		1.240				
16	1234678-HpCDD	41.327	1.000	622	676	1298	MM	1.017	0.920	1.050	NO	17.4	0.072	0.072
17	OCDD	47.218	1.000	1966	2415	4380	bb	1.008	0.814	0.890	NO	37.9	0.386	0.386
18	13C-2378-TCDF	26.048	1.006	2499792	3261987	5761779	bb	1.473	0.766	0.770	NO	9340.5		109.700
19	13C-12378-PeCDF	30.190	1.166	2573690	1613130	4186819	bb	1.148	1.595	1.550	NO	10943.4		102.264
20	13C-23478-PeCDF	31.538	1.218	2289685	1449124	3738808	bb	1.113	1.580	1.550	NO	9457.9		94.206
21	13C-123478-HxCDF	35.210	0.952	938480	1832802	2771282	bd	1.209	0.512	0.510	NO	4030.7		103.946
22	13C-123678-HxCDF	35.353	0.956	1024713	1957369	2982082	db	1.269	0.524	0.510	NO	4298.6		106.594
23	13C-234678-HxCDF	36.296	0.981	874737	1663707	2538444	bb	1.236	0.526	0.510	NO	3561.1		93.147
24	13C-123789-HxCDF	37.447	1.012	798401	1555403	2353805	bb	1.107	0.513	0.510	NO	3423.8		96.446
25	13C-1234678-HpCDF	39.507	1.068	601825	1355790	1957616	bb	1.051	0.444	0.440	NO	4105.1		84.454
26	13C-1234789-HpCDF	42.204	1.141	474173	1067496	1541669	bb	0.815	0.444	0.440	NO	2804.9		85.811
27	13C-1234-TCDD	25.884	0.000	1576681	1990037	3566717	bb	1.000	0.792	0.770	NO	5138.4		100.000
28	13C-2378-TCDD	26.691	1.031	1521595	1942759	3464354	bb	0.946	0.783	0.770	NO	4811.2		102.704
29	13C-12378-PeCDD	31.790	1.228	1506123	954661	2460783	bb	0.721	1.578	1.550	NO	9254.1		95.734
30	13C-123478-HxCDD	36.438	0.985	1236957	974266	2211223	bd	0.991	1.270	1.240	NO	5158.2		101.198
31	13C-123678-HxCDD	36.570	0.988	1321982	1063880	2385862	db	1.025	1.243	1.240	NO	5372.0		105.587
32	13C-1234678-HpCDD	41.316	1.117	913904	861470	1775375	bb	0.866	1.061	1.050	NO	3164.3		92.948
33	13C-OCDD	47.227	1.276	1069724	1183980	2253704	bb	0.769	0.904	0.890	NO	4140.6		132.878

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

		RT	RRT			Total Area	Int					S/N	EXPS	
[redacted]	13C-123789-HxCDD	36.997	0.000	1221533	983683	2205216	bb	1.000	1.242	1.240	NO	4938.9		100.000
[redacted]	Total-tetrafurans			653				0.877					0.030	0.030
[redacted]	Total-penta1			0										
[redacted]	Total-pentafurans			0				0.911					0.013	0.000
[redacted]	Total-hexafurans			0				1.032						
[redacted]	Total-heptafurans			0				1.223					0.025	0.000
[redacted]	Total-Furans			653				1.041					0.071	0.030
[redacted]	Total-tetradioxins			0				1.049					0.016	0.000
[redacted]	Total-pentadioxins			0				0.998					0.016	0.000
[redacted]	Total-hexadioxins			0				0.940					0.017	0.000
[redacted]	Total-heptadioxins			995				1.017					0.115	0.115
[redacted]	Total-Dioxins			2961				0.985					0.550	0.501
[redacted]	Total-TEQ			3614									0.621	0.530
[redacted]	37CL-2378-TCDD	26.706	1.032	1600408		1600408		1.044				11746.5		42.996
[redacted]	FUNCTION1 PFK			84827758										
[redacted]	FUNCTION2 PFK			462405										0.000
[redacted]	FUNCTION3 PFK			185980										0.000
[redacted]	FUNCTION4 PFK			440757										
[redacted]	FUNCTION5 PFK			136107										
[redacted]	FUNCTION1 HXCDPE			265										0.000
[redacted]	FUNCTION1 HPCDPE			655										0.000
[redacted]	FUNCTION2 HPCDPE			286										0.000
[redacted]	FUNCTION3 OCDPE			99										0.000
[redacted]	FUNCTION4 NCDPE			0										
[redacted]	FUNCTION5 DCDPE			0										

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

TF

#	Name	Trace	RT	Abs Resp	RRF M...	Dg	EMPC	2° Rat...	1° Rat...	1° R...	S/N
1	2378-TCDF	303.9016	26.08	588.267	0.877	0.012	0.012	0.84	0.77	NO	4.6
35	Total-tetrafurans	303.9016	25.90	922.843	0.877	0.018	0.018	0.72	0.77	NO	5.3

PP

#	Name	Trace	RT	Abs Resp	RRF M...	Dg	EMPC	2° Rat...	1° Rat...	1° R...	S/N

PF

#	Name	Trace	RT	Abs Resp	RRF M...	Dg	EMPC	2° Rat...	1° Rat...	1° R...	S/N
2	12378-PeCDF	339.8597	30.21	617.006	0.896	0.000	0.013	0.87	1.55	YES	9.4

HF

#	Name	Trace	RT	Abs Resp	RRF M...	Dg	EMPC	2° Rat...	1° Rat...	1° R...	S/N

HPF

#	Name	Trace	RT	Abs Resp	RRF M...	Dg	EMPC	2° Rat...	1° Rat...	1° R...	S/N
39	Total-heptafurans	407.7818	40.33	0.000	1.223	0.000	0.006	0.80	1.05	YES	4.2
8	1234678-HpCDF	407.7818	39.52	656.371	1.232	0.000	0.018	2.05	1.05	YES	12.5

Furans,TF,PP,PF,HF,HPF,OF

#	Name	Trace	RT	Abs Resp	RRF M...	Dg	EMPC	2° Rat...	1° Rat...	1° R...	S/N
1	2378-TCDF	303.9016	26.08	588.267	0.877	0.012	0.012	0.84	0.77	NO	4.6
35	Total-tetrafurans	303.9016	25.90	922.843	0.877	0.018	0.018	0.72	0.77	NO	5.3
40	Total-Furans	303.9016	22.01	0.000	1.041	0.000	0.004	0.59	0.77	YES	2.8
2	12378-PeCDF	339.8597	30.21	617.006	0.896	0.000	0.013	0.87	1.55	YES	9.4
39	Total-heptafurans	407.7818	40.33	0.000	1.223	0.000	0.006	0.80	1.05	YES	4.2
8	1234678-HpCDF	407.7818	39.52	656.371	1.232	0.000	0.018	2.05	1.05	YES	12.5

TD

#	Name	Trace	RT	Abs Resp	RRF M...	Dg	EMPC	2° Rat...	1° Rat...	1° R...	S/N
41	Total-tetradioxins	319.8965	24.85	0.000	1.049	0.000	0.016	0.91	0.77	YES	3.9

PD

#	Name	Trace	RT	Abs Resp	RRF M...	Dg	EMPC	2° Rat...	1° Rat...	1° R...	S/N
12	12378-PeCDD	355.8546	31.80	235.839	0.998	0.000	0.008	1.01	1.55	YES	2.9
42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.008	2.88	1.55	YES	4.1

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

HD

	#	Name	Trace	RT	Abs Area	RRF M...	Co...	DI	EMPC	1° Ratl...	1° Rat...	M Rs...	S/N
	43	Total-hexadioxins	389.8157	35.19	0.000	0.940	0.000	0.017	1.72	1.24	YES		4.5

HPD

	#	Name	Trace	RT	Abs Area	RRF M...	Co...	DI	EMPC	1° Ratl...	1° Rat...	M Rs...	S/N
	16	1234678-HpCDD	423.7766	41.33	1298.348	1.017	0.072	0.072	0.92	1.05	NO		17.4
	44	Total-heptadioxins	423.7766	40.08	778.654	1.017	0.043	0.043	0.92	1.05	NO		14.5

Dioxins,TD,PD,HD,HPD,OD

	#	Name	Trace	RT	Abs Area	RRF M...	Co...	DI	EMPC	1° Ratl...	1° Rat...	M Rs...	S/N
	41	Total-tetradioxins	319.8965	24.85	0.000	1.049	0.000	0.016	0.91	0.77	YES		3.9
	12	12378-PeCDD	355.8546	31.80	235.839	0.998	0.000	0.008	1.01	1.55	YES		2.9
	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.008	2.88	1.55	YES		4.1
	43	Total-hexadioxins	389.8157	35.19	0.000	0.940	0.000	0.017	1.72	1.24	YES		4.5
	17	OCDD	457.7377	47.22	4380.484	1.008	0.386	0.386	0.81	0.89	NO		37.9
	16	1234678-HpCDD	423.7766	41.33	1298.348	1.017	0.072	0.072	0.92	1.05	NO		17.4
	44	Total-heptadioxins	423.7766	40.08	778.654	1.017	0.043	0.043	0.92	1.05	NO		14.5

TotalTEQ,Furans,Dioxins

	#	Name	Trace	RT	Abs Area	RRF M...	Co...	DI	EMPC	1° Ratl...	1° Rat...	M Rs...	S/N
	1	2378-TCDF	303.9016	26.08	588.267	0.877	0.012	0.012	0.84	0.77	NO		4.6
	35	Total-tetrafurans	303.9016	25.90	922.843	0.877	0.018	0.018	0.72	0.77	NO		5.3
	40	Total-Furans	303.9016	22.01	0.000	1.041	0.000	0.004	0.59	0.77	YES		2.8
	2	12378-PeCDF	339.8597	30.21	617.006	0.896	0.000	0.013	0.87	1.55	YES		9.4
	39	Total-heptafurans	407.7818	40.33	0.000	1.223	0.000	0.006	0.80	1.05	YES		4.2
	8	1234678-HpCDF	407.7818	39.52	656.371	1.232	0.000	0.018	2.05	1.05	YES		12.5
	41	Total-tetradioxins	319.8965	24.85	0.000	1.049	0.000	0.016	0.91	0.77	YES		3.9
	12	12378-PeCDD	355.8546	31.80	235.839	0.998	0.000	0.008	1.01	1.55	YES		2.9
	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.008	2.88	1.55	YES		4.1
	43	Total-hexadioxins	389.8157	35.19	0.000	0.940	0.000	0.017	1.72	1.24	YES		4.5
	17	OCDD	457.7377	47.22	4380.484	1.008	0.386	0.386	0.81	0.89	NO		37.9
	16	1234678-HpCDD	423.7766	41.33	1298.348	1.017	0.072	0.072	0.92	1.05	NO		17.4
	44	Total-heptadioxins	423.7766	40.08	778.654	1.017	0.043	0.043	0.92	1.05	NO		14.5

PFK1

	#	Name	Trace	RT	Abs Area	RRF M...	Co...	DI	EMPC	1° Ratl...	1° Rat...	M Rs...	S/N
	48	FUNCTION1 PFK	330.9792	22.61	0.000								50.5
	48	FUNCTION1 PFK	330.9792	22.51	0.000								55.4
	48	FUNCTION1 PFK	330.9792	22.45	0.000								59.9
	48	FUNCTION1 PFK	330.9792	21.58	0.000								73.7
	48	FUNCTION1 PFK	330.9792	24.73	0.000								16.5
	48	FUNCTION1 PFK	330.9792	23.96	0.000								16.5
	48	FUNCTION1 PFK	330.9792	23.24	0.000								0.0
	48	FUNCTION1 PFK	330.9792	23.09	0.000								14.7
	48	FUNCTION1 PFK	330.9792	22.90	0.000								28.7

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

PFK2

	#	Name	Trace	RT	Abs Dev	Area M...	pg	S/N/PC	1 Ratio	2 Ratio	3 Ratio	S/N
	49	FUNCTION2 PFK	366.9792	29.50	0.000	0.000						2.2
	49	FUNCTION2 PFK	366.9792	29.42	0.000	0.000						1.9
	49	FUNCTION2 PFK	366.9792	29.37	0.000	0.000						1.2
	49	FUNCTION2 PFK	366.9792	29.04	0.000	0.000						0.4
	49	FUNCTION2 PFK	366.9792	28.91	0.000	0.000						2.0
	49	FUNCTION2 PFK	366.9792	28.80	0.000	0.000						0.9
	49	FUNCTION2 PFK	366.9792	28.74	0.000	0.000						1.2
	49	FUNCTION2 PFK	366.9792	28.68	0.000	0.000						1.5
	49	FUNCTION2 PFK	366.9792	28.59	0.000	0.000						0.7
	49	FUNCTION2 PFK	366.9792	28.45	0.000	0.000						1.3
	49	FUNCTION2 PFK	366.9792	31.60	0.000	0.000						1.9
	49	FUNCTION2 PFK	366.9792	31.53	0.000	0.000						2.8
	49	FUNCTION2 PFK	366.9792	31.38	0.000	0.000						2.2
	49	FUNCTION2 PFK	366.9792	31.23	0.000	0.000						0.6
	49	FUNCTION2 PFK	366.9792	31.01	0.000	0.000						1.4
	49	FUNCTION2 PFK	366.9792	30.90	0.000	0.000						1.9
	49	FUNCTION2 PFK	366.9792	30.84	0.000	0.000						1.3
	49	FUNCTION2 PFK	366.9792	30.77	0.000	0.000						1.6
	49	FUNCTION2 PFK	366.9792	30.64	0.000	0.000						1.1
	49	FUNCTION2 PFK	366.9792	30.46	0.000	0.000						1.3
	49	FUNCTION2 PFK	366.9792	30.27	0.000	0.000						1.2
	49	FUNCTION2 PFK	366.9792	30.01	0.000	0.000						0.9
	49	FUNCTION2 PFK	366.9792	29.97	0.000	0.000						1.8
	49	FUNCTION2 PFK	366.9792	29.89	0.000	0.000						0.6
	49	FUNCTION2 PFK	366.9792	29.82	0.000	0.000						1.5
	49	FUNCTION2 PFK	366.9792	29.72	0.000	0.000						1.2
	49	FUNCTION2 PFK	366.9792	32.82	0.000	0.000						1.4
	49	FUNCTION2 PFK	366.9792	32.61	0.000	0.000						1.0
	49	FUNCTION2 PFK	366.9792	32.14	0.000	0.000						1.7
	49	FUNCTION2 PFK	366.9792	32.08	0.000	0.000						0.7
	49	FUNCTION2 PFK	366.9792	31.88	0.000	0.000						1.8
	49	FUNCTION2 PFK	366.9792	31.82	0.000	0.000						1.3
	49	FUNCTION2 PFK	366.9792	31.78	0.000	0.000						2.3
	49	FUNCTION2 PFK	366.9792	31.67	0.000	0.000						1.7

PFK3

	#	Name	Trace	RT	Abs Dev	Area M...	pg	S/N/PC	1 Ratio	2 Ratio	3 Ratio	S/N
	50	FUNCTION3 PFK	380.9760	37.45	0.000	0.000						2.1
	50	FUNCTION3 PFK	380.9760	36.87	0.000	0.000						0.8
	50	FUNCTION3 PFK	380.9760	36.67	0.000	0.000						1.4
	50	FUNCTION3 PFK	380.9760	35.08	0.000	0.000						1.4
	50	FUNCTION3 PFK	380.9760	33.57	0.000	0.000						1.3
	50	FUNCTION3 PFK	380.9760	33.40	0.000	0.000						0.7

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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PFK4

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	51	FUNCTION4 PFK	430.9728	43.05	0.000					1.2
[redacted]	51	FUNCTION4 PFK	430.9728	42.61	0.000					1.7
[redacted]	51	FUNCTION4 PFK	430.9728	42.28	0.000					1.1
[redacted]	51	FUNCTION4 PFK	430.9728	42.23	0.000					0.9
[redacted]	51	FUNCTION4 PFK	430.9728	42.08	0.000					0.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.97	0.000					1.2
[redacted]	51	FUNCTION4 PFK	430.9728	41.86	0.000					1.1
[redacted]	51	FUNCTION4 PFK	430.9728	41.43	0.000					0.8
[redacted]	51	FUNCTION4 PFK	430.9728	41.17	0.000					1.4
[redacted]	51	FUNCTION4 PFK	430.9728	40.89	0.000					0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.42	0.000					1.1
[redacted]	51	FUNCTION4 PFK	430.9728	39.43	0.000					1.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.13	0.000					0.6
[redacted]	51	FUNCTION4 PFK	430.9728	38.87	0.000					0.8
[redacted]	51	FUNCTION4 PFK	430.9728	38.65	0.000					1.1
[redacted]	51	FUNCTION4 PFK	430.9728	38.63	0.000					0.9
[redacted]	51	FUNCTION4 PFK	430.9728	44.43	0.000					1.3
[redacted]	51	FUNCTION4 PFK	430.9728	44.32	0.000					1.2
[redacted]	51	FUNCTION4 PFK	430.9728	44.23	0.000					1.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.13	0.000					0.6
[redacted]	51	FUNCTION4 PFK	430.9728	43.88	0.000					0.8
[redacted]	51	FUNCTION4 PFK	430.9728	43.64	0.000					1.1
[redacted]	51	FUNCTION4 PFK	430.9728	43.30	0.000					0.9
[redacted]	51	FUNCTION4 PFK	430.9728	43.18	0.000					1.3

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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PFK5

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	[redacted]	EMPC	I Ratio	II Ratio	I R...	S/N
[redacted]	52	FUNCTION5 PFK	480.9696	45.75	0.000							0.5
[redacted]	52	FUNCTION5 PFK	480.9696	45.45	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	45.41	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	45.33	0.000							1.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.18	0.000							1.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.14	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	45.06	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	48.41	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	48.30	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	48.18	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	48.13	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	48.10	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	47.66	0.000							0.4
[redacted]	52	FUNCTION5 PFK	480.9696	47.62	0.000							0.5
[redacted]	52	FUNCTION5 PFK	480.9696	47.39	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	47.34	0.000							0.9
[redacted]	52	FUNCTION5 PFK	480.9696	47.18	0.000							0.9
[redacted]	52	FUNCTION5 PFK	480.9696	47.15	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	46.59	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	46.43	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	46.39	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	46.19	0.000							1.4
[redacted]	52	FUNCTION5 PFK	480.9696	45.94	0.000							0.9
[redacted]	52	FUNCTION5 PFK	480.9696	48.58	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	48.54	0.000							1.9

ETHERS1

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	[redacted]	EMPC	I Ratio	II Ratio	I R...	S/N
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.87	0.000	0.000						2.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.20	0.000	0.000						4.2
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.67	0.000	0.000						4.4

ETHERS2

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	[redacted]	EMPC	I Ratio	II Ratio	I R...	S/N
[redacted]	54	FUNCTION1 HPCD...	409.7974	26.75	0.000	0.000						1.2
[redacted]	54	FUNCTION1 HPCD...	409.7974	25.82	0.000	0.000						3.2
[redacted]	54	FUNCTION1 HPCD...	409.7974	24.96	0.000	0.000						1.5
[redacted]	54	FUNCTION1 HPCD...	409.7974	24.63	0.000	0.000						1.8
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.51	0.000	0.000						1.5
[redacted]	54	FUNCTION1 HPCD...	409.7974	22.42	0.000	0.000						1.7
[redacted]	54	FUNCTION1 HPCD...	409.7974	21.31	0.000	0.000						6.6

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ETHERS3

	#	Name	Trace	RT	Abs.Resp	RRT M...	%Dif	EMPC	T.Ratio	T.Resp...	T.R...	S/N
	55	FUNCTION2 HPCD...	409.7974	28.47	0.000	0.000						1.7
	55	FUNCTION2 HPCD...	409.7974	32.08	0.000	0.000						4.7
	55	FUNCTION2 HPCD...	409.7974	29.12	0.000	0.000						2.7

ETHERS4

	#	Name	Trace	RT	Abs.Resp	RRT M...	%Dif	EMPC	T.Ratio	T.Resp...	T.R...	S/N
	56	FUNCTION3 OCDPE	445.7555	35.56	0.000	0.000						5.1

ETHERS5

	#	Name	Trace	RT	Abs.Resp	RRT M...	%Dif	EMPC	T.Ratio	T.Resp...	T.R...	S/N

ETHERS6

	#	Name	Trace	RT	Abs.Resp	RRT M...	%Dif	EMPC	T.Ratio	T.Resp...	T.R...	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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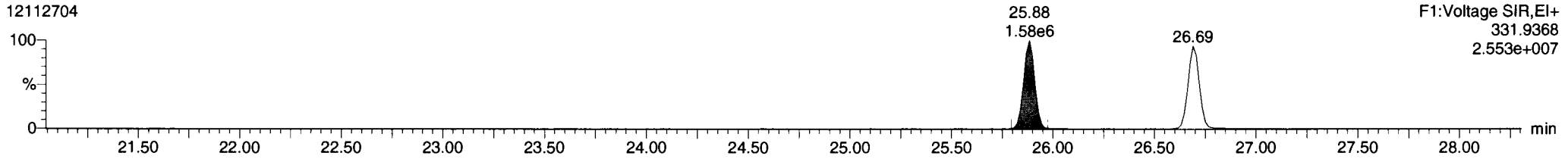
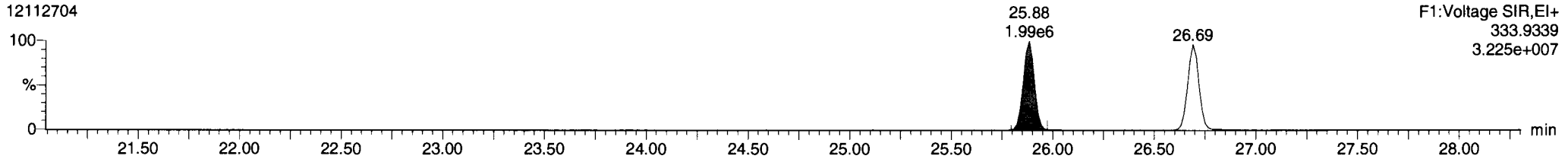
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

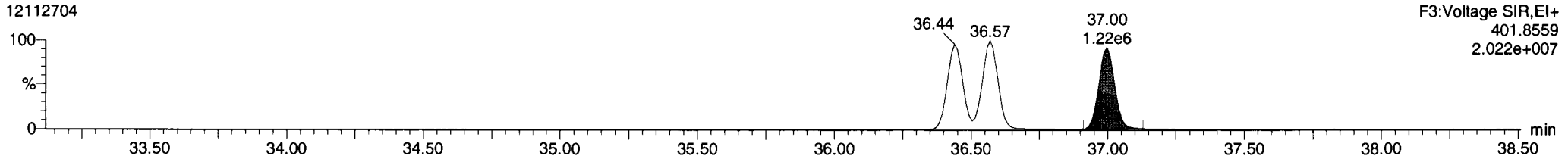
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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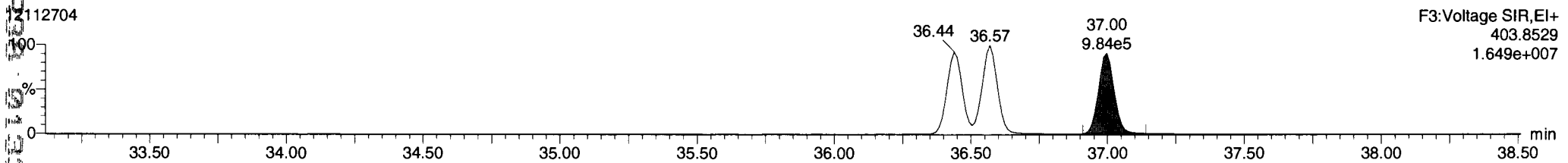

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
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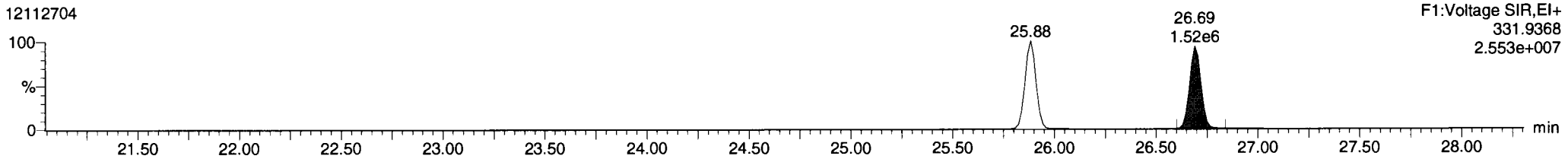
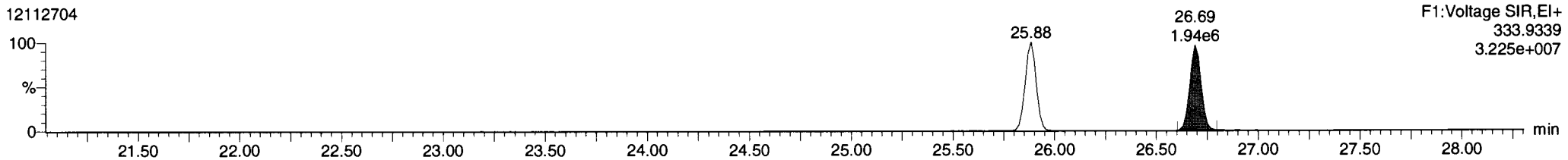
Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

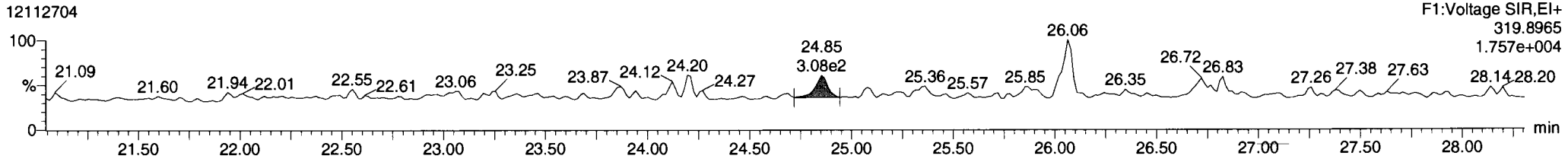
13C-2378-TCDD



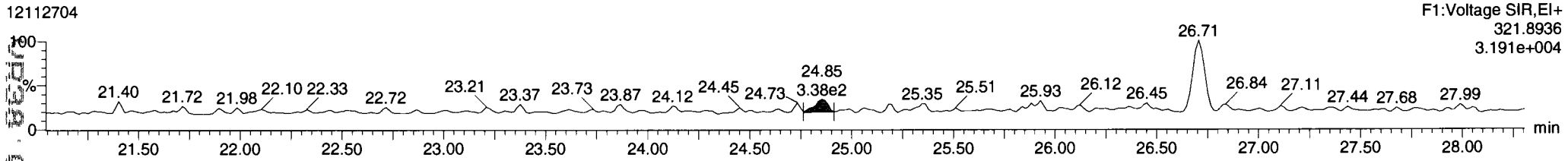
13C-2378-TCDD



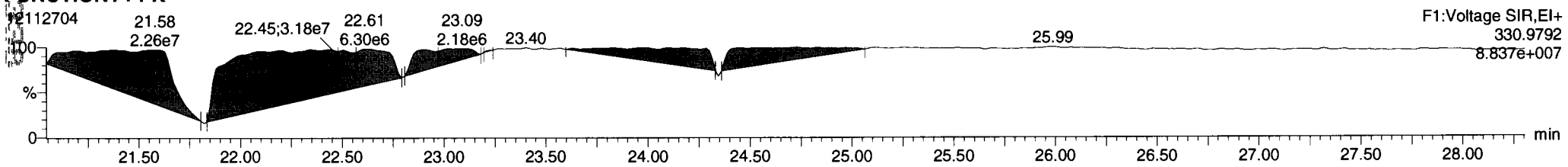
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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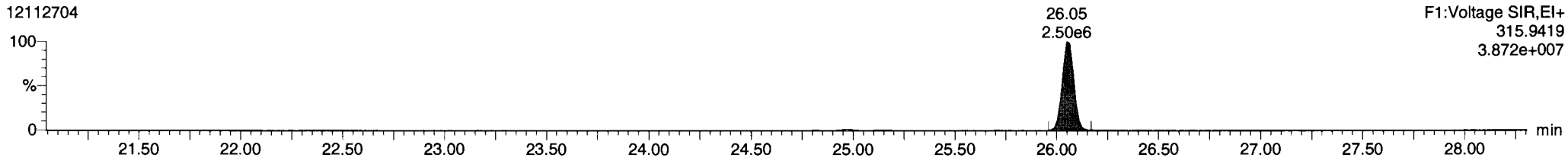
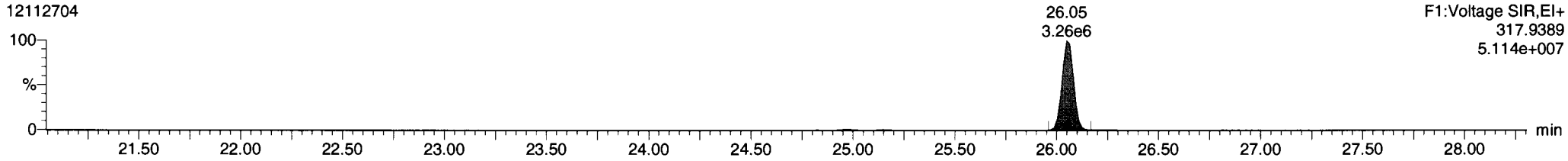
Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

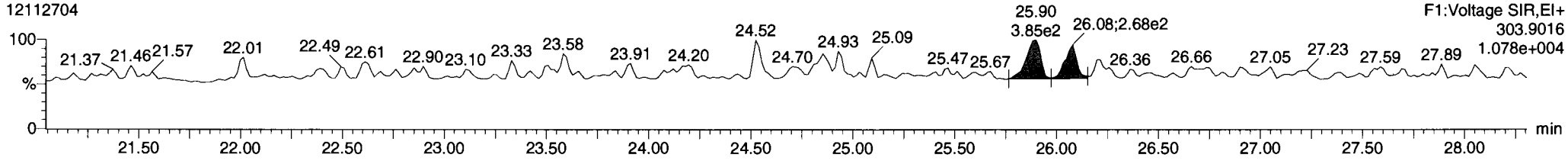
13C-2378-TCDF



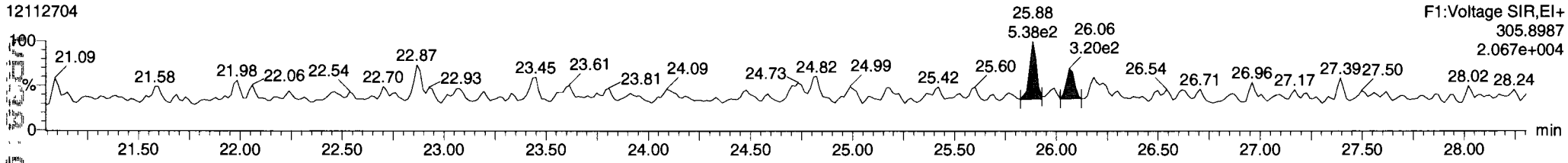
13C-2378-TCDF



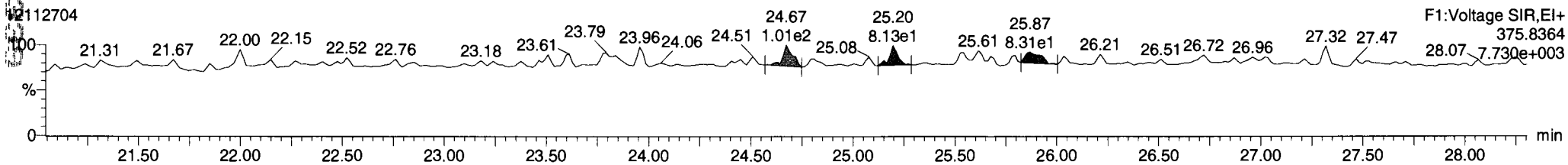
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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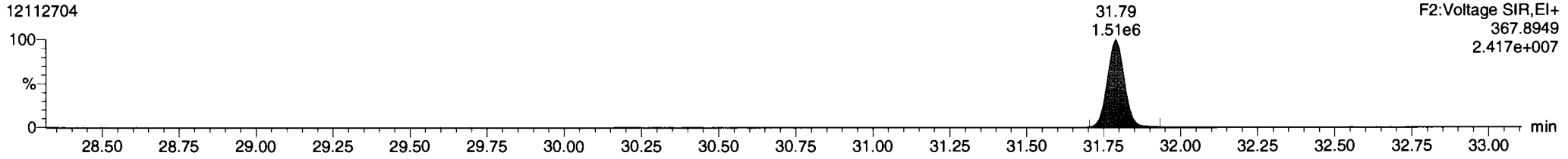
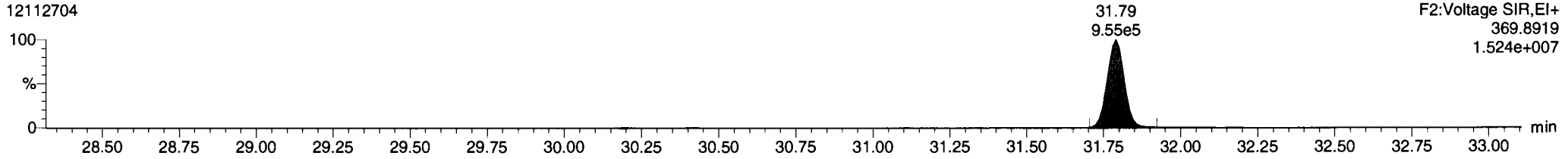
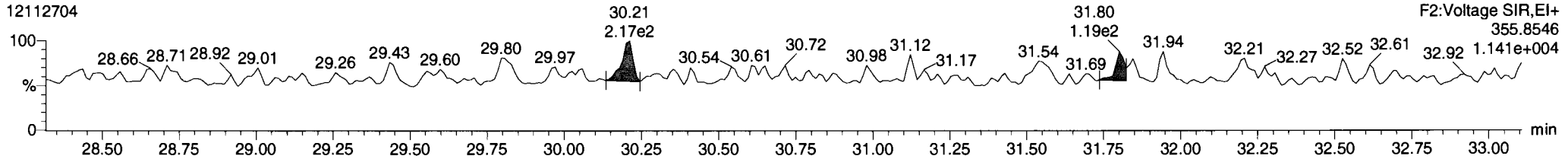
13C-12378-PeCDD



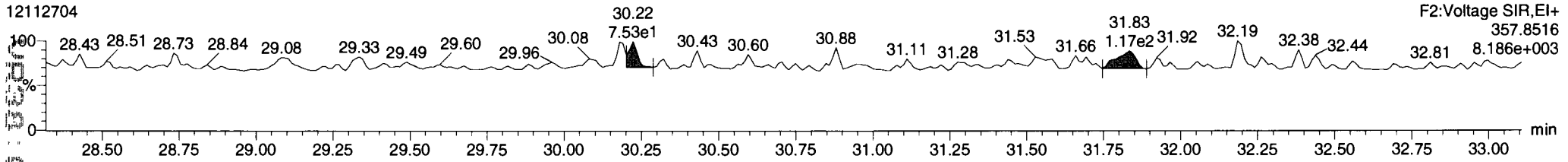
13C-12378-PeCDD



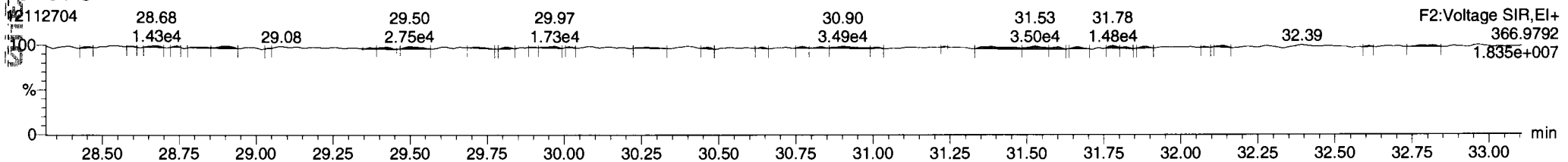
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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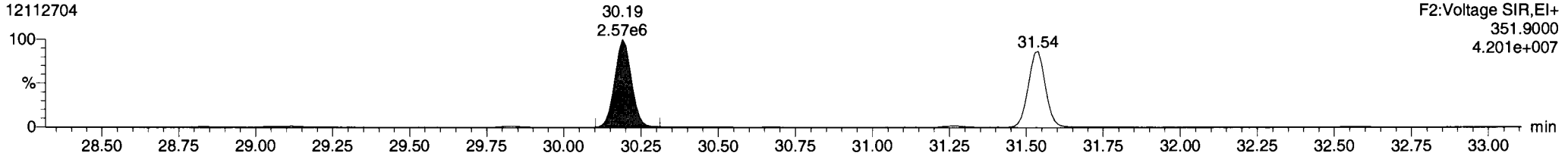
13C-12378-PeCDF



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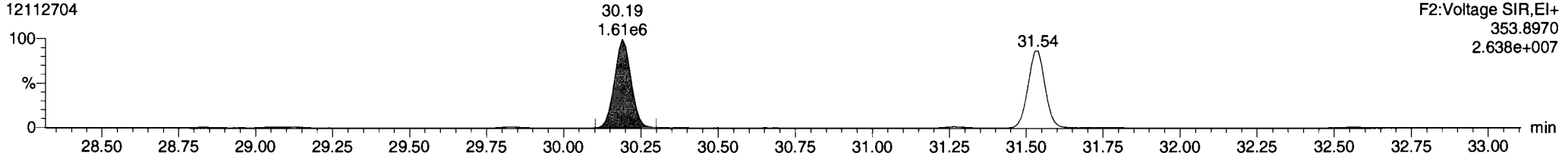
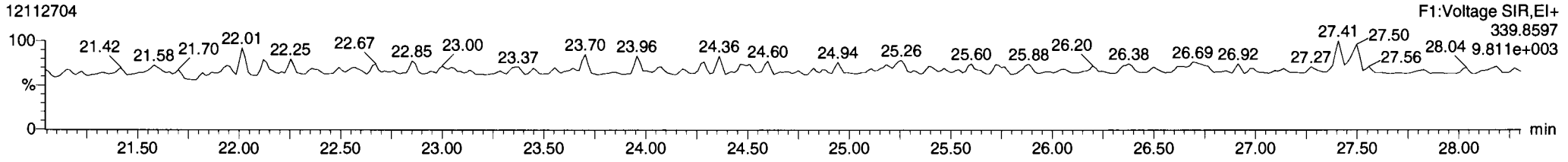
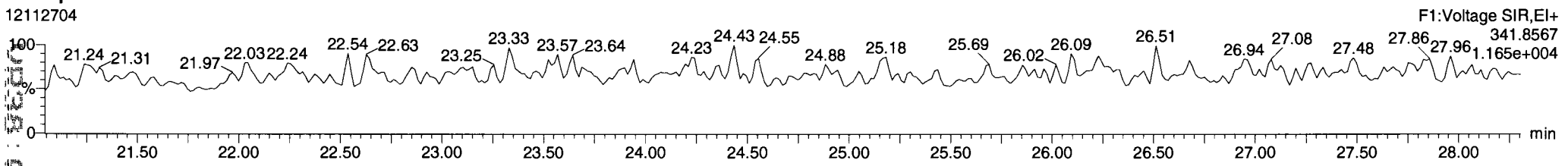


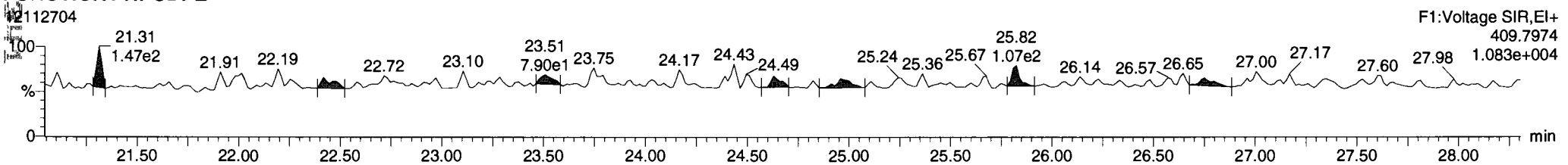
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
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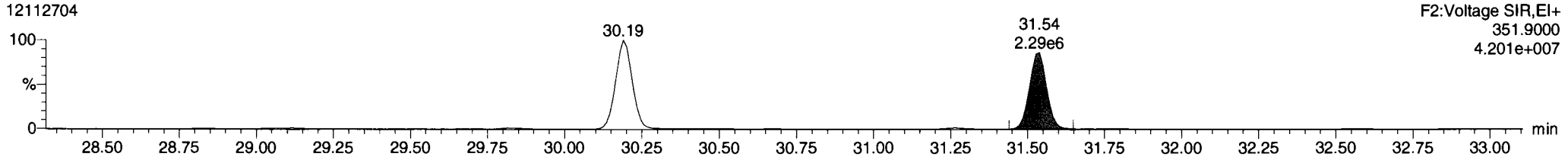
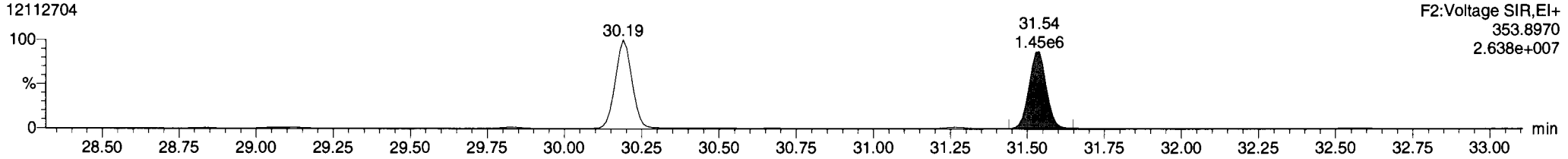
Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

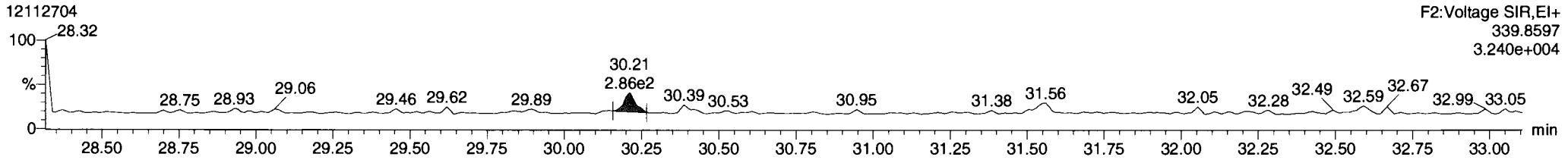
13C-23478-PeCDF



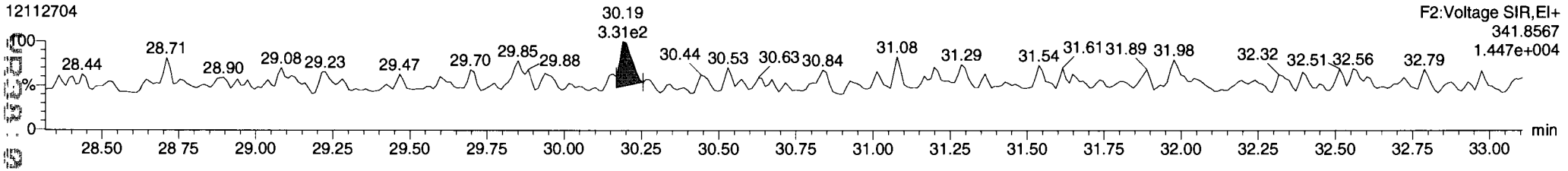
13C-23478-PeCDF



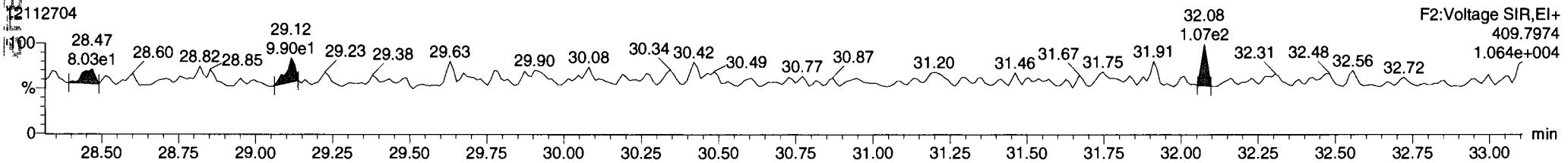
Total-pentafurans



Total-pentafurans



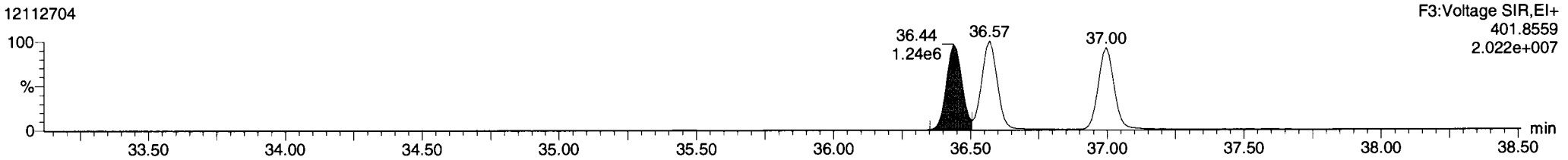
FUNCTION2 HPCDPE



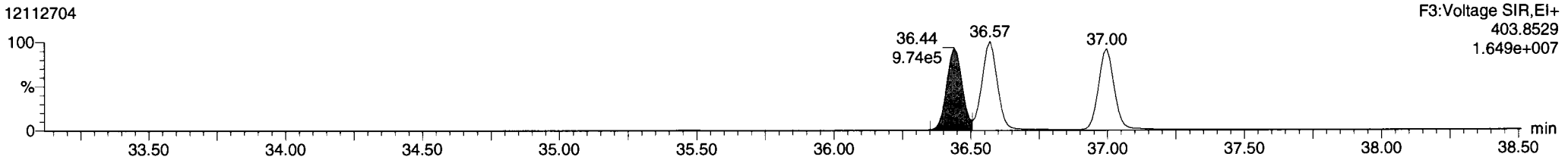
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

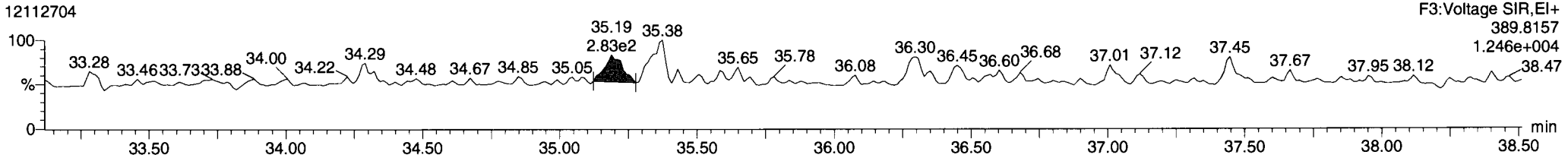
13C-123478-HxCDD



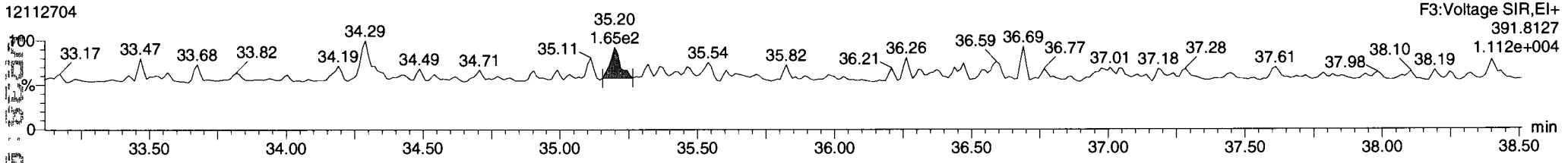
13C-123478-HxCDD



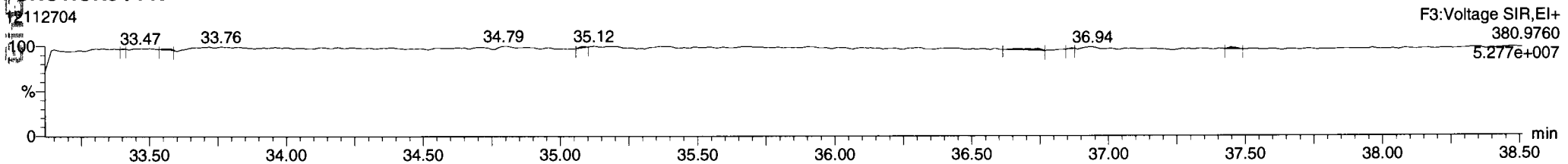
Total-hexadioxins



Total-hexadioxins



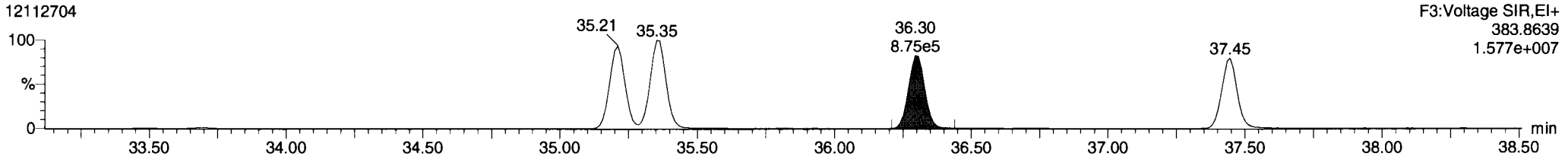
FUNCTION3 PFK



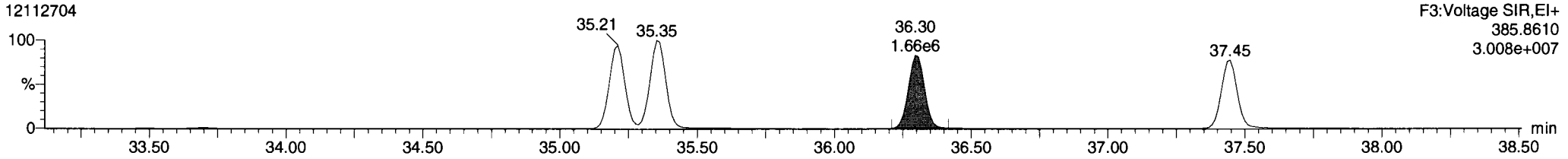
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

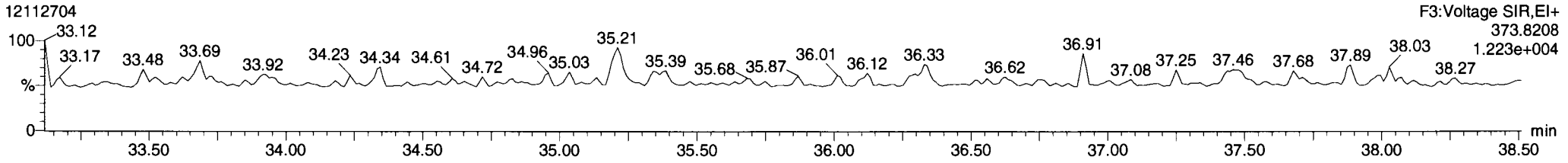
13C-234678-HxCDF



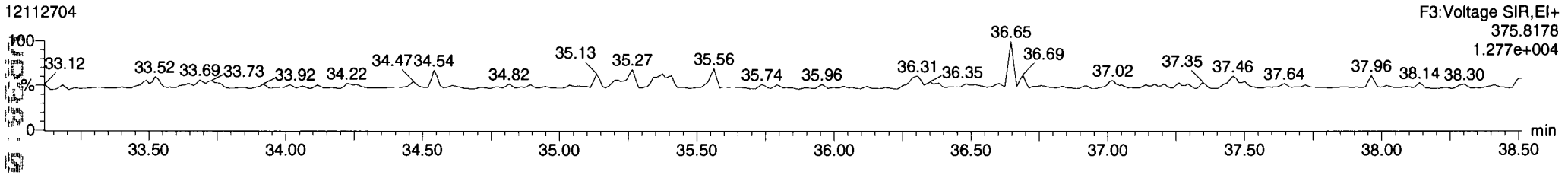
13C-234678-HxCDF



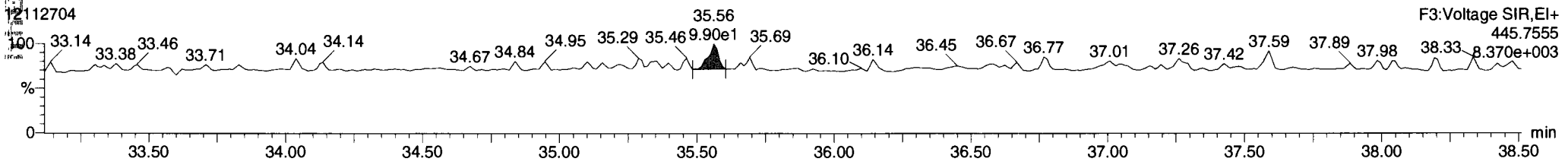
Total-hexafurans



Total-hexafurans



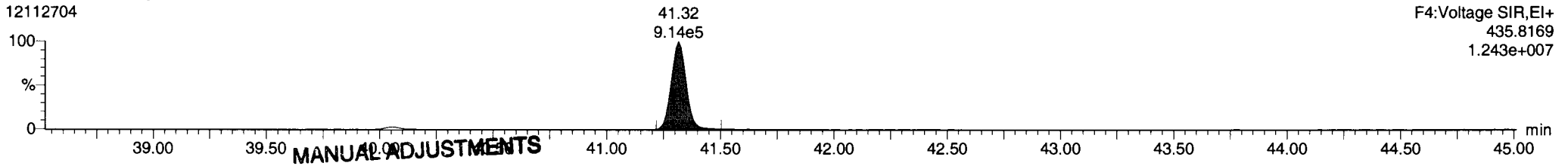
FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDD

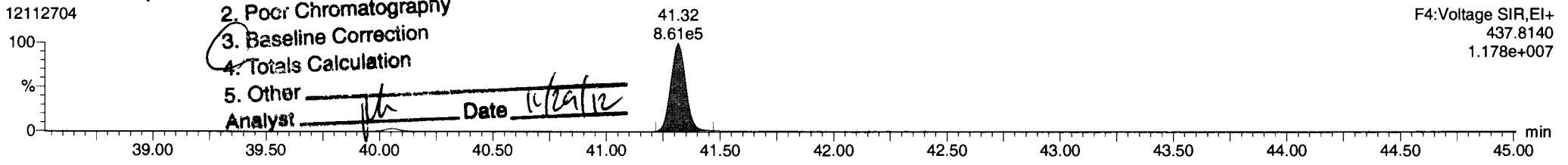


MANUAL ADJUSTMENTS

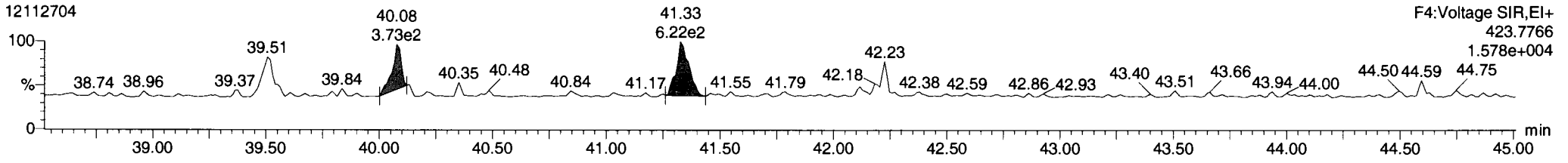
13C-1234678-HpCDD

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

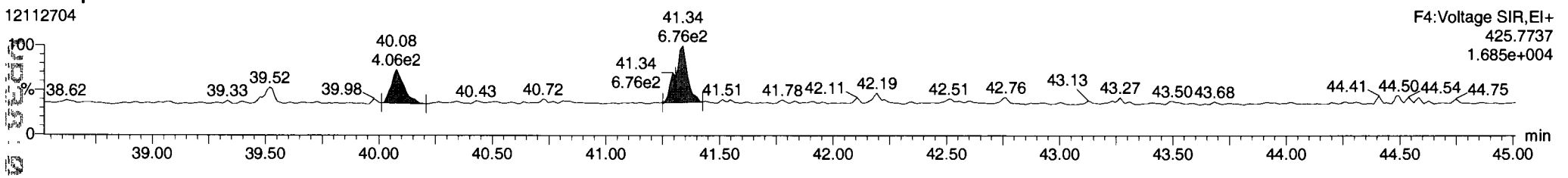
Analyst _____ Date 11/29/12



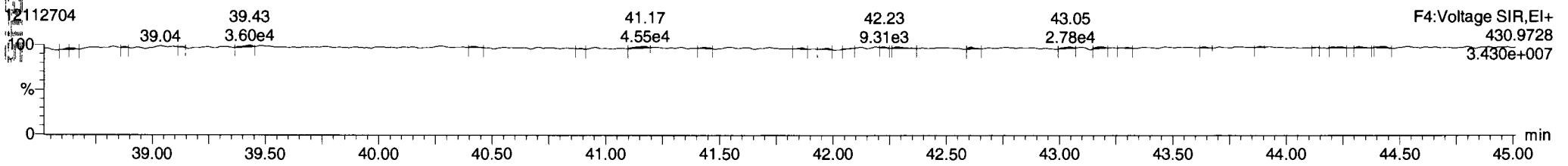
Total-heptadioxins



Total-heptadioxins



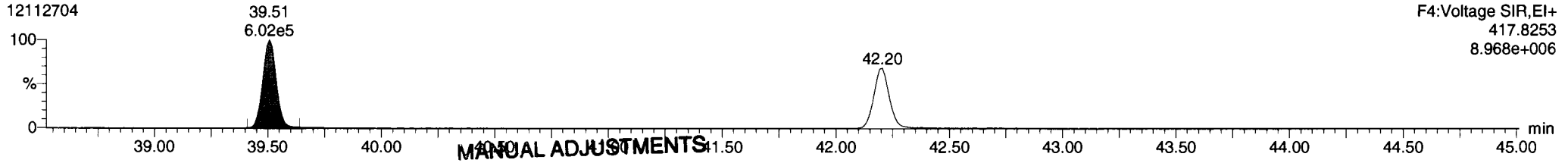
FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF

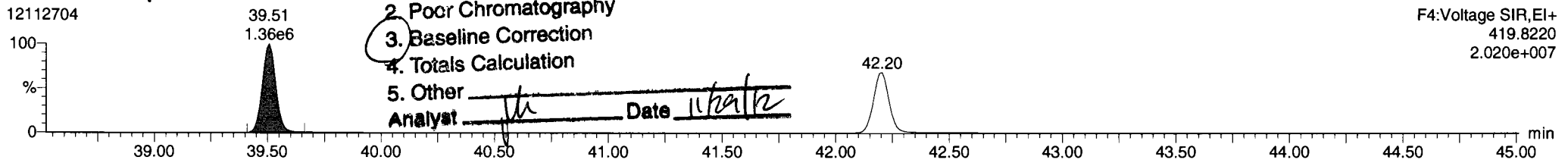


MANUAL ADJUSTMENTS

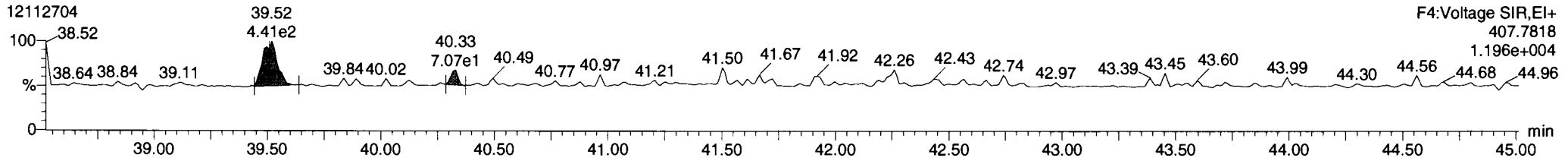
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

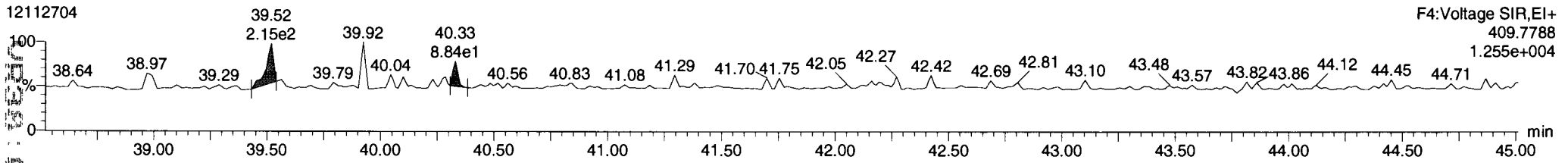
13C-1234678-HpCDF



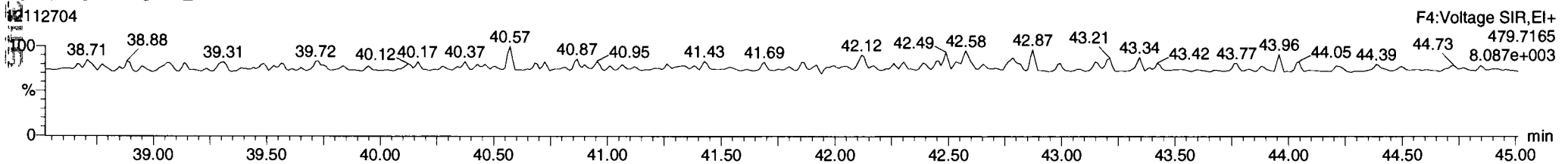
Total-heptafurans



Total-heptafurans



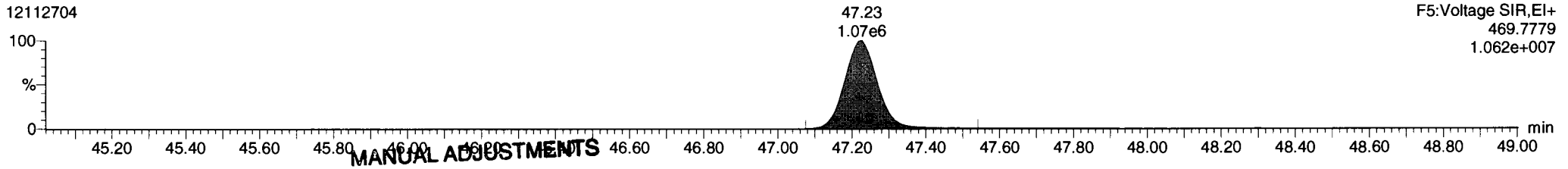
FUNCTION4 NCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

13C-OCDD

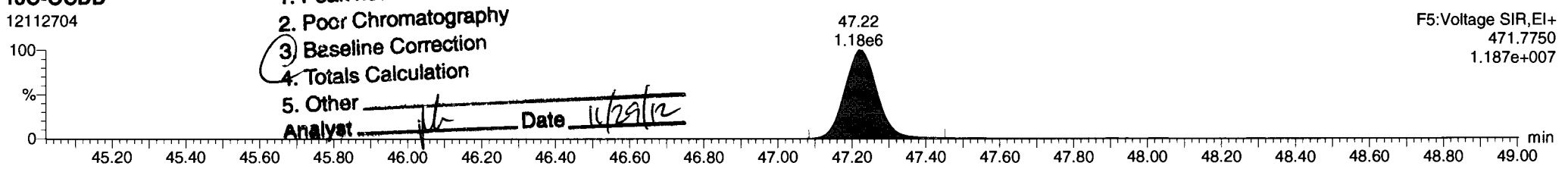


MANUAL ADJUSTMENTS

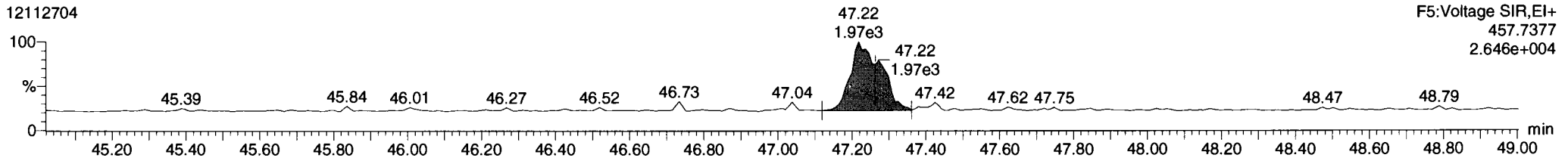
13C-OCDD

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

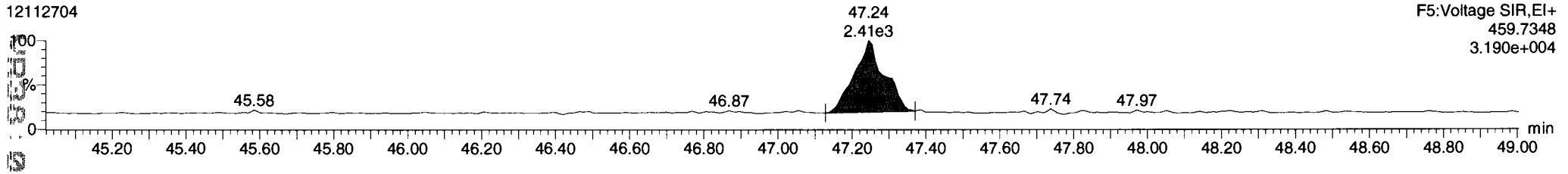
Analyst _____ Date 11/29/12



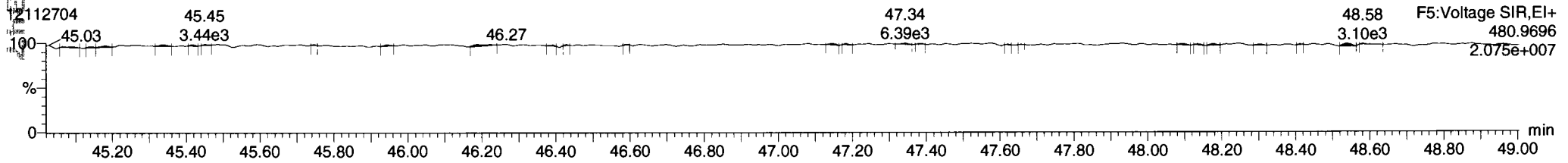
OCDD



OCDD



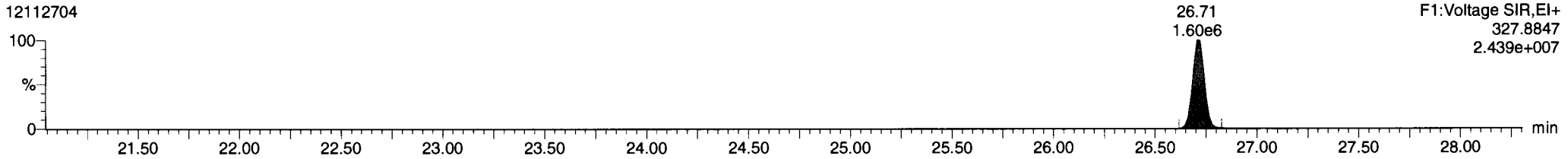
FUNCTION5 PFK



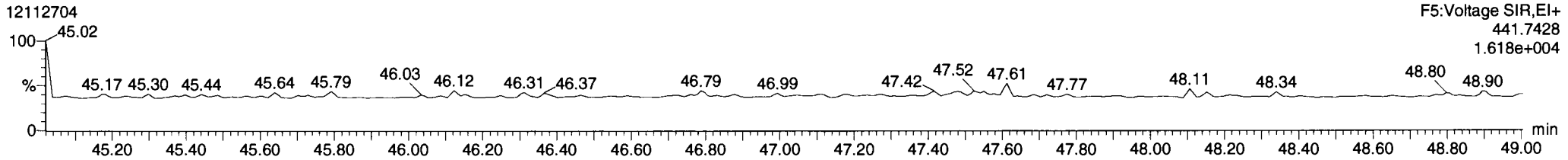
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:21 Pacific Standard Time

Name: 12112704, Date: 27-Nov-2012, Time: 13:09:30, ID: VR38MBS, Conditions: AUTOSPEC01, User: pk

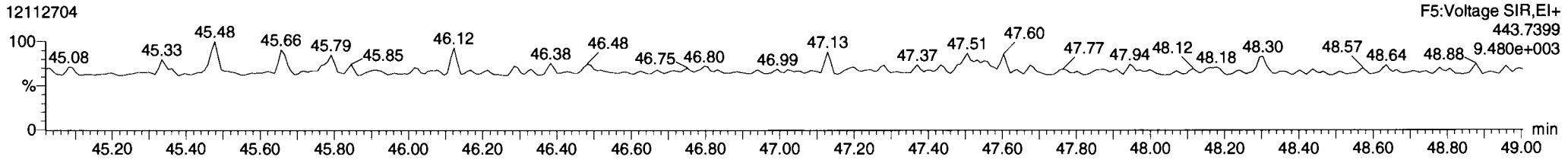
37CL-2378-TCDD



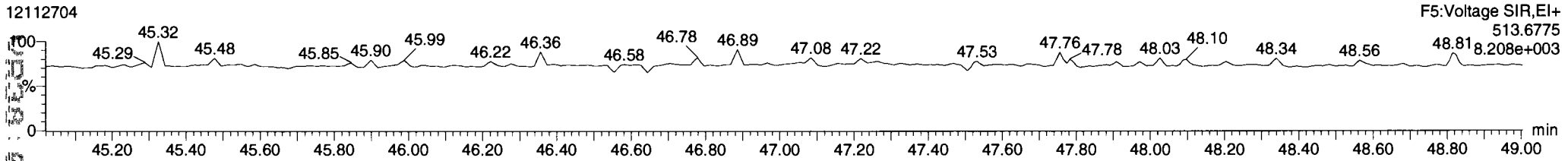
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:44:39 Pacific Standard Time

pk 11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112705, Date: 27-Nov-2012, Time: 13:59:42, ID: VR38OPR, Conditions: AUTOSPEC01, User: pk

	Name			Ion1 Area	Ion2 Area									
1	2378-TCDF	26.063	1.001	208370	277321	485691	bb	0.877	0.751	0.770	NO	2722.2	11.181	11.181
2	12378-PeCDF	30.201	1.000	1092330	729991	1822321	bb	0.896	1.496	1.550	NO	6255.2	54.858	54.858
3	23478-PeCDF	31.549	1.001	1022643	686531	1709174	bb	0.926	1.490	1.550	NO	5873.9	55.069	55.069
4	123478-HxCDF	35.222	1.000	781419	664051	1445470	bd	1.068	1.177	1.240	NO	3917.4	54.386	54.386
5	234678-HxCDF	36.318	1.001	776594	653184	1429779	bb	1.037	1.189	1.240	NO	3818.9	59.812	59.812
6	123678-HxCDF	35.375	1.001	826871	697191	1524062	db	1.035	1.186	1.240	NO	4142.0	55.281	55.281
7	123789-HxCDF	37.458	1.000	666827	546682	1213509	bb	0.987	1.220	1.240	NO	3353.8	54.724	54.724
8	1234678-HpCDF	39.519	1.000	744795	752241	1497036	bb	1.232	0.990	1.050	NO	3838.3	59.536	59.536
9	1234789-HpCDF	42.215	1.000	501819	520755	1022574	bd	1.215	0.964	1.050	NO	2225.2	54.646	54.646
10	OCDF	47.523	1.006	575030	654518	1229549	bb	1.138	0.879	0.890	NO	2731.4	107.478	107.478
11	2378-TCDD	26.706	1.001	149770	202164	351934	bb	1.049	0.741	0.770	NO	1997.6	10.865	10.865
12	12378-PeCDD	31.812	1.001	729618	472818	1202436	bb	0.998	1.543	1.550	NO	5076.7	54.675	54.675
13	123478-HxCDD	36.449	1.000	591873	488276	1080148	bd	0.971	1.212	1.240	NO	2822.6	55.007	55.007
14	123678-HxCDD	36.581	1.000	597781	482853	1080635	db	0.918	1.238	1.240	NO	2847.7	54.912	54.912
15	123789-HxCDD	37.008	1.012	581876	478635	1060511	bb	0.932	1.216	1.240	NO	2768.5	54.605	54.605
16	1234678-HpCDD	41.338	1.001	486184	457923	944107	bb	1.017	1.062	1.050	NO	1882.5	52.861	52.861
17	OCDD	47.244	1.000	499724	574240	1073964	bd	1.008	0.870	0.890	NO	2327.0	105.907	105.907
18	13C-2378-TCDF	26.049	1.006	2169435	2785779	4955214	bb	1.473	0.779	0.770	NO	10119.8		93.219
19	13C-12378-PeCDF	30.190	1.166	2264544	1442139	3706683	bb	1.148	1.570	1.550	NO	6745.6		89.457
20	13C-23478-PeCDF	31.527	1.218	2044317	1306929	3351246	bb	1.113	1.564	1.550	NO	5915.4		83.434
21	13C-123478-HxCDF	35.210	0.952	847706	1640438	2488144	bd	1.209	0.517	0.510	NO	3163.2		89.040
22	13C-123678-HxCDF	35.353	0.956	907975	1756831	2664807	db	1.269	0.517	0.510	NO	3479.3		90.879
23	13C-234678-HxCDF	36.296	0.981	789518	1516216	2305735	bb	1.236	0.521	0.510	NO	3074.2		80.722
24	13C-123789-HxCDF	37.447	1.012	774042	1473495	2247537	bb	1.107	0.525	0.510	NO	2840.8		87.863
25	13C-1234678-HpCDF	39.508	1.068	631062	1410092	2041154	bb	1.051	0.447	0.440	NO	4963.1		84.015
26	13C-1234789-HpCDF	42.204	1.141	468565	1071540	1540105	bb	0.815	0.437	0.440	NO	3201.8		81.787
27	13C-1234-TCDD	25.884	0.000	1579374	2030375	3609749	bb	1.000	0.778	0.770	NO	6256.2		100.000
28	13C-2378-TCDD	26.691	1.031	1355265	1731863	3087128	bb	0.946	0.783	0.770	NO	5337.6		90.430
29	13C-12378-PeCDD	31.790	1.228	1351792	851766	2203558	bb	0.721	1.587	1.550	NO	10080.6		84.705
30	13C-123478-HxCDD	36.438	0.985	1130045	892652	2022696	bd	0.991	1.266	1.240	NO	4069.8		88.319
31	13C-123678-HxCDD	36.570	0.988	1190530	952929	2143459	db	1.025	1.249	1.240	NO	4084.8		90.503
32	13C-1234678-HpCDD	41.316	1.117	893904	862451	1756355	bb	0.866	1.036	1.050	NO	3958.4		87.730
33	13C-OCDD	47.227	1.276	953229	1058023	2011252	bb	0.769	0.901	0.890	NO	3255.2		113.138

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	Name	RT	Dev RT	Area	Conc	Response	Type	RRF	Ratio	Theo	Flag	Dev	S/N	%I
34	13C-123789-HxCDD	36.997	0.000	1285518	1025834	2311352	bb	1.000	1.253	1.240	NO	4401.0		100.000
35	Total-tetrafurans			219547				0.877					11.956	11.811
36	Total-penta1			0										
37	Total-pentafurans			2154055				0.911					112.863	112.001
38	Total-hexafurans			3063640				1.032					225.067	225.067
39	Total-heptafurans			1250215				1.223					114.731	114.502
40	Total-Furans			7262487				1.041					572.096	570.858
41	Total-tetradioxins			154935				1.049					11.226	11.226
42	Total-pentadioxins			731954				0.998					55.036	54.856
43	Total-hexadioxins			1772284				0.940					164.643	164.592
44	Total-heptadioxins			492667				1.017					53.629	53.629
45	Total-Dioxins			3651564				0.985					390.439	390.209
46	Total-TEQ			10914050									962.535	961.066
47	37CL-2378-TCDD	26.706	1.032	1433146		1433146		1.044				12156.1		38.043
48	FUNCTION1 PFK			149471831										
49	FUNCTION2 PFK			296308										0.000
50	FUNCTION3 PFK			730471										0.000
51	FUNCTION4 PFK			933784										
52	FUNCTION5 PFK			4024										
53	FUNCTION1 HXCDPE			352										0.000
54	FUNCTION1 HPCDPE			967										0.000
55	FUNCTION2 HPCDPE			661										0.000
56	FUNCTION3 OCDPE			0										
57	FUNCTION4 NCDPE			0										
58	FUNCTION5 DCDPE			0										

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

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TF

	#	Name	Mass	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
	35	Total-tetrafurans	303.9016	26.69	0.000	0.877	0.000	0.005	1.34	0.77	YES	2.8
	35	Total-tetrafurans	303.9016	26.32	0.000	0.877	0.000	0.016	1.25	0.77	YES	6.1
	1	2378-TCDF	303.9016	26.06	485690.594	0.877	11.181	11.181	0.75	0.77	NO	2722.2
	35	Total-tetrafurans	303.9016	25.17	6889.232	0.877	0.159	0.159	0.76	0.77	NO	37.3
	35	Total-tetrafurans	303.9016	24.99	19693.681	0.877	0.453	0.453	0.66	0.77	NO	107.3
	35	Total-tetrafurans	303.9016	24.84	0.000	0.877	0.000	0.124	0.60	0.77	YES	34.6
	35	Total-tetrafurans	303.9016	23.60	755.900	0.877	0.017	0.017	0.80	0.77	NO	5.1

PP

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N

PF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
	37	Total-pentafurans	339.8597	30.52	0.000	0.911	0.000	0.030	2.63	1.55	YES	10.1
	37	Total-pentafurans	339.8597	30.40	35317.903	0.911	1.098	1.098	1.39	1.55	NO	126.7
	2	12378-PeCDF	339.8597	30.20	1822320.625	0.896	54.858	54.858	1.50	1.55	NO	6255.2
	37	Total-pentafurans	339.8597	29.92	0.000	0.911	0.000	0.061	1.88	1.55	YES	10.5
	37	Total-pentafurans	339.8597	29.85	17393.849	0.911	0.541	0.541	1.45	1.55	NO	59.3
	37	Total-pentafurans	339.8597	29.14	0.000	0.911	0.000	0.668	2.41	1.55	YES	77.9
	37	Total-pentafurans	339.8597	32.57	13955.258	0.911	0.434	0.434	1.44	1.55	NO	45.7
	3	23478-PeCDF	339.8597	31.55	1709174.376	0.926	55.069	55.069	1.49	1.55	NO	5873.9
	37	Total-pentafurans	339.8597	31.28	0.000	0.911	0.000	0.085	1.79	1.55	YES	9.8
	37	Total-pentafurans	339.8597	30.67	0.000	0.911	0.000	0.019	0.99	1.55	YES	3.4

HF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
	6	123678-HxCDF	373.8208	35.38	1524061.688	1.035	55.281	55.281	1.19	1.24	NO	4142.0
	4	123478-HxCDF	373.8208	35.22	1445469.938	1.068	54.386	54.386	1.18	1.24	NO	3917.4
	38	Total-hexafurans	373.8208	35.05	3315.046	1.032	0.132	0.132	1.31	1.24	NO	9.9
	38	Total-hexafurans	373.8208	33.71	13565.519	1.032	0.542	0.542	1.19	1.24	NO	35.1
	38	Total-hexafurans	373.8208	33.49	4736.016	1.032	0.189	0.189	1.31	1.24	NO	14.5
	7	123789-HxCDF	373.8208	37.46	1213508.938	0.987	54.724	54.724	1.22	1.24	NO	3353.8
	5	234678-HxCDF	373.8208	36.32	1429778.688	1.037	59.812	59.812	1.19	1.24	NO	3818.9

HPF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
	9	1234789-HpCDF	407.7818	42.22	1022574.094	1.215	54.646	54.646	0.96	1.05	NO	2225.2
	39	Total-heptafurans	407.7818	40.31	6998.727	1.223	0.319	0.319	1.06	1.05	NO	18.8
	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.230	0.77	1.05	YES	10.6
	8	1234678-HpCDF	407.7818	39.52	1497035.625	1.232	59.536	59.536	0.99	1.05	NO	3838.3

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Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	3° Rat...	1° Rat...	1° R...	S/N
	35	Total-tetrafurans	303.9016	26.69	0.000	0.877	0.000	0.005	1.34	0.77	YES	2.8
	35	Total-tetrafurans	303.9016	26.32	0.000	0.877	0.000	0.016	1.25	0.77	YES	6.1
	1	2378-TCDF	303.9016	26.06	485690.594	0.877	11.181	11.181	0.75	0.77	NO	2722.2
	35	Total-tetrafurans	303.9016	25.17	6889.232	0.877	0.159	0.159	0.76	0.77	NO	37.3
	35	Total-tetrafurans	303.9016	24.99	19693.681	0.877	0.453	0.453	0.66	0.77	NO	107.3
	35	Total-tetrafurans	303.9016	24.84	0.000	0.877	0.000	0.124	0.60	0.77	YES	34.6
	35	Total-tetrafurans	303.9016	23.60	755.900	0.877	0.017	0.017	0.80	0.77	NO	5.1
	37	Total-pentafurans	339.8597	30.52	0.000	0.911	0.000	0.030	2.63	1.55	YES	10.1
	37	Total-pentafurans	339.8597	30.40	35317.903	0.911	1.098	1.098	1.39	1.55	NO	126.7
	2	12378-PeCDF	339.8597	30.20	1822320.625	0.896	54.858	54.858	1.50	1.55	NO	6255.2
	37	Total-pentafurans	339.8597	29.92	0.000	0.911	0.000	0.061	1.88	1.55	YES	10.5
	37	Total-pentafurans	339.8597	29.85	17393.849	0.911	0.541	0.541	1.45	1.55	NO	59.3
	37	Total-pentafurans	339.8597	29.14	0.000	0.911	0.000	0.668	2.41	1.55	YES	77.9
	37	Total-pentafurans	339.8597	32.57	13955.258	0.911	0.434	0.434	1.44	1.55	NO	45.7
	3	23478-PeCDF	339.8597	31.55	1709174.376	0.926	55.069	55.069	1.49	1.55	NO	5873.9
	37	Total-pentafurans	339.8597	31.28	0.000	0.911	0.000	0.085	1.79	1.55	YES	9.8
	37	Total-pentafurans	339.8597	30.67	0.000	0.911	0.000	0.019	0.99	1.55	YES	3.4
	6	123678-HxCDF	373.8208	35.38	1524061.688	1.035	55.281	55.281	1.19	1.24	NO	4142.0
	4	123478-HxCDF	373.8208	35.22	1445469.938	1.068	54.386	54.386	1.18	1.24	NO	3917.4
	38	Total-hexafurans	373.8208	35.05	3315.046	1.032	0.132	0.132	1.31	1.24	NO	9.9
	38	Total-hexafurans	373.8208	33.71	13565.519	1.032	0.542	0.542	1.19	1.24	NO	35.1
	38	Total-hexafurans	373.8208	33.49	4736.016	1.032	0.189	0.189	1.31	1.24	NO	14.5
	7	123789-HxCDF	373.8208	37.46	1213508.938	0.987	54.724	54.724	1.22	1.24	NO	3353.8
	5	234678-HxCDF	373.8208	36.32	1429778.688	1.037	59.812	59.812	1.19	1.24	NO	3818.9
	9	1234789-HpCDF	407.7818	42.22	1022574.094	1.215	54.646	54.646	0.96	1.05	NO	2225.2
	39	Total-heptafurans	407.7818	40.31	6998.727	1.223	0.319	0.319	1.06	1.05	NO	18.8
	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.230	0.77	1.05	YES	10.6
	8	1234678-HpCDF	407.7818	39.52	1497035.625	1.232	59.536	59.536	0.99	1.05	NO	3838.3
	10	OCDF	441.7428	47.52	1229548.750	1.138	107.478	107....	0.88	0.89	NO	2731.4

TD

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	3° Rat...	1° Rat...	1° R...	S/N
	11	2378-TCDD	319.8965	26.71	351933.797	1.049	10.865	10.865	0.74	0.77	NO	1997.6
	41	Total-tetradioxins	319.8965	26.33	10685.026	1.049	0.330	0.330	0.79	0.77	NO	44.6
	41	Total-tetradioxins	319.8965	25.32	989.519	1.049	0.031	0.031	0.78	0.77	NO	4.5

PD

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	3° Rat...	1° Rat...	1° R...	S/N
	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.024	2.04	1.55	YES	4.2
	12	12378-PeCDD	355.8546	31.81	1202435.844	0.998	54.675	54.675	1.54	1.55	NO	5076.7
	42	Total-pentadioxins	355.8546	31.13	2265.809	0.998	0.103	0.103	1.45	1.55	NO	9.6
	42	Total-pentadioxins	355.8546	30.56	1706.260	0.998	0.078	0.078	1.39	1.55	NO	9.2
	42	Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.094	1.21	1.55	YES	9.0
	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.062	2.24	1.55	YES	9.6

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HD

[redacted]	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	1° Ratio	2° Ratio	2° R...	S/N
[redacted]	15	123789-HxCDD	389.8157	37.01	1060511.313	0.932	54.605	54.605	1.22	1.24	NO	2768.5
[redacted]	14	123678-HxCDD	389.8157	36.58	1080634.625	0.918	54.912	54.912	1.24	1.24	NO	2847.7
[redacted]	13	123478-HxCDD	389.8157	36.45	1080148.376	0.971	55.007	55.007	1.21	1.24	NO	2822.6
[redacted]	43	Total-hexadioxins	389.8157	35.50	0.000	0.940	0.000	0.051	1.73	1.24	YES	5.3
[redacted]	43	Total-hexadioxins	389.8157	35.45	1327.847	0.940	0.068	0.068	1.31	1.24	NO	5.7

HPD

[redacted]	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	1° Ratio	2° Ratio	2° R...	S/N
[redacted]	16	1234678-HpCDD	423.7766	41.34	944107.437	1.017	52.861	52.861	1.06	1.05	NO	1882.5
[redacted]	44	Total-heptadioxins	423.7766	40.08	13709.118	1.017	0.768	0.768	0.90	1.05	NO	26.1

Dioxins,TD,PD,HD,HPD,OD

[redacted]	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	1° Ratio	2° Ratio	2° R...	S/N
[redacted]	11	2378-TCDD	319.8965	26.71	351933.797	1.049	10.865	10.865	0.74	0.77	NO	1997.6
[redacted]	41	Total-tetradioxins	319.8965	26.33	10685.026	1.049	0.330	0.330	0.79	0.77	NO	44.6
[redacted]	41	Total-tetradioxins	319.8965	25.32	989.519	1.049	0.031	0.031	0.78	0.77	NO	4.5
[redacted]	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.024	2.04	1.55	YES	4.2
[redacted]	12	12378-PeCDD	355.8546	31.81	1202435.844	0.998	54.675	54.675	1.54	1.55	NO	5076.7
[redacted]	42	Total-pentadioxins	355.8546	31.13	2265.809	0.998	0.103	0.103	1.45	1.55	NO	9.6
[redacted]	42	Total-pentadioxins	355.8546	30.56	1706.260	0.998	0.078	0.078	1.39	1.55	NO	9.2
[redacted]	42	Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.094	1.21	1.55	YES	9.0
[redacted]	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.062	2.24	1.55	YES	9.6
[redacted]	15	123789-HxCDD	389.8157	37.01	1060511.313	0.932	54.605	54.605	1.22	1.24	NO	2768.5
[redacted]	14	123678-HxCDD	389.8157	36.58	1080634.625	0.918	54.912	54.912	1.24	1.24	NO	2847.7
[redacted]	13	123478-HxCDD	389.8157	36.45	1080148.376	0.971	55.007	55.007	1.21	1.24	NO	2822.6
[redacted]	43	Total-hexadioxins	389.8157	35.50	0.000	0.940	0.000	0.051	1.73	1.24	YES	5.3
[redacted]	43	Total-hexadioxins	389.8157	35.45	1327.847	0.940	0.068	0.068	1.31	1.24	NO	5.7
[redacted]	16	1234678-HpCDD	423.7766	41.34	944107.437	1.017	52.861	52.861	1.06	1.05	NO	1882.5
[redacted]	44	Total-heptadioxins	423.7766	40.08	13709.118	1.017	0.768	0.768	0.90	1.05	NO	26.1
[redacted]	17	OCDD	457.7377	47.24	1073964.063	1.008	105.907	105....	0.87	0.89	NO	2327.0

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Theo.	RT	Abs Area	RRF Mo	[redacted]	EMPC	2 Ratio	1 Ratio	1 R...	Sig
[redacted]	35	Total-tetrafurans	303.9016	26.69	0.000	0.877	0.000	0.005	1.34	0.77	YES	2.8
[redacted]	35	Total-tetrafurans	303.9016	26.32	0.000	0.877	0.000	0.016	1.25	0.77	YES	6.1
[redacted]	1	2378-TCDF	303.9016	26.06	485690.594	0.877	11.181	11.181	0.75	0.77	NO	2722.2
[redacted]	35	Total-tetrafurans	303.9016	25.17	6889.232	0.877	0.159	0.159	0.76	0.77	NO	37.3
[redacted]	35	Total-tetrafurans	303.9016	24.99	19693.681	0.877	0.453	0.453	0.66	0.77	NO	107.3
[redacted]	35	Total-tetrafurans	303.9016	24.84	0.000	0.877	0.000	0.124	0.60	0.77	YES	34.6
[redacted]	35	Total-tetrafurans	303.9016	23.60	755.900	0.877	0.017	0.017	0.80	0.77	NO	5.1
[redacted]	37	Total-pentafurans	339.8597	30.52	0.000	0.911	0.000	0.030	2.63	1.55	YES	10.1
[redacted]	37	Total-pentafurans	339.8597	30.40	35317.903	0.911	1.098	1.098	1.39	1.55	NO	126.7
[redacted]	2	12378-PeCDF	339.8597	30.20	1822320.625	0.896	54.858	54.858	1.50	1.55	NO	6255.2
[redacted]	37	Total-pentafurans	339.8597	29.92	0.000	0.911	0.000	0.061	1.88	1.55	YES	10.5
[redacted]	37	Total-pentafurans	339.8597	29.85	17393.849	0.911	0.541	0.541	1.45	1.55	NO	59.3
[redacted]	37	Total-pentafurans	339.8597	29.14	0.000	0.911	0.000	0.668	2.41	1.55	YES	77.9
[redacted]	37	Total-pentafurans	339.8597	32.57	13955.258	0.911	0.434	0.434	1.44	1.55	NO	45.7
[redacted]	3	23478-PeCDF	339.8597	31.55	1709174.376	0.926	55.069	55.069	1.49	1.55	NO	5873.9
[redacted]	37	Total-pentafurans	339.8597	31.28	0.000	0.911	0.000	0.085	1.79	1.55	YES	9.8
[redacted]	37	Total-pentafurans	339.8597	30.67	0.000	0.911	0.000	0.019	0.99	1.55	YES	3.4
[redacted]	6	123678-HxCDF	373.8208	35.38	1524061.688	1.035	55.281	55.281	1.19	1.24	NO	4142.0
[redacted]	4	123478-HxCDF	373.8208	35.22	1445469.938	1.068	54.386	54.386	1.18	1.24	NO	3917.4
[redacted]	38	Total-hexafurans	373.8208	35.05	3315.046	1.032	0.132	0.132	1.31	1.24	NO	9.9
[redacted]	38	Total-hexafurans	373.8208	33.71	13565.519	1.032	0.542	0.542	1.19	1.24	NO	35.1
[redacted]	38	Total-hexafurans	373.8208	33.49	4736.016	1.032	0.189	0.189	1.31	1.24	NO	14.5
[redacted]	7	123789-HxCDF	373.8208	37.46	1213508.938	0.987	54.724	54.724	1.22	1.24	NO	3353.8
[redacted]	5	234678-HxCDF	373.8208	36.32	1429778.688	1.037	59.812	59.812	1.19	1.24	NO	3818.9
[redacted]	9	1234789-HpCDF	407.7818	42.22	1022574.094	1.215	54.646	54.646	0.96	1.05	NO	2225.2
[redacted]	39	Total-heptafurans	407.7818	40.31	6998.727	1.223	0.319	0.319	1.06	1.05	NO	18.8
[redacted]	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.230	0.77	1.05	YES	10.6
[redacted]	8	1234678-HpCDF	407.7818	39.52	1497035.625	1.232	59.536	59.536	0.99	1.05	NO	3838.3
[redacted]	10	OCDF	441.7428	47.52	1229548.750	1.138	107.478	107....	0.88	0.89	NO	2731.4
[redacted]	11	2378-TCDD	319.8965	26.71	351933.797	1.049	10.865	10.865	0.74	0.77	NO	1997.6
[redacted]	41	Total-tetradioxins	319.8965	26.33	10685.026	1.049	0.330	0.330	0.79	0.77	NO	44.6
[redacted]	41	Total-tetradioxins	319.8965	25.32	989.519	1.049	0.031	0.031	0.78	0.77	NO	4.5
[redacted]	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.024	2.04	1.55	YES	4.2
[redacted]	12	12378-PeCDD	355.8546	31.81	1202435.844	0.998	54.675	54.675	1.54	1.55	NO	5076.7
[redacted]	42	Total-pentadioxins	355.8546	31.13	2265.809	0.998	0.103	0.103	1.45	1.55	NO	9.6
[redacted]	42	Total-pentadioxins	355.8546	30.56	1706.260	0.998	0.078	0.078	1.39	1.55	NO	9.2
[redacted]	42	Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.094	1.21	1.55	YES	9.0
[redacted]	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.062	2.24	1.55	YES	9.6
[redacted]	15	123789-HxCDD	389.8157	37.01	1060511.313	0.932	54.605	54.605	1.22	1.24	NO	2768.5
[redacted]	14	123678-HxCDD	389.8157	36.58	1080634.625	0.918	54.912	54.912	1.24	1.24	NO	2847.7
[redacted]	13	123478-HxCDD	389.8157	36.45	1080148.376	0.971	55.007	55.007	1.21	1.24	NO	2822.6
[redacted]	43	Total-hexadioxins	389.8157	35.50	0.000	0.940	0.000	0.051	1.73	1.24	YES	5.3
[redacted]	43	Total-hexadioxins	389.8157	35.45	1327.847	0.940	0.068	0.068	1.31	1.24	NO	5.7
[redacted]	16	1234678-HpCDD	423.7766	41.34	944107.437	1.017	52.861	52.861	1.06	1.05	NO	1882.5
[redacted]	44	Total-heptadioxins	423.7766	40.08	13709.118	1.017	0.768	0.768	0.90	1.05	NO	26.1
[redacted]	17	OCDD	457.7377	47.24	1073964.063	1.008	105.907	105....	0.87	0.89	NO	2327.0

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PFK1

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
	48	FUNCTION1 PFK	330.9792	24.73	0.000							23.2
	48	FUNCTION1 PFK	330.9792	24.27	0.000							43.4
	48	FUNCTION1 PFK	330.9792	23.37	0.000							65.2
	48	FUNCTION1 PFK	330.9792	23.02	0.000							73.7
	48	FUNCTION1 PFK	330.9792	22.90	0.000							74.9
	48	FUNCTION1 PFK	330.9792	22.61	0.000							83.7
	48	FUNCTION1 PFK	330.9792	22.46	0.000							86.3
	48	FUNCTION1 PFK	330.9792	21.57	0.000							73.8

PFK2

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
	49	FUNCTION2 PFK	366.9792	28.92	0.000	0.000						0.9
	49	FUNCTION2 PFK	366.9792	28.53	0.000	0.000						3.2

PFK3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	33.31	0.000	0.000						0.6
	50	FUNCTION3 PFK	380.9760	37.86	0.000	0.000						2.9
	50	FUNCTION3 PFK	380.9760	37.06	0.000	0.000						2.0
	50	FUNCTION3 PFK	380.9760	36.67	0.000	0.000						1.1
	50	FUNCTION3 PFK	380.9760	36.25	0.000	0.000						1.3
	50	FUNCTION3 PFK	380.9760	36.15	0.000	0.000						0.5
	50	FUNCTION3 PFK	380.9760	35.85	0.000	0.000						0.8
	50	FUNCTION3 PFK	380.9760	35.80	0.000	0.000						1.5
	50	FUNCTION3 PFK	380.9760	35.38	0.000	0.000						1.1
	50	FUNCTION3 PFK	380.9760	35.19	0.000	0.000						2.8
	50	FUNCTION3 PFK	380.9760	35.13	0.000	0.000						2.2
	50	FUNCTION3 PFK	380.9760	34.89	0.000	0.000						0.8
	50	FUNCTION3 PFK	380.9760	34.67	0.000	0.000						1.1
	50	FUNCTION3 PFK	380.9760	33.95	0.000	0.000						1.7
	50	FUNCTION3 PFK	380.9760	33.62	0.000	0.000						1.7

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PFK4

	#	Name	Mass	RT	Abs Resp	RRF M...	pg	EMPC	% Rat...	% Rat...	I.S.	S/N
	51	FUNCTION4 PFK	430.9728	38.60	0.000							1.8
	51	FUNCTION4 PFK	430.9728	40.57	0.000							1.8
	51	FUNCTION4 PFK	430.9728	40.45	0.000							1.6
	51	FUNCTION4 PFK	430.9728	40.19	0.000							0.4
	51	FUNCTION4 PFK	430.9728	39.94	0.000							1.2
	51	FUNCTION4 PFK	430.9728	39.88	0.000							0.8
	51	FUNCTION4 PFK	430.9728	39.83	0.000							1.4
	51	FUNCTION4 PFK	430.9728	39.66	0.000							1.3
	51	FUNCTION4 PFK	430.9728	39.43	0.000							0.9
	51	FUNCTION4 PFK	430.9728	39.40	0.000							0.6
	51	FUNCTION4 PFK	430.9728	39.35	0.000							0.4
	51	FUNCTION4 PFK	430.9728	39.26	0.000							0.9
	51	FUNCTION4 PFK	430.9728	39.10	0.000							1.1
	51	FUNCTION4 PFK	430.9728	39.04	0.000							0.5
	51	FUNCTION4 PFK	430.9728	38.87	0.000							0.9
	51	FUNCTION4 PFK	430.9728	38.71	0.000							0.5
	51	FUNCTION4 PFK	430.9728	38.64	0.000							1.5
	51	FUNCTION4 PFK	430.9728	42.58	0.000							1.1
	51	FUNCTION4 PFK	430.9728	42.19	0.000							0.4
	51	FUNCTION4 PFK	430.9728	42.00	0.000							0.4
	51	FUNCTION4 PFK	430.9728	41.84	0.000							1.3
	51	FUNCTION4 PFK	430.9728	41.73	0.000							0.4
	51	FUNCTION4 PFK	430.9728	41.63	0.000							1.2
	51	FUNCTION4 PFK	430.9728	41.51	0.000							1.2
	51	FUNCTION4 PFK	430.9728	41.46	0.000							0.7
	51	FUNCTION4 PFK	430.9728	41.38	0.000							0.7
	51	FUNCTION4 PFK	430.9728	41.16	0.000							0.3
	51	FUNCTION4 PFK	430.9728	41.12	0.000							0.8
	51	FUNCTION4 PFK	430.9728	41.06	0.000							1.3
	51	FUNCTION4 PFK	430.9728	40.83	0.000							1.0
	51	FUNCTION4 PFK	430.9728	40.77	0.000							1.2
	51	FUNCTION4 PFK	430.9728	40.74	0.000							0.8
	51	FUNCTION4 PFK	430.9728	40.65	0.000							1.4
	51	FUNCTION4 PFK	430.9728	44.09	0.000							0.8
	51	FUNCTION4 PFK	430.9728	44.03	0.000							1.2
	51	FUNCTION4 PFK	430.9728	43.98	0.000							1.3
	51	FUNCTION4 PFK	430.9728	43.86	0.000							0.3
	51	FUNCTION4 PFK	430.9728	43.75	0.000							0.8
	51	FUNCTION4 PFK	430.9728	43.46	0.000							1.3
	51	FUNCTION4 PFK	430.9728	43.34	0.000							1.8
	51	FUNCTION4 PFK	430.9728	43.27	0.000							1.3
	51	FUNCTION4 PFK	430.9728	43.17	0.000							1.1
	51	FUNCTION4 PFK	430.9728	43.12	0.000							1.5
	51	FUNCTION4 PFK	430.9728	43.08	0.000							1.7
	51	FUNCTION4 PFK	430.9728	42.95	0.000							0.6
	51	FUNCTION4 PFK	430.9728	42.82	0.000							0.7
	51	FUNCTION4 PFK	430.9728	42.79	0.000							0.6
	51	FUNCTION4 PFK	430.9728	42.71	0.000							0.4
	51	FUNCTION4 PFK	430.9728	42.68	0.000							0.6

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PFK4

	#	Name	Trace	RT	Abs Rete	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	51	FUNCTION4 PFK	430.9728	44.93	0.000							0.4
	51	FUNCTION4 PFK	430.9728	44.77	0.000							0.5
	51	FUNCTION4 PFK	430.9728	44.71	0.000							1.1
	51	FUNCTION4 PFK	430.9728	44.67	0.000							1.1
	51	FUNCTION4 PFK	430.9728	44.64	0.000							0.8
	51	FUNCTION4 PFK	430.9728	44.57	0.000							1.4
	51	FUNCTION4 PFK	430.9728	44.51	0.000							1.3
	51	FUNCTION4 PFK	430.9728	44.40	0.000							1.3
	51	FUNCTION4 PFK	430.9728	44.35	0.000							1.1
	51	FUNCTION4 PFK	430.9728	44.26	0.000							1.6
	51	FUNCTION4 PFK	430.9728	44.20	0.000							1.1
	51	FUNCTION4 PFK	430.9728	44.13	0.000							1.2

PFK5

	#	Name	Trace	RT	Abs Rete	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	52	FUNCTION5 PFK	480.9696	45.93	0.000							0.7
	52	FUNCTION5 PFK	480.9696	45.58	0.000							0.7

ETHERS1

	#	Name	Trace	RT	Abs Rete	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	53	FUNCTION1 HXCD...	375.8364	27.24	0.000	0.000						4.1
	53	FUNCTION1 HXCD...	375.8364	24.90	0.000	0.000						3.2
	53	FUNCTION1 HXCD...	375.8364	24.57	0.000	0.000						3.3
	53	FUNCTION1 HXCD...	375.8364	22.16	0.000	0.000						1.5

ETHERS2

	#	Name	Trace	RT	Abs Rete	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	27.39	0.000	0.000						1.4
	54	FUNCTION1 HPCD...	409.7974	27.33	0.000	0.000						1.3
	54	FUNCTION1 HPCD...	409.7974	26.74	0.000	0.000						2.7
	54	FUNCTION1 HPCD...	409.7974	25.90	0.000	0.000						1.1
	54	FUNCTION1 HPCD...	409.7974	25.81	0.000	0 000						1.2
	54	FUNCTION1 HPCD...	409.7974	25.69	0.000	0.000						2.9
	54	FUNCTION1 HPCD...	409.7974	24.78	0.000	0.000						3.1
	54	FUNCTION1 HPCD...	409.7974	23.43	0.000	0.000						2.2
	54	FUNCTION1 HPCD...	409.7974	23.33	0.000	0.000						1.2
	54	FUNCTION1 HPCD...	409.7974	22.19	0.000	0.000						3.6
	54	FUNCTION1 HPCD...	409.7974	21.60	0.000	0.000						2.4

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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ETHERS3

	#	Name	Trace	RT	Abs.Resp	RRF M...	Dg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	31.64	0.000	0.000						3.1
	55	FUNCTION2 HPCD...	409.7974	30.23	0.000	0.000						5.5
	55	FUNCTION2 HPCD...	409.7974	29.94	0.000	0.000						5.9
	55	FUNCTION2 HPCD...	409.7974	29.63	0.000	0.000						2.9
	55	FUNCTION2 HPCD...	409.7974	29.40	0.000	0.000						6.7
	55	FUNCTION2 HPCD...	409.7974	28.96	0.000	0.000						3.6

ETHERS4

	#	Name	Trace	RT	Abs.Resp	RRF M...	Dg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

ETHERS5

	#	Name	Trace	RT	Abs.Resp	RRF M...	Dg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

ETHERS6

	#	Name	Trace	RT	Abs.Resp	RRF M...	Dg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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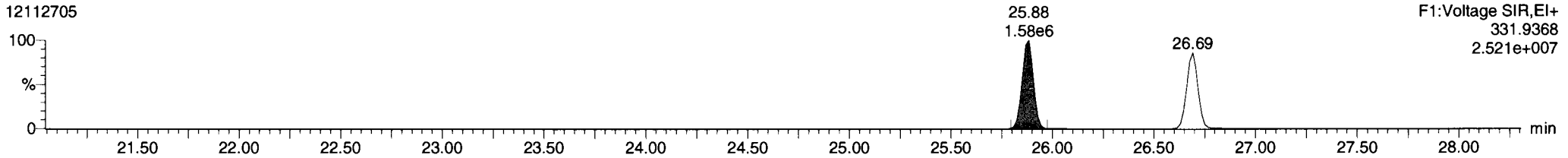
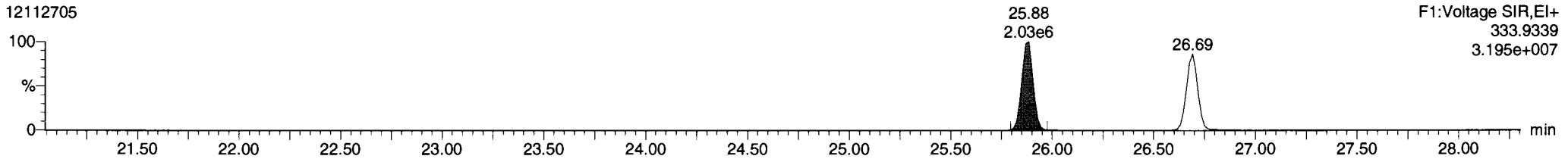
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112705, Date: 27-Nov-2012, Time: 13:59:42, ID: VR38OPR, Conditions: AUTOSPEC01, User: pk

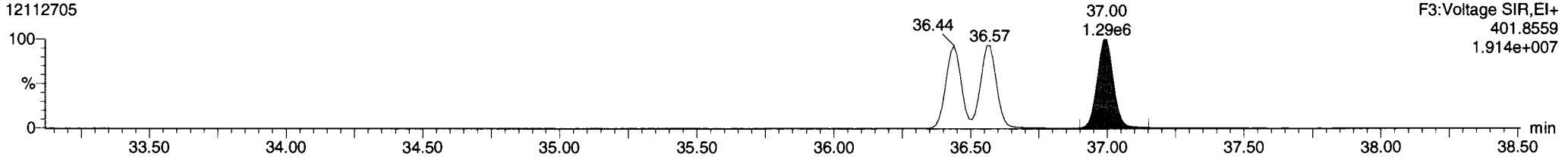
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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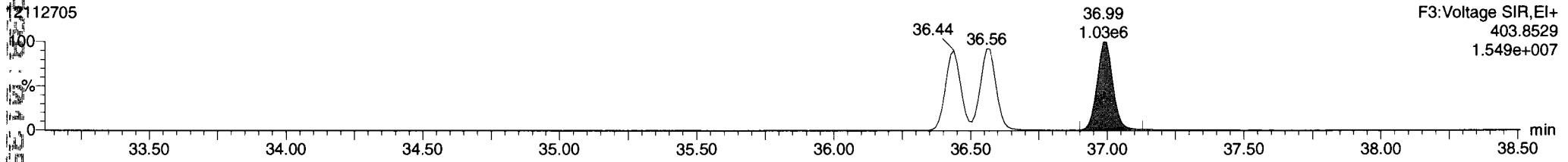

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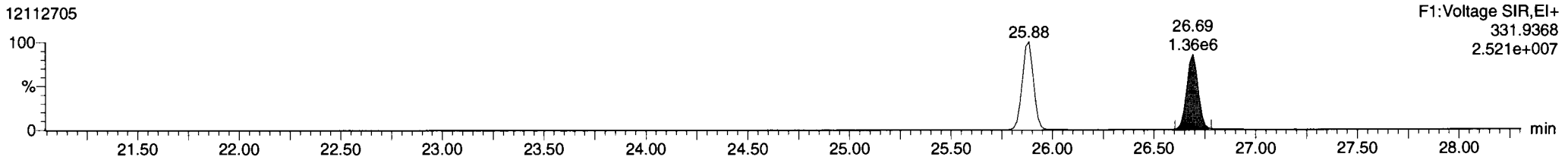
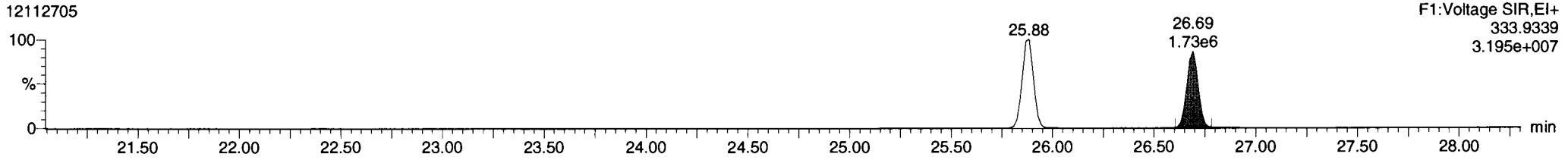
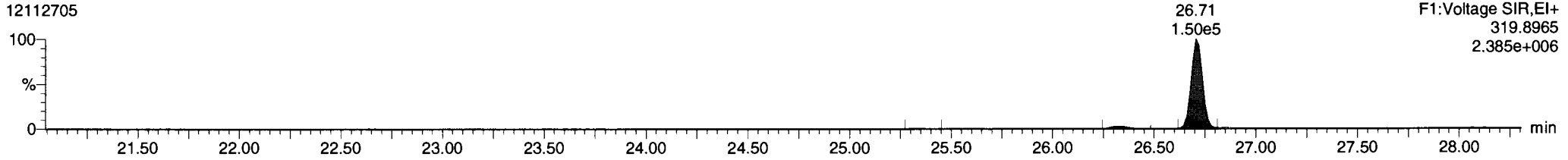
13C-2378-TCDD



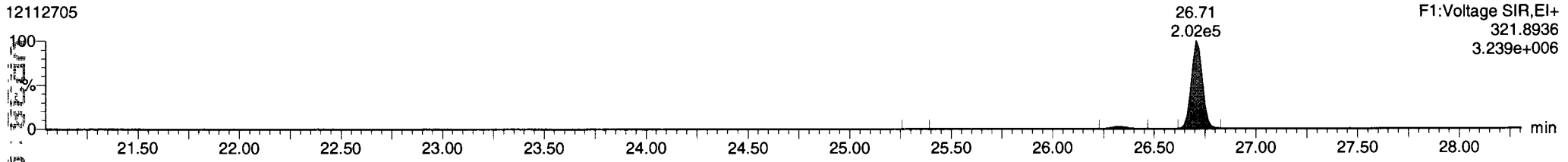
13C-2378-TCDD



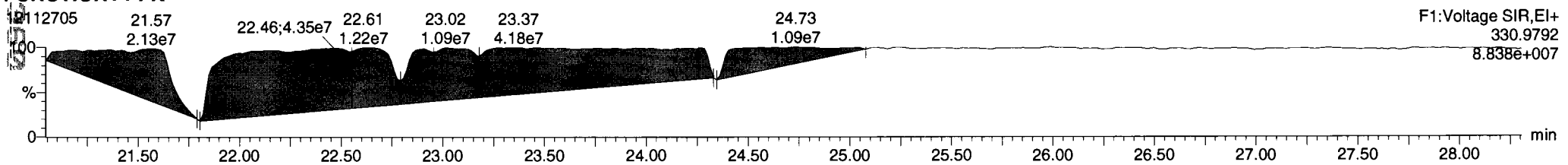
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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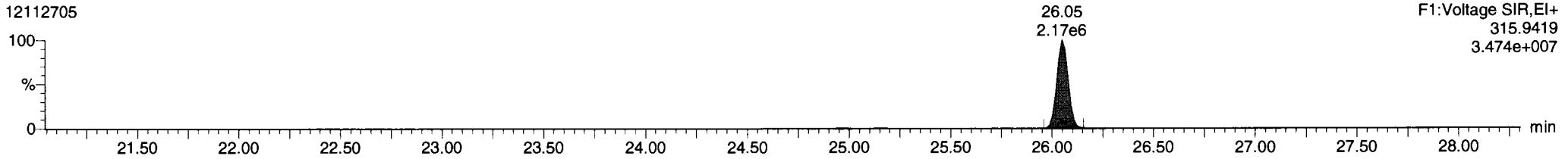
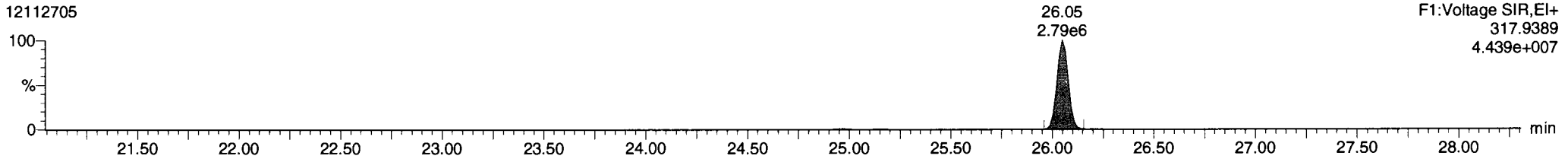
Name: 12112705, Date: 27-Nov-2012, Time: 13:59:42, ID: VR38OPR, Conditions: AUTOSPEC01, User: pk

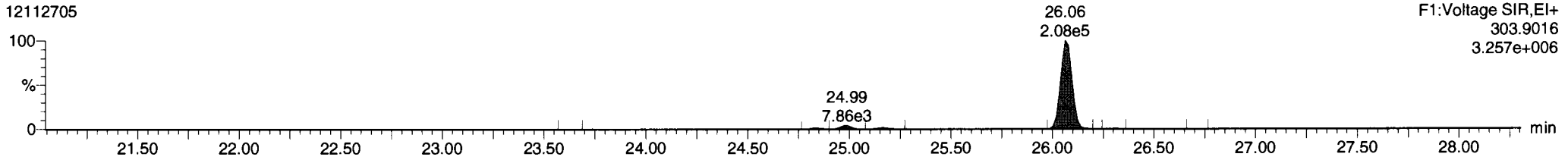
13C-2378-TCDF



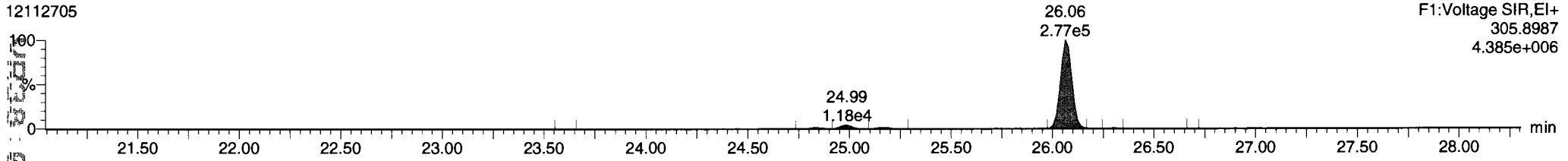
13C-2378-TCDF



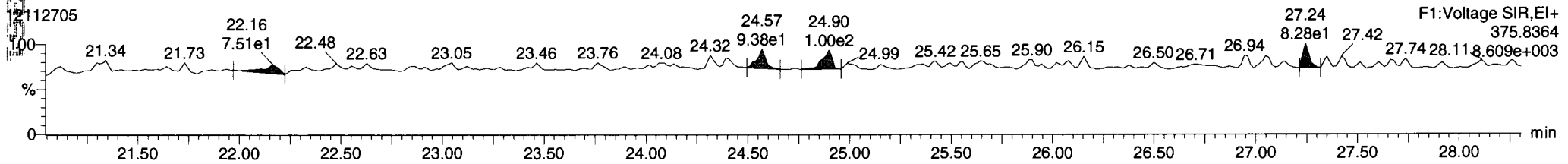
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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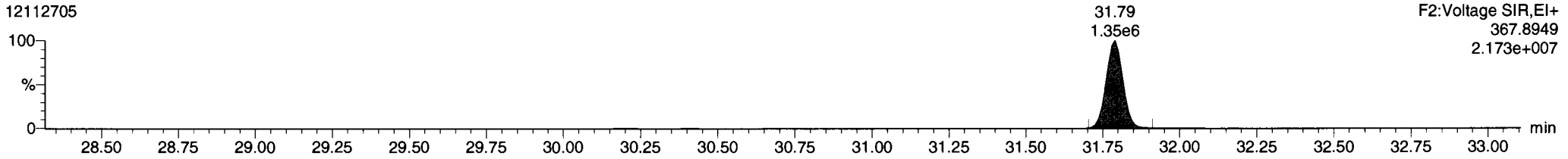
Printed: Wednesday, November 28, 2012 14:44:39 Pacific Standard Time

Name: 12112705, Date: 27-Nov-2012, Time: 13:59:42, ID: VR38OPR, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD



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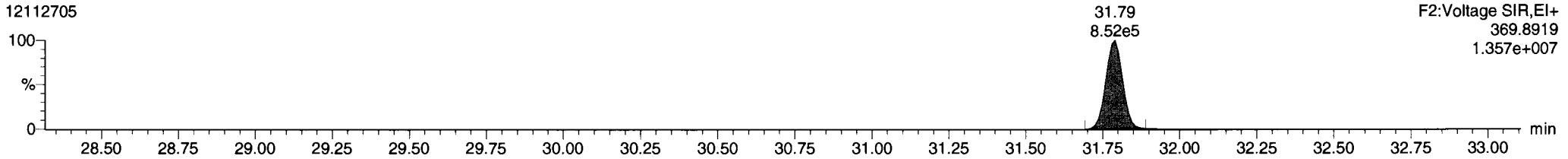
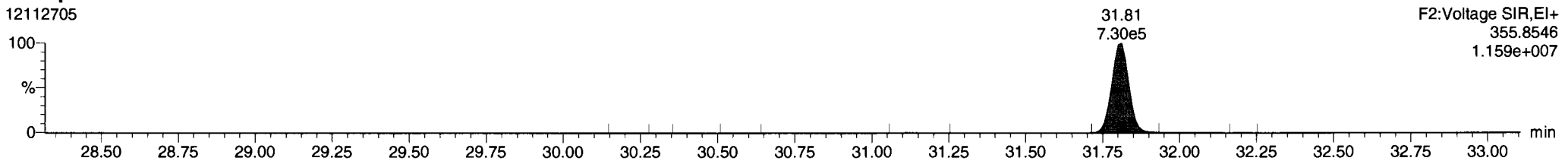
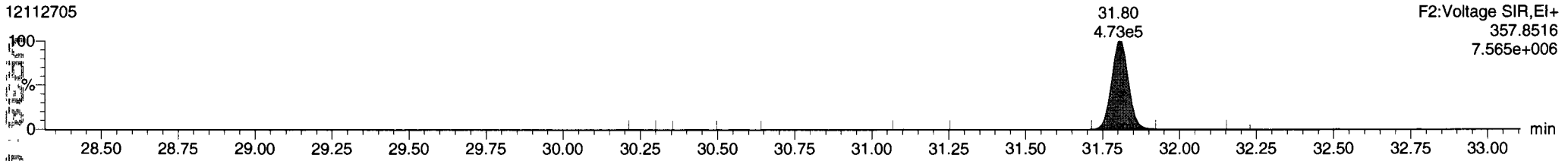


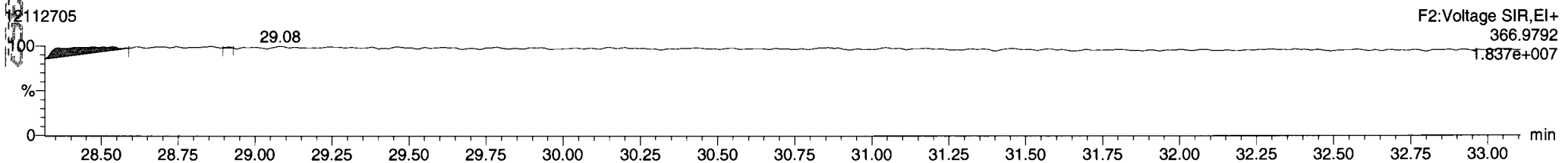
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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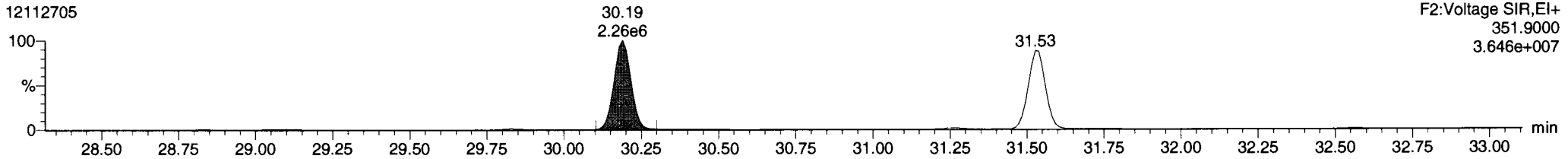
Name: 12112705, Date: 27-Nov-2012, Time: 13:59:42, ID: VR38OPR, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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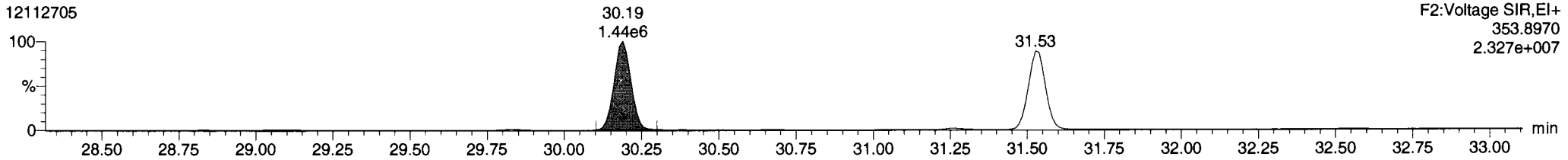
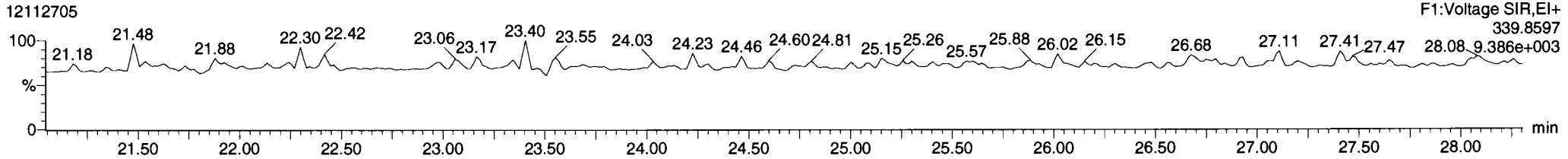
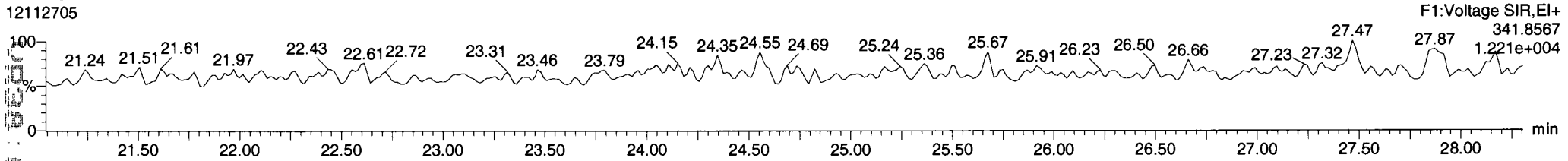


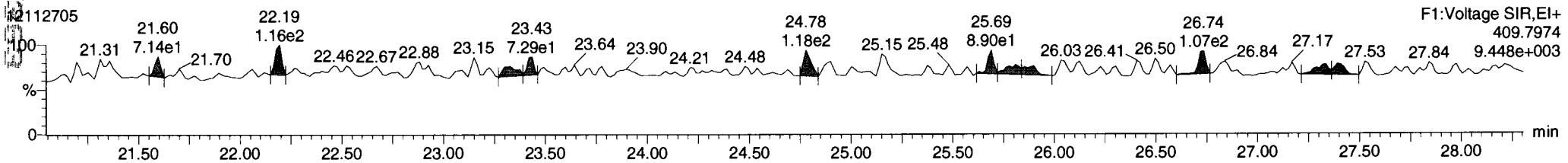
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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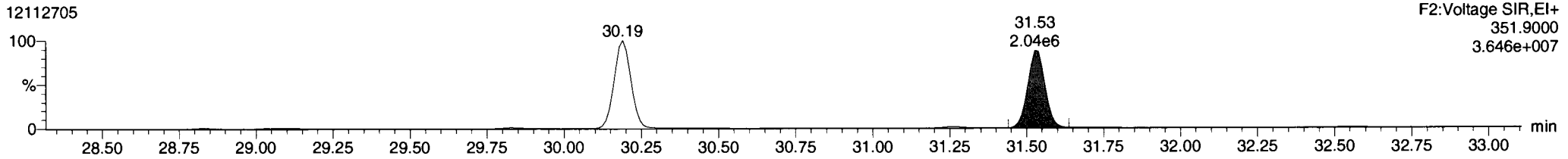
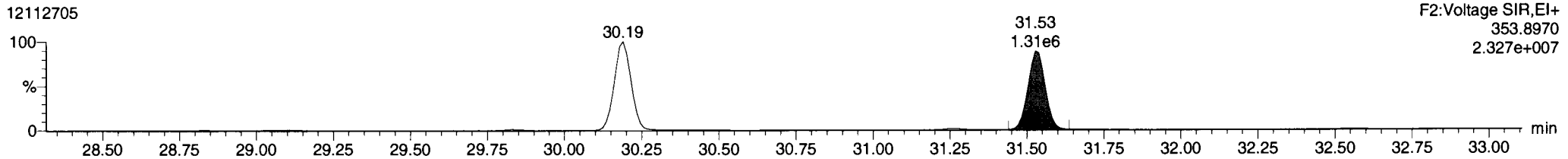
Name: 12112705, Date: 27-Nov-2012, Time: 13:59:42, ID: VR38OPR, Conditions: AUTOSPEC01, User: pk

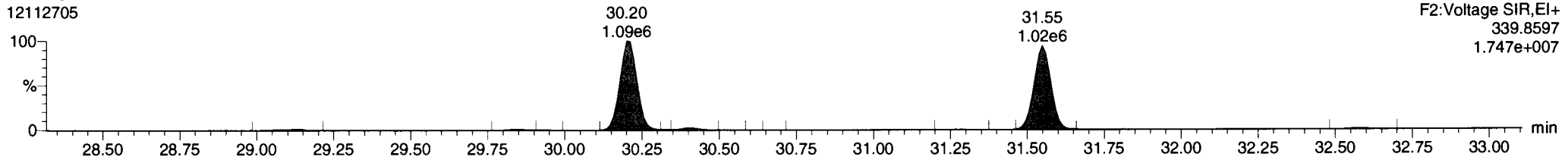
13C-23478-PeCDF



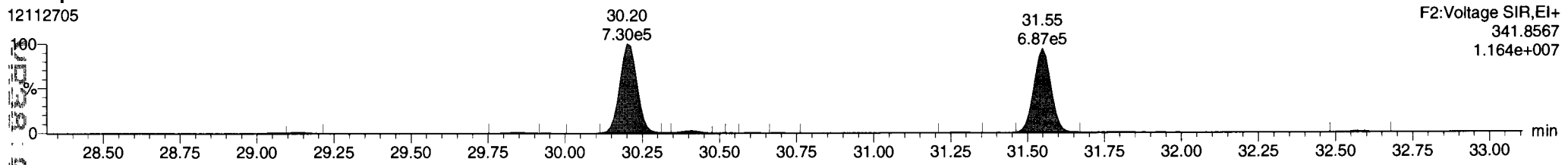
13C-23478-PeCDF



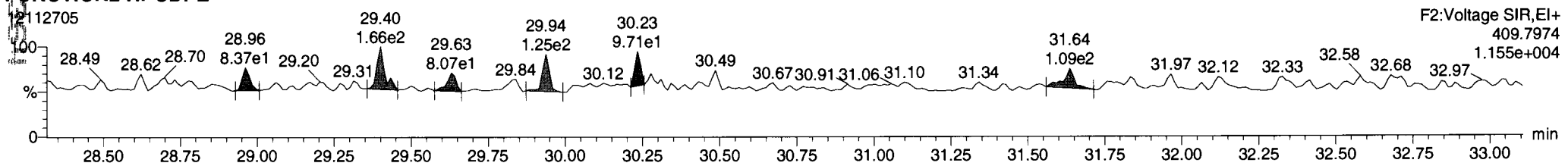
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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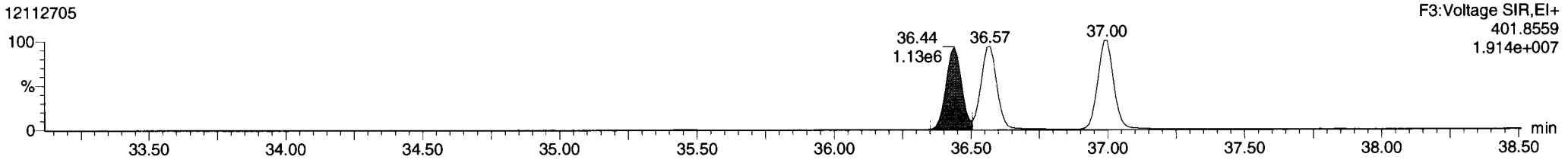
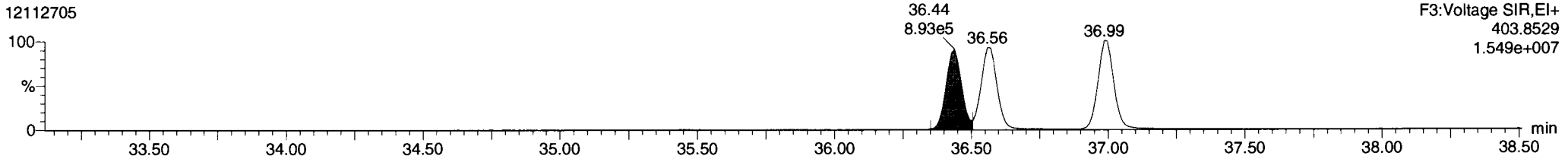
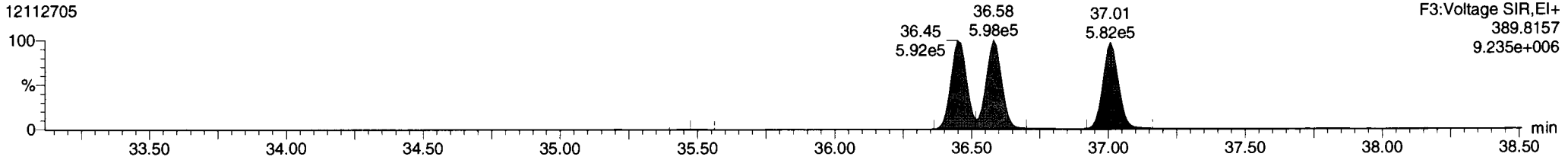
13C-123478-HxCDD



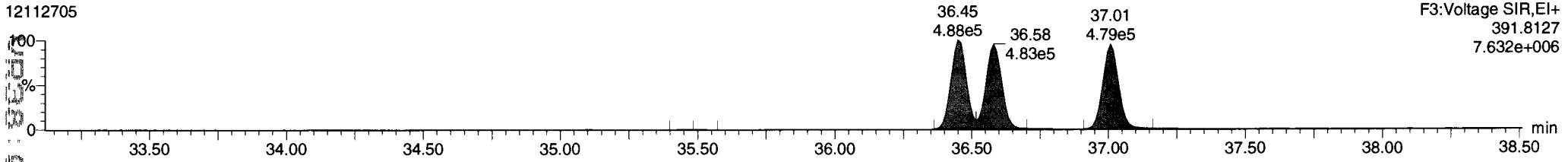
13C-123478-HxCDD



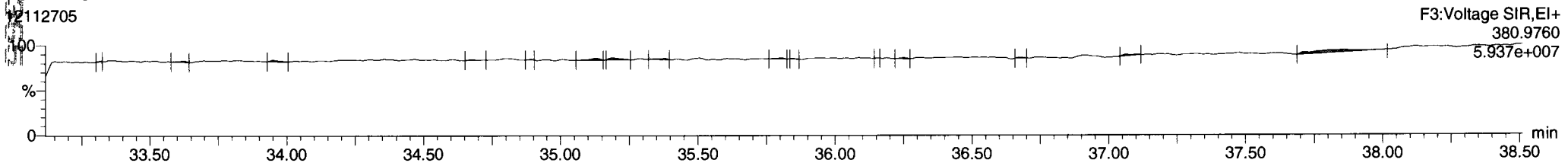
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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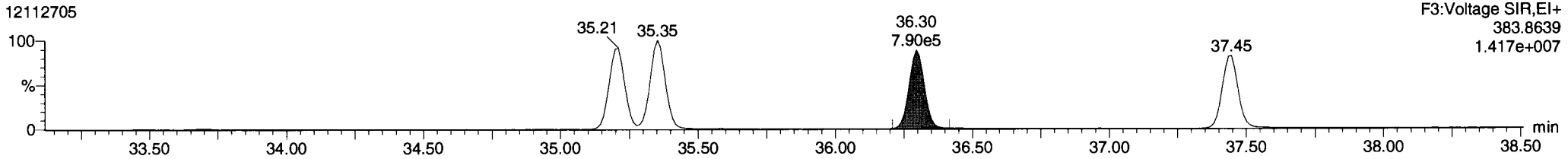
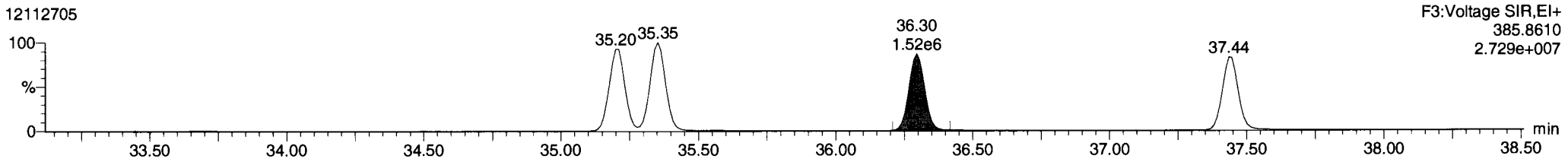
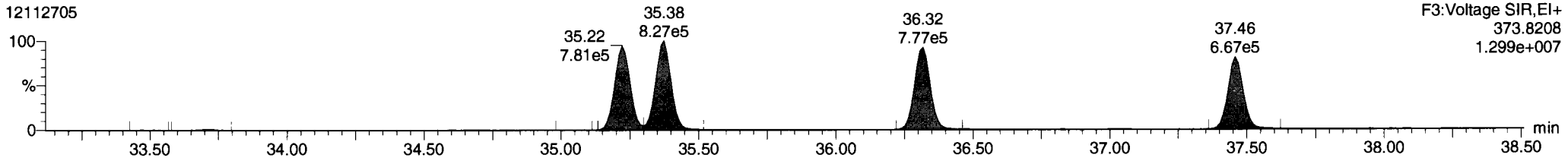
13C-234678-HxCDF



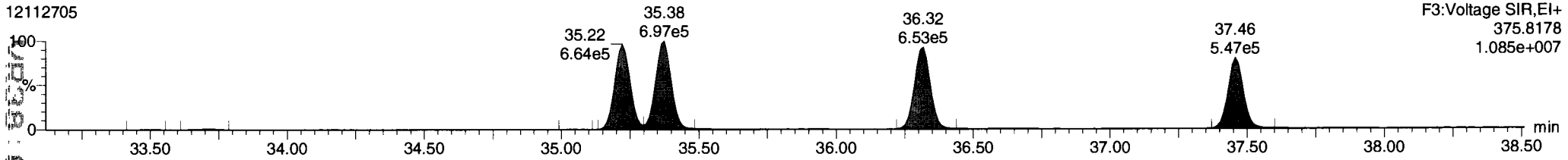
13C-234678-HxCDF



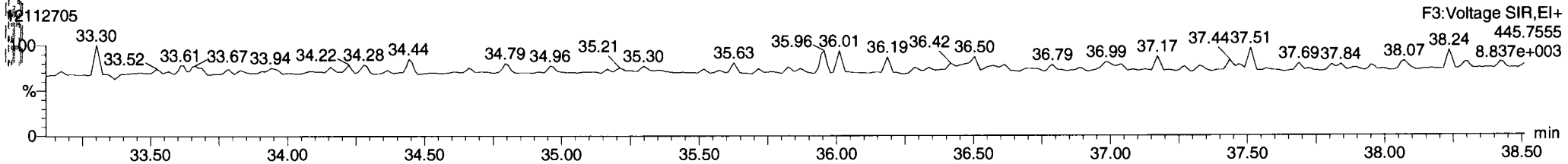
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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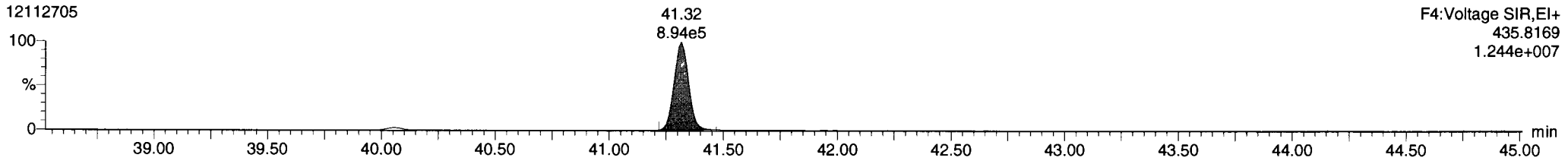
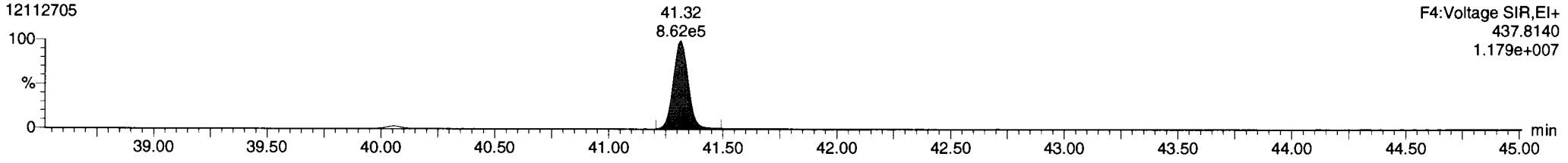
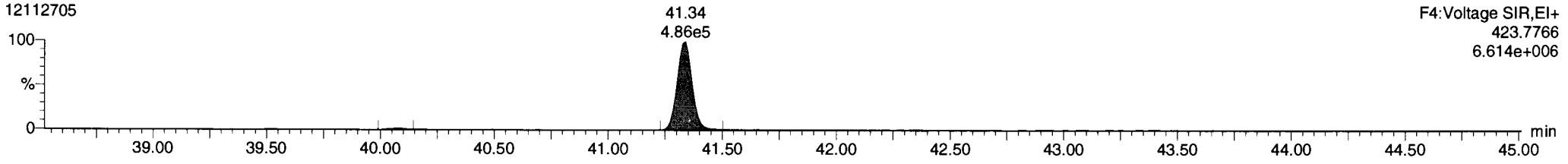
13C-1234678-HpCDD



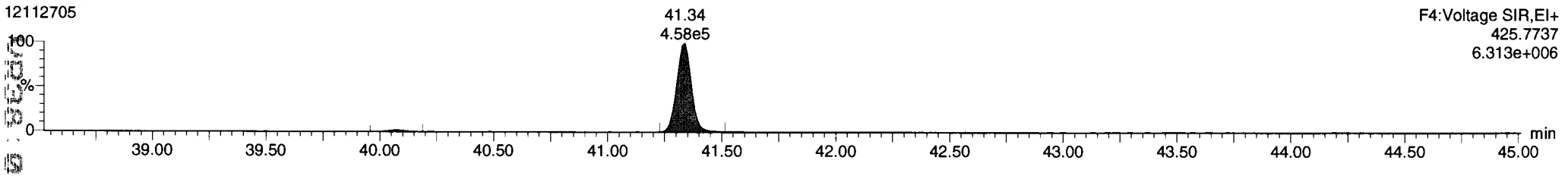
13C-1234678-HpCDD



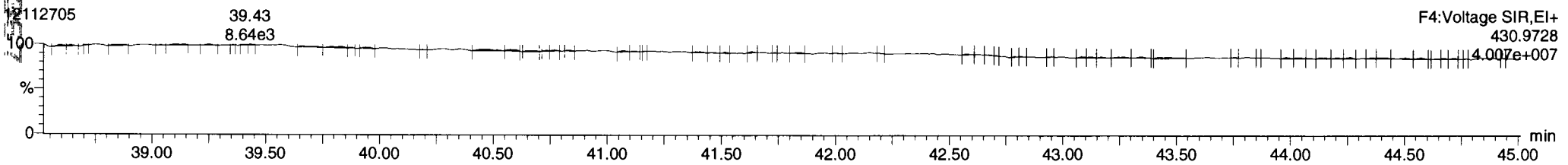
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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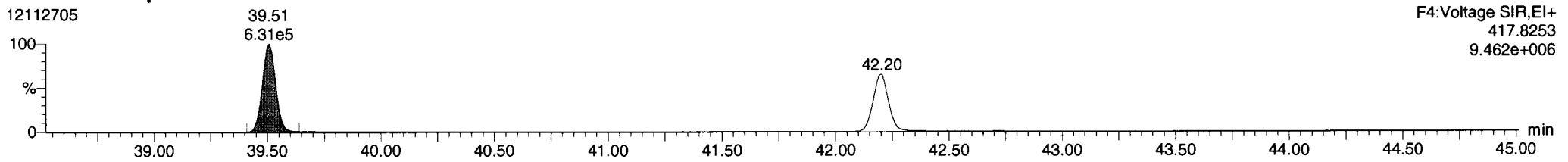
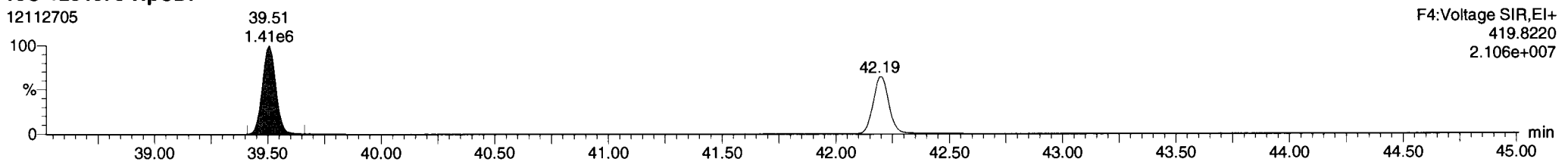
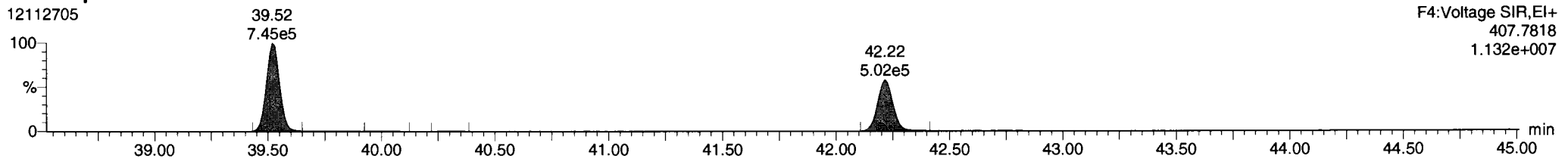
13C-1234678-HpCDF



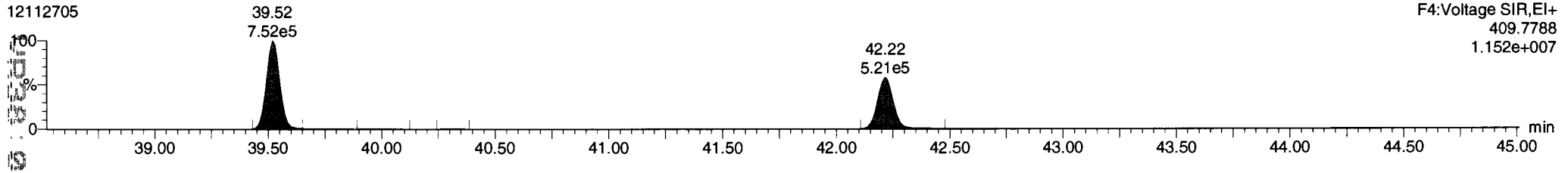
13C-1234678-HpCDF



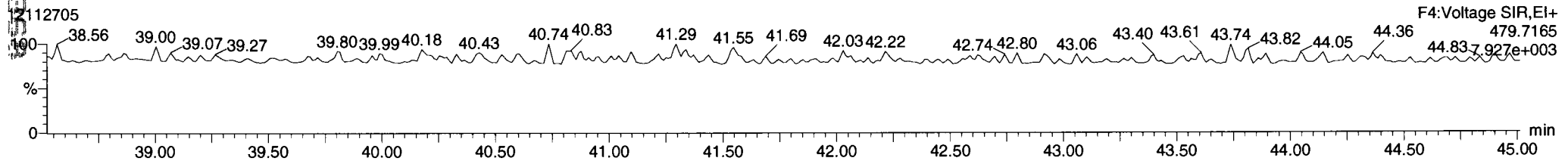
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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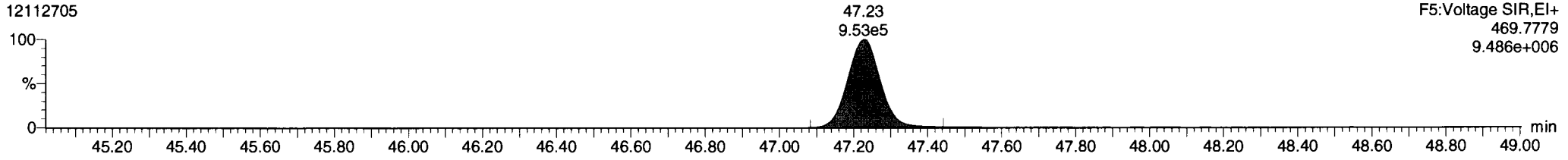
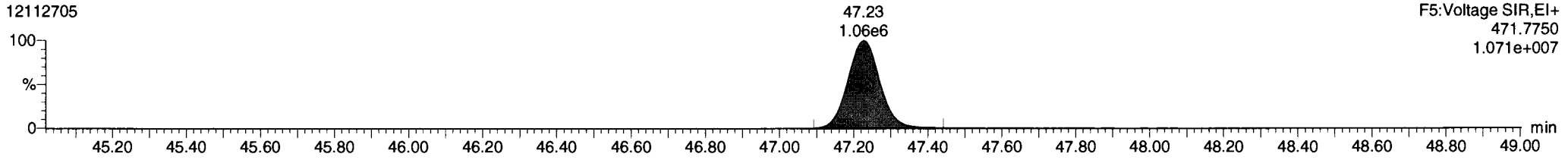
Name: 12112705, Date: 27-Nov-2012, Time: 13:59:42, ID: VR38OPR, Conditions: AUTOSPEC01, User: pk

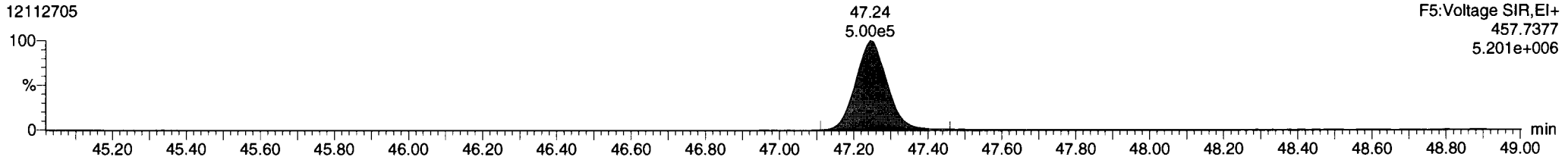
13C-OCDD



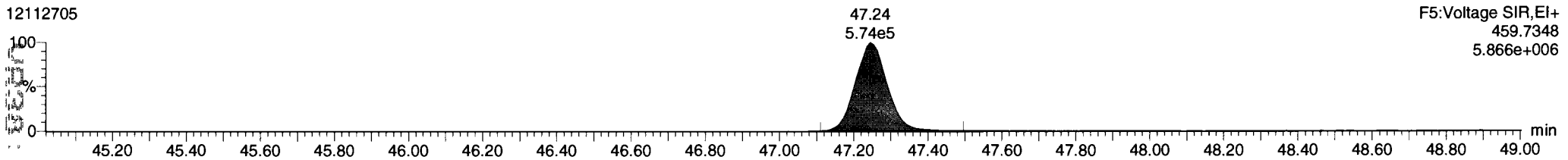
13C-OCDD



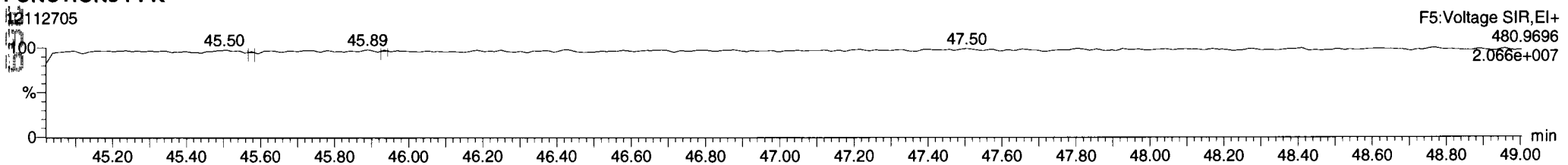
OCDD



OCDD



FUNCTION5 PFK



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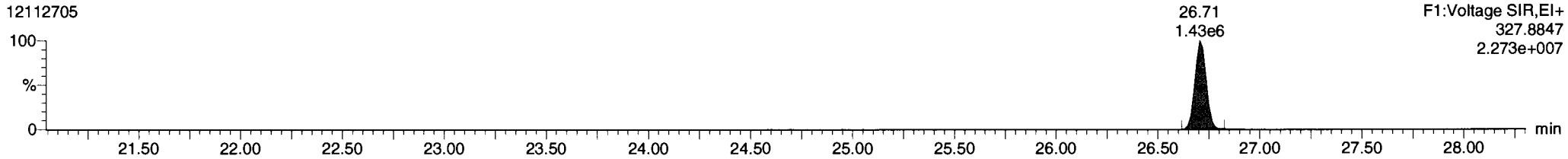
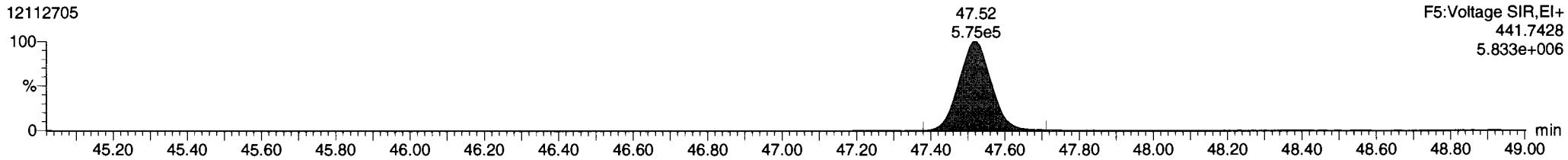
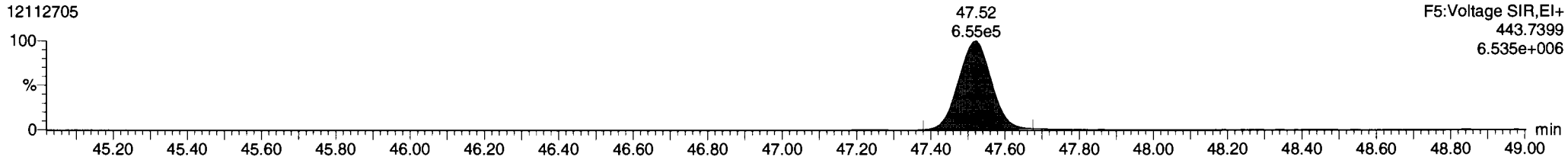
37CL-2378-TCDD



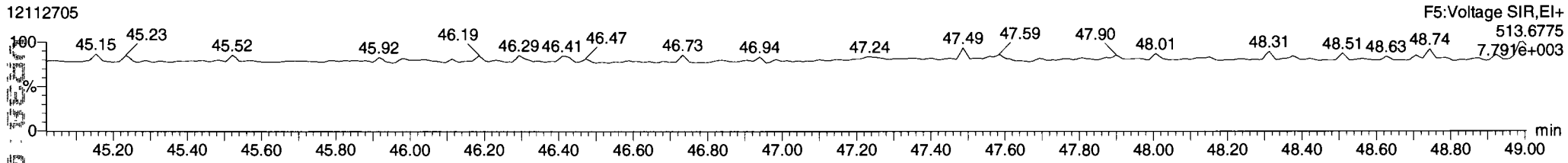
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

	Name	RT		Ion1 Area	Ion2 Area									
1	2378-TCDF	26.078	1.001	12444	16688	29132	dd	0.877	0.746	0.770	NO	99.9	0.547	0.547
2	12378-PeCDF	30.223	1.001	17484	11620	29104	bb	0.896	1.505	1.550	NO	81.9	0.655	0.655
3	23478-PeCDF	31.560	1.000	12742	9219	21960	dd	0.926	1.382	1.550	NO	66.6	0.473	0.473
4	123478-HxCDF	35.244	1.000	32465	27674	60138	dd	1.068	1.173	1.240	NO	245.9	1.498	1.498
5	234678-HxCDF	36.351	1.000	22860	19288	42148	bb	1.037	1.185	1.240	NO	121.2	1.093	1.093
6	123678-HxCDF	35.397	1.001	11944	9981	21926	db	1.035	1.197	1.240	NO	93.3	0.536	0.536
7	123789-HxCDF	37.447	1.000	4579	4337	8916	bd	0.987	1.056	1.240	NO	31.9	0.279	0.279
8	1234678-HpCDF	39.541	1.001	162277	166007	328284	bb	1.232	0.978	1.050	NO	1523.1	9.522	9.522
9	1234789-HpCDF	42.237	1.000	12460	12138	24598	bb	1.215	1.026	1.050	NO	92.2	0.812	0.812
10	OCDF	47.557	1.006	299089	353899	652987	bd	1.138	0.845	0.890	NO	1952.1	30.839	30.839
11	2378-TCDD	26.721	1.001	9198	13421	22618	bd	1.049	0.685	0.770	NO	108.1	0.551	0.551
12	12378-PeCDD	31.824	1.001	11266	7245	18511	bb	0.998	1.555	1.550	NO	66.6	0.581	0.581
13	123478-HxCDD	36.504	1.001	14488	11510	25998	bd	0.971	1.259	1.240	NO	101.3	0.797	0.797
14	123678-HxCDD	36.636	1.001	37423	29572	66995	dd	0.918	1.265	1.240	NO	253.3	2.092	2.092
15	123789-HxCDD	37.053	1.012	23392	19500	42891	bb	0.932	1.200	1.240	NO	163.1	1.344	1.344
16	1234678-HpCDD	41.349	1.000	706179	671292	1377470	bb	1.017	1.052	1.050	NO	2241.0	51.000	51.000
17	OCDD	47.288	1.000	3875825	4310675	8186500	bb	1.008	0.899	0.890	NO	13896.2	436.167	436.167
18	13C-2378-TCDF	26.063	1.007	2648954	3429769	6078723	bb	1.473	0.772	0.770	NO	12805.3		89.300
19	13C-12378-PeCDF	30.201	1.167	3030852	1930923	4961775	bb	1.148	1.570	1.550	NO	12401.5		93.512
20	13C-23478-PeCDF	31.549	1.219	3071469	1941674	5013143	bb	1.113	1.582	1.550	NO	12230.1		97.464
21	13C-123478-HxCDF	35.233	0.951	1287709	2469589	3757298	bd	1.209	0.521	0.510	NO	5561.2		80.194
22	13C-123678-HxCDF	35.375	0.955	1357583	2598583	3956166	db	1.269	0.522	0.510	NO	5872.4		80.469
23	13C-234678-HxCDF	36.340	0.981	1279883	2439846	3719729	bb	1.236	0.525	0.510	NO	5456.5		77.670
24	13C-123789-HxCDF	37.458	1.011	1104799	2131805	3236605	bb	1.107	0.518	0.510	NO	5172.6		75.465
25	13C-1234678-HpCDF	39.519	1.067	865429	1933132	2798561	bb	1.051	0.448	0.440	NO	5740.5		68.702
26	13C-1234789-HpCDF	42.215	1.140	755644	1738923	2494567	bd	0.815	0.435	0.440	NO	4391.5		79.011
27	13C-1234-TCDD	25.884	0.000	2043795	2578733	4622528	bb	1.000	0.793	0.770	NO	8882.4		100.000
28	13C-2378-TCDD	26.691	1.031	1716192	2199164	3915356	bb	0.946	0.780	0.770	NO	7011.9		89.562
29	13C-12378-PeCDD	31.802	1.229	1949706	1241602	3191308	bb	0.721	1.570	1.550	NO	13357.0		95.796
30	13C-123478-HxCDD	36.482	0.985	1878952	1481073	3360025	bd	0.991	1.269	1.240	NO	11884.5		87.503
31	13C-123678-HxCDD	36.614	0.988	1918925	1568774	3487699	dd	1.025	1.223	1.240	NO	11650.5		87.830
32	13C-1234678-HpCDD	41.327	1.116	1357450	1298600	2656050	bb	0.866	1.045	1.050	NO	6399.1		79.128
33	13C-OCDD	47.270	1.276	1765083	1957509	3722592	bb	0.769	0.902	0.890	NO	7010.4		124.894

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

1	13C-123789-HxCDD	37.042	0.000	2145775	1729572	3875348	bb	1.000	1.241	1.240	NO	13017.6		100.000
2	Total-tetrafurans			166628				0.877					9.112	7.446
3	Total-penta1			107471									3.951	3.912
4	Total-pentafurans			147238				0.911					6.123	5.442
5	Total-hexafurans			336110				1.032					16.392	16.356
6	Total-heptafurans			516751				1.223					32.170	32.170
7	Total-Furans			1581406				1.041					99.167	96.462
41	Total-tetradioxins			55850				1.049					3.417	3.169
42	Total-pentadioxins			73939				0.998					3.798	3.798
43	Total-hexadioxins			294751				0.940					16.652	16.652
44	Total-heptadioxins			1684753				1.017					122.406	122.406
45	Total-Dioxins			5985118				0.985					582.486	582.191
46	Total-TEQ			7566524									681.654	678.653
47	37CL-2378-TCDD	26.721	1.032	1844430		1844430		1.044				11415.3		38.234
48	FUNCTION1 PFK			22773030										
49	FUNCTION2 PFK			8092872										0.000
50	FUNCTION3 PFK			12879070										0.000
51	FUNCTION4 PFK			538131										
52	FUNCTION5 PFK			165404										
53	FUNCTION1 HXCDPE			4962										0.000
54	FUNCTION1 HPCDPE			6833										0.000
55	FUNCTION2 HPCDPE			1758										0.000
56	FUNCTION3 OCDPE			0										
57	FUNCTION4 NCDPE			94816										0.000
58	FUNCTION5 DCDPE			0										

10.074 9354

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

TF

		Name										
	35	Total-tetrafurans	303.9016	24.23	20280.345	0.877	0.381	0.381	0.75	0.77	NO	48.6
	35	Total-tetrafurans	303.9016	24.08	18153.675	0.877	0.341	0.341	0.68	0.77	NO	60.8
	35	Total-tetrafurans	303.9016	23.91	10570.621	0.877	0.198	0.198	0.73	0.77	NO	37.7
	35	Total-tetrafurans	303.9016	23.84	22640.163	0.877	0.425	0.425	0.84	0.77	NO	89.0
	35	Total-tetrafurans	303.9016	23.73	28236.605	0.877	0.530	0.530	0.69	0.77	NO	77.6
	35	Total-tetrafurans	303.9016	23.61	0.000	0.877	0.000	0.133	0.42	0.77	YES	31.0
	35	Total-tetrafurans	303.9016	23.55	0.000	0.877	0.000	0.119	0.96	0.77	YES	31.6
	35	Total-tetrafurans	303.9016	23.43	35385.298	0.877	0.664	0.664	0.77	0.77	NO	121.2
	35	Total-tetrafurans	303.9016	23.10	0.000	0.877	0.000	0.029	0.53	0.77	YES	6.5
	35	Total-tetrafurans	303.9016	22.85	11361.274	0.877	0.213	0.213	0.73	0.77	NO	34.8
	35	Total-tetrafurans	303.9016	22.75	0.000	0.877	0.000	0.046	0.63	0.77	YES	10.5
	35	Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.106	0.58	0.77	YES	24.2
	35	Total-tetrafurans	303.9016	27.24	0.000	0.877	0.000	0.149	0.61	0.77	YES	29.3
	35	Total-tetrafurans	303.9016	26.71	0.000	0.877	0.000	0.033	0.64	0.77	YES	7.2
	35	Total-tetrafurans	303.9016	26.30	24324.274	0.877	0.456	0.456	0.67	0.77	NO	63.7
	35	Total-tetrafurans	303.9016	26.21	0.000	0.877	0.000	0.114	0.63	0.77	YES	27.0
	1	2378-TCDF	303.9016	26.08	29132.101	0.877	0.547	0.547	0.75	0.77	NO	99.9
	35	Total-tetrafurans	303.9016	25.84	26629.905	0.877	0.500	0.500	0.77	0.77	NO	65.6
	35	Total-tetrafurans	303.9016	25.73	0.000	0.877	0.000	0.117	0.90	0.77	YES	23.3
	35	Total-tetrafurans	303.9016	25.59	0.000	0.877	0.000	0.085	0.61	0.77	YES	15.9
	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.161	0.63	0.77	YES	24.6
	35	Total-tetrafurans	303.9016	25.17	35481.599	0.877	0.666	0.666	0.66	0.77	NO	121.0
	35	Total-tetrafurans	303.9016	24.99	24931.336	0.877	0.468	0.468	0.72	0.77	NO	82.6
	35	Total-tetrafurans	303.9016	24.82	83687.532	0.877	1.571	1.571	0.71	0.77	NO	205.3
	35	Total-tetrafurans	303.9016	24.52	0.000	0.877	0.000	0.412	0.65	0.77	YES	65.9
	35	Total-tetrafurans	303.9016	24.43	6672.938	0.877	0.125	0.125	0.85	0.77	NO	28.1
	35	Total-tetrafurans	303.9016	24.32	19272.607	0.877	0.362	0.362	0.69	0.77	NO	57.9
	35	Total-tetrafurans	303.9016	27.72	0.000	0.877	0.000	0.046	0.58	0.77	YES	10.7
	35	Total-tetrafurans	303.9016	27.48	0.000	0.877	0.000	0.048	2.15	0.77	YES	16.3
	35	Total-tetrafurans	303.9016	27.38	0.000	0.877	0.000	0.069	0.63	0.77	YES	12.9

PP

		Name									
	36	Total-penta1	339.8597	27.92	0.000		0.000	0.039	2.40	1.55	YES	16.9
	36	Total-penta1	339.8597	27.60	11205.070		0.245	0.245	1.45	1.55	NO	112.9
	36	Total-penta1	339.8597	27.50	167705.360		3.667	3.667	1.51	1.55	NO	1329.3

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PF

	37	Total-pentafurans	339.8597	29.16	56576.311	0.911	1.245	1.245	1.52	1.55	NO	174.0
	37	Total-pentafurans	339.8597	29.09	23965.341	0.911	0.527	0.527	1.34	1.55	NO	87.5
	37	Total-pentafurans	339.8597	28.96	19165.590	0.911	0.422	0.422	1.57	1.55	NO	49.7
	37	Total-pentafurans	339.8597	28.83	21562.615	0.911	0.474	0.474	1.41	1.55	NO	60.5
	37	Total-pentafurans	339.8597	28.55	0.000	0.911	0.000	0.057	1.22	1.55	YES	8.4
	37	Total-pentafurans	339.8597	28.36	0.000	0.911	0.000	0.017	0.65	1.55	YES	5.6
	3	23478-PeCDF	339.8597	31.56	21960.438	0.926	0.473	0.473	1.38	1.55	NO	66.6
	37	Total-pentafurans	339.8597	31.41	0.000	0.911	0.000	0.269	1.26	1.55	YES	36.7
	37	Total-pentafurans	339.8597	31.30	0.000	0.911	0.000	0.193	1.31	1.55	YES	24.7
	37	Total-pentafurans	339.8597	30.64	0.000	0.911	0.000	0.046	2.45	1.55	YES	8.4
	37	Total-pentafurans	339.8597	30.49	27189.730	0.911	0.598	0.598	1.39	1.55	NO	81.9
	37	Total-pentafurans	339.8597	30.43	14178.674	0.911	0.312	0.312	1.60	1.55	NO	47.8
	2	12378-PeCDF	339.8597	30.22	29104.183	0.896	0.655	0.655	1.50	1.55	NO	81.9
	37	Total-pentafurans	339.8597	29.86	27369.068	0.911	0.602	0.602	1.50	1.55	NO	54.5
	37	Total-pentafurans	339.8597	29.74	6053.368	0.911	0.133	0.133	1.74	1.55	NO	19.3
	37	Total-pentafurans	339.8597	29.65	0.000	0.911	0.000	0.030	2.46	1.55	YES	9.4
	37	Total-pentafurans	339.8597	29.47	0.000	0.911	0.000	0.035	1.16	1.55	YES	6.5
	37	Total-pentafurans	339.8597	29.29	0.000	0.911	0.000	0.017	0.99	1.55	YES	3.2
	37	Total-pentafurans	339.8597	32.58	0.000	0.911	0.000	0.017	4.16	1.55	YES	6.1

HF

	38	Total-hexafurans	373.8208	33.73	193905.297	1.032	5.126	5.126	1.18	1.24	NO	798.2
	38	Total-hexafurans	373.8208	33.51	58745.405	1.032	1.553	1.553	1.11	1.24	NO	242.2
	7	123789-HxCDF	373.8208	37.45	8915.682	0.987	0.279	0.279	1.06	1.24	NO	31.9
	5	234678-HxCDF	373.8208	36.35	42147.588	1.037	1.093	1.093	1.19	1.24	NO	121.2
	38	Total-hexafurans	373.8208	35.76	0.000	1.032	0.000	0.036	2.09	1.24	YES	10.4
	6	123678-HxCDF	373.8208	35.40	21925.690	1.035	0.536	0.536	1.20	1.24	NO	93.3
	4	123478-HxCDF	373.8208	35.24	60138.321	1.068	1.498	1.498	1.17	1.24	NO	245.9
	38	Total-hexafurans	373.8208	35.08	10156.996	1.032	0.268	0.268	1.25	1.24	NO	41.8
	38	Total-hexafurans	373.8208	34.60	221194.836	1.032	5.847	5.847	1.17	1.24	NO	934.6
	38	Total-hexafurans	373.8208	34.27	5913.979	1.032	0.156	0.156	1.17	1.24	NO	25.1

HPF

	39	Total-heptafurans	407.7818	40.33	698490.907	1.223	21.572	21.572	0.94	1.05	NO	2982.8
	39	Total-heptafurans	407.7818	40.03	8567.991	1.223	0.265	0.265	0.91	1.05	NO	33.7
	8	1234678-HpCDF	407.7818	39.54	328284.078	1.232	9.522	9.522	0.98	1.05	NO	1523.1
	9	1234789-HpCDF	407.7818	42.24	24597.858	1.215	0.812	0.812	1.03	1.05	NO	92.2

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Furans,TF,PP,PF,HF,HPF,OF

[redacted]	35	Total-tetrafurans	303.9016	24.23	20280.345	0.877	0.381	0.381	0.75	0.77	NO	48.6
[redacted]	35	Total-tetrafurans	303.9016	24.08	18153.675	0.877	0.341	0.341	0.68	0.77	NO	60.8
[redacted]	35	Total-tetrafurans	303.9016	23.91	10570.621	0.877	0.198	0.198	0.73	0.77	NO	37.7
[redacted]	35	Total-tetrafurans	303.9016	23.84	22640.163	0.877	0.425	0.425	0.84	0.77	NO	89.0
[redacted]	35	Total-tetrafurans	303.9016	23.73	28236.605	0.877	0.530	0.530	0.69	0.77	NO	77.6
[redacted]	35	Total-tetrafurans	303.9016	23.61	0.000	0.877	0.000	0.133	0.42	0.77	YES	31.0
[redacted]	35	Total-tetrafurans	303.9016	23.55	0.000	0.877	0.000	0.119	0.96	0.77	YES	31.6
[redacted]	35	Total-tetrafurans	303.9016	23.43	35385.298	0.877	0.664	0.664	0.77	0.77	NO	121.2
[redacted]	35	Total-tetrafurans	303.9016	23.10	0.000	0.877	0.000	0.029	0.53	0.77	YES	6.5
[redacted]	35	Total-tetrafurans	303.9016	22.85	11361.274	0.877	0.213	0.213	0.73	0.77	NO	34.8
[redacted]	35	Total-tetrafurans	303.9016	22.75	0.000	0.877	0.000	0.046	0.63	0.77	YES	10.5
[redacted]	35	Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.106	0.58	0.77	YES	24.2
[redacted]	40	Total-Furans	303.9016	21.72	4315.812	1.041	0.068	0.068	0.75	0.77	NO	16.4
[redacted]	40	Total-Furans	303.9016	21.52	14473.468	1.041	0.229	0.229	0.76	0.77	NO	50.5
[redacted]	35	Total-tetrafurans	303.9016	27.24	0.000	0.877	0.000	0.149	0.61	0.77	YES	29.3
[redacted]	35	Total-tetrafurans	303.9016	26.71	0.000	0.877	0.000	0.033	0.64	0.77	YES	7.2
[redacted]	35	Total-tetrafurans	303.9016	26.30	24324.274	0.877	0.456	0.456	0.67	0.77	NO	63.7
[redacted]	35	Total-tetrafurans	303.9016	26.21	0.000	0.877	0.000	0.114	0.63	0.77	YES	27.0
[redacted]	1	2378-TCDF	303.9016	26.08	29132.101	0.877	0.547	0.547	0.75	0.77	NO	99.9
[redacted]	35	Total-tetrafurans	303.9016	25.84	26629.905	0.877	0.500	0.500	0.77	0.77	NO	65.6
[redacted]	35	Total-tetrafurans	303.9016	25.73	0.000	0.877	0.000	0.117	0.90	0.77	YES	23.3
[redacted]	35	Total-tetrafurans	303.9016	25.59	0.000	0.877	0.000	0.085	0.61	0.77	YES	15.9
[redacted]	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.161	0.63	0.77	YES	24.6
[redacted]	35	Total-tetrafurans	303.9016	25.17	35481.599	0.877	0.666	0.666	0.66	0.77	NO	121.0
[redacted]	35	Total-tetrafurans	303.9016	24.99	24931.336	0.877	0.468	0.468	0.72	0.77	NO	82.6
[redacted]	35	Total-tetrafurans	303.9016	24.82	83687.532	0.877	1.571	1.571	0.71	0.77	NO	205.3
[redacted]	35	Total-tetrafurans	303.9016	24.52	0.000	0.877	0.000	0.412	0.65	0.77	YES	65.9
[redacted]	35	Total-tetrafurans	303.9016	24.43	6672.938	0.877	0.125	0.125	0.85	0.77	NO	28.1
[redacted]	35	Total-tetrafurans	303.9016	24.32	19272.607	0.877	0.362	0.362	0.69	0.77	NO	57.9
[redacted]	40	Total-Furans	303.9016	28.19	0.000	1.041	0.000	0.248	0.65	0.77	YES	54.8
[redacted]	40	Total-Furans	303.9016	28.04	0.000	1.041	0.000	0.013	0.62	0.77	YES	4.7
[redacted]	40	Total-Furans	303.9016	27.87	0.000	1.041	0.000	0.021	0.55	0.77	YES	5.2
[redacted]	35	Total-tetrafurans	303.9016	27.72	0.000	0.877	0.000	0.046	0.58	0.77	YES	10.7
[redacted]	35	Total-tetrafurans	303.9016	27.48	0.000	0.877	0.000	0.048	2.15	0.77	YES	16.3
[redacted]	35	Total-tetrafurans	303.9016	27.38	0.000	0.877	0.000	0.069	0.63	0.77	YES	12.9
[redacted]	37	Total-pentafurans	339.8597	29.16	56576.311	0.911	1.245	1.245	1.52	1.55	NO	174.0
[redacted]	37	Total-pentafurans	339.8597	29.09	23965.341	0.911	0.527	0.527	1.34	1.55	NO	87.5
[redacted]	37	Total-pentafurans	339.8597	28.96	19165.590	0.911	0.422	0.422	1.57	1.55	NO	49.7
[redacted]	37	Total-pentafurans	339.8597	28.83	21562.615	0.911	0.474	0.474	1.41	1.55	NO	60.5
[redacted]	37	Total-pentafurans	339.8597	28.55	0.000	0.911	0.000	0.057	1.22	1.55	YES	8.4
[redacted]	37	Total-pentafurans	339.8597	28.36	0.000	0.911	0.000	0.017	0.65	1.55	YES	5.6
[redacted]	3	23478-PeCDF	339.8597	31.56	21960.438	0.926	0.473	0.473	1.38	1.55	NO	66.6
[redacted]	37	Total-pentafurans	339.8597	31.41	0.000	0.911	0.000	0.269	1.26	1.55	YES	36.7
[redacted]	37	Total-pentafurans	339.8597	31.30	0.000	0.911	0.000	0.193	1.31	1.55	YES	24.7
[redacted]	37	Total-pentafurans	339.8597	30.64	0.000	0.911	0.000	0.046	2.45	1.55	YES	8.4
[redacted]	37	Total-pentafurans	339.8597	30.49	27189.730	0.911	0.598	0.598	1.39	1.55	NO	81.9
[redacted]	37	Total-pentafurans	339.8597	30.43	14178.674	0.911	0.312	0.312	1.60	1.55	NO	47.8
[redacted]	2	12378-PeCDF	339.8597	30.22	29104.183	0.896	0.655	0.655	1.50	1.55	NO	81.9
[redacted]	37	Total-pentafurans	339.8597	29.86	27369.068	0.911	0.602	0.602	1.50	1.55	NO	54.5

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Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Trace	RT	Abs Area	RRF M...	ng	EMPC	1° Ratio	1° Ratio...	1° R...	S/N
	37	Total-pentafurans	339.8597	29.74	6053.368	0.911	0.133	0.133	1.74	1.55	NO	19.3
	37	Total-pentafurans	339.8597	29.65	0.000	0.911	0.000	0.030	2.46	1.55	YES	9.4
	37	Total-pentafurans	339.8597	29.47	0.000	0.911	0.000	0.035	1.16	1.55	YES	6.5
	37	Total-pentafurans	339.8597	29.29	0.000	0.911	0.000	0.017	0.99	1.55	YES	3.2
	37	Total-pentafurans	339.8597	32.58	0.000	0.911	0.000	0.017	4.16	1.55	YES	6.1
	38	Total-hexafurans	373.8208	33.73	193905.297	1.032	5.126	5.126	1.18	1.24	NO	798.2
	38	Total-hexafurans	373.8208	33.51	58745.405	1.032	1.553	1.553	1.11	1.24	NO	242.2
	7	123789-HxCDF	373.8208	37.45	8915.682	0.987	0.279	0.279	1.06	1.24	NO	31.9
	5	234678-HxCDF	373.8208	36.35	42147.588	1.037	1.093	1.093	1.19	1.24	NO	121.2
	38	Total-hexafurans	373.8208	35.76	0.000	1.032	0.000	0.036	2.09	1.24	YES	10.4
	6	123678-HxCDF	373.8208	35.40	21925.690	1.035	0.536	0.536	1.20	1.24	NO	93.3
	4	123478-HxCDF	373.8208	35.24	60138.321	1.068	1.498	1.498	1.17	1.24	NO	245.9
	38	Total-hexafurans	373.8208	35.08	10156.996	1.032	0.268	0.268	1.25	1.24	NO	41.8
	38	Total-hexafurans	373.8208	34.60	221194.836	1.032	5.847	5.847	1.17	1.24	NO	934.6
	38	Total-hexafurans	373.8208	34.27	5913.979	1.032	0.156	0.156	1.17	1.24	NO	25.1
	39	Total-heptafurans	407.7818	40.33	698490.907	1.223	21.572	21.572	0.94	1.05	NO	2982.8
	39	Total-heptafurans	407.7818	40.03	8567.991	1.223	0.265	0.265	0.91	1.05	NO	33.7
	8	1234678-HpCDF	407.7818	39.54	328284.078	1.232	9.522	9.522	0.98	1.05	NO	1523.1
	10	OCDF	441.7428	47.56	652987.344	1.138	30.839	30.839	0.85	0.89	NO	1952.1
	9	1234789-HpCDF	407.7818	42.24	24597.858	1.215	0.812	0.812	1.03	1.05	NO	92.2
	36	Total-penta1	339.8597	27.92	0.000		0.000	0.039	2.40	1.55	YES	16.9
	36	Total-penta1	339.8597	27.60	11205.070		0.245	0.245	1.45	1.55	NO	112.9
	36	Total-penta1	339.8597	27.50	167705.360		3.667	3.667	1.51	1.55	NO	1329.3

TD

	#	Name	Trace	RT	Abs Area	RRF M...	ng	EMPC	1° Ratio	1° Ratio...	1° R...	S/N
	11	2378-TCDD	319.8965	26.72	22618.341	1.049	0.551	0.551	0.69	0.77	NO	108.1
	41	Total-tetradioxins	319.8965	26.33	0.000	1.049	0.000	0.162	1.06	0.77	YES	35.6
	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.018	2.37	0.77	YES	9.7
	41	Total-tetradioxins	319.8965	25.90	18486.075	1.049	0.450	0.450	0.75	0.77	NO	78.2
	41	Total-tetradioxins	319.8965	25.70	0.000	1.049	0.000	0.050	0.53	0.77	YES	8.8
	41	Total-tetradioxins	319.8965	25.60	0.000	1.049	0.000	0.019	0.62	0.77	YES	4.4
	41	Total-tetradioxins	319.8965	25.33	14142.746	1.049	0.344	0.344	0.82	0.77	NO	66.1
	41	Total-tetradioxins	319.8965	25.06	5902.859	1.049	0.144	0.144	0.86	0.77	NO	21.5
	41	Total-tetradioxins	319.8965	24.84	15138.003	1.049	0.369	0.369	0.78	0.77	NO	66.1
	41	Total-tetradioxins	319.8965	24.35	4417.372	1.049	0.108	0.108	0.69	0.77	NO	17.2
	41	Total-tetradioxins	319.8965	24.14	14155.952	1.049	0.345	0.345	0.84	0.77	NO	68.7
	41	Total-tetradioxins	319.8965	23.87	19377.502	1.049	0.472	0.472	0.71	0.77	NO	87.0
	41	Total-tetradioxins	319.8965	27.27	12678.618	1.049	0.309	0.309	0.69	0.77	NO	56.5
	41	Total-tetradioxins	319.8965	26.84	3251.712	1.049	0.079	0.079	0.88	0.77	NO	15.0

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PD

	#	Name	Mass	RT	Area	RRT	Conc	EMPC	1° Ratio	2° Ratio	17 RS	S/N
	42	Total-pentadioxins	355.8546	29.14	34860.612	0.998	1.095	1.095	1.60	1.55	NO	78.1
	42	Total-pentadioxins	355.8546	32.22	3900.662	0.998	0.122	0.122	1.46	1.55	NO	15.4
	12	12378-PeCDD	355.8546	31.82	18511.132	0.998	0.581	0.581	1.55	1.55	NO	66.6
	42	Total-pentadioxins	355.8546	31.16	4739.052	0.998	0.149	0.149	1.71	1.55	NO	18.5
	42	Total-pentadioxins	355.8546	30.76	10575.224	0.998	0.332	0.332	1.73	1.55	NO	29.5
	42	Total-pentadioxins	355.8546	30.57	11739.239	0.998	0.369	0.369	1.47	1.55	NO	45.4
	42	Total-pentadioxins	355.8546	30.43	16182.684	0.998	0.508	0.508	1.60	1.55	NO	52.8
	42	Total-pentadioxins	355.8546	30.22	13000.313	0.998	0.408	0.408	1.53	1.55	NO	50.6
	42	Total-pentadioxins	355.8546	29.61	7444.387	0.998	0.234	0.234	1.47	1.55	NO	32.1

HD

	#	Name	Mass	RT	Area	RRT	Conc	EMPC	1° Ratio	2° Ratio	17 RS	S/N
	43	Total-hexadioxins	389.8157	34.32	152918.797	0.940	4.749	4.749	1.22	1.24	NO	591.6
	15	123789-HxCDD	389.8157	37.05	42891.182	0.932	1.344	1.344	1.20	1.24	NO	163.1
	43	Total-hexadioxins	389.8157	36.81	10984.942	0.940	0.341	0.341	1.19	1.24	NO	41.7
	14	123678-HxCDD	389.8157	36.64	66995.252	0.918	2.092	2.092	1.27	1.24	NO	253.3
	13	123478-HxCDD	389.8157	36.50	25997.841	0.971	0.797	0.797	1.26	1.24	NO	101.3
	43	Total-hexadioxins	389.8157	35.63	17775.059	0.940	0.552	0.552	1.18	1.24	NO	65.1
	43	Total-hexadioxins	389.8157	35.52	182758.758	0.940	5.676	5.676	1.22	1.24	NO	434.0
	43	Total-hexadioxins	389.8157	35.13	35455.488	0.940	1.101	1.101	1.21	1.24	NO	135.3

HPD

	#	Name	Mass	RT	Area	RRT	Conc	EMPC	1° Ratio	2° Ratio	17 RS	S/N
	16	1234678-HpCDD	423.7766	41.35	1377470.375	1.017	51.000	51.000	1.05	1.05	NO	2241.0
	44	Total-heptadioxins	423.7766	40.09	1928606.501	1.017	71.406	71.406	1.03	1.05	NO	3340.4

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Dioxins,TD,PD,HD,HPD,OD

[redacted]	45 Total-Dioxins	319.8965	23.03	0.000	0.985	0.000	0.012	0.60	0.77	YES	2.6
	11 2378-TCDD	319.8965	26.72	22618.341	1.049	0.551	0.551	0.69	0.77	NO	108.1
	41 Total-tetradioxins	319.8965	26.33	0.000	1.049	0.000	0.162	1.06	0.77	YES	35.6
	41 Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.018	2.37	0.77	YES	9.7
	41 Total-tetradioxins	319.8965	25.90	18486.075	1.049	0.450	0.450	0.75	0.77	NO	78.2
	41 Total-tetradioxins	319.8965	25.70	0.000	1.049	0.000	0.050	0.53	0.77	YES	8.8
	41 Total-tetradioxins	319.8965	25.60	0.000	1.049	0.000	0.019	0.62	0.77	YES	4.4
	41 Total-tetradioxins	319.8965	25.33	14142.746	1.049	0.344	0.344	0.82	0.77	NO	66.1
	41 Total-tetradioxins	319.8965	25.06	5902.859	1.049	0.144	0.144	0.86	0.77	NO	21.5
	41 Total-tetradioxins	319.8965	24.84	15138.003	1.049	0.369	0.369	0.78	0.77	NO	66.1
	41 Total-tetradioxins	319.8965	24.35	4417.372	1.049	0.108	0.108	0.69	0.77	NO	17.2
	41 Total-tetradioxins	319.8965	24.14	14155.952	1.049	0.345	0.345	0.84	0.77	NO	68.7
	41 Total-tetradioxins	319.8965	23.87	19377.502	1.049	0.472	0.472	0.71	0.77	NO	87.0
	45 Total-Dioxins	319.8965	27.60	0.000	0.985	0.000	0.035	0.53	0.77	YES	6.9
	41 Total-tetradioxins	319.8965	27.27	12678.618	1.049	0.309	0.309	0.69	0.77	NO	56.5
	41 Total-tetradioxins	319.8965	26.84	3251.712	1.049	0.079	0.079	0.88	0.77	NO	15.0
	42 Total-pentadioxins	355.8546	29.14	34860.612	0.998	1.095	1.095	1.60	1.55	NO	78.1
	42 Total-pentadioxins	355.8546	32.22	3900.662	0.998	0.122	0.122	1.46	1.55	NO	15.4
	12 12378-PeCDD	355.8546	31.82	18511.132	0.998	0.581	0.581	1.55	1.55	NO	66.6
	42 Total-pentadioxins	355.8546	31.16	4739.052	0.998	0.149	0.149	1.71	1.55	NO	18.5
	42 Total-pentadioxins	355.8546	30.76	10575.224	0.998	0.332	0.332	1.73	1.55	NO	29.5
	42 Total-pentadioxins	355.8546	30.57	11739.239	0.998	0.369	0.369	1.47	1.55	NO	45.4
	42 Total-pentadioxins	355.8546	30.43	16182.684	0.998	0.508	0.508	1.60	1.55	NO	52.8
	42 Total-pentadioxins	355.8546	30.22	13000.313	0.998	0.408	0.408	1.53	1.55	NO	50.6
	42 Total-pentadioxins	355.8546	29.61	7444.387	0.998	0.234	0.234	1.47	1.55	NO	32.1
	43 Total-hexadioxins	389.8157	34.32	152918.797	0.940	4.749	4.749	1.22	1.24	NO	591.6
	15 123789-HxCDD	389.8157	37.05	42891.182	0.932	1.344	1.344	1.20	1.24	NO	163.1
	43 Total-hexadioxins	389.8157	36.81	10984.942	0.940	0.341	0.341	1.19	1.24	NO	41.7
	14 123678-HxCDD	389.8157	36.64	66995.252	0.918	2.092	2.092	1.27	1.24	NO	253.3
	13 123478-HxCDD	389.8157	36.50	25997.841	0.971	0.797	0.797	1.26	1.24	NO	101.3
	43 Total-hexadioxins	389.8157	35.63	17775.059	0.940	0.552	0.552	1.18	1.24	NO	65.1
	43 Total-hexadioxins	389.8157	35.52	182758.758	0.940	5.676	5.676	1.22	1.24	NO	434.0
	43 Total-hexadioxins	389.8157	35.13	35455.488	0.940	1.101	1.101	1.21	1.24	NO	135.3
	16 1234678-HpCDD	423.7766	41.35	1377470.375	1.017	51.000	51.000	1.05	1.05	NO	2241.0
	44 Total-heptadioxins	423.7766	40.09	1928606.501	1.017	71.406	71.406	1.03	1.05	NO	3340.4
	17 OCDD	457.7377	47.29	8186500.250	1.008	436.167	436....	0.90	0.89	NO	13896.2

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TotalTEQ,Furans,Dioxins

	35	Total-tetrafurans	303.9016	24.23	20280.345	0.877	0.381	0.381	0.75	0.77	NO	48.6
	35	Total-tetrafurans	303.9016	24.08	18153.675	0.877	0.341	0.341	0.68	0.77	NO	60.8
	35	Total-tetrafurans	303.9016	23.91	10570.621	0.877	0.198	0.198	0.73	0.77	NO	37.7
	35	Total-tetrafurans	303.9016	23.84	22640.163	0.877	0.425	0.425	0.84	0.77	NO	89.0
	35	Total-tetrafurans	303.9016	23.73	28236.605	0.877	0.530	0.530	0.69	0.77	NO	77.6
	35	Total-tetrafurans	303.9016	23.61	0.000	0.877	0.000	0.133	0.42	0.77	YES	31.0
	35	Total-tetrafurans	303.9016	23.55	0.000	0.877	0.000	0.119	0.96	0.77	YES	31.6
	35	Total-tetrafurans	303.9016	23.43	35385.298	0.877	0.664	0.664	0.77	0.77	NO	121.2
	35	Total-tetrafurans	303.9016	23.10	0.000	0.877	0.000	0.029	0.53	0.77	YES	6.5
	35	Total-tetrafurans	303.9016	22.85	11361.274	0.877	0.213	0.213	0.73	0.77	NO	34.8
	35	Total-tetrafurans	303.9016	22.75	0.000	0.877	0.000	0.046	0.63	0.77	YES	10.5
	35	Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.106	0.58	0.77	YES	24.2
	40	Total-Furans	303.9016	21.72	4315.812	1.041	0.068	0.068	0.75	0.77	NO	16.4
	40	Total-Furans	303.9016	21.52	14473.468	1.041	0.229	0.229	0.76	0.77	NO	50.5
	35	Total-tetrafurans	303.9016	27.24	0.000	0.877	0.000	0.149	0.61	0.77	YES	29.3
	35	Total-tetrafurans	303.9016	26.71	0.000	0.877	0.000	0.033	0.64	0.77	YES	7.2
	35	Total-tetrafurans	303.9016	26.30	24324.274	0.877	0.456	0.456	0.67	0.77	NO	63.7
	35	Total-tetrafurans	303.9016	26.21	0.000	0.877	0.000	0.114	0.63	0.77	YES	27.0
	1	2378-TCDF	303.9016	26.08	29132.101	0.877	0.547	0.547	0.75	0.77	NO	99.9
	35	Total-tetrafurans	303.9016	25.84	26629.905	0.877	0.500	0.500	0.77	0.77	NO	65.6
	35	Total-tetrafurans	303.9016	25.73	0.000	0.877	0.000	0.117	0.90	0.77	YES	23.3
	35	Total-tetrafurans	303.9016	25.59	0.000	0.877	0.000	0.085	0.61	0.77	YES	15.9
	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.161	0.63	0.77	YES	24.6
	35	Total-tetrafurans	303.9016	25.17	35481.599	0.877	0.666	0.666	0.66	0.77	NO	121.0
	35	Total-tetrafurans	303.9016	24.99	24931.336	0.877	0.468	0.468	0.72	0.77	NO	82.6
	35	Total-tetrafurans	303.9016	24.82	83687.532	0.877	1.571	1.571	0.71	0.77	NO	205.3
	35	Total-tetrafurans	303.9016	24.52	0.000	0.877	0.000	0.412	0.65	0.77	YES	65.9
	35	Total-tetrafurans	303.9016	24.43	6672.938	0.877	0.125	0.125	0.85	0.77	NO	28.1
	35	Total-tetrafurans	303.9016	24.32	19272.607	0.877	0.362	0.362	0.69	0.77	NO	57.9
	40	Total-Furans	303.9016	28.19	0.000	1.041	0.000	0.248	0.65	0.77	YES	54.8
	40	Total-Furans	303.9016	28.04	0.000	1.041	0.000	0.013	0.62	0.77	YES	4.7
	40	Total-Furans	303.9016	27.87	0.000	1.041	0.000	0.021	0.55	0.77	YES	5.2
	35	Total-tetrafurans	303.9016	27.72	0.000	0.877	0.000	0.046	0.58	0.77	YES	10.7
	35	Total-tetrafurans	303.9016	27.48	0.000	0.877	0.000	0.048	2.15	0.77	YES	16.3
	35	Total-tetrafurans	303.9016	27.38	0.000	0.877	0.000	0.069	0.63	0.77	YES	12.9
	37	Total-pentafurans	339.8597	29.16	56576.311	0.911	1.245	1.245	1.52	1.55	NO	174.0
	37	Total-pentafurans	339.8597	29.09	23965.341	0.911	0.527	0.527	1.34	1.55	NO	87.5
	37	Total-pentafurans	339.8597	28.96	19165.590	0.911	0.422	0.422	1.57	1.55	NO	49.7
	37	Total-pentafurans	339.8597	28.83	21562.615	0.911	0.474	0.474	1.41	1.55	NO	60.5
	37	Total-pentafurans	339.8597	28.55	0.000	0.911	0.000	0.057	1.22	1.55	YES	8.4
	37	Total-pentafurans	339.8597	28.36	0.000	0.911	0.000	0.017	0.65	1.55	YES	5.6
	3	23478-PeCDF	339.8597	31.56	21960.438	0.926	0.473	0.473	1.38	1.55	NO	66.6
	37	Total-pentafurans	339.8597	31.41	0.000	0.911	0.000	0.269	1.26	1.55	YES	36.7
	37	Total-pentafurans	339.8597	31.30	0.000	0.911	0.000	0.193	1.31	1.55	YES	24.7
	37	Total-pentafurans	339.8597	30.64	0.000	0.911	0.000	0.046	2.45	1.55	YES	8.4
	37	Total-pentafurans	339.8597	30.49	27189.730	0.911	0.598	0.598	1.39	1.55	NO	81.9
	37	Total-pentafurans	339.8597	30.43	14178.674	0.911	0.312	0.312	1.60	1.55	NO	47.8
	2	12378-PeCDF	339.8597	30.22	29104.183	0.896	0.655	0.655	1.50	1.55	NO	81.9
	37	Total-pentafurans	339.8597	29.86	27369.068	0.911	0.602	0.602	1.50	1.55	NO	54.5

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	EMPC	[redacted]	[redacted]	[redacted]	[redacted]
	37	Total-pentafurans	339.8597	29.74	6053.368	0.911	0.133	0.133	1.74	1.55	NO	19.3
	37	Total-pentafurans	339.8597	29.65	0.000	0.911	0.000	0.030	2.46	1.55	YES	9.4
	37	Total-pentafurans	339.8597	29.47	0.000	0.911	0.000	0.035	1.16	1.55	YES	6.5
	37	Total-pentafurans	339.8597	29.29	0.000	0.911	0.000	0.017	0.99	1.55	YES	3.2
	37	Total-pentafurans	339.8597	32.58	0.000	0.911	0.000	0.017	4.16	1.55	YES	6.1
	38	Total-hexafurans	373.8208	33.73	193905.297	1.032	5.126	5.126	1.18	1.24	NO	798.2
	38	Total-hexafurans	373.8208	33.51	58745.405	1.032	1.553	1.553	1.11	1.24	NO	242.2
	7	123789-HxCDF	373.8208	37.45	8915.682	0.987	0.279	0.279	1.06	1.24	NO	31.9
	5	234678-HxCDF	373.8208	36.35	42147.588	1.037	1.093	1.093	1.19	1.24	NO	121.2
	38	Total-hexafurans	373.8208	35.76	0.000	1.032	0.000	0.036	2.09	1.24	YES	10.4
	6	123678-HxCDF	373.8208	35.40	21925.690	1.035	0.536	0.536	1.20	1.24	NO	93.3
	4	123478-HxCDF	373.8208	35.24	60138.321	1.068	1.498	1.498	1.17	1.24	NO	245.9
	38	Total-hexafurans	373.8208	35.08	10156.996	1.032	0.268	0.268	1.25	1.24	NO	41.8
	38	Total-hexafurans	373.8208	34.60	221194.836	1.032	5.847	5.847	1.17	1.24	NO	934.6
	38	Total-hexafurans	373.8208	34.27	5913.979	1.032	0.156	0.156	1.17	1.24	NO	25.1
	39	Total-heptafurans	407.7818	40.33	698490.907	1.223	21.572	21.572	0.94	1.05	NO	2982.8
	39	Total-heptafurans	407.7818	40.03	8567.991	1.223	0.265	0.265	0.91	1.05	NO	33.7
	8	1234678-HpCDF	407.7818	39.54	328284.078	1.232	9.522	9.522	0.98	1.05	NO	1523.1
	10	OCDF	441.7428	47.56	652987.344	1.138	30.839	30.839	0.85	0.89	NO	1952.1
	9	1234789-HpCDF	407.7818	42.24	24597.858	1.215	0.812	0.812	1.03	1.05	NO	92.2
	36	Total-penta1	339.8597	27.92	0.000		0.000	0.039	2.40	1.55	YES	16.9
	36	Total-penta1	339.8597	27.60	11205.070		0.245	0.245	1.45	1.55	NO	112.9
	36	Total-penta1	339.8597	27.50	167705.360		3.667	3.667	1.51	1.55	NO	1329.3
	45	Total-Dioxins	319.8965	23.03	0.000	0.985	0.000	0.012	0.60	0.77	YES	2.6
	11	2378-TCDD	319.8965	26.72	22618.341	1.049	0.551	0.551	0.69	0.77	NO	108.1
	41	Total-tetradioxins	319.8965	26.33	0.000	1.049	0.000	0.162	1.06	0.77	YES	35.6
	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.018	2.37	0.77	YES	9.7
	41	Total-tetradioxins	319.8965	25.90	18486.075	1.049	0.450	0.450	0.75	0.77	NO	78.2
	41	Total-tetradioxins	319.8965	25.70	0.000	1.049	0.000	0.050	0.53	0.77	YES	8.8
	41	Total-tetradioxins	319.8965	25.60	0.000	1.049	0.000	0.019	0.62	0.77	YES	4.4
	41	Total-tetradioxins	319.8965	25.33	14142.746	1.049	0.344	0.344	0.82	0.77	NO	66.1
	41	Total-tetradioxins	319.8965	25.06	5902.859	1.049	0.144	0.144	0.86	0.77	NO	21.5
	41	Total-tetradioxins	319.8965	24.84	15138.003	1.049	0.369	0.369	0.78	0.77	NO	66.1
	41	Total-tetradioxins	319.8965	24.35	4417.372	1.049	0.108	0.108	0.69	0.77	NO	17.2
	41	Total-tetradioxins	319.8965	24.14	14155.952	1.049	0.345	0.345	0.84	0.77	NO	68.7
	41	Total-tetradioxins	319.8965	23.87	19377.502	1.049	0.472	0.472	0.71	0.77	NO	87.0
	45	Total-Dioxins	319.8965	27.60	0.000	0.985	0.000	0.035	0.53	0.77	YES	6.9
	41	Total-tetradioxins	319.8965	27.27	12678.618	1.049	0.309	0.309	0.69	0.77	NO	56.5
	41	Total-tetradioxins	319.8965	26.84	3251.712	1.049	0.079	0.079	0.88	0.77	NO	15.0
	42	Total-pentadioxins	355.8546	29.14	34860.612	0.998	1.095	1.095	1.60	1.55	NO	78.1
	42	Total-pentadioxins	355.8546	32.22	3900.662	0.998	0.122	0.122	1.46	1.55	NO	15.4
	12	12378-PeCDD	355.8546	31.82	18511.132	0.998	0.581	0.581	1.55	1.55	NO	66.6
	42	Total-pentadioxins	355.8546	31.16	4739.052	0.998	0.149	0.149	1.71	1.55	NO	18.5
	42	Total-pentadioxins	355.8546	30.76	10575.224	0.998	0.332	0.332	1.73	1.55	NO	29.5
	42	Total-pentadioxins	355.8546	30.57	11739.239	0.998	0.369	0.369	1.47	1.55	NO	45.4
	42	Total-pentadioxins	355.8546	30.43	16182.684	0.998	0.508	0.508	1.60	1.55	NO	52.8
	42	Total-pentadioxins	355.8546	30.22	13000.313	0.998	0.408	0.408	1.53	1.55	NO	50.6
	42	Total-pentadioxins	355.8546	29.61	7444.387	0.998	0.234	0.234	1.47	1.55	NO	32.1
	43	Total-hexadioxins	389.8157	34.32	152918.797	0.940	4.749	4.749	1.22	1.24	NO	591.6

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TotalTEQ,Furans,Dioxins

#	Name	Trace	RT	Area Resp	RRT M...	pg	EMPG	1° Rati...	1° Rati...	1° R...	S/N
15	123789-HxCDD	389.8157	37.05	42891.182	0.932	1.344	1.344	1.20	1.24	NO	163.1
43	Total-hexadioxins	389.8157	36.81	10984.942	0.940	0.341	0.341	1.19	1.24	NO	41.7
14	123678-HxCDD	389.8157	36.64	66995.252	0.918	2.092	2.092	1.27	1.24	NO	253.3
13	123478-HxCDD	389.8157	36.50	25997.841	0.971	0.797	0.797	1.26	1.24	NO	101.3
43	Total-hexadioxins	389.8157	35.63	17775.059	0.940	0.552	0.552	1.18	1.24	NO	65.1
43	Total-hexadioxins	389.8157	35.52	182758.758	0.940	5.676	5.676	1.22	1.24	NO	434.0
43	Total-hexadioxins	389.8157	35.13	35455.488	0.940	1.101	1.101	1.21	1.24	NO	135.3
16	1234678-HpCDD	423.7766	41.35	1377470.375	1.017	51.000	51.000	1.05	1.05	NO	2241.0
44	Total-heptadioxins	423.7766	40.09	1928606.501	1.017	71.406	71.406	1.03	1.05	NO	3340.4
17	OCDD	457.7377	47.29	8186500.250	1.008	436.167	436....	0.90	0.89	NO	13896.2

PFK1

#	Name	Trace	RT	Area Resp	RRT M...	pg	EMPG	1° Rati...	1° Rati...	1° R...	S/N
48	FUNCTION1 PFK	330.9792	27.83	0.000							2.9
48	FUNCTION1 PFK	330.9792	27.75	0.000							2.2
48	FUNCTION1 PFK	330.9792	23.06	0.000							8.3
48	FUNCTION1 PFK	330.9792	22.93	0.000							13.8
48	FUNCTION1 PFK	330.9792	22.16	0.000							23.8

PFK2

#	Name	Trace	RT	Area Resp	RRT M...	pg	EMPG	1° Rati...	1° Rati...	1° R...	S/N
49	FUNCTION2 PFK	366.9792	33.08	0.000		0.000					2.5
49	FUNCTION2 PFK	366.9792	32.50	0.000		0.000					19.5
49	FUNCTION2 PFK	366.9792	32.45	0.000		0.000					14.0
49	FUNCTION2 PFK	366.9792	30.18	0.000		0.000					16.1
49	FUNCTION2 PFK	366.9792	29.65	0.000		0.000					6.7
49	FUNCTION2 PFK	366.9792	29.37	0.000		0.000					19.5

PFK3

#	Name	Trace	RT	Area Resp	RRT M...	pg	EMPG	1° Rati...	1° Rati...	1° R...	S/N
50	FUNCTION3 PFK	380.9760	38.02	0.000		0.000					4.3
50	FUNCTION3 PFK	380.9760	36.78	0.000		0.000					2.7
50	FUNCTION3 PFK	380.9760	33.38	0.000		0.000					6.6
50	FUNCTION3 PFK	380.9760	33.26	0.000		0.000					3.1

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PFK4

	51	FUNCTION4 PFK	430.9728	38.94	0.000						0.8
	51	FUNCTION4 PFK	430.9728	38.72	0.000						1.2
	51	FUNCTION4 PFK	430.9728	38.61	0.000						1.2
	51	FUNCTION4 PFK	430.9728	42.38	0.000						1.4
	51	FUNCTION4 PFK	430.9728	42.33	0.000						0.7
	51	FUNCTION4 PFK	430.9728	42.22	0.000						1.1
	51	FUNCTION4 PFK	430.9728	40.95	0.000						1.2
	51	FUNCTION4 PFK	430.9728	40.91	0.000						1.8
	51	FUNCTION4 PFK	430.9728	40.74	0.000						1.3
	51	FUNCTION4 PFK	430.9728	40.47	0.000						1.9
	51	FUNCTION4 PFK	430.9728	40.36	0.000						0.7
	51	FUNCTION4 PFK	430.9728	40.25	0.000						0.4
	51	FUNCTION4 PFK	430.9728	39.68	0.000						0.9
	51	FUNCTION4 PFK	430.9728	39.64	0.000						0.6
	51	FUNCTION4 PFK	430.9728	39.60	0.000						1.0
	51	FUNCTION4 PFK	430.9728	39.54	0.000						0.7
	51	FUNCTION4 PFK	430.9728	39.23	0.000						1.2
	51	FUNCTION4 PFK	430.9728	39.06	0.000						1.1
	51	FUNCTION4 PFK	430.9728	38.99	0.000						2.1
	51	FUNCTION4 PFK	430.9728	43.89	0.000						1.1
	51	FUNCTION4 PFK	430.9728	43.64	0.000						0.6
	51	FUNCTION4 PFK	430.9728	43.31	0.000						0.8
	51	FUNCTION4 PFK	430.9728	43.11	0.000						1.1
	51	FUNCTION4 PFK	430.9728	42.84	0.000						1.7
	51	FUNCTION4 PFK	430.9728	42.77	0.000						1.2
	51	FUNCTION4 PFK	430.9728	42.71	0.000						1.2
	51	FUNCTION4 PFK	430.9728	42.65	0.000						1.6
	51	FUNCTION4 PFK	430.9728	42.56	0.000						0.8
	51	FUNCTION4 PFK	430.9728	42.46	0.000						1.6

PFK5

	52	FUNCTION5 PFK	480.9696	46.51	0.000						2.4
	52	FUNCTION5 PFK	480.9696	46.33	0.000						1.2
	52	FUNCTION5 PFK	480.9696	45.29	0.000						0.9
	52	FUNCTION5 PFK	480.9696	45.21	0.000						2.4
	52	FUNCTION5 PFK	480.9696	45.13	0.000						1.3
	52	FUNCTION5 PFK	480.9696	48.07	0.000						1.5
	52	FUNCTION5 PFK	480.9696	47.93	0.000						0.5
	52	FUNCTION5 PFK	480.9696	47.68	0.000						1.1
	52	FUNCTION5 PFK	480.9696	47.65	0.000						1.9
	52	FUNCTION5 PFK	480.9696	47.24	0.000						0.8
	52	FUNCTION5 PFK	480.9696	46.77	0.000						1.6
	52	FUNCTION5 PFK	480.9696	46.54	0.000						2.3

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ETHERS1

	#	Name	Trace	RT	Abs Resp	RRF M...	... pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	53	FUNCTION1 HXCD...	375.8364	25.88	0.000		0.000					6.4
	53	FUNCTION1 HXCD...	375.8364	25.15	0.000		0.000					3.3
	53	FUNCTION1 HXCD...	375.8364	24.57	0.000		0.000					2.8
	53	FUNCTION1 HXCD...	375.8364	24.39	0.000		0.000					5.3
	53	FUNCTION1 HXCD...	375.8364	24.36	0.000		0.000					2.4
	53	FUNCTION1 HXCD...	375.8364	24.12	0.000		0.000					2.1
	53	FUNCTION1 HXCD...	375.8364	23.93	0.000		0.000					33.2
	53	FUNCTION1 HXCD...	375.8364	23.52	0.000		0.000					1.9
	53	FUNCTION1 HXCD...	375.8364	27.84	0.000		0.000					2.5
	53	FUNCTION1 HXCD...	375.8364	27.33	0.000		0.000					4.3
	53	FUNCTION1 HXCD...	375.8364	27.11	0.000		0.000					17.3
	53	FUNCTION1 HXCD...	375.8364	26.77	0.000		0.000					8.3
	53	FUNCTION1 HXCD...	375.8364	26.68	0.000		0.000					8.0
	53	FUNCTION1 HXCD...	375.8364	26.15	0.000		0.000					11.2

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	... pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	26.53	0.000		0.000					2.5
	54	FUNCTION1 HPCD...	409.7974	25.24	0.000		0.000					2.2
	54	FUNCTION1 HPCD...	409.7974	24.52	0.000		0.000					2.4
	54	FUNCTION1 HPCD...	409.7974	23.37	0.000		0.000					8.5
	54	FUNCTION1 HPCD...	409.7974	23.30	0.000		0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	22.91	0.000		0.000					2.9
	54	FUNCTION1 HPCD...	409.7974	22.39	0.000		0.000					76.2
	54	FUNCTION1 HPCD...	409.7974	21.25	0.000		0.000					29.4

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	... pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	33.04	0.000		0.000					2.0
	55	FUNCTION2 HPCD...	409.7974	32.88	0.000		0.000					5.7
	55	FUNCTION2 HPCD...	409.7974	32.06	0.000		0.000					1.6
	55	FUNCTION2 HPCD...	409.7974	30.86	0.000		0.000					3.1
	55	FUNCTION2 HPCD...	409.7974	30.76	0.000		0.000					2.3
	55	FUNCTION2 HPCD...	409.7974	30.18	0.000		0.000					2.8
	55	FUNCTION2 HPCD...	409.7974	29.87	0.000		0.000					1.4
	55	FUNCTION2 HPCD...	409.7974	29.78	0.000		0.000					1.7
	55	FUNCTION2 HPCD...	409.7974	29.27	0.000		0.000					1.8
	55	FUNCTION2 HPCD...	409.7974	28.69	0.000		0.000					2.2

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	... pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

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ETHERS5

	57	FUNCTION4 NCDPE	479.7165	42.50	0.000	0.000					2.7
	57	FUNCTION4 NCDPE	479.7165	41.35	0.000	0.000					3.3
	57	FUNCTION4 NCDPE	479.7165	39.12	0.000	0.000					1178.2
	57	FUNCTION4 NCDPE	479.7165	38.73	0.000	0.000					2.4
	57	FUNCTION4 NCDPE	479.7165	42.74	0.000	0.000					4.5

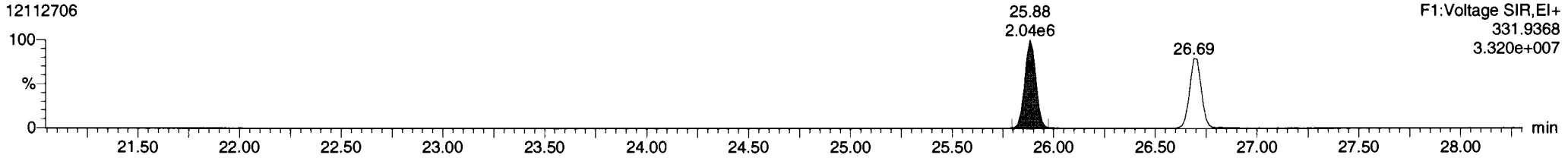
ETHERS6

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

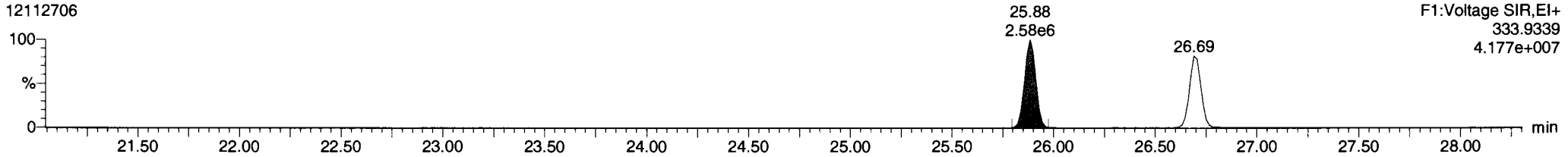
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

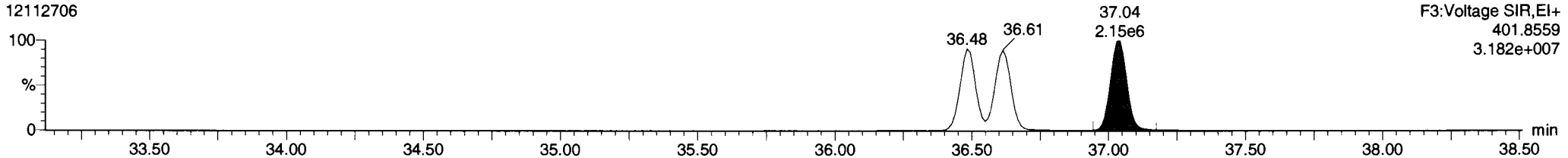
13C-1234-TCDD



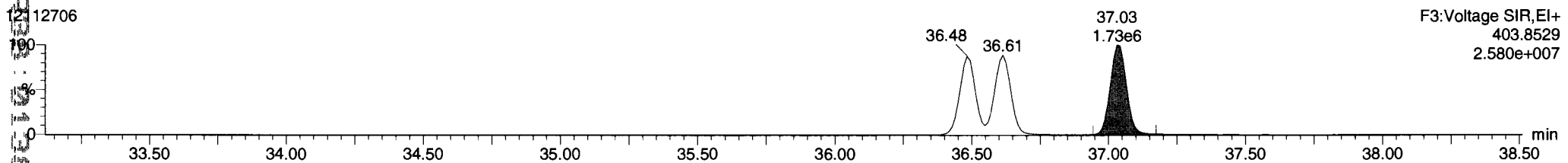
13C-1234-TCDD



13C-123789-HxCDD



13C-123789-HxCDD



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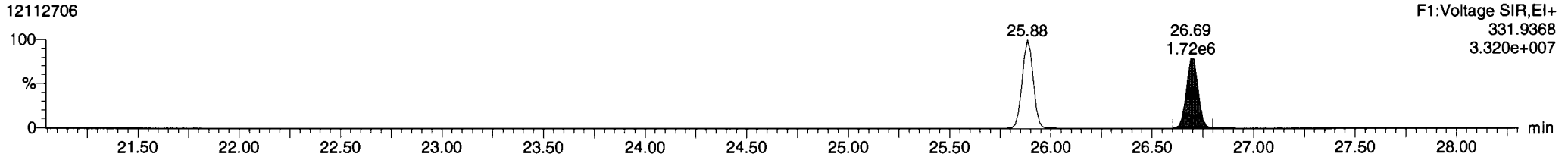
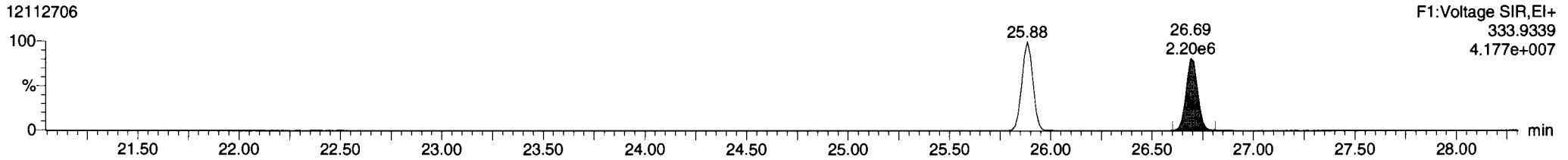
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

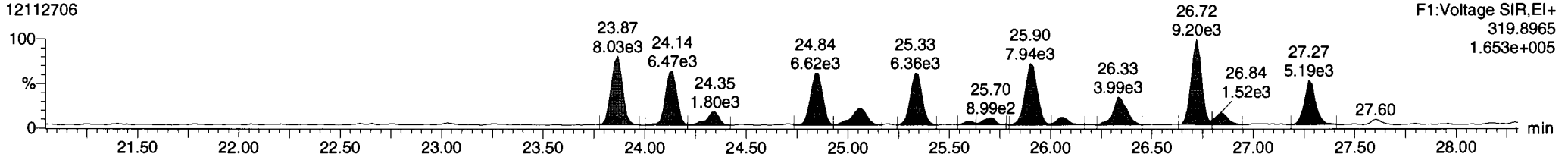
13C-2378-TCDD



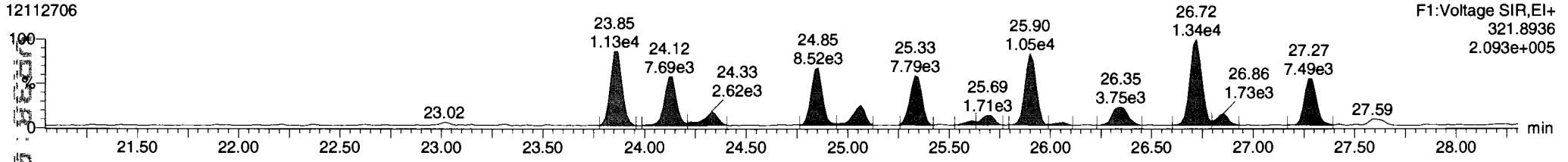
13C-2378-TCDD



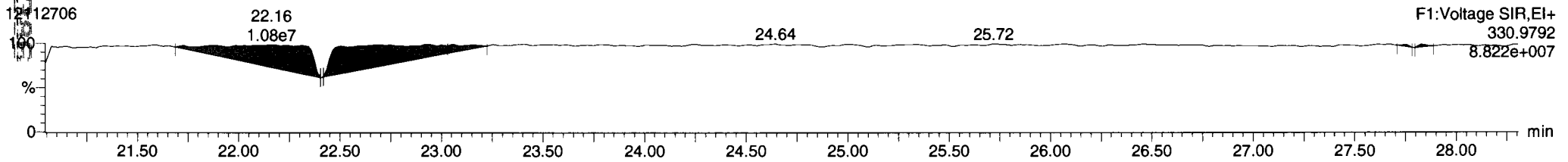
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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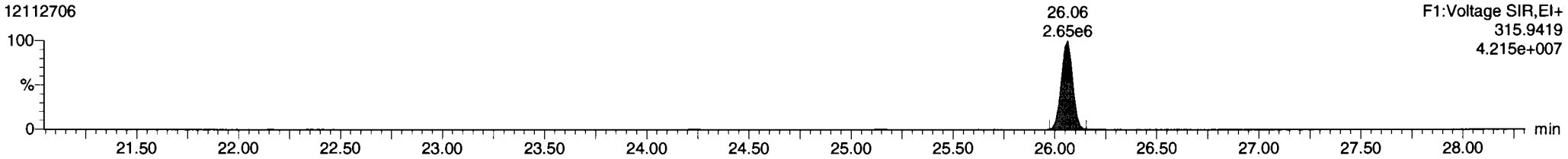
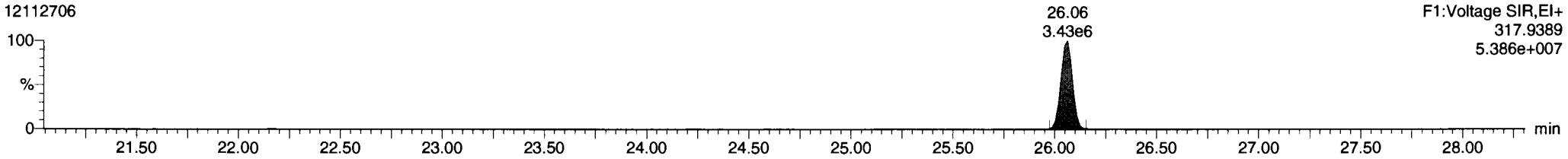
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

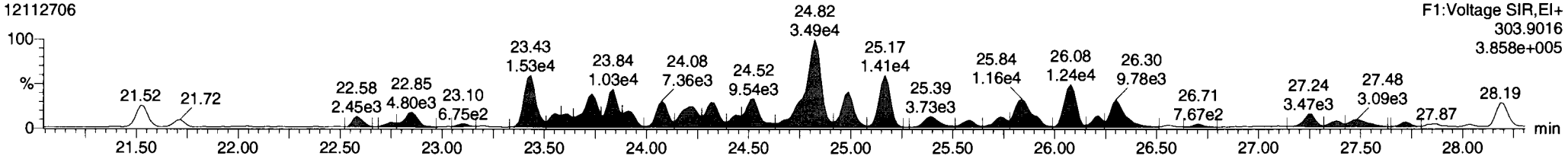
13C-2378-TCDF



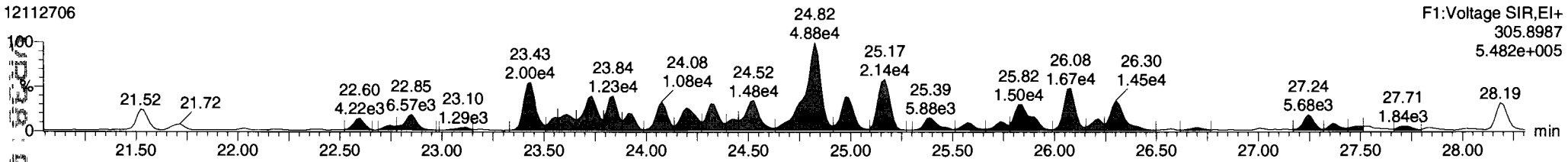
13C-2378-TCDF



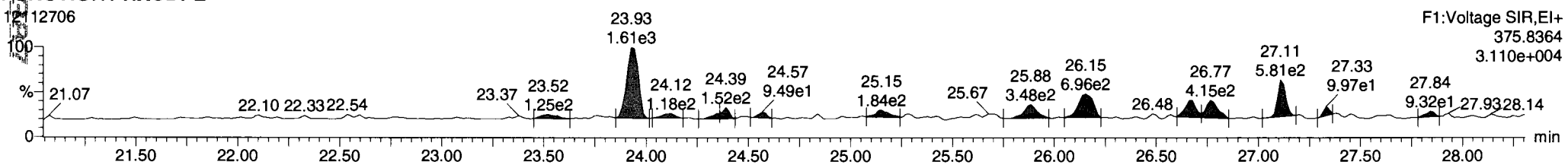
Total-tetrafurans



Total-tetrafurans



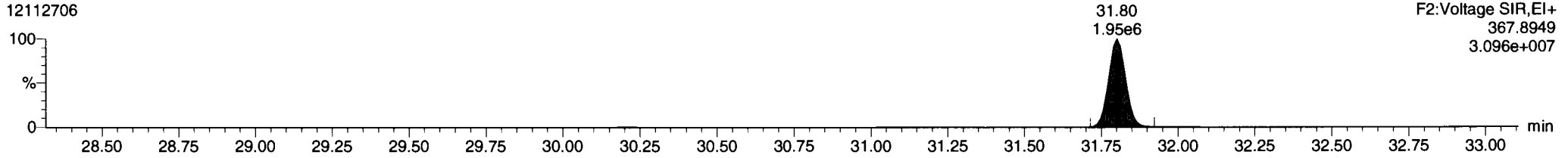
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD



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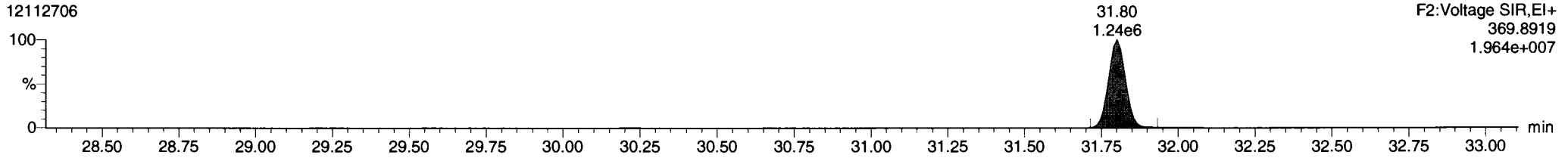
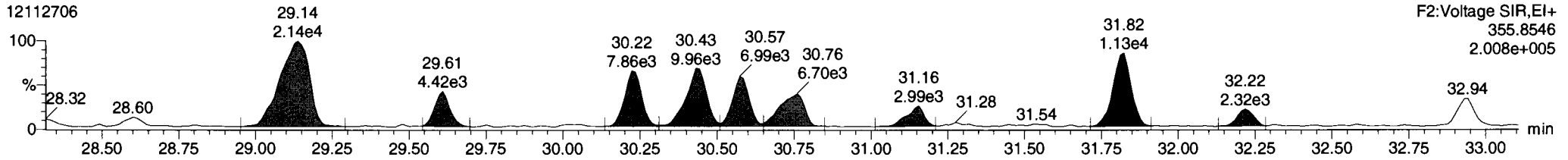
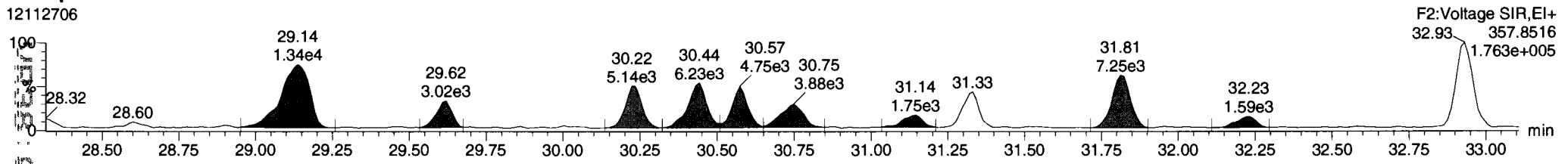


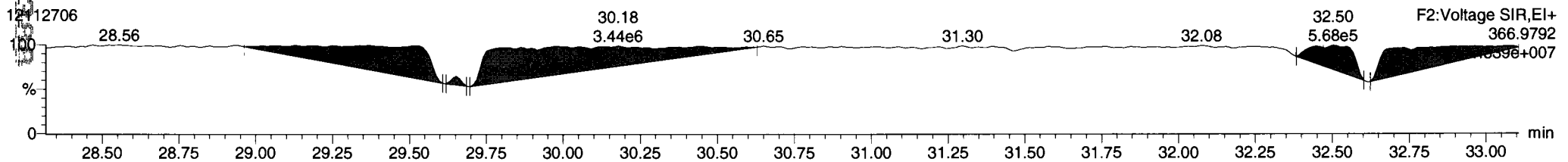
Total-pentadioxins



Total-pentadioxins

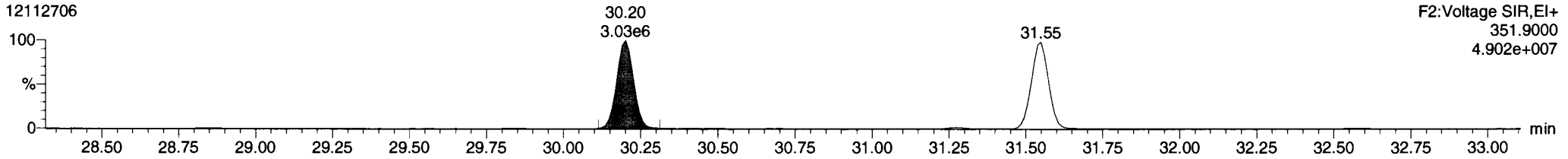


FUNCTION2 PFK

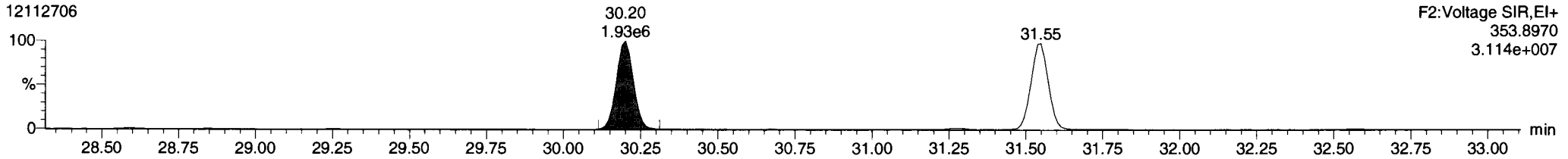


Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

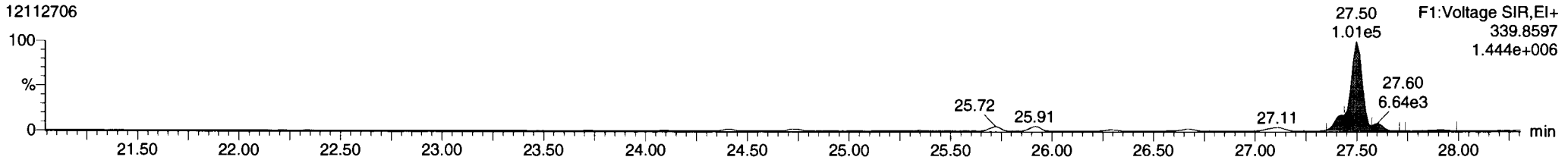
13C-12378-PeCDF



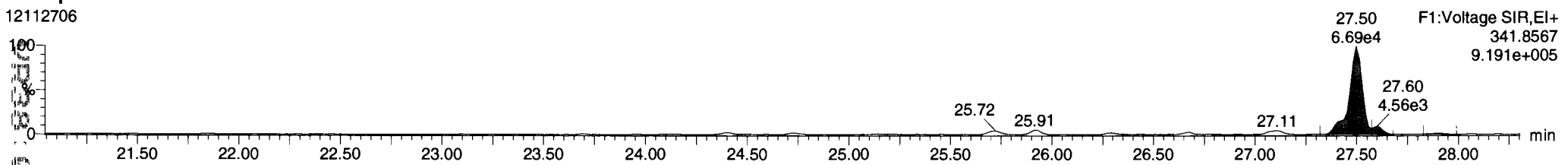
13C-12378-PeCDF



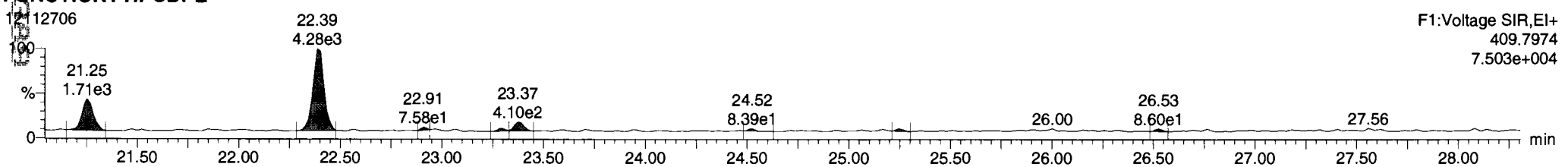
Total-penta1



Total-penta1



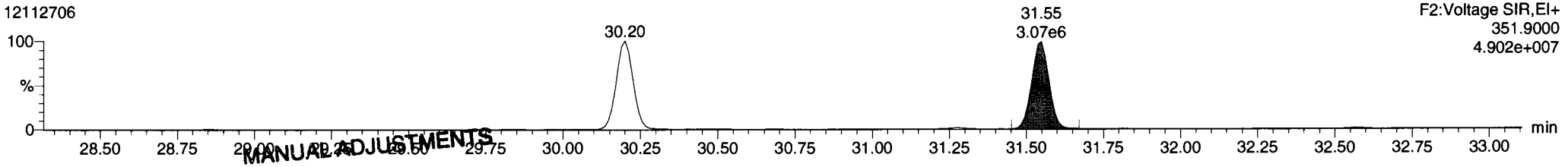
FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

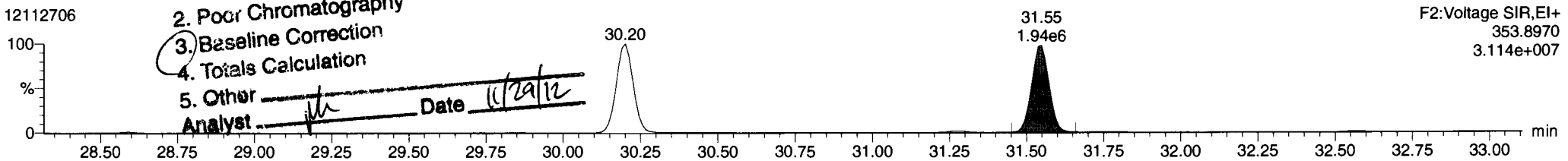


MANUAL ADJUSTMENTS

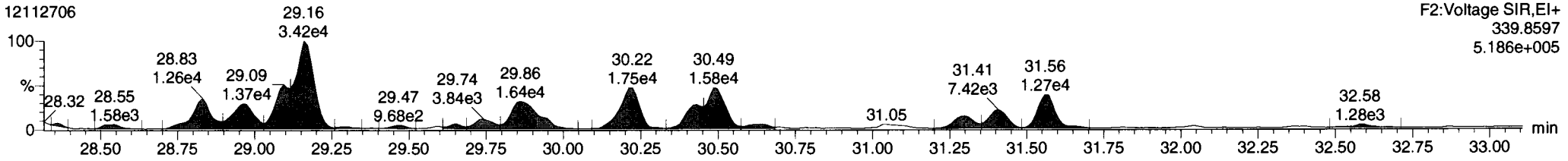
13C-23478-PeCDF

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

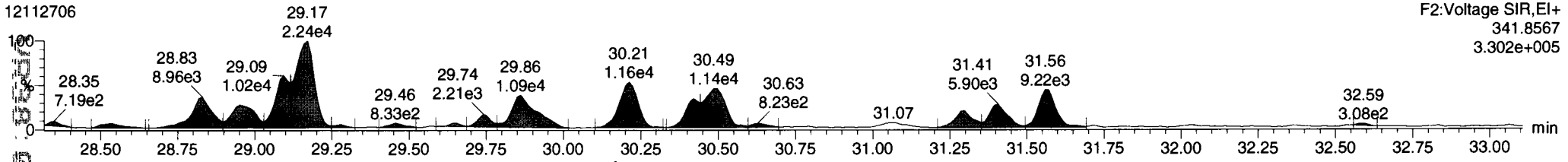
Analyst _____ Date 11/29/12



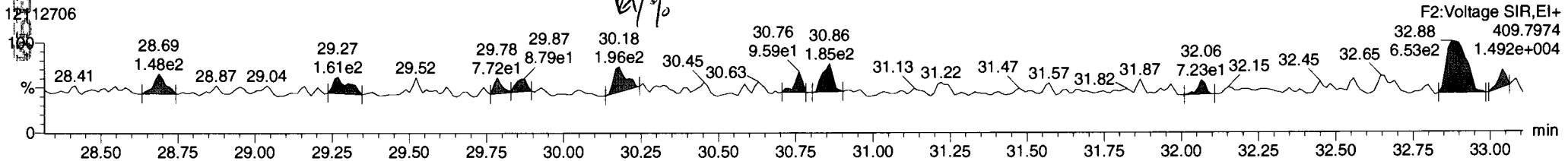
Total-pentafurans



Total-pentafurans



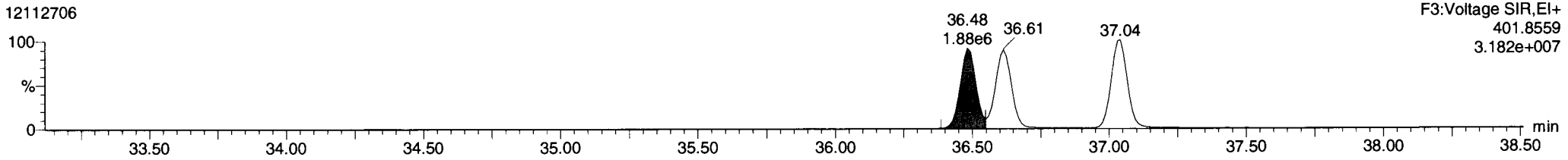
FUNCTION2 HPCDPE



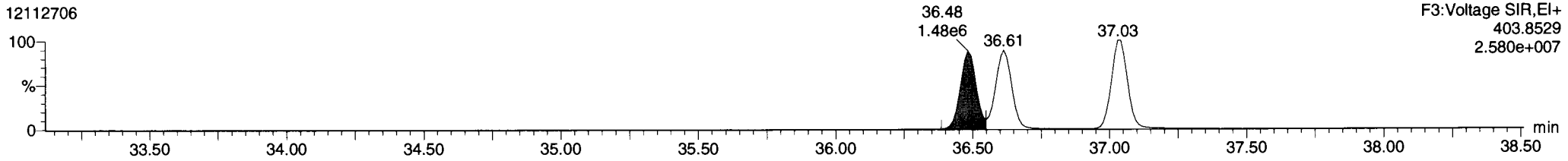
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

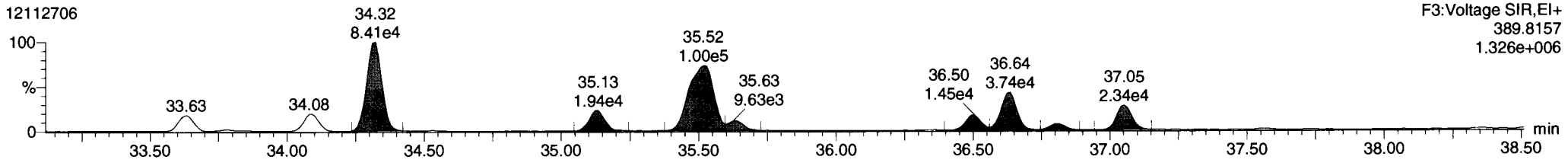
13C-123478-HxCDD



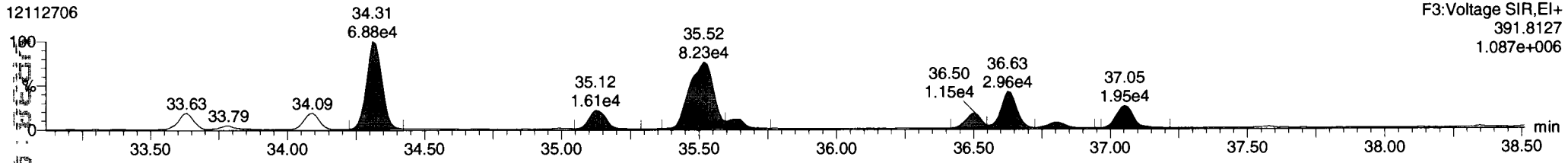
13C-123478-HxCDD



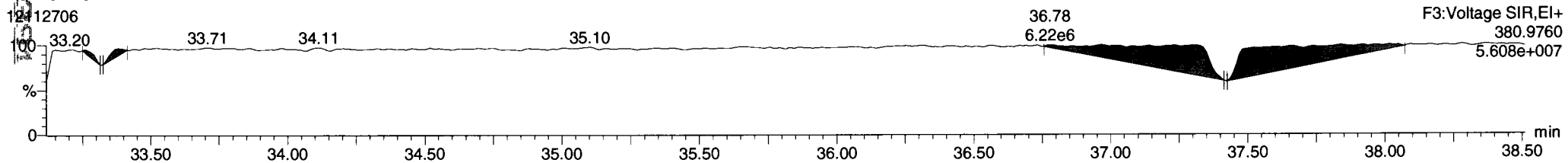
Total-hexadioxins



Total-hexadioxins



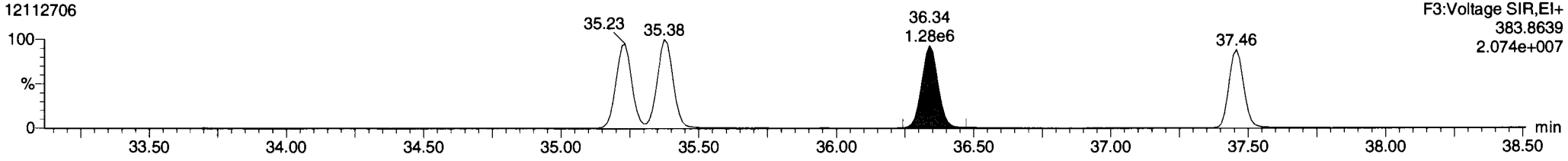
FUNCTION3 PFK



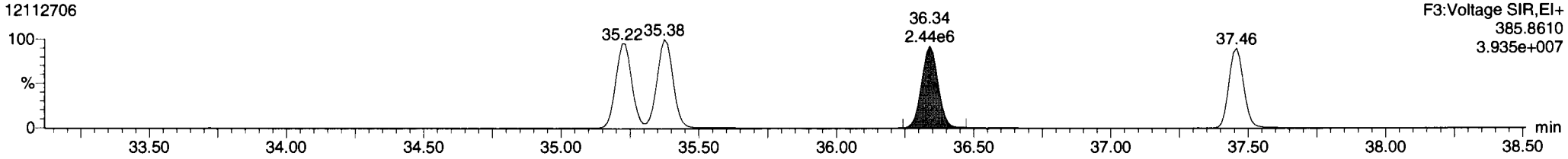
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

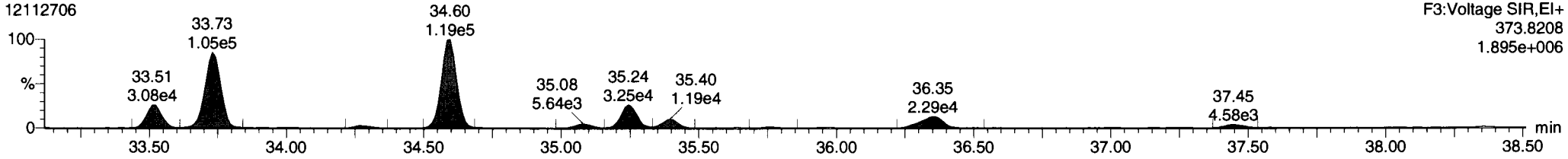
13C-234678-HxCDF



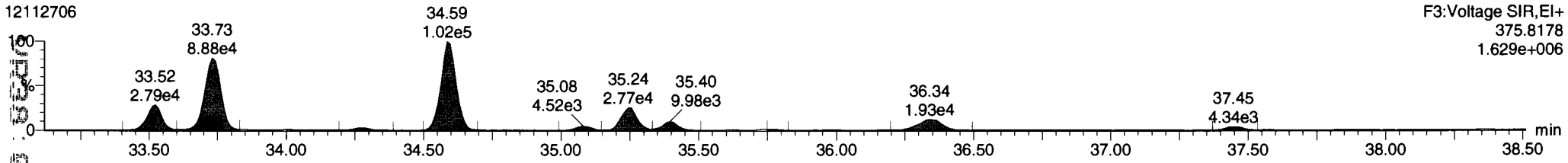
13C-234678-HxCDF



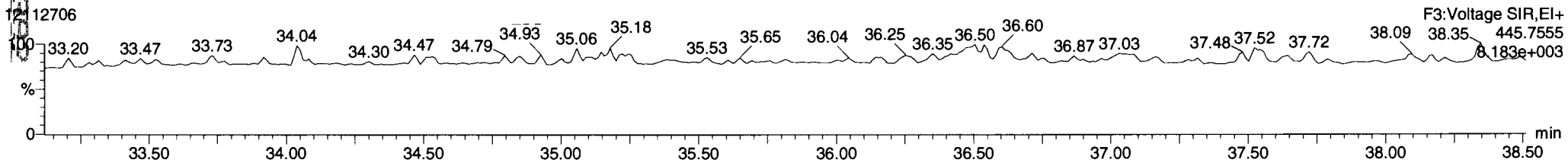
Total-hexafurans



Total-hexafurans



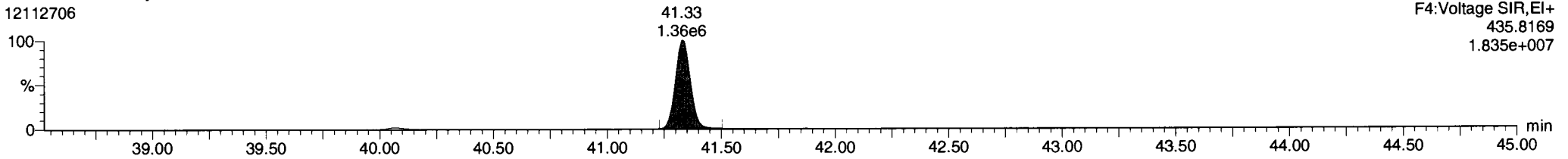
FUNCTION3 OCDPE



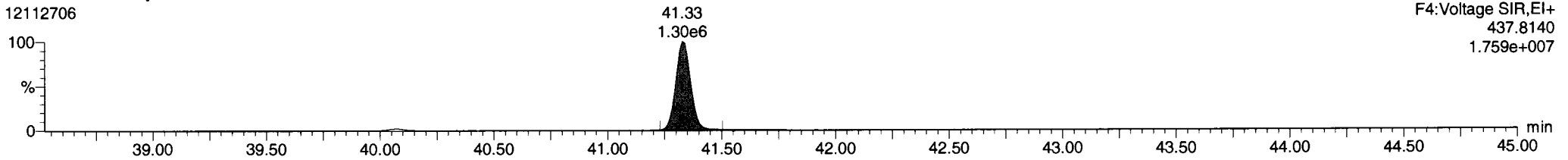
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

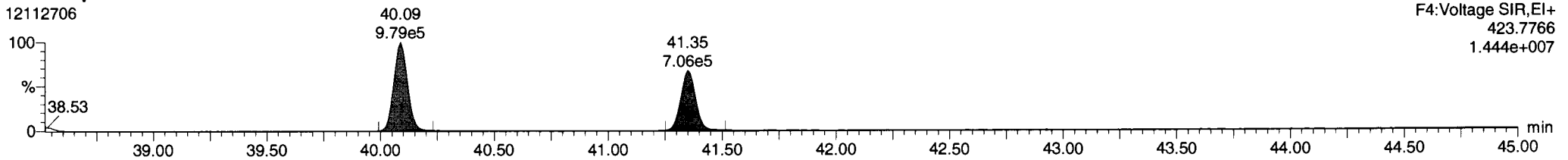
13C-1234678-HpCDD



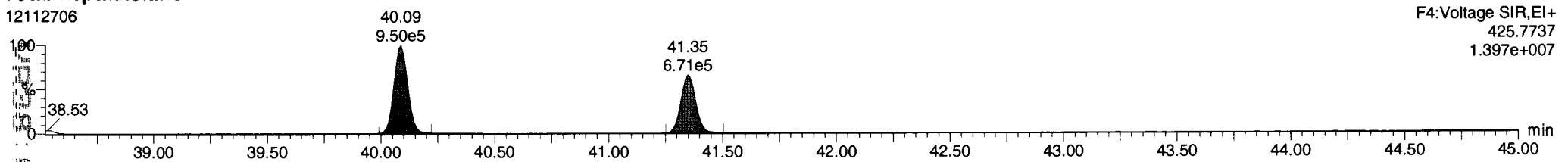
13C-1234678-HpCDD



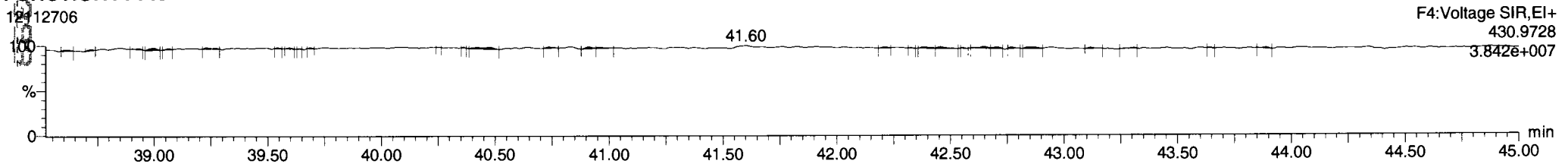
Total-heptadioxins



Total-heptadioxins



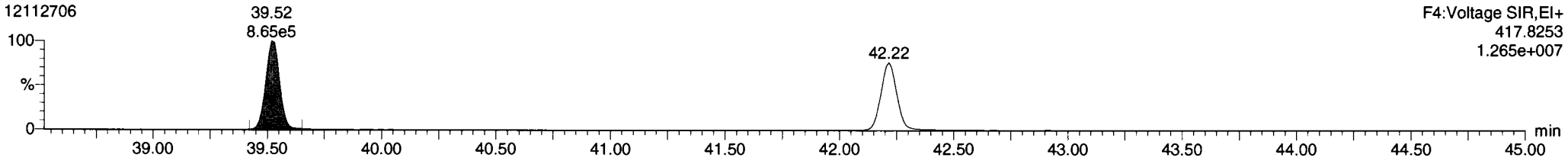
FUNCTION4 PFK



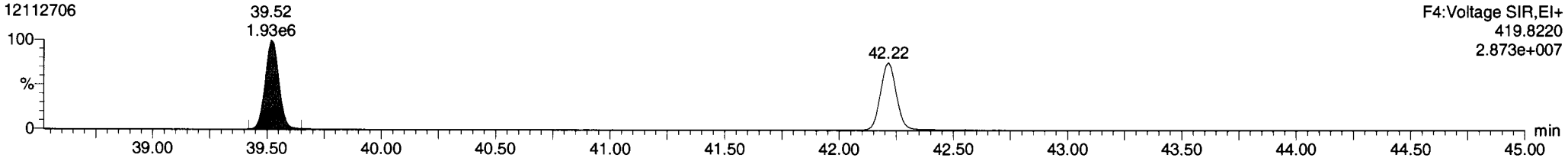
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

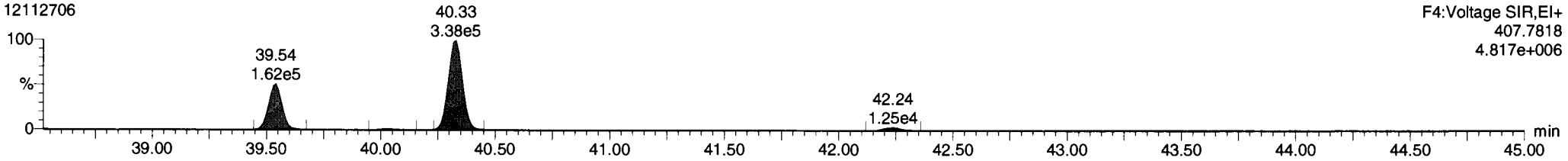
13C-1234678-HpCDF



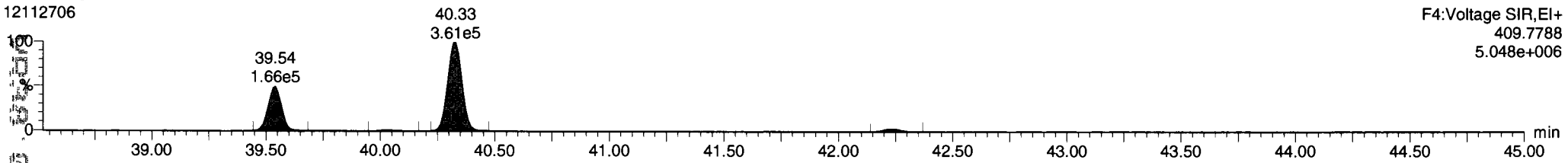
13C-1234678-HpCDF



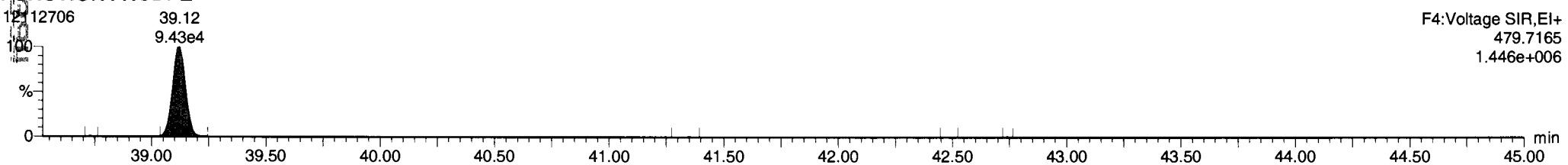
Total-heptafurans



Total-heptafurans



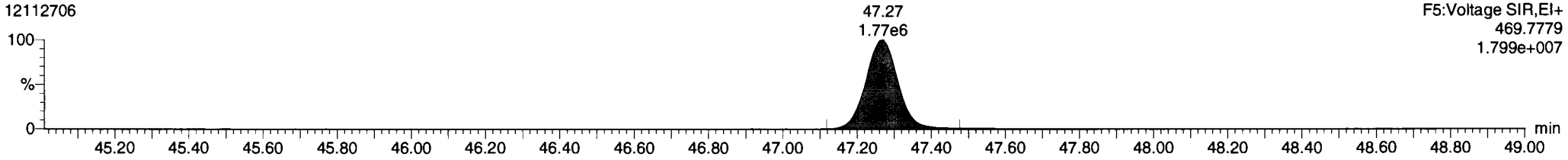
FUNCTION4 NCDPE



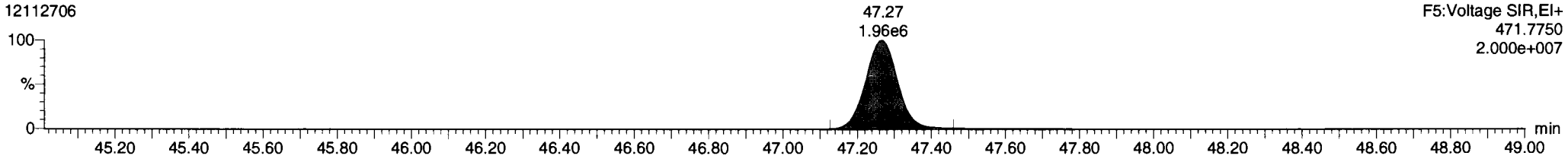
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

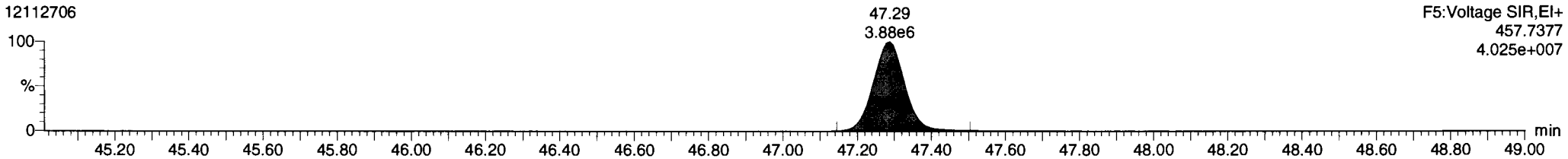
13C-OCDD



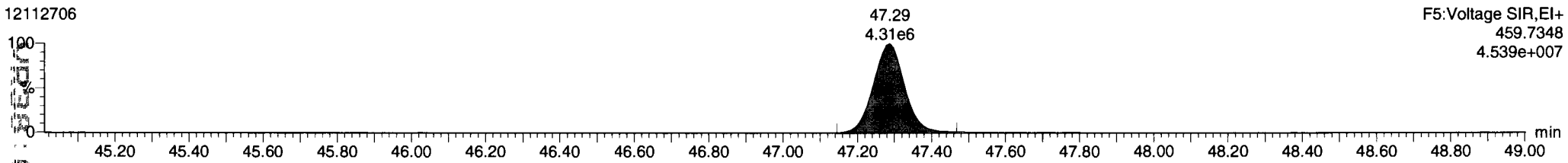
13C-OCDD



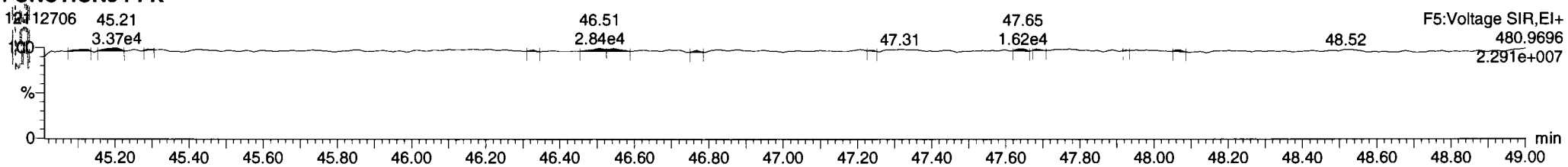
OCDD



OCDD



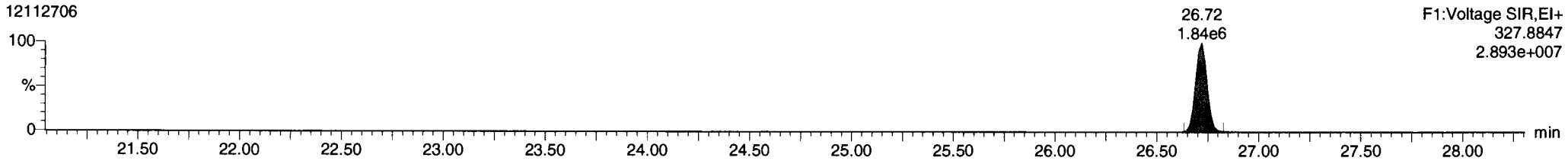
FUNCTION5 PFK



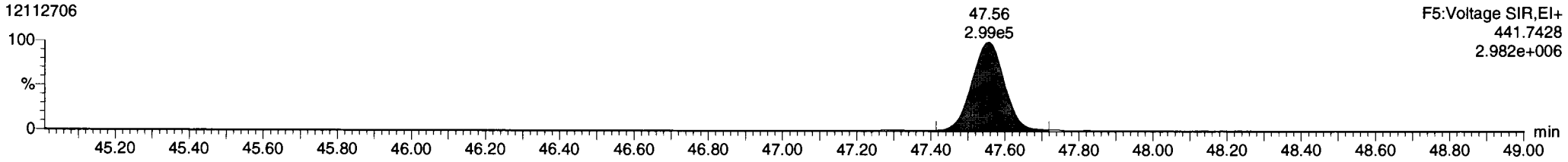
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:51:17 Pacific Standard Time

Name: 12112706, Date: 27-Nov-2012, Time: 15:05:38, ID: VR38SRM, Conditions: AUTOSPEC01, User: pk

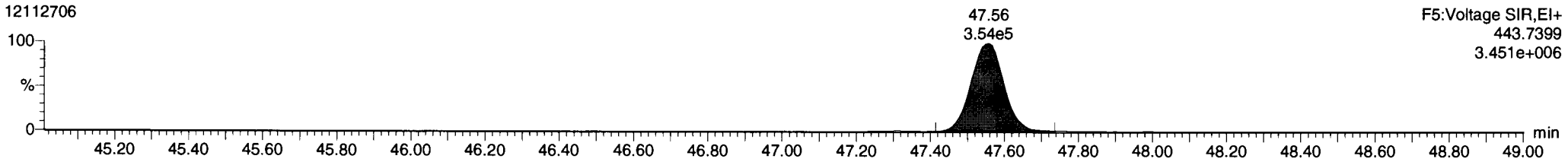
37CL-2378-TCDD



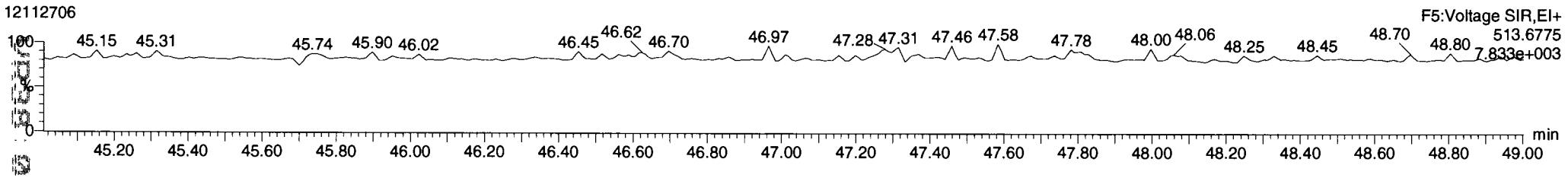
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

MR 11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

	Name													
1	2378-TCDF	26.049	1.000	455	456	911	bb	0.877	0.998	0.770	YES	6.1	0.016	0.018 B
2	12378-PeCDF	30.190	1.000	809	530	1339	bb	0.896	1.527	1.550	NO	5.5	0.031	0.031 B
3	23478-PeCDF	31.538	1.000	626	275	900	db	0.926	2.279	1.550	YES	4.1	0.018	0.023
4	123478-HxCDF	35.210	1.000	315	358	673	bd	1.068	0.878	1.240	YES	5.2	0.016	0.019
5	234678-HxCDF	36.296	1.000	489	438	926	MM	1.037	1.116	1.240	NO	5.9	0.029	0.029
6	123678-HxCDF	35.353	1.000	465	446	911	db	1.035	1.043	1.240	YES	6.5	0.023	0.025
7	123789-HxCDF	37.424	1.000	303	188	491	bb	0.987	1.616	1.240	YES	5.8	0.015	0.017
8	1234678-HpCDF	39.507	1.000	4840	4836	9676	bb	1.232	1.001	1.050	NO	107.7	0.326	0.326
9	1234789-HpCDF							1.215		1.050				
10	OCDF	47.504	1.006	7517	8380	15897	db	1.138	0.897	0.890	NO	63.3	0.968	0.968
11	2378-TCDD	26.706	1.001	320	2290	2610	dd	1.049	0.140	0.770	YES	3.4	0.019	0.068
12	12378-PeCDD	31.779	1.000	728	232	961	bd	0.998	3.135	1.550	YES	10.2	0.021	0.034 B
13	123478-HxCDD							0.971		1.240				
14	123678-HxCDD	36.569	1.000	1447	1126	2573	bb	0.918	1.284	1.240	NO	19.7	0.098	0.098
15	123789-HxCDD	37.008	1.012	752	588	1340	bb	0.932	1.279	1.240	NO	11.7	0.052	0.052
16	1234678-HpCDD	41.327	1.001	21755	22192	43947	bd	1.017	0.980	1.050	NO	260.2	1.920	1.920
17	OCDD	47.235	1.000	109414	122274	231688	bb	1.008	0.895	0.890	NO	950.7	15.914	15.914
18	13C-2378-TCDF	26.049	1.007	2507629	3239578	5747207	bb	1.473	0.774	0.770	NO	11368.3		88.778
19	13C-12378-PeCDF	30.179	1.167	2961638	1889777	4851415	bb	1.148	1.567	1.550	NO	13213.7		96.141
20	13C-23478-PeCDF	31.528	1.219	2544563	1617680	4162243	bb	1.113	1.573	1.550	NO	10947.2		85.089
21	13C-123478-HxCDF	35.200	0.952	1138527	2183400	3321928	bd	1.209	0.521	0.510	NO	5324.4		85.294
22	13C-123678-HxCDF	35.342	0.956	1199252	2308054	3507306	db	1.269	0.520	0.510	NO	5647.7		85.820
23	13C-234678-HxCDF	36.285	0.981	1053317	2016710	3070027	bb	1.236	0.522	0.510	NO	4892.2		77.116
24	13C-123789-HxCDF	37.436	1.012	1006873	1910279	2917152	bb	1.107	0.527	0.510	NO	4788.1		81.823
25	13C-1234678-HpCDF	39.496	1.068	735433	1673006	2408439	bb	1.051	0.440	0.440	NO	4416.6		71.127
26	13C-1234789-HpCDF	42.193	1.141	599053	1347039	1946092	bb	0.815	0.445	0.440	NO	3140.4		74.151
27	13C-1234-TCDD	25.869	0.000	1928408	2467691	4396099	bb	1.000	0.781	0.770	NO	8878.8		100.000
28	13C-2378-TCDD	26.676	1.031	1606490	2077560	3684050	bb	0.946	0.773	0.770	NO	7249.7		88.612
29	13C-12378-PeCDD	31.779	1.228	1715597	1091660	2807256	bb	0.721	1.571	1.550	NO	8705.0		88.608
30	13C-123478-HxCDD	36.427	0.985	1507896	1185806	2693702	bd	0.991	1.272	1.240	NO	7415.4		84.390
31	13C-123678-HxCDD	36.559	0.988	1588395	1265911	2854305	db	1.025	1.255	1.240	NO	7918.9		86.470
32	13C-1234678-HpCDD	41 305	1.117	1153554	1096939	2250492	bb	0.866	1.052	1.050	NO	4517.0		80.655
33	13C-OCDD	47.217	1.277	1353030	1534472	2887502	bb	0.769	0.882	0.890	NO	5373.4		116.541

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

	Name			Area										
34	13C-123789-HxCDD	36.986	0.000	1787345	1434082	3221427	bb	1.000	1.246	1.240	NO	8884.7		100.000
35	Total-tetrafurans			1922				0.877					0.225	0.086
36	Total-penta1			6785									0.266	0.266
37	Total-pentafurans			2722				0.911				,444	0.178	,377 0.111
38	Total-hexafurans			10101				1.032					0.599	0.545
39	Total-heptafurans			13214				1.223					0.955	0.955
40	Total-Furans			42261				1.041					3.190	2.931
41	Total-tetradioxins			0				1.049					0.067	0.000
42	Total-pentadioxins			0				0.998					0.086	0.000
43	Total-hexadioxins			4784				0.940					0.607	0.342
44	Total-heptadioxins			42600				1.017					3.739	3.739
45	Total-Dioxins			156797				0.985					20.412	19.994
46	Total-TEQ			199058									23.602	22.925
47	37CL-2378-TCDD	26.706	1.032	1666468		1666468		1.044				15487.2		36.324
48	FUNCTION1 PFK			163263321										
49	FUNCTION2 PFK			169605										0.000
50	FUNCTION3 PFK			17248868										0.000
51	FUNCTION4 PFK			839180										
52	FUNCTION5 PFK			500676										
53	FUNCTION1 HXCDPE			601										0.000
54	FUNCTION1 HPCDPE			748										0.000
55	FUNCTION2 HPCDPE			245										0.000
56	FUNCTION3 OCDPE			0										
57	FUNCTION4 NCDPE			576										0.000
58	FUNCTION5 DCDPE			0										

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
	35	Total-tetrafurans	303.9016	24.18	946.000	0.877	0.019	0.019	0.67	0.77	NO	5.4
	35	Total-tetrafurans	303.9016	24.06	1401.773	0.877	0.028	0.028	0.86	0.77	NO	6.5
	35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.011	0.48	0.77	YES	3.5
	35	Total-tetrafurans	303.9016	23.42	0.000	0.877	0.000	0.044	0.62	0.77	YES	13.5
	35	Total-tetrafurans	303.9016	22.85	0.000	0.877	0.000	0.009	0.57	0.77	YES	2.7
	35	Total-tetrafurans	303.9016	26.30	0.000	0.877	0.000	0.016	0 52	0.77	YES	4.9
	1	2378-TCDF	303.9016	26.05	910.974	0.877	0.000	0.016	1.00	0.77	YES	6.1
	35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.017	0.41	0.77	YES	4.9
	35	Total-tetrafurans	303.9016	24.97	1991.749	0.877	0.040	0.040	0.81	0.77	NO	8.7
	35	Total-tetrafurans	303.9016	24.84	0.000	0.877	0.000	0.010	0.44	0.77	YES	2.9
	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.016	0.60	0.77	YES	3.0

PP

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
	36	Total-penta1	339.8597	27.47	10993.892		0.266	0.266	1.61	1.55	NO	136.2

PF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
	37	Total-pentafurans	339.8597	29.04	0.000	0.911	0.000	0.029	2.41	1.55	YES	6.8
	3	23478-PeCDF	339.8597	31.54	900.241	0.926	0.000	0.018	2.28	1.55	YES	4.1
	37	Total-pentafurans	339.8597	31.37	0.000	0.911	0.000	0.019	1.06	1.55	YES	3.7
	2	12378-PeCDF	339.8597	30.19	1339.004	0.896	0.031	0.031	1.53	1.55	NO	5.5
	37	Total-pentafurans	339.8597	29.83	1036.120	0.911	0.025	0.025	1.51	1.55	NO	4.4
	37	Total-pentafurans	339.8597	29.12	2256.254	0.911	0.055	0.055	1.33	1.55	NO	10.2

HF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
	38	Total-hexafurans	373.8208	34.56	6325.967	1.032	0.191	0.191	1.25	1.24	NO	36.8
	38	Total-hexafurans	373.8208	33.72	8206.138	1.032	0.248	0.248	1.33	1.24	NO	44.2
	38	Total-hexafurans	373.8208	33.49	2510.323	1.032	0.076	0.076	1.30	1.24	NO	15.3
	7	123789-HxCDF	373.8208	37.42	490.981	0.987	0.000	0.015	1.62	1.24	YES	5.8
	5	234678-HxCDF	373.8208	36.30	926.366	1.037	0.029	0.029	1.12	1.24	NO	5.9
	6	123678-HxCDF	373.8208	35.35	911.352	1.035	0.000	0.023	1.04	1.24	YES	6.5
	4	123478-HxCDF	373.8208	35.21	672.857	1.068	0.000	0.016	0.88	1.24	YES	5.2

HPF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
	39	Total-heptafurans	407.7818	40.31	16745.278	1.223	0.629	0.629	1.00	1.05	NO	187.7
	8	1234678-HpCDF	407.7818	39.51	9676.185	1.232	0.326	0.326	1.00	1.05	NO	107.7

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

#	Name	Trace	RT	Abs Resp	RRF M...	... ng	EMPC	1 Ratio	1C Ratio	1 R...	S/N
35	Total-tetrafurans	303.9016	24.18	946.000	0.877	0.019	0.019	0.67	0.77	NO	5.4
35	Total-tetrafurans	303.9016	24.06	1401.773	0.877	0.028	0.028	0.86	0.77	NO	6.5
35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.011	0.48	0.77	YES	3.5
35	Total-tetrafurans	303.9016	23.42	0.000	0.877	0.000	0.044	0.62	0.77	YES	13.5
35	Total-tetrafurans	303.9016	22.85	0.000	0.877	0.000	0.009	0.57	0.77	YES	2.7
35	Total-tetrafurans	303.9016	26.30	0.000	0.877	0.000	0.016	0.52	0.77	YES	4.9
1	2378-TCDF	303.9016	26.05	910.974	0.877	0.000	0.016	1.00	0.77	YES	6.1
35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.017	0.41	0.77	YES	4.9
35	Total-tetrafurans	303.9016	24.97	1991.749	0.877	0.040	0.040	0.81	0.77	NO	8.7
35	Total-tetrafurans	303.9016	24.84	0.000	0.877	0.000	0.010	0.44	0.77	YES	2.9
35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.016	0.60	0.77	YES	3.0
37	Total-pentafurans	339.8597	29.04	0.000	0.911	0.000	0.029	2.41	1.55	YES	6.8
3	23478-PeCDF	339.8597	31.54	900.241	0.926	0.000	0.018	2.28	1.55	YES	4.1
37	Total-pentafurans	339.8597	31.37	0.000	0.911	0.000	0.019	1.06	1.55	YES	3.7
2	12378-PeCDF	339.8597	30.19	1339.004	0.896	0.031	0.031	1.53	1.55	NO	5.5
37	Total-pentafurans	339.8597	29.83	1036.120	0.911	0.025	0.025	1.51	1.55	NO	4.4
37	Total-pentafurans	339.8597	29.12	2256.254	0.911	0.055	0.055	1.33	1.55	NO	10.2
38	Total-hexafurans	373.8208	34.56	6325.967	1.032	0.191	0.191	1.25	1.24	NO	36.8
38	Total-hexafurans	373.8208	33.72	8206.138	1.032	0.248	0.248	1.33	1.24	NO	44.2
38	Total-hexafurans	373.8208	33.49	2510.323	1.032	0.076	0.076	1.30	1.24	NO	15.3
7	123789-HxCDF	373.8208	37.42	490.981	0.987	0.000	0.015	1.62	1.24	YES	5.8
5	234678-HxCDF	373.8208	36.30	926.366	1.037	0.029	0.029	1.12	1.24	NO	5.9
6	123678-HxCDF	373.8208	35.35	911.352	1.035	0.000	0.023	1.04	1.24	YES	6.5
4	123478-HxCDF	373.8208	35.21	672.857	1.068	0.000	0.016	0.88	1.24	YES	5.2
39	Total-heptafurans	407.7818	40.31	16745.278	1.223	0.629	0.629	1.00	1.05	NO	187.7
8	1234678-HpCDF	407.7818	39.51	9676.185	1.232	0.326	0.326	1.00	1.05	NO	107.7
10	OCDF	441.7428	47.50	15897.187	1.138	0.968	0.968	0.90	0.89	NO	63.3
36	Total-penta1	339.8597	27.47	10993.892		0.266	0.266	1.61	1.55	NO	136.2

TD

#	Name	Trace	RT	Abs Resp	RRF M...	... ng	EMPC	1 Ratio	1C Ratio	1 R...	S/N
11	2378-TCDD	319.8965	26.71	2610.208	1.049	0.000	0.019	0.14	0.77	YES	3.4
41	Total-tetradioxins	319.8965	24.82	0.000	1.049	0.000	0.024	1.37	0.77	YES	7.1
41	Total-tetradioxins	319.8965	23.87	0.000	1.049	0.000	0.024	0.63	0.77	YES	4.5

PD

#	Name	Trace	RT	Abs Resp	RRF M...	... ng	EMPC	1 Ratio	1C Ratio	1 R...	S/N
42	Total-pentadioxins	355.8546	29.57	0.000	0.998	0.000	0.012	2.29	1.55	YES	3.2
12	12378-PeCDD	355.8546	31.78	960.831	0.998	0.000	0.021	3.13	1.55	YES	10.2
42	Total-pentadioxins	355.8546	30.54	0.000	0.998	0.000	0.015	0.91	1.55	YES	3.2
42	Total-pentadioxins	355.8546	30.41	0.000	0.998	0.000	0.018	2.46	1.55	YES	5.1
42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.020	3.08	1.55	YES	6.0

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HD

	#	Name	Trace	RT	Abs Area	RRF M	Dif	EMPC	1° Rati	1° Ratio	Y/N	S/N
	43	Total-hexadioxins	389.8157	35.48	0.000	0.940	0.000	0.229	1.57	1.24	YES	32.9
	43	Total-hexadioxins	389.8157	35.10	0.000	0.940	0.000	0.036	1.01	1.24	YES	6.4
	43	Total-hexadioxins	389.8157	34.28	5000.600	0.940	0.192	0.192	1.07	1.24	NO	30.6
	15	123789-HxCDD	389.8157	37.01	1339.691	0.932	0.052	0.052	1.28	1.24	NO	11.7
	14	123678-HxCDD	389.8157	36.57	2572.732	0.918	0.098	0.098	1.28	1.24	NO	19.7

HPD

	#	Name	Trace	RT	Abs Area	RRF M	Dif	EMPC	1° Ratio	1° Ratio	Y/N	S/N
	16	1234678-HpCDD	423.7766	41.33	43947.409	1.017	1.920	1.920	0.98	1.05	NO	260.2
	44	Total-heptadioxins	423.7766	40.07	41611.032	1.017	1.818	1.818	1.00	1.05	NO	265.9

Dioxins,TD,PD,HD,HPD,OD

	#	Name	Trace	RT	Abs Area	RRF M	Dif	EMPC	1° Ratio	1° Ratio	Y/N	S/N
	11	2378-TCDD	319.8965	26.71	2610.208	1.049	0.000	0.019	0.14	0.77	YES	3.4
	41	Total-tetradioxins	319.8965	24.82	0.000	1.049	0.000	0.024	1.37	0.77	YES	7.1
	41	Total-tetradioxins	319.8965	23.87	0.000	1.049	0.000	0.024	0.63	0.77	YES	4.5
	42	Total-pentadioxins	355.8546	29.57	0.000	0.998	0.000	0.012	2.29	1.55	YES	3.2
	12	12378-PeCDD	355.8546	31.78	960.831	0.998	0.000	0.021	3.13	1.55	YES	10.2
	42	Total-pentadioxins	355.8546	30.54	0.000	0.998	0.000	0.015	0.91	1.55	YES	3.2
	42	Total-pentadioxins	355.8546	30.41	0.000	0.998	0.000	0.018	2.46	1.55	YES	5.1
	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.020	3.08	1.55	YES	6.0
	43	Total-hexadioxins	389.8157	35.48	0.000	0.940	0.000	0.229	1.57	1.24	YES	32.9
	43	Total-hexadioxins	389.8157	35.10	0.000	0.940	0.000	0.036	1.01	1.24	YES	6.4
	43	Total-hexadioxins	389.8157	34.28	5000.600	0.940	0.192	0.192	1.07	1.24	NO	30.6
	15	123789-HxCDD	389.8157	37.01	1339.691	0.932	0.052	0.052	1.28	1.24	NO	11.7
	14	123678-HxCDD	389.8157	36.57	2572.732	0.918	0.098	0.098	1.28	1.24	NO	19.7
	16	1234678-HpCDD	423.7766	41.33	43947.409	1.017	1.920	1.920	0.98	1.05	NO	260.2
	44	Total-heptadioxins	423.7766	40.07	41611.032	1.017	1.818	1.818	1.00	1.05	NO	265.9
	17	OCDD	457.7377	47.23	231687.704	1.008	15.914	15.914	0.89	0.89	NO	950.7

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	[redacted]	[redacted] RT	[redacted]	[redacted]	pg	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	35	Total-tetrafurans	303.9016	24.18	946.000	0.877	0.019	0.019	0.67	0.77	NO	5.4
[redacted]	35	Total-tetrafurans	303.9016	24.06	1401.773	0.877	0.028	0.028	0.86	0.77	NO	6.5
[redacted]	35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.011	0.48	0.77	YES	3.5
[redacted]	35	Total-tetrafurans	303.9016	23.42	0.000	0.877	0.000	0.044	0.62	0.77	YES	13.5
[redacted]	35	Total-tetrafurans	303.9016	22.85	0.000	0.877	0.000	0.009	0.57	0.77	YES	2.7
[redacted]	35	Total-tetrafurans	303.9016	26.30	0.000	0.877	0.000	0.016	0.52	0.77	YES	4.9
[redacted]	1	2378-TCDF	303.9016	26.05	910.974	0.877	0.000	0.016	1.00	0.77	YES	6.1
[redacted]	35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.017	0.41	0.77	YES	4.9
[redacted]	35	Total-tetrafurans	303.9016	24.97	1991.749	0.877	0.040	0.040	0.81	0.77	NO	8.7
[redacted]	35	Total-tetrafurans	303.9016	24.84	0.000	0.877	0.000	0.010	0.44	0.77	YES	2.9
[redacted]	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.016	0.60	0.77	YES	3.0
[redacted]	37	Total-pentafurans	339.8597	29.04	0.000	0.911	0.000	0.029	2.41	1.55	YES	6.8
[redacted]	3	23478-PeCDF	339.8597	31.54	900.241	0.926	0.000	0.018	2.28	1.55	YES	4.1
[redacted]	37	Total-pentafurans	339.8597	31.37	0.000	0.911	0.000	0.019	1.06	1.55	YES	3.7
[redacted]	2	12378-PeCDF	339.8597	30.19	1339.004	0.896	0.031	0.031	1.53	1.55	NO	5.5
[redacted]	37	Total-pentafurans	339.8597	29.83	1036.120	0.911	0.025	0.025	1.51	1.55	NO	4.4
[redacted]	37	Total-pentafurans	339.8597	29.12	2256.254	0.911	0.055	0.055	1.33	1.55	NO	10.2
[redacted]	38	Total-hexafurans	373.8208	34.56	6325.967	1.032	0.191	0.191	1.25	1.24	NO	36.8
[redacted]	38	Total-hexafurans	373.8208	33.72	8206.138	1.032	0.248	0.248	1.33	1.24	NO	44.2
[redacted]	38	Total-hexafurans	373.8208	33.49	2510.323	1.032	0.076	0.076	1.30	1.24	NO	15.3
[redacted]	7	123789-HxCDF	373.8208	37.42	490.981	0.987	0.000	0.015	1.62	1.24	YES	5.8
[redacted]	5	234678-HxCDF	373.8208	36.30	926.366	1.037	0.029	0.029	1.12	1.24	NO	5.9
[redacted]	6	123678-HxCDF	373.8208	35.35	911.352	1.035	0.000	0.023	1.04	1.24	YES	6.5
[redacted]	4	123478-HxCDF	373.8208	35.21	672.857	1.068	0.000	0.016	0.88	1.24	YES	5.2
[redacted]	39	Total-heptafurans	407.7818	40.31	16745.278	1.223	0.629	0.629	1.00	1.05	NO	187.7
[redacted]	8	1234678-HpCDF	407.7818	39.51	9676.185	1.232	0.326	0.326	1.00	1.05	NO	107.7
[redacted]	10	OCDF	441.7428	47.50	15897.187	1.138	0.968	0.968	0.90	0.89	NO	63.3
[redacted]	36	Total-penta1	339.8597	27.47	10993.892		0.266	0.266	1.61	1.55	NO	136.2
[redacted]	11	2378-TCDD	319.8965	26.71	2610.208	1.049	0.000	0.019	0.14	0.77	YES	3.4
[redacted]	41	Total-tetradioxins	319.8965	24.82	0.000	1.049	0.000	0.024	1.37	0.77	YES	7.1
[redacted]	41	Total-tetradioxins	319.8965	23.87	0.000	1.049	0.000	0.024	0.63	0.77	YES	4.5
[redacted]	42	Total-pentadioxins	355.8546	29.57	0.000	0.998	0.000	0.012	2.29	1.55	YES	3.2
[redacted]	12	12378-PeCDD	355.8546	31.78	960.831	0.998	0.000	0.021	3.13	1.55	YES	10.2
[redacted]	42	Total-pentadioxins	355.8546	30.54	0.000	0.998	0.000	0.015	0.91	1.55	YES	3.2
[redacted]	42	Total-pentadioxins	355.8546	30.41	0.000	0.998	0.000	0.018	2.46	1.55	YES	5.1
[redacted]	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.020	3.08	1.55	YES	6.0
[redacted]	43	Total-hexadioxins	389.8157	35.48	0.000	0.940	0.000	0.229	1.57	1.24	YES	32.9
[redacted]	43	Total-hexadioxins	389.8157	35.10	0.000	0.940	0.000	0.036	1.01	1.24	YES	6.4
[redacted]	43	Total-hexadioxins	389.8157	34.28	5000.600	0.940	0.192	0.192	1.07	1.24	NO	30.6
[redacted]	15	123789-HxCDD	389.8157	37.01	1339.691	0.932	0.052	0.052	1.28	1.24	NO	11.7
[redacted]	14	123678-HxCDD	389.8157	36.57	2572.732	0.918	0.098	0.098	1.28	1.24	NO	19.7
[redacted]	16	1234678-HpCDD	423.7766	41.33	43947.409	1.017	1.920	1.920	0.98	1.05	NO	260.2
[redacted]	44	Total-heptadioxins	423.7766	40.07	41611.032	1.017	1.818	1.818	1.00	1.05	NO	265.9
[redacted]	17	OCDD	457.7377	47.23	231687.704	1.008	15.914	15.914	0.89	0.89	NO	950.7

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PFK1

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	48	FUNCTION1 PFK	330.9792	22.48	0.000							64.4
	48	FUNCTION1 PFK	330.9792	21.97	0.000							61.2
	48	FUNCTION1 PFK	330.9792	21.52	0.000							60.7
	48	FUNCTION1 PFK	330.9792	21.37	0.000							51.6
	48	FUNCTION1 PFK	330.9792	21.15	0.000							37.5
	48	FUNCTION1 PFK	330.9792	24.81	0.000							20.0
	48	FUNCTION1 PFK	330.9792	24.26	0.000							35.5
	48	FUNCTION1 PFK	330.9792	24.05	0.000							39.2
	48	FUNCTION1 PFK	330.9792	23.09	0.000							54.8
	48	FUNCTION1 PFK	330.9792	22.88	0.000							56.2
	48	FUNCTION1 PFK	330.9792	22.66	0.000							61.5
	48	FUNCTION1 PFK	330.9792	22.60	0.000							62.7

PFK2

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	49	FUNCTION2 PFK	366.9792	30.42	0.000	0.000						1.7
	49	FUNCTION2 PFK	366.9792	29.80	0.000	0.000						0.6
	49	FUNCTION2 PFK	366.9792	29.52	0.000	0.000						1.4
	49	FUNCTION2 PFK	366.9792	29.16	0.000	0.000						0.7
	49	FUNCTION2 PFK	366.9792	28.78	0.000	0.000						1.0
	49	FUNCTION2 PFK	366.9792	28.57	0.000	0.000						2.0
	49	FUNCTION2 PFK	366.9792	28.53	0.000	0.000						2.0
	49	FUNCTION2 PFK	366.9792	28.37	0.000	0.000						0.7
	49	FUNCTION2 PFK	366.9792	32.84	0.000	0.000						0.6
	49	FUNCTION2 PFK	366.9792	32.48	0.000	0.000						1.2
	49	FUNCTION2 PFK	366.9792	32.19	0.000	0.000						1.9
	49	FUNCTION2 PFK	366.9792	31.91	0.000	0.000						1.6
	49	FUNCTION2 PFK	366.9792	31.70	0.000	0.000						0.9
	49	FUNCTION2 PFK	366.9792	31.44	0.000	0.000						2.0
	49	FUNCTION2 PFK	366.9792	31.10	0.000	0.000						2.4
	49	FUNCTION2 PFK	366.9792	30.62	0.000	0.000						0.5

PFK3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	33.39	0.000	0.000						35.4

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PFK4

[redacted]	#	Name	Trace	RT	Abs Ratio	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	S/N
[redacted]	51	FUNCTION4 PFK	430.9728	39.18	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	38.73	0.000							3.3
[redacted]	51	FUNCTION4 PFK	430.9728	38.72	0.000							3.0
[redacted]	51	FUNCTION4 PFK	430.9728	38.61	0.000							6.2
[redacted]	51	FUNCTION4 PFK	430.9728	38.56	0.000							8.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.97	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	44.80	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.40	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	44.25	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	43.42	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.97	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	42.42	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	41.55	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.13	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	40.77	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	40.00	0.000							0.7
[redacted]	51	FUNCTION4 PFK	430.9728	39.85	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.50	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.45	0.000							1.1

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PFK5

ID	#	Name	Trace	RT	Abs Resp	RRF M...	Dil	EMPC	1° Ratio	1° Ratio	1° Re...	S/N
[redacted]	52	FUNCTION5 PFK	480.9696	45.08	0.000							2.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.81	0.000							1.8
[redacted]	52	FUNCTION5 PFK	480.9696	45.76	0.000							2.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.71	0.000							1.8
[redacted]	52	FUNCTION5 PFK	480.9696	45.67	0.000							2.2
[redacted]	52	FUNCTION5 PFK	480.9696	45.63	0.000							1.8
[redacted]	52	FUNCTION5 PFK	480.9696	45.59	0.000							1.6
[redacted]	52	FUNCTION5 PFK	480.9696	45.58	0.000							1.3
[redacted]	52	FUNCTION5 PFK	480.9696	45.54	0.000							0.9
[redacted]	52	FUNCTION5 PFK	480.9696	45.50	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	45.47	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	45.44	0.000							1.2
[redacted]	52	FUNCTION5 PFK	480.9696	45.40	0.000							0.9
[redacted]	52	FUNCTION5 PFK	480.9696	45.25	0.000							1.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.19	0.000							1.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.16	0.000							0.5
[redacted]	52	FUNCTION5 PFK	480.9696	45.13	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	47.44	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	47.23	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	47.19	0.000							1.8
[redacted]	52	FUNCTION5 PFK	480.9696	47.12	0.000							1.7
[redacted]	52	FUNCTION5 PFK	480.9696	46.91	0.000							0.4
[redacted]	52	FUNCTION5 PFK	480.9696	46.82	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	46.77	0.000							1.1
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[redacted]	52	FUNCTION5 PFK	480.9696	46.63	0.000							0.4
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[redacted]	52	FUNCTION5 PFK	480.9696	46.31	0.000							0.6
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[redacted]	52	FUNCTION5 PFK	480.9696	45.88	0.000							1.6
[redacted]	52	FUNCTION5 PFK	480.9696	45.84	0.000							1.8
[redacted]	52	FUNCTION5 PFK	480.9696	48.57	0.000							2.0
[redacted]	52	FUNCTION5 PFK	480.9696	48.54	0.000							1.0
[redacted]	52	FUNCTION5 PFK	480.9696	48.46	0.000							0.3
[redacted]	52	FUNCTION5 PFK	480.9696	48.38	0.000							0.3
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[redacted]	52	FUNCTION5 PFK	480.9696	48.27	0.000							1.4
[redacted]	52	FUNCTION5 PFK	480.9696	48.22	0.000							0.5
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[redacted]	52	FUNCTION5 PFK	480.9696	48.10	0.000							0.5
[redacted]	52	FUNCTION5 PFK	480.9696	48.02	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	47.98	0.000							1.9
[redacted]	52	FUNCTION5 PFK	480.9696	47.93	0.000							1.2
[redacted]	52	FUNCTION5 PFK	480.9696	47.88	0.000							1.8
[redacted]	52	FUNCTION5 PFK	480.9696	47.73	0.000							1.8
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[redacted]	52	FUNCTION5 PFK	480.9696	47.57	0.000							0.9

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

PFK5

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	52	FUNCTION5 PFK	480.9696	48.89	0.000							0.4

ETHERS1

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	53	FUNCTION1 HXCD...	375.8364	27.11	0.000		0.000					4.0
	53	FUNCTION1 HXCD...	375.8364	25.62	0.000		0.000					4.1
	53	FUNCTION1 HXCD...	375.8364	25.05	0.000		0.000					3.0
	53	FUNCTION1 HXCD...	375.8364	23.93	0.000		0.000					8.4

ETHERS2

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	26.98	0.000		0.000					2.2
	54	FUNCTION1 HPCD...	409.7974	26.69	0.000		0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	26.12	0.000		0.000					1.3
	54	FUNCTION1 HPCD...	409.7974	25.90	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	25.06	0.000		0.000					2.5
	54	FUNCTION1 HPCD...	409.7974	23.91	0.000		0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	21.55	0.000		0.000					2.7
	54	FUNCTION1 HPCD...	409.7974	21.15	0.000		0.000					2.4

ETHERS3

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	32.48	0.000		0.000					3.1
	55	FUNCTION2 HPCD...	409.7974	32.14	0.000		0.000					4.6
	55	FUNCTION2 HPCD...	409.7974	29.54	0.000		0.000					3.2

ETHERS4

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N

ETHERS5

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	57	FUNCTION4 NCDPE	479.7165	39.10	0.000		0.000					18.0

ETHERS6

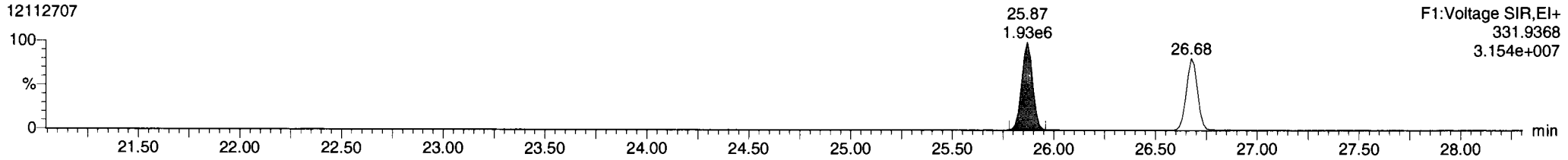
	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

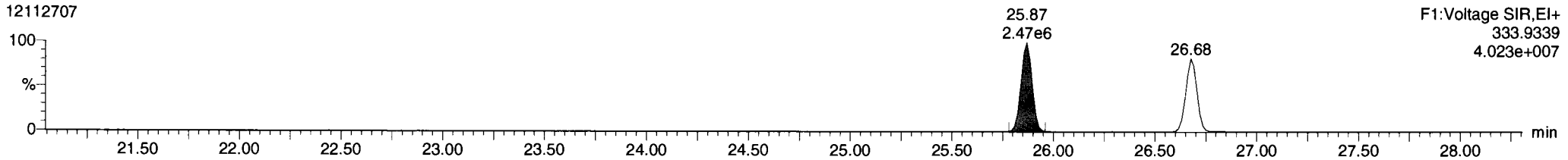
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

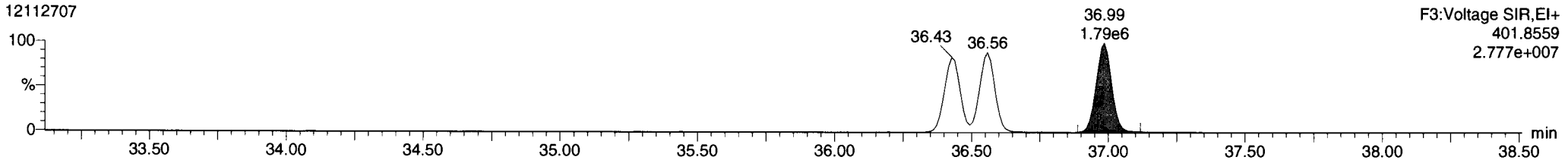
13C-1234-TCDD



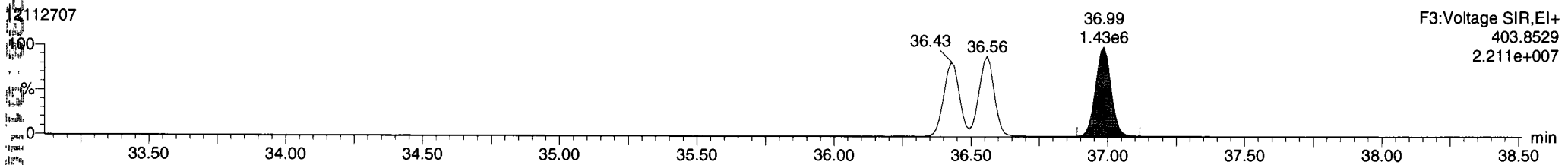
13C-1234-TCDD



13C-123789-HxCDD



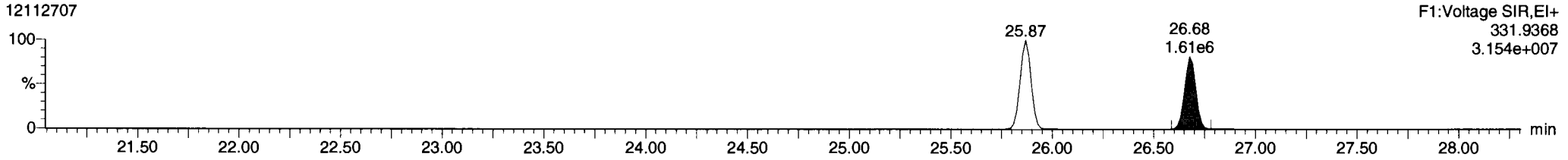
13C-123789-HxCDD



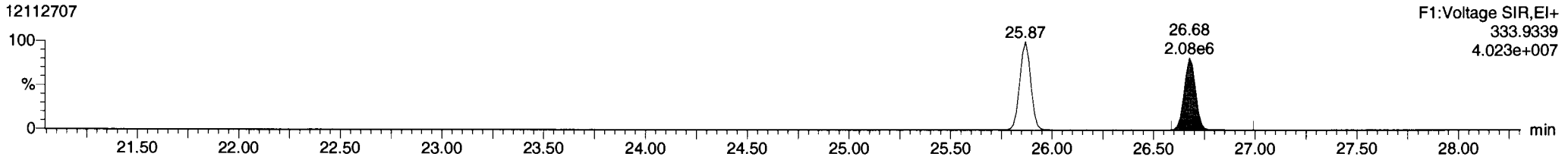
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:55:11 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

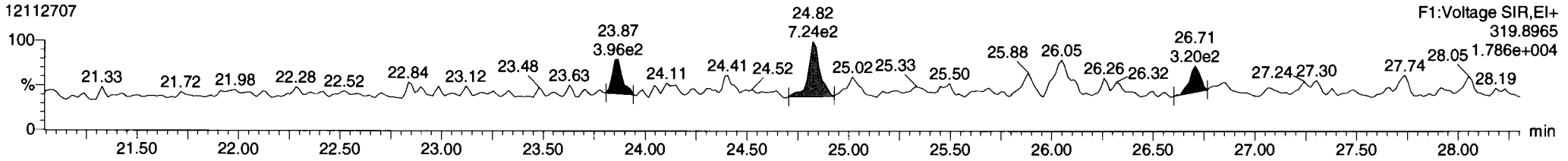
13C-2378-TCDD



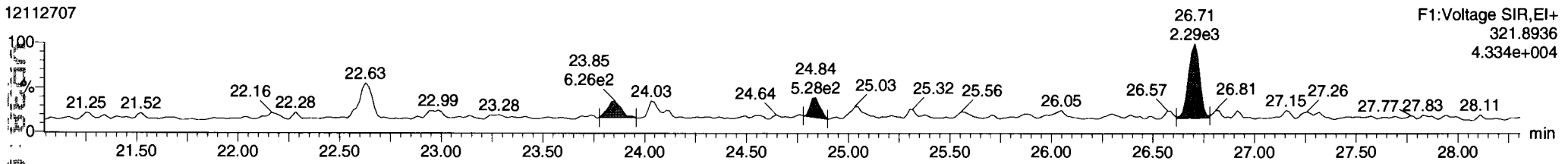
13C-2378-TCDD



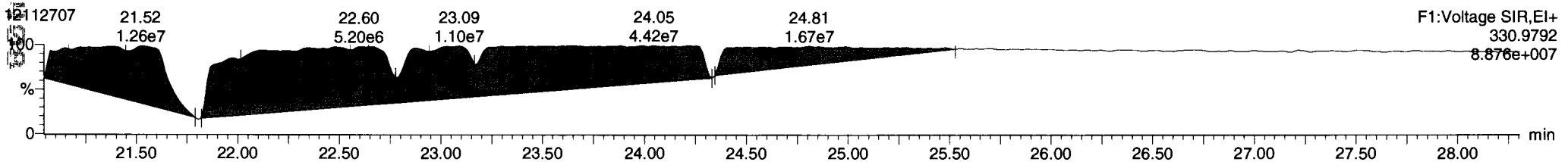
Total-tetradioxins



Total-tetradioxins



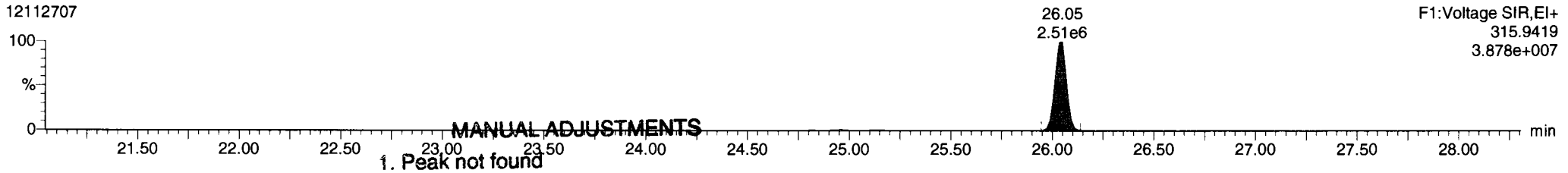
FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

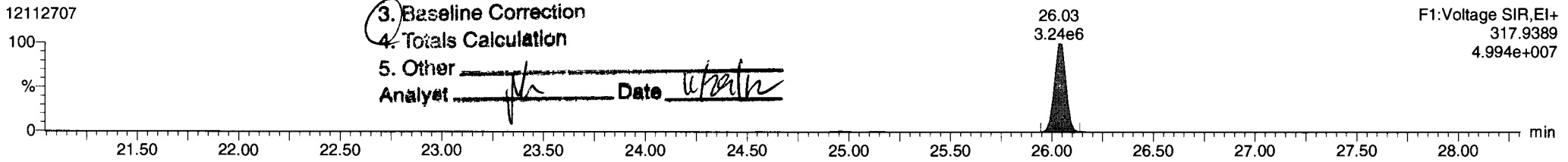


MANUAL ADJUSTMENTS

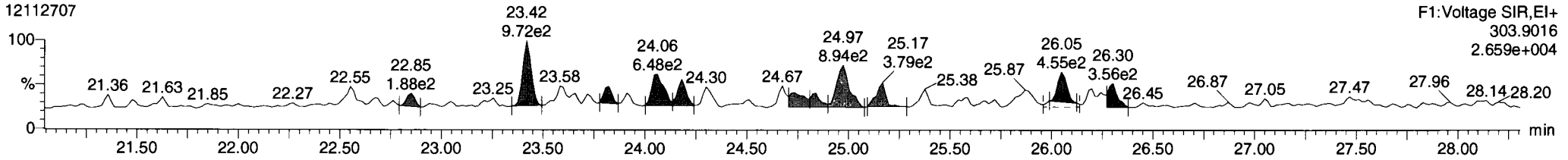
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

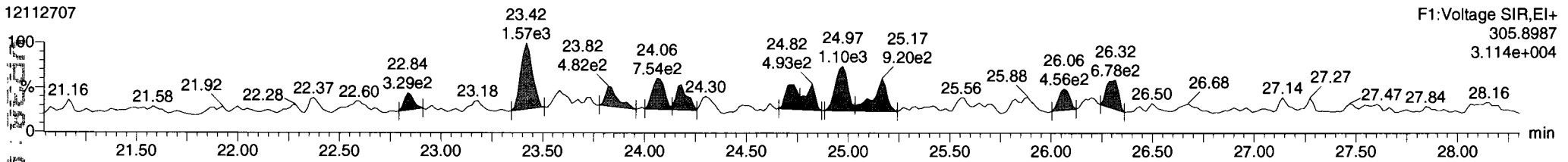
13C-2378-TCDF



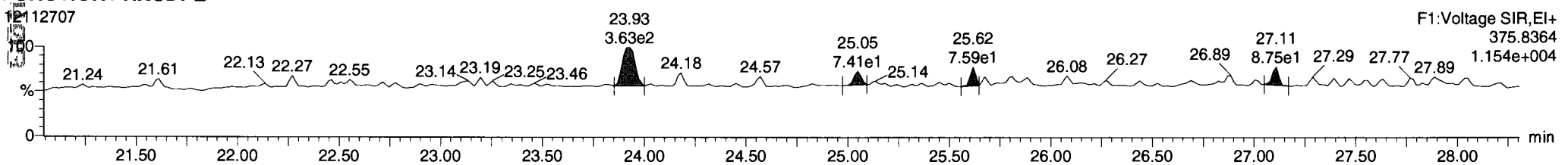
Total-tetrafurans



Total-tetrafurans



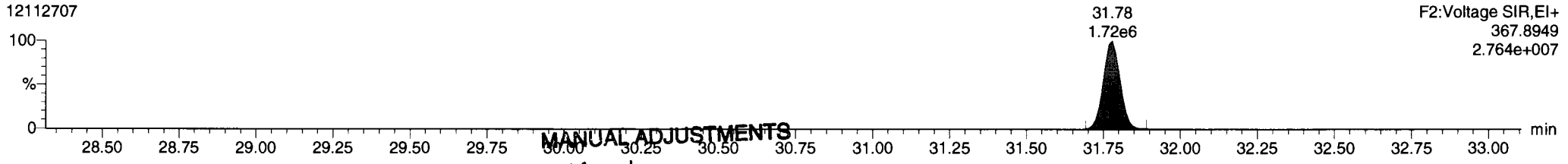
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

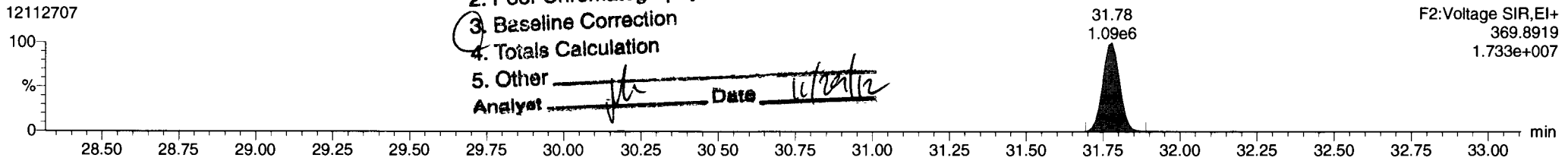


MANUAL ADJUSTMENTS

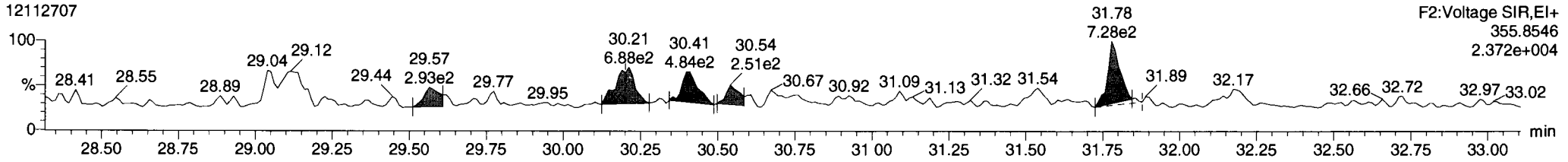
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

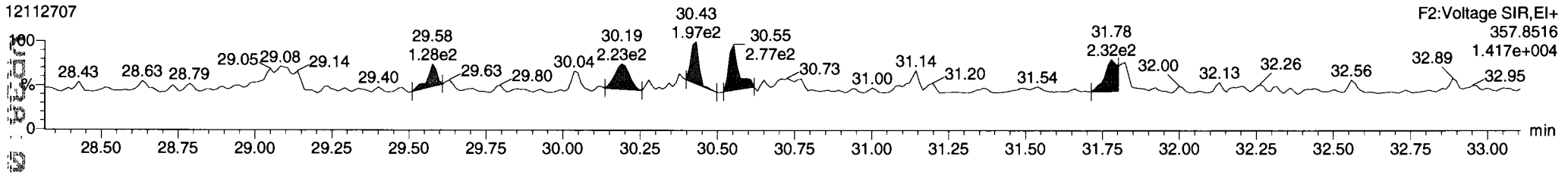
13C-12378-PeCDD



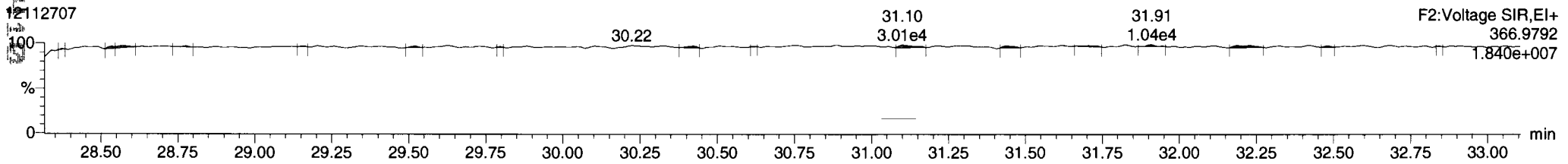
Total-pentadioxins



Total-pentadioxins



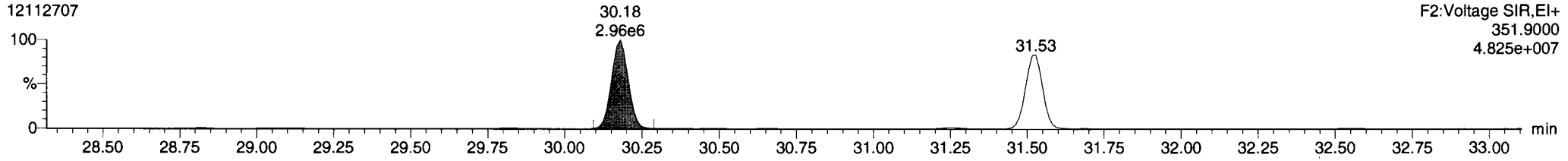
FUNCTION2 PFK



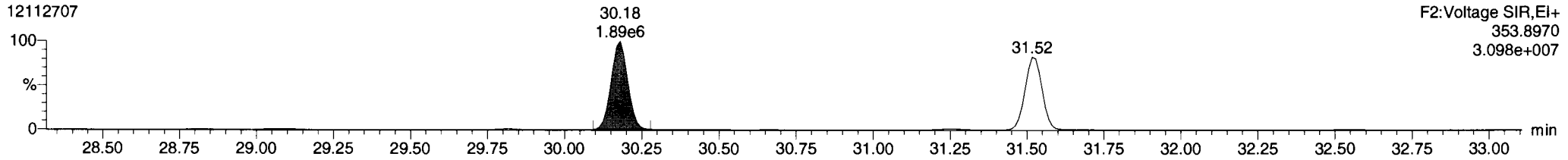
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

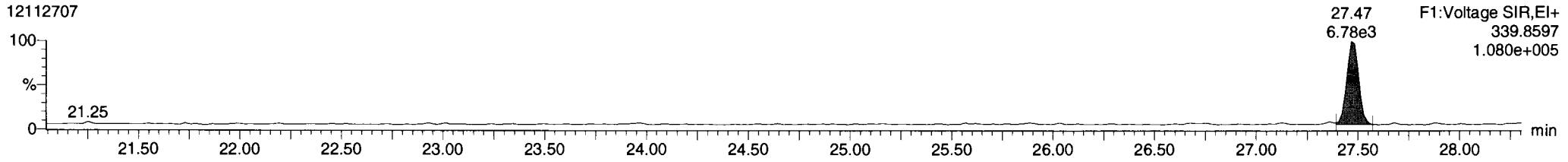
13C-12378-PeCDF



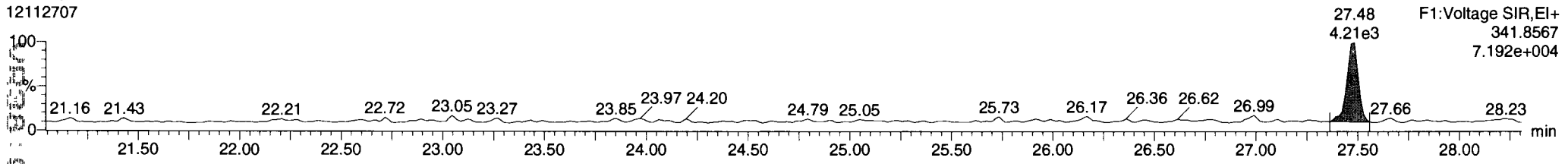
13C-12378-PeCDF



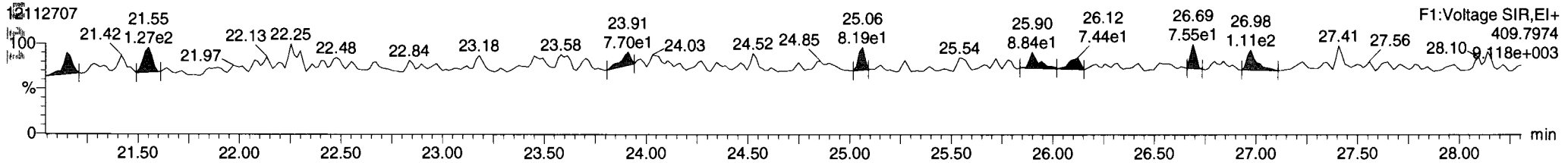
Total-penta1



Total-penta1



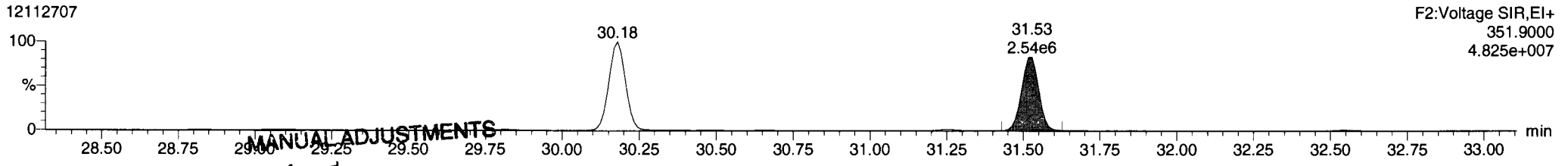
FUNCTION1 HPCDPE



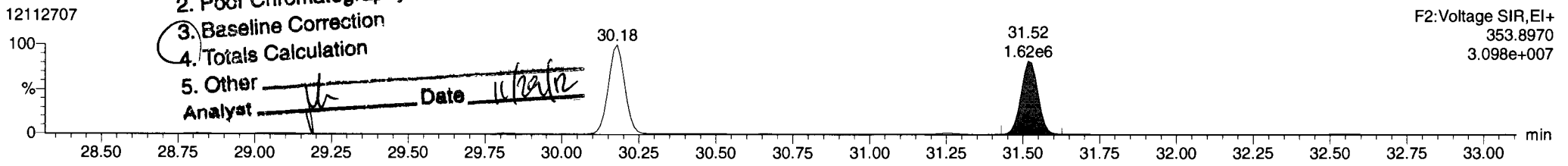
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

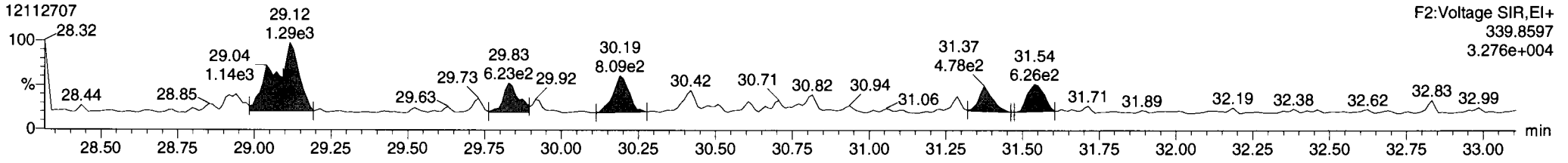
13C-23478-PeCDF



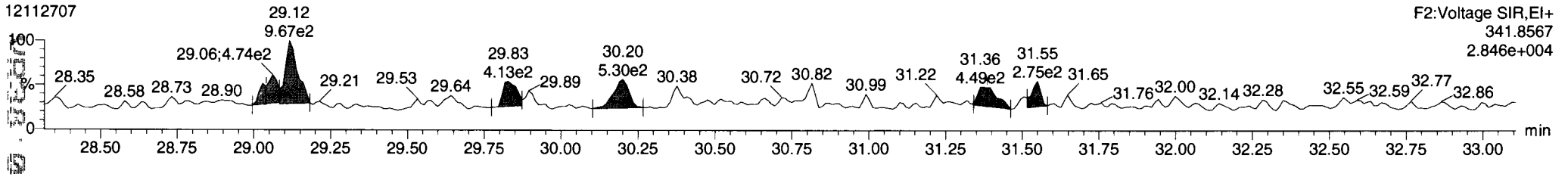
13C-23478-PeCDF



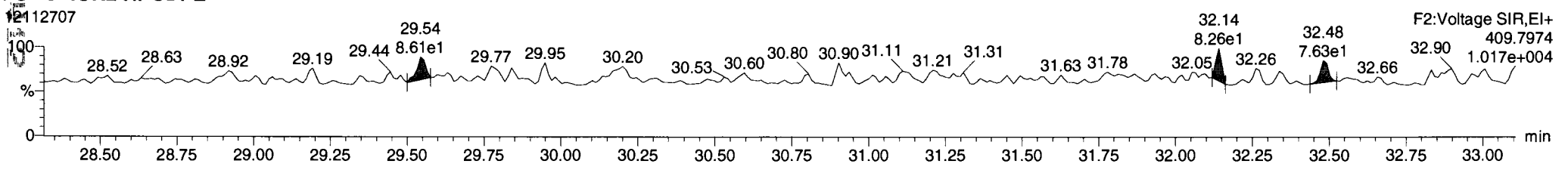
Total-pentafurans



Total-pentafurans



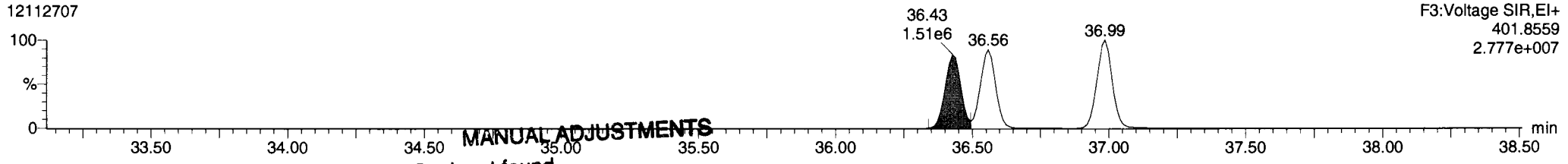
FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

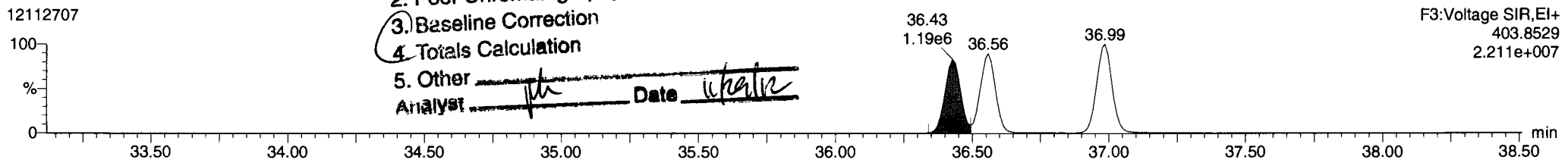
Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

13C-123478-HxCDD

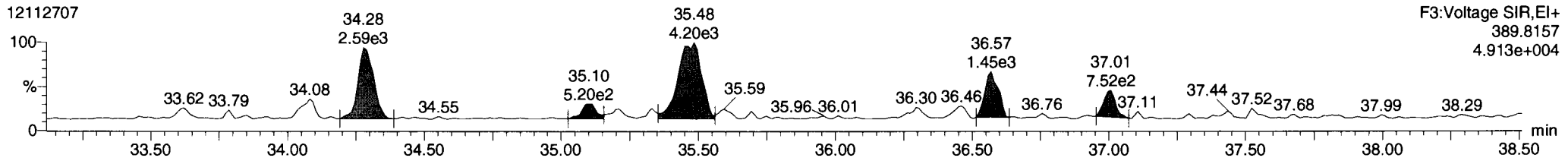


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date

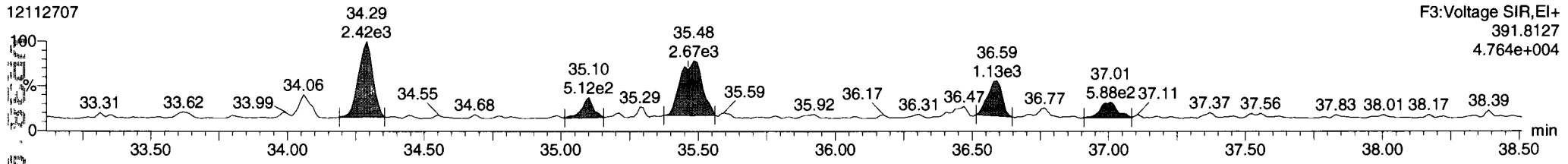
13C-123478-HxCDD



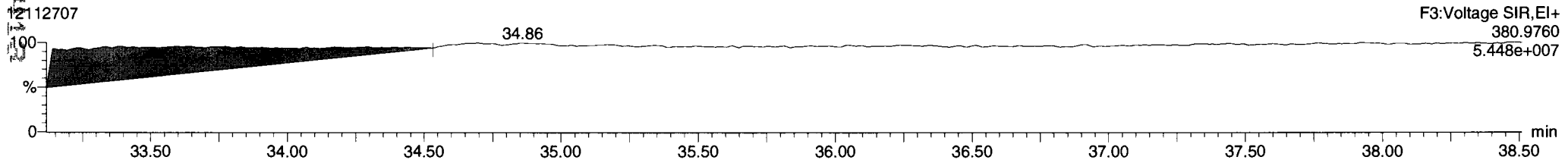
Total-hexadioxins



Total-hexadioxins



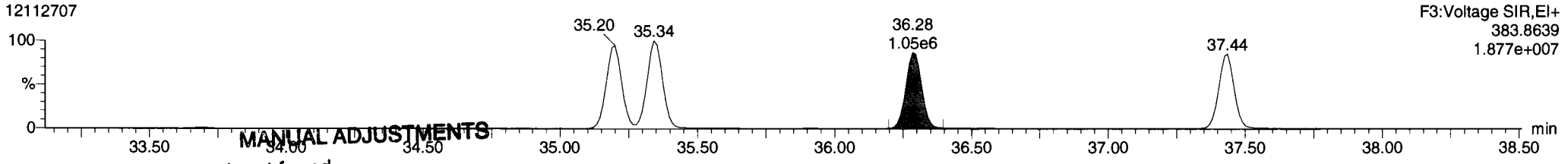
FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

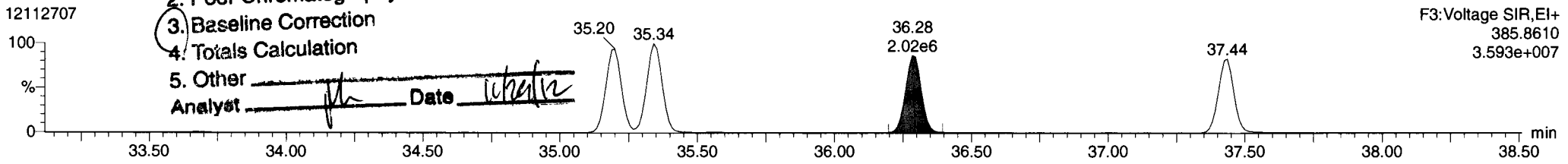
Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF

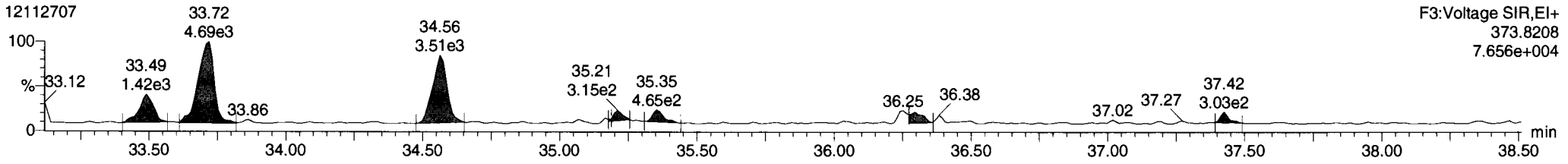


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date 12/6/12

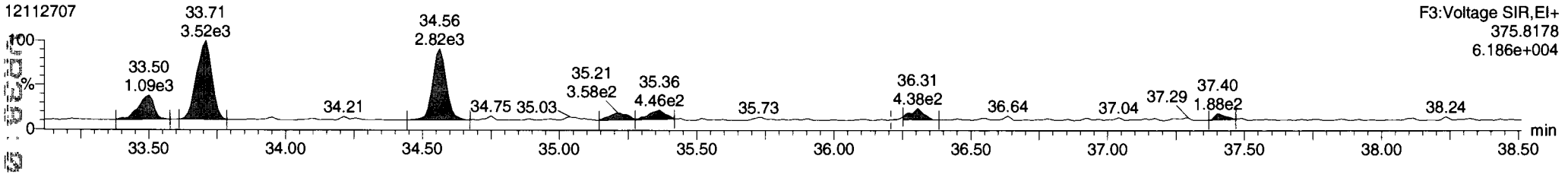
13C-234678-HxCDF



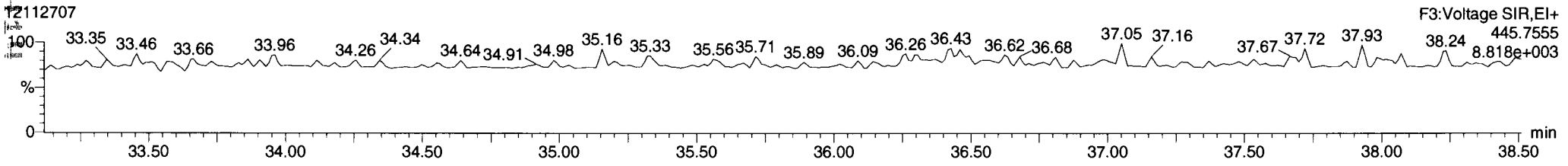
Total-hexafurans



Total-hexafurans



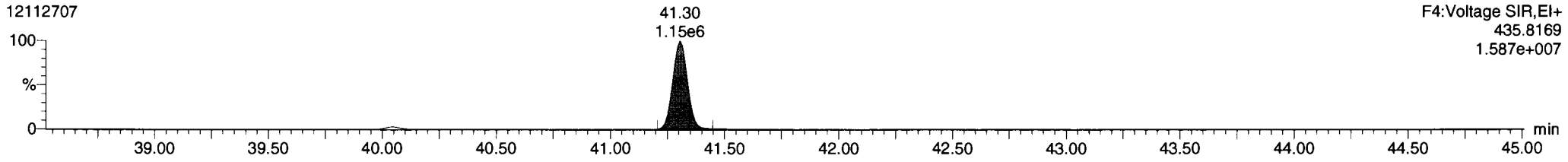
FUNCTION3 OCDPE



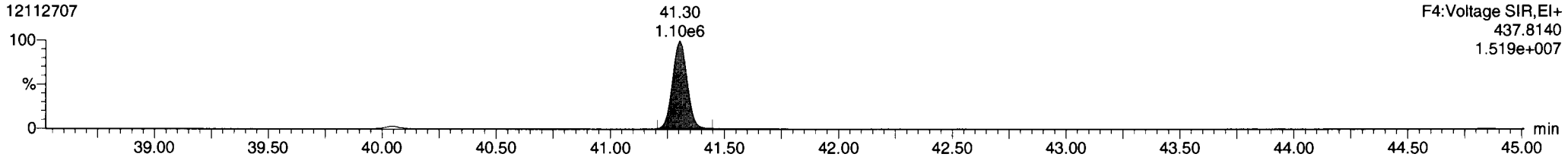
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

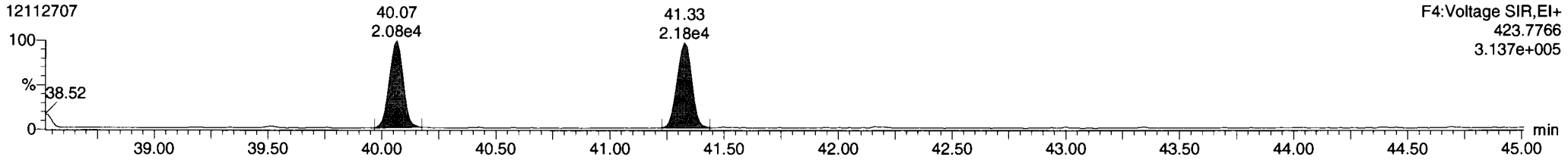
13C-1234678-HpCDD



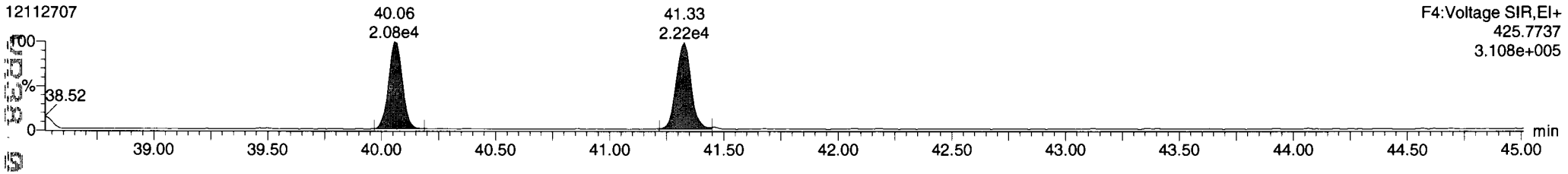
13C-1234678-HpCDD



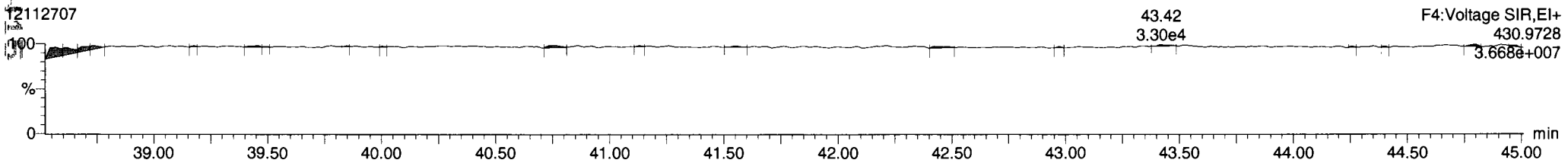
Total-heptadioxins



Total-heptadioxins



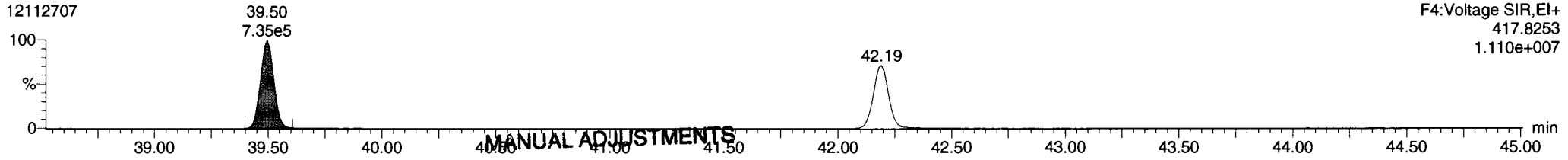
FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF

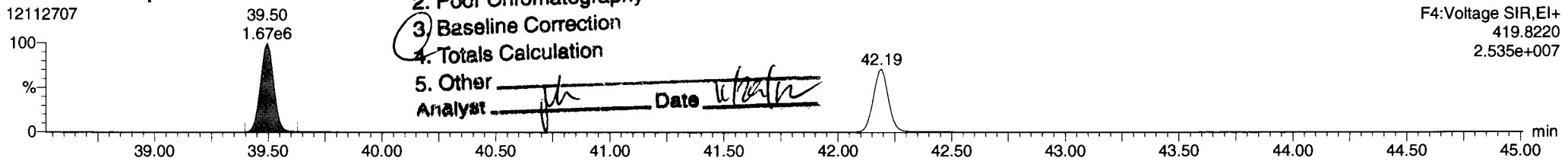


MANUAL ADJUSTMENTS

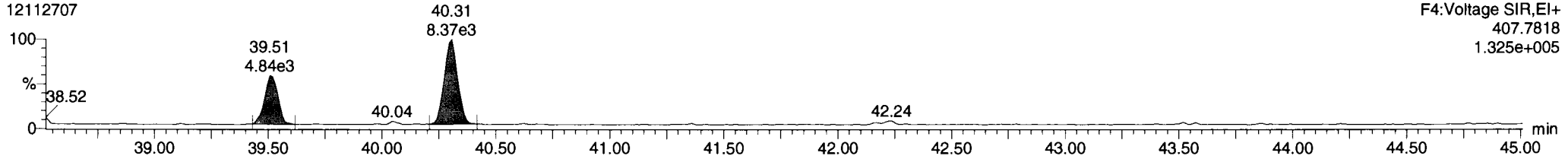
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

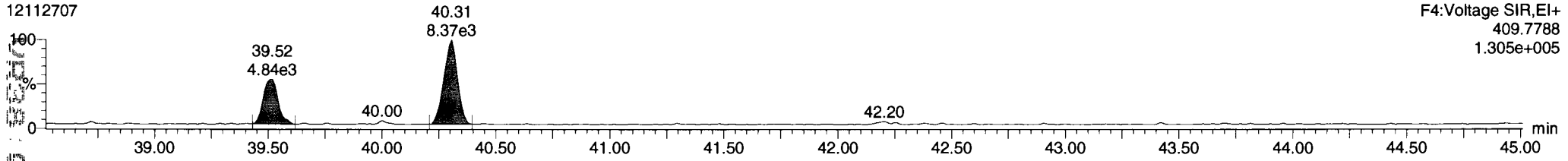
13C-1234678-HpCDF



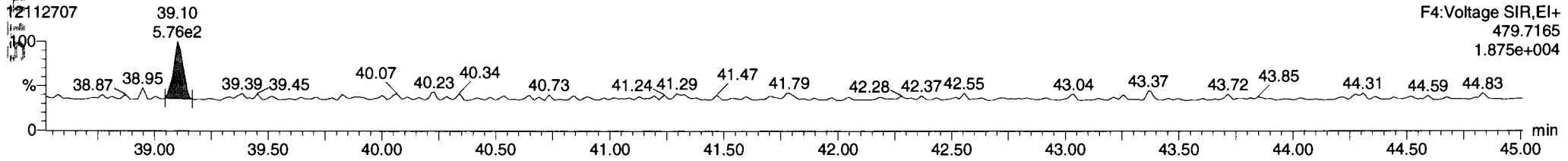
Total-heptafurans



Total-heptafurans



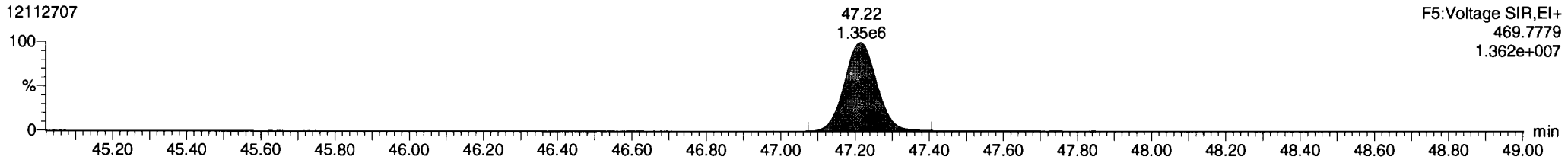
FUNCTION4 NCDPE



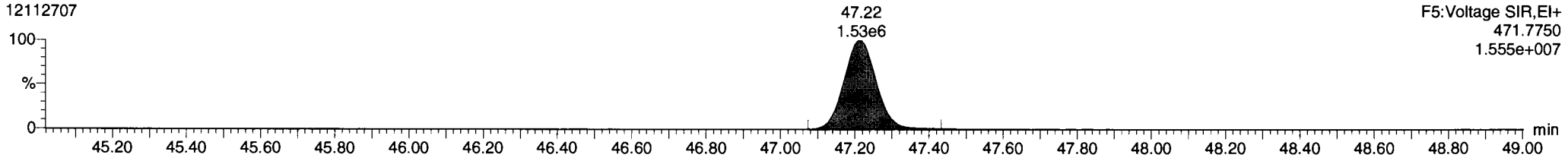
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

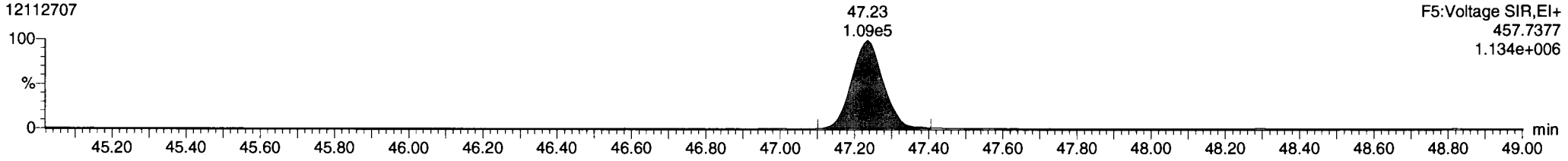
13C-OCDD



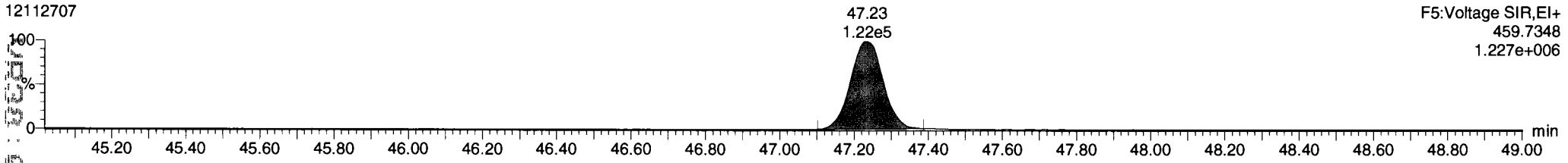
13C-OCDD



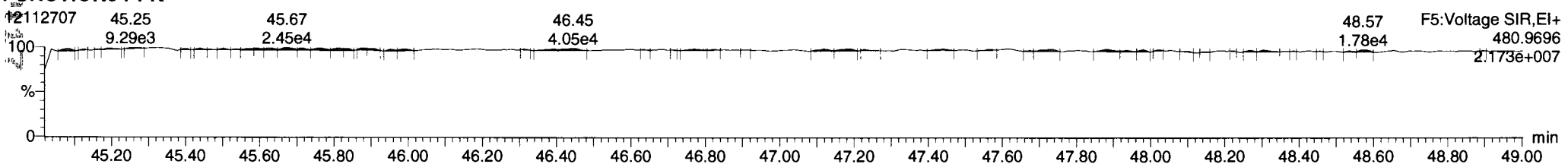
OCDD



OCDD



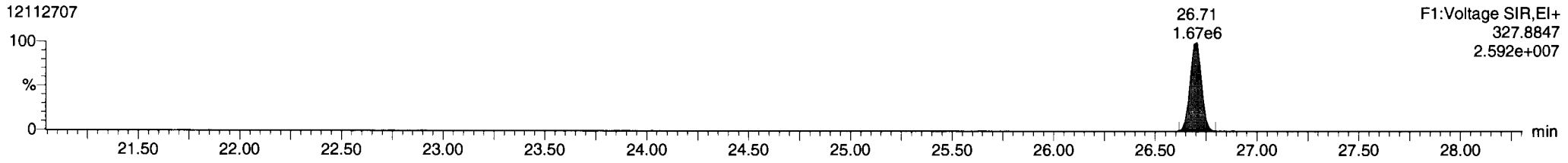
FUNCTION5 PFK



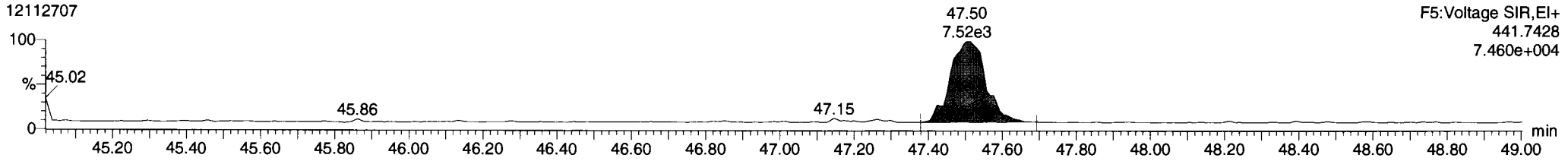
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:45:23 Pacific Standard Time

Name: 12112707, Date: 27-Nov-2012, Time: 15:55:57, ID: VR38A, Conditions: AUTOSPEC01, User: pk

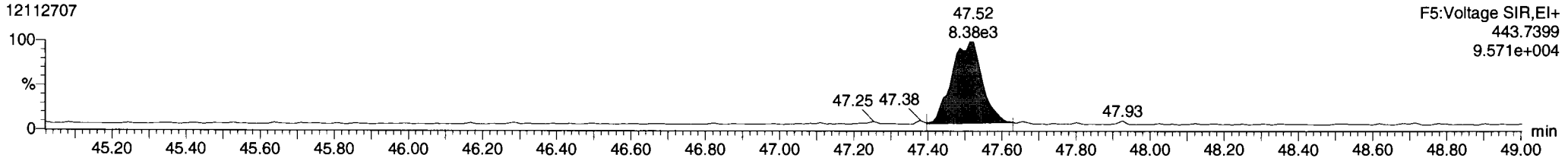
37CL-2378-TCDD



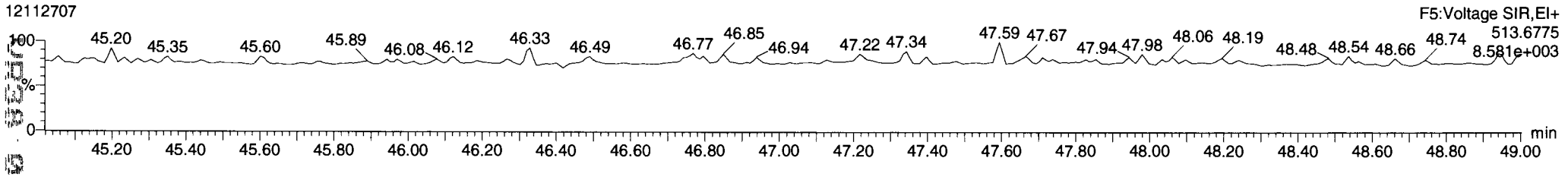
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

	Name	RT	Rel RT	Lo Res Area	Hi Res Area	S/N	Flags	Ion Ratio	Theor Ion	Qual	Conc	Rel Conc	pg	
1	2378-TCDF	26.063	1.001	1806	2106	3912	dd	0.877	0.857	0.770	NO	16.0	0.068	0.068	B
2	12378-PeCDF	30.201	1.001	1374	882	2256	bb	0.896	1.557	1.550	NO	7.9	0.050	0.050	B
3	23478-PeCDF	31.549	1.001	1031	694	1725	db	0.926	1.484	1.550	NO	6.3	0.041	0.041	
4	123478-HxCDF	35.232	1.001	994	997	1991	bd	1.068	0.997	1.240	YES	13.3	0.048	0.053	
5	234678-HxCDF	36.317	1.001	1199	971	2170	bb	1.037	1.235	1.240	NO	13.5	0.065	0.065	
6	123678-HxCDF	35.375	1.001	1357	796	2153	MM	1.035	1.706	1.240	YES	18.7	0.048	0.058	
7	123789-HxCDF							0.987		1.240					
8	1234678-HpCDF	39.518	1.001	8845	10557	19402	bb	1.232	0.838	1.050	YES	155.2	0.545	0.612	
9	1234789-HpCDF	42.203	1.000	416	213	629	MM	1.215	1.952	1.050	YES	8.5	0.017	0.025	
10	OCDF	47.504	1.006	14157	16165	30323	bb	1.138	0.876	0.890	NO	205.7	1.738	1.738	
11	2378-TCDD	26.706	1.001	550	3013	3563	bb	1.049	0.182	0.770	YES	5.8	0.030	0.085	
12	12378-PeCDD	31.790	1.000	1393	1028	2421	MM	0.998	1.355	1.550	NO	9.6	0.080	0.080	B
13	123478-HxCDD	36.449	1.000	950	940	1889	bd	0.971	1.011	1.240	YES	12.8	0.063	0.069	
14	123678-HxCDD	36.569	1.000	3207	2792	5999	db	0.918	1.149	1.240	NO	39.4	0.219	0.219	
15	123789-HxCDD	37.008	1.012	2037	1709	3746	bb	0.932	1.191	1.240	NO	22.8	0.139	0.139	
16	1234678-HpCDD	41.326	1.000	56801	54952	111753	bb	1.017	1.034	1.050	NO	357.5	4.697	4.697	
17	OCDD	47.235	1.000	374881	417553	792434	bb	1.008	0.898	0.890	NO	2516.9	51.230	51.230	
18	13C-2378-TCDF	26.048	1.006	2883804	3709736	6593539	bb	1.473	0.777	0.770	NO	16926.9		92.169	
19	13C-12378-PeCDF	30.179	1.166	3091762	1978362	5070124	bb	1.148	1.563	1.550	NO	12585.9		90.924	
20	13C-23478-PeCDF	31.527	1.218	2794890	1780989	4575878	bb	1.113	1.569	1.550	NO	11719.0		84.652	
21	13C-123478-HxCDF	35.199	0.952	1194756	2300464	3495220	bd	1.209	0.519	0.510	NO	4375.6		85.957	
22	13C-123678-HxCDF	35.353	0.956	1241048	2373594	3614642	db	1.269	0.523	0.510	NO	4420.7		84.715	
23	13C-234678-HxCDF	36.295	0.981	1107640	2111533	3219172	bb	1.236	0.525	0.510	NO	3979.1		77.450	
24	13C-123789-HxCDF	37.435	1.012	1114358	2119777	3234134	bb	1.107	0.526	0.510	NO	4013.7		86.887	
25	13C-1234678-HpCDF	39.496	1.068	789843	1783822	2573665	bb	1.051	0.443	0.440	NO	5931.4		72.799	
26	13C-1234789-HpCDF	42.193	1.141	633371	1437705	2071076	bb	0.815	0.440	0.440	NO	4112.1		75.584	
27	13C-1234-TCDD	25.884	0.000	2135467	2722439	4857906	bb	1.000	0.784	0.770	NO	7491.9		100.000	
28	13C-2378-TCDD	26.691	1.031	1751828	2245152	3996980	bb	0.946	0.780	0.770	NO	6174.2		86.999	
29	13C-12378-PeCDD	31.779	1.228	1851261	1161767	3013028	bb	0.721	1.594	1.550	NO	14488.8		86.063	
30	13C-123478-HxCDD	36.438	0.985	1572231	1245347	2817578	bd	0.991	1.263	1.240	NO	8055.5		84.547	
31	13C-123678-HxCDD	36.569	0.989	1652210	1327210	2979420	db	1.025	1.245	1.240	NO	8616.5		86.452	
32	13C-1234678-HpCDD	41.305	1.117	1200022	1139557	2339580	bb	0.866	1.053	1.050	NO	4541.2		80.310	
33	13C-OCDD	47.217	1.277	1445539	1622356	3067895	bb	0.769	0.891	0.890	NO	7049.7		118.598	

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

34	13C-123789-HxCDD	36.986	0.000	1863653	1499683	3363336	bb	1.000	1.243	1.240	NO	9505.5			100.000
35	Total-tetrafurans			11294				0.877					0.736		0.453
36	Total-penta1			13898									0.525		0.525
37	Total-pentafurans			8035				0.911					0.403	.829	0.304
38	Total-hexafurans			10343				1.032					1.221		0.531
39	Total-heptafurans			17812				1.223					1.821		1.259
40	Total-Furans			75540				1.041					6.446		4.810
41	Total-tetradioxins			1545				1.049					0.183		0.084
42	Total-pentadioxins			4950				0.998					0.394		0.200
43	Total-hexadioxins			21412				0.940					1.603		1.423
44	Total-heptadioxins			131363				1.017					10.786		10.786
45	Total-Dioxins			534150				0.985					64.195		63.722
46	Total-TEQ			609690									70.641		68.532
47	37CL-2378-TCDD	26.706	1.032	1839475		1839475		1.044				17056.5			36.283
48	FUNCTION1 PFK			162375757											
49	FUNCTION2 PFK			1139382											0.000
50	FUNCTION3 PFK			0											
51	FUNCTION4 PFK			0											
52	FUNCTION5 PFK			128117											
53	FUNCTION1 HXCDPE			1843											0.000
54	FUNCTION1 HPCDPE			692											0.000
55	FUNCTION2 HPCDPE			172											0.000
56	FUNCTION3 OCDPE			0											
57	FUNCTION4 NCDPE			1294											0.000
58	FUNCTION5 DCDPE			0											

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Trace	RT	Area Resp	RRF M...	Conc pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	35	Total-tetrafurans	303.9016	24.75	0.000	0.877	0.000	0.029	0.39	0.77	YES	7.3
	35	Total-tetrafurans	303.9016	24.33	0.000	0.877	0.000	0.026	0.97	0.77	YES	7.7
	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.018	0.47	0.77	YES	3.8
	35	Total-tetrafurans	303.9016	24.08	3867.630	0.877	0.067	0.067	0.71	0.77	NO	15.6
	35	Total-tetrafurans	303.9016	23.93	0.000	0.877	0.000	0.014	0.48	0.77	YES	3.9
	35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.051	0.61	0.77	YES	10.5
	35	Total-tetrafurans	303.9016	23.72	1682.810	0.877	0.029	0.029	0.66	0.77	NO	6.4
	35	Total-tetrafurans	303.9016	23.66	0.000	0.877	0.000	0.019	0.37	0.77	YES	4.8
	35	Total-tetrafurans	303.9016	23.43	8468.924	0.877	0.147	0.147	0.73	0.77	NO	29.9
	35	Total-tetrafurans	303.9016	22.87	0.000	0.877	0.000	0.024	0.91	0.77	YES	6.5
	35	Total-tetrafurans	303.9016	22.60	0.000	0.877	0.000	0.015	1.00	0.77	YES	4.0
	35	Total-tetrafurans	303.9016	26.29	3346.343	0.877	0.058	0.058	0.88	0.77	NO	11.8
	35	Total-tetrafurans	303.9016	26.20	0.000	0.877	0.000	0.018	0.56	0.77	YES	4.3
	1	2378-TCDF	303.9016	26.06	3911.806	0.877	0.068	0.068	0.86	0.77	NO	16.0
	35	Total-tetrafurans	303.9016	25.88	0.000	0.877	0.000	0.011	1.47	0.77	YES	4.1
	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.017	0.65	0.77	YES	2.9
	35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.041	0.60	0.77	YES	7.8
	35	Total-tetrafurans	303.9016	24.99	4877.794	0.877	0.084	0.084	0.75	0.77	NO	16.6

PP

	#	Name	Trace	RT	Area Resp	RRF M...	Conc pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	36	Total-penta1	339.8597	27.48	23209.385		0.525	0.525	1.49	1.55	NO	225.7

PF

	#	Name	Trace	RT	Area Resp	RRF M...	Conc pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	37	Total-pentafurans	339.8597	30.40	1263.566	0.911	0.029	0.029	1.61	1.55	NO	5.6
	2	12378-PeCDF	339.8597	30.20	2255.765	0.896	0.050	0.050	1.56	1.55	NO	7.9
	37	Total-pentafurans	339.8597	29.84	1932.740	0.911	0.044	0.044	1.55	1.55	NO	7.9
	37	Total-pentafurans	339.8597	29.14	6202.829	0.911	0.141	0.141	1.45	1.55	NO	18.9
	37	Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.053	1.94	1.55	YES	12.7
	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.023	2.16	1.55	YES	5.3
	3	23478-PeCDF	339.8597	31.55	1725.113	0.926	0.041	0.041	1.48	1.55	NO	6.3
	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.023	2.53	1.55	YES	6.8

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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HF

	#	Name	Trace	RT	Abs Resp	SRF M...	co	EMPC	T Rati...	T Crit...	T Pass	S/N
[redacted]	5	234678-HxCDF	373.8208	36.32	2169.634	1.037	0.065	0.065	1.23	1.24	NO	13.5
[redacted]	6	123678-HxCDF	373.8208	35.37	2153.338	1.035	0.000	0.048	1.71	1.24	YES	18.7
[redacted]	4	123478-HxCDF	373.8208	35.23	1991.129	1.068	0.000	0.048	1.00	1.24	YES	13.3
[redacted]	38	Total-hexafurans	373.8208	35.10	0.000	1.032	0.000	0.008	0.80	1.24	YES	4.3
[redacted]	38	Total-hexafurans	373.8208	34.57	16306.781	1.032	0.466	0.466	1.28	1.24	NO	121.4
[redacted]	38	Total-hexafurans	373.8208	34.29	0.000	1.032	0.000	0.012	1.04	1.24	YES	2.8
[redacted]	38	Total-hexafurans	373.8208	33.71	0.000	1.032	0.000	0.422	1.01	1.24	YES	115.2
[redacted]	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.152	1.05	1.24	YES	43.5

HPF

	#	Name	Trace	RT	Abs Resp	SRF M...	co	EMPC	T Rati...	T Crit...	T P...	S/N
[redacted]	9	1234789-HpCDF	407.7818	42.20	628.894	1.215	0.000	0.017	1.95	1.05	YES	8.5
[redacted]	39	Total-heptafurans	407.7818	40.31	35782.102	1.223	1.259	1.259	0.99	1.05	NO	283.5
[redacted]	8	1234678-HpCDF	407.7818	39.52	19402.251	1.232	0.000	0.545	0.84	1.05	YES	155.2

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Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Mass	RT	Abs Area	RRF M...	pg	EMPC	Ti Ratio	12 Ratio	# Pks	S/N
	35	Total-tetrafurans	303.9016	24.75	0.000	0.877	0.000	0.029	0.39	0.77	YES	7.3
	35	Total-tetrafurans	303.9016	24.33	0.000	0.877	0.000	0.026	0.97	0.77	YES	7.7
	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.018	0.47	0.77	YES	3.8
	35	Total-tetrafurans	303.9016	24.08	3867.630	0.877	0.067	0.067	0.71	0.77	NO	15.6
	35	Total-tetrafurans	303.9016	23.93	0.000	0.877	0.000	0.014	0.48	0.77	YES	3.9
	35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.051	0.61	0.77	YES	10.5
	35	Total-tetrafurans	303.9016	23.72	1682.810	0.877	0.029	0.029	0.66	0.77	NO	6.4
	35	Total-tetrafurans	303.9016	23.66	0.000	0.877	0.000	0.019	0.37	0.77	YES	4.8
	35	Total-tetrafurans	303.9016	23.43	8468.924	0.877	0.147	0.147	0.73	0.77	NO	29.9
	35	Total-tetrafurans	303.9016	22.87	0.000	0.877	0.000	0.024	0.91	0.77	YES	6.5
	35	Total-tetrafurans	303.9016	22.60	0.000	0.877	0.000	0.015	1.00	0.77	YES	4.0
	40	Total-Furans	303.9016	28.16	0.000	1.041	0.000	0.003	0.31	0.77	YES	1.4
	35	Total-tetrafurans	303.9016	26.29	3346.343	0.877	0.058	0.058	0.88	0.77	NO	11.8
	35	Total-tetrafurans	303.9016	26.20	0.000	0.877	0.000	0.018	0.56	0.77	YES	4.3
	1	2378-TCDF	303.9016	26.06	3911.806	0.877	0.068	0.068	0.86	0.77	NO	16.0
	35	Total-tetrafurans	303.9016	25.88	0.000	0.877	0.000	0.011	1.47	0.77	YES	4.1
	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.017	0.65	0.77	YES	2.9
	35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.041	0.60	0.77	YES	7.8
	35	Total-tetrafurans	303.9016	24.99	4877.794	0.877	0.084	0.084	0.75	0.77	NO	16.6
	37	Total-pentafurans	339.8597	30.40	1263.566	0.911	0.029	0.029	1.61	1.55	NO	5.6
	2	12378-PeCDF	339.8597	30.20	2255.765	0.896	0.050	0.050	1.56	1.55	NO	7.9
	37	Total-pentafurans	339.8597	29.84	1932.740	0.911	0.044	0.044	1.55	1.55	NO	7.9
	37	Total-pentafurans	339.8597	29.14	6202.829	0.911	0.141	0.141	1.45	1.55	NO	18.9
	37	Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.053	1.94	1.55	YES	12.7
	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.023	2.16	1.55	YES	5.3
	3	23478-PeCDF	339.8597	31.55	1725.113	0.926	0.041	0.041	1.48	1.55	NO	6.3
	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.023	2.53	1.55	YES	6.8
	5	234678-HxCDF	373.8208	36.32	2169.634	1.037	0.065	0.065	1.23	1.24	NO	13.5
	6	123678-HxCDF	373.8208	35.37	2153.338	1.035	0.000	0.048	1.71	1.24	YES	18.7
	4	123478-HxCDF	373.8208	35.23	1991.129	1.068	0.000	0.048	1.00	1.24	YES	13.3
	38	Total-hexafurans	373.8208	35.10	0.000	1.032	0.000	0.008	0.80	1.24	YES	4.3
	38	Total-hexafurans	373.8208	34.57	16306.781	1.032	0.466	0.466	1.28	1.24	NO	121.4
	38	Total-hexafurans	373.8208	34.29	0.000	1.032	0.000	0.012	1.04	1.24	YES	2.8
	38	Total-hexafurans	373.8208	33.71	0.000	1.032	0.000	0.422	1.01	1.24	YES	115.2
	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.152	1.05	1.24	YES	43.5
	9	1234789-HpCDF	407.7818	42.20	628.894	1.215	0.000	0.017	1.95	1.05	YES	8.5
	39	Total-heptafurans	407.7818	40.31	35782.102	1.223	1.259	1.259	0.99	1.05	NO	283.5
	8	1234678-HpCDF	407.7818	39.52	19402.251	1.232	0.000	0.545	0.84	1.05	YES	155.2
	10	OCDF	441.7428	47.50	30322.519	1.138	1.738	1.738	0.88	0.89	NO	205.7
	36	Total-penta1	339.8597	27.48	23209.385		0.525	0.525	1.49	1.55	NO	225.7

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TD

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Ratio	1° R...	S/N
[redacted]	41	Total-tetradioxins	319.8965	24.82	1781.600	1.049	0.042	0.042	0.81	0.77	NO	6.7
[redacted]	41	Total-tetradioxins	319.8965	24.12	1724.220	1.049	0.041	0.041	0.76	0.77	NO	7.0
[redacted]	41	Total-tetradioxins	319.8965	23.85	0.000	1.049	0.000	0.046	1.13	0.77	YES	11.3
[redacted]	41	Total-tetradioxins	319.8965	27.26	0.000	1.049	0.000	0.013	0.37	0.77	YES	3.0
[redacted]	11	2378-TCDD	319.8965	26.71	3563.125	1.049	0.000	0.030	0.18	0.77	YES	5.8
[redacted]	41	Total-tetradioxins	319.8965	25.90	0.000	1.049	0.000	0.011	1.34	0.77	YES	3.9

PD

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Ratio	1° R...	S/N
[redacted]	42	Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.038	1.91	1.55	YES	8.6
[redacted]	42	Total-pentadioxins	355.8546	29.12	1608.595	0.998	0.053	0.053	1.47	1.55	NO	9.3
[redacted]	42	Total-pentadioxins	355.8546	29.08	0.000	0.998	0.000	0.079	1.47	1.55	NO	12.6
[redacted]	12	12378-PeCDD	355.8546	31.79	2420.522	0.998	0.080	0.080	1.35	1.55	NO	9.6
[redacted]	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.009	3.40	1.55	YES	3.8
[redacted]	42	Total-pentadioxins	355.8546	30.72	0.000	0.998	0.000	0.020	1.19	1.55	YES	4.4
[redacted]	42	Total-pentadioxins	355.8546	30.55	0.000	0.998	0.000	0.019	3.12	1.55	YES	5.7
[redacted]	42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.022	3.68	1.55	YES	8.6
[redacted]	42	Total-pentadioxins	355.8546	30.21	1999.607	0.998	0.066	0.066	1.47	1.55	NO	12.0
[redacted]	42	Total-pentadioxins	355.8546	32.20	0.000	0.998	0.000	0.007	4.90	1.55	YES	2.9

HD

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Ratio	1° R...	S/N
[redacted]	43	Total-hexadioxins	389.8157	35.10	0.000	0.940	0.000	0.073	1.67	1.24	YES	21.3
[redacted]	43	Total-hexadioxins	389.8157	34.30	13340.181	0.940	0.489	0.489	1.20	1.24	NO	83.2
[redacted]	15	123789-HxCDD	389.8157	37.01	3745.893	0.932	0.139	0.139	1.19	1.24	NO	22.8
[redacted]	14	123678-HxCDD	389.8157	36.57	5999.159	0.918	0.219	0.219	1.15	1.24	NO	39.4
[redacted]	13	123478-HxCDD	389.8157	36.45	1889.183	0.971	0.000	0.063	1.01	1.24	YES	12.8
[redacted]	43	Total-hexadioxins	389.8157	35.60	0.000	0.940	0.000	0.044	1.46	1.24	YES	10.5
[redacted]	43	Total-hexadioxins	389.8157	35.49	15685.970	0.940	0.575	0.575	1.31	1.24	NO	69.4

HPD

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Ratio	1° R...	S/N
[redacted]	44	Total-heptadioxins	423.7766	40.07	144852.125	1.017	6.089	6.089	1.06	1.05	NO	521.0
[redacted]	16	1234678-HpCDD	423.7766	41.33	111752.867	1.017	4.697	4.697	1.03	1.05	NO	357.5

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Dioxins,TD,PD,HD,HPD,OD

	#	Name	Trace	RT	Abs.Peak	RRF No.	Conc.	Ex.Ratio	T.Ratio	L.Ratio	Pass	S/N
	41	Total-tetradioxins	319.8965	24.82	1781.600	1.049	0.042	0.042	0.81	0.77	NO	6.7
	41	Total-tetradioxins	319.8965	24.12	1724.220	1.049	0.041	0.041	0.76	0.77	NO	7.0
	41	Total-tetradioxins	319.8965	23.85	0.000	1.049	0.000	0.046	1.13	0.77	YES	11.3
	41	Total-tetradioxins	319.8965	27.26	0.000	1.049	0.000	0.013	0.37	0.77	YES	3.0
	11	2378-TCDD	319.8965	26.71	3563.125	1.049	0.000	0.030	0.18	0.77	YES	5.8
	41	Total-tetradioxins	319.8965	25.90	0.000	1.049	0.000	0.011	1.34	0.77	YES	3.9
	42	Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.038	1.91	1.55	YES	8.6
	42	Total-pentadioxins	355.8546	29.12	1608.595	0.998	0.053	0.053	1.47	1.55	NO	9.3
	42	Total-pentadioxins	355.8546	29.08	0.000	0.998	0.000	0.079	1.47	1.55	NO	12.6
	12	12378-PeCDD	355.8546	31.79	2420.522	0.998	0.080	0.080	1.35	1.55	NO	9.6
	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.009	3.40	1.55	YES	3.8
	42	Total-pentadioxins	355.8546	30.72	0.000	0.998	0.000	0.020	1.19	1.55	YES	4.4
	42	Total-pentadioxins	355.8546	30.55	0.000	0.998	0.000	0.019	3.12	1.55	YES	5.7
	42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.022	3.68	1.55	YES	8.6
	42	Total-pentadioxins	355.8546	30.21	1999.607	0.998	0.066	0.066	1.47	1.55	NO	12.0
	42	Total-pentadioxins	355.8546	32.20	0.000	0.998	0.000	0.007	4.90	1.55	YES	2.9
	43	Total-hexadioxins	389.8157	35.10	0.000	0.940	0.000	0.073	1.67	1.24	YES	21.3
	43	Total-hexadioxins	389.8157	34.30	13340.181	0.940	0.489	0.489	1.20	1.24	NO	83.2
	15	123789-HxCDD	389.8157	37.01	3745.893	0.932	0.139	0.139	1.19	1.24	NO	22.8
	14	123678-HxCDD	389.8157	36.57	5999.159	0.918	0.219	0.219	1.15	1.24	NO	39.4
	13	123478-HxCDD	389.8157	36.45	1889.183	0.971	0.000	0.063	1.01	1.24	YES	12.8
	43	Total-hexadioxins	389.8157	35.60	0.000	0.940	0.000	0.044	1.46	1.24	YES	10.5
	43	Total-hexadioxins	389.8157	35.49	15685.970	0.940	0.575	0.575	1.31	1.24	NO	69.4
	44	Total-heptadioxins	423.7766	40.07	144852.125	1.017	6.089	6.089	1.06	1.05	NO	521.0
	16	1234678-HpCDD	423.7766	41.33	111752.867	1.017	4.697	4.697	1.03	1.05	NO	357.5
	17	OCDD	457.7377	47.23	792433.626	1.008	51.230	51.230	0.90	0.89	NO	2516.9

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TotalTEQ,Furans,Dioxins

	#	Name	Mass	RT	Area	NF Mo	ng	EMPC	37 Ratio	35 Ratio	Pass	S/N
	35	Total-tetrafurans	303.9016	24.75	0.000	0.877	0.000	0.029	0.39	0.77	YES	7.3
	35	Total-tetrafurans	303.9016	24.33	0.000	0.877	0.000	0.026	0.97	0.77	YES	7.7
	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.018	0.47	0.77	YES	3.8
	35	Total-tetrafurans	303.9016	24.08	3867.630	0.877	0.067	0.067	0.71	0.77	NO	15.6
	35	Total-tetrafurans	303.9016	23.93	0.000	0.877	0.000	0.014	0.48	0.77	YES	3.9
	35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.051	0.61	0.77	YES	10.5
	35	Total-tetrafurans	303.9016	23.72	1682.810	0.877	0.029	0.029	0.66	0.77	NO	6.4
	35	Total-tetrafurans	303.9016	23.66	0.000	0.877	0.000	0.019	0.37	0.77	YES	4.8
	35	Total-tetrafurans	303.9016	23.43	8468.924	0.877	0.147	0.147	0.73	0.77	NO	29.9
	35	Total-tetrafurans	303.9016	22.87	0.000	0.877	0.000	0.024	0.91	0.77	YES	6.5
	35	Total-tetrafurans	303.9016	22.60	0.000	0.877	0.000	0.015	1.00	0.77	YES	4.0
	40	Total-Furans	303.9016	28.16	0.000	1.041	0.000	0.003	0.31	0.77	YES	1.4
	35	Total-tetrafurans	303.9016	26.29	3346.343	0.877	0.058	0.058	0.88	0.77	NO	11.8
	35	Total-tetrafurans	303.9016	26.20	0.000	0.877	0.000	0.018	0.56	0.77	YES	4.3
	1	2378-TCDF	303.9016	26.06	3911.806	0.877	0.068	0.068	0.86	0.77	NO	16.0
	35	Total-tetrafurans	303.9016	25.88	0.000	0.877	0.000	0.011	1.47	0.77	YES	4.1
	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.017	0.65	0.77	YES	2.9
	35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.041	0.60	0.77	YES	7.8
	35	Total-tetrafurans	303.9016	24.99	4877.794	0.877	0.084	0.084	0.75	0.77	NO	16.6
	37	Total-pentafurans	339.8597	30.40	1263.566	0.911	0.029	0.029	1.61	1.55	NO	5.6
	2	12378-PeCDF	339.8597	30.20	2255.765	0.896	0.050	0.050	1.56	1.55	NO	7.9
	37	Total-pentafurans	339.8597	29.84	1932.740	0.911	0.044	0.044	1.55	1.55	NO	7.9
	37	Total-pentafurans	339.8597	29.14	6202.829	0.911	0.141	0.141	1.45	1.55	NO	18.9
	37	Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.053	1.94	1.55	YES	12.7
	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.023	2.16	1.55	YES	5.3
	3	23478-PeCDF	339.8597	31.55	1725.113	0.926	0.041	0.041	1.48	1.55	NO	6.3
	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.023	2.53	1.55	YES	6.8
	5	234678-HxCDF	373.8208	36.32	2169.634	1.037	0.065	0.065	1.23	1.24	NO	13.5
	6	123678-HxCDF	373.8208	35.37	2153.338	1.035	0.000	0.048	1.71	1.24	YES	18.7
	4	123478-HxCDF	373.8208	35.23	1991.129	1.068	0.000	0.048	1.00	1.24	YES	13.3
	38	Total-hexafurans	373.8208	35.10	0.000	1.032	0.000	0.008	0.80	1.24	YES	4.3
	38	Total-hexafurans	373.8208	34.57	16306.781	1.032	0.466	0.466	1.28	1.24	NO	121.4
	38	Total-hexafurans	373.8208	34.29	0.000	1.032	0.000	0.012	1.04	1.24	YES	2.8
	38	Total-hexafurans	373.8208	33.71	0.000	1.032	0.000	0.422	1.01	1.24	YES	115.2
	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.152	1.05	1.24	YES	43.5
	9	1234789-HpCDF	407.7818	42.20	628.894	1.215	0.000	0.017	1.95	1.05	YES	8.5
	39	Total-heptafurans	407.7818	40.31	35782.102	1.223	1.259	1.259	0.99	1.05	NO	283.5
	8	1234678-HpCDF	407.7818	39.52	19402.251	1.232	0.000	0.545	0.84	1.05	YES	155.2
	10	OCDF	441.7428	47.50	30322.519	1.138	1.738	1.738	0.88	0.89	NO	205.7
	36	Total-penta1	339.8597	27.48	23209.385		0.525	0.525	1.49	1.55	NO	225.7
	41	Total-tetradioxins	319.8965	24.82	1781.600	1.049	0.042	0.042	0.81	0.77	NO	6.7
	41	Total-tetradioxins	319.8965	24.12	1724.220	1.049	0.041	0.041	0.76	0.77	NO	7.0
	41	Total-tetradioxins	319.8965	23.85	0.000	1.049	0.000	0.046	1.13	0.77	YES	11.3
	41	Total-tetradioxins	319.8965	27.26	0.000	1.049	0.000	0.013	0.37	0.77	YES	3.0
	11	2378-TCDD	319.8965	26.71	3563.125	1.049	0.000	0.030	0.18	0.77	YES	5.8
	41	Total-tetradioxins	319.8965	25.90	0.000	1.049	0.000	0.011	1.34	0.77	YES	3.9
	42	Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.038	1.91	1.55	YES	8.6
	42	Total-pentadioxins	355.8546	29.12	1608.595	0.998	0.053	0.053	1.47	1.55	NO	9.3
	42	Total-pentadioxins	355.8546	29.08	0.000	0.998	0.000	0.079	1.47	1.55	NO	12.6

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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TotalTEQ,Furans,Dioxins

#	Name	Trace	RT	Abs Resp	RRF Ht.	ng	EMPC	1° Rat.	1° Rat.	1° Rat.	S/N
12	12378-PeCDD	355.8546	31.79	2420.522	0.998	0.080	0.080	1.35	1.55	NO	9.6
42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.009	3.40	1.55	YES	3.8
42	Total-pentadioxins	355.8546	30.72	0.000	0.998	0.000	0.020	1.19	1.55	YES	4.4
42	Total-pentadioxins	355.8546	30.55	0.000	0.998	0.000	0.019	3.12	1.55	YES	5.7
42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.022	3.68	1.55	YES	8.6
42	Total-pentadioxins	355.8546	30.21	1999.607	0.998	0.066	0.066	1.47	1.55	NO	12.0
42	Total-pentadioxins	355.8546	32.20	0.000	0.998	0.000	0.007	4.90	1.55	YES	2.9
43	Total-hexadioxins	389.8157	35.10	0.000	0.940	0.000	0.073	1.67	1.24	YES	21.3
43	Total-hexadioxins	389.8157	34.30	13340.181	0.940	0.489	0.489	1.20	1.24	NO	83.2
15	123789-HxCDD	389.8157	37.01	3745.893	0.932	0.139	0.139	1.19	1.24	NO	22.8
14	123678-HxCDD	389.8157	36.57	5999.159	0.918	0.219	0.219	1.15	1.24	NO	39.4
13	123478-HxCDD	389.8157	36.45	1889.183	0.971	0.000	0.063	1.01	1.24	YES	12.8
43	Total-hexadioxins	389.8157	35.60	0.000	0.940	0.000	0.044	1.46	1.24	YES	10.5
43	Total-hexadioxins	389.8157	35.49	15685.970	0.940	0.575	0.575	1.31	1.24	NO	69.4
44	Total-heptadioxins	423.7766	40.07	144852.125	1.017	6.089	6.089	1.06	1.05	NO	521.0
16	1234678-HpCDD	423.7766	41.33	111752.867	1.017	4.697	4.697	1.03	1.05	NO	357.5
17	OCDD	457.7377	47.23	792433.626	1.008	51.230	51.230	0.90	0.89	NO	2516.9

PFK1

#	Name	Trace	RT	Abs Resp	RRF Ht.	ng	EMPC	1° Rat.	1° Rat.	1° R.	S/N
48	FUNCTION1 PFK	330.9792	21.40	0.000							92.9
48	FUNCTION1 PFK	330.9792	25.82	0.000							2.7
48	FUNCTION1 PFK	330.9792	24.90	0.000							14.9
48	FUNCTION1 PFK	330.9792	24.26	0.000							52.4
48	FUNCTION1 PFK	330.9792	23.99	0.000							61.1
48	FUNCTION1 PFK	330.9792	23.06	0.000							85.9
48	FUNCTION1 PFK	330.9792	22.91	0.000							84.7
48	FUNCTION1 PFK	330.9792	22.64	0.000							96.0
48	FUNCTION1 PFK	330.9792	22.51	0.000							89.0
48	FUNCTION1 PFK	330.9792	22.37	0.000							96.0
48	FUNCTION1 PFK	330.9792	22.21	0.000							96.8
48	FUNCTION1 PFK	330.9792	21.97	0.000							88.8
48	FUNCTION1 PFK	330.9792	21.55	0.000							100.3

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PFK2

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	49	FUNCTION2 PFK	366.9792	28.57	0.000		0.000					11.1
	49	FUNCTION2 PFK	366.9792	28.46	0.000		0.000					14.1
	49	FUNCTION2 PFK	366.9792	28.41	0.000		0.000					16.9
	49	FUNCTION2 PFK	366.9792	32.62	0.000		0.000					1.2
	49	FUNCTION2 PFK	366.9792	32.52	0.000		0.000					0.7
	49	FUNCTION2 PFK	366.9792	32.00	0.000		0.000					0.6
	49	FUNCTION2 PFK	366.9792	31.86	0.000		0.000					1.7
	49	FUNCTION2 PFK	366.9792	30.56	0.000		0.000					0.7
	49	FUNCTION2 PFK	366.9792	30.32	0.000		0.000					0.5
	49	FUNCTION2 PFK	366.9792	30.11	0.000		0.000					1.4
	49	FUNCTION2 PFK	366.9792	29.87	0.000		0.000					1.0
	49	FUNCTION2 PFK	366.9792	29.49	0.000		0.000					4.0
	49	FUNCTION2 PFK	366.9792	29.09	0.000		0.000					0.7

PFK3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N

PFK4

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N

PFK5

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	52	FUNCTION5 PFK	480.9696	45.44	0.000							1.3
	52	FUNCTION5 PFK	480.9696	45.32	0.000							1.2
	52	FUNCTION5 PFK	480.9696	45.21	0.000							1.5
	52	FUNCTION5 PFK	480.9696	47.92	0.000							0.9
	52	FUNCTION5 PFK	480.9696	47.64	0.000							1.4
	52	FUNCTION5 PFK	480.9696	47.28	0.000							0.6
	52	FUNCTION5 PFK	480.9696	47.23	0.000							2.0
	52	FUNCTION5 PFK	480.9696	47.20	0.000							1.7
	52	FUNCTION5 PFK	480.9696	46.56	0.000							1.4
	52	FUNCTION5 PFK	480.9696	46.50	0.000							0.7
	52	FUNCTION5 PFK	480.9696	46.25	0.000							1.3
	52	FUNCTION5 PFK	480.9696	45.84	0.000							1.6
	52	FUNCTION5 PFK	480.9696	45.48	0.000							1.1

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ETHERS1

[redacted]	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.06	0.000		0.000					2.4
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.85	0.000		0.000					3.1
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.55	0.000		0.000					5.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	23.94	0.000		0.000					39.5
[redacted]	53	FUNCTION1 HXCD...	375.8364	21.16	0.000		0.000					2.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	27.11	0.000		0.000					7.1
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.48	0.000		0.000					2.8
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.15	0.000		0.000					3.1

ETHERS2

[redacted]	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	54	FUNCTION1 HPCD...	409.7974	27.87	0.000		0.000					2.3
[redacted]	54	FUNCTION1 HPCD...	409.7974	27.42	0.000		0.000					2.1
[redacted]	54	FUNCTION1 HPCD...	409.7974	26.83	0.000		0.000					1.5
[redacted]	54	FUNCTION1 HPCD...	409.7974	26.00	0.000		0.000					2.1
[redacted]	54	FUNCTION1 HPCD...	409.7974	25.87	0.000		0.000					1.3
[redacted]	54	FUNCTION1 HPCD...	409.7974	22.60	0.000		0.000					1.8
[redacted]	54	FUNCTION1 HPCD...	409.7974	22.43	0.000		0.000					2.6

ETHERS3

[redacted]	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	55	FUNCTION2 HPCD...	409.7974	31.59	0.000		0.000					3.4
[redacted]	55	FUNCTION2 HPCD...	409.7974	28.97	0.000		0.000					2.7

ETHERS4

[redacted]	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

ETHERS5

[redacted]	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	57	FUNCTION4 NCDPE	479.7165	40.11	0.000		0.000					5.9
[redacted]	57	FUNCTION4 NCDPE	479.7165	39.23	0.000		0.000					5.6
[redacted]	57	FUNCTION4 NCDPE	479.7165	39.11	0.000		0.000					35.9

ETHERS6

[redacted]	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

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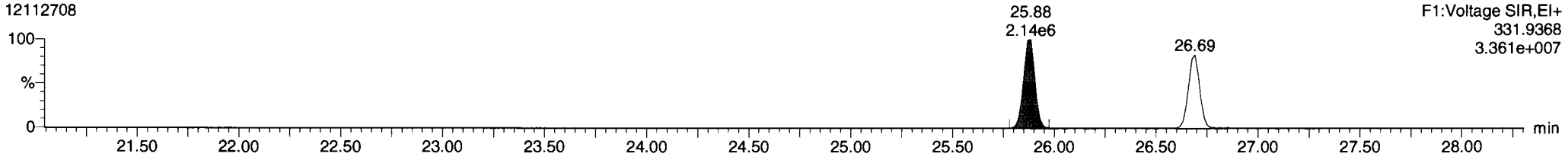
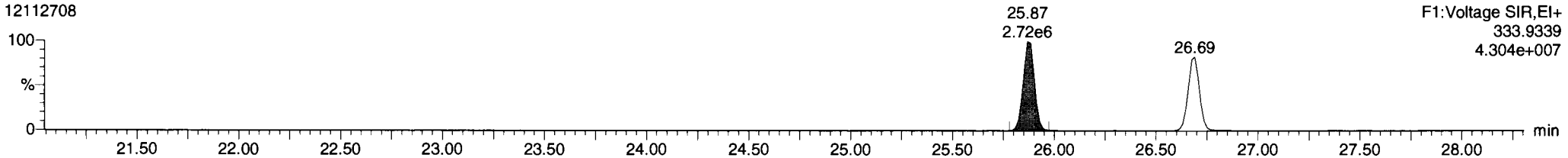
13C-1234-TCDD



13C-1234-TCDD



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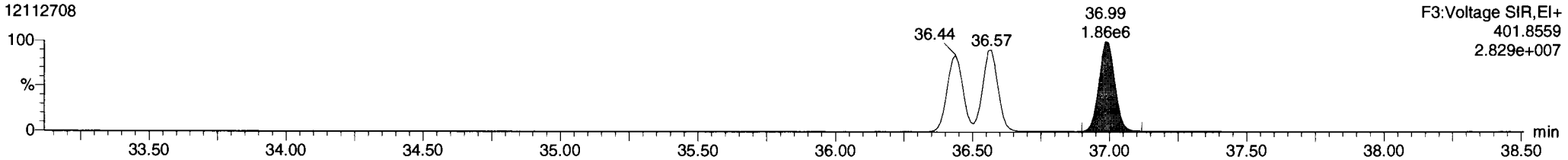

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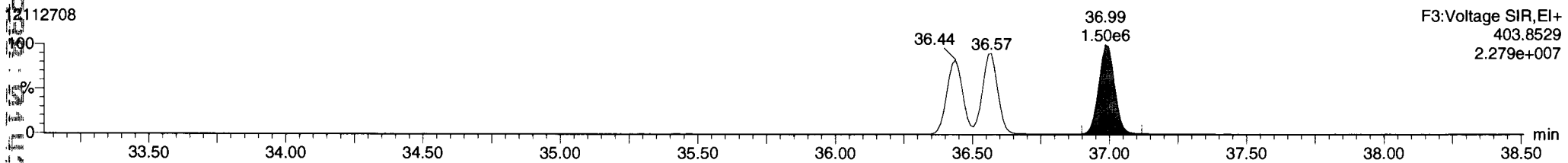

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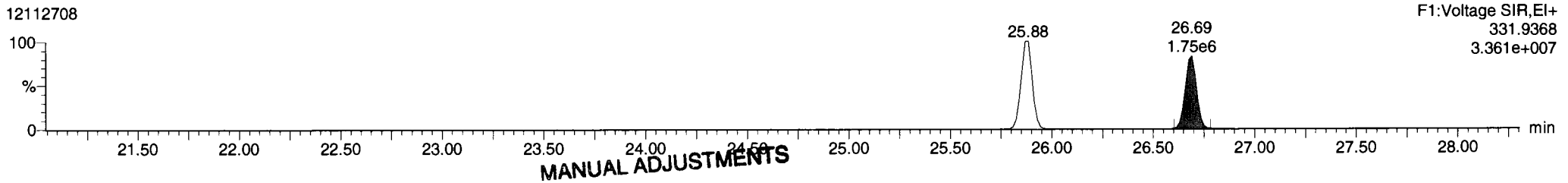
13C-2378-TCDD

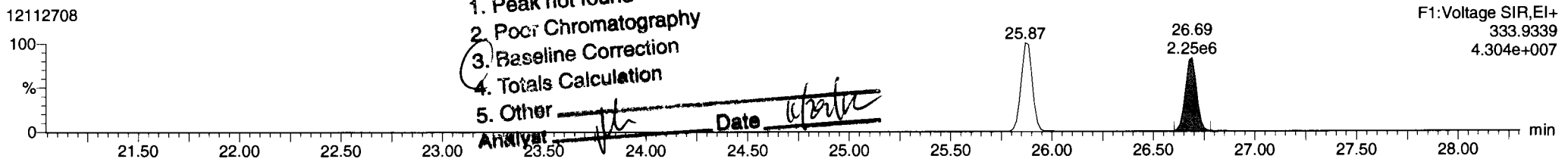


MANUAL ADJUSTMENTS

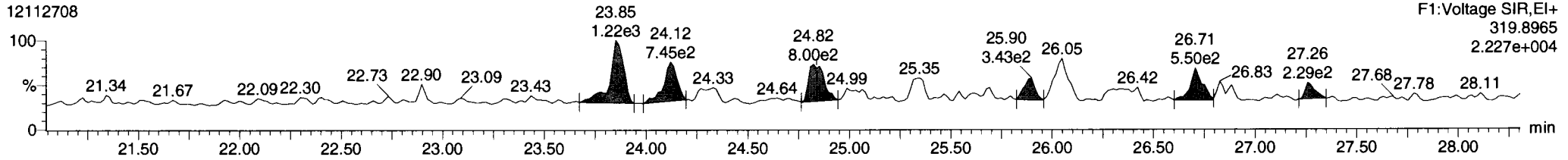
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

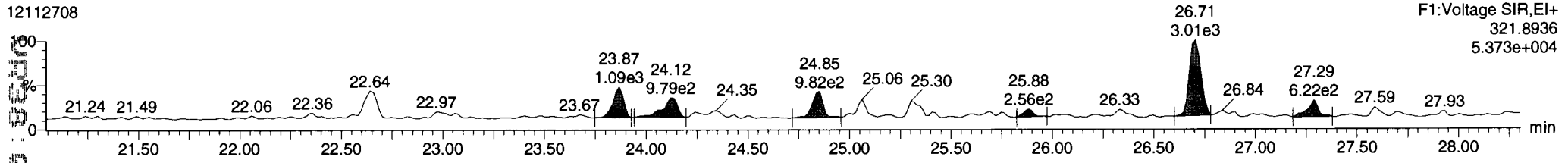
13C-2378-TCDD



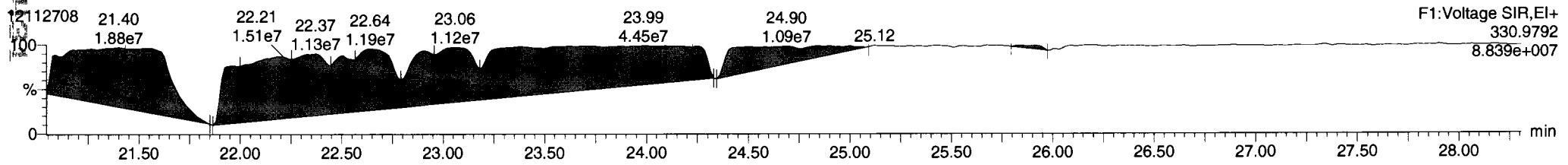
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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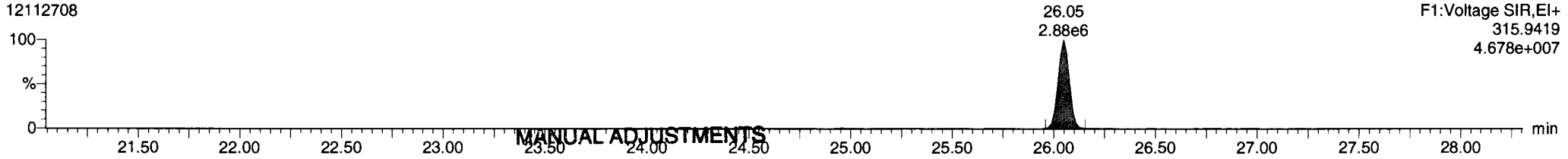
13C-2378-TCDF

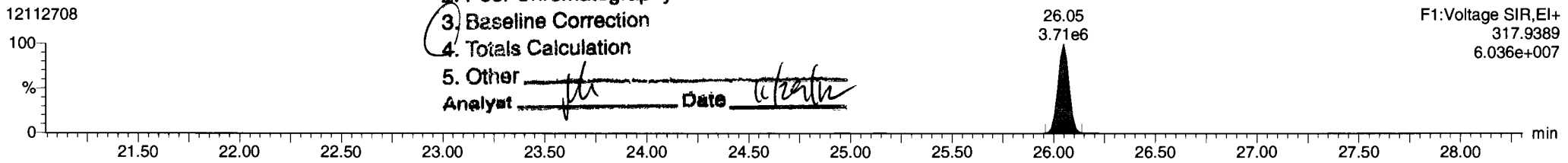


MANUAL ADJUSTMENTS

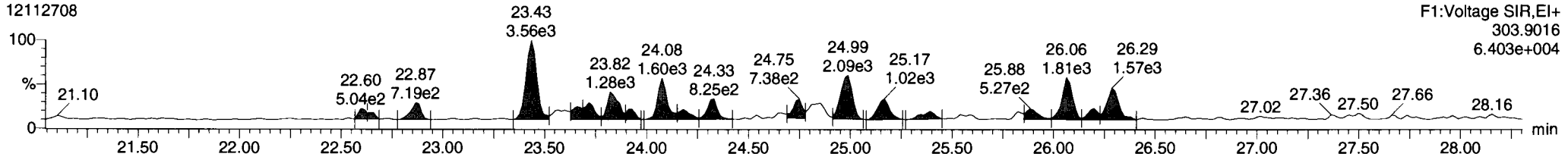
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

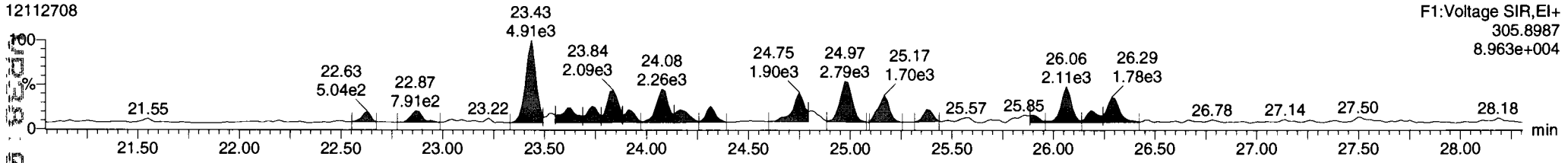
13C-2378-TCDF



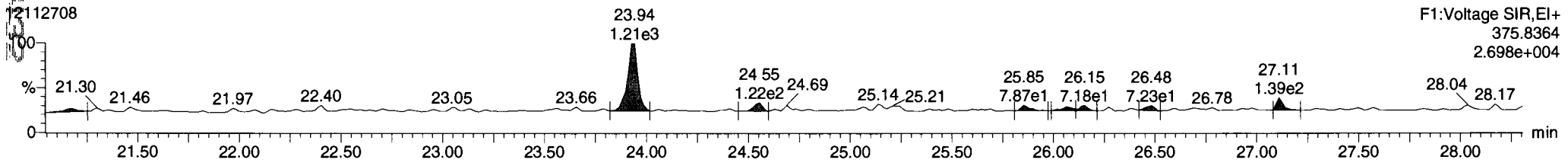
Total-tetrafurans



Total-tetrafurans



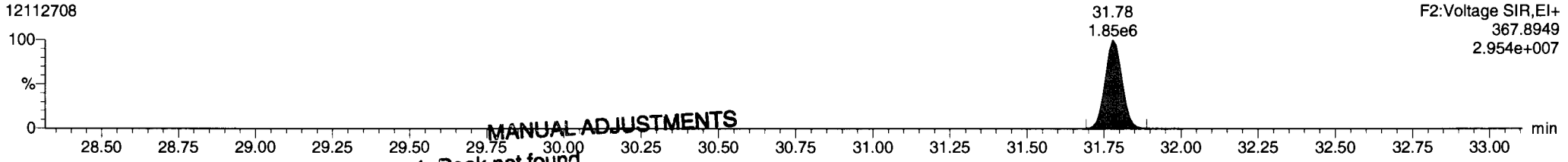
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

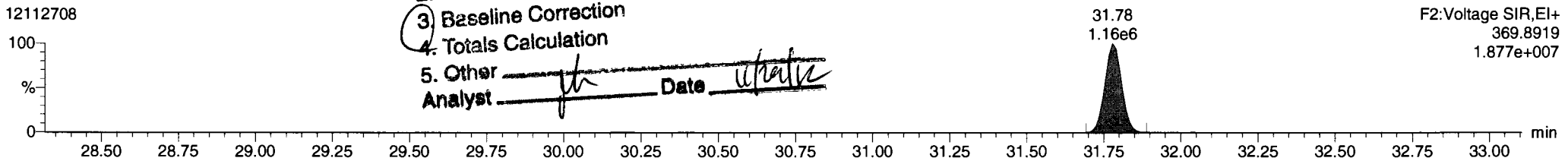


MANUAL ADJUSTMENTS

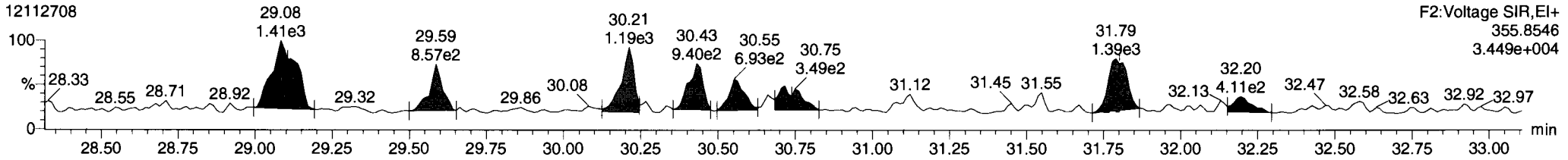
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

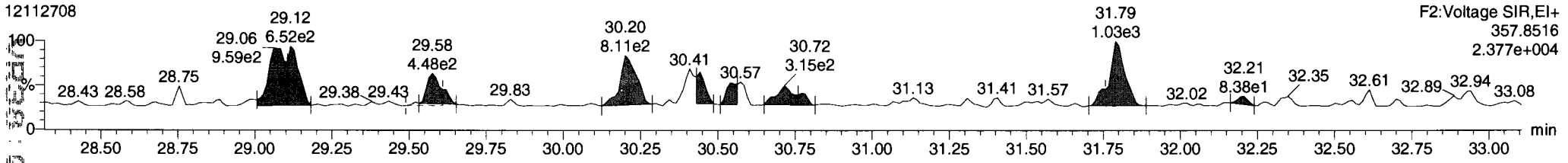
13C-12378-PeCDD



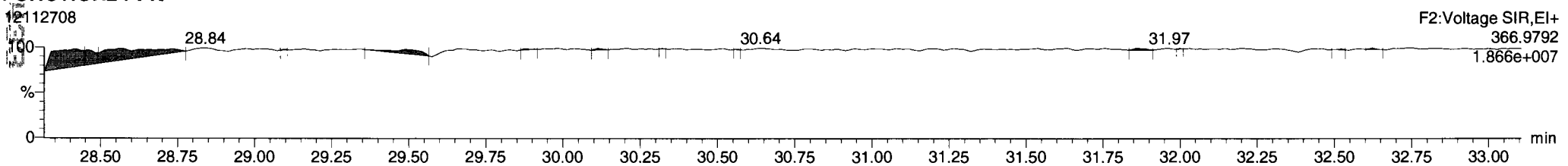
Total-pentadioxins



Total-pentadioxins



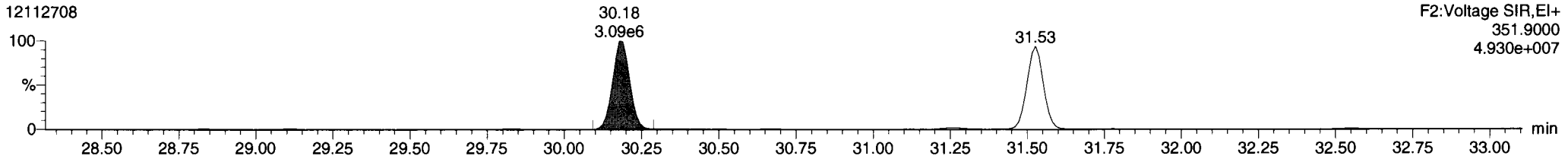
FUNCTION2 PFK



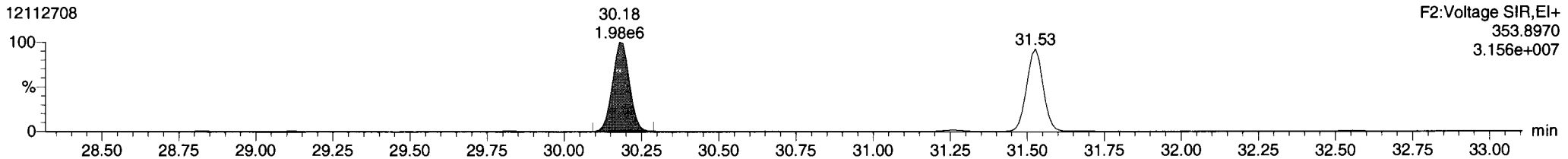
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

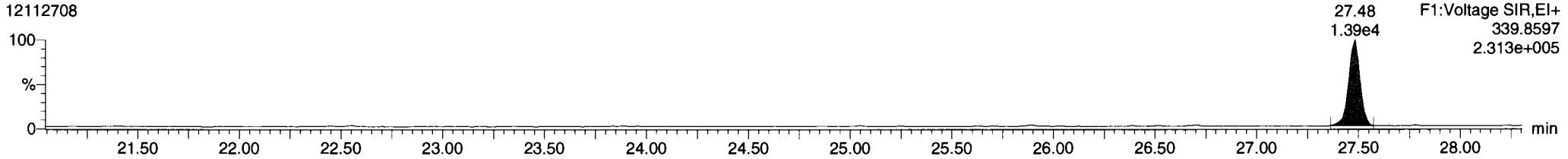
13C-12378-PeCDF



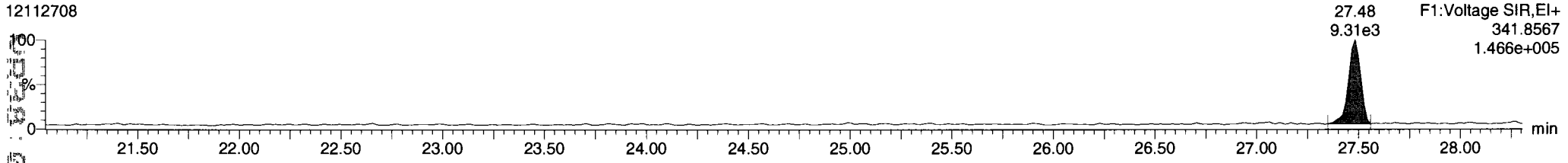
13C-12378-PeCDF



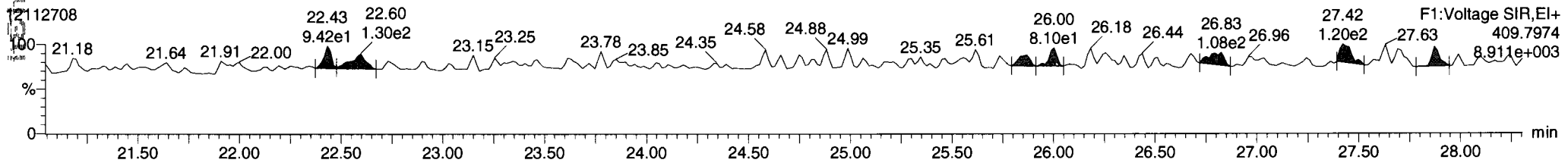
Total-penta1



Total-penta1



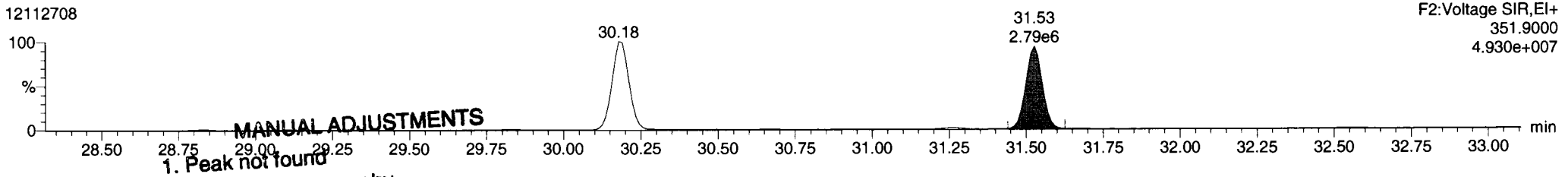
FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

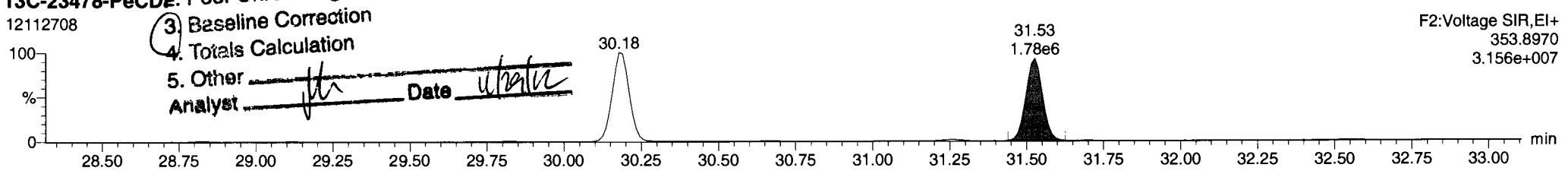
Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

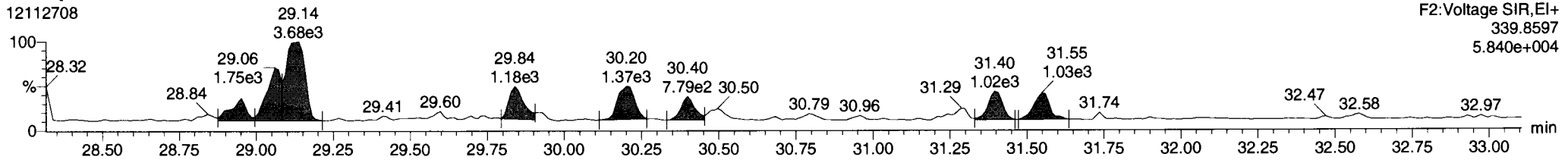


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date

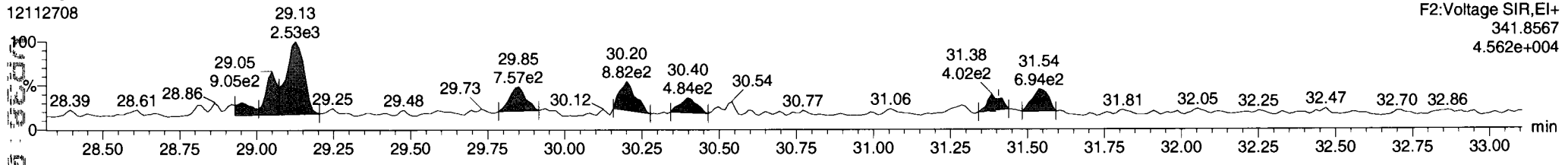
13C-23478-PeCDF



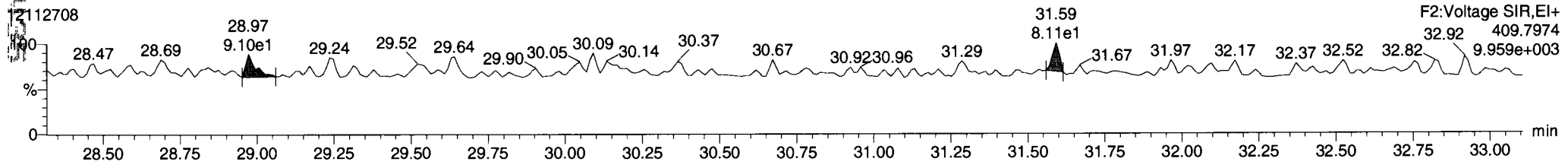
Total-pentafurans



Total-pentafurans



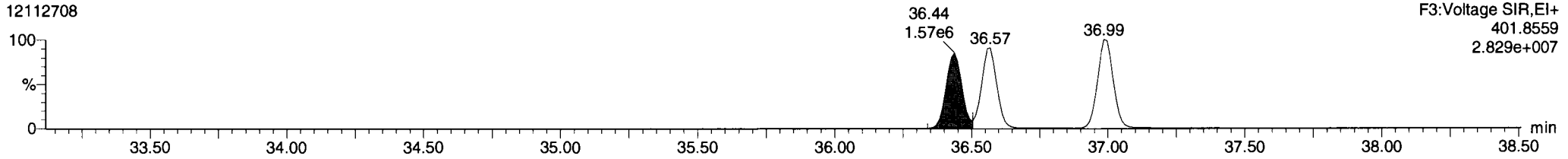
FUNCTION2 HPCDPE



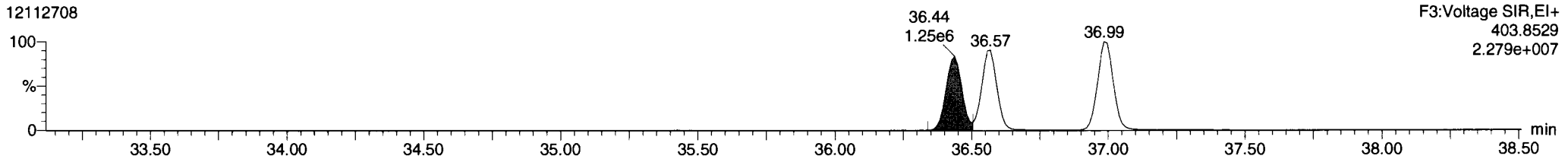
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

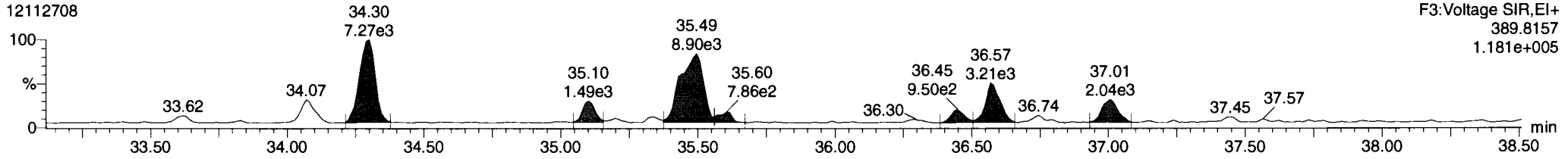
13C-123478-HxCDD



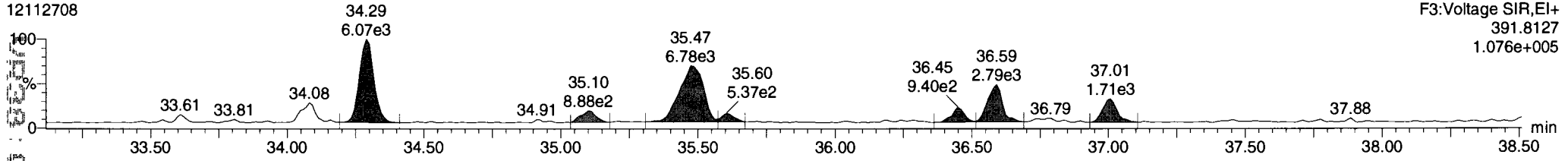
13C-123478-HxCDD



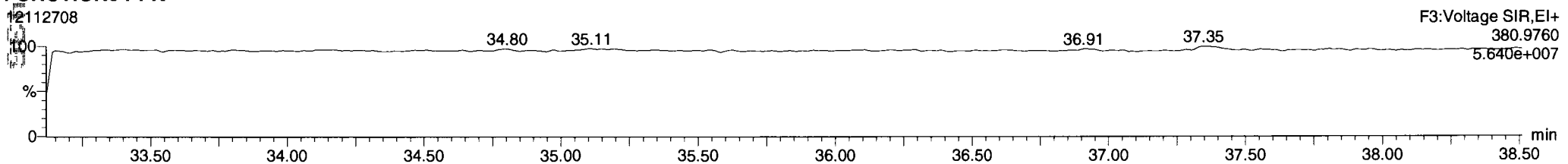
Total-hexadioxins



Total-hexadioxins



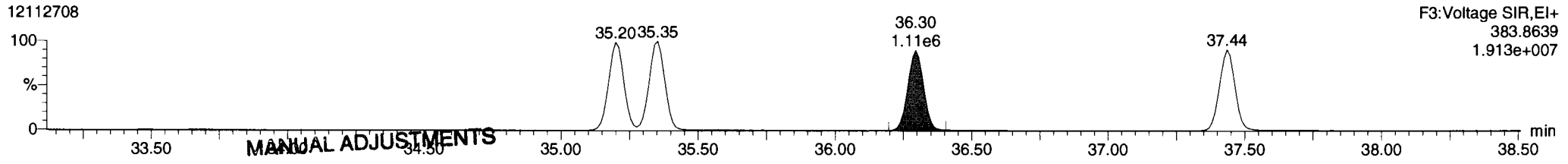
FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF

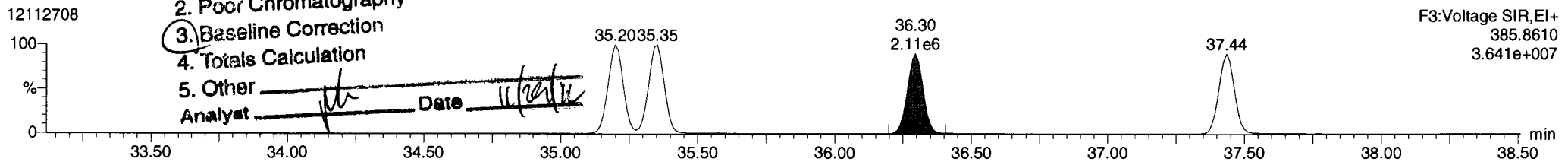


MANUAL ADJUSTMENTS

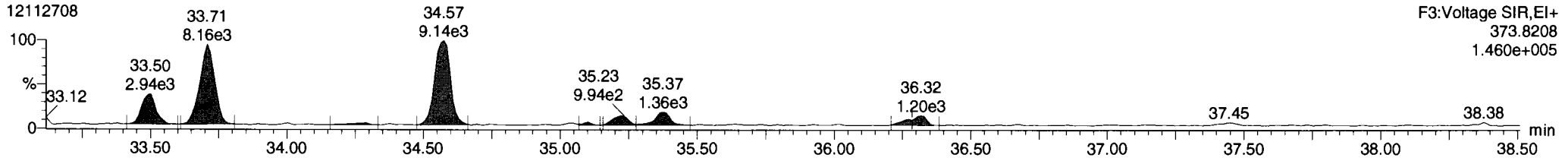
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

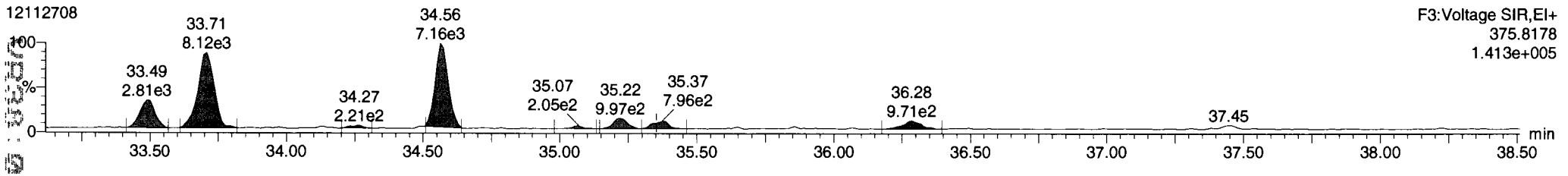
13C-234678-HxCDF



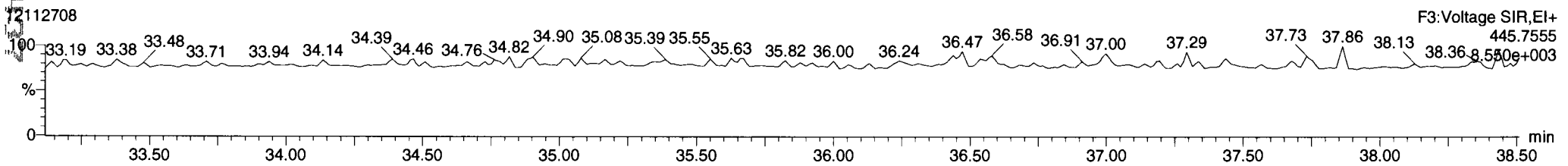
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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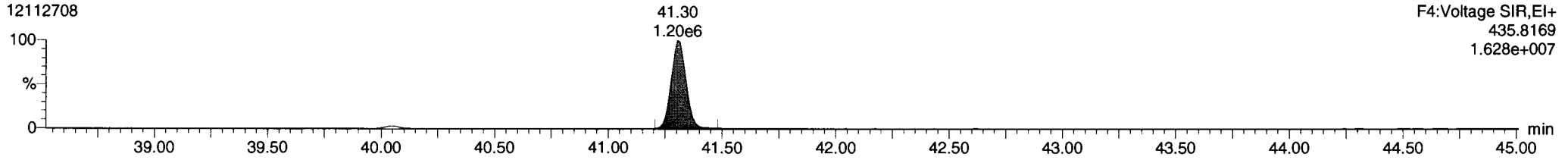
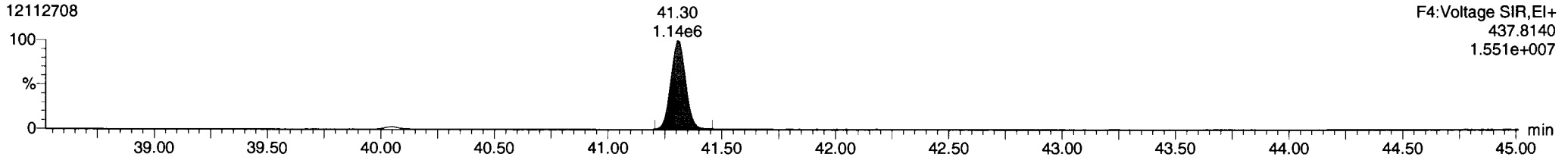
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

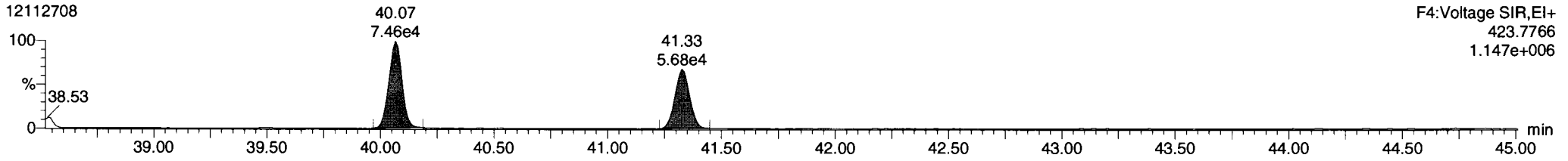
13C-1234678-HpCDD



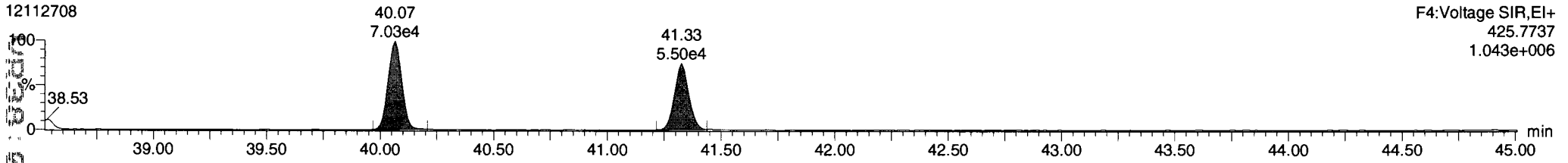
13C-1234678-HpCDD



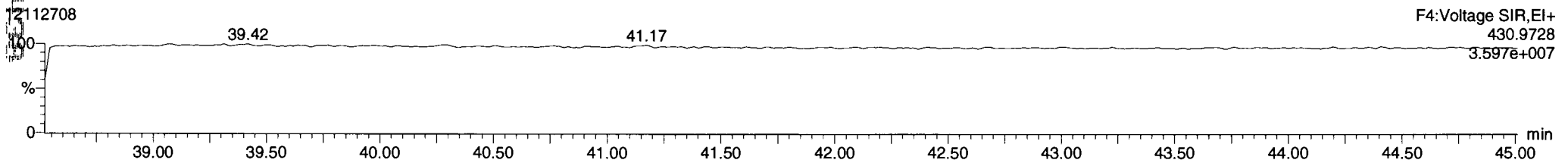
Total-heptadioxins



Total-heptadioxins



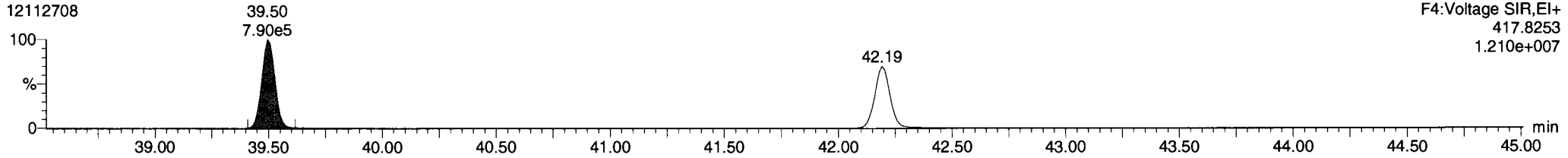
FUNCTION4 PFK



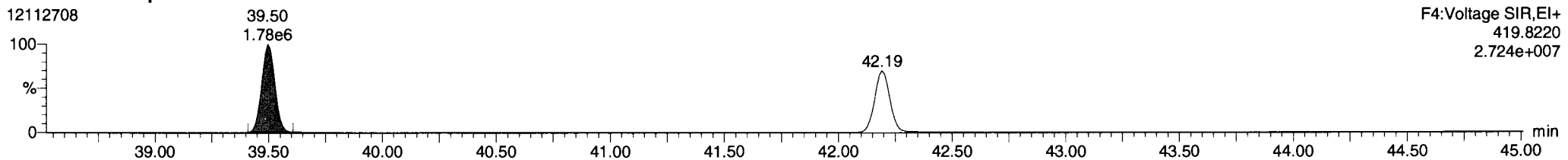
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

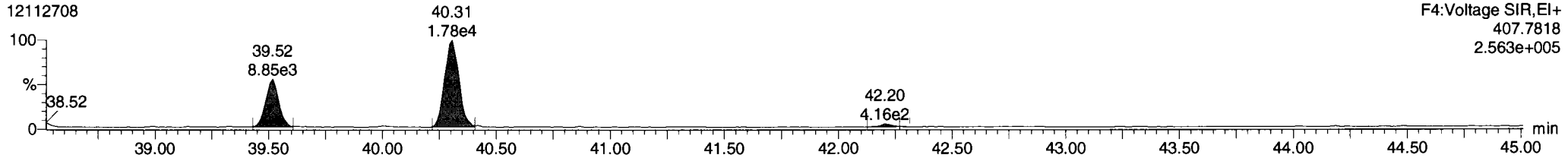
13C-1234678-HpCDF



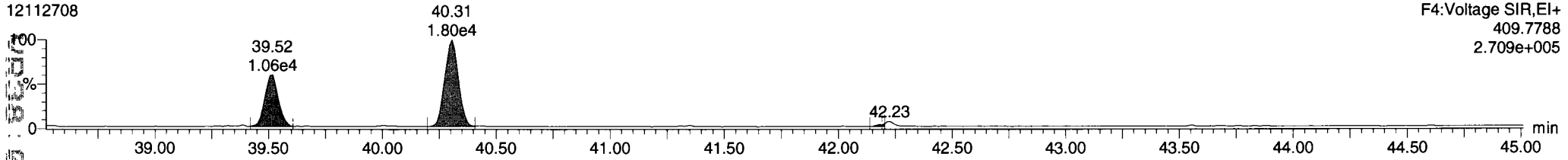
13C-1234678-HpCDF



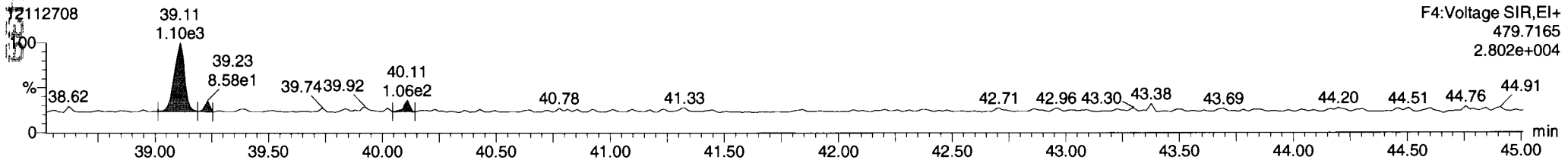
Total-heptafurans



Total-heptafurans



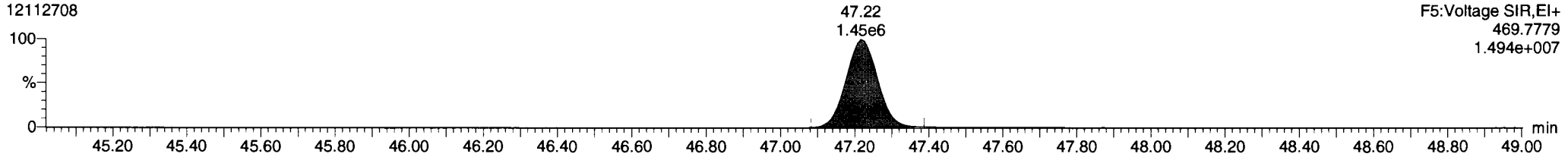
FUNCTION4 NCDPE



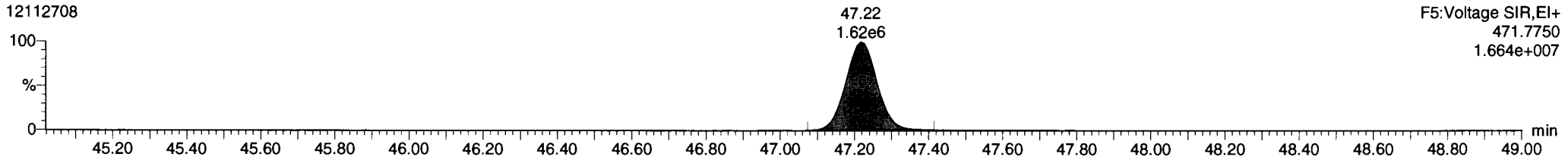
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

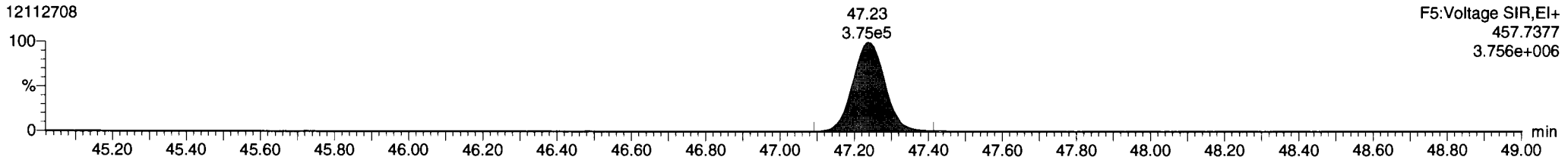
13C-OCDD



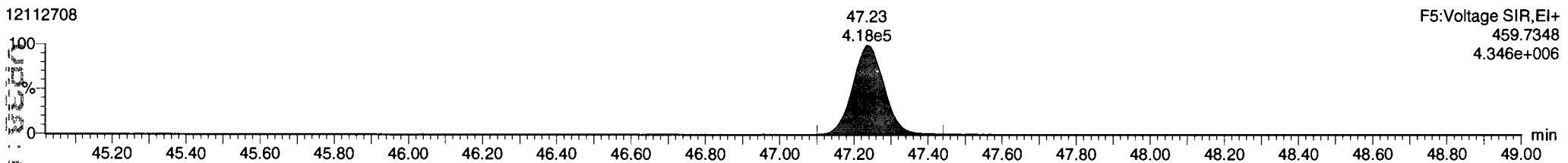
13C-OCDD



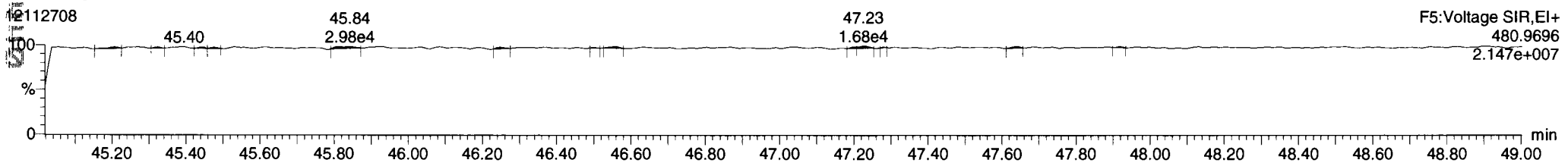
OCDD



OCDD



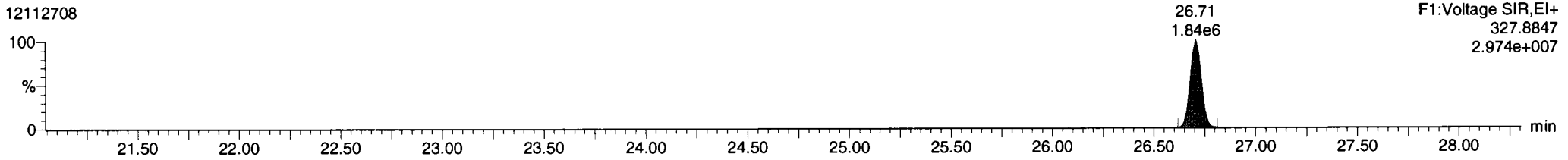
FUNCTION5 PFK



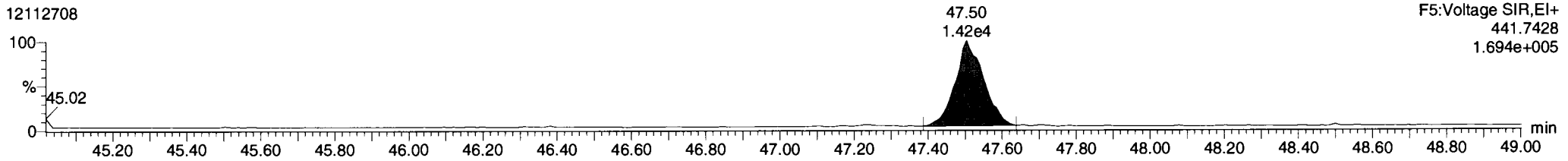
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:02 Pacific Standard Time

Name: 12112708, Date: 27-Nov-2012, Time: 16:48:11, ID: VR38B, Conditions: AUTOSPEC01, User: pk

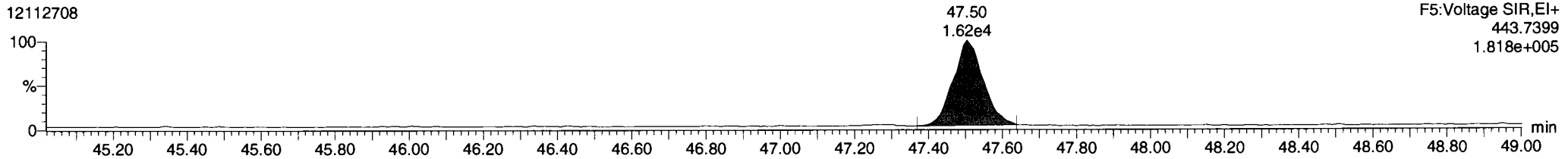
37CL-2378-TCDD



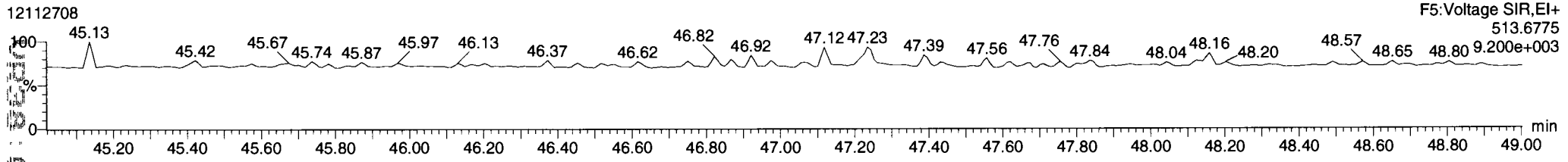
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Ion1 Area	Ion2 Area	Total Area	In	RRR	Ratio	Theoretical	Flags	S/N	EMPC	Amount
1	2378-TCDF	26.063	1.001	4072	5921	9992	bd	0.877	0.688	0.770	NO	41.8	0.199	0.199
2	12378-PeCDF	30.190	1.000	3457	2485	5942	bb	0.896	1.391	1.550	NO	61.7	0.152	0.152
3	23478-PeCDF	31.538	1.000	3418	2140	5558	bb	0.926	1.597	1.550	NO	64.7	0.159	0.159
4	123478-HxCDF	35.222	1.001	3645	3226	6871	bd	1.068	1.130	1.240	NO	22.3	0.230	0.230
5	234678-HxCDF	36.307	1.000	5748	5092	10840	MM	1.037	1.129	1.240	NO	26.3	0.378	0.378
6	123678-HxCDF	35.364	1.000	3959	3913	7872	db	1.035	1.012	1.240	YES	22.1	0.237	0.260
7	123789-HxCDF	37.436	1.000	1756	787	2543	db	0.987	2.230	1.240	YES	10.1	0.065	0.093
8	1234678-HpCDF	39.519	1.001	36301	37208	73509	bb	1.232	0.976	1.050	NO	289.1	2.849	2.849
9	1234789-HpCDF	42.204	1.000	2013	1665	3678	bb	1.215	1.209	1.050	YES	16.4	0.165	0.178
10	OCDF	47.505	1.006	37320	45805	83125	dd	1.138	0.815	0.890	NO	546.3	5.938	5.938
11	2378-TCDD	26.721	1.002	1274	2950	4224	bd	1.049	0.432	0.770	YES	16.4	0.083	0.120
12	12378-PeCDD	31.791	1.000	4388	3524	7912	bb	0.998	1.245	1.550	YES	31.0	0.293	0.321
13	123478-HxCDD	36.450	1.000	3813	3520	7332	bd	0.971	1.083	1.240	NO	32.0	0.328	0.328
14	123678-HxCDD	36.581	1.000	13616	11479	25095	dd	0.918	1.186	1.240	NO	94.7	1.127	1.127
15	123789-HxCDD	37.008	1.012	7792	6495	14286	bb	0.932	1.200	1.240	NO	57.0	0.648	0.648
16	1234678-HpCDD	41.327	1.000	187482	179960	367442	bb	1.017	1.042	1.050	NO	865.0	19.428	19.428
17	OCDD	47.245	1.001	792180	897576	1689756	bb	1.008	0.883	0.890	NO	5400.9	136.175	136.175
18	13C-2378-TCDF	26.034	1.006	2501637	3230132	5731769	bb	1.473	0.775	0.770	NO	11727.0		89.815
19	13C-12378-PeCDF	30.179	1.167	2657768	1692092	4349860	bb	1.148	1.571	1.550	NO	12604.4		87.443
20	13C-23478-PeCDF	31.528	1.219	2306468	1478951	3785419	bb	1.113	1.559	1.550	NO	10794.1		78.500
21	13C-123478-HxCDF	35.200	0.952	952981	1849262	2802242	bd	1.209	0.515	0.510	NO	4808.4		77.675
22	13C-123678-HxCDF	35.353	0.956	1004051	1916812	2920864	db	1.269	0.524	0.510	NO	4904.0		77.157
23	13C-234678-HxCDF	36.296	0.981	944898	1822508	2767405	bb	1.236	0.518	0.510	NO	4817.2		75.045
24	13C-123789-HxCDF	37.436	1.012	944053	1815976	2760029	bb	1.107	0.520	0.510	NO	4780.6		83.575
25	13C-1234678-HpCDF	39.497	1.068	644848	1449419	2094266	bb	1.051	0.445	0.440	NO	3708.3		66.769
26	13C-1234789-HpCDF	42.194	1.141	526512	1178745	1705257	bb	0.815	0.447	0.440	NO	2666.1		70.144
27	13C-1234-TCDD	25.869	0.000	1893893	2439786	4333679	bb	1.000	0.776	0.770	NO	9441.3		100.000
28	13C-2378-TCDD	26.676	1.031	1469822	1893099	3362921	bb	0.946	0.776	0.770	NO	7155.2		82.053
29	13C-12378-PeCDD	31.780	1.229	1514734	956950	2471684	bb	0.721	1.583	1.550	NO	11389.9		79.140
30	13C-123478-HxCDD	36.438	0.985	1277308	1025727	2303035	bd	0.991	1.245	1.240	NO	8080.9		77.891
31	13C-123678-HxCDD	36.570	0.989	1347905	1078301	2426206	db	1.025	1.250	1.240	NO	8297.7		79.349
32	13C-1234678-HpCDD	41.306	1.117	951858	908073	1859931	bb	0.866	1.048	1.050	NO	4176.4		71.961
33	13C-OCDD	47.218	1.277	1163042	1298047	2461089	bb	0.769	0.896	0.890	NO	6465.8		107.233

Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

		RT	RRT											
	13C-123789-HxCDD	36.987	0.000	1654315	1329714	2984030	bb	1.000	1.244	1.240	NO	10287.3		100.000
	Total-tetrafurans			59046				0.877					3.323	2.594
	Total-penta1			57895									2.560	2.560
	Total-pentafurans			52219				0.911					2.351	2.305
	Total-hexafurans			102510				1.032					6.831	6.446
	Total-heptafurans			105416				1.223					9.210	9.046
	Total-Furans			414405				1.041					30.214	28.889
	Total-tetradioxins			15622				1.049					1.286	0.983
	Total-pentadioxins			20417				0.998					2.112	0.687
	Total-hexadioxins			97357				0.940					8.188	7.973
	Total-heptadioxins			406009				1.017					42.084	42.084
	Total-Dioxins			1331585				0.985					189.850	187.902
	Total-TEQ			1745990									220.064	216.790
	37CL-2378-TCDD	26.706	1.032	1628817		1628817		1.044				13967.4		36.015
	FUNCTION1 PFK			94434101										
	FUNCTION2 PFK			2084043										0.000
	FUNCTION3 PFK			332766										0.000
	FUNCTION4 PFK			750439										
	FUNCTION5 PFK			195483										
	FUNCTION1 HXCDPE			5217										0.000
	FUNCTION1 HPCDPE			969										0.000
	FUNCTION2 HPCDPE			704										0.000
	FUNCTION3 OCDPE			0										
	FUNCTION4 NCDPE			3838										0.000
	FUNCTION5 DCDPE			0										

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Trace	RT	Abs Resp	RRF M...	[redacted]	EMPC	T Ratio	1° Ratio	LT R...	S/N
[redacted]	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.182	0.58	0.77	YES	26.7
[redacted]	35	Total-tetrafurans	303.9016	24.30	6650.618	0.877	0.132	0.132	0.76	0.77	NO	30.0
[redacted]	35	Total-tetrafurans	303.9016	24.17	4274.389	0.877	0.085	0.085	0.77	0.77	NO	18.7
[redacted]	35	Total-tetrafurans	303.9016	24.06	13200.171	0.877	0.263	0.263	0.81	0.77	NO	65.5
[redacted]	35	Total-tetrafurans	303.9016	23.90	3162.896	0.877	0.063	0.063	0.72	0.77	NO	12.7
[redacted]	35	Total-tetrafurans	303.9016	23.81	12105.510	0.877	0.241	0.241	0.72	0.77	NO	53.0
[redacted]	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.083	0.95	0.77	YES	23.1
[redacted]	35	Total-tetrafurans	303.9016	23.57	0.000	0.877	0.000	0.168	0.71	0.77	NO	17.7
[redacted]	35	Total-tetrafurans	303.9016	23.40	29083.883	0.877	0.579	0.579	0.68	0.77	NO	113.2
[redacted]	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.093	0.56	0.77	YES	23.5
[redacted]	35	Total-tetrafurans	303.9016	22.58	4147.452	0.877	0.083	0.083	0.70	0.77	NO	17.2
[redacted]	35	Total-tetrafurans	303.9016	27.50	0.000	0.877	0.000	0.020	2.08	0.77	YES	10.2
[redacted]	35	Total-tetrafurans	303.9016	26.29	11031.629	0.877	0.220	0.220	0.70	0.77	NO	41.9
[redacted]	35	Total-tetrafurans	303.9016	26.18	3753.753	0.877	0.075	0.075	0.82	0.77	NO	16.6
[redacted]	1	2378-TCDF	303.9016	26.06	9992.495	0.877	0.199	0.199	0.69	0.77	NO	41.8
[redacted]	35	Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.043	1.23	0.77	YES	14.5
[redacted]	35	Total-tetrafurans	303.9016	25.54	2253.797	0.877	0.045	0.045	0.73	0.77	NO	10.0
[redacted]	35	Total-tetrafurans	303.9016	25.38	3915.424	0.877	0.078	0.078	0.81	0.77	NO	17.6
[redacted]	35	Total-tetrafurans	303.9016	25.15	9318.319	0.877	0.185	0.185	0.80	0.77	NO	43.5
[redacted]	35	Total-tetrafurans	303.9016	24.97	17470.016	0.877	0.348	0.348	0.69	0.77	NO	65.9
[redacted]	35	Total-tetrafurans	303.9016	24.78	0.000	0.877	0.000	0.099	0.93	0.77	YES	24.0
[redacted]	35	Total-tetrafurans	303.9016	25.87	0.000	0.877	0.000	0.039	0.72	0.77	NO	13.4

PP

	#	Name	Trace	RT	Abs Resp	RRF M...	[redacted]	EMPC	T Ratio	1° Ratio	LT R...	S/N
[redacted]	36	Total-penta1	339.8597	27.48	95491.984		2.560	2.560	1.54	1.55	NO	704.7

PF

	#	Name	Trace	RT	Abs Resp	RRF M...	[redacted]	EMPC	T Ratio	1° Ratio	LT R...	S/N
[redacted]	37	Total-pentafurans	339.8597	29.84	13697.472	0.911	0.370	0.370	1.70	1.55	NO	124.5
[redacted]	37	Total-pentafurans	339.8597	29.59	1568.343	0.911	0.042	0.042	1.52	1.55	NO	11.0
[redacted]	37	Total-pentafurans	339.8597	29.13	24302.817	0.911	0.656	0.656	1.55	1.55	NO	232.4
[redacted]	37	Total-pentafurans	339.8597	29.06	11110.959	0.911	0.300	0.300	1.51	1.55	NO	143.0
[redacted]	37	Total-pentafurans	339.8597	28.93	7017.458	0.911	0.189	0.189	1.64	1.55	NO	61.2
[redacted]	3	23478-PeCDF	339.8597	31.54	5557.985	0.926	0.159	0.159	1.60	1.55	NO	64.7
[redacted]	37	Total-pentafurans	339.8597	31.39	7445.495	0.911	0.201	0.201	1.74	1.55	NO	78.5
[redacted]	37	Total-pentafurans	339.8597	31.29	3006.403	0.911	0.081	0.081	1.50	1.55	NO	33.3
[redacted]	37	Total-pentafurans	339.8597	30.50	0.000	0.911	0.000	0.046	2.03	1.55	YES	17.9
[redacted]	37	Total-pentafurans	339.8597	30.40	5742.941	0.911	0.155	0.155	1.52	1.55	NO	62.1
[redacted]	2	12378-PeCDF	339.8597	30.19	5942.201	0.896	0.152	0.152	1.39	1.55	NO	61.7

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

HF

	#	Name	Mass	RT	Area	RT Ref	pg	EMPC	Ion Ratio	Ion Ratio Lower	Int Std	S/N
	38	Total-hexafurans	373.8208	33.71	71124.739	1.032	2.451	2.451	1.21	1.24	NO	227.4
	38	Total-hexafurans	373.8208	33.49	24570.830	1.032	0.847	0.847	1.17	1.24	NO	75.0
	7	123789-HxCDF	373.8208	37.44	2542.968	0.987	0.000	0.065	2.23	1.24	YES	10.1
	5	234678-HxCDF	373.8208	36.31	10839.733	1.037	0.378	0.378	1.13	1.24	NO	26.3
	6	123678-HxCDF	373.8208	35.36	7871.874	1.035	0.000	0.237	1.01	1.24	YES	22.1
	4	123478-HxCDF	373.8208	35.22	6871.165	1.068	0.230	0.230	1.13	1.24	NO	22.3
	38	Total-hexafurans	373.8208	35.07	0.000	1.032	0.000	0.044	0.68	1.24	YES	7.0
	38	Total-hexafurans	373.8208	34.56	73692.356	1.032	2.540	2.540	1.24	1.24	NO	230.1
	38	Total-hexafurans	373.8208	34.25	0.000	1.032	0.000	0.040	1.74	1.24	YES	5.8

HPF

	#	Name	Mass	RT	Area	RT Ref	pg	EMPC	Ion Ratio	Ion Ratio Lower	Int Std	S/N
	9	1234789-HpCDF	407.7818	42.20	3678.238	1.215	0.000	0.165	1.21	1.05	YES	16.4
	39	Total-heptafurans	407.7818	40.31	142586.555	1.223	6.135	6.135	0.92	1.05	NO	553.3
	39	Total-heptafurans	407.7818	40.00	1436.014	1.223	0.062	0.062	1.18	1.05	NO	5.8
	8	1234678-HpCDF	407.7818	39.52	73508.722	1.232	2.849	2.849	0.98	1.05	NO	289.1

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.182	0.58	0.77	YES	26.7
	35	Total-tetrafurans	303.9016	24.30	6650.618	0.877	0.132	0.132	0.76	0.77	NO	30.0
	35	Total-tetrafurans	303.9016	24.17	4274.389	0.877	0.085	0.085	0.77	0.77	NO	18.7
	35	Total-tetrafurans	303.9016	24.06	13200.171	0.877	0.263	0.263	0.81	0.77	NO	65.5
	35	Total-tetrafurans	303.9016	23.90	3162.896	0.877	0.063	0.063	0.72	0.77	NO	12.7
	35	Total-tetrafurans	303.9016	23.81	12105.510	0.877	0.241	0.241	0.72	0.77	NO	53.0
	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.083	0.95	0.77	YES	23.1
	35	Total-tetrafurans	303.9016	23.57	0.000	0.877	0.000	0.168	0.71	0.77	NO	17.7
	35	Total-tetrafurans	303.9016	23.40	29083.883	0.877	0.579	0.579	0.68	0.77	NO	113.2
	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.093	0.56	0.77	YES	23.5
	35	Total-tetrafurans	303.9016	22.58	4147.452	0.877	0.083	0.083	0.70	0.77	NO	17.2
	35	Total-tetrafurans	303.9016	27.50	0.000	0.877	0.000	0.020	2.08	0.77	YES	10.2
	35	Total-tetrafurans	303.9016	26.29	11031.629	0.877	0.220	0.220	0.70	0.77	NO	41.9
	35	Total-tetrafurans	303.9016	26.18	3753.753	0.877	0.075	0.075	0.82	0.77	NO	16.6
	1	2378-TCDF	303.9016	26.06	9992.495	0.877	0.199	0.199	0.69	0.77	NO	41.8
	35	Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.043	1.23	0.77	YES	14.5
	35	Total-tetrafurans	303.9016	25.54	2253.797	0.877	0.045	0.045	0.73	0.77	NO	10.0
	35	Total-tetrafurans	303.9016	25.38	3915.424	0.877	0.078	0.078	0.81	0.77	NO	17.6
	35	Total-tetrafurans	303.9016	25.15	9318.319	0.877	0.185	0.185	0.80	0.77	NO	43.5
	35	Total-tetrafurans	303.9016	24.97	17470.016	0.877	0.348	0.348	0.69	0.77	NO	65.9
	35	Total-tetrafurans	303.9016	24.78	0.000	0.877	0.000	0.099	0.93	0.77	YES	24.0
	37	Total-pentafurans	339.8597	29.84	13697.472	0.911	0.370	0.370	1.70	1.55	NO	124.5
	37	Total-pentafurans	339.8597	29.59	1568.343	0.911	0.042	0.042	1.52	1.55	NO	11.0
	37	Total-pentafurans	339.8597	29.13	24302.817	0.911	0.656	0.656	1.55	1.55	NO	232.4
	37	Total-pentafurans	339.8597	29.06	11110.959	0.911	0.300	0.300	1.51	1.55	NO	143.0
	37	Total-pentafurans	339.8597	28.93	7017.458	0.911	0.189	0.189	1.64	1.55	NO	61.2
	3	23478-PeCDF	339.8597	31.54	5557.985	0.926	0.159	0.159	1.60	1.55	NO	64.7
	37	Total-pentafurans	339.8597	31.39	7445.495	0.911	0.201	0.201	1.74	1.55	NO	78.5
	37	Total-pentafurans	339.8597	31.29	3006.403	0.911	0.081	0.081	1.50	1.55	NO	33.3
	37	Total-pentafurans	339.8597	30.50	0.000	0.911	0.000	0.046	2.03	1.55	YES	17.9
	37	Total-pentafurans	339.8597	30.40	5742.941	0.911	0.155	0.155	1.52	1.55	NO	62.1
	2	12378-PeCDF	339.8597	30.19	5942.201	0.896	0.152	0.152	1.39	1.55	NO	61.7
	38	Total-hexafurans	373.8208	33.71	71124.739	1.032	2.451	2.451	1.21	1.24	NO	227.4
	38	Total-hexafurans	373.8208	33.49	24570.830	1.032	0.847	0.847	1.17	1.24	NO	75.0
	7	123789-HxCDF	373.8208	37.44	2542.968	0.987	0.000	0.065	2.23	1.24	YES	10.1
	5	234678-HxCDF	373.8208	36.31	10839.733	1.037	0.378	0.378	1.13	1.24	NO	26.3
	6	123678-HxCDF	373.8208	35.36	7871.874	1.035	0.000	0.237	1.01	1.24	YES	22.1
	4	123478-HxCDF	373.8208	35.22	6871.165	1.068	0.230	0.230	1.13	1.24	NO	22.3
	38	Total-hexafurans	373.8208	35.07	0.000	1.032	0.000	0.044	0.68	1.24	YES	7.0
	38	Total-hexafurans	373.8208	34.56	73692.356	1.032	2.540	2.540	1.24	1.24	NO	230.1
	38	Total-hexafurans	373.8208	34.25	0.000	1.032	0.000	0.040	1.74	1.24	YES	5.8
	9	1234789-HpCDF	407.7818	42.20	3678.238	1.215	0.000	0.165	1.21	1.05	YES	16.4
	39	Total-heptafurans	407.7818	40.31	142586.555	1.223	6.135	6.135	0.92	1.05	NO	553.3
	39	Total-heptafurans	407.7818	40.00	1436.014	1.223	0.062	0.062	1.18	1.05	NO	5.8
	8	1234678-HpCDF	407.7818	39.52	73508.722	1.232	2.849	2.849	0.98	1.05	NO	289.1
	10	OCDF	441.7428	47.51	83124.851	1.138	5.938	5.938	0.81	0.89	NO	546.3
	36	Total-penta1	339.8597	27.48	95491.984		2.560	2.560	1.54	1.55	NO	704.7
	35	Total-tetrafurans	303.9016	25.87	0.000	0.877	0.000	0.039	0.72	0.77	NO	13.4

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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TD

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	1° Ratio	1° R...	S/N
11	2378-TCDD	319.8965	26.72	4223.877	1.049	0.000	0.083	0.43	0.77	YES	16.4
41	Total-tetradioxins	319.8965	26.32	0.000	1.049	0.000	0.056	0.91	0.77	YES	9.6
41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.030	1.36	0.77	YES	13.3
41	Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.024	0.34	0.77	YES	6.8
41	Total-tetradioxins	319.8965	25.67	0.000	1.049	0.000	0.032	0.64	0.77	YES	6.1
41	Total-tetradioxins	319.8965	25.32	4395.555	1.049	0.125	0.125	0.77	0.77	NO	26.6
41	Total-tetradioxins	319.8965	25.05	2303.131	1.049	0.065	0.065	0.81	0.77	NO	11.5
41	Total-tetradioxins	319.8965	24.82	13013.321	1.049	0.369	0.369	0.88	0.77	NO	82.0
41	Total-tetradioxins	319.8965	24.33	0.000	1.049	0.000	0.058	0.64	0.77	YES	15.6
41	Total-tetradioxins	319.8965	24.27	0.000	1.049	0.000	0.021	0.60	0.77	YES	6.9
41	Total-tetradioxins	319.8965	24.11	4843.979	1.049	0.137	0.137	0.66	0.77	NO	29.5
41	Total-tetradioxins	319.8965	23.84	7061.763	1.049	0.200	0.200	0.88	0.77	NO	49.0
41	Total-tetradioxins	319.8965	27.27	1420.218	1.049	0.040	0.040	0.80	0.77	NO	7.5
41	Total-tetradioxins	319.8965	26.81	1653.019	1.049	0.047	0.047	0.84	0.77	NO	7.7

PD

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	1° Ratio	1° R...	S/N
42	Total-pentadioxins	355.8546	32.20	2373.628	0.998	0.096	0.096	1.44	1.55	NO	11.6
12	12378-PeCDD	355.8546	31.79	7912.282	0.998	0.000	0.293	1.25	1.55	YES	31.0
42	Total-pentadioxins	355.8546	31.11	0.000	0.998	0.000	0.063	1.97	1.55	YES	8.2
42	Total-pentadioxins	355.8546	30.74	0.000	0.998	0.000	0.205	1.99	1.55	YES	20.9
42	Total-pentadioxins	355.8546	30.55	4222.998	0.998	0.171	0.171	1.61	1.55	NO	21.5
42	Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.218	1.94	1.55	YES	34.5
42	Total-pentadioxins	355.8546	30.21	5761.122	0.998	0.234	0.234	1.64	1.55	NO	28.9
42	Total-pentadioxins	355.8546	29.59	4581.295	0.998	0.186	0.186	1.54	1.55	NO	20.1
42	Total-pentadioxins	355.8546	29.12	0.000	0.998	0.000	0.647	1.70	1.55	NO	54.1

HD

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	1° Ratio	1° R...	S/N
43	Total-hexadioxins	389.8157	35.10	10719.550	0.940	0.482	0.482	1.12	1.24	NO	44.1
43	Total-hexadioxins	389.8157	34.29	48146.053	0.940	2.165	2.165	1.29	1.24	NO	202.5
15	123789-HxCDD	389.8157	37.01	14286.373	0.932	0.648	0.648	1.20	1.24	NO	57.0
43	Total-hexadioxins	389.8157	36.76	7801.574	0.940	0.351	0.351	1.11	1.24	NO	31.2
14	123678-HxCDD	389.8157	36.58	25095.349	0.918	1.127	1.127	1.19	1.24	NO	94.7
13	123478-HxCDD	389.8157	36.45	7332.450	0.971	0.328	0.328	1.08	1.24	NO	32.0
43	Total-hexadioxins	389.8157	35.61	0.000	0.940	0.000	0.215	1.49	1.24	YES	24.2
43	Total-hexadioxins	389.8157	35.49	63883.527	0.940	2.873	2.873	1.23	1.24	NO	183.0

HPD

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	1° Ratio	1° R...	S/N
16	1234678-HpCDD	423.7766	41.33	367442.219	1.017	19.428	19.428	1.04	1.05	NO	865.0
44	Total-heptadioxins	423.7766	40.07	428506.000	1.017	22.656	22.656	1.04	1.05	NO	1097.1

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Dioxins,TD,PD,HD,HPD,OD

[redacted]	#	Name	Mass	RT	Area	RRF M...	pg	EMPC	[redacted]	[redacted]	[redacted]	S/N
[redacted]	11	2378-TCDD	319.8965	26.72	4223.877	1.049	0.000	0.083	0.43	0.77	YES	16.4
[redacted]	41	Total-tetradioxins	319.8965	26.32	0.000	1.049	0.000	0.056	0.91	0.77	YES	9.6
[redacted]	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.030	1.36	0.77	YES	13.3
[redacted]	41	Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.024	0.34	0.77	YES	6.8
[redacted]	41	Total-tetradioxins	319.8965	25.67	0.000	1.049	0.000	0.032	0.64	0.77	YES	6.1
[redacted]	41	Total-tetradioxins	319.8965	25.32	4395.555	1.049	0.125	0.125	0.77	0.77	NO	26.6
[redacted]	41	Total-tetradioxins	319.8965	25.05	2303.131	1.049	0.065	0.065	0.81	0.77	NO	11.5
[redacted]	41	Total-tetradioxins	319.8965	24.82	13013.321	1.049	0.369	0.369	0.88	0.77	NO	82.0
[redacted]	41	Total-tetradioxins	319.8965	24.33	0.000	1.049	0.000	0.058	0.64	0.77	YES	15.6
[redacted]	41	Total-tetradioxins	319.8965	24.27	0.000	1.049	0.000	0.021	0.60	0.77	YES	6.9
[redacted]	41	Total-tetradioxins	319.8965	24.11	4843.979	1.049	0.137	0.137	0.66	0.77	NO	29.5
[redacted]	41	Total-tetradioxins	319.8965	23.84	7061.763	1.049	0.200	0.200	0.88	0.77	NO	49.0
[redacted]	45	Total-Dioxins	319.8965	28.13	0.000	0.985	0.000	0.005	1.00	0.77	YES	2.1
[redacted]	41	Total-tetradioxins	319.8965	27.27	1420.218	1.049	0.040	0.040	0.80	0.77	NO	7.5
[redacted]	41	Total-tetradioxins	319.8965	26.81	1653.019	1.049	0.047	0.047	0.84	0.77	NO	7.7
[redacted]	42	Total-pentadioxins	355.8546	32.20	2373.628	0.998	0.096	0.096	1.44	1.55	NO	11.6
[redacted]	12	12378-PeCDD	355.8546	31.79	7912.282	0.998	0.000	0.293	1.25	1.55	YES	31.0
[redacted]	42	Total-pentadioxins	355.8546	31.11	0.000	0.998	0.000	0.063	1.97	1.55	YES	8.2
[redacted]	42	Total-pentadioxins	355.8546	30.74	0.000	0.998	0.000	0.205	1.99	1.55	YES	20.9
[redacted]	42	Total-pentadioxins	355.8546	30.55	4222.998	0.998	0.171	0.171	1.61	1.55	NO	21.5
[redacted]	42	Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.218	1.94	1.55	YES	34.5
[redacted]	42	Total-pentadioxins	355.8546	30.21	5761.122	0.998	0.234	0.234	1.64	1.55	NO	28.9
[redacted]	42	Total-pentadioxins	355.8546	29.59	4581.295	0.998	0.186	0.186	1.54	1.55	NO	20.1
[redacted]	42	Total-pentadioxins	355.8546	29.12	0.000	0.998	0.000	0.647	1.70	1.55	NO	54.1
[redacted]	43	Total-hexadioxins	389.8157	35.10	10719.550	0.940	0.482	0.482	1.12	1.24	NO	44.1
[redacted]	43	Total-hexadioxins	389.8157	34.29	48146.053	0.940	2.165	2.165	1.29	1.24	NO	202.5
[redacted]	15	123789-HxCDD	389.8157	37.01	14286.373	0.932	0.648	0.648	1.20	1.24	NO	57.0
[redacted]	43	Total-hexadioxins	389.8157	36.76	7801.574	0.940	0.351	0.351	1.11	1.24	NO	31.2
[redacted]	14	123678-HxCDD	389.8157	36.58	25095.349	0.918	1.127	1.127	1.19	1.24	NO	94.7
[redacted]	13	123478-HxCDD	389.8157	36.45	7332.450	0.971	0.328	0.328	1.08	1.24	NO	32.0
[redacted]	43	Total-hexadioxins	389.8157	35.61	0.000	0.940	0.000	0.215	1.49	1.24	YES	24.2
[redacted]	43	Total-hexadioxins	389.8157	35.49	63883.527	0.940	2.873	2.873	1.23	1.24	NO	183.0
[redacted]	17	OCDD	457.7377	47.24	1689756.376	1.008	136.175	136....	0.88	0.89	NO	5400.9
[redacted]	16	1234678-HpCDD	423.7766	41.33	367442.219	1.017	19.428	19.428	1.04	1.05	NO	865.0
[redacted]	44	Total-heptadioxins	423.7766	40.07	428506.000	1.017	22.656	22.656	1.04	1.05	NO	1097.1

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Mass	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.182	0.58	0.77	YES	26.7
[redacted]	35	Total-tetrafurans	303.9016	24.30	6650.618	0.877	0.132	0.132	0.76	0.77	NO	30.0
[redacted]	35	Total-tetrafurans	303.9016	24.17	4274.389	0.877	0.085	0.085	0.77	0.77	NO	18.7
[redacted]	35	Total-tetrafurans	303.9016	24.06	13200.171	0.877	0.263	0.263	0.81	0.77	NO	65.5
[redacted]	35	Total-tetrafurans	303.9016	23.90	3162.896	0.877	0.063	0.063	0.72	0.77	NO	12.7
[redacted]	35	Total-tetrafurans	303.9016	23.81	12105.510	0.877	0.241	0.241	0.72	0.77	NO	53.0
[redacted]	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.083	0.95	0.77	YES	23.1
[redacted]	35	Total-tetrafurans	303.9016	23.57	0.000	0.877	0.000	0.168	0.71	0.77	NO	17.7
[redacted]	35	Total-tetrafurans	303.9016	23.40	29083.883	0.877	0.579	0.579	0.68	0.77	NO	113.2
[redacted]	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.093	0.56	0.77	YES	23.5
[redacted]	35	Total-tetrafurans	303.9016	22.58	4147.452	0.877	0.083	0.083	0.70	0.77	NO	17.2
[redacted]	35	Total-tetrafurans	303.9016	27.50	0.000	0.877	0.000	0.020	2.08	0.77	YES	10.2
[redacted]	35	Total-tetrafurans	303.9016	26.29	11031.629	0.877	0.220	0.220	0.70	0.77	NO	41.9
[redacted]	35	Total-tetrafurans	303.9016	26.18	3753.753	0.877	0.075	0.075	0.82	0.77	NO	16.6
[redacted]	1	2378-TCDF	303.9016	26.06	9992.495	0.877	0.199	0.199	0.69	0.77	NO	41.8
[redacted]	35	Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.043	1.23	0.77	YES	14.5
[redacted]	35	Total-tetrafurans	303.9016	25.54	2253.797	0.877	0.045	0.045	0.73	0.77	NO	10.0
[redacted]	35	Total-tetrafurans	303.9016	25.38	3915.424	0.877	0.078	0.078	0.81	0.77	NO	17.6
[redacted]	35	Total-tetrafurans	303.9016	25.15	9318.319	0.877	0.185	0.185	0.80	0.77	NO	43.5
[redacted]	35	Total-tetrafurans	303.9016	24.97	17470.016	0.877	0.348	0.348	0.69	0.77	NO	65.9
[redacted]	35	Total-tetrafurans	303.9016	24.78	0.000	0.877	0.000	0.099	0.93	0.77	YES	24.0
[redacted]	37	Total-pentafurans	339.8597	29.84	13697.472	0.911	0.370	0.370	1.70	1.55	NO	124.5
[redacted]	37	Total-pentafurans	339.8597	29.59	1568.343	0.911	0.042	0.042	1.52	1.55	NO	11.0
[redacted]	37	Total-pentafurans	339.8597	29.13	24302.817	0.911	0.656	0.656	1.55	1.55	NO	232.4
[redacted]	37	Total-pentafurans	339.8597	29.06	11110.959	0.911	0.300	0.300	1.51	1.55	NO	143.0
[redacted]	37	Total-pentafurans	339.8597	28.93	7017.458	0.911	0.189	0.189	1.64	1.55	NO	61.2
[redacted]	3	23478-PeCDF	339.8597	31.54	5557.985	0.926	0.159	0.159	1.60	1.55	NO	64.7
[redacted]	37	Total-pentafurans	339.8597	31.39	7445.495	0.911	0.201	0.201	1.74	1.55	NO	78.5
[redacted]	37	Total-pentafurans	339.8597	31.29	3006.403	0.911	0.081	0.081	1.50	1.55	NO	33.3
[redacted]	37	Total-pentafurans	339.8597	30.50	0.000	0.911	0.000	0.046	2.03	1.55	YES	17.9
[redacted]	37	Total-pentafurans	339.8597	30.40	5742.941	0.911	0.155	0.155	1.52	1.55	NO	62.1
[redacted]	2	12378-PeCDF	339.8597	30.19	5942.201	0.896	0.152	0.152	1.39	1.55	NO	61.7
[redacted]	38	Total-hexafurans	373.8208	33.71	71124.739	1.032	2.451	2.451	1.21	1.24	NO	227.4
[redacted]	38	Total-hexafurans	373.8208	33.49	24570.830	1.032	0.847	0.847	1.17	1.24	NO	75.0
[redacted]	7	123789-HxCDF	373.8208	37.44	2542.968	0.987	0.000	0.065	2.23	1.24	YES	10.1
[redacted]	5	234678-HxCDF	373.8208	36.31	10839.733	1.037	0.378	0.378	1.13	1.24	NO	26.3
[redacted]	6	123678-HxCDF	373.8208	35.36	7871.874	1.035	0.000	0.237	1.01	1.24	YES	22.1
[redacted]	4	123478-HxCDF	373.8208	35.22	6871.165	1.068	0.230	0.230	1.13	1.24	NO	22.3
[redacted]	38	Total-hexafurans	373.8208	35.07	0.000	1.032	0.000	0.044	0.68	1.24	YES	7.0
[redacted]	38	Total-hexafurans	373.8208	34.56	73692.356	1.032	2.540	2.540	1.24	1.24	NO	230.1
[redacted]	38	Total-hexafurans	373.8208	34.25	0.000	1.032	0.000	0.040	1.74	1.24	YES	5.8
[redacted]	9	1234789-HpCDF	407.7818	42.20	3678.238	1.215	0.000	0.165	1.21	1.05	YES	16.4
[redacted]	39	Total-heptafurans	407.7818	40.31	142586.555	1.223	6.135	6.135	0.92	1.05	NO	553.3
[redacted]	39	Total-heptafurans	407.7818	40.00	1436.014	1.223	0.062	0.062	1.18	1.05	NO	5.8
[redacted]	8	1234678-HpCDF	407.7818	39.52	73508.722	1.232	2.849	2.849	0.98	1.05	NO	289.1
[redacted]	10	OCDF	441.7428	47.51	83124.851	1.138	5.938	5.938	0.81	0.89	NO	546.3
[redacted]	36	Total-penta1	339.8597	27.48	95491.984		2.560	2.560	1.54	1.55	NO	704.7
[redacted]	35	Total-tetrafurans	303.9016	25.87	0.000	0.877	0.000	0.039	0.72	0.77	NO	13.4
[redacted]	11	2378-TCDD	319.8965	26.72	4223.877	1.049	0.000	0.083	0.43	0.77	YES	16.4

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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TotalTEQ,Furans,Dioxins

	41	Total-tetradioxins	319.8965	26.32	0.000	1.049	0.000	0.056	0.91	0.77	YES	9.6
	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.030	1.36	0.77	YES	13.3
	41	Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.024	0.34	0.77	YES	6.8
	41	Total-tetradioxins	319.8965	25.67	0.000	1.049	0.000	0.032	0.64	0.77	YES	6.1
	41	Total-tetradioxins	319.8965	25.32	4395.555	1.049	0.125	0.125	0.77	0.77	NO	26.6
	41	Total-tetradioxins	319.8965	25.05	2303.131	1.049	0.065	0.065	0.81	0.77	NO	11.5
	41	Total-tetradioxins	319.8965	24.82	13013.321	1.049	0.369	0.369	0.88	0.77	NO	82.0
	41	Total-tetradioxins	319.8965	24.33	0.000	1.049	0.000	0.058	0.64	0.77	YES	15.6
	41	Total-tetradioxins	319.8965	24.27	0.000	1.049	0.000	0.021	0.60	0.77	YES	6.9
	41	Total-tetradioxins	319.8965	24.11	4843.979	1.049	0.137	0.137	0.66	0.77	NO	29.5
	41	Total-tetradioxins	319.8965	23.84	7061.763	1.049	0.200	0.200	0.88	0.77	NO	49.0
	45	Total-Dioxins	319.8965	28.13	0.000	0.985	0.000	0.005	1.00	0.77	YES	2.1
	41	Total-tetradioxins	319.8965	27.27	1420.218	1.049	0.040	0.040	0.80	0.77	NO	7.5
	41	Total-tetradioxins	319.8965	26.81	1653.019	1.049	0.047	0.047	0.84	0.77	NO	7.7
	42	Total-pentadioxins	355.8546	32.20	2373.628	0.998	0.096	0.096	1.44	1.55	NO	11.6
	12	12378-PeCDD	355.8546	31.79	7912.282	0.998	0.000	0.293	1.25	1.55	YES	31.0
	42	Total-pentadioxins	355.8546	31.11	0.000	0.998	0.000	0.063	1.97	1.55	YES	8.2
	42	Total-pentadioxins	355.8546	30.74	0.000	0.998	0.000	0.205	1.99	1.55	YES	20.9
	42	Total-pentadioxins	355.8546	30.55	4222.998	0.998	0.171	0.171	1.61	1.55	NO	21.5
	42	Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.218	1.94	1.55	YES	34.5
	42	Total-pentadioxins	355.8546	30.21	5761.122	0.998	0.234	0.234	1.64	1.55	NO	28.9
	42	Total-pentadioxins	355.8546	29.59	4581.295	0.998	0.186	0.186	1.54	1.55	NO	20.1
	42	Total-pentadioxins	355.8546	29.12	0.000	0.998	0.000	0.647	1.70	1.55	NO	54.1
	43	Total-hexadioxins	389.8157	35.10	10719.550	0.940	0.482	0.482	1.12	1.24	NO	44.1
	43	Total-hexadioxins	389.8157	34.29	48146.053	0.940	2.165	2.165	1.29	1.24	NO	202.5
	15	123789-HxCDD	389.8157	37.01	14286.373	0.932	0.648	0.648	1.20	1.24	NO	57.0
	43	Total-hexadioxins	389.8157	36.76	7801.574	0.940	0.351	0.351	1.11	1.24	NO	31.2
	14	123678-HxCDD	389.8157	36.58	25095.349	0.918	1.127	1.127	1.19	1.24	NO	94.7
	13	123478-HxCDD	389.8157	36.45	7332.450	0.971	0.328	0.328	1.08	1.24	NO	32.0
	43	Total-hexadioxins	389.8157	35.61	0.000	0.940	0.000	0.215	1.49	1.24	YES	24.2
	43	Total-hexadioxins	389.8157	35.49	63883.527	0.940	2.873	2.873	1.23	1.24	NO	183.0
	17	OCDD	457.7377	47.24	1689756.376	1.008	136.175	136....	0.88	0.89	NO	5400.9
	16	1234678-HpCDD	423.7766	41.33	367442.219	1.017	19.428	19.428	1.04	1.05	NO	865.0
	44	Total-heptadioxins	423.7766	40.07	428506.000	1.017	22.656	22.656	1.04	1.05	NO	1097.1

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PFK1

[redacted]	48	FUNCTION1 PFK	330.9792	22.07	0.000					48.0
[redacted]	48	FUNCTION1 PFK	330.9792	22.01	0.000					48.5
[redacted]	48	FUNCTION1 PFK	330.9792	21.98	0.000					48.8
[redacted]	48	FUNCTION1 PFK	330.9792	21.89	0.000					48.8
[redacted]	48	FUNCTION1 PFK	330.9792	21.79	0.000					47.9
[redacted]	48	FUNCTION1 PFK	330.9792	21.52	0.000					39.4
[redacted]	48	FUNCTION1 PFK	330.9792	25.24	0.000					4.0
[redacted]	48	FUNCTION1 PFK	330.9792	25.00	0.000					9.4
[redacted]	48	FUNCTION1 PFK	330.9792	24.78	0.000					14.9
[redacted]	48	FUNCTION1 PFK	330.9792	24.58	0.000					19.1
[redacted]	48	FUNCTION1 PFK	330.9792	24.51	0.000					20.5
[redacted]	48	FUNCTION1 PFK	330.9792	24.27	0.000					20.5
[redacted]	48	FUNCTION1 PFK	330.9792	24.20	0.000					21.3
[redacted]	48	FUNCTION1 PFK	330.9792	23.46	0.000					30.8
[redacted]	48	FUNCTION1 PFK	330.9792	23.25	0.000					33.4
[redacted]	48	FUNCTION1 PFK	330.9792	22.87	0.000					37.6
[redacted]	48	FUNCTION1 PFK	330.9792	22.69	0.000					39.5
[redacted]	48	FUNCTION1 PFK	330.9792	22.60	0.000					35.7
[redacted]	48	FUNCTION1 PFK	330.9792	22.48	0.000					33.6
[redacted]	48	FUNCTION1 PFK	330.9792	22.31	0.000					45.7
[redacted]	48	FUNCTION1 PFK	330.9792	22.28	0.000					45.6
[redacted]	48	FUNCTION1 PFK	330.9792	22.13	0.000					47.0
[redacted]	48	FUNCTION1 PFK	330.9792	27.50	0.000					0.9
[redacted]	48	FUNCTION1 PFK	330.9792	27.39	0.000					0.6
[redacted]	48	FUNCTION1 PFK	330.9792	27.32	0.000					2.9
[redacted]	48	FUNCTION1 PFK	330.9792	27.17	0.000					0.3
[redacted]	48	FUNCTION1 PFK	330.9792	26.93	0.000					0.7
[redacted]	48	FUNCTION1 PFK	330.9792	26.74	0.000					0.9
[redacted]	48	FUNCTION1 PFK	330.9792	26.68	0.000					1.5
[redacted]	48	FUNCTION1 PFK	330.9792	26.54	0.000					1.5
[redacted]	48	FUNCTION1 PFK	330.9792	26.35	0.000					1.9
[redacted]	48	FUNCTION1 PFK	330.9792	26.30	0.000					1.7
[redacted]	48	FUNCTION1 PFK	330.9792	26.03	0.000					2.1
[redacted]	48	FUNCTION1 PFK	330.9792	25.97	0.000					1.9
[redacted]	48	FUNCTION1 PFK	330.9792	25.73	0.000					1.6
[redacted]	48	FUNCTION1 PFK	330.9792	25.67	0.000					0.7
[redacted]	48	FUNCTION1 PFK	330.9792	25.51	0.000					0.6
[redacted]	48	FUNCTION1 PFK	330.9792	25.33	0.000					2.1
[redacted]	48	FUNCTION1 PFK	330.9792	28.14	0.000					0.5
[redacted]	48	FUNCTION1 PFK	330.9792	27.78	0.000					2.6
[redacted]	48	FUNCTION1 PFK	330.9792	27.57	0.000					1.6

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PFK2

	#	Name	Mass	RT	Area Resp	RF(M...	Dev	S/N Ratio	S/N Obs	S/N Ra...	S/N
	49	FUNCTION2 PFK	366.9792	32.84	0.000	0.000					1.6
	49	FUNCTION2 PFK	366.9792	31.17	0.000	0.000					1.0
	49	FUNCTION2 PFK	366.9792	30.42	0.000	0.000					1.3
	49	FUNCTION2 PFK	366.9792	30.15	0.000	0.000					6.7
	49	FUNCTION2 PFK	366.9792	30.05	0.000	0.000					7.8
	49	FUNCTION2 PFK	366.9792	29.95	0.000	0.000					10.8
	49	FUNCTION2 PFK	366.9792	29.31	0.000	0.000					5.5
	49	FUNCTION2 PFK	366.9792	28.98	0.000	0.000					1.6
	49	FUNCTION2 PFK	366.9792	28.56	0.000	0.000					2.8
	49	FUNCTION2 PFK	366.9792	28.41	0.000	0.000					1.1
	49	FUNCTION2 PFK	366.9792	28.39	0.000	0.000					1.9

PFK3

	#	Name	Mass	RT	Area Resp	RF(M...	Dev	S/N Ratio	S/N Obs	S/N Ra...	S/N
	50	FUNCTION3 PFK	380.9760	37.39	0.000	0.000					4.8
	50	FUNCTION3 PFK	380.9760	37.34	0.000	0.000					4.5

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PFK4

	#	Name	Mass	RT	Area	Ref M.I.	S/N
	51	FUNCTION4 PFK	430.9728	40.41	0.000		0.8
	51	FUNCTION4 PFK	430.9728	40.32	0.000		1.7
	51	FUNCTION4 PFK	430.9728	40.26	0.000		1.9
	51	FUNCTION4 PFK	430.9728	39.81	0.000		1.1
	51	FUNCTION4 PFK	430.9728	39.71	0.000		1.0
	51	FUNCTION4 PFK	430.9728	39.66	0.000		1.6
	51	FUNCTION4 PFK	430.9728	39.60	0.000		0.5
	51	FUNCTION4 PFK	430.9728	39.53	0.000		1.9
	51	FUNCTION4 PFK	430.9728	39.49	0.000		0.9
	51	FUNCTION4 PFK	430.9728	39.19	0.000		1.5
	51	FUNCTION4 PFK	430.9728	38.76	0.000		1.6
	51	FUNCTION4 PFK	430.9728	38.73	0.000		0.7
	51	FUNCTION4 PFK	430.9728	38.61	0.000		1.5
	51	FUNCTION4 PFK	430.9728	42.95	0.000		0.8
	51	FUNCTION4 PFK	430.9728	42.86	0.000		0.6
	51	FUNCTION4 PFK	430.9728	42.73	0.000		0.7
	51	FUNCTION4 PFK	430.9728	42.68	0.000		1.3
	51	FUNCTION4 PFK	430.9728	42.59	0.000		0.6
	51	FUNCTION4 PFK	430.9728	42.39	0.000		1.2
	51	FUNCTION4 PFK	430.9728	42.20	0.000		1.5
	51	FUNCTION4 PFK	430.9728	41.79	0.000		0.7
	51	FUNCTION4 PFK	430.9728	41.72	0.000		0.5
	51	FUNCTION4 PFK	430.9728	41.57	0.000		1.5
	51	FUNCTION4 PFK	430.9728	41.50	0.000		0.6
	51	FUNCTION4 PFK	430.9728	41.36	0.000		1.3
	51	FUNCTION4 PFK	430.9728	41.25	0.000		0.7
	51	FUNCTION4 PFK	430.9728	40.99	0.000		1.1
	51	FUNCTION4 PFK	430.9728	40.80	0.000		1.2
	51	FUNCTION4 PFK	430.9728	40.74	0.000		2.5
	51	FUNCTION4 PFK	430.9728	44.90	0.000		0.8
	51	FUNCTION4 PFK	430.9728	44.84	0.000		1.2
	51	FUNCTION4 PFK	430.9728	44.63	0.000		0.9
	51	FUNCTION4 PFK	430.9728	44.55	0.000		2.0
	51	FUNCTION4 PFK	430.9728	44.48	0.000		1.7
	51	FUNCTION4 PFK	430.9728	44.44	0.000		1.2
	51	FUNCTION4 PFK	430.9728	44.31	0.000		2.2
	51	FUNCTION4 PFK	430.9728	44.19	0.000		0.9
	51	FUNCTION4 PFK	430.9728	44.07	0.000		1.0
	51	FUNCTION4 PFK	430.9728	44.02	0.000		2.0
	51	FUNCTION4 PFK	430.9728	43.71	0.000		0.9
	51	FUNCTION4 PFK	430.9728	43.59	0.000		1.5
	51	FUNCTION4 PFK	430.9728	43.49	0.000		0.4
	51	FUNCTION4 PFK	430.9728	43.23	0.000		0.5
	51	FUNCTION4 PFK	430.9728	43.04	0.000		1.5

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PFK5

	#	Name	Trace	RT	Abs Resp	RRF Mi...	%I	Shape	1° Rati...	1° Rati...	1° R...	S/N
1	52	FUNCTION5 PFK	480.9696	47.89	0.000							2.6
2	52	FUNCTION5 PFK	480.9696	47.73	0.000							1.4
3	52	FUNCTION5 PFK	480.9696	47.69	0.000							0.9
4	52	FUNCTION5 PFK	480.9696	47.54	0.000							0.9
5	52	FUNCTION5 PFK	480.9696	47.51	0.000							1.5
6	52	FUNCTION5 PFK	480.9696	47.41	0.000							1.2
7	52	FUNCTION5 PFK	480.9696	47.17	0.000							1.2
8	52	FUNCTION5 PFK	480.9696	46.82	0.000							1.1
9	52	FUNCTION5 PFK	480.9696	46.66	0.000							1.0
10	52	FUNCTION5 PFK	480.9696	46.10	0.000							1.3
11	52	FUNCTION5 PFK	480.9696	45.92	0.000							2.5
12	52	FUNCTION5 PFK	480.9696	45.67	0.000							1.3
13	52	FUNCTION5 PFK	480.9696	45.58	0.000							1.4
14	52	FUNCTION5 PFK	480.9696	45.17	0.000							0.6
15	52	FUNCTION5 PFK	480.9696	45.14	0.000							1.9
16	52	FUNCTION5 PFK	480.9696	45.07	0.000							1.8
17	52	FUNCTION5 PFK	480.9696	48.89	0.000							1.4
18	52	FUNCTION5 PFK	480.9696	48.78	0.000							0.8
19	52	FUNCTION5 PFK	480.9696	48.13	0.000							1.4
20	52	FUNCTION5 PFK	480.9696	47.94	0.000							2.4

ETHERS1

	#	Name	Trace	RT	Abs Resp	RRF Mi...	%I	Shape	1° Rati...	1° Rati...	1° R...	S/N
1	53	FUNCTION1 HXCD...	375.8364	25.88	0.000	0.000						4.0
2	53	FUNCTION1 HXCD...	375.8364	25.84	0.000	0.000						4.0
3	53	FUNCTION1 HXCD...	375.8364	25.59	0.000	0.000						2.4
4	53	FUNCTION1 HXCD...	375.8364	25.24	0.000	0.000						2.3
5	53	FUNCTION1 HXCD...	375.8364	25.12	0.000	0.000						5.5
6	53	FUNCTION1 HXCD...	375.8364	25.05	0.000	0.000						4.0
7	53	FUNCTION1 HXCD...	375.8364	24.55	0.000	0.000						2.7
8	53	FUNCTION1 HXCD...	375.8364	24.36	0.000	0.000						2.9
9	53	FUNCTION1 HXCD...	375.8364	23.91	0.000	0.000						62.2
10	53	FUNCTION1 HXCD...	375.8364	23.75	0.000	0.000						1.7
11	53	FUNCTION1 HXCD...	375.8364	22.45	0.000	0.000						1.6
12	53	FUNCTION1 HXCD...	375.8364	27.68	0.000	0.000						1.9
13	53	FUNCTION1 HXCD...	375.8364	26.14	0.000	0.000						2.9

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF Mi...	%I	Shape	1° Rati...	1° Rati...	1° R...	S/N
1	54	FUNCTION1 HPCD...	409.7974	27.21	0.000	0.000						1.7
2	54	FUNCTION1 HPCD...	409.7974	26.50	0.000	0.000						1.9
3	54	FUNCTION1 HPCD...	409.7974	25.62	0.000	0.000						1.6
4	54	FUNCTION1 HPCD...	409.7974	23.91	0.000	0.000						2.5
5	54	FUNCTION1 HPCD...	409.7974	23.69	0.000	0.000						4.9
6	54	FUNCTION1 HPCD...	409.7974	23.60	0.000	0.000						1.5
7	54	FUNCTION1 HPCD...	409.7974	22.39	0.000	0.000						6.2

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ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	%I	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
1	55	FUNCTION2 HPCD...	409.7974	30.97	0.000		0.000					1.4
2	55	FUNCTION2 HPCD...	409.7974	30.92	0.000		0.000					3.8
3	55	FUNCTION2 HPCD...	409.7974	30.23	0.000		0.000					2.1
4	55	FUNCTION2 HPCD...	409.7974	30.19	0.000		0.000					2.3
5	55	FUNCTION2 HPCD...	409.7974	29.63	0.000		0.000					2.0
6	55	FUNCTION2 HPCD...	409.7974	32.20	0.000		0.000					2.8

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	%I	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M...	%I	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
1	57	FUNCTION4 NCDPE	479.7165	39.10	0.000		0.000					96.1

ETHERS6

	#	Name	Trace	RT	Abs Resp	RRF M...	%I	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N

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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

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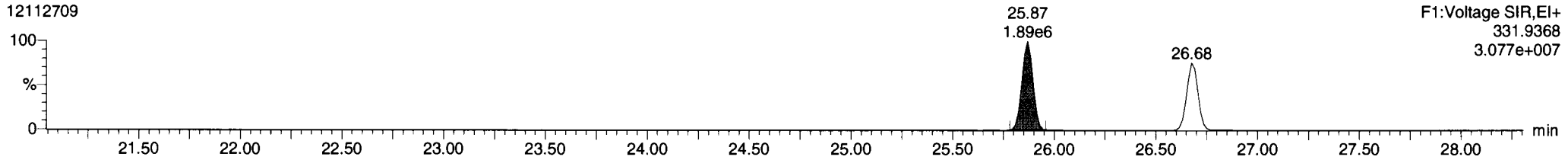
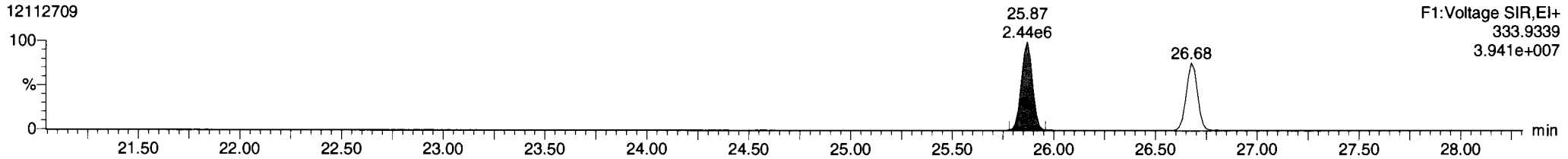
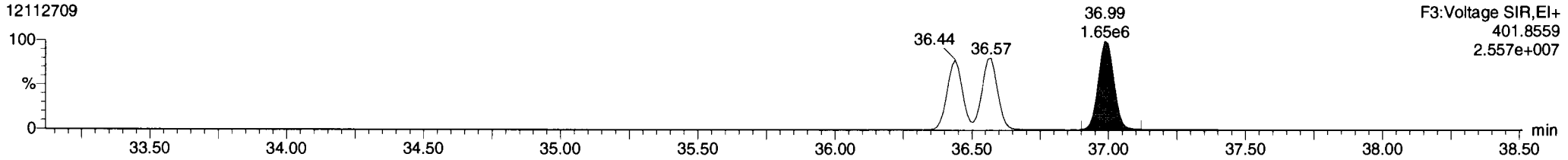
13C-1234-TCDD



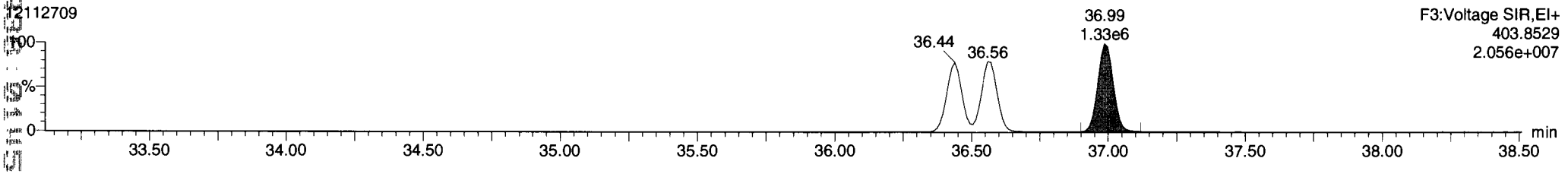
13C-1234-TCDD



13C-123789-HxCDD



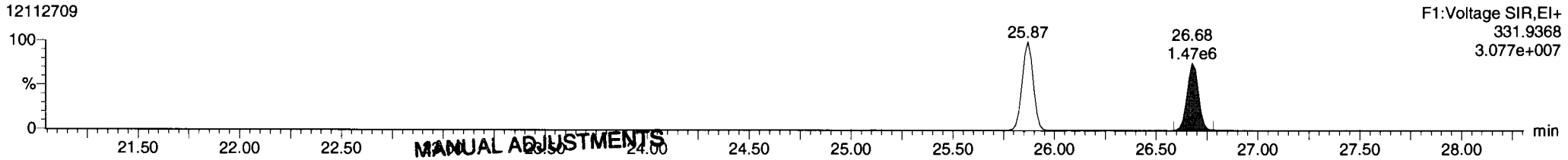
13C-123789-HxCDD



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD

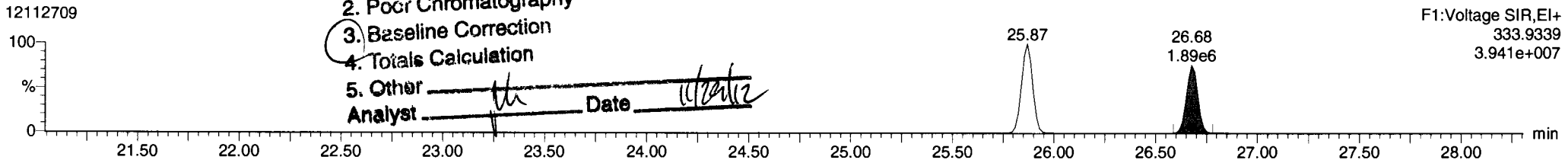


MANUAL ADJUSTMENTS

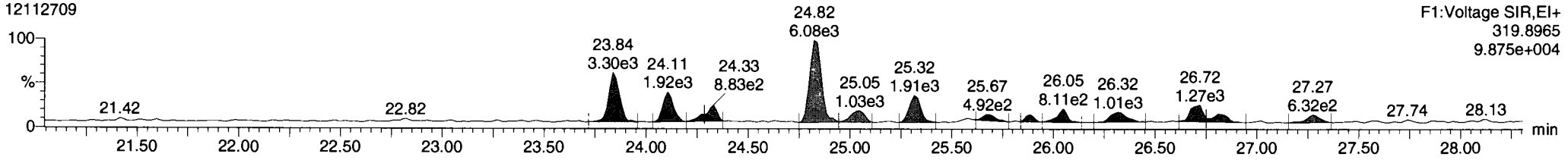
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

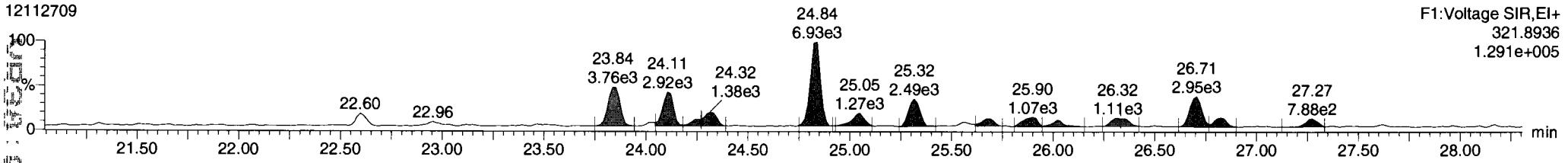
13C-2378-TCDD



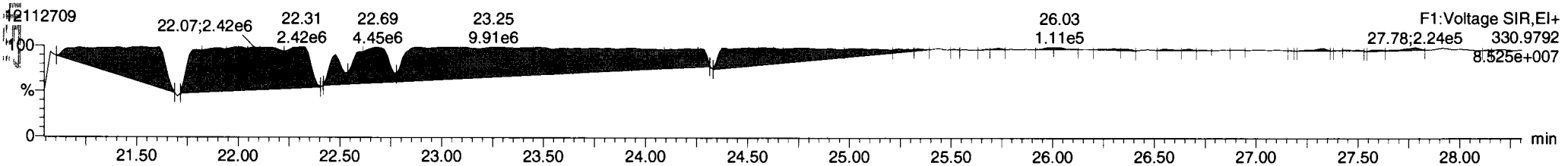
Total-tetradioxins



Total-tetradioxins



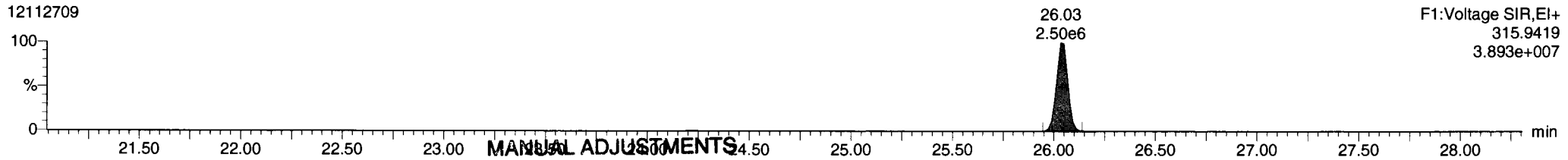
FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

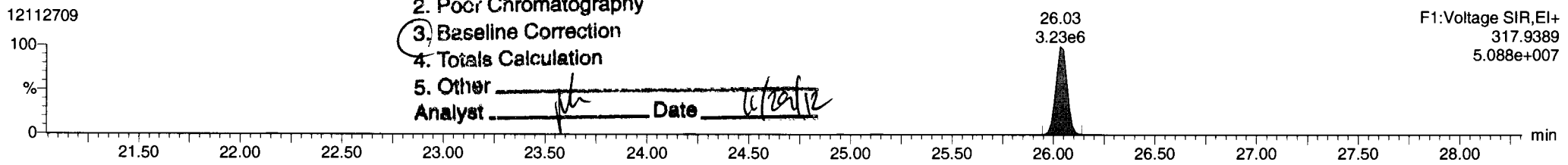


MANUAL ADJUSTMENTS

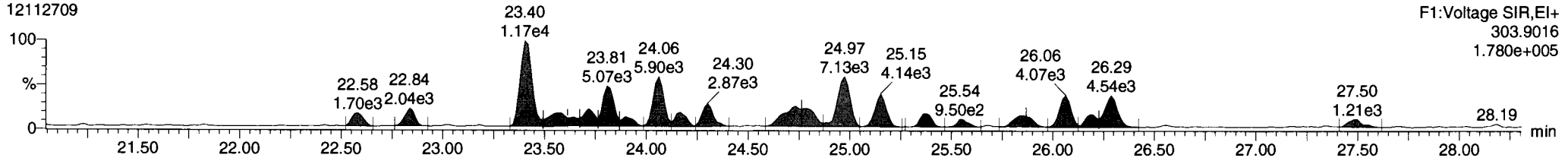
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/29/12

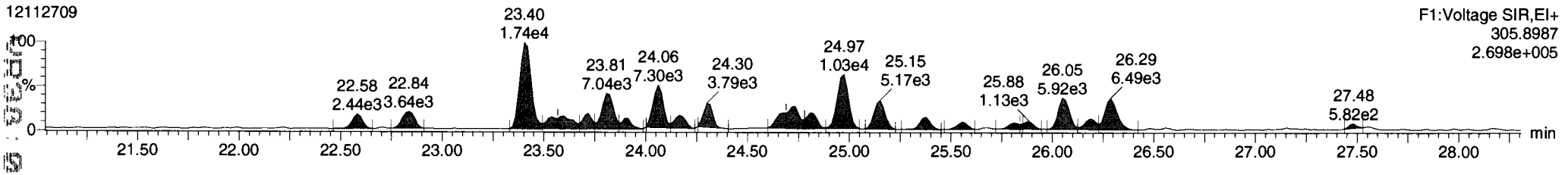
13C-2378-TCDF



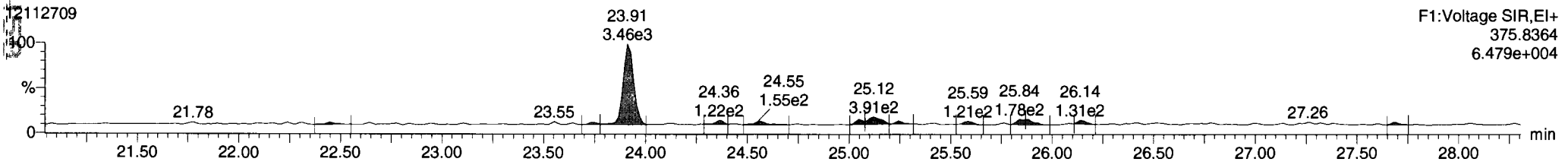
Total-tetrafurans



Total-tetrafurans



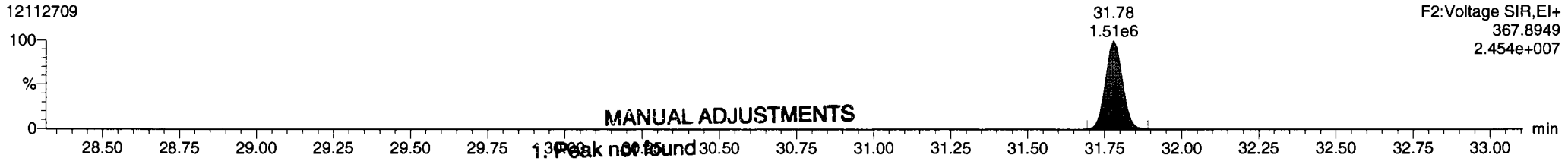
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

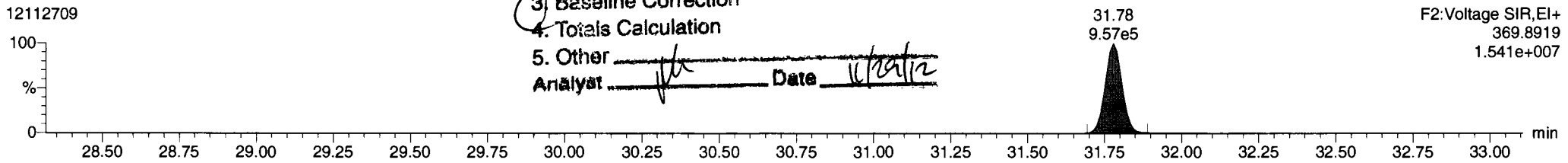


MANUAL ADJUSTMENTS

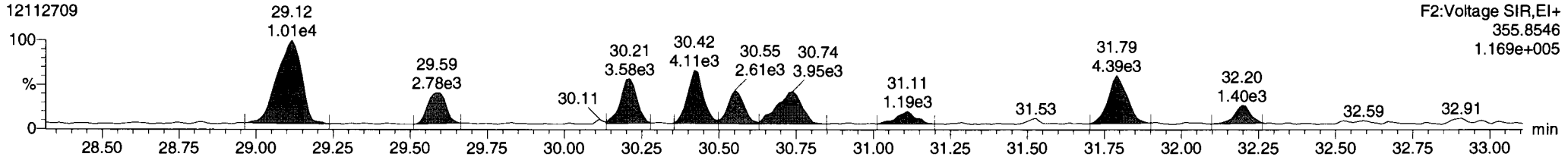
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/29/12

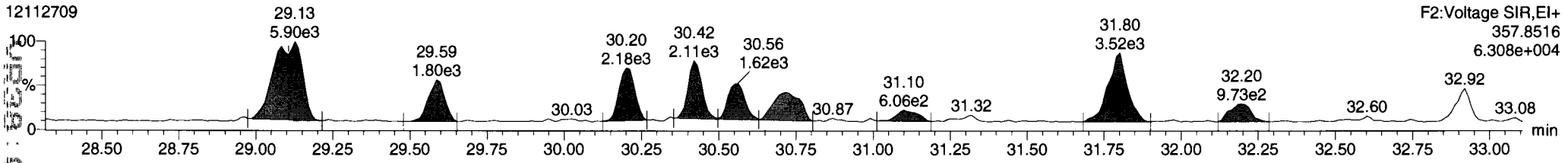
13C-12378-PeCDD



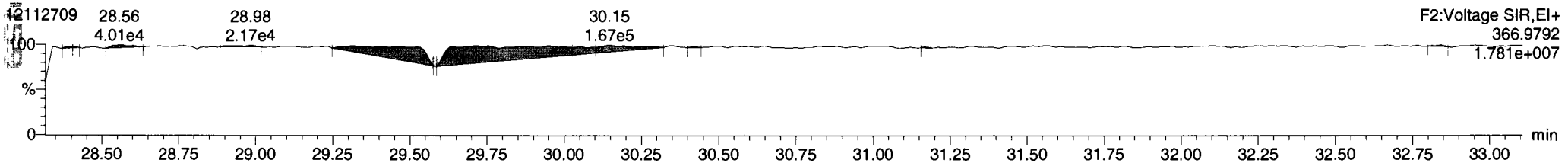
Total-pentadioxins



Total-pentadioxins



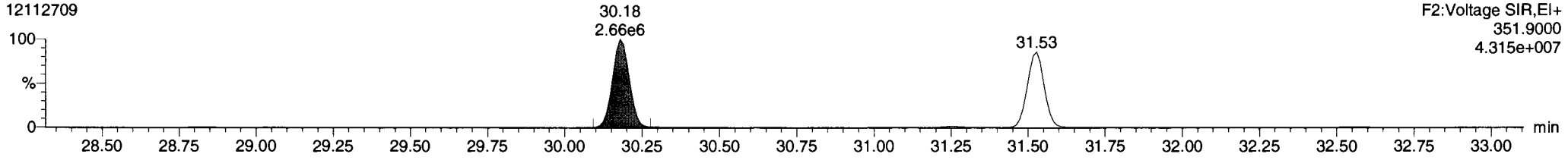
FUNCTION2 PFK



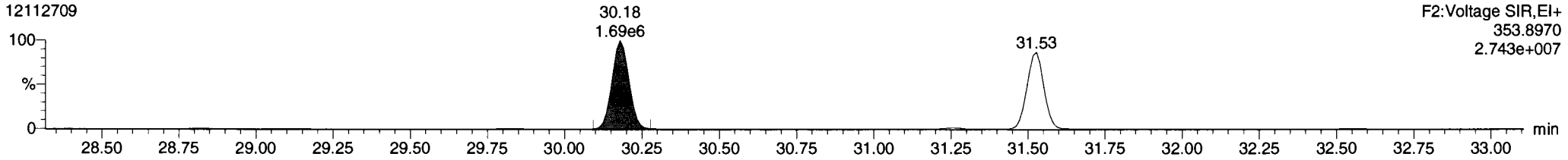
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

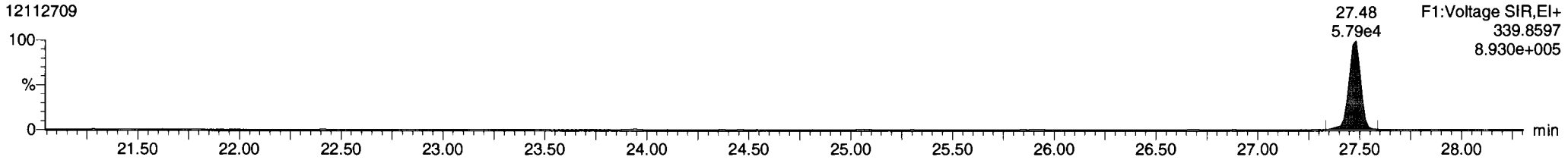
13C-12378-PeCDF



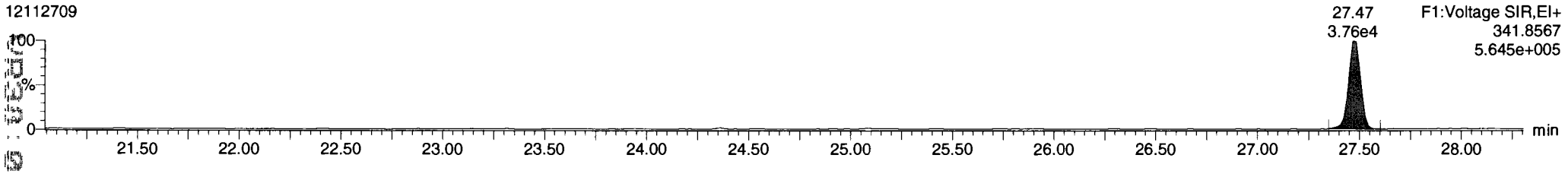
13C-12378-PeCDF



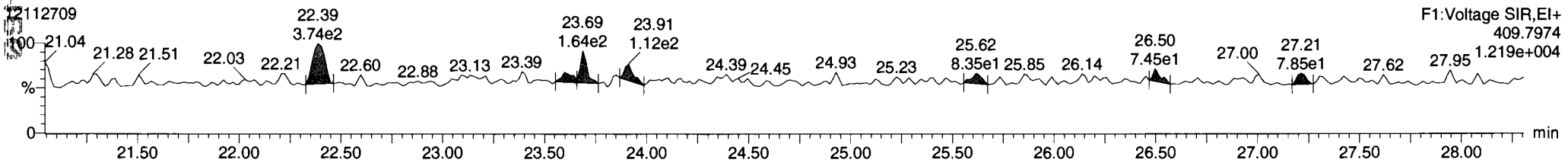
Total-penta1



Total-penta1



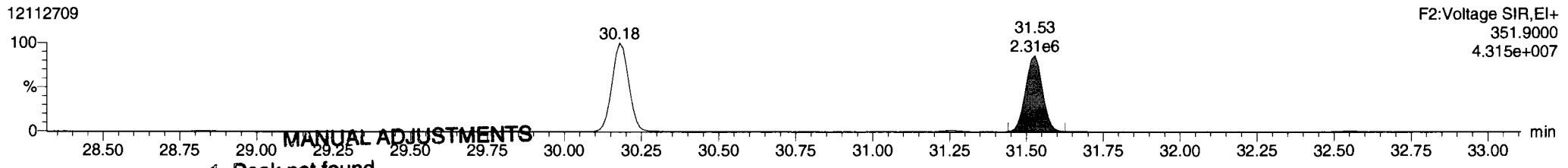
FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

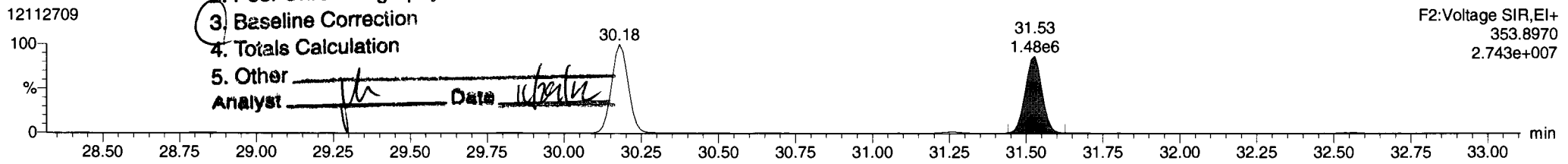
Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

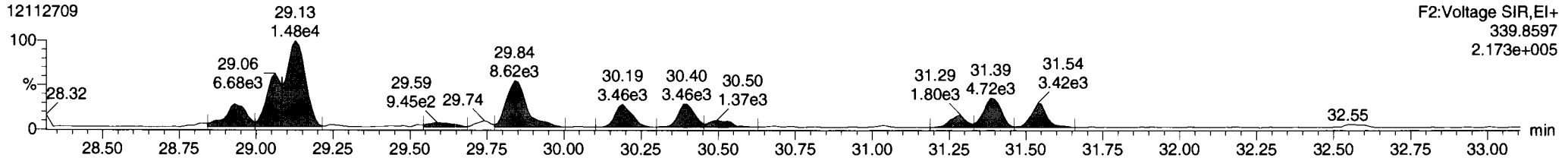


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date

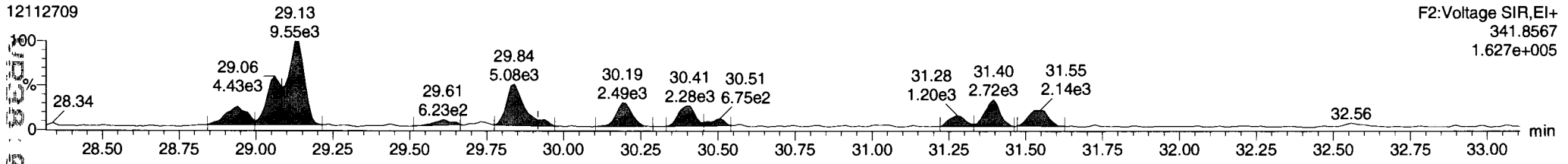
13C-23478-PeCDF



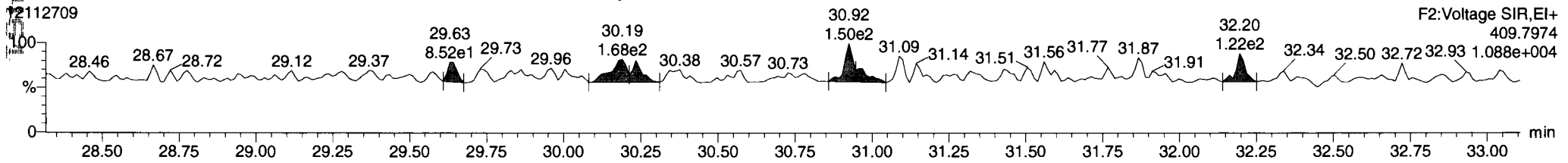
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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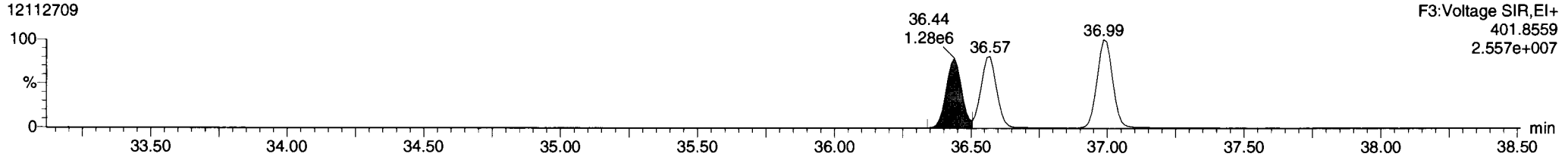
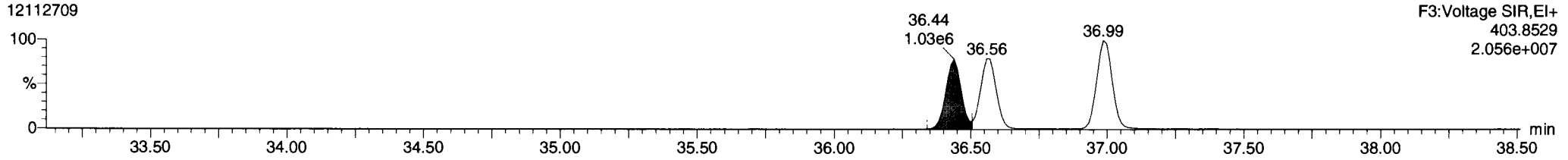
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

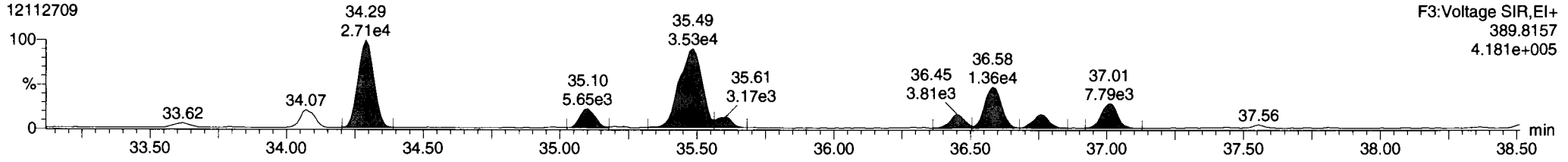
13C-123478-HxCDD



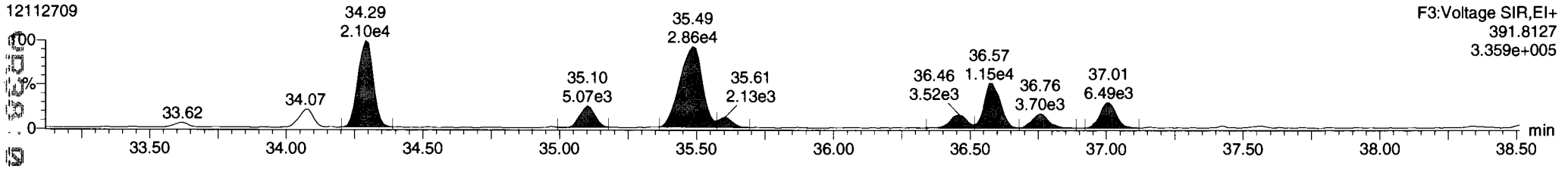
13C-123478-HxCDD



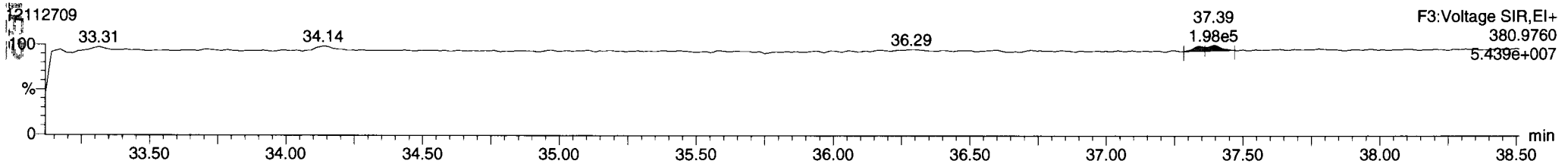
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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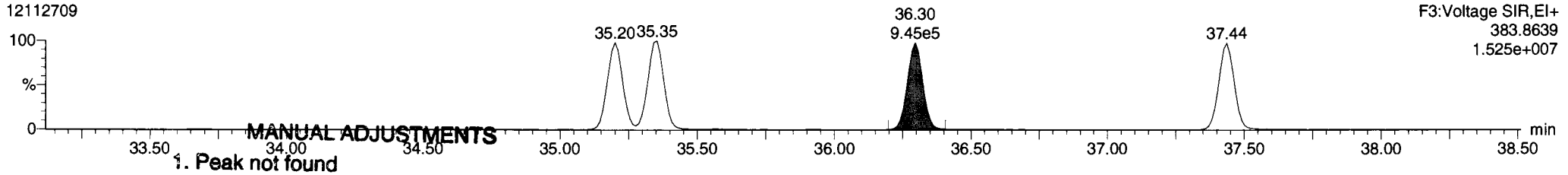
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

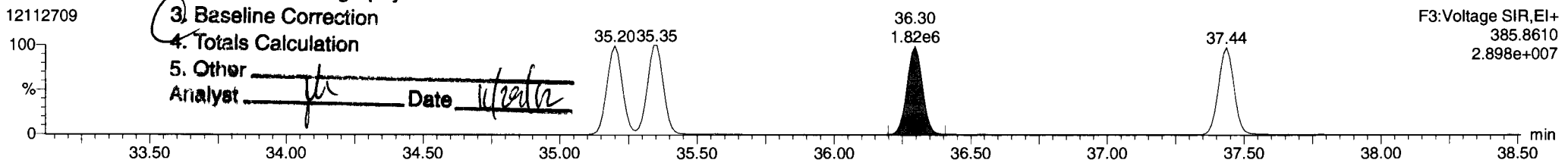
Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF

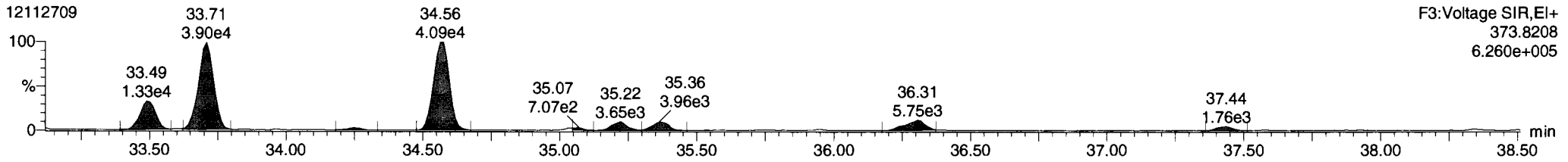


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 11/28/12

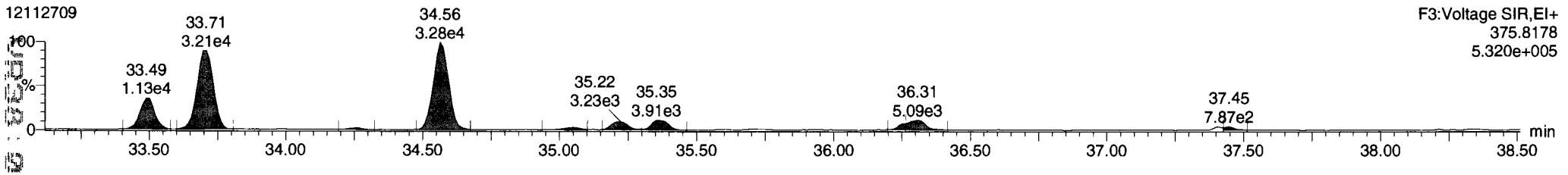
13C-234678-HxCDF



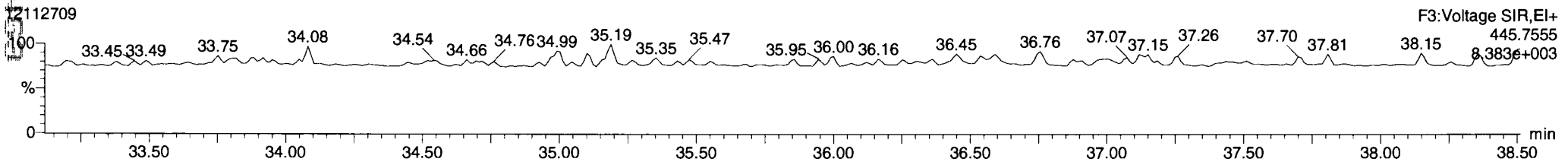
Total-hexafurans



Total-hexafurans



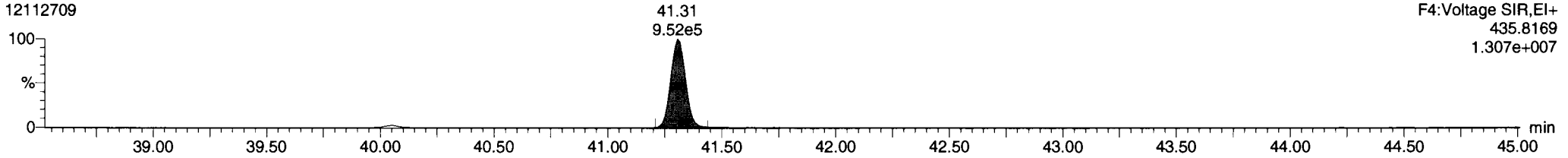
FUNCTION3 OCDPE



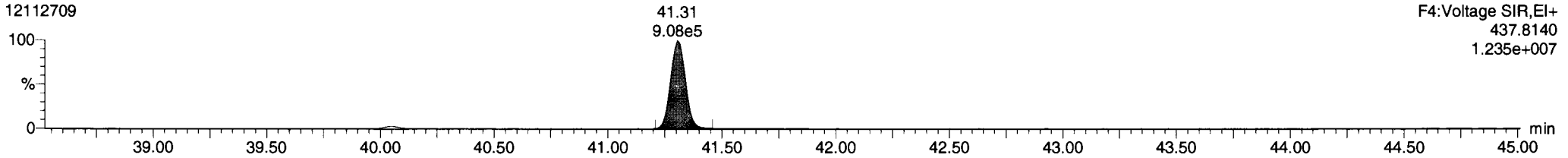
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

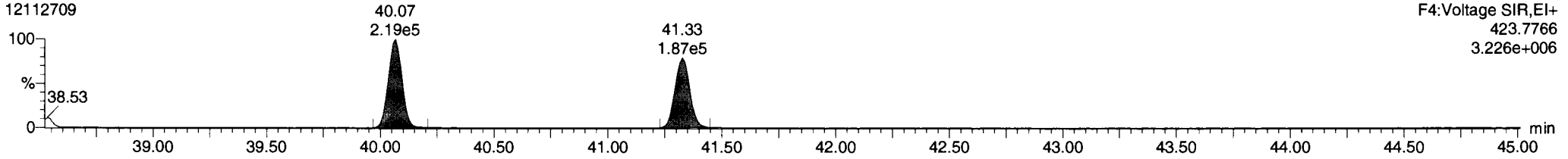
13C-1234678-HpCDD



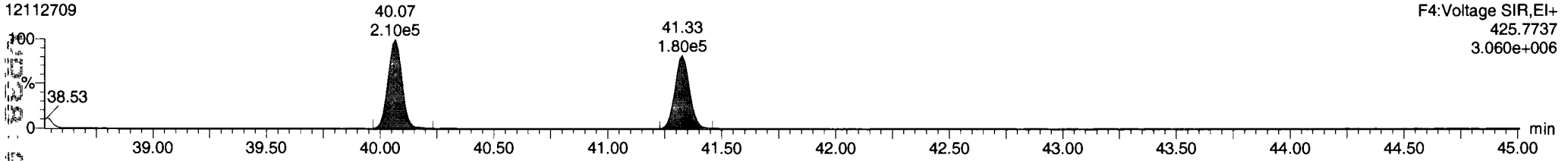
13C-1234678-HpCDD



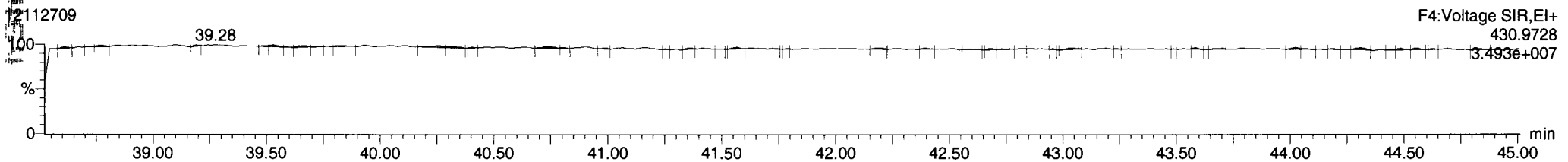
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
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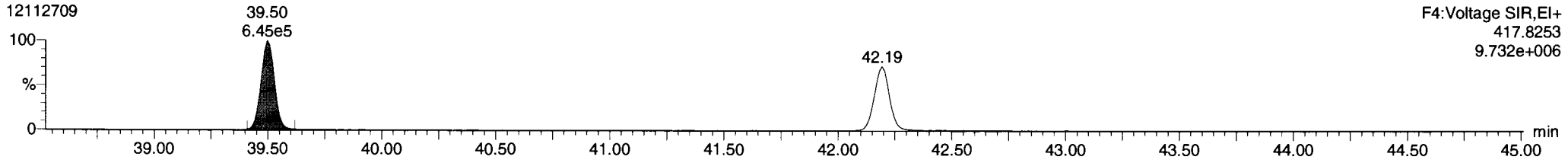
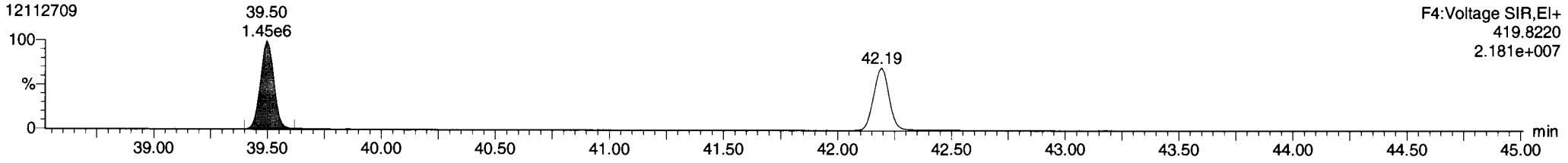
Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

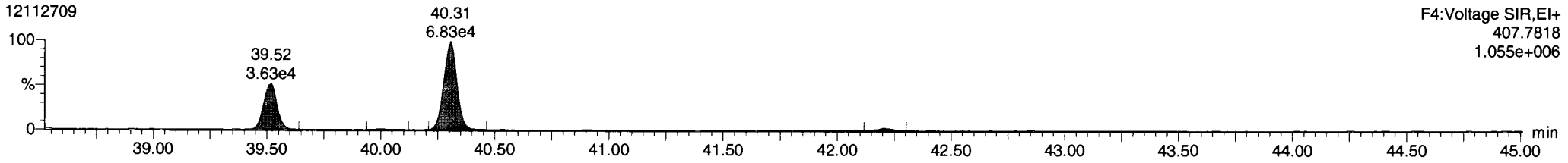
13C-1234678-HpCDF



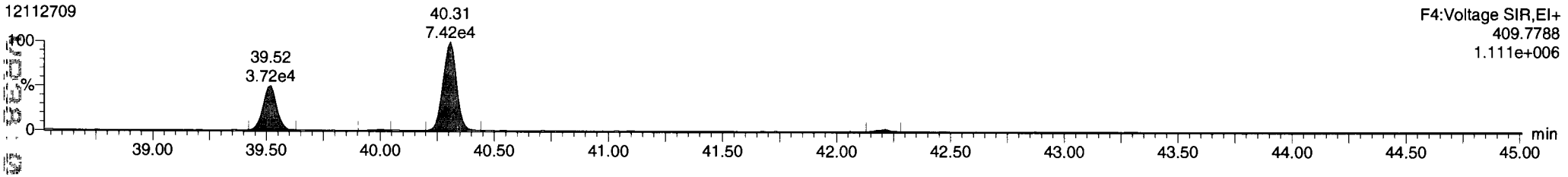
13C-1234678-HpCDF



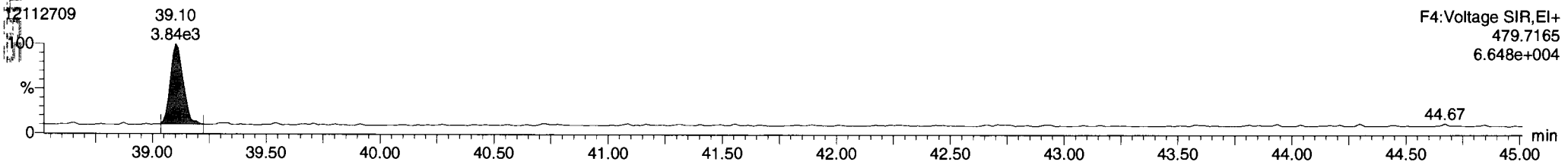
Total-heptafurans



Total-heptafurans



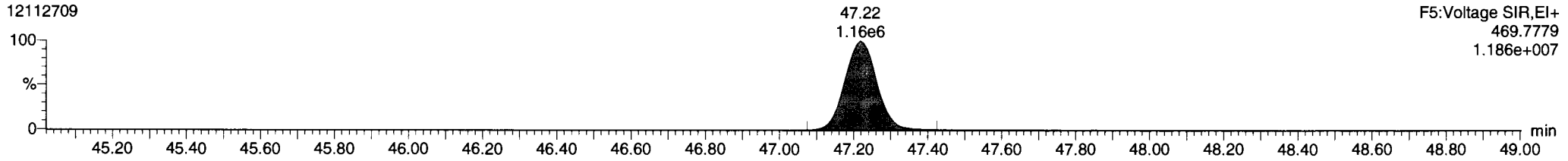
FUNCTION4 NCDPE



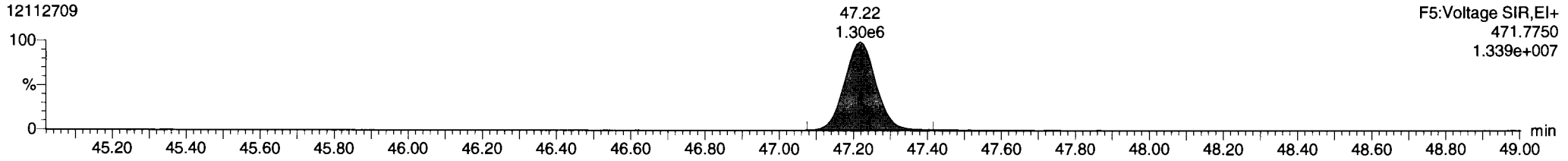
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

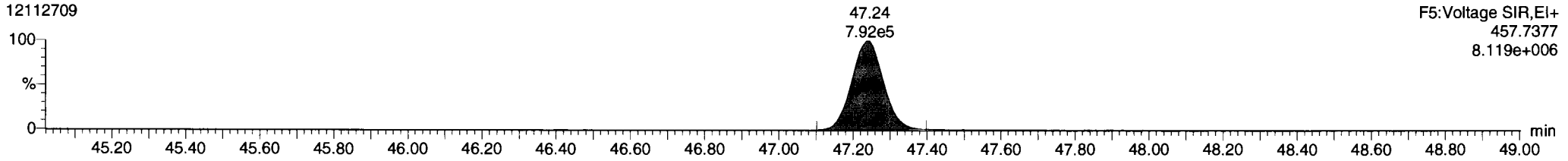
13C-OCDD



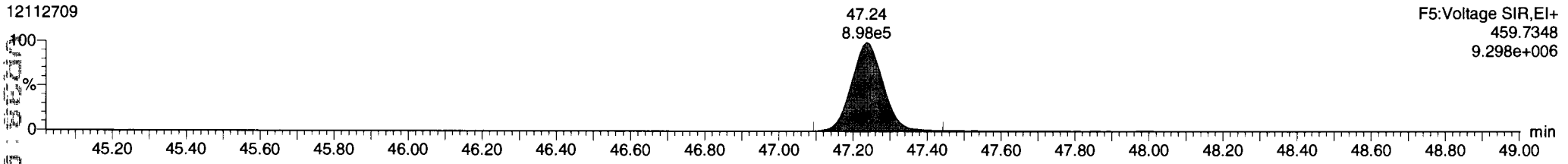
13C-OCDD



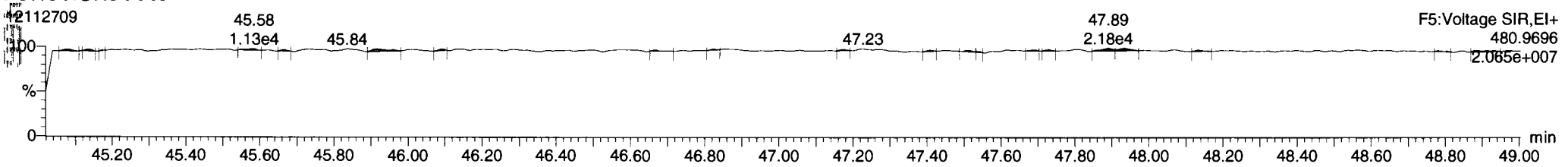
OCDD



OCDD



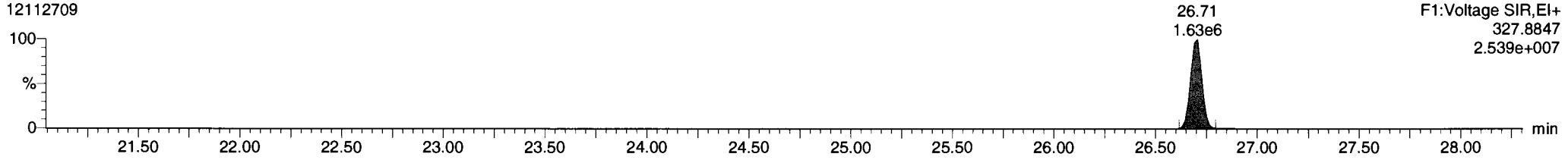
FUNCTION5 PFK



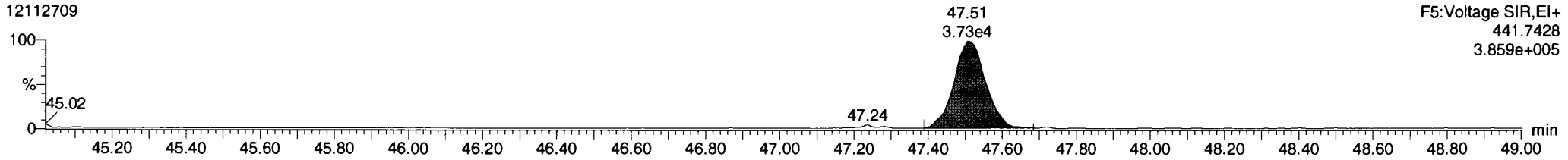
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:23 Pacific Standard Time

Name: 12112709, Date: 27-Nov-2012, Time: 17:40:31, ID: VR38C, Conditions: AUTOSPEC01, User: pk

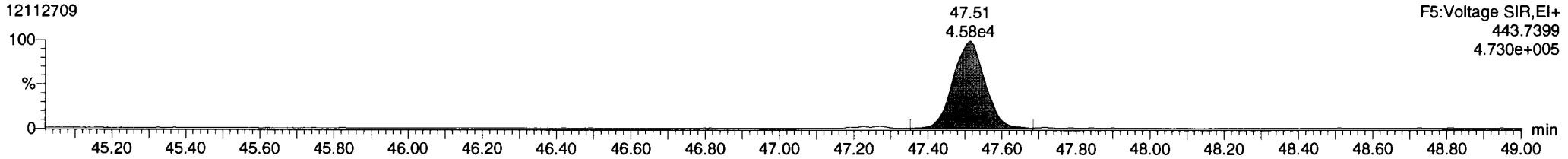
37CL-2378-TCDD



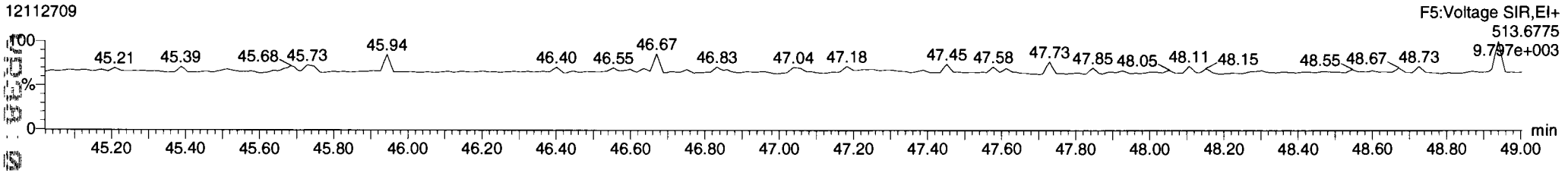
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

	Name													
1	2378-TCDF	26.063	1.001	14856	19513	34370	dd	0.877	0.761	0.770	NO	103.1	0.708	0.708
2	12378-PeCDF	30.201	1.001	10900	7000	17900	bb	0.896	1.557	1.550	NO	91.0	0.437	0.437 X
3	23478-PeCDF	31.538	1.000	12182	8786	20968	dd	0.926	1.387	1.550	NO	97.4	0.528	0.528
4	123478-HxCDF	35.221	1.000	16369	15222	31591	dd	1.068	1.075	1.240	NO	130.8	0.899	0.899
5	234678-HxCDF	36.328	1.001	25218	22207	47425	bd	1.037	1.136	1.240	NO	122.9	1.328	1.328
6	123678-HxCDF	35.375	1.001	17121	14726	31847	db	1.035	1.163	1.240	NO	140.9	0.896	0.896
7	123789-HxCDF	37.425	1.000	5061	4656	9717	bd	0.987	1.087	1.240	NO	34.7	0.310	0.310
8	1234678-HpCDF	39.519	1.000	203614	211256	414870	bb	1.232	0.964	1.050	NO	1635.5	13.441	13.441
9	1234789-HpCDF	42.215	1.000	10977	12386	23363	dd	1.215	0.886	1.050	YES	70.7	0.817	0.891
10	OCDF	47.532	1.006	312021	374292	686313	bd	1.138	0.834	0.890	NO	2187.8	35.883	35.883
11	2378-TCDD	26.691	1.001	3621	6634	10256	bd	1.049	0.546	0.770	YES	60.0	0.223	0.274
12	12378-PeCDD	31.801	1.001	18119	11899	30017	bb	0.998	1.523	1.550	NO	55.3	1.076	1.076
13	123478-HxCDD	36.471	1.001	16315	13633	29948	bd	0.971	1.197	1.240	NO	84.8	1.093	1.093
14	123678-HxCDD	36.603	1.001	66948	54727	121675	dd	0.918	1.223	1.240	NO	341.5	4.362	4.362
15	123789-HxCDD	37.019	1.012	33332	26073	59404	bb	0.932	1.278	1.240	NO	174.8	2.175	2.175
16	1234678-HpCDD	41.338	1.000	1095090	1062946	2158037	bb	1.017	1.030	1.050	NO	2306.2	89.302	89.302
17	OCDD	47.263	1.000	5802346	6597517	12399863	bb	1.008	0.879	0.890	NO	15474.4	731.370	731.370
18	13C-2378-TCDF	26.034	1.006	2407684	3129407	5537090	bb	1.473	0.769	0.770	NO	9650.2		80.858
19	13C-12378-PeCDF	30.179	1.167	2792426	1782980	4575406	bb	1.148	1.566	1.550	NO	11636.2		85.716
20	13C-23478-PeCDF	31.527	1.219	2615277	1674938	4290215	bb	1.113	1.561	1.550	NO	10695.4		82.911
21	13C-123478-HxCDF	35.210	0.951	1118704	2172242	3290946	bd	1.209	0.515	0.510	NO	6353.2		69.450
22	13C-123678-HxCDF	35.353	0.955	1171760	2263085	3434845	db	1.269	0.518	0.510	NO	6529.7		69.079
23	13C-234678-HxCDF	36.307	0.981	1176304	2269347	3445652	bb	1.236	0.518	0.510	NO	6519.0		71.137
24	13C-123789-HxCDF	37.436	1.012	1086842	2088614	3175456	bb	1.107	0.520	0.510	NO	6565.7		73.206
25	13C-1234678-HpCDF	39.508	1.067	773291	1732246	2505537	bb	1.051	0.446	0.440	NO	4528.8		60.816
26	13C-1234789-HpCDF	42.193	1.140	660158	1498080	2158238	bb	0.815	0.441	0.440	NO	3360.5		67.589
27	13C-1234-TCDD	25.869	0.000	2047655	2602605	4650260	bb	1.000	0.787	0.770	NO	6564.2		100.000
28	13C-2378-TCDD	26.676	1.031	1553164	2008154	3561318	bb	0.946	0.773	0.770	NO	5003.9		80.978
29	13C-12378-PeCDD	31.779	1.229	1709588	1084495	2794083	bb	0.721	1.576	1.550	NO	16381.2		83.372
30	13C-123478-HxCDD	36.449	0.985	1574750	1247219	2821969	bd	0.991	1.263	1.240	NO	5014.0		72.663
31	13C-123678-HxCDD	36.581	0.988	1686139	1351827	3037966	db	1.025	1.247	1.240	NO	5330.1		75.643
32	13C-1234678-HpCDD	41.316	1.116	1221617	1154817	2376434	bb	0.866	1.058	1.050	NO	5049.7		70.000
33	13C-OCDD	47.245	1.277	1599451	1763181	3362632	bb	0.769	0.907	0.890	NO	6995.3		111.547

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

34	13C-123789-HxCDD	37.008	0.000	2159800	1759675	3919474	bb	1.000	1.227	1.240	NO	7001.4		100.000
35	Total-tetrafurans			262088				0.877					12.866	12.558
36	Total-penta1			203213									8.285	8.276
37	Total-pentafurans			175746				0.911					7.383	7.234
38	Total-hexafurans			461743				1.032					25.339	24.899
39	Total-heptafurans			564420				1.223					39.901	39.084
40	Total-Furans			1979229				1.041					129.690	127.932
41	Total-tetradioxins			55573				1.049					3.626	3.366
42	Total-pentadioxins			121302				0.998					7.180	4.873
43	Total-hexadioxins			500905				0.940					32.675	32.637
44	Total-heptadioxins			2599015				1.017					212.535	212.535
45	Total-Dioxins			9079290				0.985					987.431	984.791
46	Total-TEQ			11058518									1117.121	1112.724
47	37CL-2378-TCDD	26.691	1.032	1746056		1746056		1.044				17325.7		35.979
48	FUNCTION1 PFK			59439543										
49	FUNCTION2 PFK			14344317										0.000
50	FUNCTION3 PFK			15049255										0.000
51	FUNCTION4 PFK			19181										
52	FUNCTION5 PFK			250815										
53	FUNCTION1 HXCDPE			15399										0.000
54	FUNCTION1 HPCDPE			3432										0.000
55	FUNCTION2 HPCDPE			1050										0.000
56	FUNCTION3 OCDPE			165										0.000
57	FUNCTION4 NCDPE			16589										0.000
58	FUNCTION5 DCDPE			75										0.000

15688 15510

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Mass	RT	Abs Area	RRF Ma		RMPC	1° Ratio	% Rat	1° R	S/N
	35	Total-tetrafurans	303.9016	24.73	34245.060	0.877	0.706	0.706	0.73	0.77	NO	72.2
	35	Total-tetrafurans	303.9016	24.55	0.000	0.877	0.000	0.049	0.94	0.77	YES	9.3
	35	Total-tetrafurans	303.9016	24.49	0.000	0.877	0.000	0.013	1.94	0.77	YES	4.9
	35	Total-tetrafurans	303.9016	24.30	27508.496	0.877	0.567	0.567	0.70	0.77	NO	80.3
	35	Total-tetrafurans	303.9016	24.17	17814.287	0.877	0.367	0.367	0.74	0.77	NO	57.1
	35	Total-tetrafurans	303.9016	24.06	49538.343	0.877	1.021	1.021	0.77	0.77	NO	154.3
	35	Total-tetrafurans	303.9016	23.90	9934.671	0.877	0.205	0.205	0.83	0.77	NO	32.6
	35	Total-tetrafurans	303.9016	23.81	40431.356	0.877	0.833	0.833	0.77	0.77	NO	125.0
	35	Total-tetrafurans	303.9016	23.72	23499.061	0.877	0.484	0.484	0.86	0.77	NO	60.9
	35	Total-tetrafurans	303.9016	23.58	21727.617	0.877	0.448	0.448	0.72	0.77	NO	57.6
	35	Total-tetrafurans	303.9016	23.54	12050.586	0.877	0.248	0.248	0.80	0.77	NO	40.9
	35	Total-tetrafurans	303.9016	23.40	99317.473	0.877	2.046	2.046	0.71	0.77	NO	296.1
	35	Total-tetrafurans	303.9016	22.84	18004.764	0.877	0.371	0.371	0.79	0.77	NO	61.0
	35	Total-tetrafurans	303.9016	22.58	12342.392	0.877	0.254	0.254	0.78	0.77	NO	42.2
	35	Total-tetrafurans	303.9016	27.50	7778.021	0.877	0.160	0.160	0.72	0.77	NO	14.8
	35	Total-tetrafurans	303.9016	26.29	39201.687	0.877	0.808	0.808	0.76	0.77	NO	107.9
	35	Total-tetrafurans	303.9016	26.18	12195.943	0.877	0.251	0.251	0.76	0.77	NO	36.4
	1	2378-TCDF	303.9016	26.06	34369.592	0.877	0.708	0.708	0.76	0.77	NO	103.1
	35	Total-tetrafurans	303.9016	25.87	9226.502	0.877	0.190	0.190	0.69	0.77	NO	29.9
	35	Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.201	0.64	0.77	YES	31.6
	35	Total-tetrafurans	303.9016	25.70	0.000	0.877	0.000	0.046	0.55	0.77	YES	6.1
	35	Total-tetrafurans	303.9016	25.56	10556.459	0.877	0.217	0.217	0.78	0.77	NO	29.2
	35	Total-tetrafurans	303.9016	25.38	15397.117	0.877	0.317	0.317	0.82	0.77	NO	49.2
	35	Total-tetrafurans	303.9016	25.15	31130.685	0.877	0.641	0.641	0.78	0.77	NO	91.9
	35	Total-tetrafurans	303.9016	24.96	63554.605	0.877	1.309	1.309	0.75	0.77	NO	171.8
	35	Total-tetrafurans	303.9016	24.81	19704.183	0.877	0.406	0.406	0.77	0.77	NO	57.8

PP

	#	Name	Mass	RT	Abs Area	RRF Ma		RMPC	1° Ratio	1° Ratio	1° R	S/N
	36	Total-penta1	339.8597	27.78	0.000		0.000	0.010	0.71	1.55	YES	3.3
	36	Total-penta1	339.8597	27.48	336394.703		8.276	8.276	1.53	1.55	NO	2215.3

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
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Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

PF

	#	Name	Trace	RT	Abs Area	RRF Mo						
	37	Total-pentafurans	339.8597	30.51	6177.266	0.911	0.153	0.153	1.61	1.55	NO	26.4
	37	Total-pentafurans	339.8597	30.40	21293.238	0.911	0.527	0.527	1.40	1.55	NO	99.0
	2	12378-PeCDF	339.8597	30.20	17900.026	0.896	0.437	0.437	1.56	1.55	NO	91.0
	37	Total-pentafurans	339.8597	29.84	47706.116	0.911	1.181	1.181	1.59	1.55	NO	187.9
	37	Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.103	1.20	1.55	YES	24.5
	37	Total-pentafurans	339.8597	29.63	0.000	0.911	0.000	0.047	2.18	1.55	YES	15.0
	37	Total-pentafurans	339.8597	29.56	1926.669	0.911	0.048	0.048	1.70	1.55	NO	13.0
	37	Total-pentafurans	339.8597	29.28	1462.982	0.911	0.036	0.036	1.39	1.55	NO	6.3
	37	Total-pentafurans	339.8597	29.15	78062.595	0.911	1.933	1.933	1.50	1.55	NO	338.1
	37	Total-pentafurans	339.8597	29.08	38936.465	0.911	0.964	0.964	1.45	1.55	NO	203.3
	37	Total-pentafurans	339.8597	28.95	20431.261	0.911	0.506	0.506	1.59	1.55	NO	73.2
	37	Total-pentafurans	339.8597	28.85	2980.896	0.911	0.074	0.074	1.44	1.55	NO	15.7
	37	Total-pentafurans	339.8597	32.58	2415.547	0.911	0.060	0.060	1.74	1.55	NO	12.0
	3	23478-PeCDF	339.8597	31.54	20968.070	0.926	0.528	0.528	1.39	1.55	NO	97.4
	37	Total-pentafurans	339.8597	31.38	23622.281	0.911	0.585	0.585	1.52	1.55	NO	106.5
	37	Total-pentafurans	339.8597	31.27	8199.839	0.911	0.203	0.203	1.60	1.55	NO	40.9

HF

	#	Name	Trace	RT	Abs Area	RRF Mo						
	38	Total-hexafurans	373.8208	34.26	0.000	1.032	0.000	0.150	1.04	1.24	YES	21.5
	38	Total-hexafurans	373.8208	34.08	0.000	1.032	0.000	0.015	0.82	1.24	YES	3.7
	38	Total-hexafurans	373.8208	33.71	319750.719	1.032	9.290	9.290	1.16	1.24	NO	1331.6
	38	Total-hexafurans	373.8208	33.50	110267.328	1.032	3.204	3.204	1.22	1.24	NO	491.4
	38	Total-hexafurans	373.8208	37.56	0.000	1.032	0.000	0.046	0.98	1.24	YES	8.1
	7	123789-HxCDF	373.8208	37.42	9717.123	0.987	0.310	0.310	1.09	1.24	NO	34.7
	5	234678-HxCDF	373.8208	36.33	47424.670	1.037	1.328	1.328	1.14	1.24	NO	122.9
	38	Total-hexafurans	373.8208	35.73	0.000	1.032	0.000	0.035	0.59	1.24	YES	5.9
	6	123678-HxCDF	373.8208	35.37	31846.559	1.035	0.896	0.896	1.16	1.24	NO	140.9
	4	123478-HxCDF	373.8208	35.22	31590.877	1.068	0.899	0.899	1.08	1.24	NO	130.8
	38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.194	1.02	1.24	YES	26.3
	38	Total-hexafurans	373.8208	34.57	308841.875	1.032	8.973	8.973	1.15	1.24	NO	1297.3

HPF

	#	Name	Trace	RT	Abs Area	RRF Mo						
	39	Total-heptafurans	407.7818	40.31	722050.219	1.223	25.309	25.309	0.97	1.05	NO	2827.8
	39	Total-heptafurans	407.7818	40.01	8043.166	1.223	0.282	0.282	1.06	1.05	NO	27.4
	8	1234678-HpCDF	407.7818	39.52	414869.531	1.232	13.441	13.441	0.96	1.05	NO	1635.5
	9	1234789-HpCDF	407.7818	42.22	23362.605	1.215	0.000	0.817	0.89	1.05	YES	70.7
	39	Total-heptafurans	407.7818	41.33	1490.340	1.223	0.052	0.052	1.08	1.05	NO	6.8

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Furans,TF,PP,PF,HF,HPF,OF

	35 Total-tetrafurans	303.9016	24.73	34245.060	0.877	0.706	0.706	0.73	0.77	NO	72.2
	35 Total-tetrafurans	303.9016	24.55	0.000	0.877	0.000	0.049	0.94	0.77	YES	9.3
	35 Total-tetrafurans	303.9016	24.49	0.000	0.877	0.000	0.013	1.94	0.77	YES	4.9
	35 Total-tetrafurans	303.9016	24.30	27508.496	0.877	0.567	0.567	0.70	0.77	NO	80.3
	35 Total-tetrafurans	303.9016	24.17	17814.287	0.877	0.367	0.367	0.74	0.77	NO	57.1
	35 Total-tetrafurans	303.9016	24.06	49538.343	0.877	1.021	1.021	0.77	0.77	NO	154.3
	35 Total-tetrafurans	303.9016	23.90	9934.671	0.877	0.205	0.205	0.83	0.77	NO	32.6
	35 Total-tetrafurans	303.9016	23.81	40431.356	0.877	0.833	0.833	0.77	0.77	NO	125.0
	35 Total-tetrafurans	303.9016	23.72	23499.061	0.877	0.484	0.484	0.86	0.77	NO	60.9
	35 Total-tetrafurans	303.9016	23.58	21727.617	0.877	0.448	0.448	0.72	0.77	NO	57.6
	35 Total-tetrafurans	303.9016	23.54	12050.586	0.877	0.248	0.248	0.80	0.77	NO	40.9
	35 Total-tetrafurans	303.9016	23.40	99317.473	0.877	2.046	2.046	0.71	0.77	NO	296.1
	35 Total-tetrafurans	303.9016	22.84	18004.764	0.877	0.371	0.371	0.79	0.77	NO	61.0
	35 Total-tetrafurans	303.9016	22.58	12342.392	0.877	0.254	0.254	0.78	0.77	NO	42.2
	40 Total-Furans	303.9016	28.17	0.000	1.041	0.000	0.032	0.60	0.77	YES	7.6
	35 Total-tetrafurans	303.9016	27.50	7778.021	0.877	0.160	0.160	0.72	0.77	NO	14.8
	35 Total-tetrafurans	303.9016	26.29	39201.687	0.877	0.808	0.808	0.76	0.77	NO	107.9
	35 Total-tetrafurans	303.9016	26.18	12195.943	0.877	0.251	0.251	0.76	0.77	NO	36.4
	1 2378-TCDF	303.9016	26.06	34369.592	0.877	0.708	0.708	0.76	0.77	NO	103.1
	35 Total-tetrafurans	303.9016	25.87	9226.502	0.877	0.190	0.190	0.69	0.77	NO	29.9
	35 Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.201	0.64	0.77	YES	31.6
	35 Total-tetrafurans	303.9016	25.70	0.000	0.877	0.000	0.046	0.55	0.77	YES	6.1
	35 Total-tetrafurans	303.9016	25.56	10556.459	0.877	0.217	0.217	0.78	0.77	NO	29.2
	35 Total-tetrafurans	303.9016	25.38	15397.117	0.877	0.317	0.317	0.82	0.77	NO	49.2
	35 Total-tetrafurans	303.9016	25.15	31130.685	0.877	0.641	0.641	0.78	0.77	NO	91.9
	35 Total-tetrafurans	303.9016	24.96	63554.605	0.877	1.309	1.309	0.75	0.77	NO	171.8
	35 Total-tetrafurans	303.9016	24.81	19704.183	0.877	0.406	0.406	0.77	0.77	NO	57.8
	37 Total-pentafurans	339.8597	30.51	6177.266	0.911	0.153	0.153	1.61	1.55	NO	26.4
	37 Total-pentafurans	339.8597	30.40	21293.238	0.911	0.527	0.527	1.40	1.55	NO	99.0
	2 12378-PeCDF	339.8597	30.20	17900.026	0.896	0.437	0.437	1.56	1.55	NO	91.0
	37 Total-pentafurans	339.8597	29.84	47706.116	0.911	1.181	1.181	1.59	1.55	NO	187.9
	37 Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.103	1.20	1.55	YES	24.5
	37 Total-pentafurans	339.8597	29.63	0.000	0.911	0.000	0.047	2.18	1.55	YES	15.0
	37 Total-pentafurans	339.8597	29.56	1926.669	0.911	0.048	0.048	1.70	1.55	NO	13.0
	37 Total-pentafurans	339.8597	29.28	1462.982	0.911	0.036	0.036	1.39	1.55	NO	6.3
	37 Total-pentafurans	339.8597	29.15	78062.595	0.911	1.933	1.933	1.50	1.55	NO	338.1
	37 Total-pentafurans	339.8597	29.08	38936.465	0.911	0.964	0.964	1.45	1.55	NO	203.3
	37 Total-pentafurans	339.8597	28.95	20431.261	0.911	0.506	0.506	1.59	1.55	NO	73.2
	37 Total-pentafurans	339.8597	28.85	2980.896	0.911	0.074	0.074	1.44	1.55	NO	15.7
	37 Total-pentafurans	339.8597	32.58	2415.547	0.911	0.060	0.060	1.74	1.55	NO	12.0
	3 23478-PeCDF	339.8597	31.54	20968.070	0.926	0.528	0.528	1.39	1.55	NO	97.4
	37 Total-pentafurans	339.8597	31.38	23622.281	0.911	0.585	0.585	1.52	1.55	NO	106.5
	37 Total-pentafurans	339.8597	31.27	8199.839	0.911	0.203	0.203	1.60	1.55	NO	40.9
	38 Total-hexafurans	373.8208	34.26	0.000	1.032	0.000	0.150	1.04	1.24	YES	21.5
	38 Total-hexafurans	373.8208	34.08	0.000	1.032	0.000	0.015	0.82	1.24	YES	3.7
	38 Total-hexafurans	373.8208	33.71	319750.719	1.032	9.290	9.290	1.16	1.24	NO	1331.6
	38 Total-hexafurans	373.8208	33.50	110267.328	1.032	3.204	3.204	1.22	1.24	NO	491.4
	38 Total-hexafurans	373.8208	37.56	0.000	1.032	0.000	0.046	0.98	1.24	YES	8.1
	7 123789-HxCDF	373.8208	37.42	9717.123	0.987	0.310	0.310	1.09	1.24	NO	34.7

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Furans,TF,PP,PF,HF,HPF,OF

	5	234678-HxCDF	373.8208	36.33	47424.670	1.037	1.328	1.328	1.14	1.24	NO	122.9
	38	Total-hexafurans	373.8208	35.73	0.000	1.032	0.000	0.035	0.59	1.24	YES	5.9
	6	123678-HxCDF	373.8208	35.37	31846.559	1.035	0.896	0.896	1.16	1.24	NO	140.9
	4	123478-HxCDF	373.8208	35.22	31590.877	1.068	0.899	0.899	1.08	1.24	NO	130.8
	38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.194	1.02	1.24	YES	26.3
	38	Total-hexafurans	373.8208	34.57	308841.875	1.032	8.973	8.973	1.15	1.24	NO	1297.3
	39	Total-heptafurans	407.7818	40.31	722050.219	1.223	25.309	25.309	0.97	1.05	NO	2827.8
	39	Total-heptafurans	407.7818	40.01	8043.166	1.223	0.282	0.282	1.06	1.05	NO	27.4
	8	1234678-HpCDF	407.7818	39.52	414869.531	1.232	13.441	13.441	0.96	1.05	NO	1635.5
	9	1234789-HpCDF	407.7818	42.22	23362.605	1.215	0.000	0.817	0.89	1.05	YES	70.7
	39	Total-heptafurans	407.7818	41.33	1490.340	1.223	0.052	0.052	1.08	1.05	NO	6.8
	10	OCDF	441.7428	47.53	686312.687	1.138	35.883	35.883	0.83	0.89	NO	2187.8
	36	Total-penta1	339.8597	27.78	0.000		0.000	0.010	0.71	1.55	YES	3.3
	36	Total-penta1	339.8597	27.48	336394.703		8.276	8.276	1.53	1.55	NO	2215.3

TD

	41	Total-tetradioxins	319.8965	24.32	7476.984	1.049	0.200	0.200	0.79	0.77	NO	59.8
	41	Total-tetradioxins	319.8965	24.24	7899.719	1.049	0.211	0.211	0.83	0.77	NO	64.5
	41	Total-tetradioxins	319.8965	24.11	20752.574	1.049	0.555	0.555	0.73	0.77	NO	142.1
	41	Total-tetradioxins	319.8965	23.84	25963.357	1.049	0.695	0.695	0.78	0.77	NO	186.6
	41	Total-tetradioxins	319.8965	27.27	3779.200	1.049	0.101	0.101	0.71	0.77	NO	20.1
	41	Total-tetradioxins	319.8965	26.83	6490.172	1.049	0.174	0.174	0.86	0.77	NO	47.2
	11	2378-TCDD	319.8965	26.69	10255.825	1.049	0.000	0.223	0.55	0.77	YES	60.0
	41	Total-tetradioxins	319.8965	26.32	8335.540	1.049	0.223	0.223	0.88	0.77	NO	47.5
	41	Total-tetradioxins	319.8965	26.03	0.000	1.049	0.000	0.036	1.44	0.77	YES	19.0
	41	Total-tetradioxins	319.8965	25.88	5432.765	1.049	0.145	0.145	0.85	0.77	NO	40.9
	41	Total-tetradioxins	319.8965	25.67	5573.040	1.049	0.149	0.149	0.85	0.77	NO	45.3
	41	Total-tetradioxins	319.8965	25.57	2423.173	1.049	0.065	0.065	0.66	0.77	NO	16.0
	41	Total-tetradioxins	319.8965	25.32	16742.913	1.049	0.448	0.448	0.81	0.77	NO	118.9
	41	Total-tetradioxins	319.8965	25.03	10425.250	1.049	0.279	0.279	0.80	0.77	NO	65.9
	41	Total-tetradioxins	319.8965	24.82	4494.061	1.049	0.120	0.120	0.74	0.77	NO	30.3

PD

	42	Total-pentadioxins	355.8546	29.59	10590.973	0.998	0.380	0.380	1.38	1.55	NO	22.5
	42	Total-pentadioxins	355.8546	29.13	0.000	0.998	0.000	2.306	1.60	1.55	NO	80.9
	42	Total-pentadioxins	355.8546	32.20	5849.327	0.998	0.210	0.210	1.54	1.55	NO	11.0
	12	12378-PeCDD	355.8546	31.80	30017.456	0.998	1.076	1.076	1.52	1.55	NO	55.3
	42	Total-pentadioxins	355.8546	31.12	5185.052	0.998	0.186	0.186	1.56	1.55	NO	8.4
	42	Total-pentadioxins	355.8546	30.74	21452.142	0.998	0.769	0.769	1.43	1.55	NO	30.5
	42	Total-pentadioxins	355.8546	30.56	16133.088	0.998	0.579	0.579	1.60	1.55	NO	30.4
	42	Total-pentadioxins	355.8546	30.42	27399.067	0.998	0.983	0.983	1.56	1.55	NO	58.5
	42	Total-pentadioxins	355.8546	30.20	19274.349	0.998	0.691	0.691	1.48	1.55	NO	37.8

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HD

	#	Name										
	15	123789-HxCDD	389.8157	37.02	59404.276	0.932	2.175	2.175	1.28	1.24	NO	174.8
	43	Total-hexadioxins	389.8157	36.78	18115.258	0.940	0.657	0.657	1.27	1.24	NO	52.2
	14	123678-HxCDD	389.8157	36.60	121674.551	0.918	4.362	4.362	1.22	1.24	NO	341.5
	13	123478-HxCDD	389.8157	36.47	29948.036	0.971	1.093	1.093	1.20	1.24	NO	84.8
	43	Total-hexadioxins	389.8157	35.60	31481.388	0.940	1.143	1.143	1.34	1.24	NO	89.6
	43	Total-hexadioxins	389.8157	35.50	315940.657	0.940	11.466	11.466	1.23	1.24	NO	594.6
	43	Total-hexadioxins	389.8157	35.11	45456.103	0.940	1.650	1.650	1.30	1.24	NO	133.9
	43	Total-hexadioxins	389.8157	34.98	0.000	0.940	0.000	0.038	0.77	1.24	YES	4.0
	43	Total-hexadioxins	389.8157	34.30	278048.204	0.940	10.091	10.091	1.28	1.24	NO	810.9

HPD

	#	Name										
	16	1234678-HpCDD	423.7766	41.34	2158036.625	1.017	89.302	89.302	1.03	1.05	NO	2306.2
	44	Total-heptadioxins	423.7766	40.07	2978032.125	1.017	123.234	123....	1.02	1.05	NO	3442.3

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Dioxins,TD,PD,HD,HPD,OD

	41 Total-tetradioxins	319.8965	24.32	7476.984	1.049	0.200	0.200	0.79	0.77	NO	59.8
	41 Total-tetradioxins	319.8965	24.24	7899.719	1.049	0.211	0.211	0.83	0.77	NO	64.5
	41 Total-tetradioxins	319.8965	24.11	20752.574	1.049	0.555	0.555	0.73	0.77	NO	142.1
	41 Total-tetradioxins	319.8965	23.84	25963.357	1.049	0.695	0.695	0.78	0.77	NO	186.6
	45 Total-Dioxins	319.8965	23.54	0.000	0.985	0.000	0.010	0.37	0.77	YES	3.3
	45 Total-Dioxins	319.8965	23.00	0.000	0.985	0.000	0.014	1.06	0.77	YES	6.5
	45 Total-Dioxins	319.8965	22.60	0.000	0.985	0.000	0.012	0.09	0.77	YES	3.6
	45 Total-Dioxins	319.8965	27.59	321.793	0.985	0.009	0.009	0.86	0.77	NO	3.7
	41 Total-tetradioxins	319.8965	27.27	3779.200	1.049	0.101	0.101	0.71	0.77	NO	20.1
	41 Total-tetradioxins	319.8965	26.83	6490.172	1.049	0.174	0.174	0.86	0.77	NO	47.2
	11 2378-TCDD	319.8965	26.69	10255.825	1.049	0.000	0.223	0.55	0.77	YES	60.0
	41 Total-tetradioxins	319.8965	26.32	8335.540	1.049	0.223	0.223	0.88	0.77	NO	47.5
	41 Total-tetradioxins	319.8965	26.03	0.000	1.049	0.000	0.036	1.44	0.77	YES	19.0
	41 Total-tetradioxins	319.8965	25.88	5432.765	1.049	0.145	0.145	0.85	0.77	NO	40.9
	41 Total-tetradioxins	319.8965	25.67	5573.040	1.049	0.149	0.149	0.85	0.77	NO	45.3
	41 Total-tetradioxins	319.8965	25.57	2423.173	1.049	0.065	0.065	0.66	0.77	NO	16.0
	41 Total-tetradioxins	319.8965	25.32	16742.913	1.049	0.448	0.448	0.81	0.77	NO	118.9
	41 Total-tetradioxins	319.8965	25.03	10425.250	1.049	0.279	0.279	0.80	0.77	NO	65.9
	41 Total-tetradioxins	319.8965	24.82	4494.061	1.049	0.120	0.120	0.74	0.77	NO	30.3
	42 Total-pentadioxins	355.8546	29.59	10590.973	0.998	0.380	0.380	1.38	1.55	NO	22.5
	42 Total-pentadioxins	355.8546	29.13	0.000	0.998	0.000	2.306	1.60	1.55	NO	80.9
	42 Total-pentadioxins	355.8546	32.20	5849.327	0.998	0.210	0.210	1.54	1.55	NO	11.0
	12 12378-PeCDD	355.8546	31.80	30017.456	0.998	1.076	1.076	1.52	1.55	NO	55.3
	42 Total-pentadioxins	355.8546	31.12	5185.052	0.998	0.186	0.186	1.56	1.55	NO	8.4
	42 Total-pentadioxins	355.8546	30.74	21452.142	0.998	0.769	0.769	1.43	1.55	NO	30.5
	42 Total-pentadioxins	355.8546	30.56	16133.088	0.998	0.579	0.579	1.60	1.55	NO	30.4
	42 Total-pentadioxins	355.8546	30.42	27399.067	0.998	0.983	0.983	1.56	1.55	NO	58.5
	42 Total-pentadioxins	355.8546	30.20	19274.349	0.998	0.691	0.691	1.48	1.55	NO	37.8
	15 123789-HxCDD	389.8157	37.02	59404.276	0.932	2.175	2.175	1.28	1.24	NO	174.8
	43 Total-hexadioxins	389.8157	36.78	18115.258	0.940	0.657	0.657	1.27	1.24	NO	52.2
	14 123678-HxCDD	389.8157	36.60	121674.551	0.918	4.362	4.362	1.22	1.24	NO	341.5
	13 123478-HxCDD	389.8157	36.47	29948.036	0.971	1.093	1.093	1.20	1.24	NO	84.8
	43 Total-hexadioxins	389.8157	35.60	31481.388	0.940	1.143	1.143	1.34	1.24	NO	89.6
	43 Total-hexadioxins	389.8157	35.50	315940.657	0.940	11.466	11.466	1.23	1.24	NO	594.6
	43 Total-hexadioxins	389.8157	35.11	45456.103	0.940	1.650	1.650	1.30	1.24	NO	133.9
	43 Total-hexadioxins	389.8157	34.98	0.000	0.940	0.000	0.038	0.77	1.24	YES	4.0
	43 Total-hexadioxins	389.8157	34.30	278048.204	0.940	10.091	10.091	1.28	1.24	NO	810.9
	16 1234678-HpCDD	423.7766	41.34	2158036.625	1.017	89.302	89.302	1.03	1.05	NO	2306.2
	44 Total-heptadioxins	423.7766	40.07	2978032.125	1.017	123.234	123....	1.02	1.05	NO	3442.3
	17 OCDD	457.7377	47.26	12399862....	1.008	731.370	731....	0.88	0.89	NO	15474.4

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TotalTEQ,Furans,Dioxins

	35	Total-tetrafurans	303.9016	24.73	34245.060	0.877	0.706	0.706	0.73	0.77	NO	72.2
	35	Total-tetrafurans	303.9016	24.55	0.000	0.877	0.000	0.049	0.94	0.77	YES	9.3
	35	Total-tetrafurans	303.9016	24.49	0.000	0.877	0.000	0.013	1.94	0.77	YES	4.9
	35	Total-tetrafurans	303.9016	24.30	27508.496	0.877	0.567	0.567	0.70	0.77	NO	80.3
	35	Total-tetrafurans	303.9016	24.17	17814.287	0.877	0.367	0.367	0.74	0.77	NO	57.1
	35	Total-tetrafurans	303.9016	24.06	49538.343	0.877	1.021	1.021	0.77	0.77	NO	154.3
	35	Total-tetrafurans	303.9016	23.90	9934.671	0.877	0.205	0.205	0.83	0.77	NO	32.6
	35	Total-tetrafurans	303.9016	23.81	40431.356	0.877	0.833	0.833	0.77	0.77	NO	125.0
	35	Total-tetrafurans	303.9016	23.72	23499.061	0.877	0.484	0.484	0.86	0.77	NO	60.9
	35	Total-tetrafurans	303.9016	23.58	21727.617	0.877	0.448	0.448	0.72	0.77	NO	57.6
	35	Total-tetrafurans	303.9016	23.54	12050.586	0.877	0.248	0.248	0.80	0.77	NO	40.9
	35	Total-tetrafurans	303.9016	23.40	99317.473	0.877	2.046	2.046	0.71	0.77	NO	296.1
	35	Total-tetrafurans	303.9016	22.84	18004.764	0.877	0.371	0.371	0.79	0.77	NO	61.0
	35	Total-tetrafurans	303.9016	22.58	12342.392	0.877	0.254	0.254	0.78	0.77	NO	42.2
	40	Total-Furans	303.9016	28.17	0.000	1.041	0.000	0.032	0.60	0.77	YES	7.6
	35	Total-tetrafurans	303.9016	27.50	7778.021	0.877	0.160	0.160	0.72	0.77	NO	14.8
	35	Total-tetrafurans	303.9016	26.29	39201.687	0.877	0.808	0.808	0.76	0.77	NO	107.9
	35	Total-tetrafurans	303.9016	26.18	12195.943	0.877	0.251	0.251	0.76	0.77	NO	36.4
	1	2378-TCDF	303.9016	26.06	34369.592	0.877	0.708	0.708	0.76	0.77	NO	103.1
	35	Total-tetrafurans	303.9016	25.87	9226.502	0.877	0.190	0.190	0.69	0.77	NO	29.9
	35	Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.201	0.64	0.77	YES	31.6
	35	Total-tetrafurans	303.9016	25.70	0.000	0.877	0.000	0.046	0.55	0.77	YES	6.1
	35	Total-tetrafurans	303.9016	25.56	10556.459	0.877	0.217	0.217	0.78	0.77	NO	29.2
	35	Total-tetrafurans	303.9016	25.38	15397.117	0.877	0.317	0.317	0.82	0.77	NO	49.2
	35	Total-tetrafurans	303.9016	25.15	31130.685	0.877	0.641	0.641	0.78	0.77	NO	91.9
	35	Total-tetrafurans	303.9016	24.96	63554.605	0.877	1.309	1.309	0.75	0.77	NO	171.8
	35	Total-tetrafurans	303.9016	24.81	19704.183	0.877	0.406	0.406	0.77	0.77	NO	57.8
	37	Total-pentafurans	339.8597	30.51	6177.266	0.911	0.153	0.153	1.61	1.55	NO	26.4
	37	Total-pentafurans	339.8597	30.40	21293.238	0.911	0.527	0.527	1.40	1.55	NO	99.0
	2	12378-PeCDF	339.8597	30.20	17900.026	0.896	0.437	0.437	1.56	1.55	NO	91.0
	37	Total-pentafurans	339.8597	29.84	47706.116	0.911	1.181	1.181	1.59	1.55	NO	187.9
	37	Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.103	1.20	1.55	YES	24.5
	37	Total-pentafurans	339.8597	29.63	0.000	0.911	0.000	0.047	2.18	1.55	YES	15.0
	37	Total-pentafurans	339.8597	29.56	1926.669	0.911	0.048	0.048	1.70	1.55	NO	13.0
	37	Total-pentafurans	339.8597	29.28	1462.982	0.911	0.036	0.036	1.39	1.55	NO	6.3
	37	Total-pentafurans	339.8597	29.15	78062.595	0.911	1.933	1.933	1.50	1.55	NO	338.1
	37	Total-pentafurans	339.8597	29.08	38936.465	0.911	0.964	0.964	1.45	1.55	NO	203.3
	37	Total-pentafurans	339.8597	28.95	20431.261	0.911	0.506	0.506	1.59	1.55	NO	73.2
	37	Total-pentafurans	339.8597	28.85	2980.896	0.911	0.074	0.074	1.44	1.55	NO	15.7
	37	Total-pentafurans	339.8597	32.58	2415.547	0.911	0.060	0.060	1.74	1.55	NO	12.0
	3	23478-PeCDF	339.8597	31.54	20968.070	0.926	0.528	0.528	1.39	1.55	NO	97.4
	37	Total-pentafurans	339.8597	31.38	23622.281	0.911	0.585	0.585	1.52	1.55	NO	106.5
	37	Total-pentafurans	339.8597	31.27	8199.839	0.911	0.203	0.203	1.60	1.55	NO	40.9
	38	Total-hexafurans	373.8208	34.26	0.000	1.032	0.000	0.150	1.04	1.24	YES	21.5
	38	Total-hexafurans	373.8208	34.08	0.000	1.032	0.000	0.015	0.82	1.24	YES	3.7
	38	Total-hexafurans	373.8208	33.71	319750.719	1.032	9.290	9.290	1.16	1.24	NO	1331.6
	38	Total-hexafurans	373.8208	33.50	110267.328	1.032	3.204	3.204	1.22	1.24	NO	491.4
	38	Total-hexafurans	373.8208	37.56	0.000	1.032	0.000	0.046	0.98	1.24	YES	8.1
	7	123789-HxCDF	373.8208	37.42	9717.123	0.987	0.310	0.310	1.09	1.24	NO	34.7

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	5	234678-HxCDF	373.8208	36.33	47424.670	1.037	1.328	1.328	1.14	1.24	NO	122.9
	38	Total-hexafurans	373.8208	35.73	0.000	1.032	0.000	0.035	0.59	1.24	YES	5.9
	6	123678-HxCDF	373.8208	35.37	31846.559	1.035	0.896	0.896	1.16	1.24	NO	140.9
	4	123478-HxCDF	373.8208	35.22	31590.877	1.068	0.899	0.899	1.08	1.24	NO	130.8
	38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.194	1.02	1.24	YES	26.3
	38	Total-hexafurans	373.8208	34.57	308841.875	1.032	8.973	8.973	1.15	1.24	NO	1297.3
	39	Total-heptafurans	407.7818	40.31	722050.219	1.223	25.309	25.309	0.97	1.05	NO	2827.8
	39	Total-heptafurans	407.7818	40.01	8043.166	1.223	0.282	0.282	1.06	1.05	NO	27.4
	8	1234678-HpCDF	407.7818	39.52	414869.531	1.232	13.441	13.441	0.96	1.05	NO	1635.5
	9	1234789-HpCDF	407.7818	42.22	23362.605	1.215	0.000	0.817	0.89	1.05	YES	70.7
	39	Total-heptafurans	407.7818	41.33	1490.340	1.223	0.052	0.052	1.08	1.05	NO	6.8
	10	OCDF	441.7428	47.53	686312.687	1.138	35.883	35.883	0.83	0.89	NO	2187.8
	36	Total-penta1	339.8597	27.78	0.000		0.000	0.010	0.71	1.55	YES	3.3
	36	Total-penta1	339.8597	27.48	336394.703		8.276	8.276	1.53	1.55	NO	2215.3
	41	Total-tetradioxins	319.8965	24.32	7476.984	1.049	0.200	0.200	0.79	0.77	NO	59.8
	41	Total-tetradioxins	319.8965	24.24	7899.719	1.049	0.211	0.211	0.83	0.77	NO	64.5
	41	Total-tetradioxins	319.8965	24.11	20752.574	1.049	0.555	0.555	0.73	0.77	NO	142.1
	41	Total-tetradioxins	319.8965	23.84	25963.357	1.049	0.695	0.695	0.78	0.77	NO	186.6
	45	Total-Dioxins	319.8965	23.54	0.000	0.985	0.000	0.010	0.37	0.77	YES	3.3
	45	Total-Dioxins	319.8965	23.00	0.000	0.985	0.000	0.014	1.06	0.77	YES	6.5
	45	Total-Dioxins	319.8965	22.60	0.000	0.985	0.000	0.012	0.09	0.77	YES	3.6
	45	Total-Dioxins	319.8965	27.59	321.793	0.985	0.009	0.009	0.86	0.77	NO	3.7
	41	Total-tetradioxins	319.8965	27.27	3779.200	1.049	0.101	0.101	0.71	0.77	NO	20.1
	41	Total-tetradioxins	319.8965	26.83	6490.172	1.049	0.174	0.174	0.86	0.77	NO	47.2
	11	2378-TCDD	319.8965	26.69	10255.825	1.049	0.000	0.223	0.55	0.77	YES	60.0
	41	Total-tetradioxins	319.8965	26.32	8335.540	1.049	0.223	0.223	0.88	0.77	NO	47.5
	41	Total-tetradioxins	319.8965	26.03	0.000	1.049	0.000	0.036	1.44	0.77	YES	19.0
	41	Total-tetradioxins	319.8965	25.88	5432.765	1.049	0.145	0.145	0.85	0.77	NO	40.9
	41	Total-tetradioxins	319.8965	25.67	5573.040	1.049	0.149	0.149	0.85	0.77	NO	45.3
	41	Total-tetradioxins	319.8965	25.57	2423.173	1.049	0.065	0.065	0.66	0.77	NO	16.0
	41	Total-tetradioxins	319.8965	25.32	16742.913	1.049	0.448	0.448	0.81	0.77	NO	118.9
	41	Total-tetradioxins	319.8965	25.03	10425.250	1.049	0.279	0.279	0.80	0.77	NO	65.9
	41	Total-tetradioxins	319.8965	24.82	4494.061	1.049	0.120	0.120	0.74	0.77	NO	30.3
	42	Total-pentadioxins	355.8546	29.59	10590.973	0.998	0.380	0.380	1.38	1.55	NO	22.5
	42	Total-pentadioxins	355.8546	29.13	0.000	0.998	0.000	2.306	1.60	1.55	NO	80.9
	42	Total-pentadioxins	355.8546	32.20	5849.327	0.998	0.210	0.210	1.54	1.55	NO	11.0
	12	12378-PeCDD	355.8546	31.80	30017.456	0.998	1.076	1.076	1.52	1.55	NO	55.3
	42	Total-pentadioxins	355.8546	31.12	5185.052	0.998	0.186	0.186	1.56	1.55	NO	8.4
	42	Total-pentadioxins	355.8546	30.74	21452.142	0.998	0.769	0.769	1.43	1.55	NO	30.5
	42	Total-pentadioxins	355.8546	30.56	16133.088	0.998	0.579	0.579	1.60	1.55	NO	30.4
	42	Total-pentadioxins	355.8546	30.42	27399.067	0.998	0.983	0.983	1.56	1.55	NO	58.5
	42	Total-pentadioxins	355.8546	30.20	19274.349	0.998	0.691	0.691	1.48	1.55	NO	37.8
	15	123789-HxCDD	389.8157	37.02	59404.276	0.932	2.175	2.175	1.28	1.24	NO	174.8
	43	Total-hexadioxins	389.8157	36.78	18115.258	0.940	0.657	0.657	1.27	1.24	NO	52.2
	14	123678-HxCDD	389.8157	36.60	121674.551	0.918	4.362	4.362	1.22	1.24	NO	341.5
	13	123478-HxCDD	389.8157	36.47	29948.036	0.971	1.093	1.093	1.20	1.24	NO	84.8
	43	Total-hexadioxins	389.8157	35.60	31481.388	0.940	1.143	1.143	1.34	1.24	NO	89.6
	43	Total-hexadioxins	389.8157	35.50	315940.657	0.940	11.466	11.466	1.23	1.24	NO	594.6
	43	Total-hexadioxins	389.8157	35.11	45456.103	0.940	1.650	1.650	1.30	1.24	NO	133.9

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TotalTEQ,Furans,Dioxins

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	43	Total-hexadioxins	389.8157	34.98	0.000	0.940	0.000	0.038	0.77	1.24	YES	4.0
	43	Total-hexadioxins	389.8157	34.30	278048.204	0.940	10.091	10.091	1.28	1.24	NO	810.9
	16	1234678-HpCDD	423.7766	41.34	2158036.625	1.017	89.302	89.302	1.03	1.05	NO	2306.2
	44	Total-heptadioxins	423.7766	40.07	2978032.125	1.017	123.234	123....	1.02	1.05	NO	3442.3
	17	OCDD	457.7377	47.26	12399862....	1.008	731.370	731....	0.88	0.89	NO	15474.4

PFK1

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	48	FUNCTION1 PFK	330.9792	24.66	0.000							4.4
	48	FUNCTION1 PFK	330.9792	23.10	0.000							14.6
	48	FUNCTION1 PFK	330.9792	22.16	0.000							65.4
	48	FUNCTION1 PFK	330.9792	21.76	0.000							55.4
	48	FUNCTION1 PFK	330.9792	21.42	0.000							49.7
	48	FUNCTION1 PFK	330.9792	21.24	0.000							44.8

PFK2

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	49	FUNCTION2 PFK	366.9792	30.58	0.000		0.000					7.9
	49	FUNCTION2 PFK	366.9792	29.64	0.000		0.000					5.3
	49	FUNCTION2 PFK	366.9792	28.97	0.000		0.000					40.3
	49	FUNCTION2 PFK	366.9792	28.38	0.000		0.000					40.0
	49	FUNCTION2 PFK	366.9792	32.74	0.000		0.000					4.5
	49	FUNCTION2 PFK	366.9792	32.48	0.000		0.000					8.2
	49	FUNCTION2 PFK	366.9792	32.43	0.000		0.000					8.2
	49	FUNCTION2 PFK	366.9792	32.11	0.000		0.000					7.1

PFK3

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	37.64	0.000		0.000					14.6
	50	FUNCTION3 PFK	380.9760	37.24	0.000		0.000					23.2
	50	FUNCTION3 PFK	380.9760	34.07	0.000		0.000					9.1
	50	FUNCTION3 PFK	380.9760	33.69	0.000		0.000					17.6
	50	FUNCTION3 PFK	380.9760	33.22	0.000		0.000					11.5

PFK4

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	51	FUNCTION4 PFK	430.9728	42.88	0.000							0.6
	51	FUNCTION4 PFK	430.9728	40.91	0.000							1.3
	51	FUNCTION4 PFK	430.9728	39.77	0.000							0.9

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PFK5

[redacted]	#	Name	Trace	RT	Abs Resp	RPF M...	[redacted] pg	EMPC	1° Ratio	1° Ran...	1° Fl...	S/N
[redacted]	52	FUNCTION5 PFK	480.9696	45.08	0.000							2.3
[redacted]	52	FUNCTION5 PFK	480.9696	48.24	0.000							1.3
[redacted]	52	FUNCTION5 PFK	480.9696	48.08	0.000							1.0
[redacted]	52	FUNCTION5 PFK	480.9696	48.01	0.000							2.1
[redacted]	52	FUNCTION5 PFK	480.9696	47.97	0.000							2.7
[redacted]	52	FUNCTION5 PFK	480.9696	47.94	0.000							2.2
[redacted]	52	FUNCTION5 PFK	480.9696	47.85	0.000							2.3
[redacted]	52	FUNCTION5 PFK	480.9696	47.66	0.000							1.8
[redacted]	52	FUNCTION5 PFK	480.9696	47.61	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	47.22	0.000							1.5
[redacted]	52	FUNCTION5 PFK	480.9696	46.89	0.000							2.3
[redacted]	52	FUNCTION5 PFK	480.9696	46.63	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	46.20	0.000							1.7
[redacted]	52	FUNCTION5 PFK	480.9696	45.95	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	45.90	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	45.74	0.000							2.9
[redacted]	52	FUNCTION5 PFK	480.9696	45.49	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	48.93	0.000							1.7
[redacted]	52	FUNCTION5 PFK	480.9696	48.79	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	48.69	0.000							1.4

ETHERS1

[redacted]	#	Name	Trace	RT	Abs Resp	RPF M...	[redacted] pg	EMPC	1° Ratio	1° Ran...	1° Fl...	S/N
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.85	0.000		0.000					4.8
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.60	0.000		0.000					1.2
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.32	0.000		0.000					1.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.24	0.000		0.000					1.8
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.11	0.000		0.000					7.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.03	0.000		0.000					2.7
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.54	0.000		0.000					5.5
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.35	0.000		0.000					4.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.09	0.000		0.000					1.4
[redacted]	53	FUNCTION1 HXCD...	375.8364	23.91	0.000		0.000					75.1
[redacted]	53	FUNCTION1 HXCD...	375.8364	22.52	0.000		0.000					3.8
[redacted]	53	FUNCTION1 HXCD...	375.8364	21.78	0.000		0.000					1.2
[redacted]	53	FUNCTION1 HXCD...	375.8364	28.14	0.000		0.000					2.4
[redacted]	53	FUNCTION1 HXCD...	375.8364	28.07	0.000		0.000					1.9
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.57	0.000		0.000					1.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.51	0.000		0.000					2.4
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.47	0.000		0.000					2.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.39	0.000		0.000					1.7
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.12	0.000		0.000					4.0

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

ETHERS2

	54	FUNCTION1 HPCD...	409.7974	23.64	0.000	0.000					3.9
	54	FUNCTION1 HPCD...	409.7974	23.51	0.000	0.000					1.1
	54	FUNCTION1 HPCD...	409.7974	22.67	0.000	0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	22.42	0.000	0.000					28.5
	54	FUNCTION1 HPCD...	409.7974	21.58	0.000	0.000					2.8
	54	FUNCTION1 HPCD...	409.7974	21.46	0.000	0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	21.39	0.000	0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	21.22	0.000	0.000					1.0
	54	FUNCTION1 HPCD...	409.7974	26.23	0.000	0.000					1.8
	54	FUNCTION1 HPCD...	409.7974	25.87	0.000	0.000					1.9
	54	FUNCTION1 HPCD...	409.7974	25.45	0.000	0.000					2.7
	54	FUNCTION1 HPCD...	409.7974	24.79	0.000	0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	24.36	0.000	0.000					1.2
	54	FUNCTION1 HPCD...	409.7974	24.18	0.000	0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	23.93	0.000	0.000					3.0
	54	FUNCTION1 HPCD...	409.7974	23.90	0.000	0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	23.76	0.000	0.000					1.9
	54	FUNCTION1 HPCD...	409.7974	23.70	0.000	0.000					4.7

ETHERS3

	55	FUNCTION2 HPCD...	409.7974	30.17	0.000	0.000					3.2
	55	FUNCTION2 HPCD...	409.7974	29.85	0.000	0.000					3.2
	55	FUNCTION2 HPCD...	409.7974	29.82	0.000	0.000					2.1
	55	FUNCTION2 HPCD...	409.7974	29.64	0.000	0.000					1.8
	55	FUNCTION2 HPCD...	409.7974	29.25	0.000	0.000					1.1
	55	FUNCTION2 HPCD...	409.7974	31.87	0.000	0.000					2.2
	55	FUNCTION2 HPCD...	409.7974	30.94	0.000	0.000					3.1

ETHERS4

	56	FUNCTION3 OCDPE	445.7555	34.54	0.000	0.000					4.9

ETHERS5

	57	FUNCTION4 NCDPE	479.7165	39.10	0.000	0.000					365.6

ETHERS6

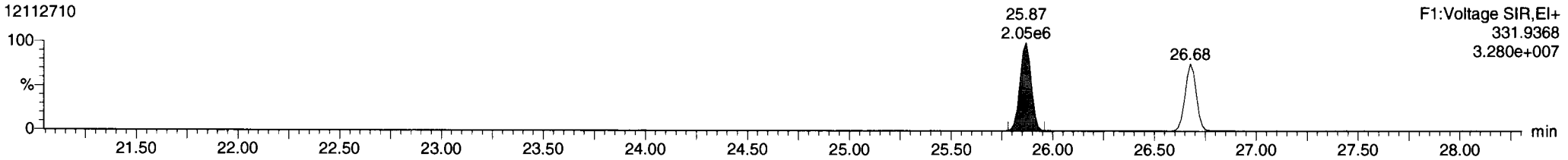
	58	FUNCTION5 DCDPE	513.6775	46.26	0.000	0.000					5.1

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

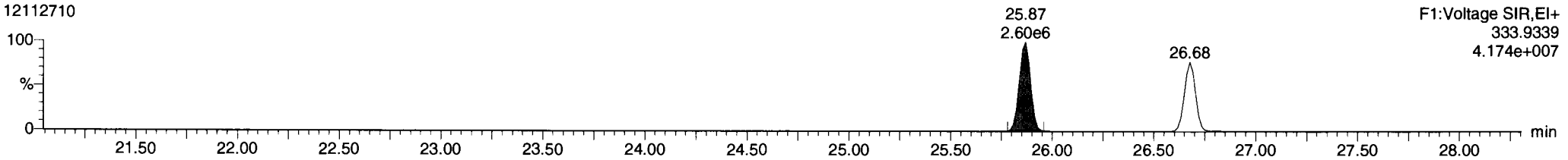
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

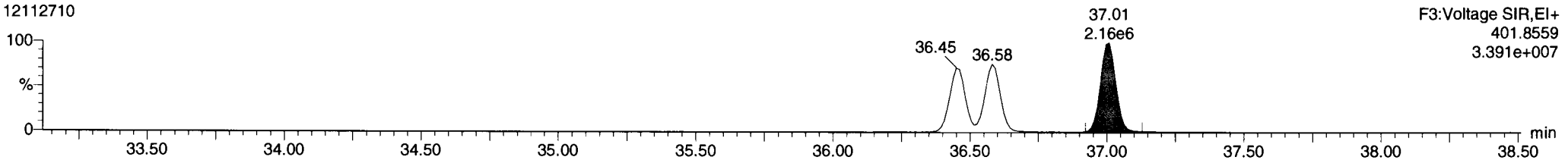
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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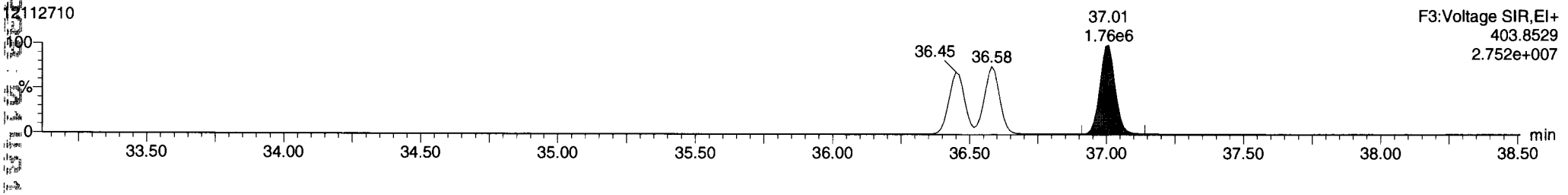
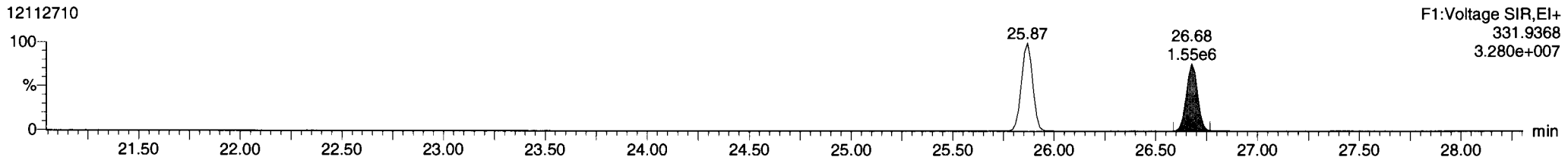


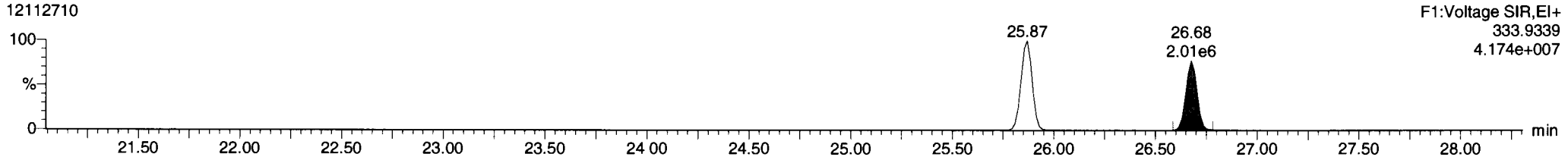
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

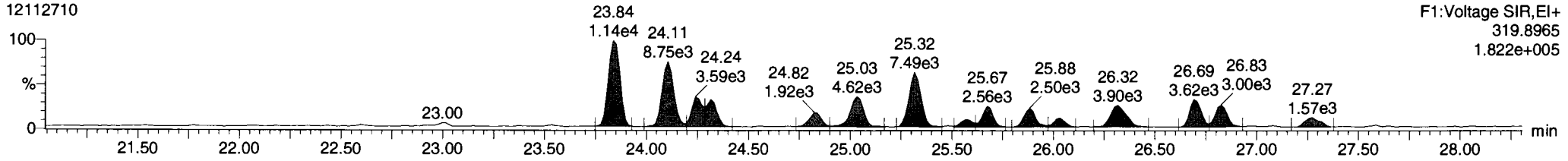
13C-2378-TCDD



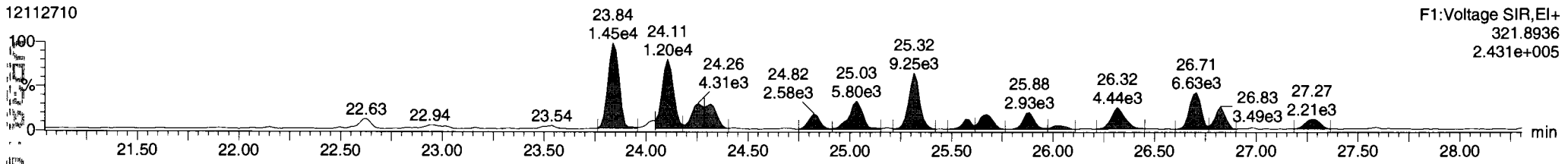
13C-2378-TCDD



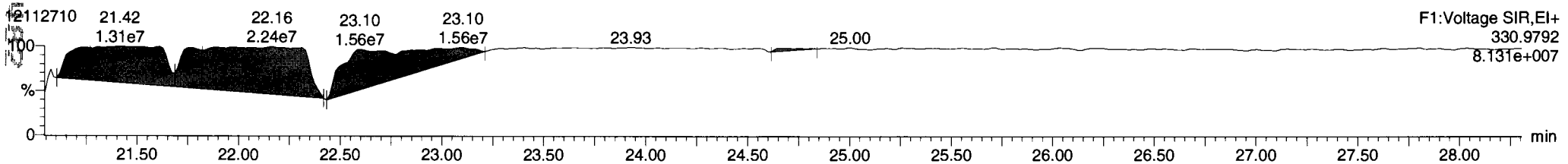
Total-tetradioxins



Total-tetradioxins



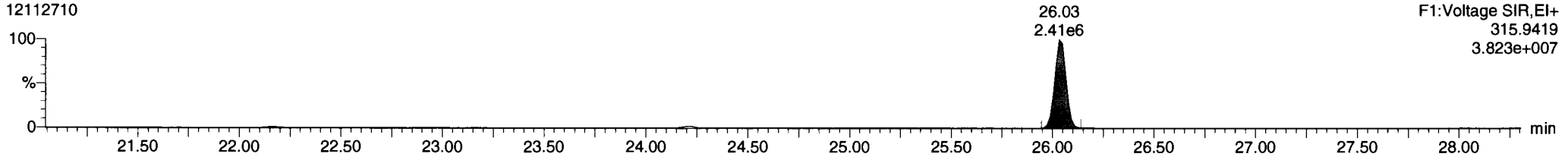
FUNCTION1 PFK



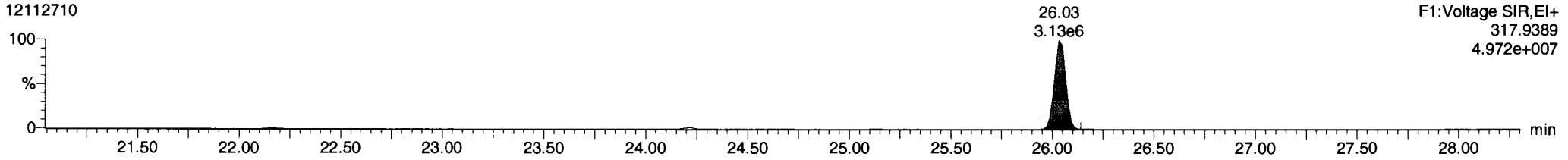
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

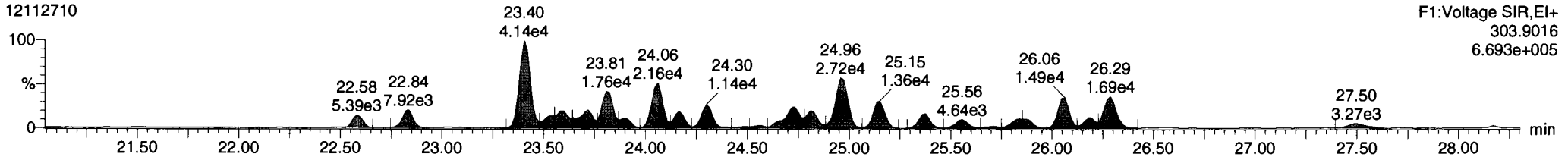
13C-2378-TCDF



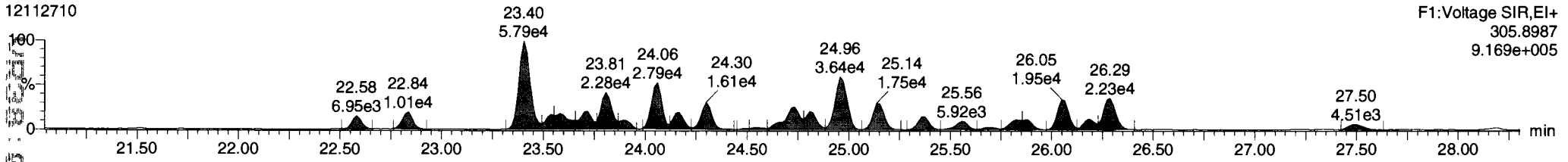
13C-2378-TCDF



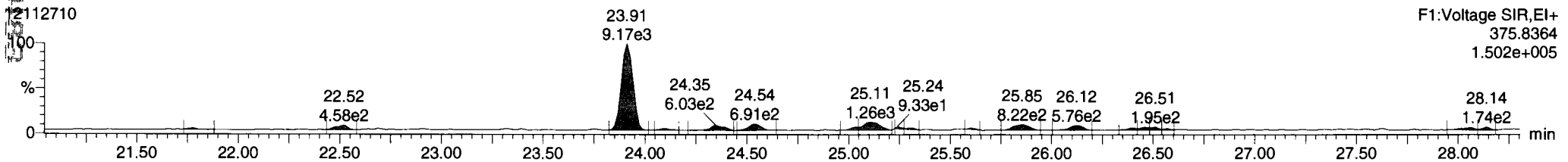
Total-tetrafurans



Total-tetrafurans



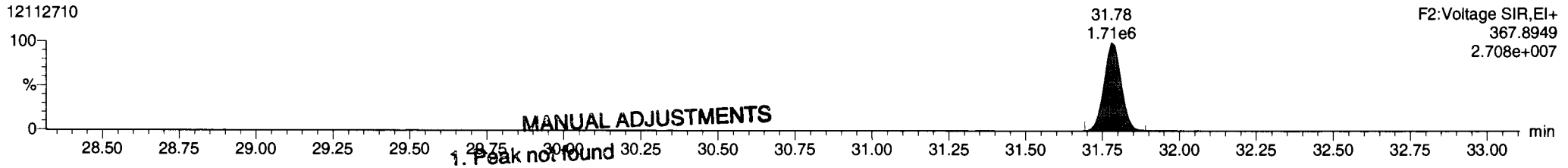
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

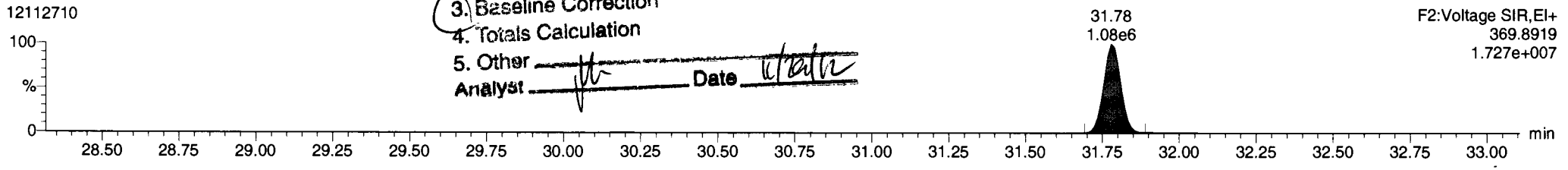
Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

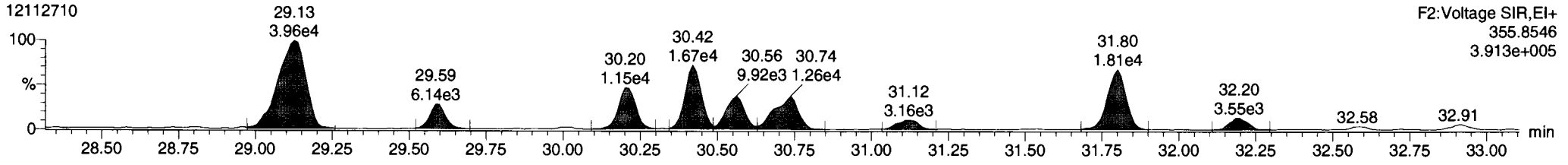


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 11/28/12

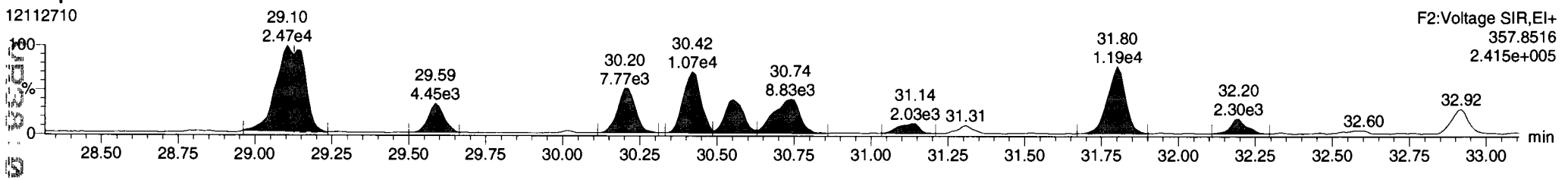
13C-12378-PeCDD



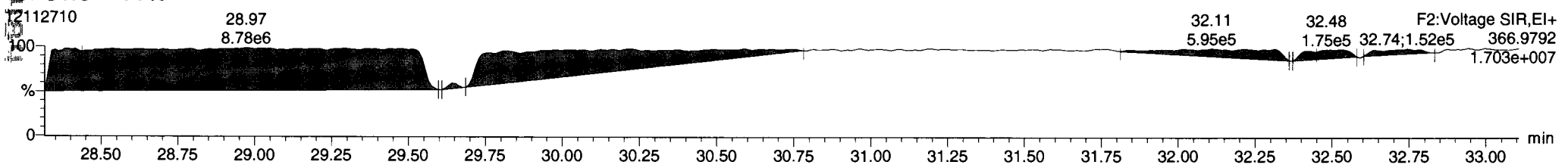
Total-pentadioxins



Total-pentadioxins



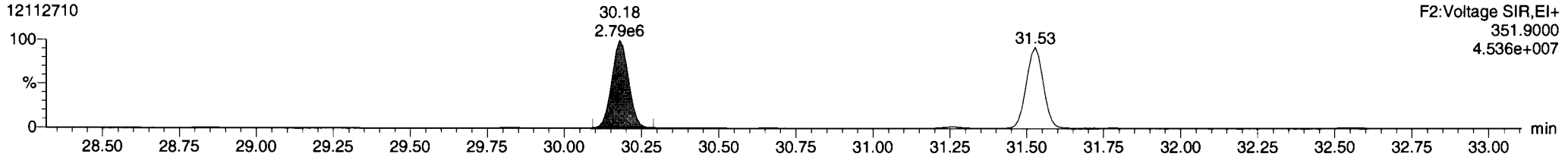
FUNCTION2 PFK



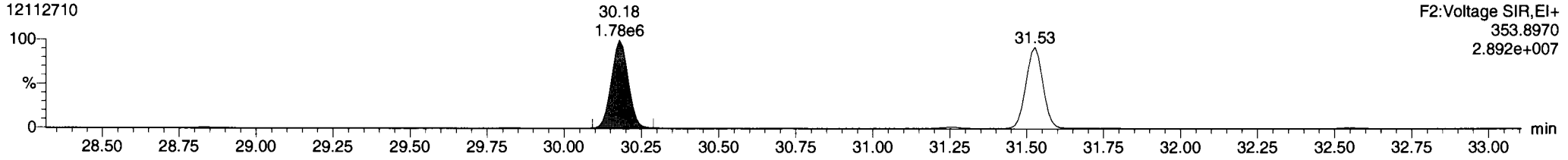
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

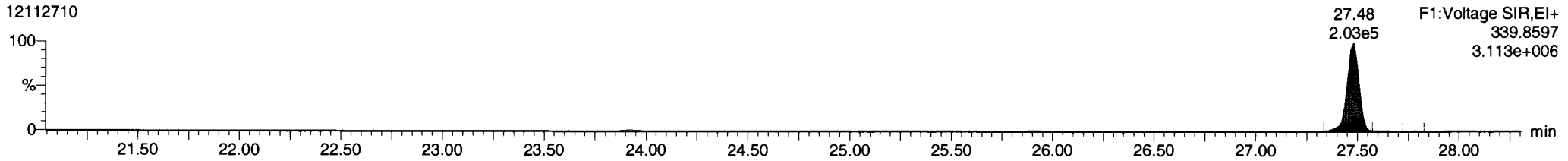
13C-12378-PeCDF



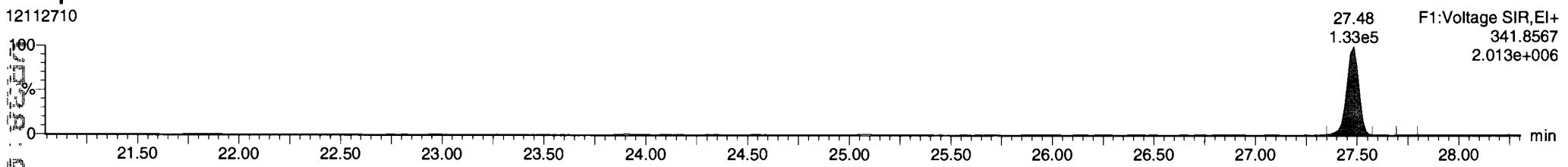
13C-12378-PeCDF



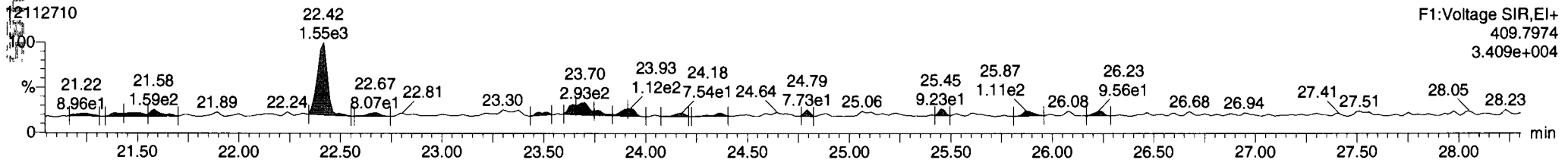
Total-penta1



Total-penta1



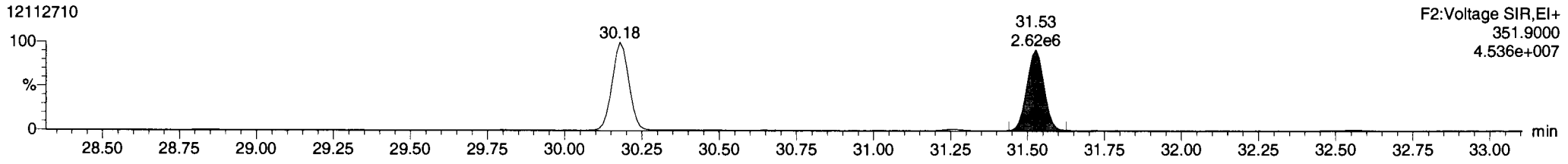
FUNCTION1 HPCDPE



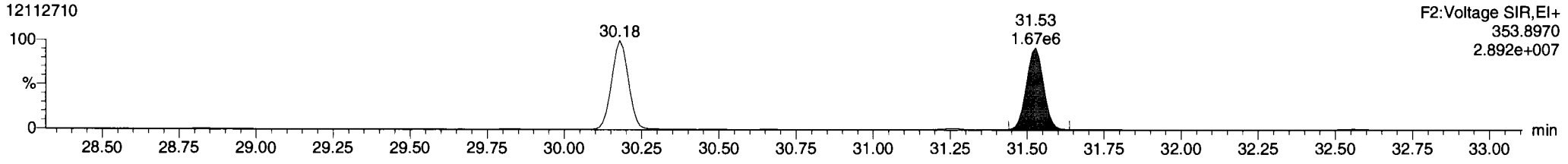
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

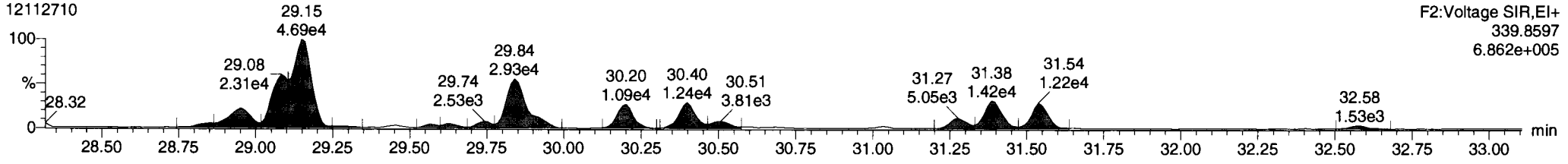
13C-23478-PeCDF



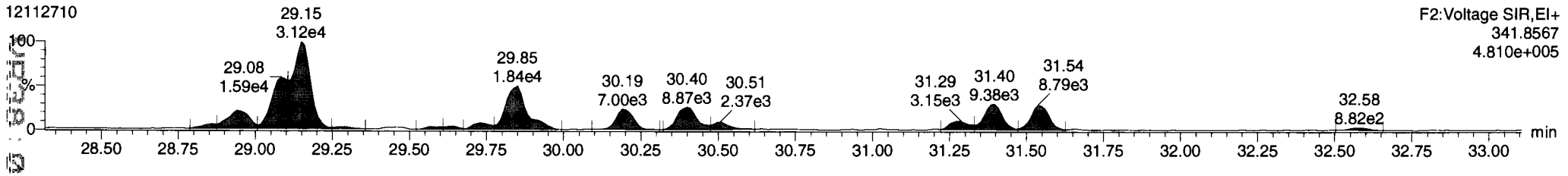
13C-23478-PeCDF



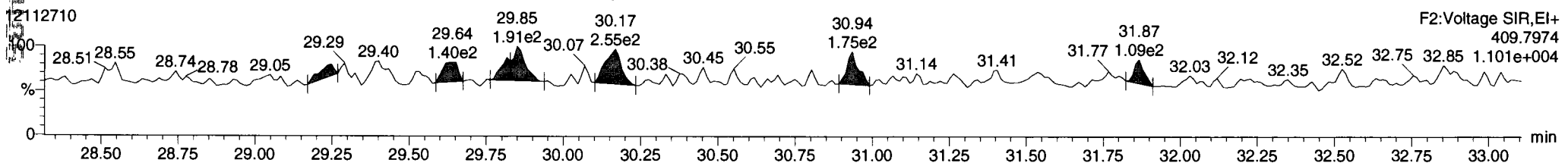
Total-pentafurans



Total-pentafurans



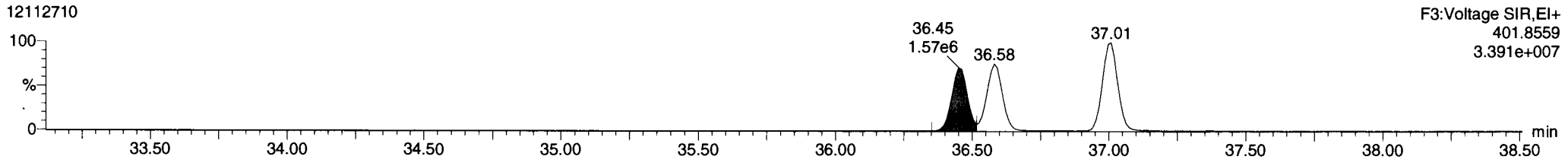
FUNCTION2 HPCDPE



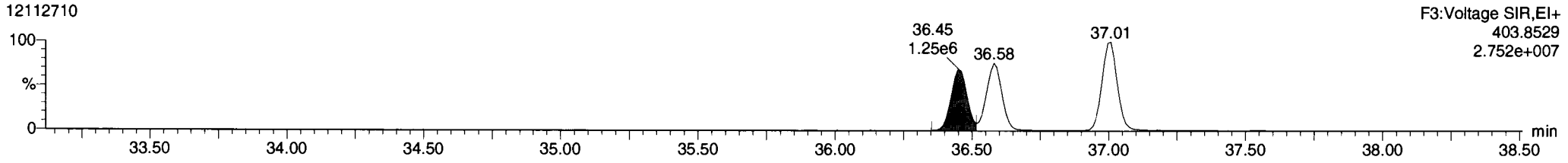
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

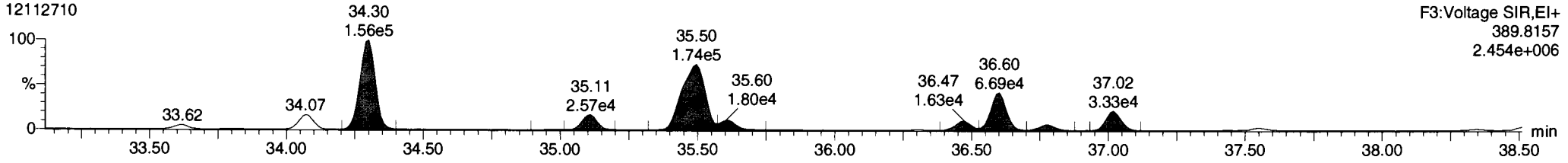
13C-123478-HxCDD



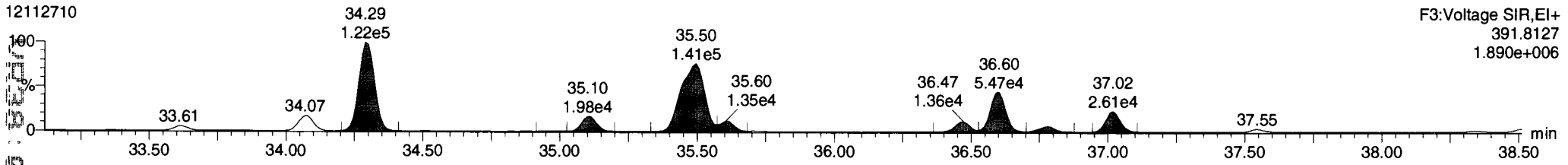
13C-123478-HxCDD



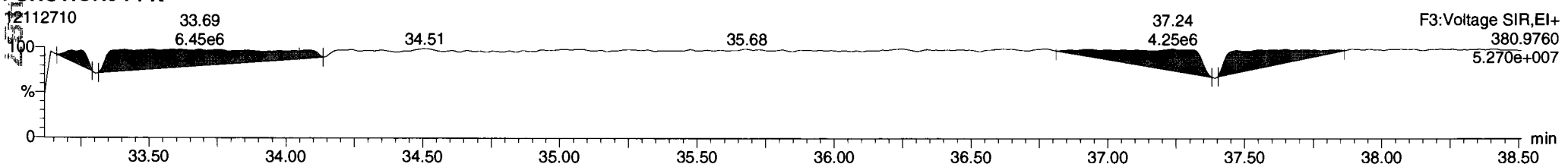
Total-hexadioxins



Total-hexadioxins



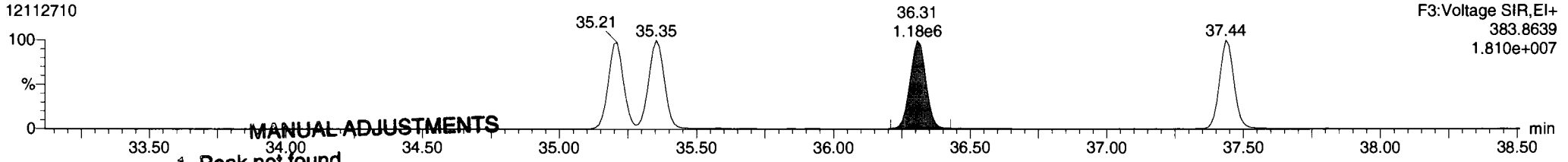
FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:53:46 Pacific Standard Time

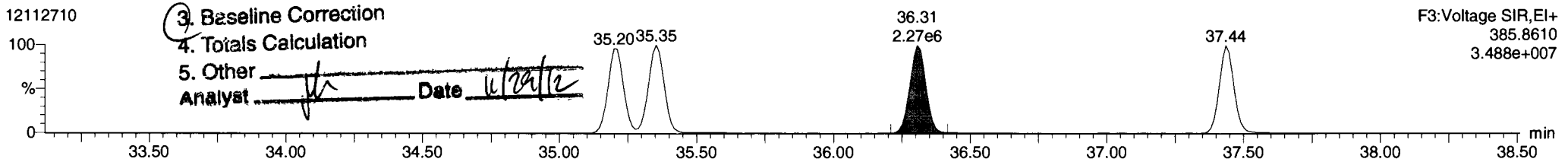
Name: 12112710, Date: 27-Nov-2012, Time: 18:32:46, ID: VR38D, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 11/29/12

13C-234678-HxCDF



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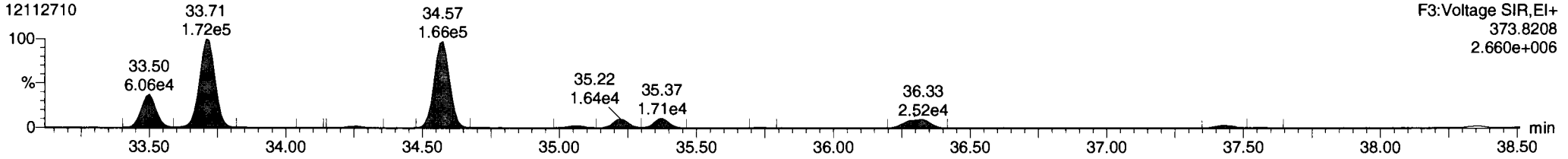

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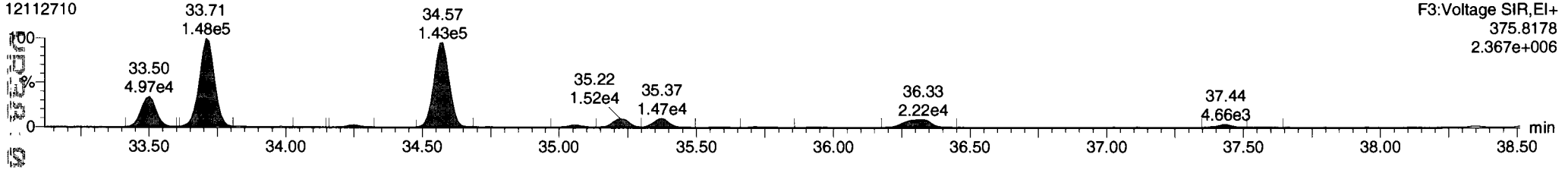

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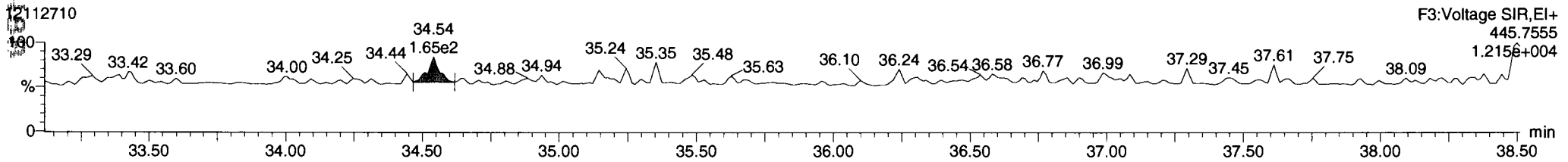

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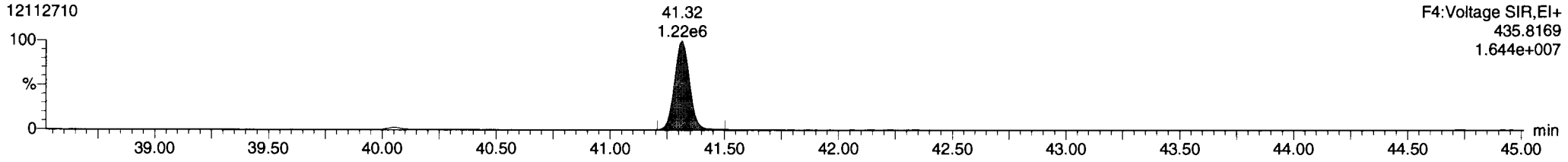
13C-1234678-HpCDD



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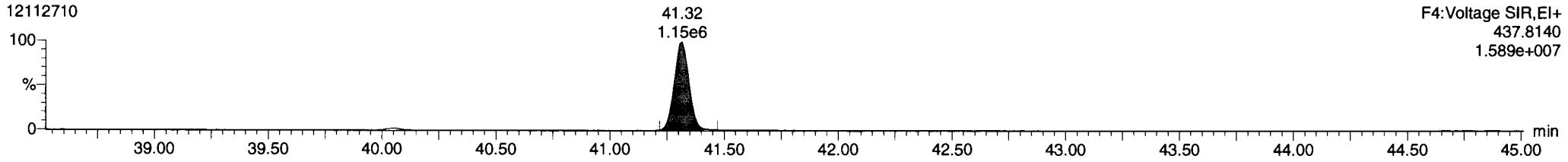

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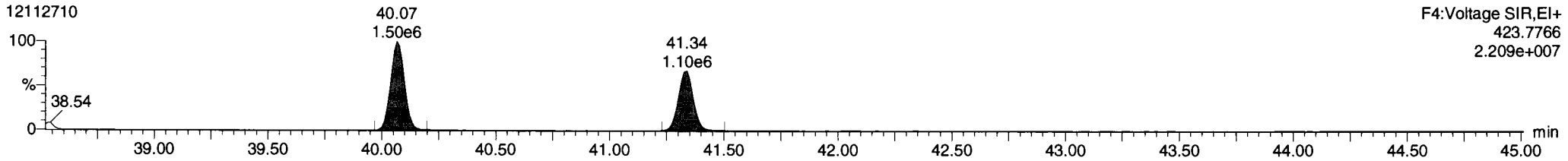

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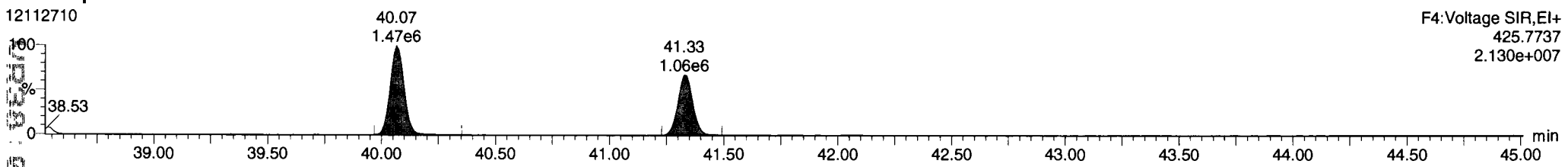

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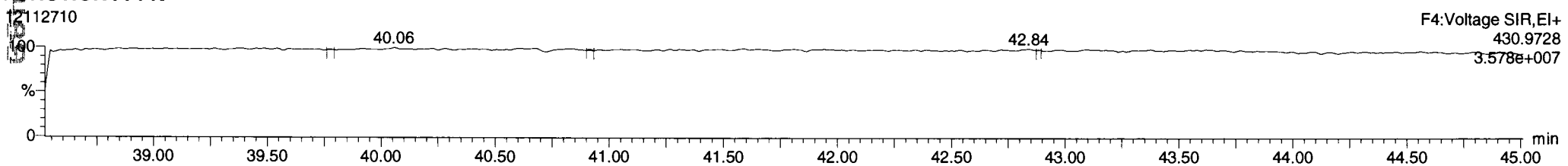

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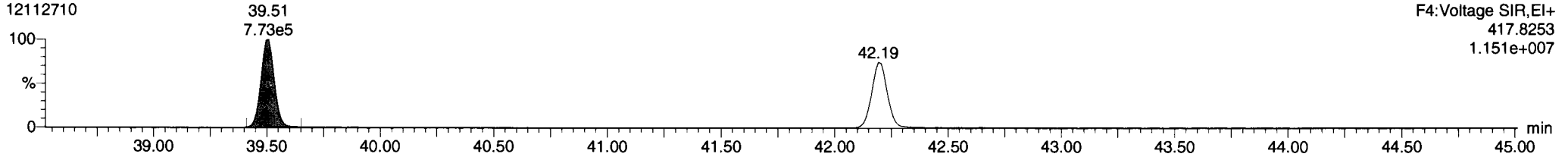

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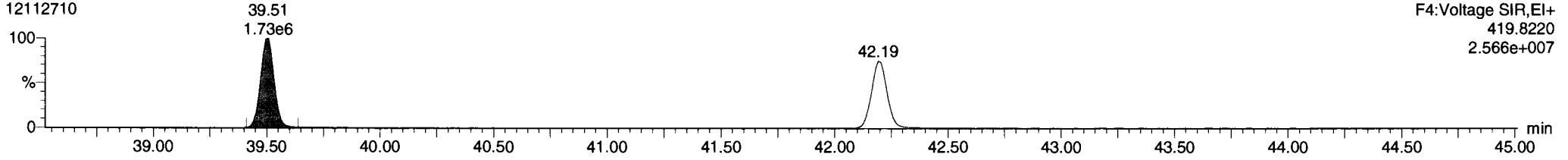

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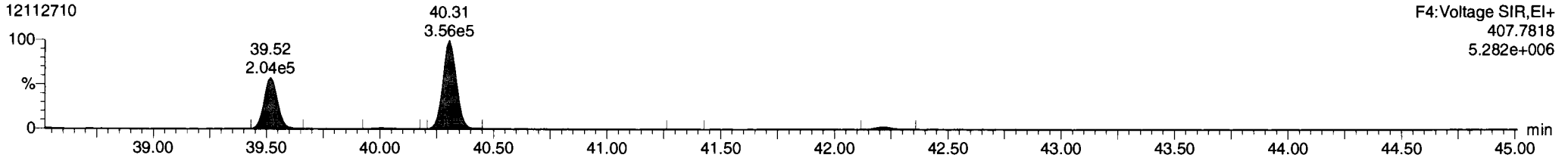

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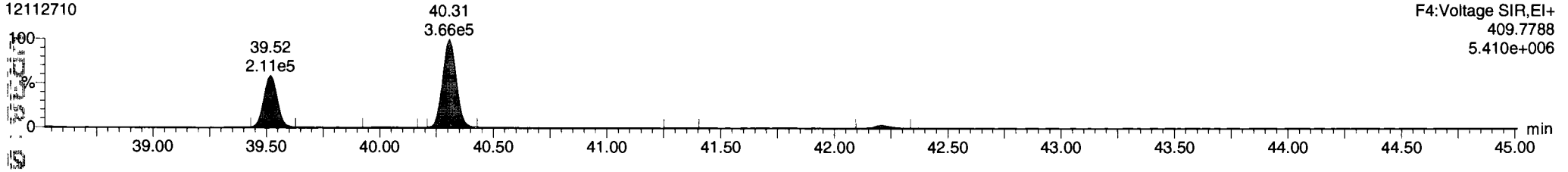

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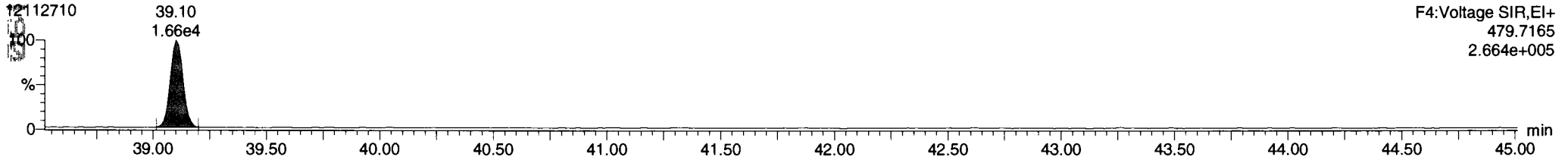

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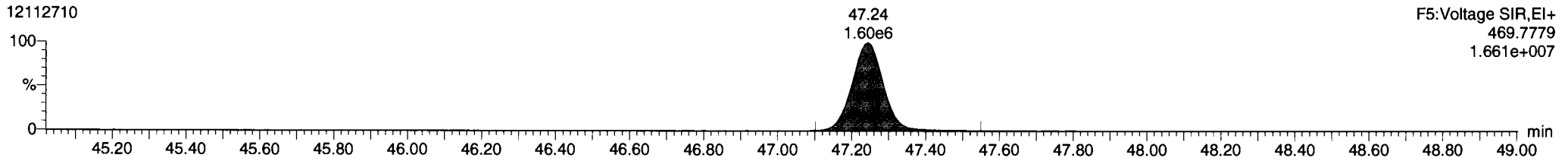
13C-OCDD



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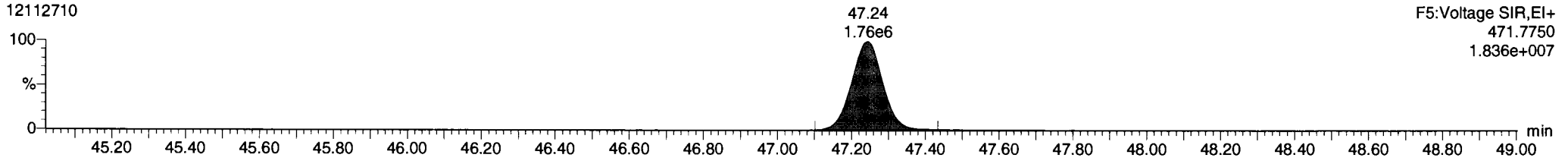

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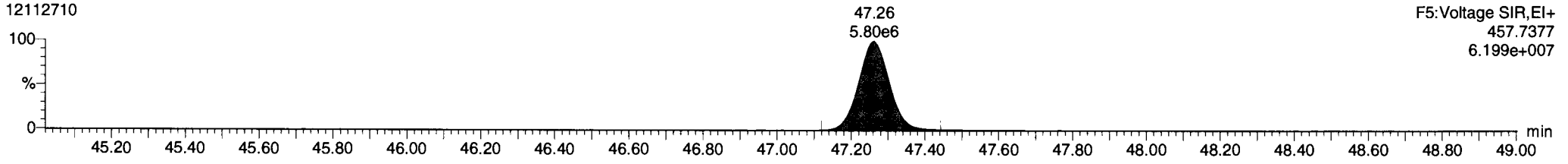

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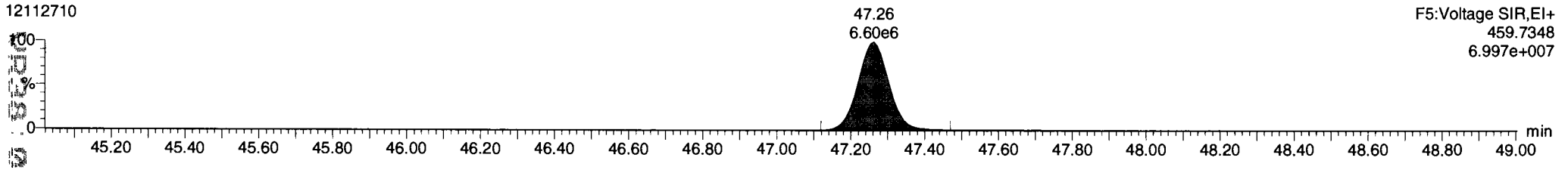

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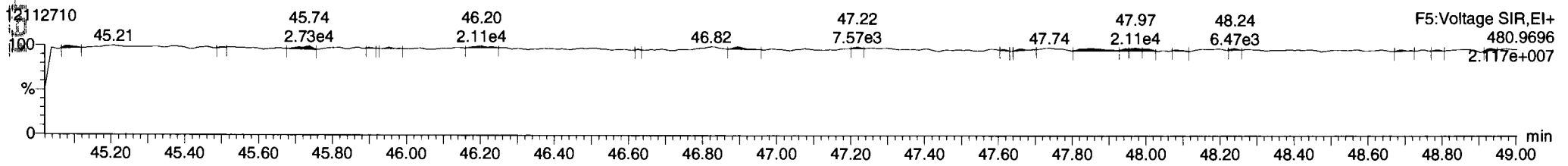

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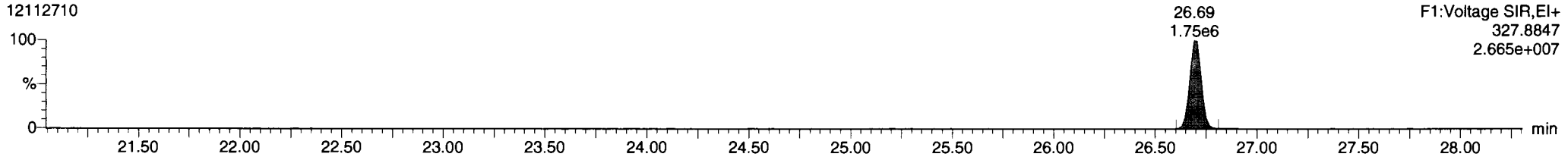
37CL-2378-TCDD



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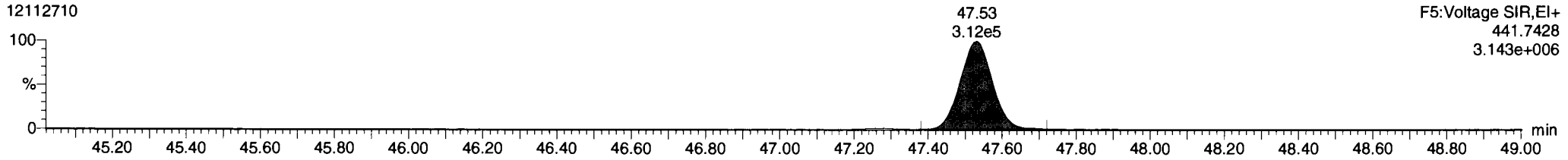

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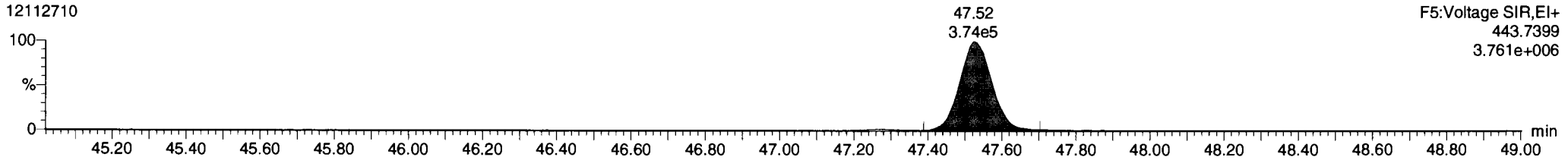
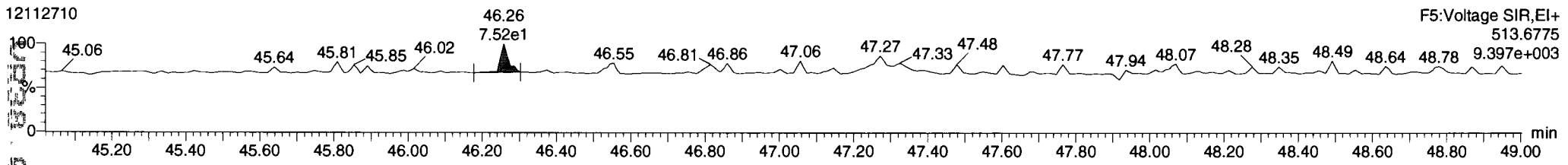


FUNCTION5 DCDPE



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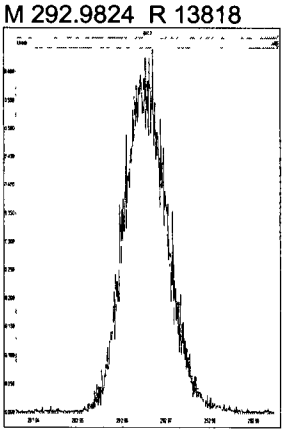

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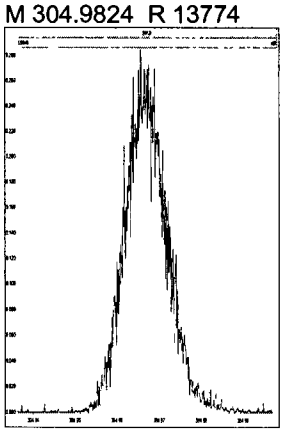
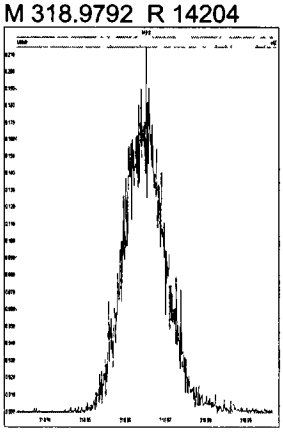
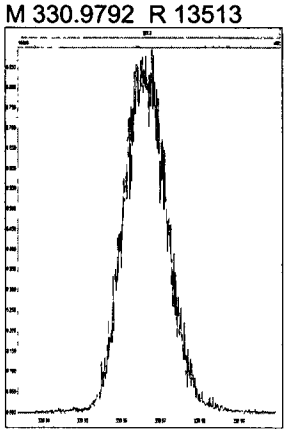


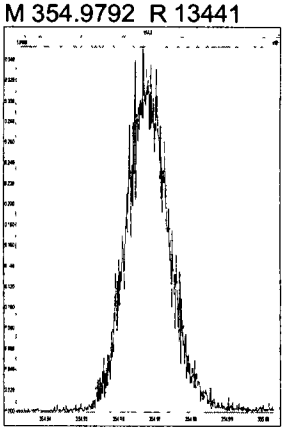
M 318.9792 R 14204



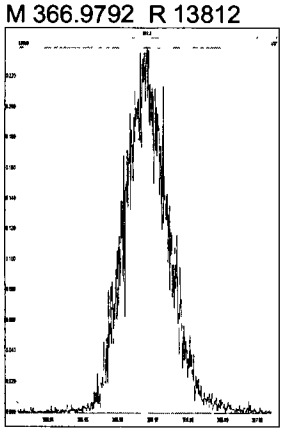
M 330.9792 R 13513



M 354.9792 R 13441



M 366.9792 R 13812



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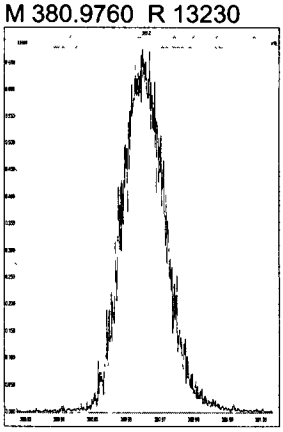

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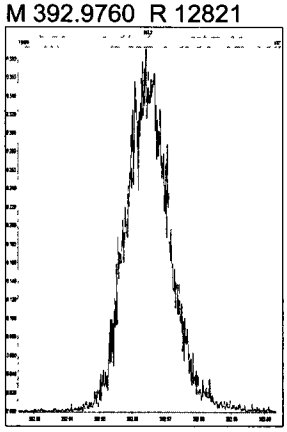

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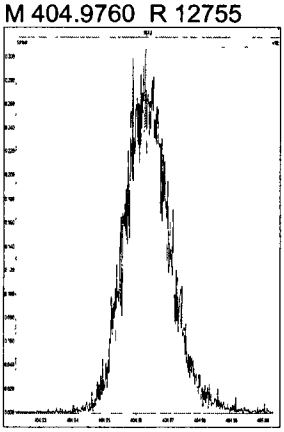

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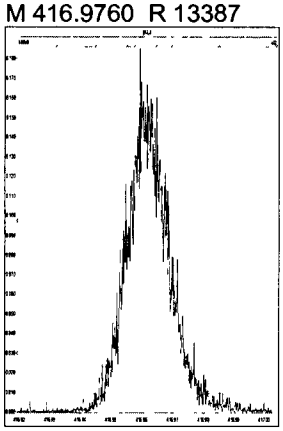

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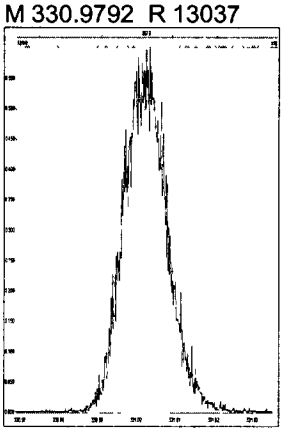

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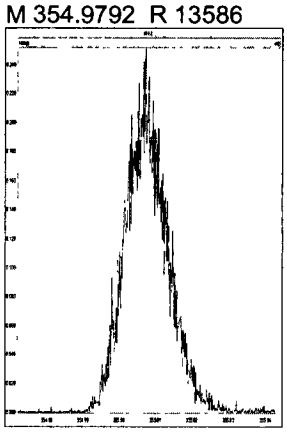

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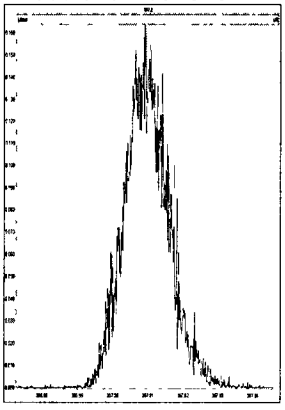

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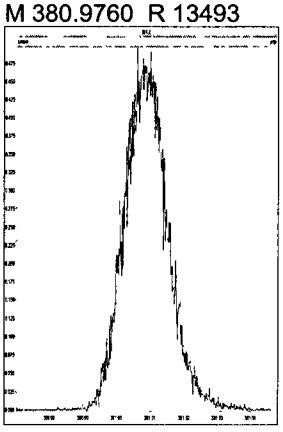
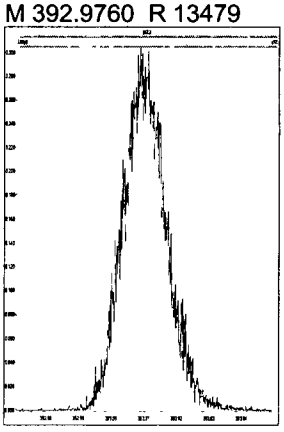


M 392.9760 R 13479



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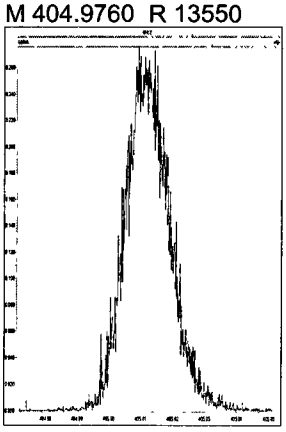

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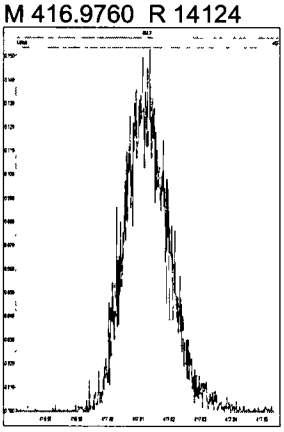

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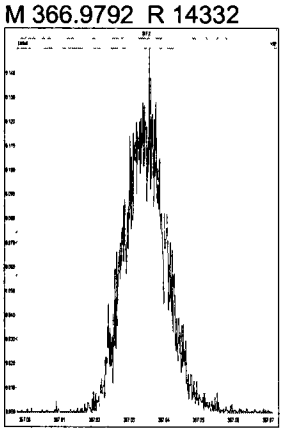

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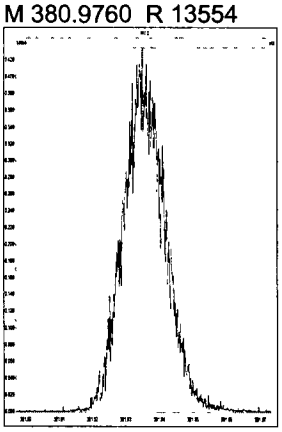

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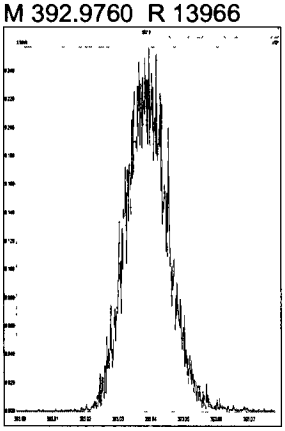

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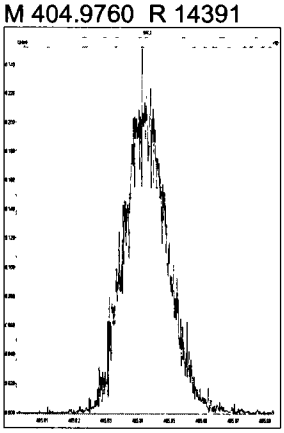

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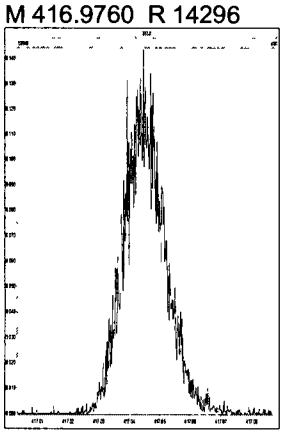

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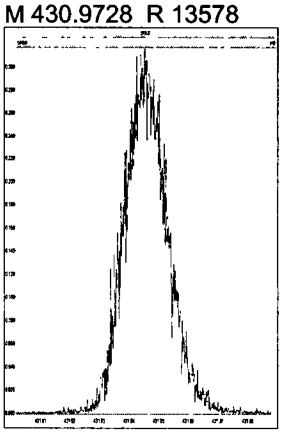

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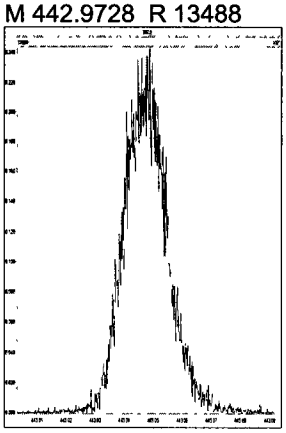

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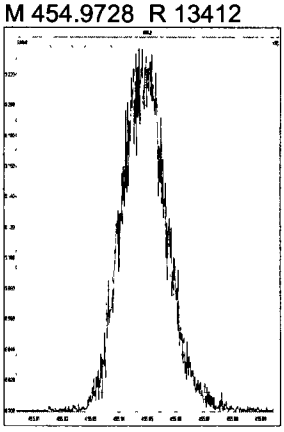
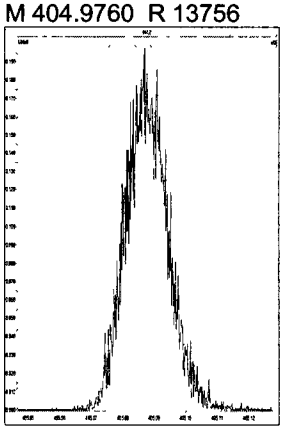


M 404.9760 R 13756



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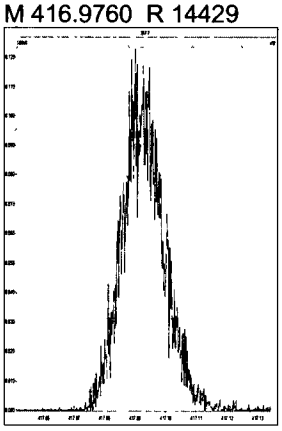
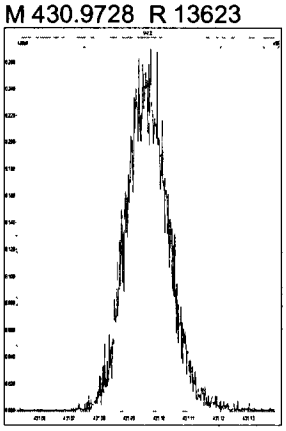
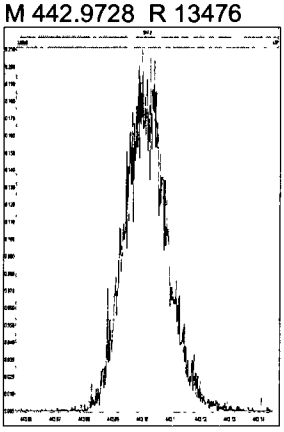


M 430.9728 R 13623



M 442.9728 R 13476



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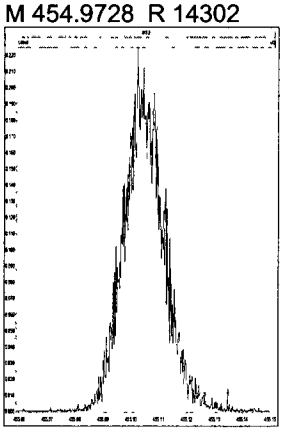
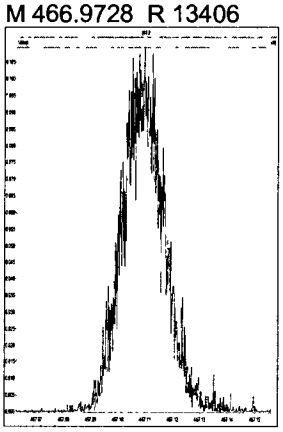
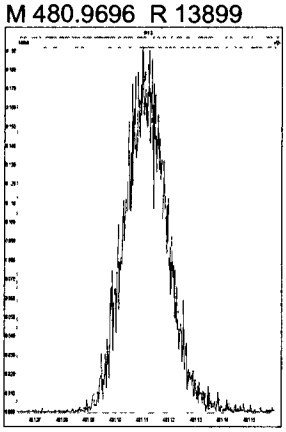


M 466.9728 R 13406



M 480.9696 R 13899



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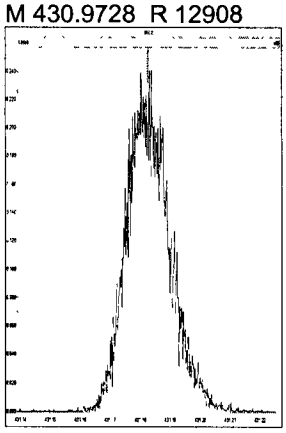
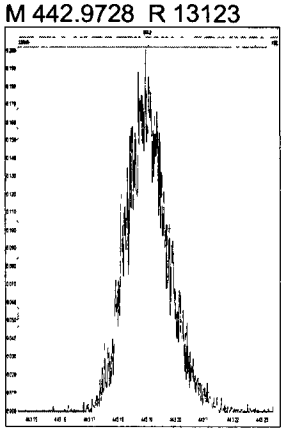
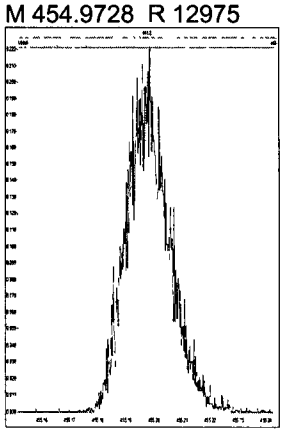
M 430.9728 R 12908



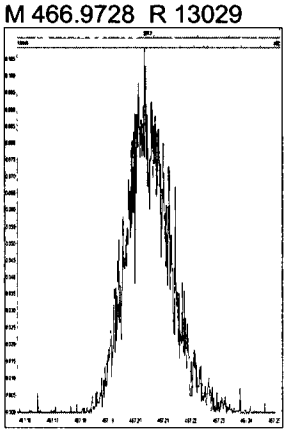
M 442.9728 R 13123



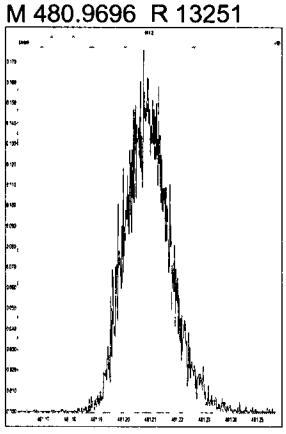
M 454.9728 R 12975



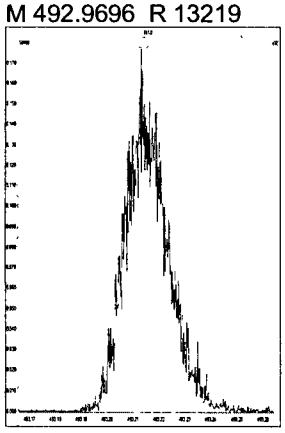
M 466.9728 R 13029



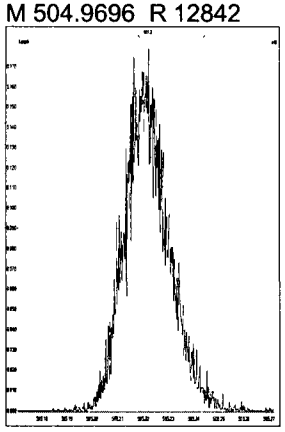
M 480.9696 R 13251



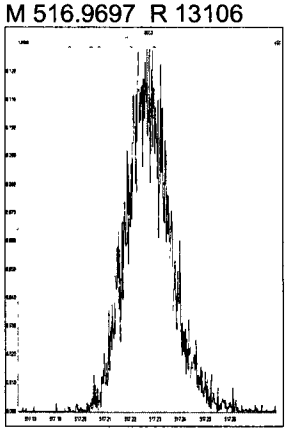
M 492.9696 R 13219



M 504.9696 R 12842



M 516.9697 R 13106



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:43:48 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112711, Date: 27-Nov-2012, Time: 19:25:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Noise	S/N	Area	Total Area	Int	Ideal	Ratio	Ratio Ref	Ratio Flag	S/N	EMPC	Conc
1	2378-TCDF	26.049	1.001	235845	323561		559406	bb	0.877	0.729	0.770	NO	2044.1	9.779	9.779
2	12378-PeCDF	30.190	1.000	1410411	934806		2345217	bb	0.896	1.509	1.550	NO	5782.0	50.618	50.618
3	23478-PeCDF	31.538	1.000	1411241	931300		2342541	bb	0.926	1.515	1.550	NO	5767.7	50.197	50.197
4	123478-HxCDF	35.211	1.000	1160493	986256		2146749	bd	1.068	1.177	1.240	NO	3547.1	49.497	49.497
5	234678-HxCDF	36.307	1.000	1166839	972417		2139256	bb	1.037	1.200	1.240	NO	3649.6	50.137	50.137
6	123678-HxCDF	35.364	1.001	1206933	1012086		2219020	db	1.035	1.192	1.240	NO	3670.6	50.802	50.802
7	123789-HxCDF	37.447	1.000	987534	829933		1817467	bb	0.987	1.190	1.240	NO	3010.6	50.105	50.105
8	1234678-HpCDF	39.508	1.000	998768	1028725		2027494	bb	1.232	0.971	1.050	NO	4863.9	48.471	48.471
9	1234789-HpCDF	42.204	1.000	787631	802079		1589710	bb	1.215	0.982	1.050	NO	3313.1	49.839	49.839
10	OCDF	47.512	1.006	1233522	1426717		2660239	bb	1.138	0.865	0.890	NO	3839.2	98.811	98.811
11	2378-TCDD	26.691	1.001	184964	243556		428520	bd	1.049	0.759	0.770	NO	1710.9	9.798	9.798
12	12378-PeCDD	31.802	1.001	997206	639502		1636708	bb	0.998	1.559	1.550	NO	4177.0	49.845	49.845
13	123478-HxCDD	36.450	1.001	904400	727474		1631875	bd	0.971	1.243	1.240	NO	4980.9	50.594	50.594
14	123678-HxCDD	36.581	1.001	869669	695870		1565539	db	0.918	1.250	1.240	NO	4757.9	49.664	49.664
15	123789-HxCDD	36.998	1.012	857449	695236		1552684	bb	0.932	1.233	1.240	NO	4630.9	49.301	49.301
16	1234678-HpCDD	41.328	1.000	711932	693007		1404939	bb	1.017	1.027	1.050	NO	2969.0	49.811	49.811
17	OCDD	47.243	1.000	1104080	1231303		2335383	bb	1.008	0.897	0.890	NO	5378.3	97.859	97.859
18	13C-2378-TCDF	26.034	1.006	2868234	3657305		6525539	bb	1.473	0.784	0.770	NO	13740.9		102.234
19	13C-12378-PeCDF	30.179	1.167	3153783	2016114		5169897	bb	1.148	1.564	1.550	NO	11114.8		103.909
20	13C-23478-PeCDF	31.528	1.219	3071441	1967454		5038895	bb	1.113	1.561	1.550	NO	10560.5		104.475
21	13C-123478-HxCDF	35.200	0.952	1379339	2680889		4060228	bd	1.209	0.515	0.510	NO	5105.1		100.765
22	13C-123678-HxCDF	35.342	0.956	1440784	2781188		4221973	db	1.269	0.518	0.510	NO	5367.5		99.853
23	13C-234678-HxCDF	36.296	0.981	1419848	2695796		4115644	bb	1.236	0.527	0.510	NO	5174.7		99.924
24	13C-123789-HxCDF	37.436	1.012	1256569	2419868		3676437	bb	1.107	0.519	0.510	NO	4633.1		99.672
25	13C-1234678-HpCDF	39.497	1.068	1045571	2349909		3395481	bb	1.051	0.445	0.440	NO	7475.3		96.923
26	13C-1234789-HpCDF	42.194	1.141	806882	1818299		2625180	bb	0.815	0.444	0.440	NO	4986.5		96.681
27	13C-1234-TCDD	25.869	0.000	1906372	2428105		4334476	bb	1.000	0.785	0.770	NO	8961.1		100.000
28	13C-2378-TCDD	26.676	1.031	1823803	2344659		4168462	bb	0.946	0.778	0.770	NO	8531.8		101.689
29	13C-12378-PeCDD	31.780	1.229	2016068	1273991		3290059	bb	0.721	1.582	1.550	NO	16023.1		105.324
30	13C-123478-HxCDD	36.428	0.985	1848882	1473546		3322428	bd	0.991	1.255	1.240	NO	8271.6		100.607
31	13C-123678-HxCDD	36.559	0.988	1901017	1532373		3433390	db	1.025	1.241	1.240	NO	8303.2		100.535
32	13C-1234678-HpCDD	41.306	1.117	1417800	1355887		2773687	bb	0.866	1.046	1.050	NO	6193.8		96.082
33	13C-OCDD	47.225	1.277	2227000	2506220		4733220	bb	0.769	0.889	0.890	NO	9674.6		184.647

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:43:48 Pacific Standard Time

Name: 12112711, Date: 27-Nov-2012, Time: 19:25:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

	Name	RT	dRT	Response	S/N	Peak Area	Total Area	Int	ERR						
34	13C-123789-HxCDD	36.987	0.000	1848466		1484414	3332881	bb	1.000	1.245	1.240	NO	7965.2		100.000
35	Total-tetrafurans			740235					0.877					30.837	30.723
36	Total-penta1			1907197										66.951	66.951
37	Total-pentafurans			4289939					0.911					153.395	153.139
38	Total-hexafurans			5861240					1.032					260.147	260.118
39	Total-heptafurans			1788335					1.223					98.499	98.421
40	Total-Furans			15820468					1.041					708.652	708.163
41	Total-tetradioxins			1057345					1.049					55.187	55.123
42	Total-pentadioxins			3504130					0.998					175.648	175.222
43	Total-hexadioxins			3800403					0.940					215.850	215.841
44	Total-heptadioxins			1552921					1.017					108.223	108.216
45	Total-Dioxins			11018879					0.985					652.767	652.261
46	Total-TEQ			26839347										1361.419	1360.424
47	37CL-2378-TCDD	26.691	1.032	459370			459370		1.044				2871.3		10.155
48	FUNCTION1 PFK			17930											
49	FUNCTION2 PFK			95845											0.000
50	FUNCTION3 PFK			10807494											0.000
51	FUNCTION4 PFK			366045											
52	FUNCTION5 PFK			5573656											
53	FUNCTION1 HXCDPE			588											0.000
54	FUNCTION1 HPCDPE			501											0.000
55	FUNCTION2 HPCDPE			2568											0.000
56	FUNCTION3 OCDPE			84											0.000
57	FUNCTION4 NCDPE			101											0.000
58	FUNCTION5 DCDPE			0											

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
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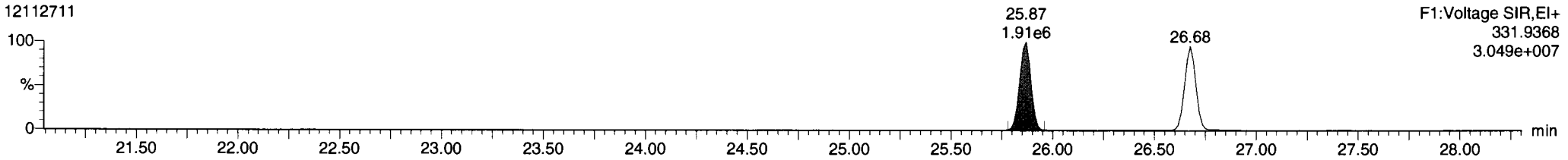
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112711, Date: 27-Nov-2012, Time: 19:25:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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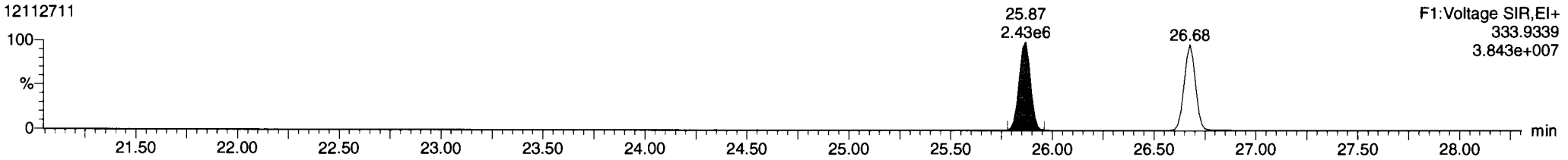

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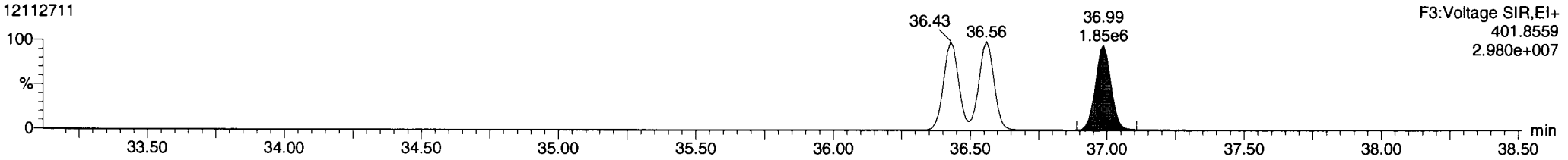

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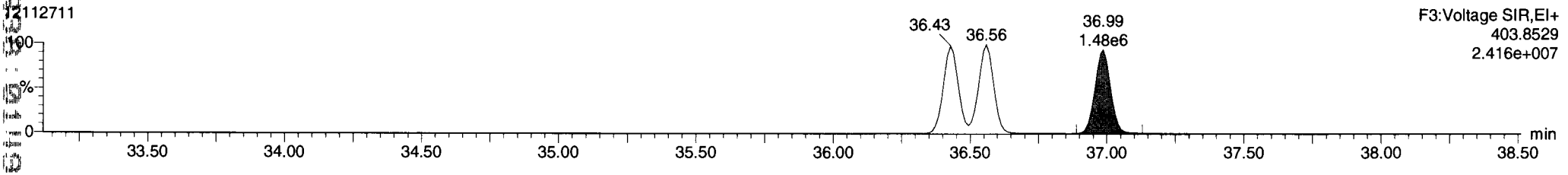

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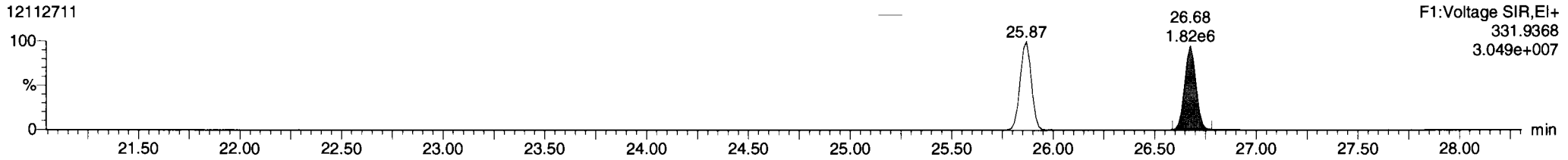
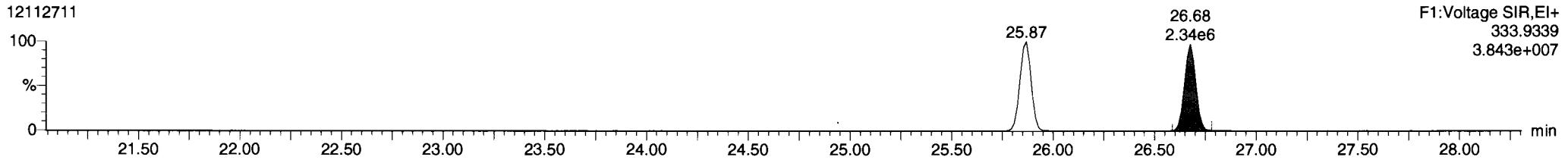
Name: 12112711, Date: 27-Nov-2012, Time: 19:25:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

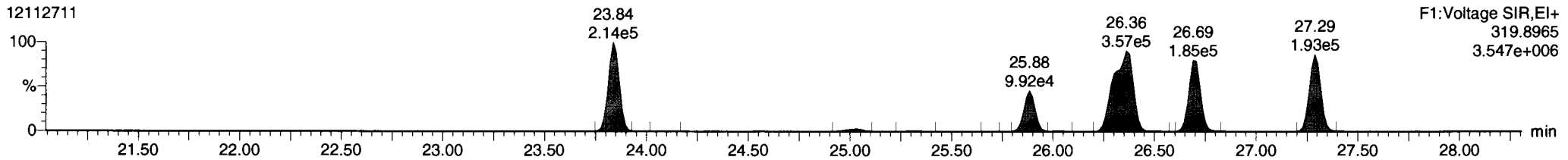
13C-2378-TCDD



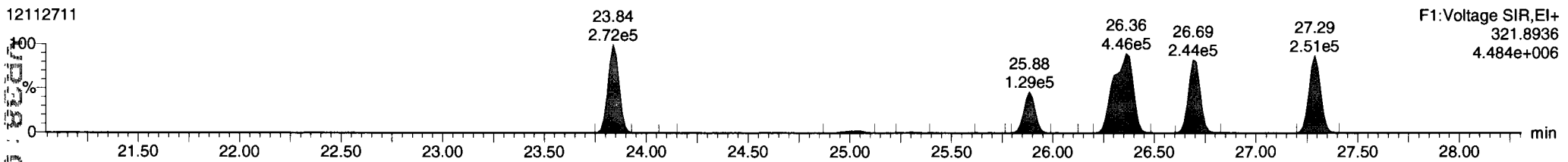
13C-2378-TCDD



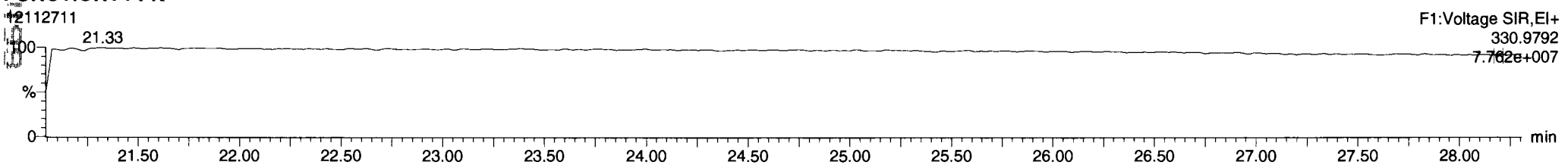
Total-tetradioxins



Total-tetradioxins



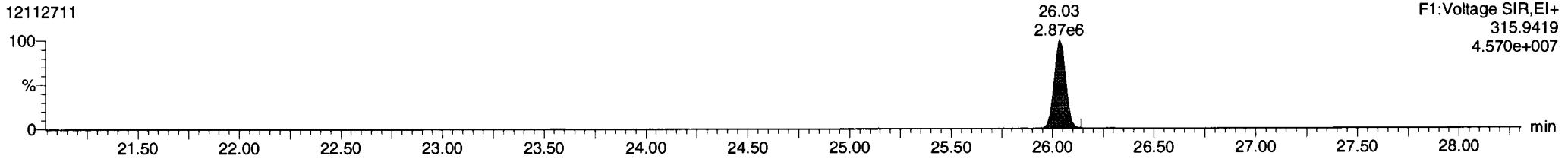
FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Wednesday, November 28, 2012 14:43:48 Pacific Standard Time

Name: 12112711, Date: 27-Nov-2012, Time: 19:25:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF



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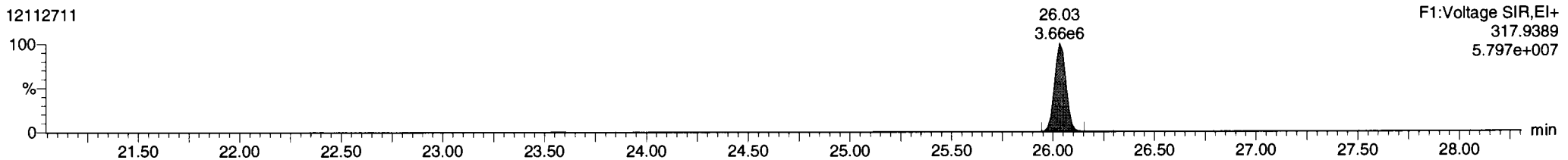
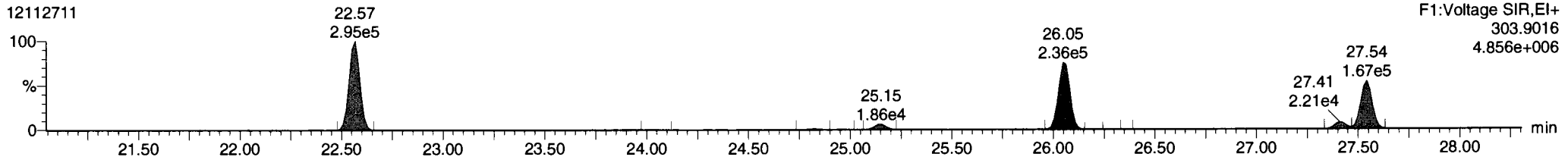
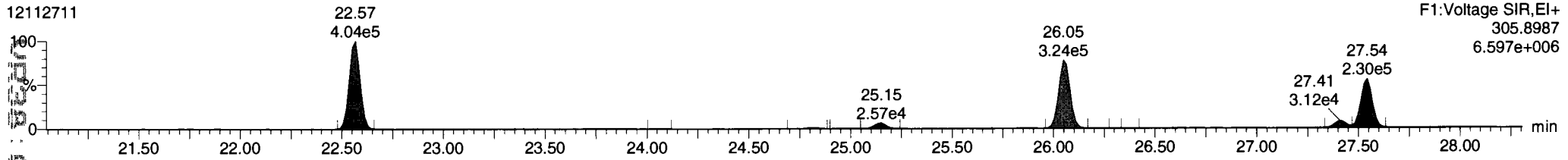


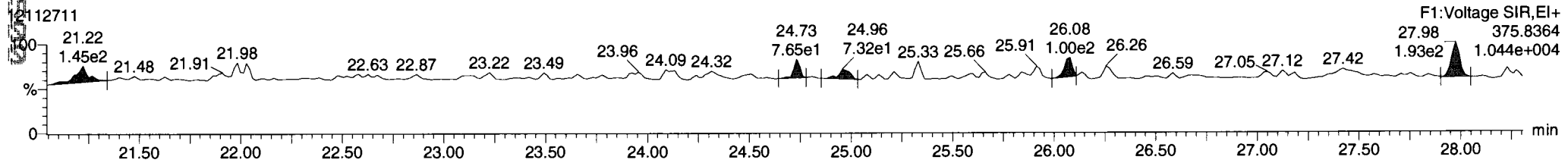
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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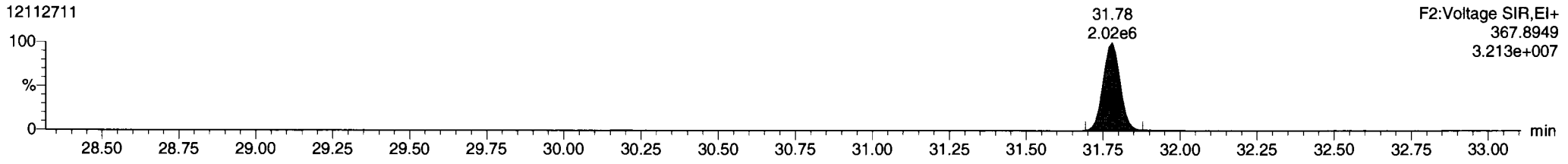
Printed: Wednesday, November 28, 2012 14:43:48 Pacific Standard Time

Name: 12112711, Date: 27-Nov-2012, Time: 19:25:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD



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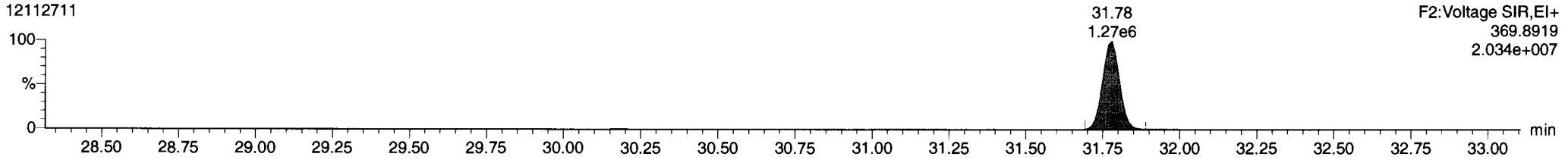
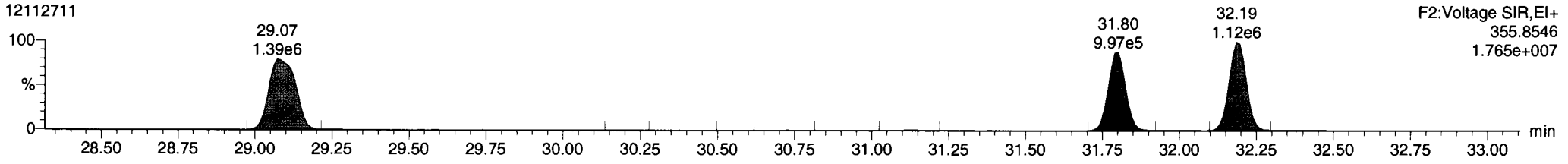
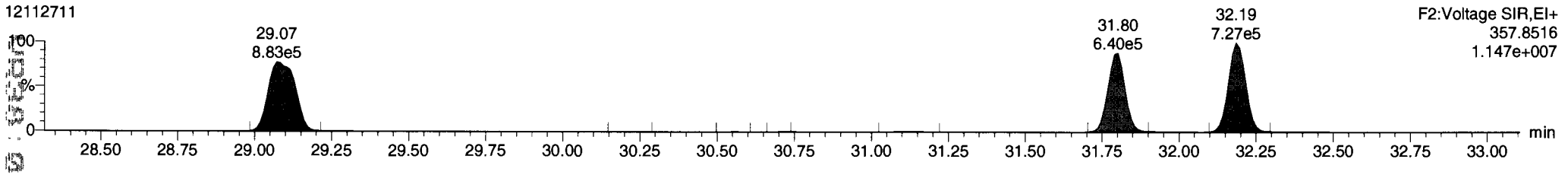


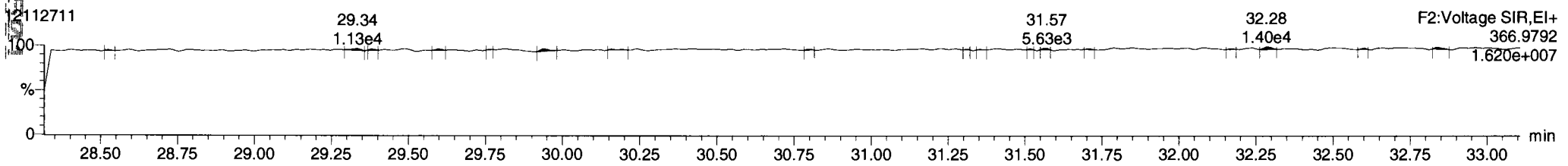
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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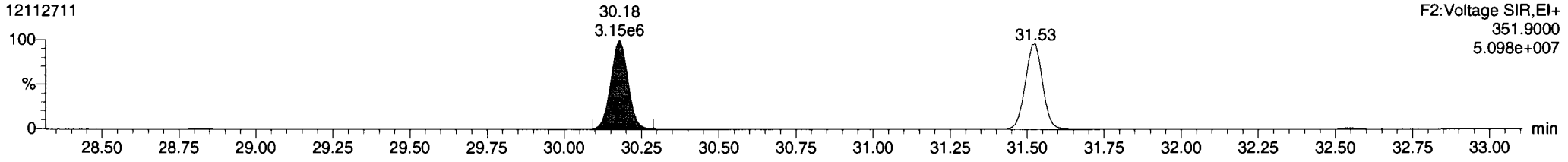
Name: 12112711, Date: 27-Nov-2012, Time: 19:25:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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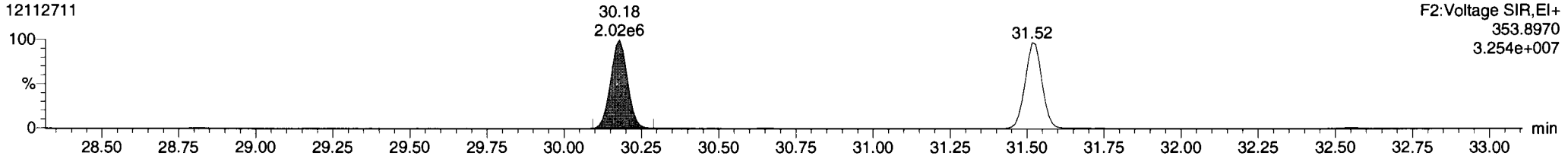

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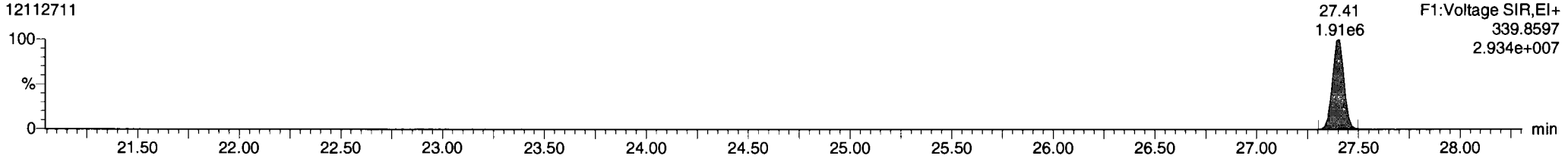
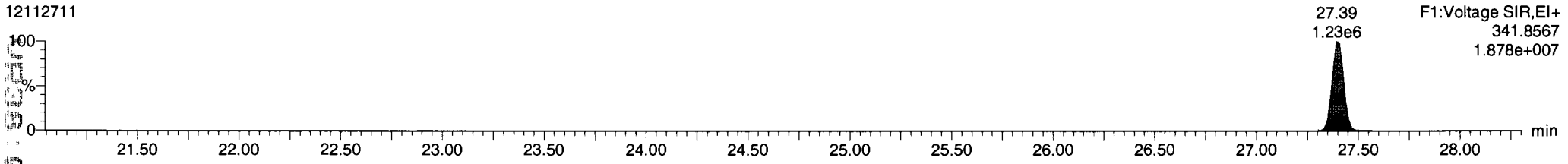
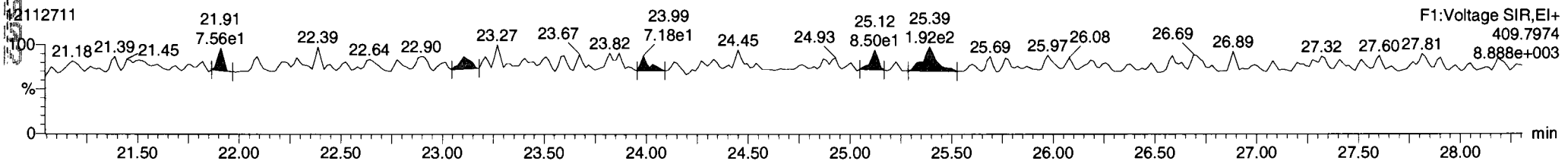


Total-penta1



FUNCTION1 HPCDPE



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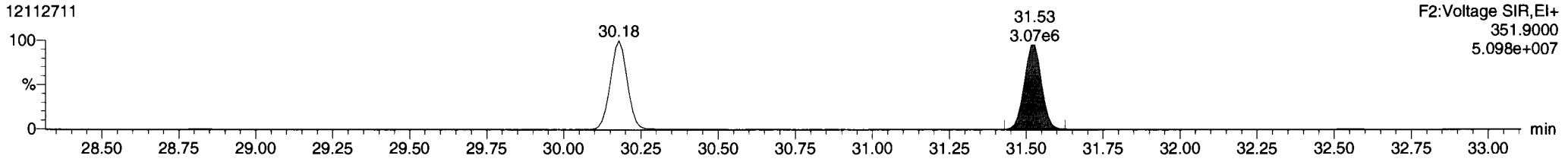
13C-23478-PeCDF



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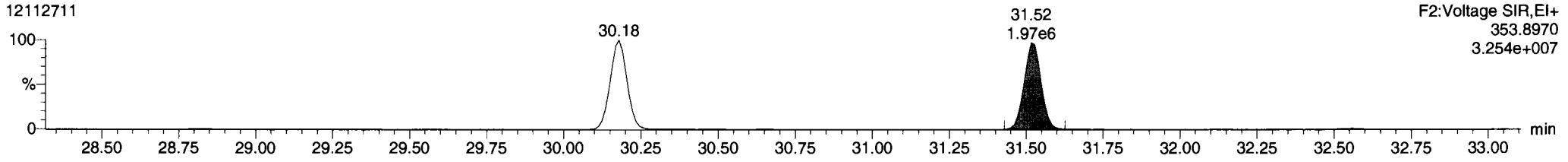
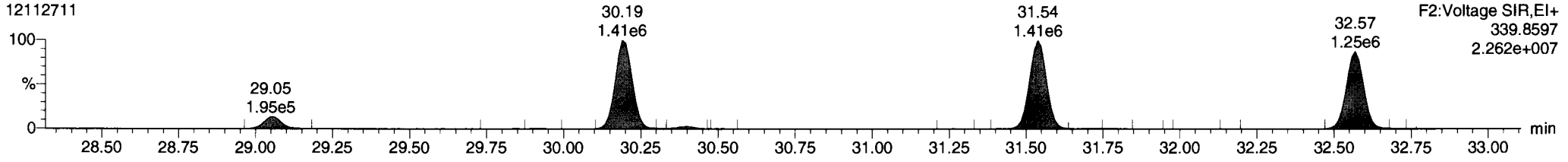
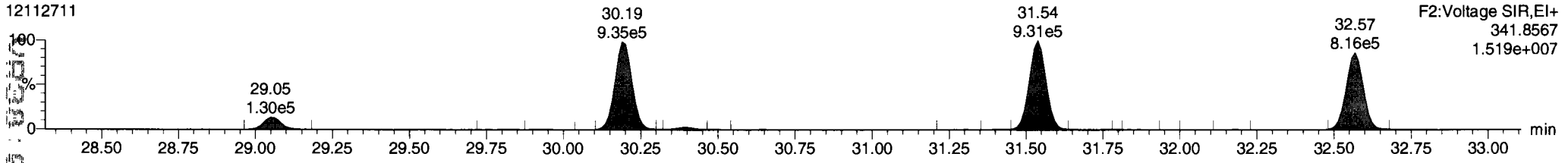


Total-pentafurans



Total-pentafurans



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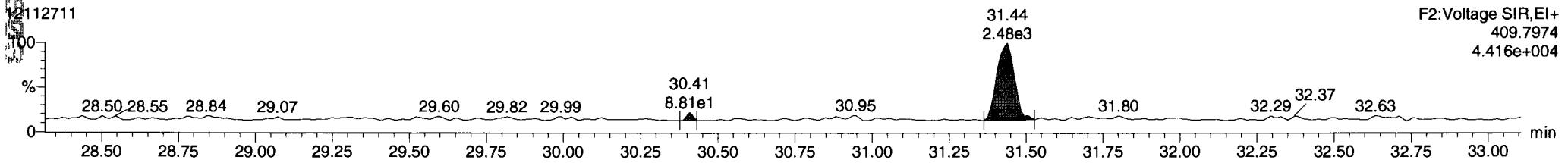

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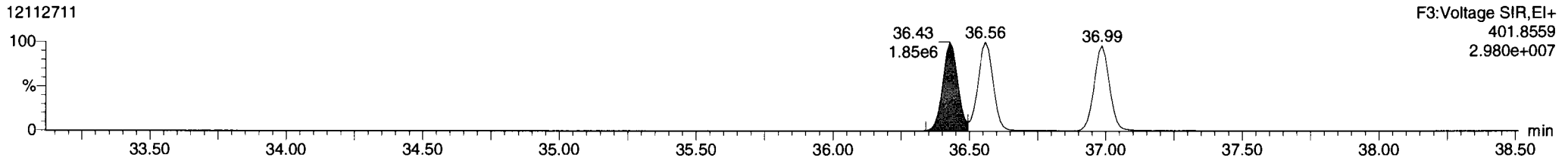
13C-123478-HxCDD



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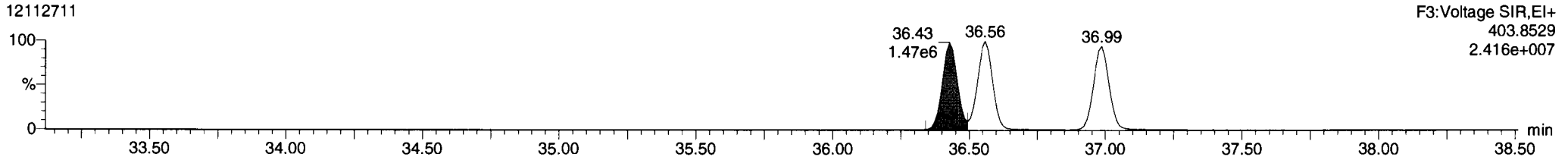
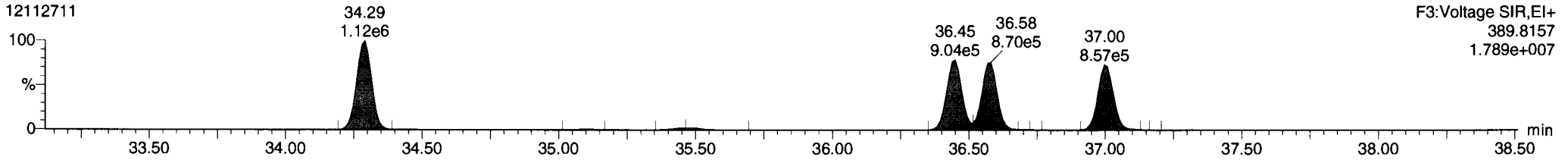
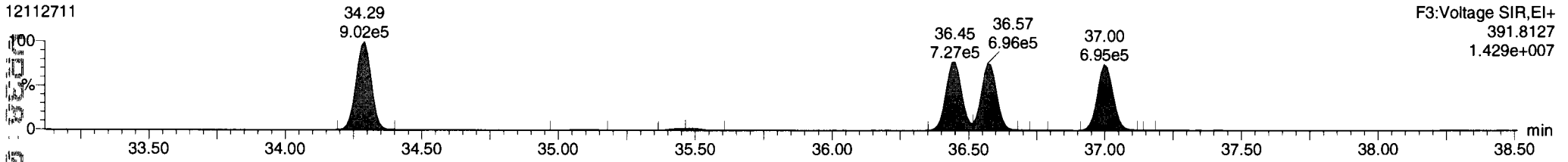


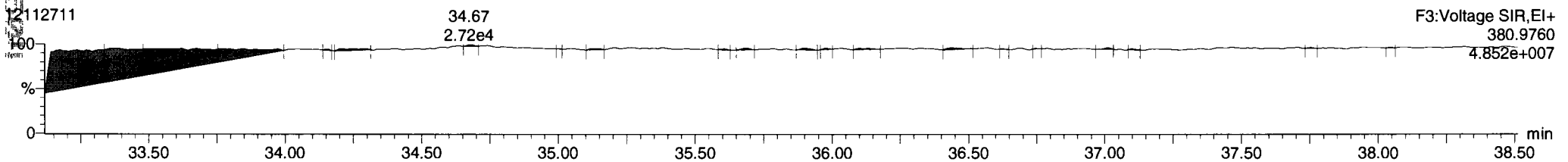
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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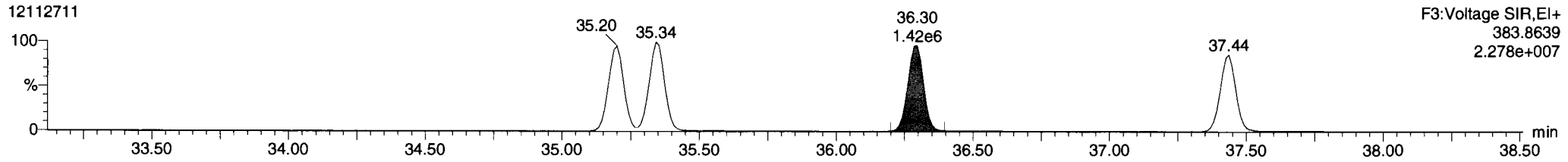
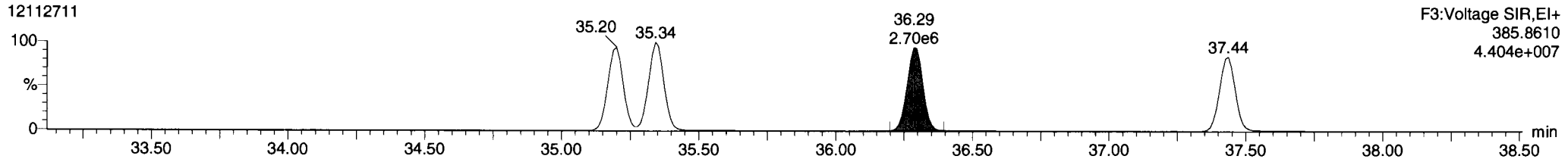
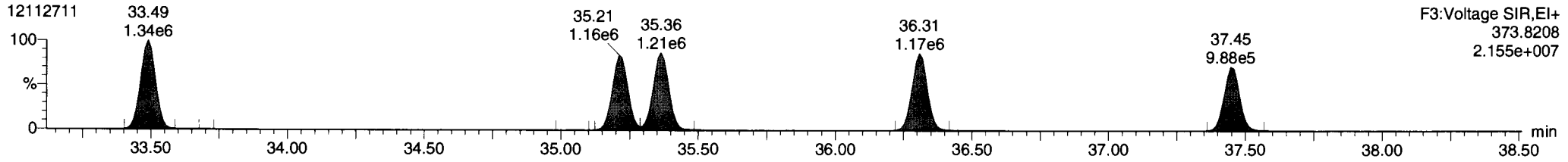
13C-234678-HxCDF



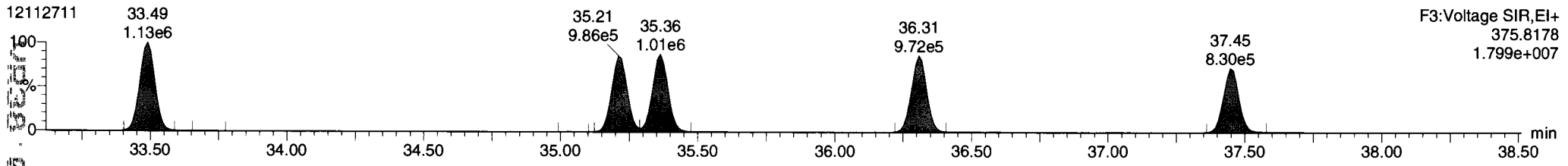
13C-234678-HxCDF



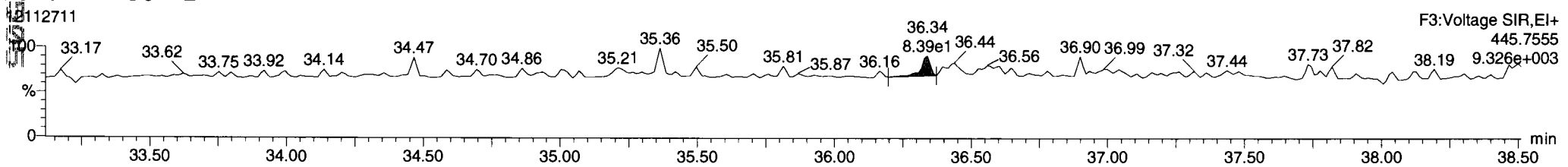
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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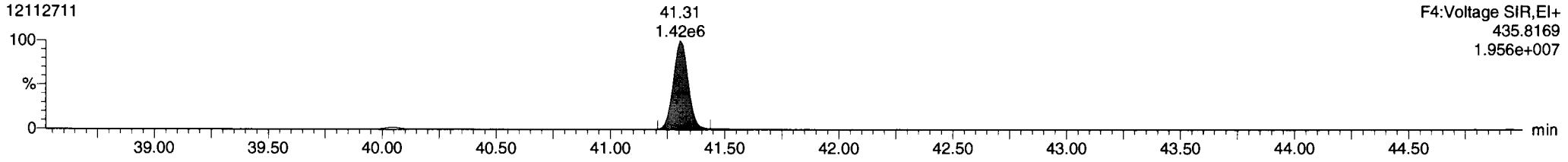
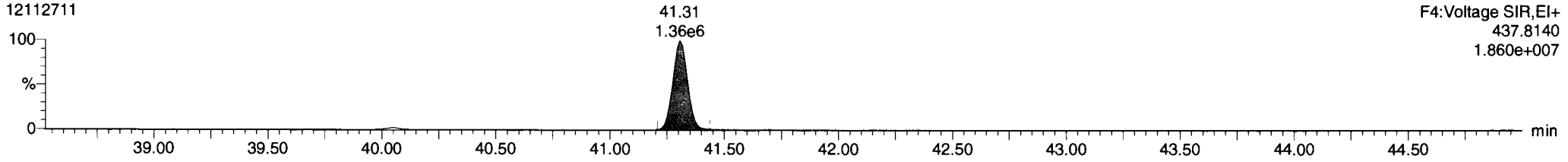
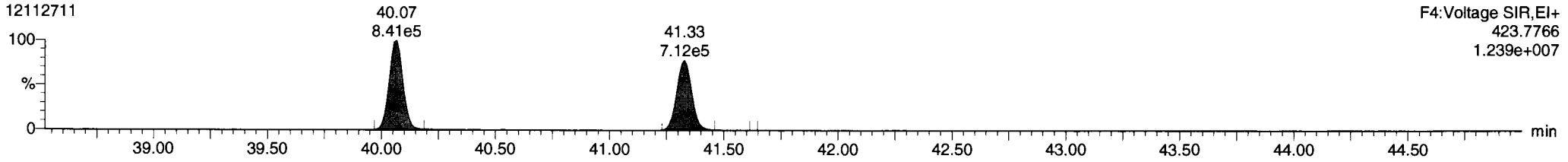
13C-1234678-HpCDD



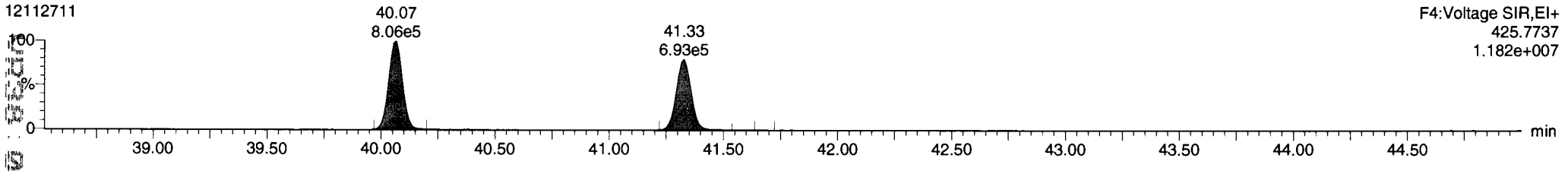
13C-1234678-HpCDD



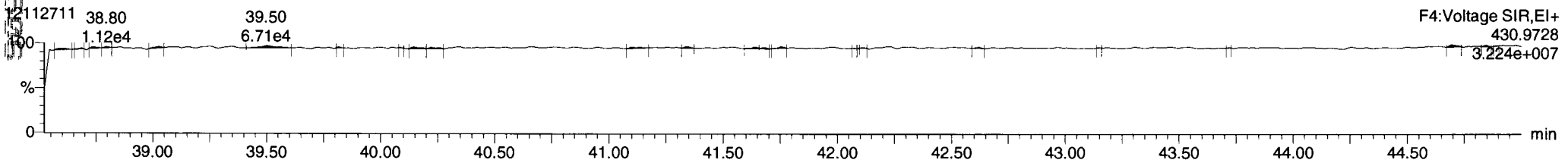
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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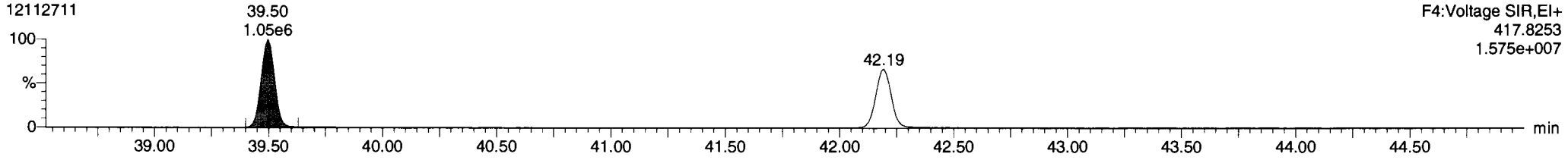
13C-1234678-HpCDF



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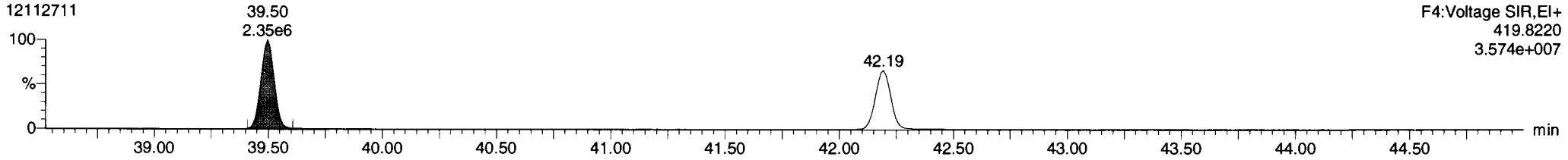
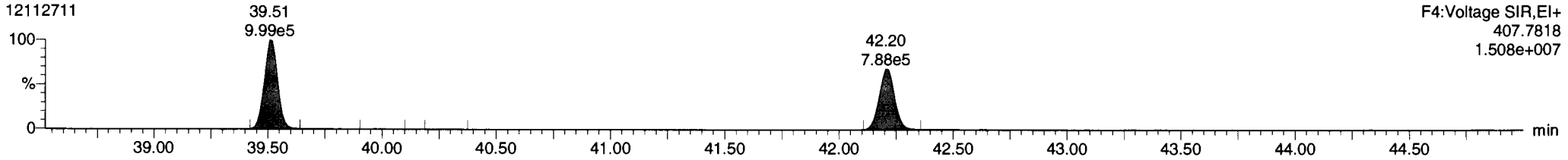
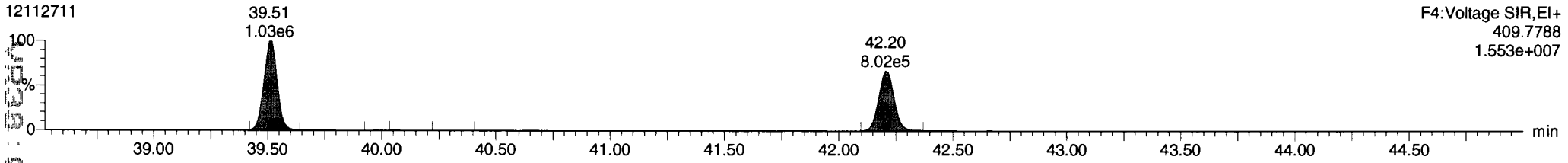


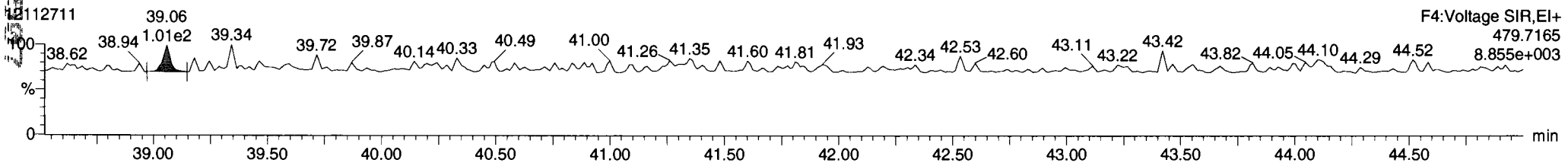
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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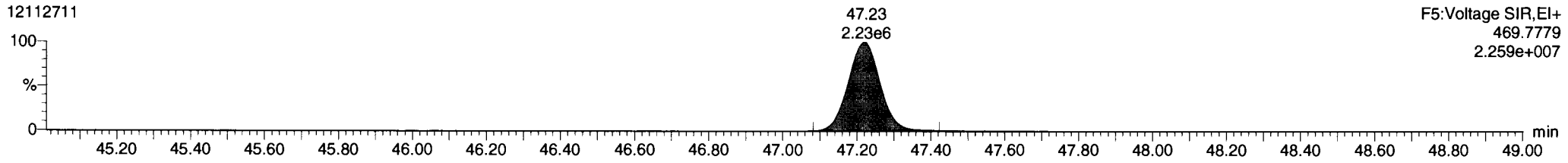
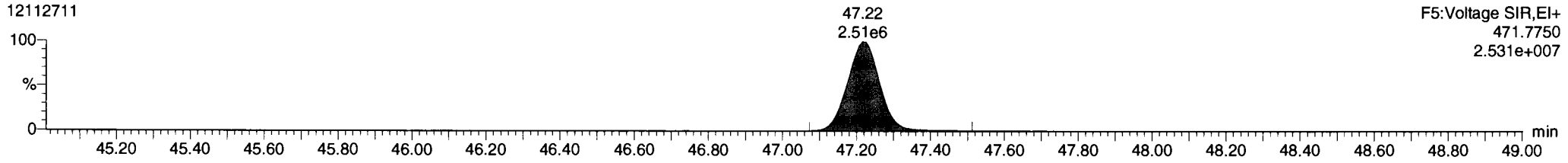
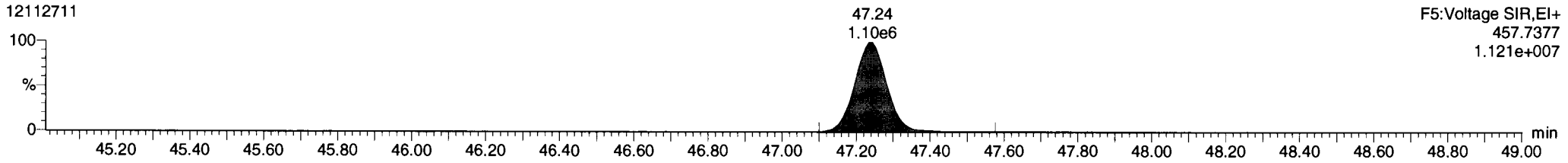
13C-OCDD



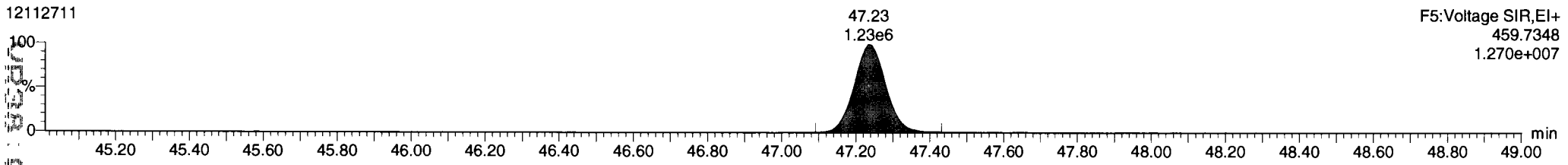
13C-OCDD



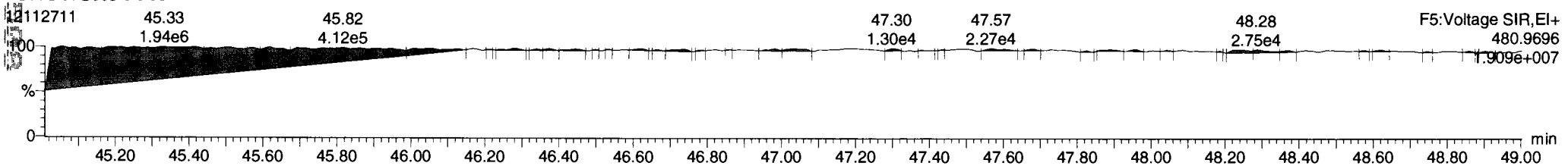
OCDD



OCDD



FUNCTION5 PFK



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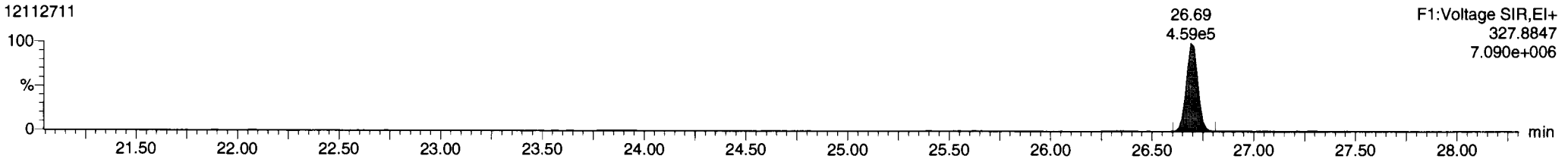
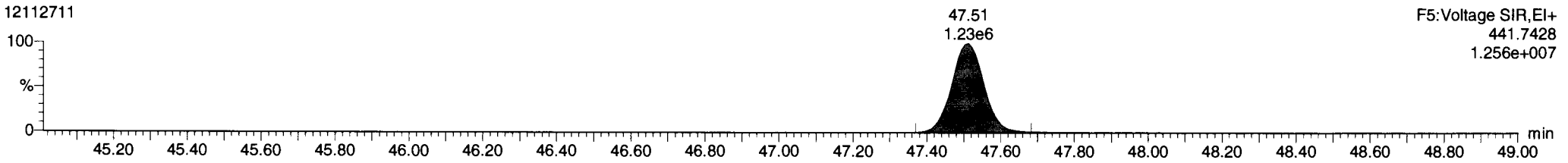
Name: 12112711, Date: 27-Nov-2012, Time: 19:25:07, ID: CS3, Conditions: AUTOSPEC01, User: pk

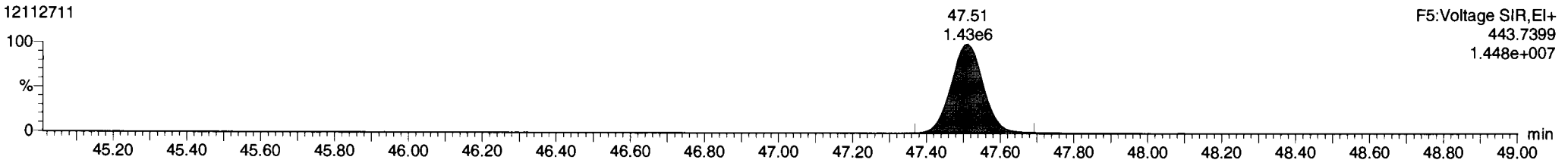
37CL-2378-TCDD



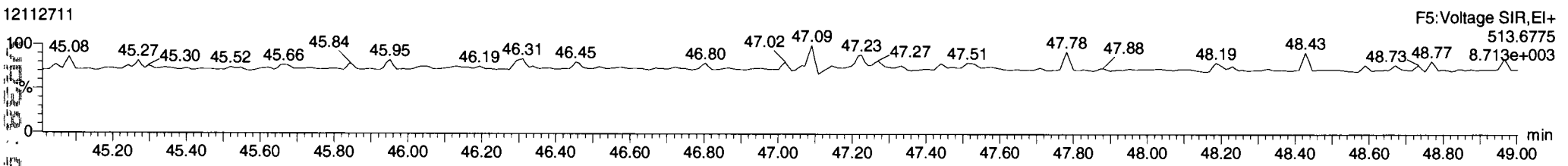
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:31 Pacific Standard Time

11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Ion1 Area	Ion2 Area	Total Area	IR	DRF	Ratio	Theory	RM	S/N	EMPC	pg
1	2378-TCDF	26.093	1.001	875	1152	2027	bd	0.877	0.760	0.770	NO	7.0	0.044	0.044 B
2	12378-PeCDF	30.212	1.000	1350	1085	2434	bb	0.896	1.244	1.550	YES	28.1	0.054	0.059 B
3	23478-PeCDF	31.560	1.000	1214	873	2087	MM	0.926	1.391	1.550	NO	22.3	0.060	0.060
4	123478-HxCDF	35.243	1.001	1844	1283	3128	bd	1.068	1.437	1.240	YES	21.5	0.097	0.105
5	234678-HxCDF	36.317	1.000	2295	1491	3786	db	1.037	1.539	1.240	YES	22.3	0.121	0.138
6	123678-HxCDF	35.375	1.000	1868	1574	3442	db	1.035	1.187	1.240	NO	21.2	0.112	0.112
7	123789-HxCDF	37.468	1.001	844	823	1667	db	0.987	1.025	1.240	YES	10.0	0.059	0.065
8	1234678-HpCDF	39.529	1.000	16191	16069	32260	bb	1.232	1.008	1.050	NO	264.7	1.248	1.248
9	1234789-HpCDF	42.226	1.000	1147	1402	2549	bb	1.215	0.818	1.050	YES	15.7	0.105	0.119
10	OCDF	47.514	1.006	26177	31335	57513	bb	1.138	0.835	0.890	NO	172.3	3.779	3.779
11	2378-TCDD	26.721	1.001	394	2286	2680	bd	1.049	0.172	0.770	YES	6.0	0.026	0.077
12	12378-PeCDD	31.812	1.000	2960	2335	5294	bd	0.998	1.268	1.550	YES	29.3	0.198	0.215
13	123478-HxCDD	36.460	1.000	2054	1801	3855	bd	0.971	1.140	1.240	NO	20.5	0.174	0.174
14	123678-HxCDD	36.591	1.000	5605	4463	10068	dd	0.918	1.256	1.240	NO	59.8	0.452	0.452
15	123789-HxCDD	37.019	1.012	4957	3903	8860	bb	0.932	1.270	1.240	NO	47.3	0.404	0.404
16	1234678-HpCDD	41.349	1.000	94833	91412	186246	bd	1.017	1.037	1.050	NO	502.1	9.420	9.420
17	OCDD	47.245	1.000	442095	496617	938711	bb	1.008	0.890	0.890	NO	2335.8	69.592	69.592
18	13C-2378-TCDF	26.063	1.007	2272269	2957772	5230041	bb	1.473	0.768	0.770	NO	9502.8		85.267
19	13C-12378-PeCDF	30.201	1.167	2798993	1783836	4582829	bb	1.148	1.569	1.550	NO	12386.3		95.851
20	13C-23478-PeCDF	31.549	1.219	2295834	1461132	3756966	bb	1.113	1.571	1.550	NO	9516.9		81.060
21	13C-123478-HxCDF	35.210	0.952	948276	1838477	2786753	bd	1.209	0.516	0.510	NO	5116.5		80.566
22	13C-123678-HxCDF	35.364	0.956	1025273	1957527	2982800	db	1.269	0.524	0.510	NO	5548.1		82.180
23	13C-234678-HxCDF	36.306	0.981	906017	1747965	2653982	bb	1.236	0.518	0.510	NO	4885.1		75.063
24	13C-123789-HxCDF	37.446	1.012	897623	1706338	2603961	bb	1.107	0.526	0.510	NO	4952.2		82.239
25	13C-1234678-HpCDF	39.518	1.068	653369	1445656	2099024	bb	1.051	0.452	0.440	NO	4517.8		69.797
26	13C-1234789-HpCDF	42.204	1.141	539673	1217620	1757293	bb	0.815	0.443	0.440	NO	3269.4		75.392
27	13C-1234-TCDD	25.884	0.000	1844405	2320862	4165267	bb	1.000	0.795	0.770	NO	8563.1		100.000
28	13C-2378-TCDD	26.706	1.032	1461364	1863488	3324852	bb	0.946	0.784	0.770	NO	6770.9		84.404
29	13C-12378-PeCDD	31.801	1.229	1512493	951618	2464111	bb	0.721	1.589	1.550	NO	13552.9		82.088
30	13C-123478-HxCDD	36.449	0.985	1281688	999574	2281262	bd	0.991	1.282	1.240	NO	9184.5		80.472
31	13C-123678-HxCDD	36.580	0.989	1348068	1076687	2424755	db	1.025	1.252	1.240	NO	9758.1		82.710
32	13C-1234678-HpCDD	41.327	1.117	996539	947746	1944286	bb	0.866	1.051	1.050	NO	4062.3		78.458
33	13C-OCDD	47.227	1.276	1257599	1417709	2675309	bd	0.769	0.887	0.890	NO	4776.8		121.579

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

		RT	REL			Total Area	m	RRF				S/N		EMPC	
34	13C-123789-HxCDD	36.997	0.000	1593996	1267038	2861034	bb	1.000	1.258	1.240	NO	11004.0			100.000
35	Total-tetrafurans			6751				0.877						0.641	0.359
36	Total-penta1			30795										1.293	1.293
37	Total-pentafurans			3826				0.911					1.980	0.687	1463 0.170
38	Total-hexafurans			31489				1.032						2.353	2.055
39	Total-heptafurans			40588				1.223						3.532	3.427
40	Total-Furans			139627				1.041						12.288	11.084
41	Total-tetradioxins			2050				1.049						0.341	0.129
42	Total-pentadioxins			15818				0.998						1.429	0.553
43	Total-hexadioxins			51715				0.940						4.372	4.177
44	Total-heptadioxins			205291				1.017						20.477	20.477
45	Total-Dioxins			717052				0.985						96.216	94.934
46	Total-TEQ			856679										108.504	106.018
47	37CL-2378-TCDD	26.721	1.032	1536718		1536718		1.044				14648.1			35.352
48	FUNCTION1 PFK			126513820											
49	FUNCTION2 PFK			45548											0.000
50	FUNCTION3 PFK			50754											0.000
51	FUNCTION4 PFK			6891107											
52	FUNCTION5 PFK			0											
53	FUNCTION1 HXCDPE			1807											0.000
54	FUNCTION1 HPCDPE			1179											0.000
55	FUNCTION2 HPCDPE			560											0.000
56	FUNCTION3 OCDPE			0											
57	FUNCTION4 NCDPE			536											0.000
58	FUNCTION5 DCDPE			0											

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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

TF

[redacted]	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	[redacted]	[redacted]	[redacted]	S/N
[redacted]	35	Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.011	0.43	0.77	YES	3.5
[redacted]	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.008	0.38	0.77	YES	2.8
[redacted]	35	Total-tetrafurans	303.9016	24.08	0.000	0.877	0.000	0.101	0.60	0.77	YES	24.5
[redacted]	35	Total-tetrafurans	303.9016	23.85	4217.464	0.877	0.092	0.092	0.68	0.77	NO	19.5
[redacted]	35	Total-tetrafurans	303.9016	23.55	0.000	0.877	0.000	0.021	1.10	0.77	YES	6.0
[redacted]	35	Total-tetrafurans	303.9016	23.43	7637.884	0.877	0.167	0.167	0.67	0.77	NO	41.3
[redacted]	35	Total-tetrafurans	303.9016	22.87	1286.497	0.877	0.028	0.028	0.69	0.77	NO	7.8
[redacted]	35	Total-tetrafurans	303.9016	22.60	0.000	0.877	0.000	0.015	0.55	0.77	YES	4.0
[redacted]	35	Total-tetrafurans	303.9016	27.54	1294.939	0.877	0.028	0.028	0.80	0.77	NO	5.5
[redacted]	35	Total-tetrafurans	303.9016	26.30	0.000	0.877	0.000	0.014	1.52	0.77	YES	6.8
[redacted]	1	2378-TCDF	303.9016	26.09	2027.415	0.877	0.044	0.044	0.76	0.77	NO	7.0
[redacted]	35	Total-tetrafurans	303.9016	25.20	0.000	0.877	0.000	0.035	0.65	0.77	YES	7.8
[redacted]	35	Total-tetrafurans	303.9016	24.99	0.000	0.877	0.000	0.078	0.99	0.77	YES	25.3

PP

[redacted]	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	[redacted]	[redacted]	[redacted]	S/N
[redacted]	36	Total-penta1	339.8597	27.50	49460.650		1.293	1.293	1.65	1.55	NO	571.5

PF

[redacted]	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	[redacted]	[redacted]	[redacted]	S/N
[redacted]	37	Total-pentafurans	339.8597	29.63	0.000	0.911	0.000	0.011	1.10	1.55	YES	5.1
[redacted]	37	Total-pentafurans	339.8597	29.15	0.000	0.911	0.000	0.206	1.85	1.55	YES	98.9
[redacted]	37	Total-pentafurans	339.8597	29.08	0.000	0.911	0.000	0.113	0.99	1.55	YES	51.3
[redacted]	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.027	0.86	1.55	YES	8.7
[redacted]	3	23478-PeCDF	339.8597	31.56	2086.969	0.926	0.060	0.060	1.39	1.55	NO	22.3
[redacted]	37	Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.038	2.33	1.55	YES	16.7
[redacted]	2	12378-PeCDF	339.8597	30.21	2434.268	0.896	0.000	0.054	1.24	1.55	YES	28.1
[redacted]	37	Total-pentafurans	339.8597	29.85	4186.052	0.911	0.110	0.110	1.66	1.55	NO	37.9
[redacted]	37	Total-pentafurans	339.8597	31.42	0.000	0.911	0.000	0.067	1.29	1.55	YES	25.5

HF

[redacted]	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	[redacted]	[redacted]	[redacted]	S/N
[redacted]	4	123478-HxCDF	373.8208	35.24	3127.519	1.068	0.000	0.097	1.44	1.24	YES	21.5
[redacted]	38	Total-hexafurans	373.8208	34.57	18655.960	1.032	0.656	0.656	1.16	1.24	NO	121.0
[redacted]	38	Total-hexafurans	373.8208	33.72	26833.395	1.032	0.944	0.944	1.09	1.24	NO	168.0
[redacted]	38	Total-hexafurans	373.8208	33.50	9774.487	1.032	0.344	0.344	1.33	1.24	NO	56.9
[redacted]	7	123789-HxCDF	373.8208	37.47	1666.994	0.987	0.000	0.059	1.02	1.24	YES	10.0
[redacted]	5	234678-HxCDF	373.8208	36.32	3786.158	1.037	0.000	0.121	1.54	1.24	YES	22.3
[redacted]	38	Total-hexafurans	373.8208	36.25	0.000	1.032	0.000	0.021	0.77	1.24	YES	6.8
[redacted]	6	123678-HxCDF	373.8208	35.37	3442.407	1.035	0.112	0.112	1.19	1.24	NO	21.2

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HPF

	#	Name	Mass	RT	Abs.Resp	PPF M...	PPF	EMPC	1 Ran...	1 Ran...	1 R...	S/N
	8	1234678-HpCDF	407.7818	39.53	32259.801	1.232	1.248	1.248	1.01	1.05	NO	264.7
	9	1234789-HpCDF	407.7818	42.23	2549.381	1.215	0.000	0.105	0.82	1.05	YES	15.7
	39	Total-heptafurans	407.7818	40.32	50942.004	1.223	2.159	2.159	0.90	1.05	NO	378.3
	39	Total-heptafurans	407.7818	40.03	466.974	1.223	0.020	0.020	1.12	1.05	NO	4.5

Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Mass	RT	Abs.Resp	PPF M...	PPF	EMPC	1 Ran...	1 Ran...	1 R...	S/N
	35	Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.011	0.43	0.77	YES	3.5
	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.008	0.38	0.77	YES	2.8
	35	Total-tetrafurans	303.9016	24.08	0.000	0.877	0.000	0.101	0.60	0.77	YES	24.5
	35	Total-tetrafurans	303.9016	23.85	4217.464	0.877	0.092	0.092	0.68	0.77	NO	19.5
	35	Total-tetrafurans	303.9016	23.55	0.000	0.877	0.000	0.021	1.10	0.77	YES	6.0
	35	Total-tetrafurans	303.9016	23.43	7637.884	0.877	0.167	0.167	0.67	0.77	NO	41.3
	35	Total-tetrafurans	303.9016	22.87	1286.497	0.877	0.028	0.028	0.69	0.77	NO	7.8
	35	Total-tetrafurans	303.9016	22.60	0.000	0.877	0.000	0.015	0.55	0.77	YES	4.0
	40	Total-Furans	303.9016	21.42	0.000	1.041	0.000	0.002	1.00	0.77	YES	1.5
	35	Total-tetrafurans	303.9016	27.54	1294.939	0.877	0.028	0.028	0.80	0.77	NO	5.5
	35	Total-tetrafurans	303.9016	26.30	0.000	0.877	0.000	0.014	1.52	0.77	YES	6.8
	1	2378-TCDF	303.9016	26.09	2027.415	0.877	0.044	0.044	0.76	0.77	NO	7.0
	35	Total-tetrafurans	303.9016	25.20	0.000	0.877	0.000	0.035	0.65	0.77	YES	7.8
	35	Total-tetrafurans	303.9016	24.99	0.000	0.877	0.000	0.078	0.99	0.77	YES	25.3
	37	Total-pentafurans	339.8597	29.63	0.000	0.911	0.000	0.011	1.10	1.55	YES	5.1
	37	Total-pentafurans	339.8597	29.15	0.000	0.911	0.000	0.206	1.85	1.55	YES	98.9
	37	Total-pentafurans	339.8597	29.08	0.000	0.911	0.000	0.113	0.99	1.55	YES	51.3
	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.027	0.86	1.55	YES	8.7
	3	23478-PeCDF	339.8597	31.56	2086.969	0.926	0.060	0.060	1.39	1.55	NO	22.3
	37	Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.038	2.33	1.55	YES	16.7
	2	12378-PeCDF	339.8597	30.21	2434.268	0.896	0.000	0.054	1.24	1.55	YES	28.1
	37	Total-pentafurans	339.8597	29.85	4186.052	0.911	0.110	0.110	1.66	1.55	NO	37.9
	4	123478-HxCDF	373.8208	35.24	3127.519	1.068	0.000	0.097	1.44	1.24	YES	21.5
	38	Total-hexafurans	373.8208	34.57	18655.960	1.032	0.656	0.656	1.16	1.24	NO	121.0
	38	Total-hexafurans	373.8208	33.72	26833.395	1.032	0.944	0.944	1.09	1.24	NO	168.0
	38	Total-hexafurans	373.8208	33.50	9774.487	1.032	0.344	0.344	1.33	1.24	NO	56.9
	7	123789-HxCDF	373.8208	37.47	1666.994	0.987	0.000	0.059	1.02	1.24	YES	10.0
	5	234678-HxCDF	373.8208	36.32	3786.158	1.037	0.000	0.121	1.54	1.24	YES	22.3
	38	Total-hexafurans	373.8208	36.25	0.000	1.032	0.000	0.021	0.77	1.24	YES	6.8
	6	123678-HxCDF	373.8208	35.37	3442.407	1.035	0.112	0.112	1.19	1.24	NO	21.2
	8	1234678-HpCDF	407.7818	39.53	32259.801	1.232	1.248	1.248	1.01	1.05	NO	264.7
	9	1234789-HpCDF	407.7818	42.23	2549.381	1.215	0.000	0.105	0.82	1.05	YES	15.7
	39	Total-heptafurans	407.7818	40.32	50942.004	1.223	2.159	2.159	0.90	1.05	NO	378.3
	39	Total-heptafurans	407.7818	40.03	466.974	1.223	0.020	0.020	1.12	1.05	NO	4.5
	10	OCDF	441.7428	47.51	57512.617	1.138	3.779	3.779	0.84	0.89	NO	172.3
	36	Total-penta1	339.8597	27.50	49460.650		1.293	1.293	1.65	1.55	NO	571.5
	37	Total-pentafurans	339.8597	31.42	0.000	0.911	0.000	0.067	1.29	1.55	YES	25.5

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TD

	#	Name	Trace	RT	Abs Resp	RRF M...	Pg	EMPC	1° Rat...	1° Rat...	1°R...	S/N
	41	Total-tetradioxins	319.8965	24.30	452.075	1.049	0.013	0.013	0.85	0.77	NO	4.2
	41	Total-tetradioxins	319.8965	24.12	0.000	1.049	0.000	0.037	1.00	0.77	YES	7.2
	41	Total-tetradioxins	319.8965	23.87	2415.788	1.049	0.069	0.069	0.86	0.77	NO	14.5
	41	Total-tetradioxins	319.8965	27.29	681.228	1.049	0.020	0.020	0.85	0.77	NO	3.2
	11	2378-TCDD	319.8965	26.72	2679.846	1.049	0.000	0.026	0.17	0.77	YES	6.0
	41	Total-tetradioxins	319.8965	26.33	0.000	1.049	0.000	0.018	0.48	0.77	YES	6.1
	41	Total-tetradioxins	319.8965	26.12	410.182	1.049	0.012	0.012	0.84	0.77	NO	3.2
	41	Total-tetradioxins	319.8965	26.08	0.000	1.049	0.000	0.005	2.68	0.77	YES	6.4
	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.007	2.86	0.77	YES	7.3
	41	Total-tetradioxins	319.8965	25.90	536.645	1.049	0.015	0.015	0.74	0.77	NO	2.5
	41	Total-tetradioxins	319.8965	25.70	0.000	1.049	0.000	0.012	0.39	0.77	YES	3.5
	41	Total-tetradioxins	319.8965	25.36	0.000	1.049	0.000	0.045	1.11	0.77	YES	13.4
	41	Total-tetradioxins	319.8965	25.06	0.000	1.049	0.000	0.017	1.35	0.77	YES	4.5
	41	Total-tetradioxins	319.8965	24.85	0.000	1.049	0.000	0.036	1.02	0.77	YES	11.5
	41	Total-tetradioxins	319.8965	24.36	0.000	1.049	0.000	0.010	1.14	0.77	YES	3.2

PD

	#	Name	Trace	RT	Abs Resp	RRF M...	Pg	EMPC	1° Rat...	1° Rat...	1°R...	S/N
	42	Total-pentadioxins	355.8546	30.22	5870.892	0.998	0.239	0.239	1.71	1.55	NO	49.3
	42	Total-pentadioxins	355.8546	29.61	0.000	0.998	0.000	0.061	1.81	1.55	YES	12.0
	42	Total-pentadioxins	355.8546	29.14	0.000	0.998	0.000	0.509	1.47	1.55	NO	59.7
	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.057	1.88	1.55	YES	10.6
	12	12378-PeCDD	355.8546	31.81	5294.270	0.998	0.000	0.198	1.27	1.55	YES	29.3
	42	Total-pentadioxins	355.8546	30.77	0.000	0.998	0.000	0.050	1.10	1.55	YES	7.8
	42	Total-pentadioxins	355.8546	30.70	927.553	0.998	0.038	0.038	1.74	1.55	NO	7.3
	42	Total-pentadioxins	355.8546	30.56	2452.249	0.998	0.100	0.100	1.51	1.55	NO	13.2
	42	Total-pentadioxins	355.8546	30.44	4361.400	0.998	0.177	0.177	1.48	1.55	NO	29.6

HD

	#	Name	Trace	RT	Abs Resp	RRF M...	Pg	EMPC	1° Rat...	1° Rat...	1°R...	S/N
	43	Total-hexadioxins	389.8157	35.12	4941.258	0.940	0.223	0.223	1.22	1.24	NO	28.1
	43	Total-hexadioxins	389.8157	34.30	26953.046	0.940	1.218	1.218	1.23	1.24	NO	154.6
	15	123789-HxCDD	389.8157	37.02	8860.108	0.932	0.404	0.404	1.27	1.24	NO	47.3
	43	Total-hexadioxins	389.8157	36.77	0.000	0.940	0.000	0.071	1.03	1.24	YES	9.9
	14	123678-HxCDD	389.8157	36.59	10068.278	0.918	0.452	0.452	1.26	1.24	NO	59.8
	13	123478-HxCDD	389.8157	36.46	3854.852	0.971	0.174	0.174	1.14	1.24	NO	20.5
	43	Total-hexadioxins	389.8157	35.62	0.000	0.940	0.000	0.124	1.02	1.24	YES	19.6
	43	Total-hexadioxins	389.8157	35.51	37733.058	0.940	1.705	1.705	1.33	1.24	NO	145.9

HPD

	#	Name	Trace	RT	Abs Resp	RRF M...	Pg	EMPC	1° Rat...	1° Rat...	1°R...	S/N
	16	1234678-HpCDD	423.7766	41.35	186245.688	1.017	9.420	9.420	1.04	1.05	NO	502.1
	44	Total-heptadioxins	423.7766	40.08	218618.696	1.017	11.057	11.057	1.02	1.05	NO	632.5

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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Dioxins,TD,PD,HD,HPD,OD

	#	Name	Trace	RT	Area	RRT	pg	EMPC	R Ratio	T Ratio	IDL	S/N
	41	Total-tetradioxins	319.8965	24.30	452.075	1.049	0.013	0.013	0.85	0.77	NO	4.2
	41	Total-tetradioxins	319.8965	24.12	0.000	1.049	0.000	0.037	1.00	0.77	YES	7.2
	41	Total-tetradioxins	319.8965	23.87	2415.788	1.049	0.069	0.069	0.86	0.77	NO	14.5
	45	Total-Dioxins	319.8965	21.22	189.760	0.985	0.006	0.006	0.78	0.77	NO	1.8
	41	Total-tetradioxins	319.8965	27.29	681.228	1.049	0.020	0.020	0.85	0.77	NO	3.2
	11	2378-TCDD	319.8965	26.72	2679.846	1.049	0.000	0.026	0.17	0.77	YES	6.0
7	41	Total-tetradioxins	319.8965	26.33	0.000	1.049	0.000	0.018	0.48	0.77	YES	6.1
8	41	Total-tetradioxins	319.8965	26.12	410.182	1.049	0.012	0.012	0.84	0.77	NO	3.2
9	41	Total-tetradioxins	319.8965	26.08	0.000	1.049	0.000	0.005	2.68	0.77	YES	6.4
10	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.007	2.86	0.77	YES	7.3
11	41	Total-tetradioxins	319.8965	25.90	536.645	1.049	0.015	0.015	0.74	0.77	NO	2.5
12	41	Total-tetradioxins	319.8965	25.70	0.000	1.049	0.000	0.012	0.39	0.77	YES	3.5
13	41	Total-tetradioxins	319.8965	25.36	0.000	1.049	0.000	0.045	1.11	0.77	YES	13.4
14	41	Total-tetradioxins	319.8965	25.06	0.000	1.049	0.000	0.017	1.35	0.77	YES	4.5
15	41	Total-tetradioxins	319.8965	24.85	0.000	1.049	0.000	0.036	1.02	0.77	YES	11.5
16	41	Total-tetradioxins	319.8965	24.36	0.000	1.049	0.000	0.010	1.14	0.77	YES	3.2
	42	Total-pentadioxins	355.8546	30.22	5870.892	0.998	0.239	0.239	1.71	1.55	NO	49.3
18	42	Total-pentadioxins	355.8546	29.61	0.000	0.998	0.000	0.061	1.81	1.55	YES	12.0
19	42	Total-pentadioxins	355.8546	29.14	0.000	0.998	0.000	0.509	1.47	1.55	NO	59.7
20	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.057	1.88	1.55	YES	10.6
21	12	12378-PeCDD	355.8546	31.81	5294.270	0.998	0.000	0.198	1.27	1.55	YES	29.3
22	42	Total-pentadioxins	355.8546	30.77	0.000	0.998	0.000	0.050	1.10	1.55	YES	7.8
23	42	Total-pentadioxins	355.8546	30.70	927.553	0.998	0.038	0.038	1.74	1.55	NO	7.3
24	42	Total-pentadioxins	355.8546	30.56	2452.249	0.998	0.100	0.100	1.51	1.55	NO	13.2
25	42	Total-pentadioxins	355.8546	30.44	4361.400	0.998	0.177	0.177	1.48	1.55	NO	29.6
26	43	Total-hexadioxins	389.8157	35.12	4941.258	0.940	0.223	0.223	1.22	1.24	NO	28.1
27	43	Total-hexadioxins	389.8157	34.30	26953.046	0.940	1.218	1.218	1.23	1.24	NO	154.6
28	15	123789-HxCDD	389.8157	37.02	8860.108	0.932	0.404	0.404	1.27	1.24	NO	47.3
29	43	Total-hexadioxins	389.8157	36.77	0.000	0.940	0.000	0.071	1.03	1.24	YES	9.9
30	14	123678-HxCDD	389.8157	36.59	10068.278	0.918	0.452	0.452	1.26	1.24	NO	59.8
31	13	123478-HxCDD	389.8157	36.46	3854.852	0.971	0.174	0.174	1.14	1.24	NO	20.5
32	43	Total-hexadioxins	389.8157	35.62	0.000	0.940	0.000	0.124	1.02	1.24	YES	19.6
33	43	Total-hexadioxins	389.8157	35.51	37733.058	0.940	1.705	1.705	1.33	1.24	NO	145.9
	16	1234678-HpCDD	423.7766	41.35	186245.688	1.017	9.420	9.420	1.04	1.05	NO	502.1
	44	Total-heptadioxins	423.7766	40.08	218618.696	1.017	11.057	11.057	1.02	1.05	NO	632.5
	17	OCDD	457.7377	47.24	938711.437	1.008	69.592	69.592	0.89	0.89	NO	2335.8

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TotalTEQ,Furans,Dioxins

[redacted]	Lock	Name	Mass	RT	Area	Resp.	Conc.	EMPC	S/N	Ratio	Ratio Flag	Flags	S/N
[redacted]	35	Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.011	0.43	0.77	YES		3.5
[redacted]	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.008	0.38	0.77	YES		2.8
[redacted]	35	Total-tetrafurans	303.9016	24.08	0.000	0.877	0.000	0.101	0.60	0.77	YES		24.5
[redacted]	35	Total-tetrafurans	303.9016	23.85	4217.464	0.877	0.092	0.092	0.68	0.77	NO		19.5
[redacted]	35	Total-tetrafurans	303.9016	23.55	0.000	0.877	0.000	0.021	1.10	0.77	YES		6.0
[redacted]	35	Total-tetrafurans	303.9016	23.43	7637.884	0.877	0.167	0.167	0.67	0.77	NO		41.3
[redacted]	35	Total-tetrafurans	303.9016	22.87	1286.497	0.877	0.028	0.028	0.69	0.77	NO		7.8
[redacted]	35	Total-tetrafurans	303.9016	22.60	0.000	0.877	0.000	0.015	0.55	0.77	YES		4.0
[redacted]	40	Total-Furans	303.9016	21.42	0.000	1.041	0.000	0.002	1.00	0.77	YES		1.5
[redacted]	35	Total-tetrafurans	303.9016	27.54	1294.939	0.877	0.028	0.028	0.80	0.77	NO		5.5
[redacted]	35	Total-tetrafurans	303.9016	26.30	0.000	0.877	0.000	0.014	1.52	0.77	YES		6.8
[redacted]	1	2378-TCDF	303.9016	26.09	2027.415	0.877	0.044	0.044	0.76	0.77	NO		7.0
[redacted]	35	Total-tetrafurans	303.9016	25.20	0.000	0.877	0.000	0.035	0.65	0.77	YES		7.8
[redacted]	35	Total-tetrafurans	303.9016	24.99	0.000	0.877	0.000	0.078	0.99	0.77	YES		25.3
[redacted]	37	Total-pentafurans	339.8597	29.63	0.000	0.911	0.000	0.011	1.10	1.55	YES		5.1
[redacted]	37	Total-pentafurans	339.8597	29.15	0.000	0.911	0.000	0.206	1.85	1.55	YES		98.9
[redacted]	37	Total-pentafurans	339.8597	29.08	0.000	0.911	0.000	0.113	0.99	1.55	YES		51.3
[redacted]	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.027	0.86	1.55	YES		8.7
[redacted]	3	23478-PeCDF	339.8597	31.56	2086.969	0.926	0.060	0.060	1.39	1.55	NO		22.3
[redacted]	37	Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.038	2.33	1.55	YES		16.7
[redacted]	2	12378-PeCDF	339.8597	30.21	2434.268	0.896	0.000	0.054	1.24	1.55	YES		28.1
[redacted]	37	Total-pentafurans	339.8597	29.85	4186.052	0.911	0.110	0.110	1.66	1.55	NO		37.9
[redacted]	4	123478-HxCDF	373.8208	35.24	3127.519	1.068	0.000	0.097	1.44	1.24	YES		21.5
[redacted]	38	Total-hexafurans	373.8208	34.57	18655.960	1.032	0.656	0.656	1.16	1.24	NO		121.0
[redacted]	38	Total-hexafurans	373.8208	33.72	26833.395	1.032	0.944	0.944	1.09	1.24	NO		168.0
[redacted]	38	Total-hexafurans	373.8208	33.50	9774.487	1.032	0.344	0.344	1.33	1.24	NO		56.9
[redacted]	7	123789-HxCDF	373.8208	37.47	1666.994	0.987	0.000	0.059	1.02	1.24	YES		10.0
[redacted]	5	234678-HxCDF	373.8208	36.32	3786.158	1.037	0.000	0.121	1.54	1.24	YES		22.3
[redacted]	38	Total-hexafurans	373.8208	36.25	0.000	1.032	0.000	0.021	0.77	1.24	YES		6.8
[redacted]	6	123678-HxCDF	373.8208	35.37	3442.407	1.035	0.112	0.112	1.19	1.24	NO		21.2
[redacted]	8	1234678-HpCDF	407.7818	39.53	32259.801	1.232	1.248	1.248	1.01	1.05	NO		264.7
[redacted]	9	1234789-HpCDF	407.7818	42.23	2549.381	1.215	0.000	0.105	0.82	1.05	YES		15.7
[redacted]	39	Total-heptafurans	407.7818	40.32	50942.004	1.223	2.159	2.159	0.90	1.05	NO		378.3
[redacted]	39	Total-heptafurans	407.7818	40.03	466.974	1.223	0.020	0.020	1.12	1.05	NO		4.5
[redacted]	10	OCDF	441.7428	47.51	57512.617	1.138	3.779	3.779	0.84	0.89	NO		172.3
[redacted]	36	Total-penta1	339.8597	27.50	49460.650		1.293	1.293	1.65	1.55	NO		571.5
[redacted]	37	Total-pentafurans	339.8597	31.42	0.000	0.911	0.000	0.067	1.29	1.55	YES		25.5
[redacted]	41	Total-tetradioxins	319.8965	24.30	452.075	1.049	0.013	0.013	0.85	0.77	NO		4.2
[redacted]	41	Total-tetradioxins	319.8965	24.12	0.000	1.049	0.000	0.037	1.00	0.77	YES		7.2
[redacted]	41	Total-tetradioxins	319.8965	23.87	2415.788	1.049	0.069	0.069	0.86	0.77	NO		14.5
[redacted]	45	Total-Dioxins	319.8965	21.22	189.760	0.985	0.006	0.006	0.78	0.77	NO		1.8
[redacted]	41	Total-tetradioxins	319.8965	27.29	681.228	1.049	0.020	0.020	0.85	0.77	NO		3.2
[redacted]	11	2378-TCDD	319.8965	26.72	2679.846	1.049	0.000	0.026	0.17	0.77	YES		6.0
[redacted]	41	Total-tetradioxins	319.8965	26.33	0.000	1.049	0.000	0.018	0.48	0.77	YES		6.1
[redacted]	41	Total-tetradioxins	319.8965	26.12	410.182	1.049	0.012	0.012	0.84	0.77	NO		3.2
[redacted]	41	Total-tetradioxins	319.8965	26.08	0.000	1.049	0.000	0.005	2.68	0.77	YES		6.4
[redacted]	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.007	2.86	0.77	YES		7.3
[redacted]	41	Total-tetradioxins	319.8965	25.90	536.645	1.049	0.015	0.015	0.74	0.77	NO		2.5
[redacted]	41	Total-tetradioxins	319.8965	25.70	0.000	1.049	0.000	0.012	0.39	0.77	YES		3.5

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TotalTEQ,Furans,Dioxins

	#	Name	Trace	RT	Area	Area %	DL	DL%2	IT Ratio	IT Ratio	Flags	S/N
	41	Total-tetradioxins	319.8965	25.36	0.000	1.049	0.000	0.045	1.11	0.77	YES	13.4
	41	Total-tetradioxins	319.8965	25.06	0.000	1.049	0.000	0.017	1.35	0.77	YES	4.5
	41	Total-tetradioxins	319.8965	24.85	0.000	1.049	0.000	0.036	1.02	0.77	YES	11.5
	41	Total-tetradioxins	319.8965	24.36	0.000	1.049	0.000	0.010	1.14	0.77	YES	3.2
	42	Total-pentadioxins	355.8546	30.22	5870.892	0.998	0.239	0.239	1.71	1.55	NO	49.3
	42	Total-pentadioxins	355.8546	29.61	0.000	0.998	0.000	0.061	1.81	1.55	YES	12.0
	42	Total-pentadioxins	355.8546	29.14	0.000	0.998	0.000	0.509	1.47	1.55	NO	59.7
	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.057	1.88	1.55	YES	10.6
	12	12378-PeCDD	355.8546	31.81	5294.270	0.998	0.000	0.198	1.27	1.55	YES	29.3
	42	Total-pentadioxins	355.8546	30.77	0.000	0.998	0.000	0.050	1.10	1.55	YES	7.8
	42	Total-pentadioxins	355.8546	30.70	927.553	0.998	0.038	0.038	1.74	1.55	NO	7.3
	42	Total-pentadioxins	355.8546	30.56	2452.249	0.998	0.100	0.100	1.51	1.55	NO	13.2
	42	Total-pentadioxins	355.8546	30.44	4361.400	0.998	0.177	0.177	1.48	1.55	NO	29.6
	43	Total-hexadioxins	389.8157	35.12	4941.258	0.940	0.223	0.223	1.22	1.24	NO	28.1
	43	Total-hexadioxins	389.8157	34.30	26953.046	0.940	1.218	1.218	1.23	1.24	NO	154.6
	15	123789-HxCDD	389.8157	37.02	8860.108	0.932	0.404	0.404	1.27	1.24	NO	47.3
	43	Total-hexadioxins	389.8157	36.77	0.000	0.940	0.000	0.071	1.03	1.24	YES	9.9
	14	123678-HxCDD	389.8157	36.59	10068.278	0.918	0.452	0.452	1.26	1.24	NO	59.8
	13	123478-HxCDD	389.8157	36.46	3854.852	0.971	0.174	0.174	1.14	1.24	NO	20.5
	43	Total-hexadioxins	389.8157	35.62	0.000	0.940	0.000	0.124	1.02	1.24	YES	19.6
	43	Total-hexadioxins	389.8157	35.51	37733.058	0.940	1.705	1.705	1.33	1.24	NO	145.9
	16	1234678-HpCDD	423.7766	41.35	186245.688	1.017	9.420	9.420	1.04	1.05	NO	502.1
	44	Total-heptadioxins	423.7766	40.08	218618.696	1.017	11.057	11.057	1.02	1.05	NO	632.5
	17	OCDD	457.7377	47.24	938711.437	1.008	69.592	69.592	0.89	0.89	NO	2335.8

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Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

PFK1

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
48	FUNCTION1 PFK	330.9792	21.43	0.000							79.2
48	FUNCTION1 PFK	330.9792	21.37	0.000							77.3
48	FUNCTION1 PFK	330.9792	21.18	0.000							70.6
48	FUNCTION1 PFK	330.9792	21.12	0.000							68.7
48	FUNCTION1 PFK	330.9792	24.30	0.000							40.8
48	FUNCTION1 PFK	330.9792	24.21	0.000							44.2
48	FUNCTION1 PFK	330.9792	23.99	0.000							47.6
48	FUNCTION1 PFK	330.9792	23.88	0.000							50.1
48	FUNCTION1 PFK	330.9792	23.63	0.000							54.1
48	FUNCTION1 PFK	330.9792	23.51	0.000							57.0
48	FUNCTION1 PFK	330.9792	23.25	0.000							61.7
48	FUNCTION1 PFK	330.9792	23.13	0.000							63.7
48	FUNCTION1 PFK	330.9792	23.03	0.000							65.8
48	FUNCTION1 PFK	330.9792	22.72	0.000							70.8
48	FUNCTION1 PFK	330.9792	22.66	0.000							71.8
48	FUNCTION1 PFK	330.9792	22.58	0.000							72.3
48	FUNCTION1 PFK	330.9792	22.31	0.000							77.3
48	FUNCTION1 PFK	330.9792	22.10	0.000							81.2
48	FUNCTION1 PFK	330.9792	21.83	0.000							76.9
48	FUNCTION1 PFK	330.9792	21.63	0.000							86.1
48	FUNCTION1 PFK	330.9792	27.81	0.000							5.5
48	FUNCTION1 PFK	330.9792	27.57	0.000							4.1
48	FUNCTION1 PFK	330.9792	27.26	0.000							2.2
48	FUNCTION1 PFK	330.9792	27.08	0.000							1.8
48	FUNCTION1 PFK	330.9792	26.86	0.000							1.6
48	FUNCTION1 PFK	330.9792	25.99	0.000							1.6
48	FUNCTION1 PFK	330.9792	25.35	0.000							9.1
48	FUNCTION1 PFK	330.9792	24.99	0.000							21.6
48	FUNCTION1 PFK	330.9792	24.84	0.000							27.6
48	FUNCTION1 PFK	330.9792	24.78	0.000							29.0
48	FUNCTION1 PFK	330.9792	24.55	0.000							37.1

PFK2

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
49	FUNCTION2 PFK	366.9792	29.97	0.000	0.000						1.9
49	FUNCTION2 PFK	366.9792	29.65	0.000	0.000						1.4
49	FUNCTION2 PFK	366.9792	29.60	0.000	0.000						1.6
49	FUNCTION2 PFK	366.9792	29.30	0.000	0.000						1.7
49	FUNCTION2 PFK	366.9792	32.38	0.000	0.000						1.4

PFK3

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
50	FUNCTION3 PFK	380.9760	33.20	0.000	0.000						3.5

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PFK4

[redacted]	Id	Name	Mass	RT	Abs Area	PFK M...	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	51	FUNCTION4 PFK	430.9728	40.21	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	40.16	0.000						1.5
[redacted]	51	FUNCTION4 PFK	430.9728	40.08	0.000						1.9
[redacted]	51	FUNCTION4 PFK	430.9728	39.73	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	39.63	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	39.53	0.000						0.5
[redacted]	51	FUNCTION4 PFK	430.9728	39.34	0.000						4.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.20	0.000						11.2
[redacted]	51	FUNCTION4 PFK	430.9728	39.11	0.000						15.6
[redacted]	51	FUNCTION4 PFK	430.9728	38.85	0.000						27.0
[redacted]	51	FUNCTION4 PFK	430.9728	38.77	0.000						30.6
[redacted]	51	FUNCTION4 PFK	430.9728	38.73	0.000						33.3
[redacted]	51	FUNCTION4 PFK	430.9728	42.34	0.000						0.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.27	0.000						1.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.14	0.000						1.1
[redacted]	51	FUNCTION4 PFK	430.9728	42.05	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	42.01	0.000						0.5
[redacted]	51	FUNCTION4 PFK	430.9728	41.78	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	41.49	0.000						1.5
[redacted]	51	FUNCTION4 PFK	430.9728	41.44	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	41.05	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	41.01	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	40.97	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	40.86	0.000						0.5
[redacted]	51	FUNCTION4 PFK	430.9728	40.66	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.53	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.44	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.31	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.52	0.000						1.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.43	0.000						1.5
[redacted]	51	FUNCTION4 PFK	430.9728	44.39	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.30	0.000						0.7
[redacted]	51	FUNCTION4 PFK	430.9728	44.18	0.000						1.2
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[redacted]	51	FUNCTION4 PFK	430.9728	43.88	0.000						1.0
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[redacted]	51	FUNCTION4 PFK	430.9728	43.32	0.000						1.4
[redacted]	51	FUNCTION4 PFK	430.9728	43.09	0.000						1.4
[redacted]	51	FUNCTION4 PFK	430.9728	43.03	0.000						0.9
[redacted]	51	FUNCTION4 PFK	430.9728	42.87	0.000						0.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.82	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	42.54	0.000						0.9
[redacted]	51	FUNCTION4 PFK	430.9728	42.49	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.56	0.000						1.5

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PFK5

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N

ETHERS1

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	53	FUNCTION1 HXCD...	375.8364	27.14	0.000		0.000					1.5
	53	FUNCTION1 HXCD...	375.8364	27.09	0.000		0.000					1.1
	53	FUNCTION1 HXCD...	375.8364	26.51	0.000		0.000					7.3
	53	FUNCTION1 HXCD...	375.8364	26.47	0.000		0.000					4.1
	53	FUNCTION1 HXCD...	375.8364	26.14	0.000		0.000					3.0
	53	FUNCTION1 HXCD...	375.8364	25.18	0.000		0.000					0.8
	53	FUNCTION1 HXCD...	375.8364	24.40	0.000		0.000					1.6
	53	FUNCTION1 HXCD...	375.8364	24.12	0.000		0.000					2.7
	53	FUNCTION1 HXCD...	375.8364	23.96	0.000		0.000					2.6
	53	FUNCTION1 HXCD...	375.8364	22.97	0.000		0.000					1.2
	53	FUNCTION1 HXCD...	375.8364	22.88	0.000		0.000					1.1

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	21.49	0.000		0.000					1.8
	54	FUNCTION1 HPCD...	409.7974	27.26	0.000		0.000					1.3
	54	FUNCTION1 HPCD...	409.7974	27.12	0.000		0.000					2.1
	54	FUNCTION1 HPCD...	409.7974	26.69	0.000		0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	25.73	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	25.59	0.000		0.000					2.1
	54	FUNCTION1 HPCD...	409.7974	23.85	0.000		0.000					2.9
	54	FUNCTION1 HPCD...	409.7974	23.66	0.000		0.000					2.5
	54	FUNCTION1 HPCD...	409.7974	23.39	0.000		0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	23.31	0.000		0.000					2.1
	54	FUNCTION1 HPCD...	409.7974	22.96	0.000		0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	21.66	0.000		0.000					2.4

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	32.16	0.000		0.000					1.7
	55	FUNCTION2 HPCD...	409.7974	31.24	0.000		0.000					2.2
	55	FUNCTION2 HPCD...	409.7974	30.89	0.000		0.000					2.8
	55	FUNCTION2 HPCD...	409.7974	29.29	0.000		0.000					6.2

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N

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ETHERS5

	#	Name	Mass	RT	Abs Ratio	Ref M...	Pol	RMPC	2nd Ratio	3rd Ratio	4th Ratio	S/N
	57	FUNCTION4 NCDPE	479.7165	43.57	0.000		0.000					3.5
	57	FUNCTION4 NCDPE	479.7165	39.17	0.000		0.000					9.4
	57	FUNCTION4 NCDPE	479.7165	39.13	0.000		0.000					9.5

ETHERS6

	#	Name	Mass	RT	Abs Ratio	Ref M...	Pol	RMPC	2nd Ratio	3rd Ratio	4th Ratio	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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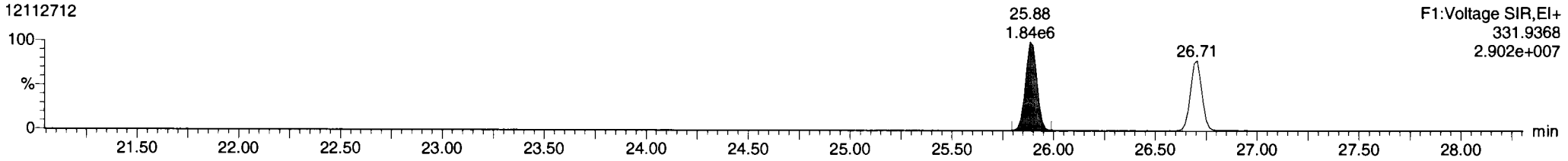
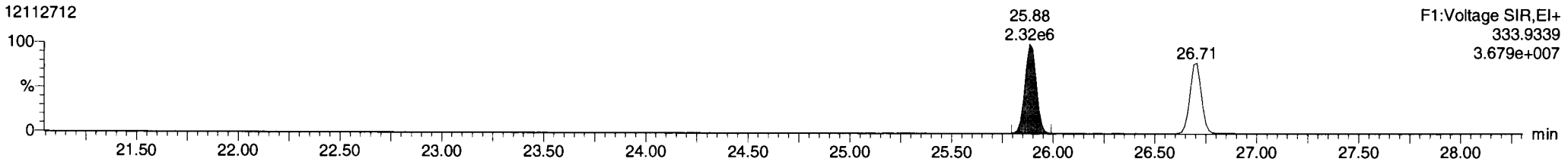
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

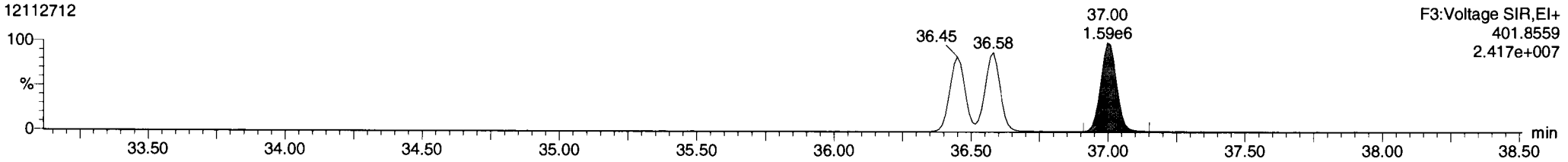
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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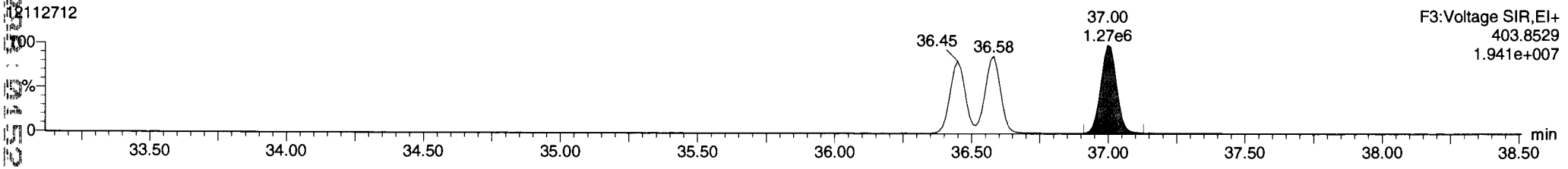

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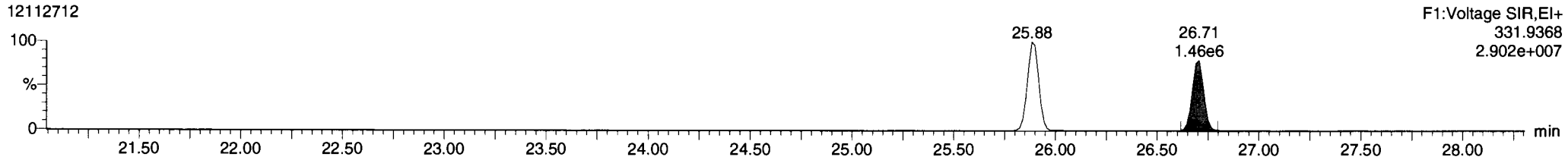
13C-2378-TCDD



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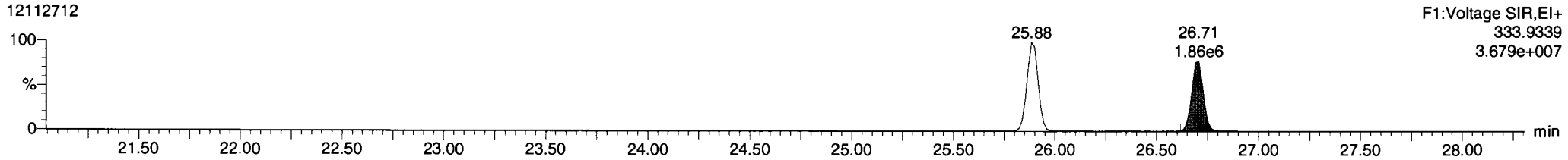
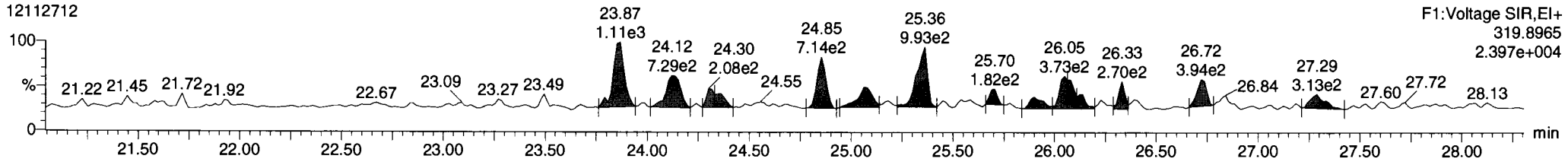
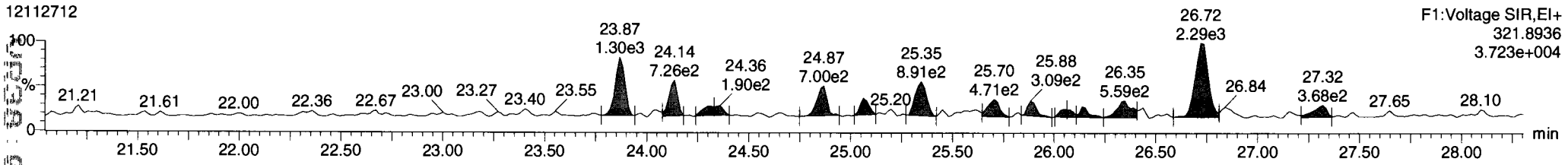


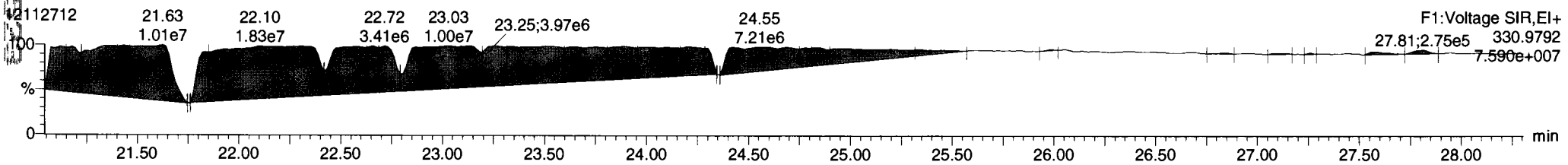
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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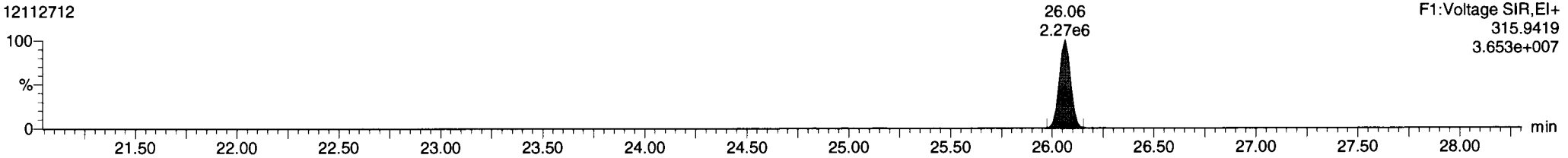
13C-2378-TCDF



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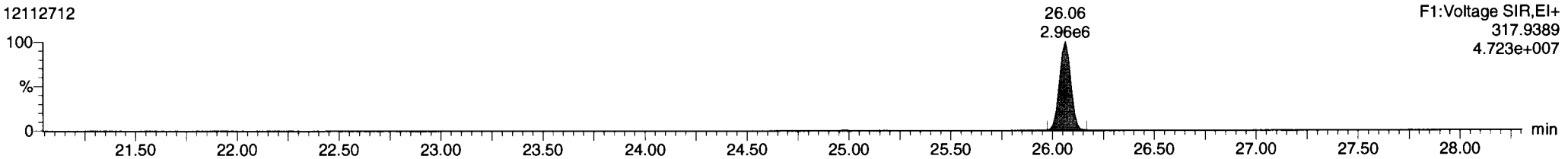
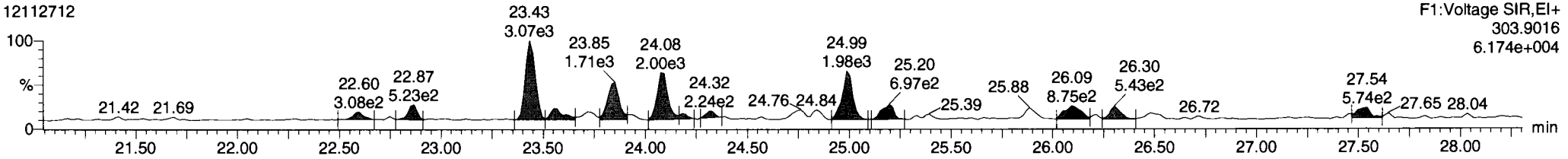
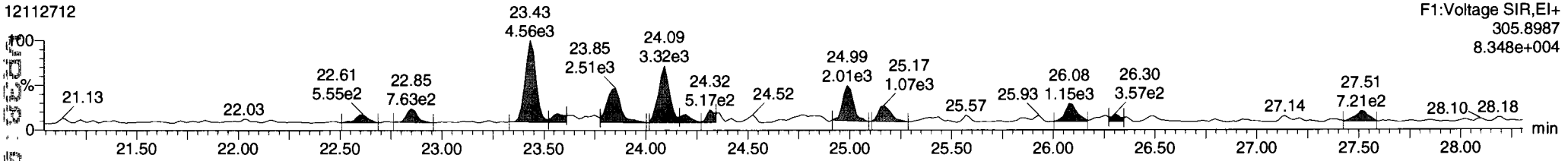


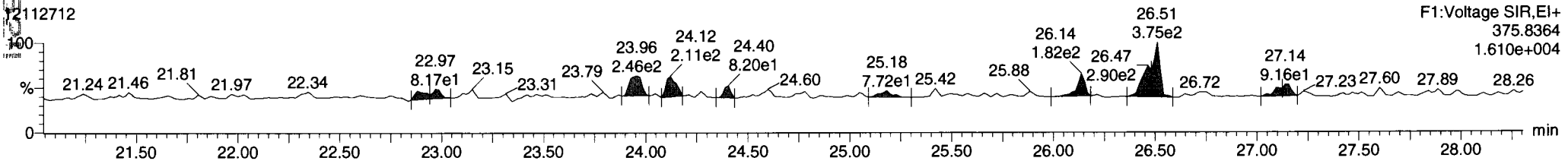
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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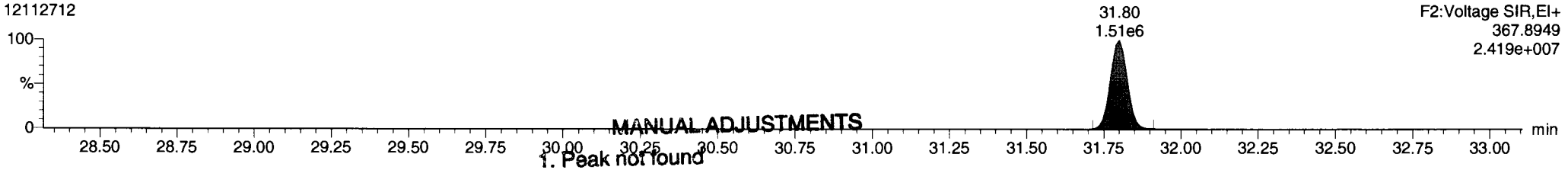
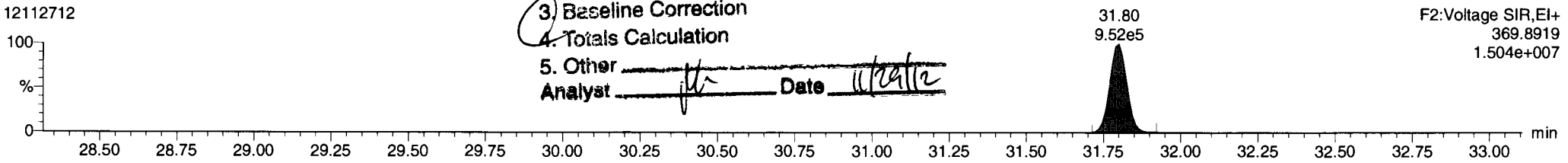
13C-12378-PeCDD

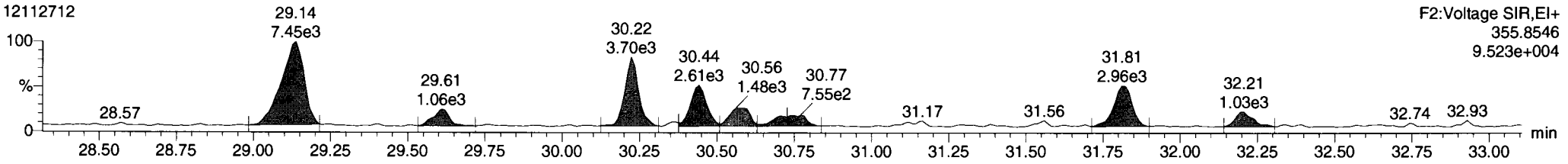


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date 11/29/12

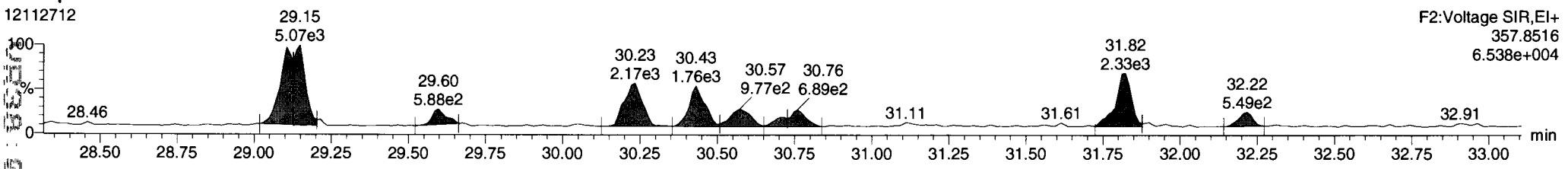
13C-12378-PeCDD



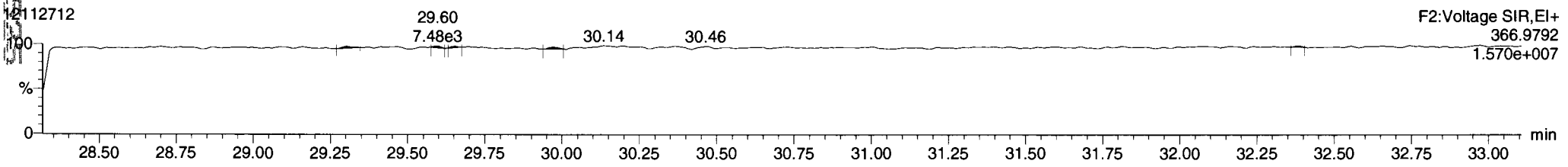
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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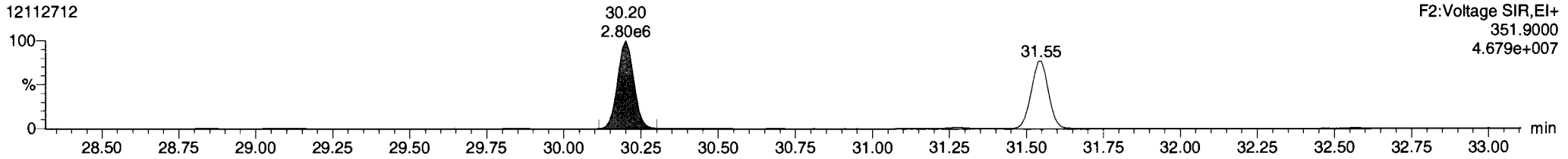
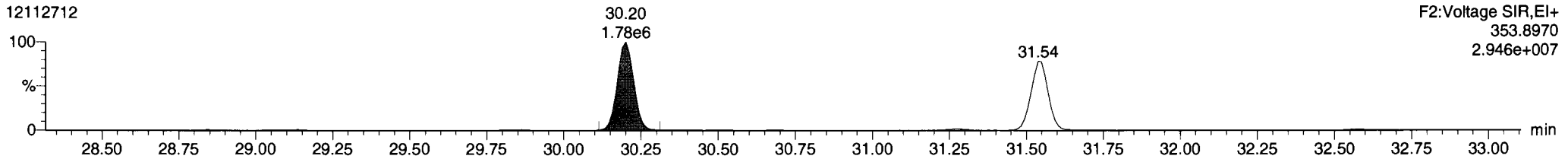
Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



13C-12378-PeCDF



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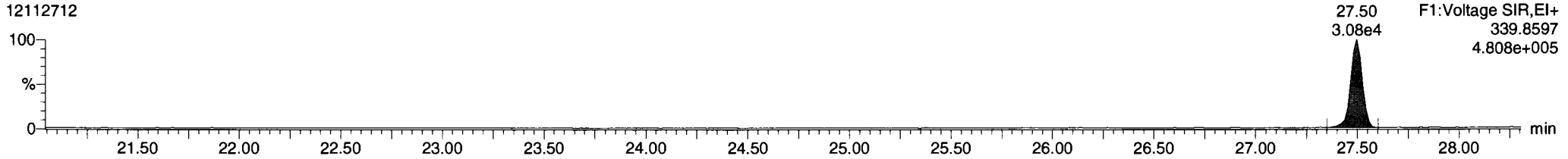
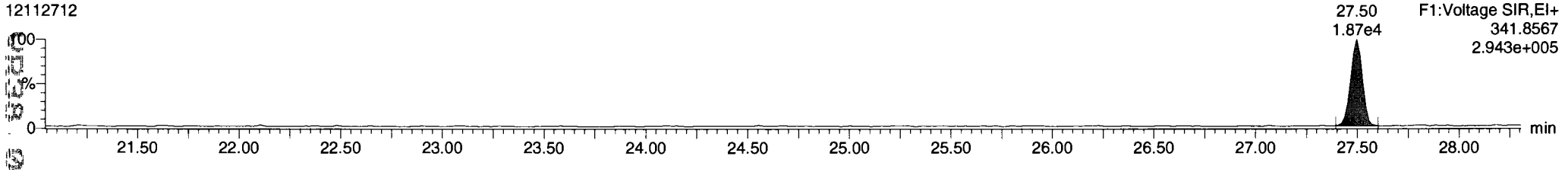
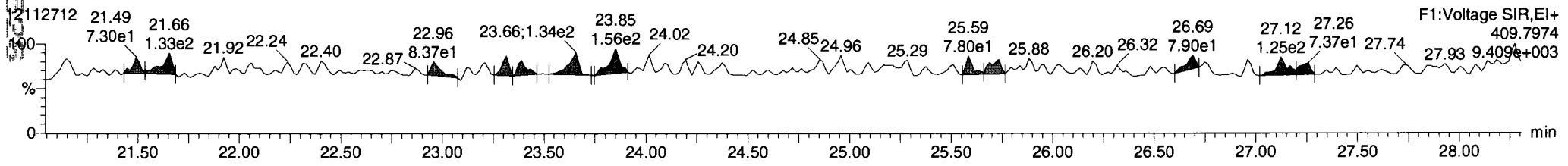


Total-penta1



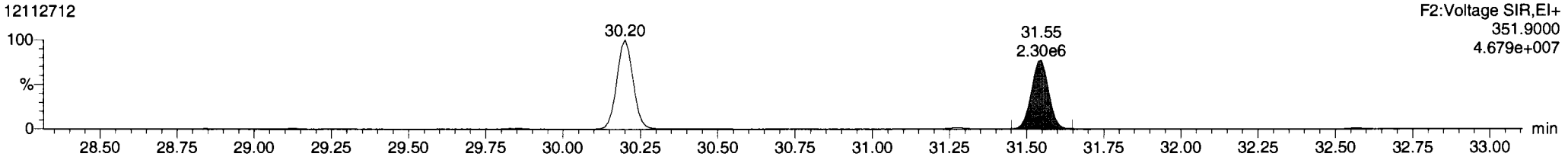
FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:31 Pacific Standard Time

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF



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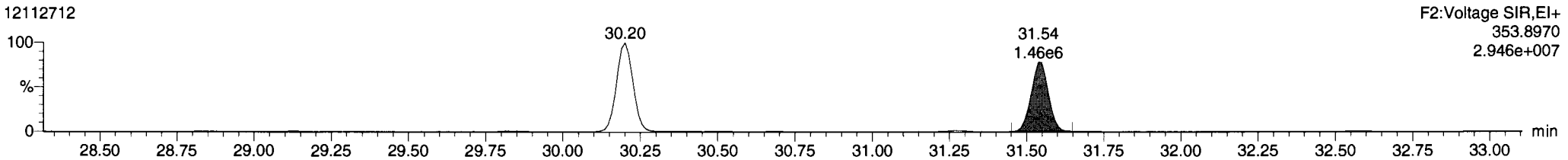
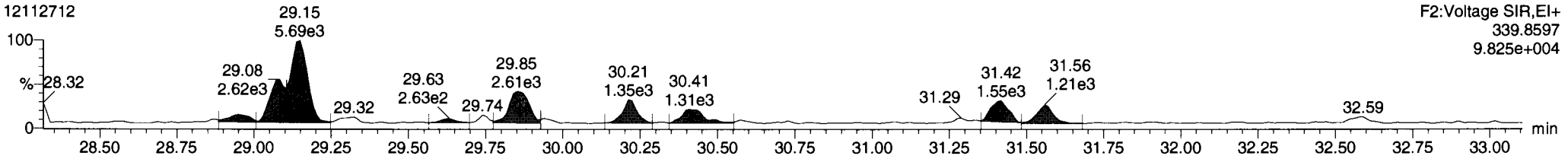
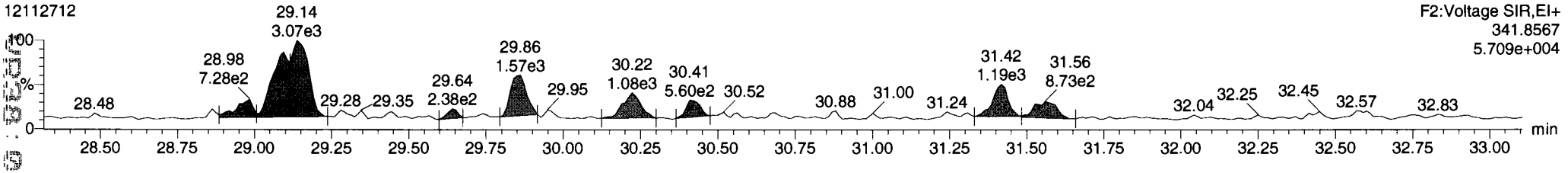


Total-pentafurans



Total-pentafurans



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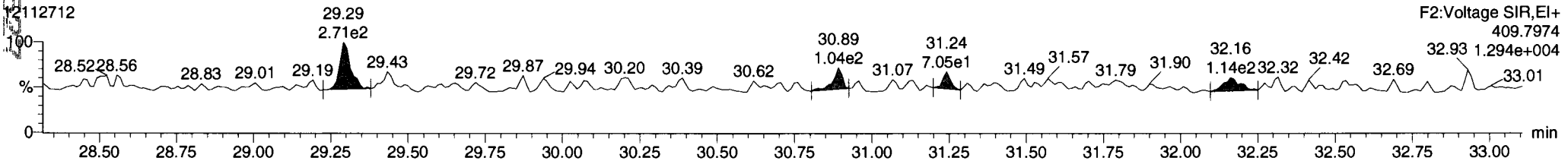
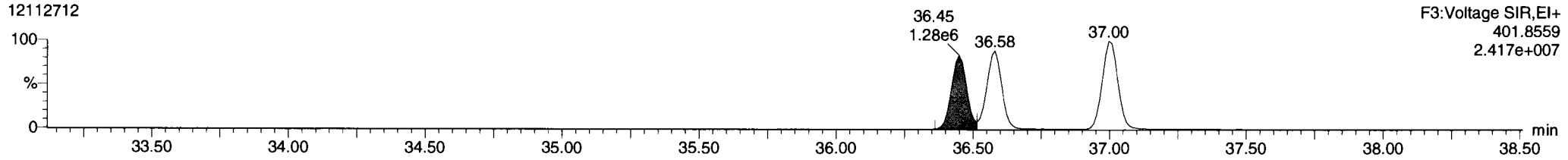


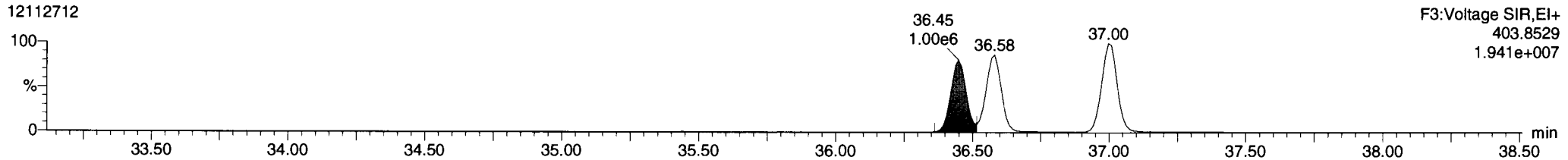
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:31 Pacific Standard Time

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

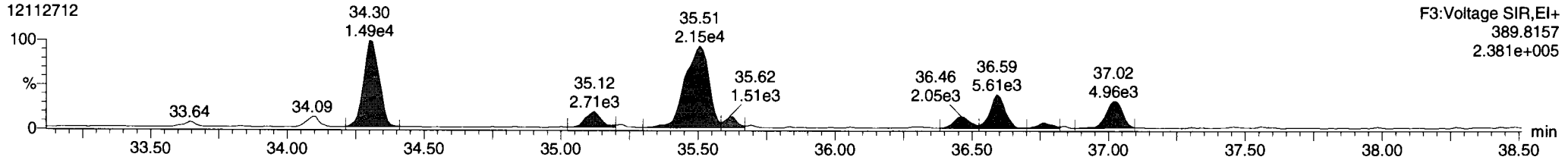
13C-123478-HxCDD



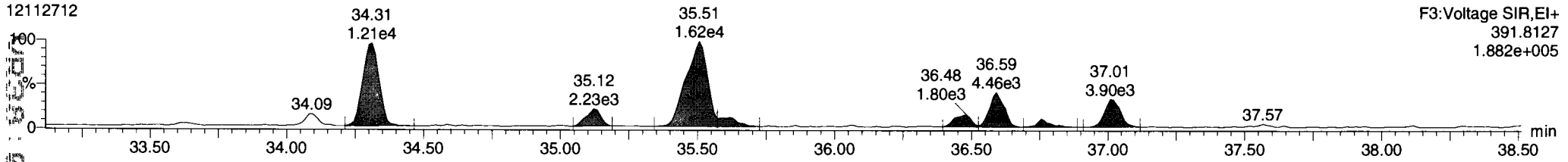
13C-123478-HxCDD



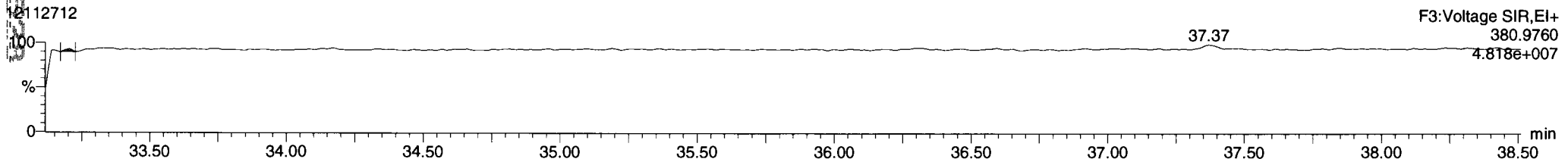
Total-hexadioxins



Total-hexadioxins



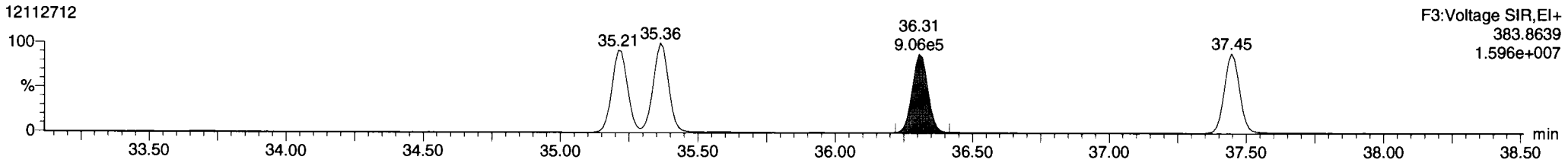
FUNCTION3 PFK



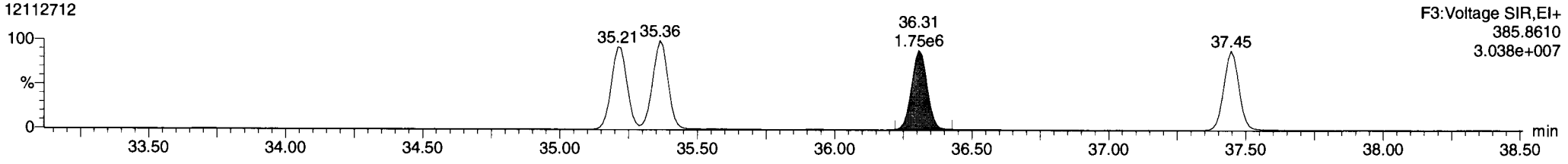
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:31 Pacific Standard Time

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

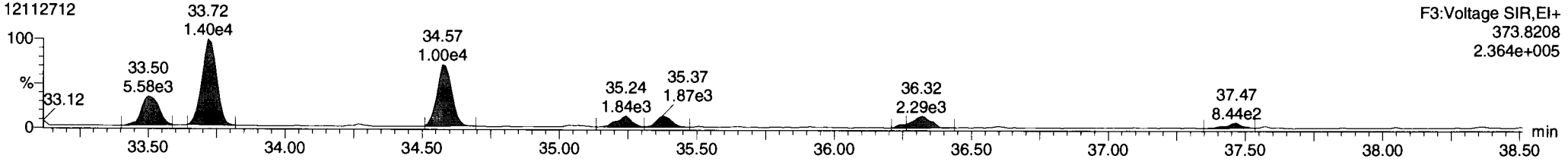
13C-234678-HxCDF



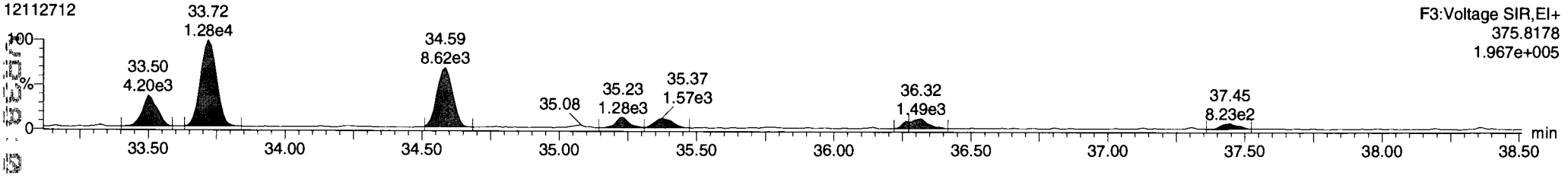
13C-234678-HxCDF



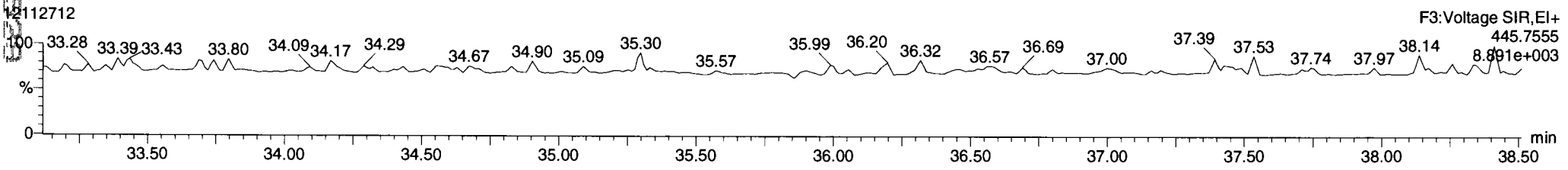
Total-hexafurans



Total-hexafurans



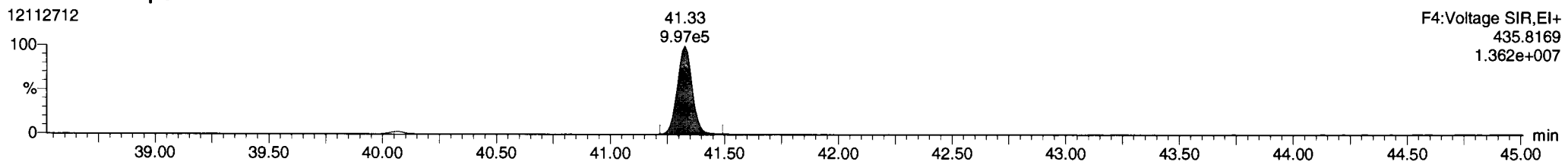
FUNCTION3 OCDPE



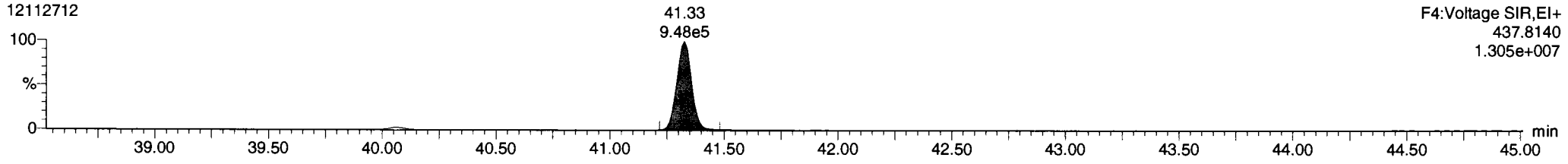
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:31 Pacific Standard Time

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

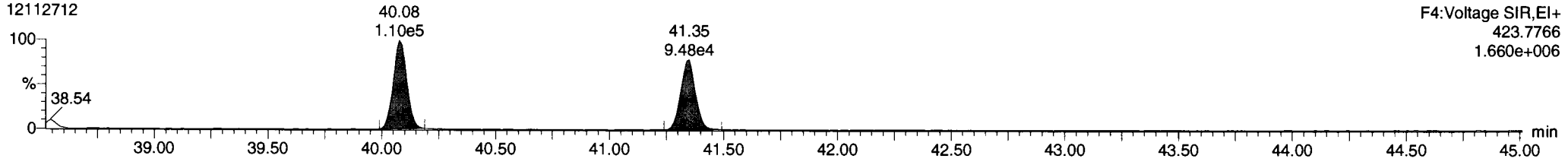
13C-1234678-HpCDD



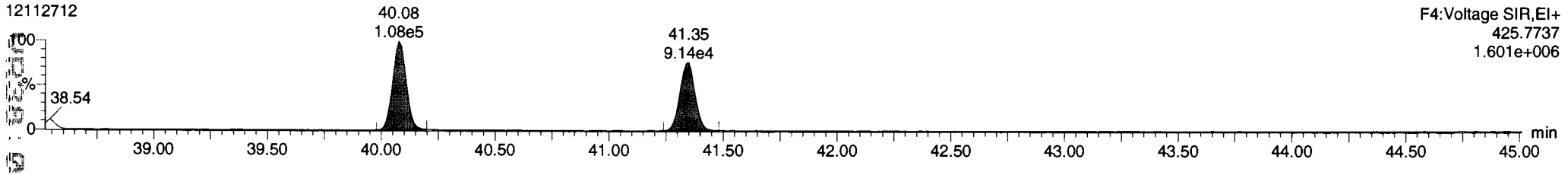
13C-1234678-HpCDD



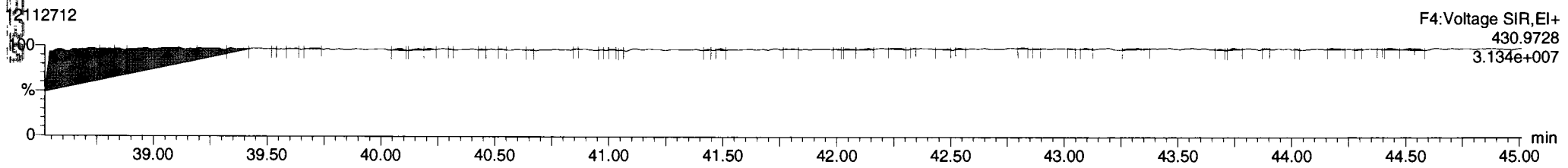
Total-heptadioxins



Total-heptadioxins



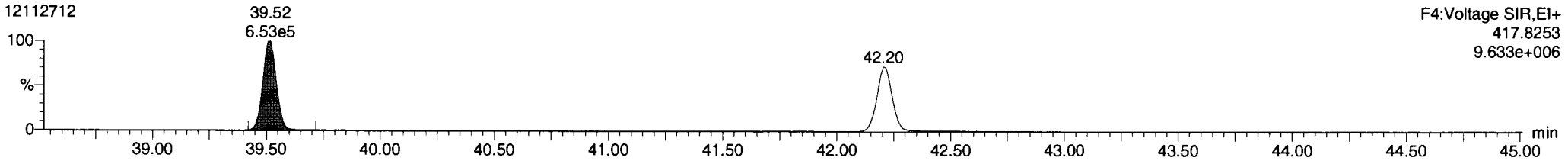
FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:31 Pacific Standard Time

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF



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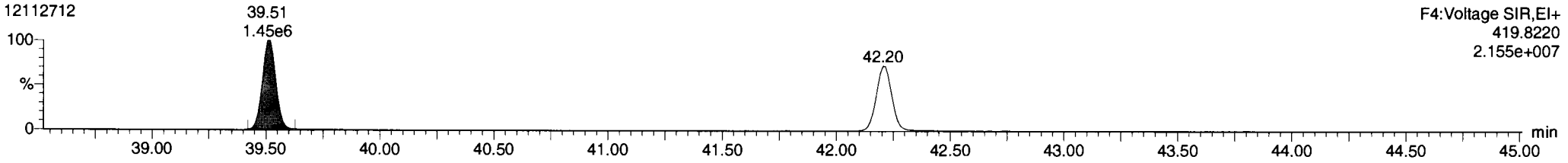
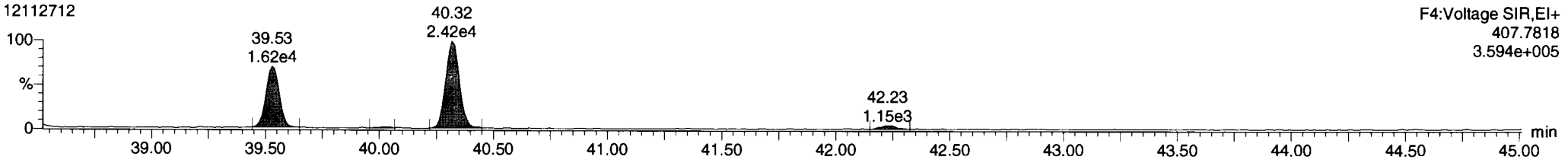
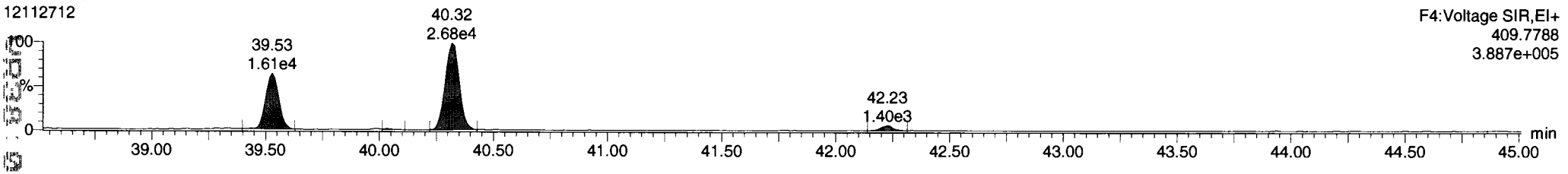


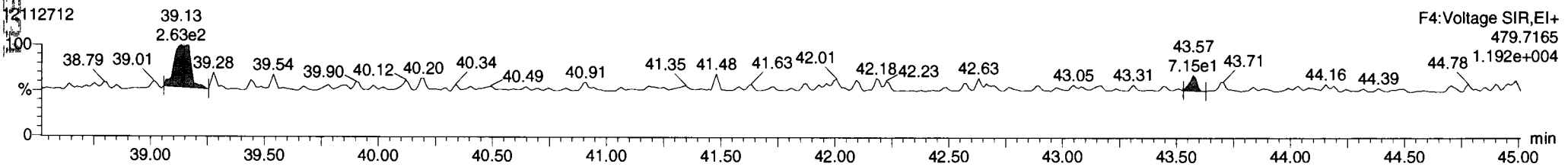
Total-heptafurans



Total-heptafurans



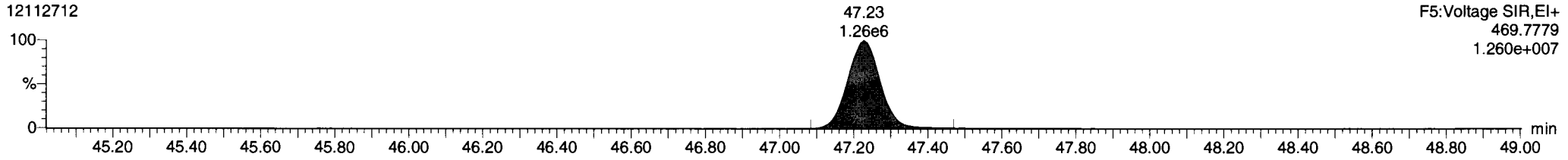
FUNCTION4 NCDPE



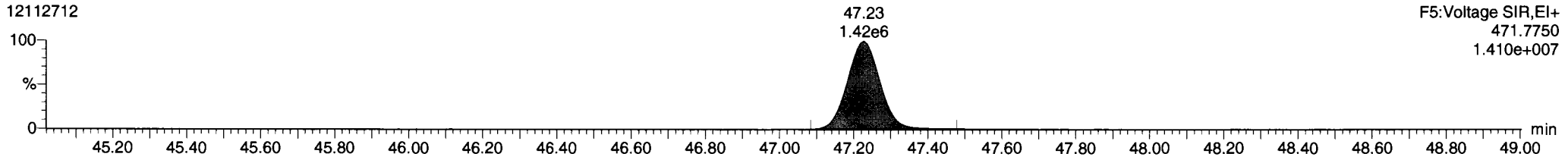
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:31 Pacific Standard Time

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

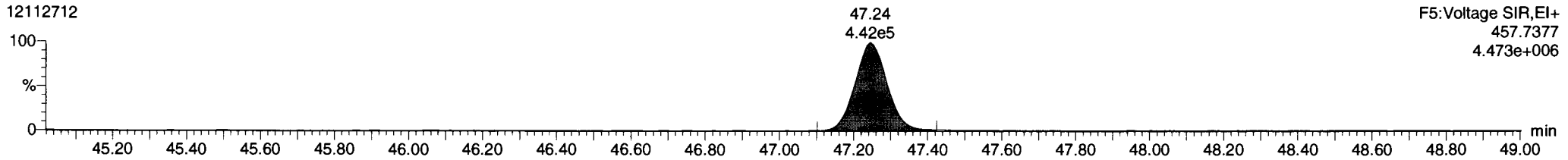
13C-OCDD



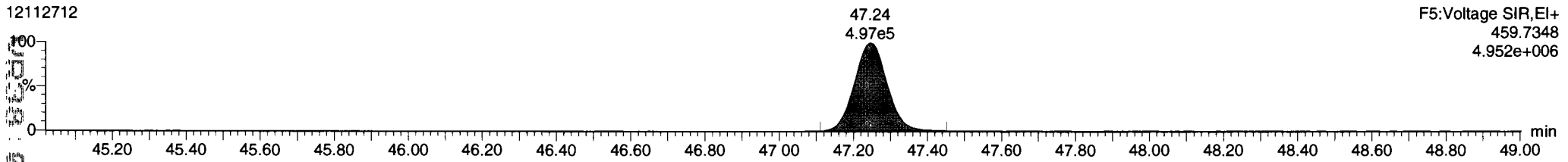
13C-OCDD



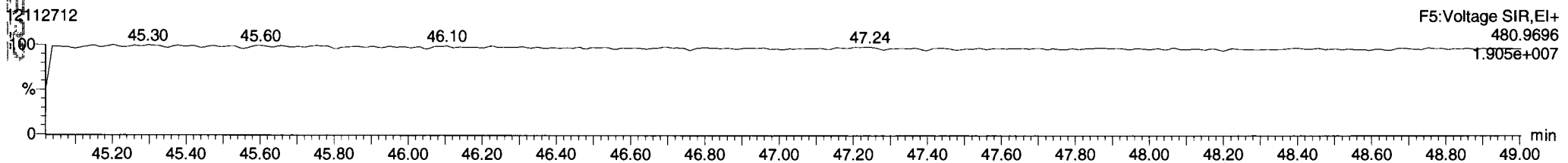
OCDD



OCDD



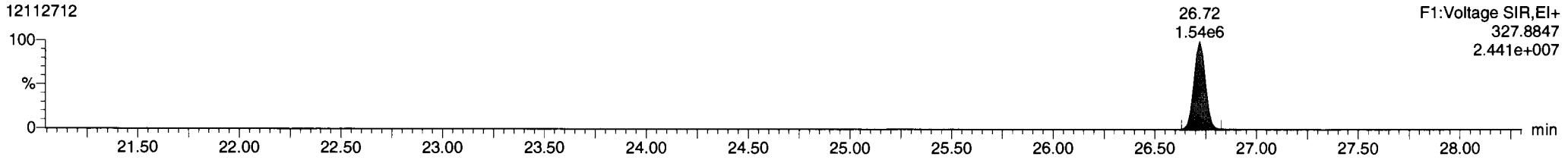
FUNCTION5 PFK



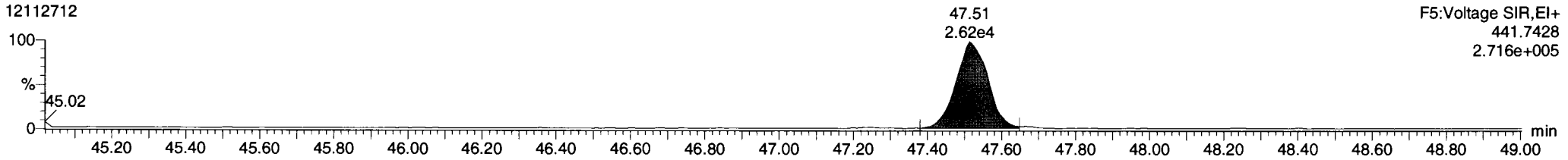
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:31 Pacific Standard Time

Name: 12112712, Date: 27-Nov-2012, Time: 20:25:33, ID: VR38E, Conditions: AUTOSPEC01, User: pk

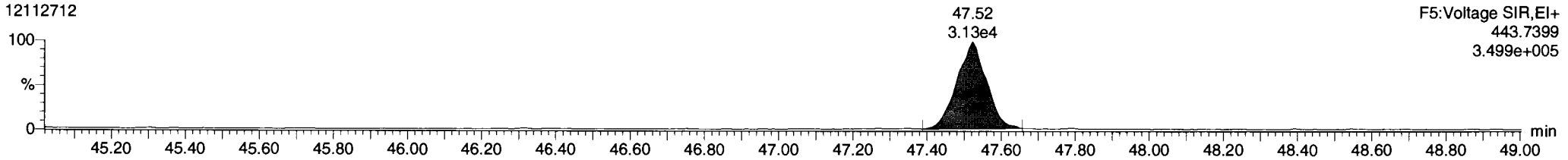
37CL-2378-TCDD



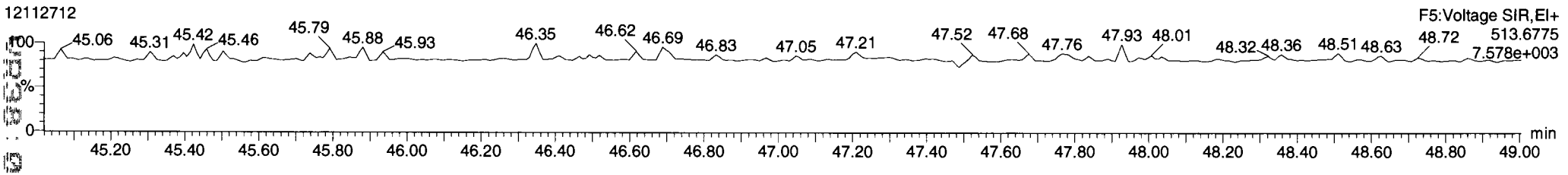
OCDF



OCDF



FUNCTION5 DCDPE



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Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

jlk 11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

		RT	Rel RT	Lo Area	Hi Area	Total Area	In	Ratio	% Theor	Prelim	Flags	S/N	EMPC	ng
1	2378-TCDF	26.063	1.001	837	1127	1964	bd	0.877	0.743	0.770	NO	12.7	0.041	0.041
2	12378-PeCDF	30.212	1.001	856	788	1643	bb	0.896	1.086	1.550	YES	8.1	0.035	0.041
3	23478-PeCDF	31.549	1.001	836	522	1358	MM	0.926	1.601	1.550	NO	7.6	0.038	0.038
4	123478-HxCDF	35.222	1.001	916	1043	1959	db	1.068	0.879	1.240	YES	10.8	0.053	0.062
5	234678-HxCDF	36.318	1.001	545	707	1253	MM	1.037	0.771	1.240	YES	8.9	0.034	0.043
6	123678-HxCDF	35.375	1.001	1034	1051	2086	bb	1.035	0.984	1.240	YES	15.6	0.059	0.065
7	123789-HxCDF	37.436	1.000	482	277	759	MM	0.987	1.745	1.240	YES	6.3	0.022	0.027
8	1234678-HpCDF	39.519	1.001	10551	11590	22140	bb	1.232	0.910	1.050	NO	103.8	0.797	0.797
9	1234789-HpCDF	42.226	1.001	803	779	1582	bb	1.215	1.031	1.050	NO	8.4	0.067	0.067
10	OCDF	47.505	1.006	14964	17092	32056	bd	1.138	0.876	0.890	NO	284.7	1.950	1.950
11	2378-TCDD	26.691	1.001	344	2374	2719	bd	1.049	0.145	0.770	YES	3.2	0.022	0.074
12	12378-PeCDD	31.790	1.000	1090	727	1817	bb	0.998	1.499	1.550	NO	8.7	0.072	0.072
13	123478-HxCDD	36.449	1.000	776	659	1435	bd	0.971	1.176	1.240	NO	9.0	0.060	0.060
14	123678-HxCDD	36.581	1.001	2403	2113	4517	dd	0.918	1.137	1.240	NO	22.8	0.194	0.194
15	123789-HxCDD	37.008	1.012	1655	1705	3359	bb	0.932	0.971	1.240	YES	16.7	0.129	0.145
16	1234678-HpCDD	41.327	1.000	43330	41874	85204	bb	1.017	1.035	1.050	NO	364.4	4.037	4.037
17	OCDD	47.235	1.000	205785	230682	436467	bb	1.008	0.892	0.890	NO	1170.0	29.945	29.945
18	13C-2378-TCDF	26.034	1.006	2351681	3050135	5401816	bb	1.473	0.771	0.770	NO	13466.4		85.889
19	13C-12378-PeCDF	30.179	1.167	2714395	1740387	4454782	bb	1.148	1.560	1.550	NO	11190.8		90.868
20	13C-23478-PeCDF	31.527	1.219	2373972	1532082	3906054	bb	1.113	1.549	1.550	NO	9592.3		82.192
21	13C-123478-HxCDF	35.200	0.952	1003358	1935405	2938763	bd	1.209	0.518	0.510	NO	4396.6		80.938
22	13C-123678-HxCDF	35.353	0.956	1059298	2025405	3084704	db	1.269	0.523	0.510	NO	4663.7		80.964
23	13C-234678-HxCDF	36.296	0.981	962415	1864091	2826505	bb	1.236	0.516	0.510	NO	4271.3		76.157
24	13C-123789-HxCDF	37.436	1.012	977072	1878168	2855241	bb	1.107	0.520	0.510	NO	4262.5		85.905
25	13C-1234678-HpCDF	39.496	1.068	692033	1563047	2255080	bb	1.051	0.443	0.440	NO	4521.4		71.436
26	13C-1234789-HpCDF	42.193	1.141	589814	1357113	1946927	bd	0.815	0.435	0.440	NO	3260.0		79.572
27	13C-1234-TCDD	25.869	0.000	1873889	2397025	4270914	bb	1.000	0.782	0.770	NO	8583.9		100.000
28	13C-2378-TCDD	26.676	1.031	1516057	1968975	3485031	bb	0.946	0.770	0.770	NO	6906.0		86.282
29	13C-12378-PeCDD	31.779	1.228	1544245	980774	2525018	bb	0.721	1.574	1.550	NO	11562.5		82.036
30	13C-123478-HxCDD	36.438	0.985	1357980	1085576	2443555	bd	0.991	1.251	1.240	NO	6540.8		82.115
31	13C-123678-HxCDD	36.559	0.988	1413590	1128716	2542306	db	1.025	1.252	1.240	NO	6684.8		82.614
32	13C-1234678-HpCDD	41.316	1.117	1061645	1014011	2075655	bb	0.866	1.047	1.050	NO	4494.8		79.794
33	13C-OCDD	47.217	1.277	1359874	1530953	2890827	bb	0.769	0.888	0.890	NO	5968.9		125.152

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	Name	RT	Rel RT	Ion Abd	Ion2 Abd	Total Area	Int	Rel Int	Ratio	Theor Ratio	Flag	S/N	Amount	Dil
36	13C-123789-HxCDD	36.986	0.000	1664251	1338982	3003232	bb	1.000	1.243	1.240	NO	7892.5		100.000
46	Total-tetrafurans			6984				0.877					0.575	0.344
36	Total-penta1			10518									0.457	0.457
37	Total-pentafurans			2973				0.911					0.324	0.134
38	Total-hexafurans			13576				1.032					1.205	0.838
39	Total-heptafurans			27097				1.223					2.113	2.113
40	Total-Furans			76514				1.041					6.639	5.853
41	Total-tetradioxins			3288				1.049					0.301	0.206
42	Total-pentadioxins			3858				0.998					0.368	0.259
43	Total-hexadioxins			14556				0.940					1.270	1.141
44	Total-heptadioxins			77047				1.017					7.253	7.253
45	Total-Dioxins			304534				0.985					39.138	38.805
48	Total-TEQ			381048									45.777	44.657
47	37CL-2378-TCDD	26.691	1.032	1603691		1603691		1.044				14107.4		35.980
48	FUNCTION1 PFK			27099004										
49	FUNCTION2 PFK			4416369										0.000
50	FUNCTION3 PFK			662628										0.000
51	FUNCTION4 PFK			0										
52	FUNCTION5 PFK			171304										
53	FUNCTION1 HXCDPE			4706										0.000
54	FUNCTION1 HPCDPE			1343										0.000
55	FUNCTION2 HPCDPE			229										0.000
56	FUNCTION3 OCDPE			0										
57	FUNCTION4 NCDPE			5449										0.000
58	FUNCTION5 DCDPE			0										

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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

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TF

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	35	Total-tetrafurans	303.9016	24.30	0.000	0.877	0.000	0.026	1.23	0.77	YES	10.5
[redacted]	35	Total-tetrafurans	303.9016	24.17	0.000	0.877	0.000	0.017	0.64	0.77	YES	4.1
[redacted]	35	Total-tetrafurans	303.9016	24.06	0.000	0.877	0.000	0.050	0.65	0.77	YES	11.1
[redacted]	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.027	0.92	0.77	YES	6.6
[redacted]	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.012	1.30	0.77	YES	4.5
[redacted]	35	Total-tetrafurans	303.9016	23.60	0.000	0.877	0.000	0.015	2.36	0.77	YES	8.3
[redacted]	35	Total-tetrafurans	303.9016	23.40	6496.786	0.877	0.137	0.137	0.76	0.77	NO	31.7
[redacted]	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.015	0.41	0.77	YES	4.5
[redacted]	35	Total-tetrafurans	303.9016	22.57	1303.000	0.877	0.028	0.028	0.74	0.77	NO	6.0
[redacted]	35	Total-tetrafurans	303.9016	26.27	1743.697	0.877	0.037	0.037	0.67	0.77	NO	8.0
[redacted]	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.009	0.46	0.77	YES	3.4
[redacted]	1	2378-TCDF	303.9016	26.06	1963.695	0.877	0.041	0.041	0.74	0.77	NO	12.7
[redacted]	35	Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.014	1.21	0.77	YES	5.6
[redacted]	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.023	0.49	0.77	YES	6.8
[redacted]	35	Total-tetrafurans	303.9016	24.96	3372.409	0.877	0.071	0.071	0.76	0.77	NO	16.2
[redacted]	35	Total-tetrafurans	303.9016	24.79	1412.993	0.877	0.030	0.030	0.79	0.77	NO	7.8
[redacted]	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.024	1.07	0.77	YES	8.1

PP

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	36	Total-penta1	339.8597	27.47	17525.348		0.457	0.457	1.50	1.55	NO	140.9

PF

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	2	12378-PeCDF	339.8597	30.21	1643.320	0.896	0.000	0.035	1.09	1.55	YES	8.1
[redacted]	37	Total-pentafurans	339.8597	29.84	0.000	0.911	0.000	0.052	1.22	1.55	YES	13.2
[redacted]	37	Total-pentafurans	339.8597	29.14	3672.377	0.911	0.096	0.096	1.39	1.55	NO	19.0
[redacted]	37	Total-pentafurans	339.8597	29.05	0.000	0.911	0.000	0.047	0.84	1.55	YES	16.3
[redacted]	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.034	1.27	1.55	YES	6.8
[redacted]	3	23478-PeCDF	339.8597	31.55	1357.878	0.926	0.038	0.038	1.60	1.55	NO	7.6
[redacted]	37	Total-pentafurans	339.8597	31.38	0.000	0.911	0.000	0.021	1.98	1.55	YES	8.0

HF

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	7	123789-HxCDF	373.8208	37.44	758.973	0.987	0.000	0.022	1.74	1.24	YES	6.3
[redacted]	5	234678-HxCDF	373.8208	36.32	1252.809	1.037	0.000	0.034	0.77	1.24	YES	8.9
[redacted]	38	Total-hexafurans	373.8208	36.28	0.000	1.032	0.000	0.033	2.01	1.24	YES	12.7
[redacted]	6	123678-HxCDF	373.8208	35.38	2085.856	1.035	0.000	0.059	0.98	1.24	YES	15.6
[redacted]	4	123478-HxCDF	373.8208	35.22	1958.938	1.068	0.000	0.053	0.88	1.24	YES	10.8
[redacted]	38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.015	0.55	1.24	YES	4.1
[redacted]	38	Total-hexafurans	373.8208	34.57	10899.792	1.032	0.361	0.361	1.15	1.24	NO	68.6
[redacted]	38	Total-hexafurans	373.8208	33.71	14406.005	1.032	0.477	0.477	1.16	1.24	NO	96.5
[redacted]	38	Total-hexafurans	373.8208	33.49	0.000	1.032	0.000	0.151	0.99	1.24	YES	32.2

Quantify Totals Report MassLynx 4.1 SCN 714
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HPF

	9	1234789-HpCDF	407.7818	42.23	1581.814	1.215	0.067	0.067	1.03	1.05	NO	8.4
	39	Total-heptafurans	407.7818	40.31	32116.905	1.223	1.249	1.249	0.96	1.05	NO	143.7
	8	1234678-HpCDF	407.7818	39.52	22140.491	1.232	0.797	0.797	0.91	1.05	NO	103.8

Furans,TF,PP,PF,HF,HPF,OF

	35	Total-tetrafurans	303.9016	24.30	0.000	0.877	0.000	0.026	1.23	0.77	YES	10.5
	35	Total-tetrafurans	303.9016	24.17	0.000	0.877	0.000	0.017	0.64	0.77	YES	4.1
	35	Total-tetrafurans	303.9016	24.06	0.000	0.877	0.000	0.050	0.65	0.77	YES	11.1
	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.027	0.92	0.77	YES	6.6
	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.012	1.30	0.77	YES	4.5
	35	Total-tetrafurans	303.9016	23.60	0.000	0.877	0.000	0.015	2.36	0.77	YES	8.3
	35	Total-tetrafurans	303.9016	23.40	6496.786	0.877	0.137	0.137	0.76	0.77	NO	31.7
	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.015	0.41	0.77	YES	4.5
	35	Total-tetrafurans	303.9016	22.57	1303.000	0.877	0.028	0.028	0.74	0.77	NO	6.0
	35	Total-tetrafurans	303.9016	26.27	1743.697	0.877	0.037	0.037	0.67	0.77	NO	8.0
	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.009	0.46	0.77	YES	3.4
	1	2378-TCDF	303.9016	26.06	1963.695	0.877	0.041	0.041	0.74	0.77	NO	12.7
	35	Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.014	1.21	0.77	YES	5.6
	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.023	0.49	0.77	YES	6.8
	35	Total-tetrafurans	303.9016	24.96	3372.409	0.877	0.071	0.071	0.76	0.77	NO	16.2
	35	Total-tetrafurans	303.9016	24.79	1412.993	0.877	0.030	0.030	0.79	0.77	NO	7.8
	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.024	1.07	0.77	YES	8.1
	40	Total-Furans	303.9016	28.17	909.195	1.041	0.016	0.016	0.79	0.77	NO	6.0
	2	12378-PeCDF	339.8597	30.21	1643.320	0.896	0.000	0.035	1.09	1.55	YES	8.1
	37	Total-pentafurans	339.8597	29.84	0.000	0.911	0.000	0.052	1.22	1.55	YES	13.2
	37	Total-pentafurans	339.8597	29.14	3672.377	0.911	0.096	0.096	1.39	1.55	NO	19.0
	37	Total-pentafurans	339.8597	29.05	0.000	0.911	0.000	0.047	0.84	1.55	YES	16.3
	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.034	1.27	1.55	YES	6.8
	3	23478-PeCDF	339.8597	31.55	1357.878	0.926	0.038	0.038	1.60	1.55	NO	7.6
	37	Total-pentafurans	339.8597	31.38	0.000	0.911	0.000	0.021	1.98	1.55	YES	8.0
	7	123789-HxCDF	373.8208	37.44	758.973	0.987	0.000	0.022	1.74	1.24	YES	6.3
	5	234678-HxCDF	373.8208	36.32	1252.809	1.037	0.000	0.034	0.77	1.24	YES	8.9
	38	Total-hexafurans	373.8208	36.28	0.000	1.032	0.000	0.033	2.01	1.24	YES	12.7
	6	123678-HxCDF	373.8208	35.38	2085.856	1.035	0.000	0.059	0.98	1.24	YES	15.6
	4	123478-HxCDF	373.8208	35.22	1958.938	1.068	0.000	0.053	0.88	1.24	YES	10.8
	38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.015	0.55	1.24	YES	4.1
	38	Total-hexafurans	373.8208	34.57	10899.792	1.032	0.361	0.361	1.15	1.24	NO	68.6
	38	Total-hexafurans	373.8208	33.71	14406.005	1.032	0.477	0.477	1.16	1.24	NO	96.5
	38	Total-hexafurans	373.8208	33.49	0.000	1.032	0.000	0.151	0.99	1.24	YES	32.2
	9	1234789-HpCDF	407.7818	42.23	1581.814	1.215	0.067	0.067	1.03	1.05	NO	8.4
	39	Total-heptafurans	407.7818	40.31	32116.905	1.223	1.249	1.249	0.96	1.05	NO	143.7
	8	1234678-HpCDF	407.7818	39.52	22140.491	1.232	0.797	0.797	0.91	1.05	NO	103.8
	10	OCDF	441.7428	47.50	32056.154	1.138	1.950	1.950	0.88	0.89	NO	284.7
	36	Total-penta1	339.8597	27.47	17525.348		0.457	0.457	1.50	1.55	NO	140.9

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TD

	#	Name	Trace	RT	Abs Resp	RRF M...	Qd	EMPC	P Ratio	M Ratio	M Rt	S/N
	41	Total-tetradioxins	319.8965	27.26	1221.771	1.049	0.033	0.033	0.85	0.77	NO	4.7
	11	2378-TCDD	319.8965	26.69	2718.601	1.049	0.000	0.022	0.15	0.77	YES	3.2
	41	Total-tetradioxins	319.8965	25.03	616.694	1.049	0.017	0.017	0.73	0.77	NO	2.7
	41	Total-tetradioxins	319.8965	24.84	5690.736	1.049	0.156	0.156	0.77	0.77	NO	24.4
	41	Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.025	0.39	0.77	YES	3.6
	41	Total-tetradioxins	319.8965	23.84	0.000	1.049	0.000	0.049	0.62	0.77	YES	8.2

PD

	#	Name	Trace	RT	Abs Resp	RRF M...	Qd	EMPC	P Ratio	M Ratio	M Rt	S/N
	42	Total-pentadioxins	355.8546	32.16	0.000	0.998	0.000	0.014	2.56	1.55	YES	2.9
	12	12378-PeCDD	355.8546	31.79	1817.495	0.998	0.072	0.072	1.50	1.55	NO	8.7
	42	Total-pentadioxins	355.8546	30.54	927.715	0.998	0.037	0.037	1.68	1.55	NO	5.3
	42	Total-pentadioxins	355.8546	30.41	952.917	0.998	0.038	0.038	1.32	1.55	NO	4.7
	42	Total-pentadioxins	355.8546	30.20	0.000	0.998	0.000	0.045	2.02	1.55	YES	8.9
	42	Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.028	2.18	1.55	YES	5.7
	42	Total-pentadioxins	355.8546	29.10	2830.115	0.998	0.112	0.112	1.39	1.55	NO	11.2
	42	Total-pentadioxins	355.8546	29.04	0.000	0.998	0.000	0.022	2.12	1.55	YES	6.2

HD

	#	Name	Trace	RT	Abs Resp	RRF M...	Qd	EMPC	P Ratio	M Ratio	M Rt	S/N
	43	Total-hexadioxins	389.8157	35.10	2059.505	0.940	0.088	0.088	1.18	1.24	NO	11.8
	43	Total-hexadioxins	389.8157	34.29	8286.273	0.940	0.353	0.353	1.22	1.24	NO	45.6
	15	123789-HxCDD	389.8157	37.01	3359.400	0.932	0.000	0.129	0.97	1.24	YES	16.7
	14	123678-HxCDD	389.8157	36.58	4516.575	0.918	0.194	0.194	1.14	1.24	NO	22.8
	13	123478-HxCDD	389.8157	36.45	1435.007	0.971	0.060	0.060	1.18	1.24	NO	9.0
	43	Total-hexadioxins	389.8157	35.50	10448.886	0.940	0.446	0.446	1.20	1.24	NO	45.2

HPD

	#	Name	Trace	RT	Abs Resp	RRF M...	Qd	EMPC	P Ratio	M Ratio	M Rt	S/N
	16	1234678-HpCDD	423.7766	41.33	85204.390	1.017	4.037	4.037	1.03	1.05	NO	364.4
	44	Total-heptadioxins	423.7766	40.07	67895.328	1.017	3.217	3.217	0.99	1.05	NO	315.1

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Dioxins,TD,PD,HD,HPD,OD

	41 Total-tetradioxins	319.8965	27.26	1221.771	1.049	0.033	0.033	0.85	0.77	NO	4.7
	11 2378-TCDD	319.8965	26.69	2718.601	1.049	0.000	0.022	0.15	0.77	YES	3.2
	41 Total-tetradioxins	319.8965	25.03	616.694	1.049	0.017	0.017	0.73	0.77	NO	2.7
	41 Total-tetradioxins	319.8965	24.84	5690.736	1.049	0.156	0.156	0.77	0.77	NO	24.4
	41 Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.025	0.39	0.77	YES	3.6
	41 Total-tetradioxins	319.8965	23.84	0.000	1.049	0.000	0.049	0.62	0.77	YES	8.2
	42 Total-pentadioxins	355.8546	32.16	0.000	0.998	0.000	0.014	2.56	1.55	YES	2.9
	12 12378-PeCDD	355.8546	31.79	1817.495	0.998	0.072	0.072	1.50	1.55	NO	8.7
	42 Total-pentadioxins	355.8546	30.54	927.715	0.998	0.037	0.037	1.68	1.55	NO	5.3
	42 Total-pentadioxins	355.8546	30.41	952.917	0.998	0.038	0.038	1.32	1.55	NO	4.7
	42 Total-pentadioxins	355.8546	30.20	0.000	0.998	0.000	0.045	2.02	1.55	YES	8.9
	42 Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.028	2.18	1.55	YES	5.7
	42 Total-pentadioxins	355.8546	29.10	2830.115	0.998	0.112	0.112	1.39	1.55	NO	11.2
	42 Total-pentadioxins	355.8546	29.04	0.000	0.998	0.000	0.022	2.12	1.55	YES	6.2
	43 Total-hexadioxins	389.8157	35.10	2059.505	0.940	0.088	0.088	1.18	1.24	NO	11.8
	43 Total-hexadioxins	389.8157	34.29	8286.273	0.940	0.353	0.353	1.22	1.24	NO	45.6
	15 123789-HxCDD	389.8157	37.01	3359.400	0.932	0.000	0.129	0.97	1.24	YES	16.7
	14 123678-HxCDD	389.8157	36.58	4516.575	0.918	0.194	0.194	1.14	1.24	NO	22.8
	13 123478-HxCDD	389.8157	36.45	1435.007	0.971	0.060	0.060	1.18	1.24	NO	9.0
	43 Total-hexadioxins	389.8157	35.50	10448.886	0.940	0.446	0.446	1.20	1.24	NO	45.2
	16 1234678-HpCDD	423.7766	41.33	85204.390	1.017	4.037	4.037	1.03	1.05	NO	364.4
	44 Total-heptadioxins	423.7766	40.07	67895.328	1.017	3.217	3.217	0.99	1.05	NO	315.1
	17 OCDD	457.7377	47.24	436467.000	1.008	29.945	29.945	0.89	0.89	NO	1170.0

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TotalTEQ,Furans,Dioxins

	35	Total-tetrafurans	303.9016	24.30	0.000	0.877	0.000	0.026	1.23	0.77	YES	10.5
	35	Total-tetrafurans	303.9016	24.17	0.000	0.877	0.000	0.017	0.64	0.77	YES	4.1
	35	Total-tetrafurans	303.9016	24.06	0.000	0.877	0.000	0.050	0.65	0.77	YES	11.1
	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.027	0.92	0.77	YES	6.6
	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.012	1.30	0.77	YES	4.5
	35	Total-tetrafurans	303.9016	23.60	0.000	0.877	0.000	0.015	2.36	0.77	YES	8.3
	35	Total-tetrafurans	303.9016	23.40	6496.786	0.877	0.137	0.137	0.76	0.77	NO	31.7
	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.015	0.41	0.77	YES	4.5
	35	Total-tetrafurans	303.9016	22.57	1303.000	0.877	0.028	0.028	0.74	0.77	NO	6.0
	35	Total-tetrafurans	303.9016	26.27	1743.697	0.877	0.037	0.037	0.67	0.77	NO	8.0
	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.009	0.46	0.77	YES	3.4
	1	2378-TCDF	303.9016	26.06	1963.695	0.877	0.041	0.041	0.74	0.77	NO	12.7
	35	Total-tetrafurans	303.9016	25.84	0.000	0.877	0.000	0.014	1.21	0.77	YES	5.6
	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.023	0.49	0.77	YES	6.8
	35	Total-tetrafurans	303.9016	24.96	3372.409	0.877	0.071	0.071	0.76	0.77	NO	16.2
	35	Total-tetrafurans	303.9016	24.79	1412.993	0.877	0.030	0.030	0.79	0.77	NO	7.8
	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.024	1.07	0.77	YES	8.1
	40	Total-Furans	303.9016	28.17	909.195	1.041	0.016	0.016	0.79	0.77	NO	6.0
	2	12378-PeCDF	339.8597	30.21	1643.320	0.896	0.000	0.035	1.09	1.55	YES	8.1
	37	Total-pentafurans	339.8597	29.84	0.000	0.911	0.000	0.052	1.22	1.55	YES	13.2
	37	Total-pentafurans	339.8597	29.14	3672.377	0.911	0.096	0.096	1.39	1.55	NO	19.0
	37	Total-pentafurans	339.8597	29.05	0.000	0.911	0.000	0.047	0.84	1.55	YES	16.3
	37	Total-pentafurans	339.8597	28.95	0.000	0.911	0.000	0.034	1.27	1.55	YES	6.8
	3	23478-PeCDF	339.8597	31.55	1357.878	0.926	0.038	0.038	1.60	1.55	NO	7.6
	37	Total-pentafurans	339.8597	31.38	0.000	0.911	0.000	0.021	1.98	1.55	YES	8.0
	7	123789-HxCDF	373.8208	37.44	758.973	0.987	0.000	0.022	1.74	1.24	YES	6.3
	5	234678-HxCDF	373.8208	36.32	1252.809	1.037	0.000	0.034	0.77	1.24	YES	8.9
	38	Total-hexafurans	373.8208	36.28	0.000	1.032	0.000	0.033	2.01	1.24	YES	12.7
	6	123678-HxCDF	373.8208	35.38	2085.856	1.035	0.000	0.059	0.98	1.24	YES	15.6
	4	123478-HxCDF	373.8208	35.22	1958.938	1.068	0.000	0.053	0.88	1.24	YES	10.8
	38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.015	0.55	1.24	YES	4.1
	38	Total-hexafurans	373.8208	34.57	10899.792	1.032	0.361	0.361	1.15	1.24	NO	68.6
	38	Total-hexafurans	373.8208	33.71	14406.005	1.032	0.477	0.477	1.16	1.24	NO	96.5
	38	Total-hexafurans	373.8208	33.49	0.000	1.032	0.000	0.151	0.99	1.24	YES	32.2
	9	1234789-HpCDF	407.7818	42.23	1581.814	1.215	0.067	0.067	1.03	1.05	NO	8.4
	39	Total-heptafurans	407.7818	40.31	32116.905	1.223	1.249	1.249	0.96	1.05	NO	143.7
	8	1234678-HpCDF	407.7818	39.52	22140.491	1.232	0.797	0.797	0.91	1.05	NO	103.8
	10	OCDF	441.7428	47.50	32056.154	1.138	1.950	1.950	0.88	0.89	NO	284.7
	36	Total-penta1	339.8597	27.47	17525.348		0.457	0.457	1.50	1.55	NO	140.9
	41	Total-tetradioxins	319.8965	27.26	1221.771	1.049	0.033	0.033	0.85	0.77	NO	4.7
	11	2378-TCDD	319.8965	26.69	2718.601	1.049	0.000	0.022	0.15	0.77	YES	3.2
	41	Total-tetradioxins	319.8965	25.03	616.694	1.049	0.017	0.017	0.73	0.77	NO	2.7
	41	Total-tetradioxins	319.8965	24.84	5690.736	1.049	0.156	0.156	0.77	0.77	NO	24.4
	41	Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.025	0.39	0.77	YES	3.6
	41	Total-tetradioxins	319.8965	23.84	0.000	1.049	0.000	0.049	0.62	0.77	YES	8.2
	42	Total-pentadioxins	355.8546	32.16	0.000	0.998	0.000	0.014	2.56	1.55	YES	2.9
	12	12378-PeCDD	355.8546	31.79	1817.495	0.998	0.072	0.072	1.50	1.55	NO	8.7
	42	Total-pentadioxins	355.8546	30.54	927.715	0.998	0.037	0.037	1.68	1.55	NO	5.3
	42	Total-pentadioxins	355.8546	30.41	952.917	0.998	0.038	0.038	1.32	1.55	NO	4.7

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TotalTEQ,Furans,Dioxins

	42	Total-pentadioxins	355.8546	30.20	0.000	0.998	0.000	0.045	2.02	1.55	YES	8.9
	42	Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.028	2.18	1.55	YES	5.7
	42	Total-pentadioxins	355.8546	29.10	2830.115	0.998	0.112	0.112	1.39	1.55	NO	11.2
	42	Total-pentadioxins	355.8546	29.04	0.000	0.998	0.000	0.022	2.12	1.55	YES	6.2
	43	Total-hexadioxins	389.8157	35.10	2059.505	0.940	0.088	0.088	1.18	1.24	NO	11.8
	43	Total-hexadioxins	389.8157	34.29	8286.273	0.940	0.353	0.353	1.22	1.24	NO	45.6
	15	123789-HxCDD	389.8157	37.01	3359.400	0.932	0.000	0.129	0.97	1.24	YES	16.7
	14	123678-HxCDD	389.8157	36.58	4516.575	0.918	0.194	0.194	1.14	1.24	NO	22.8
	13	123478-HxCDD	389.8157	36.45	1435.007	0.971	0.060	0.060	1.18	1.24	NO	9.0
	43	Total-hexadioxins	389.8157	35.50	10448.886	0.940	0.446	0.446	1.20	1.24	NO	45.2
	16	1234678-HpCDD	423.7766	41.33	85204.390	1.017	4.037	4.037	1.03	1.05	NO	364.4
	44	Total-heptadioxins	423.7766	40.07	67895.328	1.017	3.217	3.217	0.99	1.05	NO	315.1
	17	OCDD	457.7377	47.24	436467.000	1.008	29.945	29.945	0.89	0.89	NO	1170.0

PFK1

	48	FUNCTION1 PFK	330.9792	23.84	0.000						0.6
	48	FUNCTION1 PFK	330.9792	23.73	0.000						2.0
	48	FUNCTION1 PFK	330.9792	23.66	0.000						1.4
	48	FUNCTION1 PFK	330.9792	23.18	0.000						2.9
	48	FUNCTION1 PFK	330.9792	22.81	0.000						2.1
	48	FUNCTION1 PFK	330.9792	22.73	0.000						3.4
	48	FUNCTION1 PFK	330.9792	22.49	0.000						0.4
	48	FUNCTION1 PFK	330.9792	22.13	0.000						11.5
	48	FUNCTION1 PFK	330.9792	21.76	0.000						34.0
	48	FUNCTION1 PFK	330.9792	21.61	0.000						41.4
	48	FUNCTION1 PFK	330.9792	21.54	0.000						43.1
	48	FUNCTION1 PFK	330.9792	21.43	0.000						46.4
	48	FUNCTION1 PFK	330.9792	21.33	0.000						45.9
	48	FUNCTION1 PFK	330.9792	21.07	0.000						53.2
	48	FUNCTION1 PFK	330.9792	28.22	0.000						1.0
	48	FUNCTION1 PFK	330.9792	28.02	0.000						1.3
	48	FUNCTION1 PFK	330.9792	27.65	0.000						2.1
	48	FUNCTION1 PFK	330.9792	27.30	0.000						0.7
	48	FUNCTION1 PFK	330.9792	27.23	0.000						1.8
	48	FUNCTION1 PFK	330.9792	26.98	0.000						0.7
	48	FUNCTION1 PFK	330.9792	26.69	0.000						1.7
	48	FUNCTION1 PFK	330.9792	26.05	0.000						3.7
	48	FUNCTION1 PFK	330.9792	25.66	0.000						1.3
	48	FUNCTION1 PFK	330.9792	25.59	0.000						1.2
	48	FUNCTION1 PFK	330.9792	25.39	0.000						0.9
	48	FUNCTION1 PFK	330.9792	24.35	0.000						3.9
	48	FUNCTION1 PFK	330.9792	24.30	0.000						4.1
	48	FUNCTION1 PFK	330.9792	24.17	0.000						0.8

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PFK2

	#	Name	Trace	RT	Abs.Resp	RRF M...		EMPC	1° Rat...	1° Rat...	1° R...	S/N
	49	FUNCTION2 PFK	366.9792	28.37	0.000	0.000						32.0
	49	FUNCTION2 PFK	366.9792	30.58	0.000	0.000						0.7
	49	FUNCTION2 PFK	366.9792	30.48	0.000	0.000						1.5
	49	FUNCTION2 PFK	366.9792	30.38	0.000	0.000						0.9
	49	FUNCTION2 PFK	366.9792	30.32	0.000	0.000						1.1
	49	FUNCTION2 PFK	366.9792	30.16	0.000	0.000						2.6
	49	FUNCTION2 PFK	366.9792	30.04	0.000	0.000						1.2
	49	FUNCTION2 PFK	366.9792	29.89	0.000	0.000						1.4
	49	FUNCTION2 PFK	366.9792	29.84	0.000	0.000						1.0
	49	FUNCTION2 PFK	366.9792	29.49	0.000	0.000						0.7
	49	FUNCTION2 PFK	366.9792	29.21	0.000	0.000						7.8
	49	FUNCTION2 PFK	366.9792	29.17	0.000	0.000						9.9
	49	FUNCTION2 PFK	366.9792	29.12	0.000	0.000						11.2
	49	FUNCTION2 PFK	366.9792	29.04	0.000	0.000						13.5
	49	FUNCTION2 PFK	366.9792	28.73	0.000	0.000						21.6
	49	FUNCTION2 PFK	366.9792	28.58	0.000	0.000						26.0
	49	FUNCTION2 PFK	366.9792	28.46	0.000	0.000						29.0
	49	FUNCTION2 PFK	366.9792	32.83	0.000	0.000						1.2
	49	FUNCTION2 PFK	366.9792	32.80	0.000	0.000						1.5
	49	FUNCTION2 PFK	366.9792	32.69	0.000	0.000						0.7
	49	FUNCTION2 PFK	366.9792	32.53	0.000	0.000						0.4
	49	FUNCTION2 PFK	366.9792	32.37	0.000	0.000						1.1
	49	FUNCTION2 PFK	366.9792	32.15	0.000	0.000						0.6
	49	FUNCTION2 PFK	366.9792	32.00	0.000	0.000						1.1
	49	FUNCTION2 PFK	366.9792	31.88	0.000	0.000						0.9
	49	FUNCTION2 PFK	366.9792	30.86	0.000	0.000						0.3
	49	FUNCTION2 PFK	366.9792	30.69	0.000	0.000						0.9

PFK3

	#	Name	Trace	RT	Abs.Resp	RRF M...		EMPC	1° Rat...	1° Rat...	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	34.90	0.000	0.000						0.9
	50	FUNCTION3 PFK	380.9760	34.74	0.000	0.000						0.6
	50	FUNCTION3 PFK	380.9760	34.22	0.000	0.000						1.0
	50	FUNCTION3 PFK	380.9760	33.80	0.000	0.000						1.4
	50	FUNCTION3 PFK	380.9760	33.31	0.000	0.000						5.3
	50	FUNCTION3 PFK	380.9760	38.41	0.000	0.000						0.6
	50	FUNCTION3 PFK	380.9760	37.98	0.000	0.000						1.9
	50	FUNCTION3 PFK	380.9760	37.92	0.000	0.000						1.9
	50	FUNCTION3 PFK	380.9760	37.52	0.000	0.000						1.4
	50	FUNCTION3 PFK	380.9760	37.37	0.000	0.000						6.1
	50	FUNCTION3 PFK	380.9760	37.14	0.000	0.000						1.7
	50	FUNCTION3 PFK	380.9760	36.28	0.000	0.000						1.8
	50	FUNCTION3 PFK	380.9760	35.35	0.000	0.000						0.7

PFK4

	#	Name	Trace	RT	Abs.Resp	RRF M...		EMPC	1° Rat...	1° Rat...	1° R...	S/N

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PFK5

	#	Name	Mass	RT	Abs Area	RRF M...	ng	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	52	FUNCTION5 PFK	480.9696	45.46	0.000							0.9
	52	FUNCTION5 PFK	480.9696	45.36	0.000							1.6
	52	FUNCTION5 PFK	480.9696	45.25	0.000							0.9
	52	FUNCTION5 PFK	480.9696	45.22	0.000							1.3
	52	FUNCTION5 PFK	480.9696	45.18	0.000							2.2
	52	FUNCTION5 PFK	480.9696	45.13	0.000							1.1
	52	FUNCTION5 PFK	480.9696	48.91	0.000							1.4
	52	FUNCTION5 PFK	480.9696	48.87	0.000							0.8
	52	FUNCTION5 PFK	480.9696	48.82	0.000							2.8
	52	FUNCTION5 PFK	480.9696	48.74	0.000							2.4
	52	FUNCTION5 PFK	480.9696	48.36	0.000							1.1
	52	FUNCTION5 PFK	480.9696	48.03	0.000							1.3
	52	FUNCTION5 PFK	480.9696	47.37	0.000							1.6
	52	FUNCTION5 PFK	480.9696	47.34	0.000							1.0
	52	FUNCTION5 PFK	480.9696	47.29	0.000							1.5
	52	FUNCTION5 PFK	480.9696	46.96	0.000							0.7
	52	FUNCTION5 PFK	480.9696	46.92	0.000							0.6
	52	FUNCTION5 PFK	480.9696	46.81	0.000							2.2
	52	FUNCTION5 PFK	480.9696	46.62	0.000							1.2
	52	FUNCTION5 PFK	480.9696	45.98	0.000							0.6
	52	FUNCTION5 PFK	480.9696	45.89	0.000							1.5
	52	FUNCTION5 PFK	480.9696	45.73	0.000							0.9

ETHERS1

	#	Name	Trac...	RT	Abs Area	RRF M...	ng	EMPC	1° Ratio	2° Ratio	1° R...	S/N
1	53	FUNCTION1 HXCD...	375.8364	27.99	0.000	0.000						2.7
2	53	FUNCTION1 HXCD...	375.8364	26.50	0.000	0.000						3.9
3	53	FUNCTION1 HXCD...	375.8364	25.26	0.000	0.000						5.0
4	53	FUNCTION1 HXCD...	375.8364	25.11	0.000	0.000						6.2
5	53	FUNCTION1 HXCD...	375.8364	25.06	0.000	0.000						3.0
6	53	FUNCTION1 HXCD...	375.8364	24.55	0.000	0.000						2.2
7	53	FUNCTION1 HXCD...	375.8364	24.35	0.000	0.000						4.5
8	53	FUNCTION1 HXCD...	375.8364	23.91	0.000	0.000						58.3
9	53	FUNCTION1 HXCD...	375.8364	23.02	0.000	0.000						2.7
10	53	FUNCTION1 HXCD...	375.8364	22.43	0.000	0.000						2.6

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ETHERS2

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	1° Rat...	1° Rat...	1° R...	S/N
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.69	0.000		0.000					2.5
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.60	0.000		0.000					1.7
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.51	0.000		0.000					1.6
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.28	0.000		0.000					2.6
[redacted]	54	FUNCTION1 HPCD...	409.7974	28.05	0.000		0.000					2.2
[redacted]	54	FUNCTION1 HPCD...	409.7974	27.50	0.000		0.000					2.2
[redacted]	54	FUNCTION1 HPCD...	409.7974	26.68	0.000		0.000					1.1
[redacted]	54	FUNCTION1 HPCD...	409.7974	26.02	0.000		0.000					0.8
[redacted]	54	FUNCTION1 HPCD...	409.7974	25.59	0.000		0.000					1.3
[redacted]	54	FUNCTION1 HPCD...	409.7974	25.05	0.000		0.000					2.0
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.96	0.000		0.000					2.1
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.91	0.000		0.000					2.7

ETHERS3

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	1° Rat...	1° Rat...	1° R...	S/N
[redacted]	55	FUNCTION2 HPCD...	409.7974	30.19	0.000		0.000					2.6
[redacted]	55	FUNCTION2 HPCD...	409.7974	29.59	0.000		0.000					2.2
[redacted]	55	FUNCTION2 HPCD...	409.7974	28.86	0.000		0.000					2.5

ETHERS4

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	1° Rat...	1° Rat...	1° R...	S/N

ETHERS5

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	1° Rat...	1° Rat...	1° R...	S/N
[redacted]	57	FUNCTION4 NCDPE	479.7165	39.10	0.000		0.000					137.7

ETHERS6

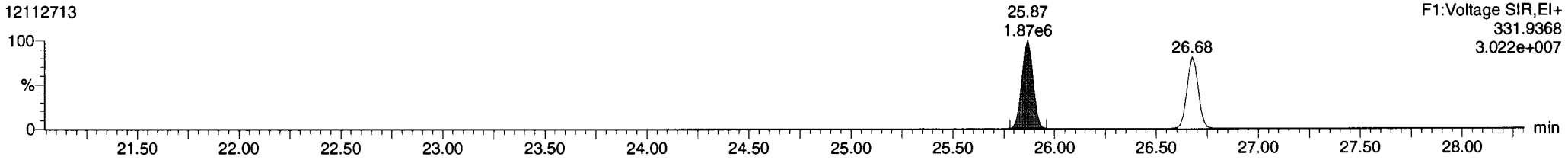
[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	1° Rat...	1° Rat...	1° R...	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

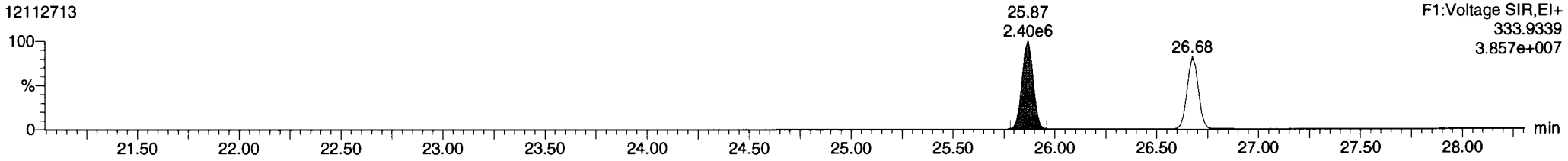
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

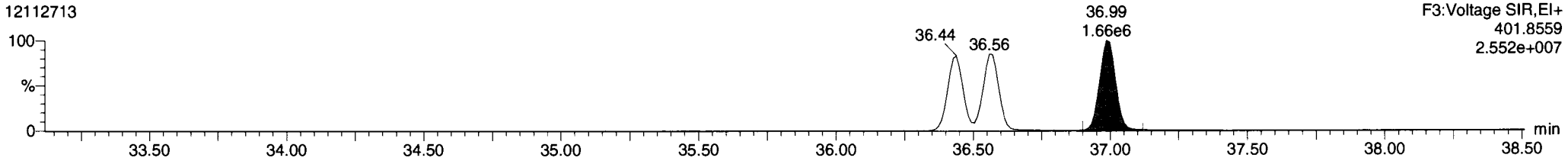
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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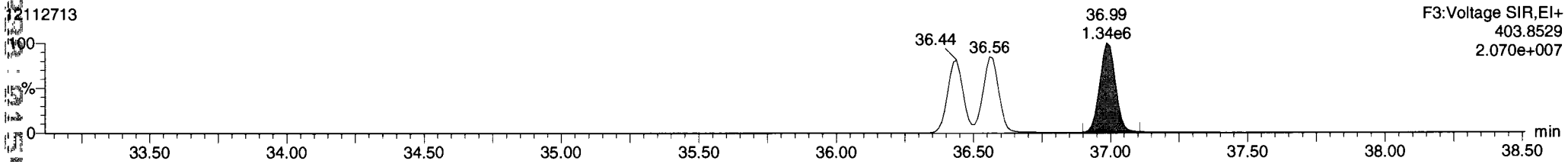
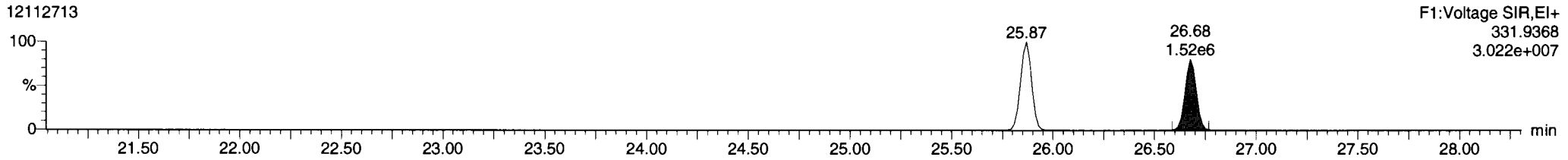


Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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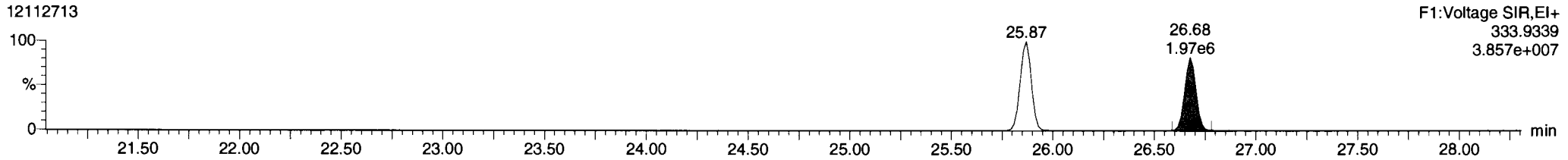
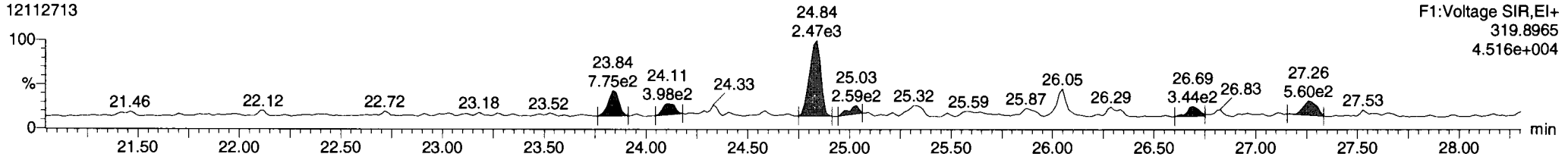
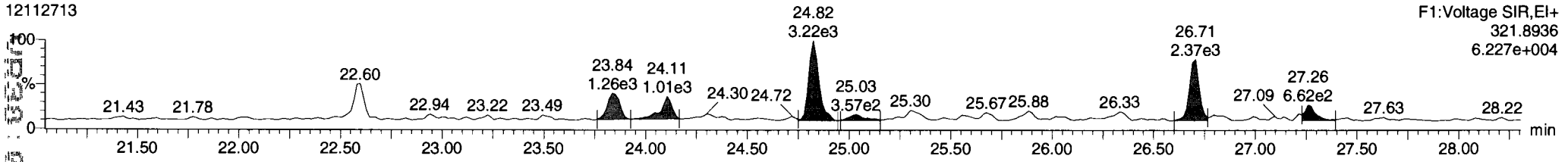


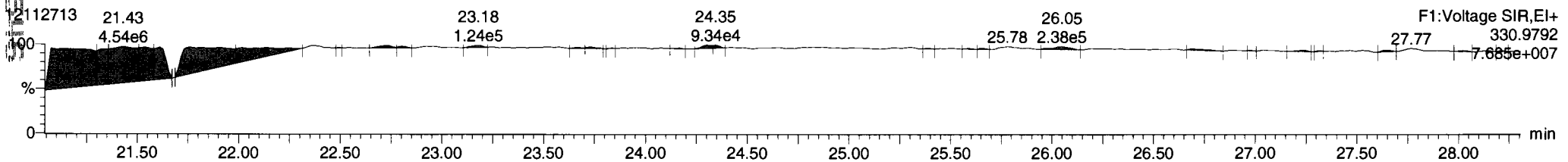
Total-tetradioxins



Total-tetradioxins



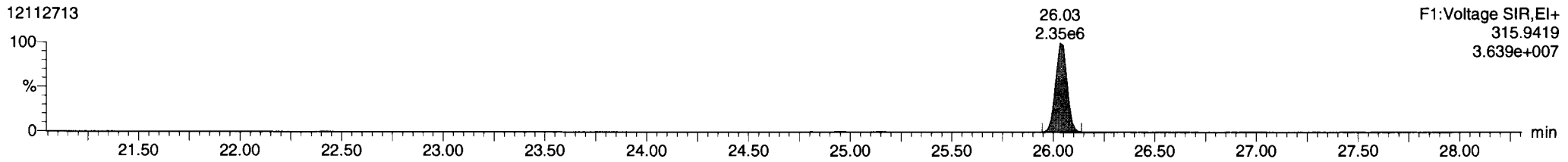
FUNCTION1 PFK



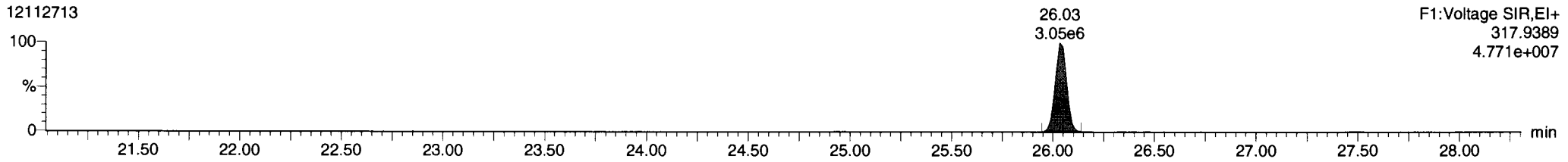
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

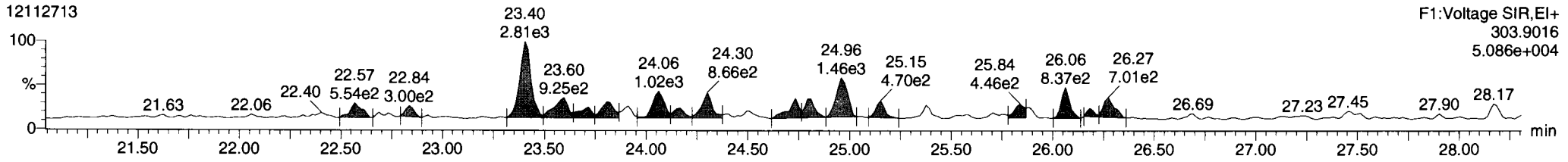
13C-2378-TCDF



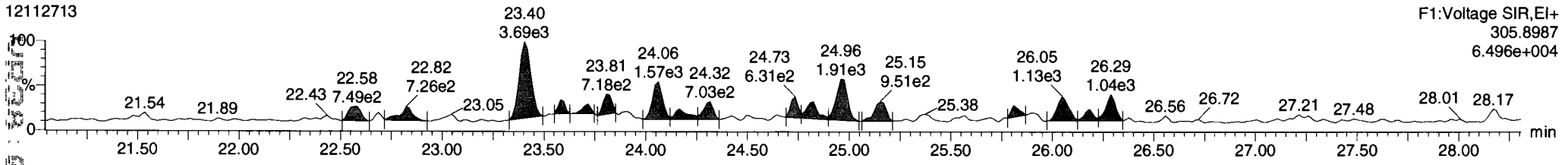
13C-2378-TCDF



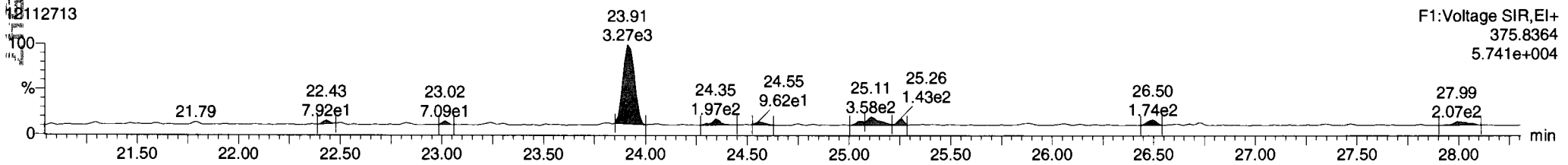
Total-tetrafurans



Total-tetrafurans



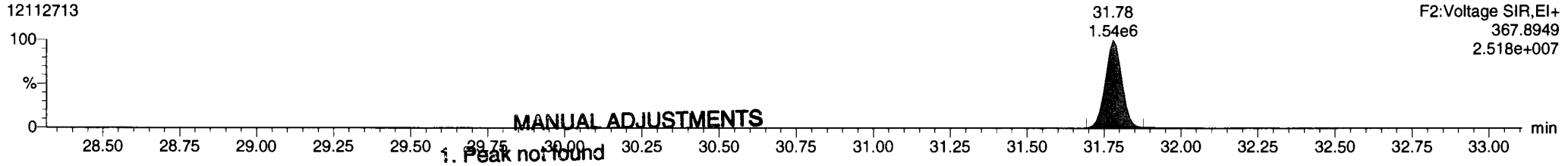
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

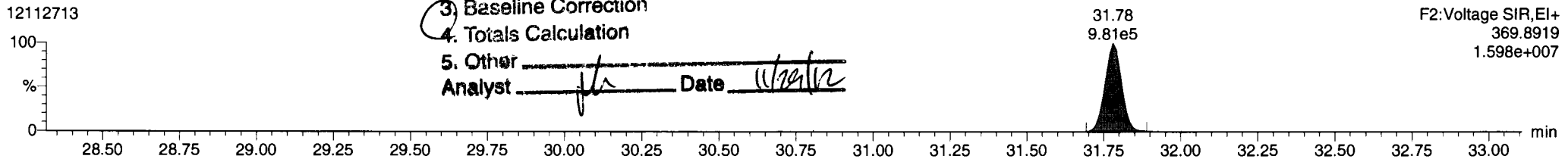
Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

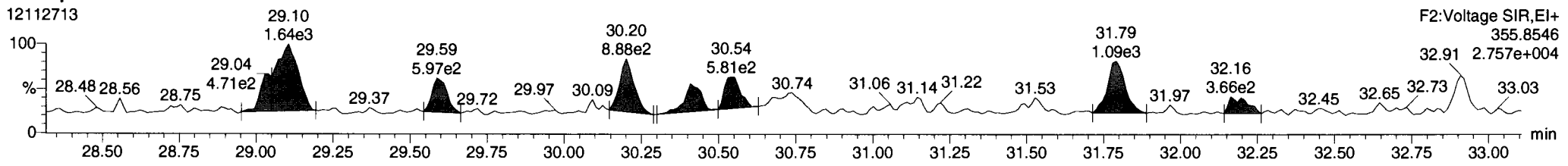


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 11/28/12

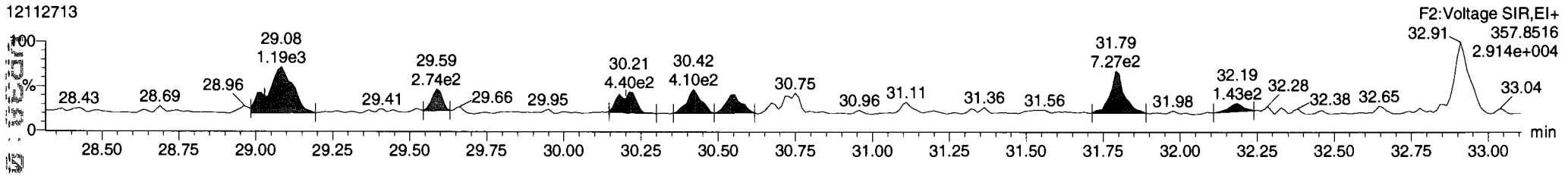
13C-12378-PeCDD



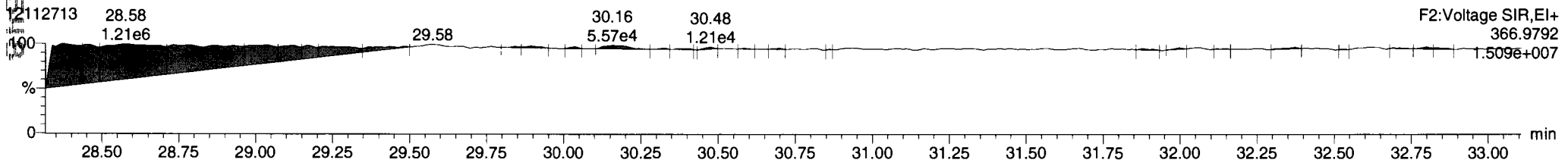
Total-pentadioxins



Total-pentadioxins



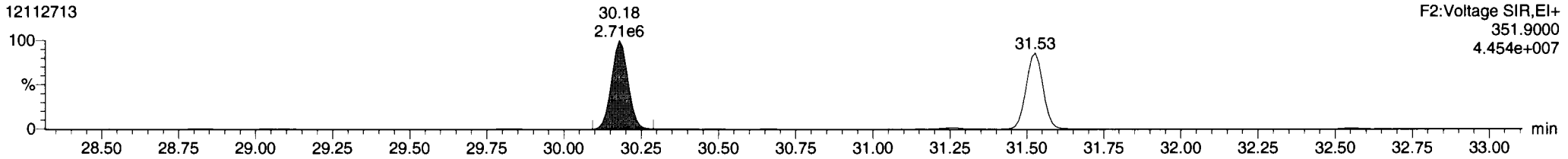
FUNCTION2 PFK



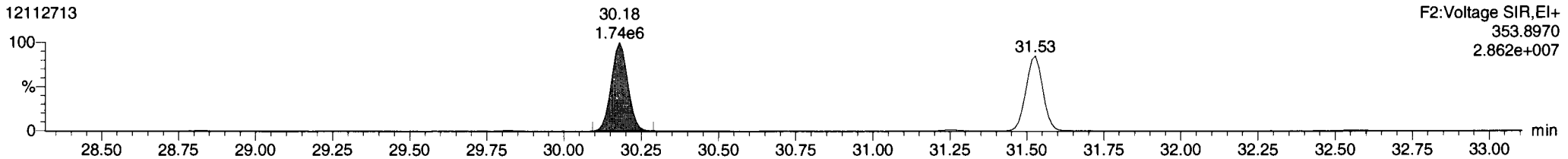
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

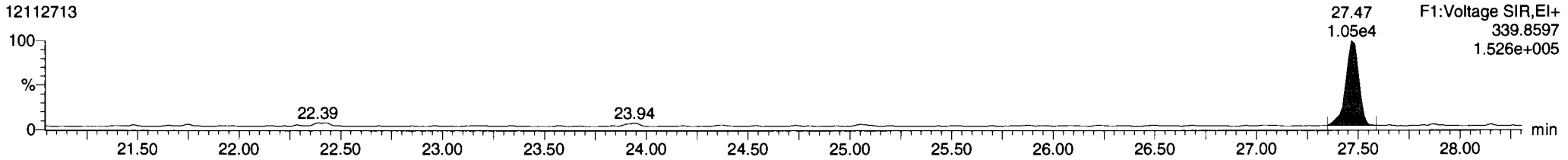
13C-12378-PeCDF



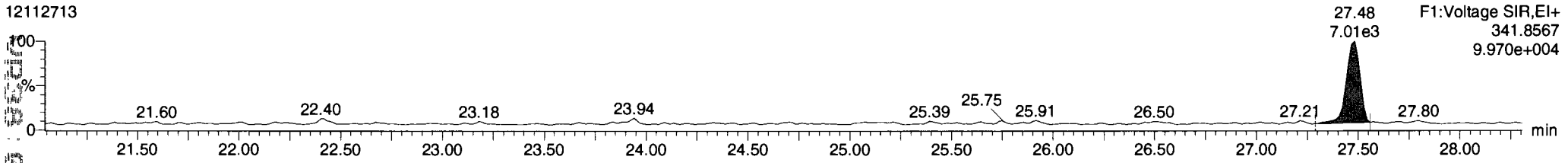
13C-12378-PeCDF



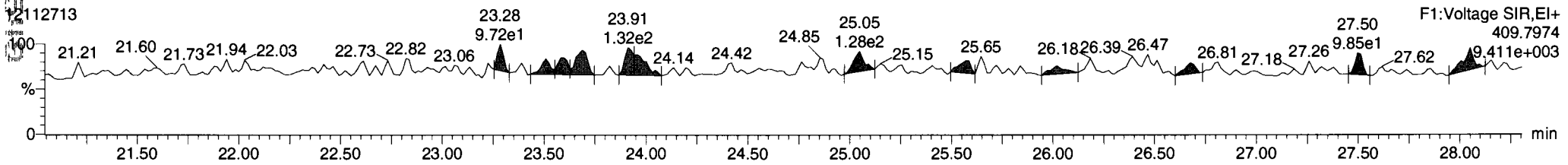
Total-penta1



Total-penta1



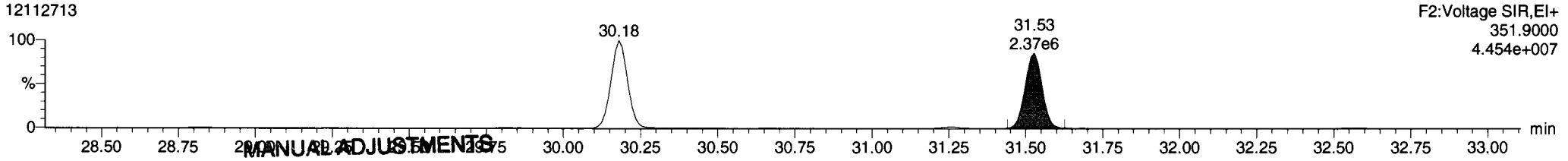
FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

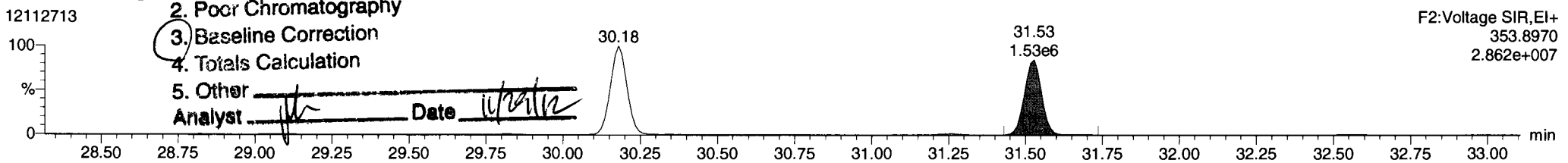


MANUAL ADJUSTMENTS

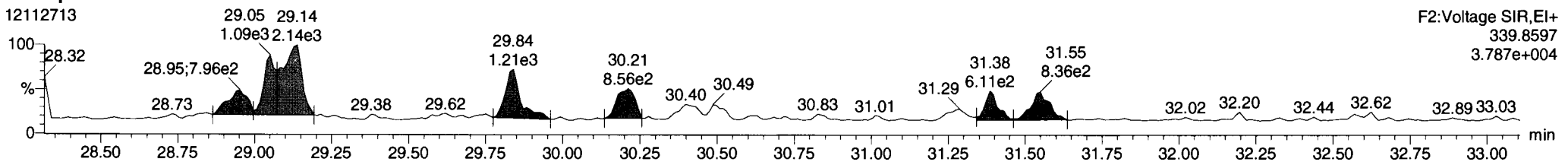
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

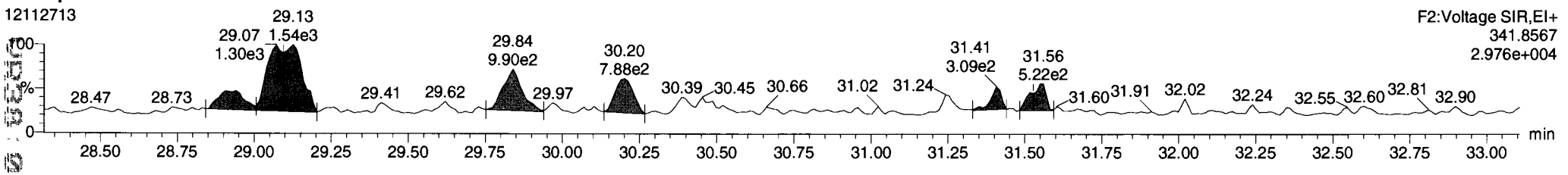
13C-23478-PeCDF



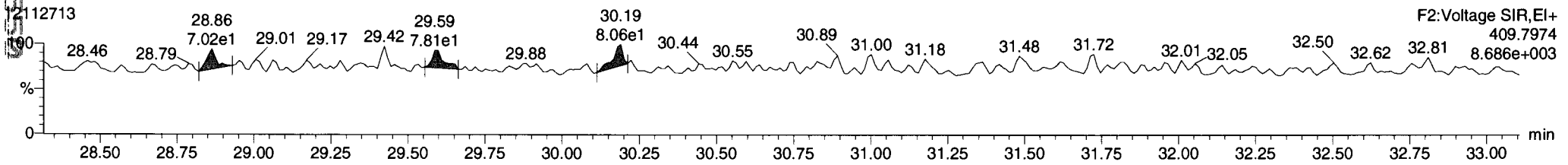
Total-pentafurans



Total-pentafurans



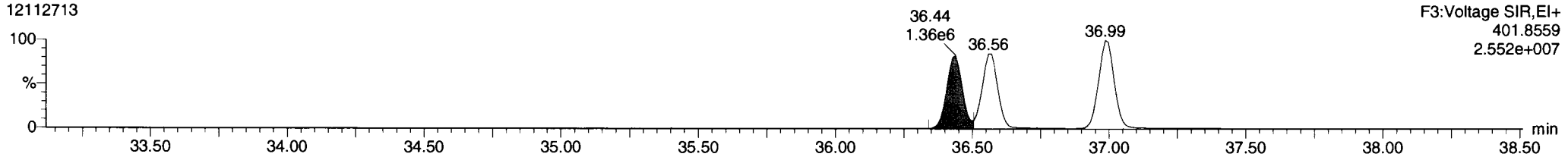
FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

13C-123478-HxCDD



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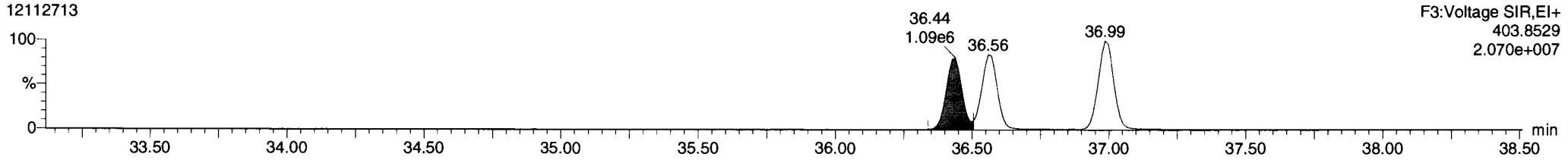
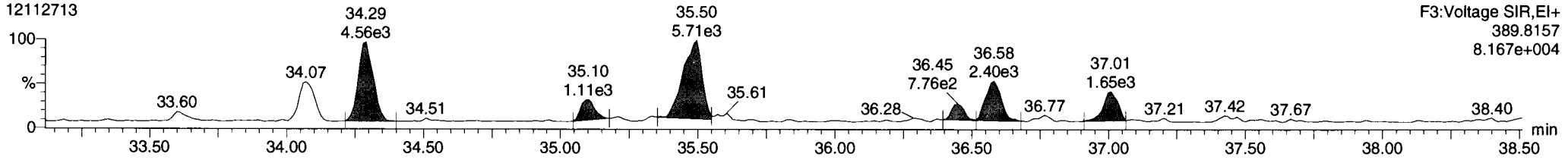
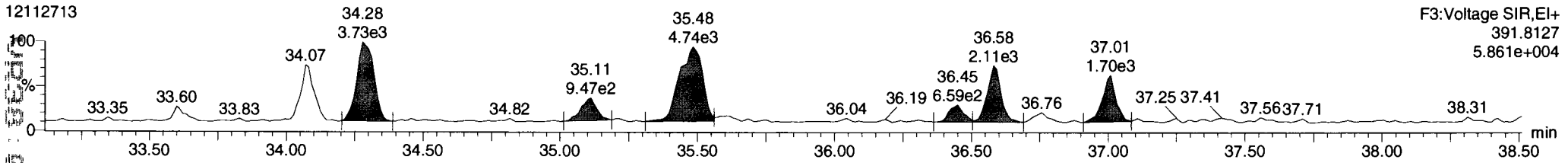


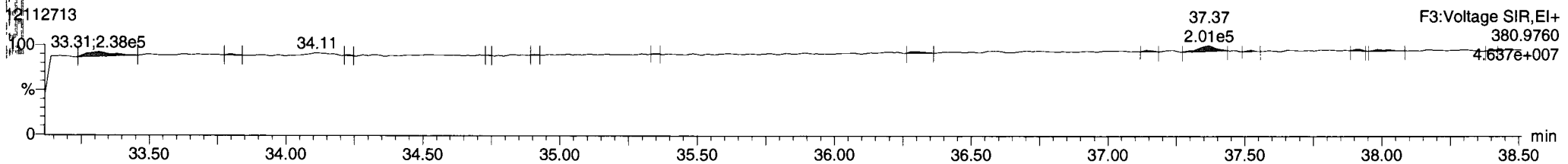
Total-hexadioxins



Total-hexadioxins



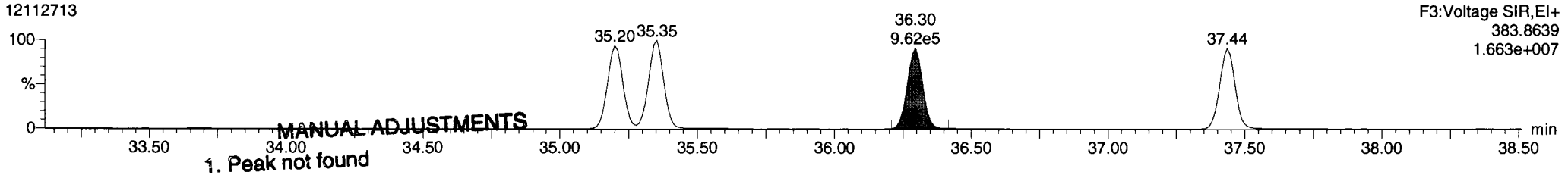
FUNCTION3 PFK



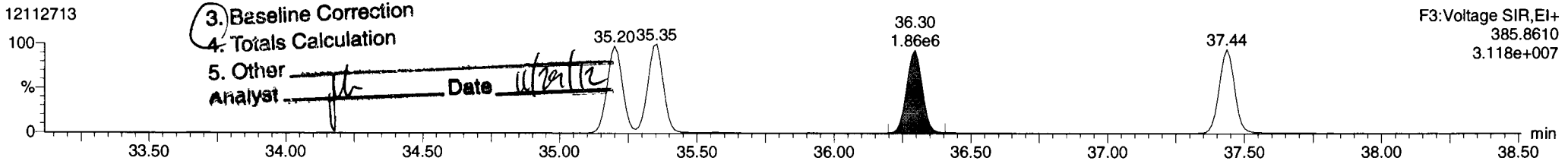
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

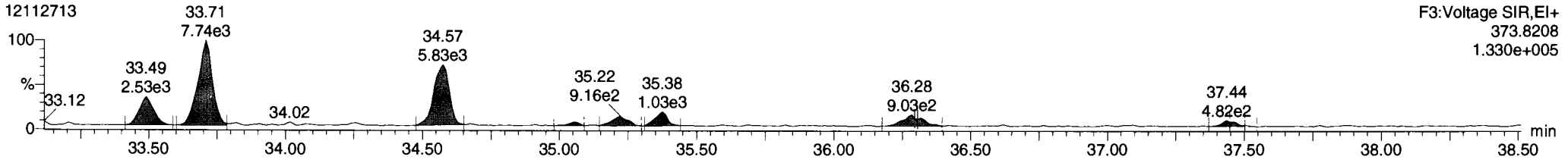
13C-234678-HxCDF



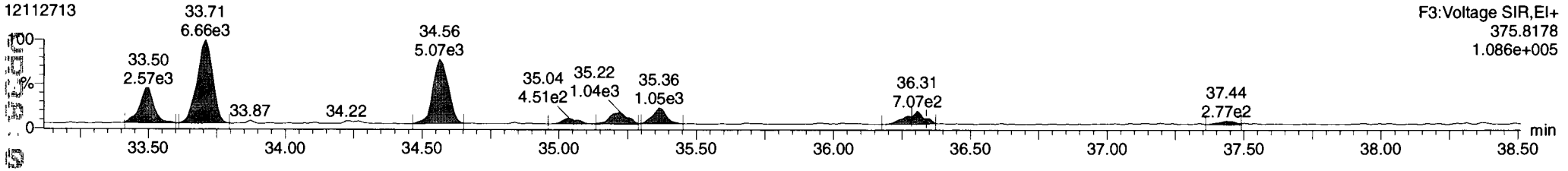
13C-234678-HxCDF



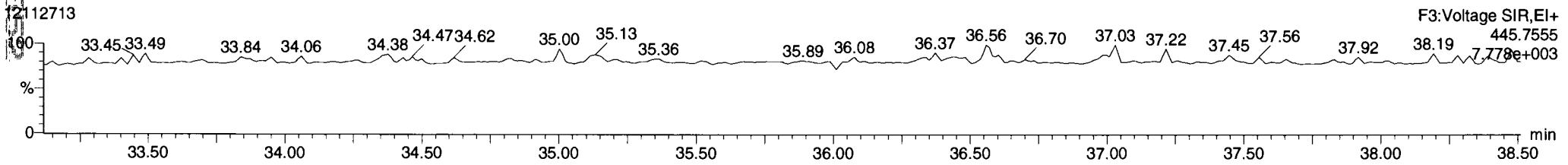
Total-hexafurans



Total-hexafurans



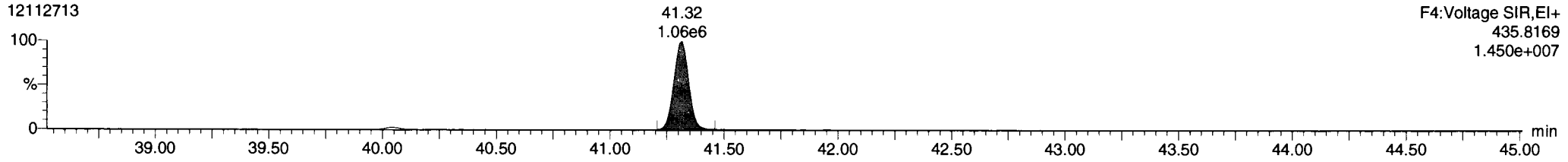
FUNCTION3 OCDPE



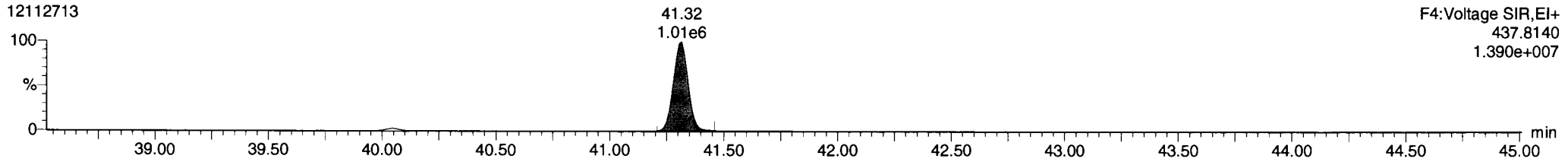
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

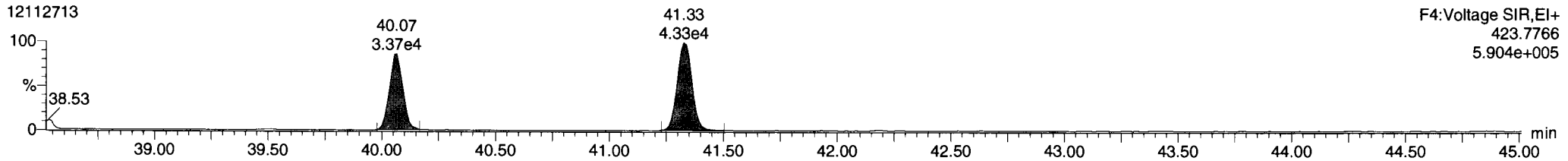
13C-1234678-HpCDD



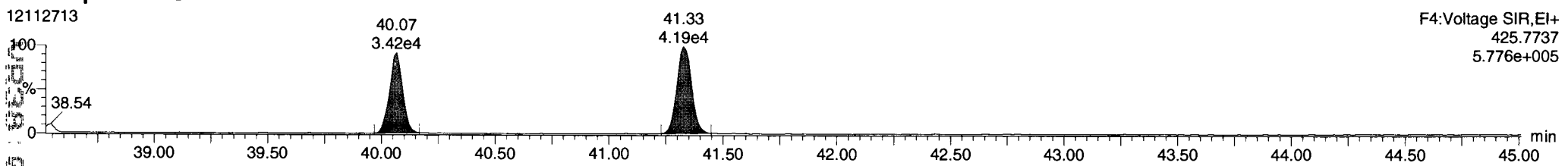
13C-1234678-HpCDD



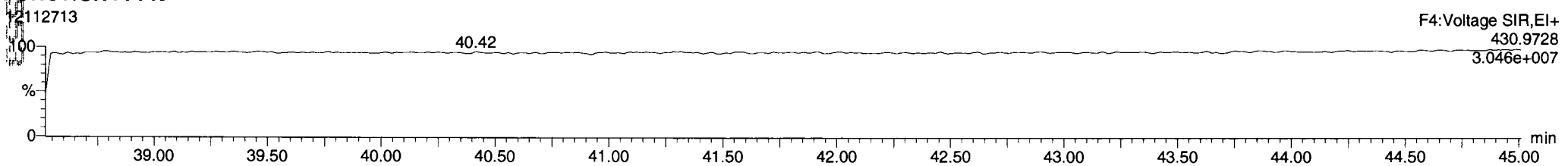
Total-heptadioxins



Total-heptadioxins

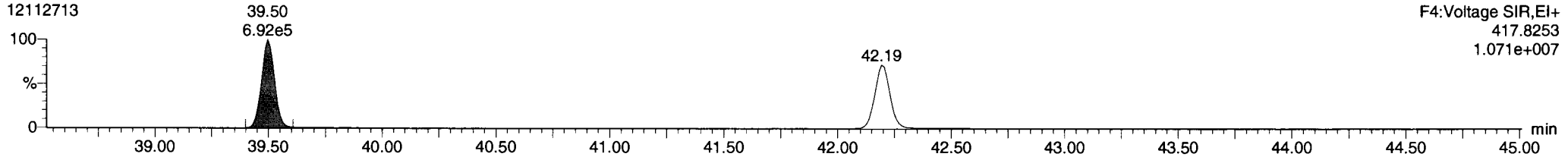


FUNCTION4 PFK

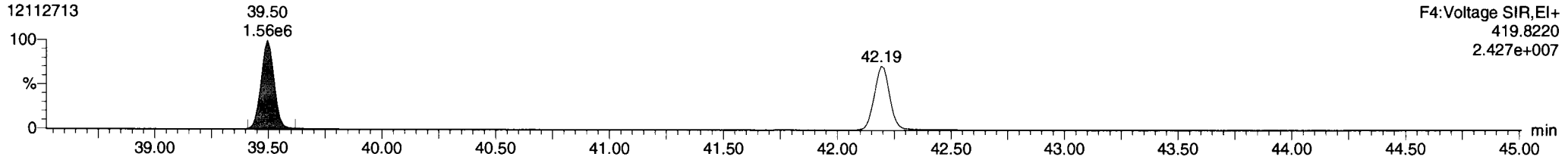


Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

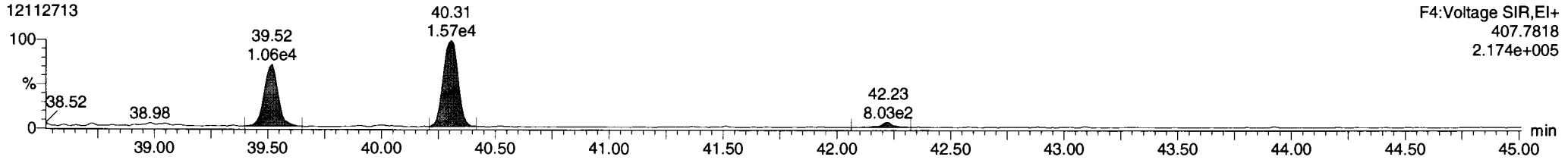
13C-1234678-HpCDF



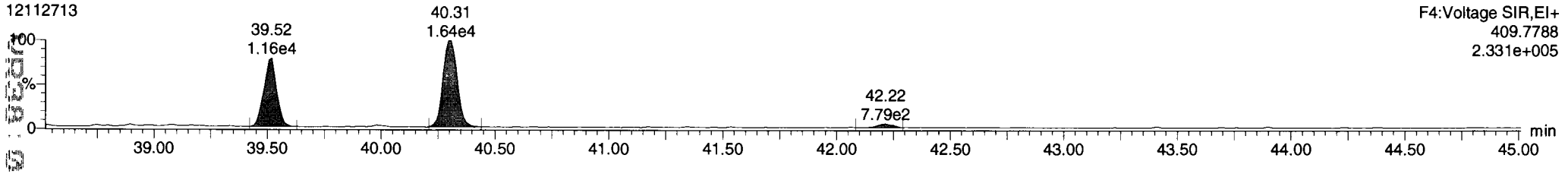
13C-1234678-HpCDF



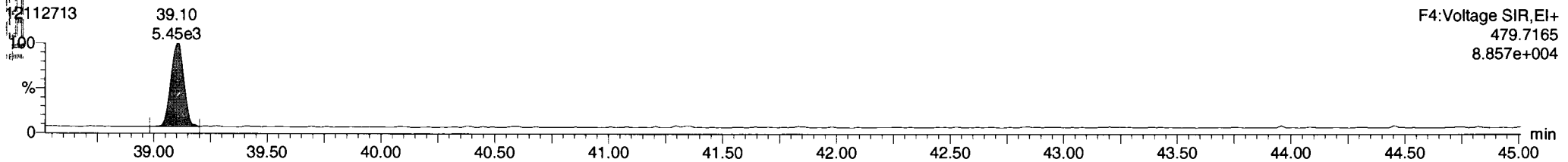
Total-heptafurans



Total-heptafurans



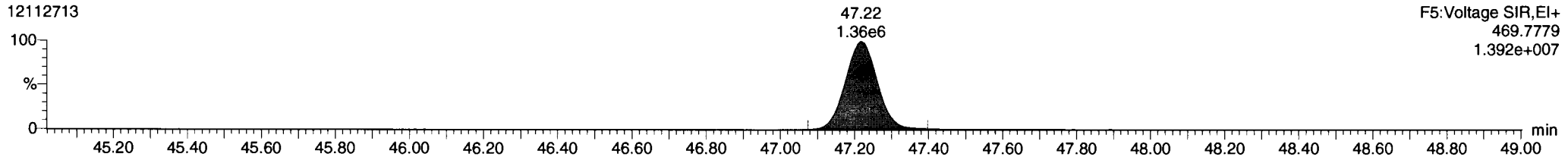
FUNCTION4 NCDPE



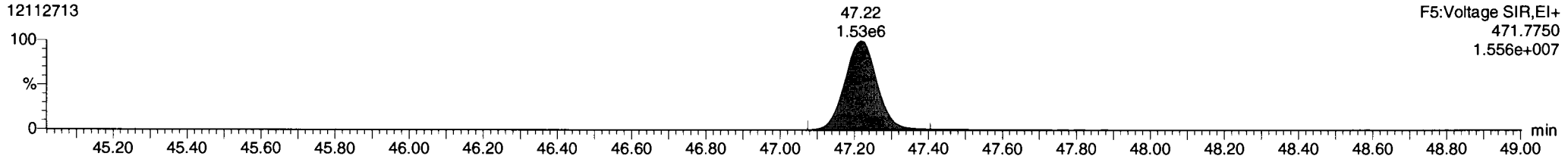
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

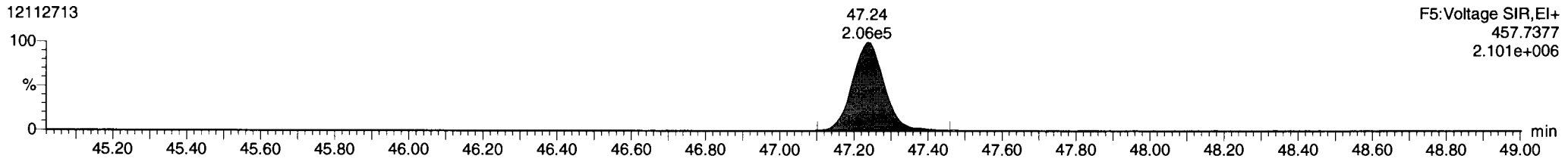
13C-OCDD



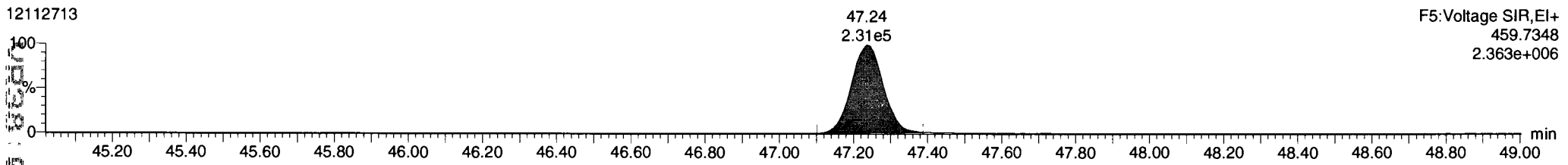
13C-OCDD



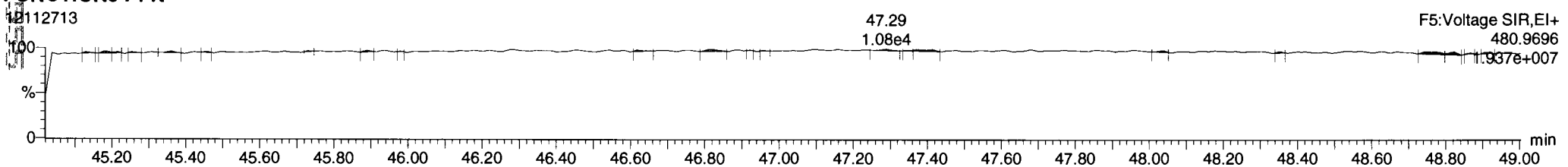
OCDD



OCDD



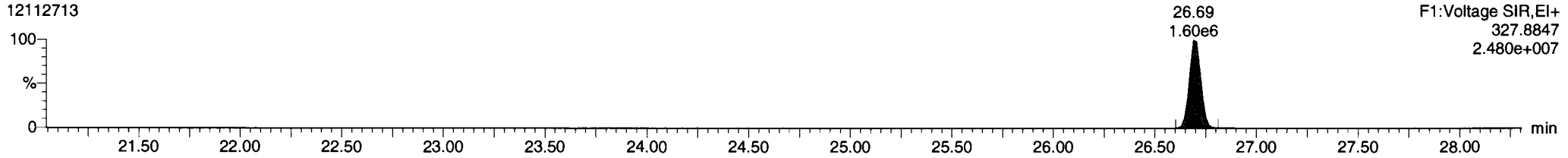
FUNCTION5 PFK



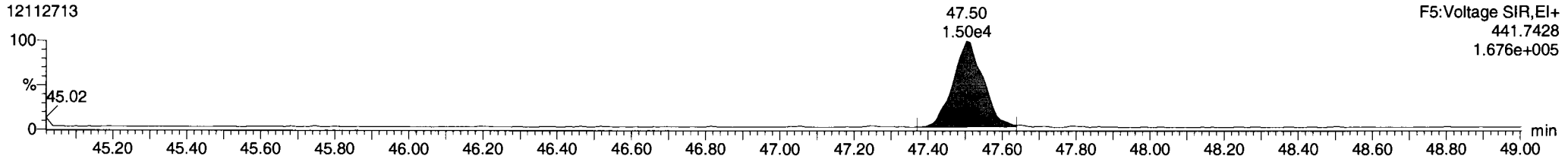
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:03:53 Pacific Standard Time

Name: 12112713, Date: 27-Nov-2012, Time: 21:21:01, ID: VR38F, Conditions: AUTOSPEC01, User: pk

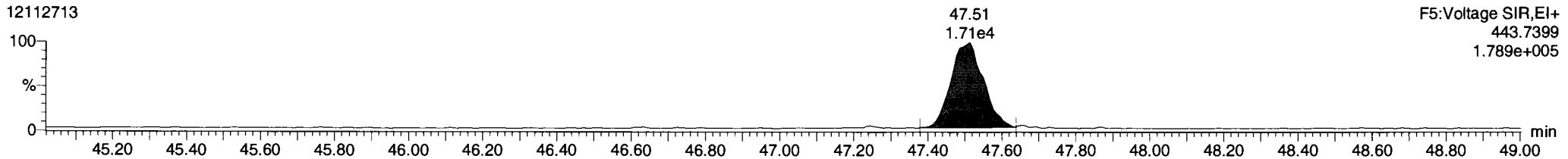
37CL-2378-TCDD



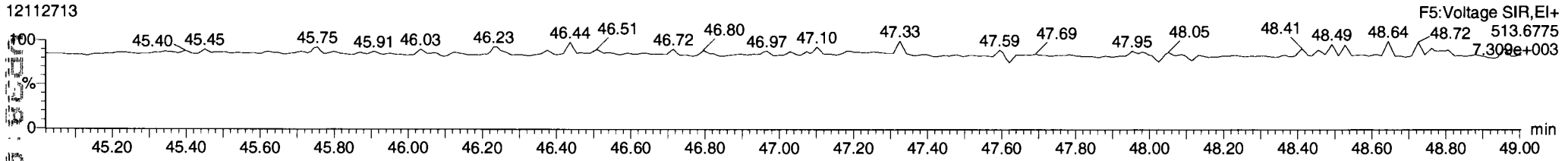
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

jlh 11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

	Name	RT	Rel RT	Ion1 Area	Ion2 Area	Total Area	Ion Ratio	Theor	Ratio	Ratio Flag	S/N	Conc	PG
1	2378-TCDF	26.063	1.001	1740	2223	3963	dd	0.877	0.783	0.770	NO	15.0	0.088	0.088
2	12378-PeCDF	30.201	1.000	1971	1184	3155	bb	0.896	1.665	1.550	NO	14.8	0.080	0.080
3	23478-PeCDF	31.560	1.001	2036	1064	3100	bb	0.926	1.913	1.550	YES	14.6	0.073	0.083
4	123478-HxCDF	35.232	1.001	5022	4085	9107	dd	1.068	1.229	1.240	NO	47.5	0.279	0.279
5	234678-HxCDF	36.296	1.000	4286	3948	8234	bd	1.037	1.086	1.240	NO	29.1	0.268	0.268
6	123678-HxCDF	35.375	1.001	2738	3450	6187	db	1.035	0.794	1.240	YES	25.7	0.150	0.187
7	123789-HxCDF	37.424	0.999	2314	1762	4076	bd	0.987	1.313	1.240	NO	23.4	0.133	0.133
8	1234678-HpCDF	39.518	1.000	44585	44841	89426	bb	1.232	0.994	1.050	NO	534.8	3.151	3.151
9	1234789-HpCDF	42.215	1.000	3467	3605	7072	bb	1.215	0.962	1.050	NO	37.9	0.288	0.288
10	OCDF	47.513	1.006	53159	64447	117606	bb	1.138	0.825	0.890	NO	789.4	7.026	7.026
11	2378-TCDD	26.706	1.001	728	2586	3314	dd	1.049	0.281	0.770	YES	8.8	0.046	0.092
12	12378-PeCDD	31.812	1.001	2424	1624	4048	db	0.998	1.492	1.550	NO	13.7	0.153	0.153
13	123478-HxCDD	36.460	1.000	2897	2307	5204	bd	0.971	1.256	1.240	NO	38.2	0.208	0.208
14	123678-HxCDD	36.591	1.000	8203	7388	15590	dd	0.918	1.110	1.240	NO	105.4	0.630	0.630
15	123789-HxCDD	37.019	1.012	5558	4615	10174	bb	0.932	1.204	1.240	NO	70.4	0.414	0.414
16	1234678-HpCDD	41.338	1.000	141643	136173	277815	bb	1.017	1.040	1.050	NO	873.7	12.467	12.467
17	OCDD	47.253	1.000	594372	664154	1258525	bb	1.008	0.895	0.890	NO	3908.0	84.824	84.824
18	13C-2378-TCDF	26.048	1.007	2252332	2907289	5159621	bb	1.473	0.775	0.770	NO	10526.9		81.539
19	13C-12378-PeCDF	30.190	1.167	2685782	1706221	4392003	bb	1.148	1.574	1.550	NO	14305.7		89.043
20	13C-23478-PeCDF	31.538	1.219	2457644	1575131	4032774	bb	1.113	1.560	1.550	NO	12410.5		84.342
21	13C-123478-HxCDF	35.210	0.952	1034961	2016619	3051580	bd	1.209	0.513	0.510	NO	3595.5		76.717
22	13C-123678-HxCDF	35.353	0.956	1093398	2102908	3196306	db	1.269	0.520	0.510	NO	3731.8		76.578
23	13C-234678-HxCDF	36.306	0.981	1006539	1952313	2958852	bb	1.236	0.516	0.510	NO	3469.4		72.772
24	13C-123789-HxCDF	37.446	1.012	1064632	2044169	3108800	bb	1.107	0.521	0.510	NO	3670.1		85.378
25	13C-1234678-HpCDF	39.507	1.068	707177	1596438	2303614	bb	1.051	0.443	0.440	NO	4930.9		66.611
26	13C-1234789-HpCDF	42.204	1.141	621554	1398406	2019960	bb	0.815	0.444	0.440	NO	3670.0		75.359
27	13C-1234-TCDD	25.869	0.000	1894779	2402269	4297048	bb	1.000	0.789	0.770	NO	8021.2		100.000
28	13C-2378-TCDD	26.691	1.032	1507603	1931651	3439254	bb	0.946	0.780	0.770	NO	6158.2		84.631
29	13C-12378-PeCDD	31.790	1.229	1624086	1019815	2643901	bb	0.721	1.592	1.550	NO	9733.0		85.376
30	13C-123478-HxCDD	36.449	0.985	1441706	1131438	2573143	bd	0.991	1.274	1.240	NO	5117.1		78.930
31	13C-123678-HxCDD	36.581	0.989	1495112	1200874	2695986	db	1.025	1.245	1.240	NO	5174.8		79.969
32	13C-1234678-HpCDD	41.327	1.117	1123713	1067727	2191440	bb	0.866	1.052	1.050	NO	5316.4		76.899
33	13C-OCDD	47.235	1.277	1386363	1556323	2942686	bb	0.769	0.891	0.890	NO	4938.0		116.289

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

34	13C-123789-HxCDD	36.997	0.000	1822623	1467486	3290109	bb	1.000	1.242	1.240	NO	6444.5		100.000
35	Total-tetrafurans			13093				0.877					1.399	0.682
36	Total-penta1			27810									1.174	1.174
37	Total-pentafurans			17478				0.911					1.026	0.755
38	Total-hexafurans			92777				1.032					5.616	5.394
39	Total-heptafurans			130938				1.223					9.802	9.794
40	Total-Furans			335255				1.041					26.060	24.825
41	Total-tetradioxins			10271				1.049					0.855	0.647
42	Total-pentadioxins			9770				0.998					1.081	0.561
43	Total-hexadioxins			59599				0.940					4.397	4.397
44	Total-heptadioxins			271193				1.017					23.723	23.723
45	Total-Dioxins			945204				0.985					114.880	114.152
46	Total-TEQ			1280459									140.940	138.977
47	37CL-2378-TCDD	26.706	1.032	1597609		1597609		1.044				15180.5		35.626
48	FUNCTION1 PFK			27341888										
49	FUNCTION2 PFK			119624										0.000
50	FUNCTION3 PFK			16499776										0.000
51	FUNCTION4 PFK			9528897										
52	FUNCTION5 PFK			602603										
53	FUNCTION1 HXCDPE			1601										0.000
54	FUNCTION1 HPCDPE			1409										0.000
55	FUNCTION2 HPCDPE			392										0.000
56	FUNCTION3 OCDPE			230										0.000
57	FUNCTION4 NCDPE			15241										0.000
58	FUNCTION5 DCDPE			0										

2.202 1929

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

TF

#	Name	Trace	RT	Abs Resp	RRF M...	% pg	EMRS	2nd Ratio	1st Ratio	1st Rel	S/N
35	Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.066	0.62	0.77	YES	11.0
35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.045	1.03	0.77	YES	12.5
35	Total-tetrafurans	303.9016	24.06	4650.417	0.877	0.103	0.103	0.77	0.77	NO	16.9
35	Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.032	0.47	0.77	YES	7.2
35	Total-tetrafurans	303.9016	23.81	4332.424	0.877	0.096	0.096	0.75	0.77	NO	13.6
35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.050	1.23	0.77	YES	9.3
35	Total-tetrafurans	303.9016	23.60	0.000	0.877	0.000	0.041	0.51	0.77	YES	6.6
35	Total-tetrafurans	303.9016	23.52	1271.368	0.877	0.028	0.028	0.72	0.77	NO	6.8
35	Total-tetrafurans	303.9016	23.40	0.000	0.877	0.000	0.214	0.58	0.77	YES	35.0
35	Total-tetrafurans	303.9016	22.82	0.000	0.877	0.000	0.044	0.59	0.77	YES	8.5
35	Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.045	1.05	0.77	YES	10.8
35	Total-tetrafurans	303.9016	26.29	4228.664	0.877	0.093	0.093	0.76	0.77	NO	13.8
35	Total-tetrafurans	303.9016	26.20	1139.650	0.877	0.025	0.025	0.71	0.77	NO	4.1
1	2378-TCDF	303.9016	26.06	3962.526	0.877	0.088	0.088	0.78	0.77	NO	15.0
35	Total-tetrafurans	303.9016	25.87	0.000	0.877	0.000	0.052	1.06	0.77	YES	7.5
35	Total-tetrafurans	303.9016	25.56	0.000	0.877	0.000	0.023	1.02	0.77	YES	5.0
35	Total-tetrafurans	303.9016	25.38	1802.853	0.877	0.040	0.040	0.67	0.77	NO	6.2
35	Total-tetrafurans	303.9016	25.15	3095.002	0.877	0.068	0.068	0.77	0.77	NO	11.4
35	Total-tetrafurans	303.9016	24.97	6351.696	0.877	0.140	0.140	0.68	0.77	NO	23.6
35	Total-tetrafurans	303.9016	24.82	0.000	0.877	0.000	0.031	0.43	0.77	YES	6.6
35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.075	0.89	0.77	YES	12.3

PP

#	Name	Trace	RT	Abs Resp	RRF M...	% pg	EMRS	2nd Ratio	1st Rel	1st R...	S/N
36	Total-penta1	339.8597	27.48	45337.590		1.174	1.174	1.59	1.55	NO	353.1

PF

#	Name	Trace	RT	Abs Resp	RRF M...	% pg	EMRS	2nd Ratio	1st Rel	1st R...	S/N
37	Total-pentafurans	339.8597	29.14	11022.171	0.911	0.287	0.287	1.58	1.55	NO	45.1
37	Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.118	1.30	1.55	YES	26.3
37	Total-pentafurans	339.8597	28.93	3257.862	0.911	0.085	0.085	1.46	1.55	NO	10.4
37	Total-pentafurans	339.8597	28.82	1174.586	0.911	0.031	0.031	1.39	1.55	NO	4.3
3	23478-PeCDF	339.8597	31.56	3100.448	0.926	0.000	0.073	1.91	1.55	YES	14.6
37	Total-pentafurans	339.8597	31.40	3038.250	0.911	0.079	0.079	1.61	1.55	NO	13.1
37	Total-pentafurans	339.8597	31.27	0.000	0.911	0.000	0.016	6.47	1.55	YES	10.2
37	Total-pentafurans	339.8597	30.50	1428.419	0.911	0.037	0.037	1.56	1.55	NO	6.3
37	Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.065	1.16	1.55	YES	12.4
2	12378-PeCDF	339.8597	30.20	3154.823	0.896	0.080	0.080	1.66	1.55	NO	14.8
37	Total-pentafurans	339.8597	29.84	5973.507	0.911	0.156	0.156	1.32	1.55	NO	18.9

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
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HF

	#	Name	Mass	RT	Area Mass	RRF M...	ng	EMRC	S:N M...	S:N ...	M:NO	S/N
	38	Total-hexafurans	373.8208	34.26	0.000	1.032	0.000	0.024	0.68	1.24	YES	4.5
	38	Total-hexafurans	373.8208	33.72	59102.599	1.032	1.861	1.861	1.15	1.24	NO	295.9
	38	Total-hexafurans	373.8208	33.50	18283.191	1.032	0.576	0.576	1.09	1.24	NO	90.5
	38	Total-hexafurans	373.8208	37.60	0.000	1.032	0.000	0.008	2.87	1.24	YES	3.6
	7	123789-HxCDF	373.8208	37.42	4076.139	0.987	0.133	0.133	1.31	1.24	NO	23.4
	5	234678-HxCDF	373.8208	36.30	8234.352	1.037	0.268	0.268	1.09	1.24	NO	29.1
	6	123678-HxCDF	373.8208	35.37	6187.484	1.035	0.000	0.150	0.79	1.24	YES	25.7
	4	123478-HxCDF	373.8208	35.23	9107.237	1.068	0.279	0.279	1.23	1.24	NO	47.5
	38	Total-hexafurans	373.8208	35.07	0.000	1.032	0.000	0.039	0.79	1.24	YES	9.3
	38	Total-hexafurans	373.8208	34.57	72318.196	1.032	2.277	2.277	1.24	1.24	NO	390.7

HPF

	#	Name	Mass	RT	Area Mass	RRF M...	ng	EMRC	S:N M...	S:N ...	M:NO	S/N
	9	1234789-HpCDF	407.7818	42.21	7072.277	1.215	0.288	0.288	0.96	1.05	NO	37.9
	39	Total-heptafurans	407.7818	40.74	0.000	1.223	0.000	0.008	2.06	1.05	YES	5.4
	39	Total-heptafurans	407.7818	40.32	166580.172	1.223	6.298	6.298	0.97	1.05	NO	963.2
	39	Total-heptafurans	407.7818	40.00	1498.047	1.223	0.057	0.057	0.91	1.05	NO	8.3
	8	1234678-HpCDF	407.7818	39.52	89426.434	1.232	3.151	3.151	0.99	1.05	NO	534.8

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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Furans,TF,PP,PF,HF,HPF,OF

	Name	Trace									
	35 Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.066	0.62	0.77	YES	11.0
	35 Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.045	1.03	0.77	YES	12.5
	35 Total-tetrafurans	303.9016	24.06	4650.417	0.877	0.103	0.103	0.77	0.77	NO	16.9
	35 Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.032	0.47	0.77	YES	7.2
	35 Total-tetrafurans	303.9016	23.81	4332.424	0.877	0.096	0.096	0.75	0.77	NO	13.6
	35 Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.050	1.23	0.77	YES	9.3
	35 Total-tetrafurans	303.9016	23.60	0.000	0.877	0.000	0.041	0.51	0.77	YES	6.6
	35 Total-tetrafurans	303.9016	23.52	1271.368	0.877	0.028	0.028	0.72	0.77	NO	6.8
	35 Total-tetrafurans	303.9016	23.40	0.000	0.877	0.000	0.214	0.58	0.77	YES	35.0
	35 Total-tetrafurans	303.9016	22.82	0.000	0.877	0.000	0.044	0.59	0.77	YES	8.5
	35 Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.045	1.05	0.77	YES	10.8
	35 Total-tetrafurans	303.9016	26.29	4228.664	0.877	0.093	0.093	0.76	0.77	NO	13.8
	35 Total-tetrafurans	303.9016	26.20	1139.650	0.877	0.025	0.025	0.71	0.77	NO	4.1
	1 2378-TCDF	303.9016	26.06	3962.526	0.877	0.088	0.088	0.78	0.77	NO	15.0
	35 Total-tetrafurans	303.9016	25.87	0.000	0.877	0.000	0.052	1.06	0.77	YES	7.5
	35 Total-tetrafurans	303.9016	25.56	0.000	0.877	0.000	0.023	1.02	0.77	YES	5.0
	35 Total-tetrafurans	303.9016	25.38	1802.853	0.877	0.040	0.040	0.67	0.77	NO	6.2
	35 Total-tetrafurans	303.9016	25.15	3095.002	0.877	0.068	0.068	0.77	0.77	NO	11.4
	35 Total-tetrafurans	303.9016	24.97	6351.696	0.877	0.140	0.140	0.68	0.77	NO	23.6
	35 Total-tetrafurans	303.9016	24.82	0.000	0.877	0.000	0.031	0.43	0.77	YES	6.6
	35 Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.075	0.89	0.77	YES	12.3
	40 Total-Furans	303.9016	28.18	0.000	1.041	0.000	0.016	1.25	0.77	YES	4.2
	37 Total-pentafurans	339.8597	29.14	11022.171	0.911	0.287	0.287	1.58	1.55	NO	45.1
	37 Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.118	1.30	1.55	YES	26.3
	37 Total-pentafurans	339.8597	28.93	3257.862	0.911	0.085	0.085	1.46	1.55	NO	10.4
	37 Total-pentafurans	339.8597	28.82	1174.586	0.911	0.031	0.031	1.39	1.55	NO	4.3
	3 23478-PeCDF	339.8597	31.56	3100.448	0.926	0.000	0.073	1.91	1.55	YES	14.6
	37 Total-pentafurans	339.8597	31.40	3038.250	0.911	0.079	0.079	1.61	1.55	NO	13.1
	37 Total-pentafurans	339.8597	31.27	0.000	0.911	0.000	0.016	6.47	1.55	YES	10.2
	37 Total-pentafurans	339.8597	30.50	1428.419	0.911	0.037	0.037	1.56	1.55	NO	6.3
	37 Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.065	1.16	1.55	YES	12.4
	2 12378-PeCDF	339.8597	30.20	3154.823	0.896	0.080	0.080	1.66	1.55	NO	14.8
	37 Total-pentafurans	339.8597	29.84	5973.507	0.911	0.156	0.156	1.32	1.55	NO	18.9
	38 Total-hexafurans	373.8208	34.26	0.000	1.032	0.000	0.024	0.68	1.24	YES	4.5
	38 Total-hexafurans	373.8208	33.72	59102.599	1.032	1.861	1.861	1.15	1.24	NO	295.9
	38 Total-hexafurans	373.8208	33.50	18283.191	1.032	0.576	0.576	1.09	1.24	NO	90.5
	38 Total-hexafurans	373.8208	37.60	0.000	1.032	0.000	0.008	2.87	1.24	YES	3.6
	7 123789-HxCDF	373.8208	37.42	4076.139	0.987	0.133	0.133	1.31	1.24	NO	23.4
	5 234678-HxCDF	373.8208	36.30	8234.352	1.037	0.268	0.268	1.09	1.24	NO	29.1
	6 123678-HxCDF	373.8208	35.37	6187.484	1.035	0.000	0.150	0.79	1.24	YES	25.7
	4 123478-HxCDF	373.8208	35.23	9107.237	1.068	0.279	0.279	1.23	1.24	NO	47.5
	38 Total-hexafurans	373.8208	35.07	0.000	1.032	0.000	0.039	0.79	1.24	YES	9.3
	38 Total-hexafurans	373.8208	34.57	72318.196	1.032	2.277	2.277	1.24	1.24	NO	390.7
	9 1234789-HpCDF	407.7818	42.21	7072.277	1.215	0.288	0.288	0.96	1.05	NO	37.9
	39 Total-heptafurans	407.7818	40.74	0.000	1.223	0.000	0.008	2.06	1.05	YES	5.4
	39 Total-heptafurans	407.7818	40.32	166580.172	1.223	6.298	6.298	0.97	1.05	NO	963.2
	39 Total-heptafurans	407.7818	40.00	1498.047	1.223	0.057	0.057	0.91	1.05	NO	8.3
	8 1234678-HpCDF	407.7818	39.52	89426.434	1.232	3.151	3.151	0.99	1.05	NO	534.8
	10 OCDF	441.7428	47.51	117605.942	1.138	7.026	7.026	0.82	0.89	NO	789.4

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Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Trace	RT	Abs Resp	RRF M	pg	EMPC	1° Rat	2° Rat	1° R	S/N
PP	36	Total-penta1	339.8597	27.48	45337.590		1.174	1.174	1.59	1.55	NO	353.1

TD

	#	Name	Trace	RT	Abs Resp	RRF M	pg	EMPC	1° Rat	2° Rat	1° R	S/N
	41	Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.030	0.46	0.77	YES	6.2
	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.052	0.94	0.77	YES	13.0
	41	Total-tetradioxins	319.8965	25.05	1638.847	1.049	0.045	0.045	0.70	0.77	NO	7.9
	41	Total-tetradioxins	319.8965	24.84	5762.871	1.049	0.160	0.160	0.71	0.77	NO	33.3
	41	Total-tetradioxins	319.8965	24.33	0.000	1.049	0.000	0.019	1.58	0.77	YES	7.3
	41	Total-tetradioxins	319.8965	24.12	6884.245	1.049	0.191	0.191	0.79	0.77	NO	36.9
	41	Total-tetradioxins	319.8965	23.85	6741.906	1.049	0.187	0.187	0.88	0.77	NO	39.5
	41	Total-tetradioxins	319.8965	27.29	0.000	1.049	0.000	0.061	0.99	0.77	YES	14.7
	41	Total-tetradioxins	319.8965	26.84	1075.898	1.049	0.030	0.030	0.67	0.77	NO	6.1
	11	2378-TCDD	319.8965	26.71	3313.512	1.049	0.000	0.046	0.28	0.77	YES	8.8
	41	Total-tetradioxins	319.8965	26.32	1244.562	1.049	0.034	0.034	0.87	0.77	NO	6.0

PD

	#	Name	Trace	RT	Abs Resp	RRF M	pg	EMPC	1° Rat	2° Rat	1° R	S/N
	42	Total-pentadioxins	355.8546	31.12	0.000	0.998	0.000	0.037	1.27	1.55	YES	3.7
	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.054	1.51	1.55	NO	6.4
	42	Total-pentadioxins	355.8546	30.72	0.000	0.998	0.000	0.055	1.12	1.55	YES	6.1
	42	Total-pentadioxins	355.8546	30.56	2932.735	0.998	0.111	0.111	1.54	1.55	NO	11.3
	42	Total-pentadioxins	355.8546	30.42	3020.400	0.998	0.114	0.114	1.55	1.55	NO	11.8
	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.124	1.83	1.55	YES	15.5
	42	Total-pentadioxins	355.8546	29.60	2120.548	0.998	0.080	0.080	1.34	1.55	NO	8.6
	42	Total-pentadioxins	355.8546	29.10	0.000	0.998	0.000	0.214	2.82	1.55	YES	22.0
	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.035	1.97	1.55	YES	4.7
	12	12378-PeCDD	355.8546	31.81	4048.437	0.998	0.153	0.153	1.49	1.55	NO	13.7
	42	Total-pentadioxins	355.8546	29.13	2679.994	0.998	0.102	0.102	1.61	1.55	NO	20.2

HD

	#	Name	Trace	RT	Abs Resp	RRF M	pg	EMPC	1° Rat	2° Rat	1° R	S/N
	14	123678-HxCDD	389.8157	36.59	15590.164	0.918	0.630	0.630	1.11	1.24	NO	105.4
	13	123478-HxCDD	389.8157	36.46	5203.933	0.971	0.208	0.208	1.26	1.24	NO	38.2
	43	Total-hexadioxins	389.8157	35.58	1998.866	0.940	0.081	0.081	1.41	1.24	NO	17.2
	43	Total-hexadioxins	389.8157	35.50	37973.106	0.940	1.533	1.533	1.23	1.24	NO	174.6
	43	Total-hexadioxins	389.8157	35.11	7200.856	0.940	0.291	0.291	1.14	1.24	NO	55.5
	43	Total-hexadioxins	389.8157	34.30	27717.675	0.940	1.119	1.119	1.22	1.24	NO	190.8
	15	123789-HxCDD	389.8157	37.02	10173.727	0.932	0.414	0.414	1.20	1.24	NO	70.4
	43	Total-hexadioxins	389.8157	36.78	3033.161	0.940	0.122	0.122	1.42	1.24	NO	21.6

HPD

	#	Name	Trace	RT	Abs Resp	RRF M	pg	EMPC	1° Rat	2° Rat	1° R	S/N
	16	1234678-HpCDD	423.7766	41.34	277815.484	1.017	12.467	12.467	1.04	1.05	NO	873.7
	44	Total-heptadioxins	423.7766	40.08	250834.204	1.017	11.256	11.256	1.07	1.05	NO	869.4

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Dioxins,TD,PD,HD,HPD,OD

[redacted]	Name	Trace	[redacted]	[redacted]	[redacted]	[redacted]	EMPC	[redacted]	[redacted]	[redacted]	[redacted]
	41 Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.030	0.46	0.77	YES	6.2
	41 Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.052	0.94	0.77	YES	13.0
	41 Total-tetradioxins	319.8965	25.05	1638.847	1.049	0.045	0.045	0.70	0.77	NO	7.9
	41 Total-tetradioxins	319.8965	24.84	5762.871	1.049	0.160	0.160	0.71	0.77	NO	33.3
	41 Total-tetradioxins	319.8965	24.33	0.000	1.049	0.000	0.019	1.58	0.77	YES	7.3
	41 Total-tetradioxins	319.8965	24.12	6884.245	1.049	0.191	0.191	0.79	0.77	NO	36.9
	41 Total-tetradioxins	319.8965	23.85	6741.906	1.049	0.187	0.187	0.88	0.77	NO	39.5
	41 Total-tetradioxins	319.8965	27.29	0.000	1.049	0.000	0.061	0.99	0.77	YES	14.7
	41 Total-tetradioxins	319.8965	26.84	1075.898	1.049	0.030	0.030	0.67	0.77	NO	6.1
	11 2378-TCDD	319.8965	26.71	3313.512	1.049	0.000	0.046	0.28	0.77	YES	8.8
	41 Total-tetradioxins	319.8965	26.32	1244.562	1.049	0.034	0.034	0.87	0.77	NO	6.0
	42 Total-pentadioxins	355.8546	31.12	0.000	0.998	0.000	0.037	1.27	1.55	YES	3.7
	42 Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.054	1.51	1.55	NO	6.4
	42 Total-pentadioxins	355.8546	30.72	0.000	0.998	0.000	0.055	1.12	1.55	YES	6.1
	42 Total-pentadioxins	355.8546	30.56	2932.735	0.998	0.111	0.111	1.54	1.55	NO	11.3
	42 Total-pentadioxins	355.8546	30.42	3020.400	0.998	0.114	0.114	1.55	1.55	NO	11.8
	42 Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.124	1.83	1.55	YES	15.5
	42 Total-pentadioxins	355.8546	29.60	2120.548	0.998	0.080	0.080	1.34	1.55	NO	8.6
	42 Total-pentadioxins	355.8546	29.10	0.000	0.998	0.000	0.214	2.82	1.55	YES	22.0
	42 Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.035	1.97	1.55	YES	4.7
	12 12378-PeCDD	355.8546	31.81	4048.437	0.998	0.153	0.153	1.49	1.55	NO	13.7
	14 123678-HxCDD	389.8157	36.59	15590.164	0.918	0.630	0.630	1.11	1.24	NO	105.4
	13 123478-HxCDD	389.8157	36.46	5203.933	0.971	0.208	0.208	1.26	1.24	NO	38.2
	43 Total-hexadioxins	389.8157	35.58	1998.866	0.940	0.081	0.081	1.41	1.24	NO	17.2
	43 Total-hexadioxins	389.8157	35.50	37973.106	0.940	1.533	1.533	1.23	1.24	NO	174.6
	43 Total-hexadioxins	389.8157	35.11	7200.856	0.940	0.291	0.291	1.14	1.24	NO	55.5
	43 Total-hexadioxins	389.8157	34.30	27717.675	0.940	1.119	1.119	1.22	1.24	NO	190.8
	15 123789-HxCDD	389.8157	37.02	10173.727	0.932	0.414	0.414	1.20	1.24	NO	70.4
	43 Total-hexadioxins	389.8157	36.78	3033.161	0.940	0.122	0.122	1.42	1.24	NO	21.6
	16 1234678-HpCDD	423.7766	41.34	277815.484	1.017	12.467	12.467	1.04	1.05	NO	873.7
	44 Total-heptadioxins	423.7766	40.08	250834.204	1.017	11.256	11.256	1.07	1.05	NO	869.4
	17 OCDD	457.7377	47.25	1258525.188	1.008	84.824	84.824	0.89	0.89	NO	3908.0
	42 Total-pentadioxins	355.8546	29.13	2679.994	0.998	0.102	0.102	1.61	1.55	NO	20.2

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Trace	RT	Area Resp	RRF M...	ng	Ratio	% Ratio	% Ratio...	Int. Std	S/N
[redacted]	35	Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.066	0.62	0.77	YES	11.0
[redacted]	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.045	1.03	0.77	YES	12.5
[redacted]	35	Total-tetrafurans	303.9016	24.06	4650.417	0.877	0.103	0.103	0.77	0.77	NO	16.9
[redacted]	35	Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.032	0.47	0.77	YES	7.2
[redacted]	35	Total-tetrafurans	303.9016	23.81	4332.424	0.877	0.096	0.096	0.75	0.77	NO	13.6
[redacted]	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.050	1.23	0.77	YES	9.3
[redacted]	35	Total-tetrafurans	303.9016	23.60	0.000	0.877	0.000	0.041	0.51	0.77	YES	6.6
[redacted]	35	Total-tetrafurans	303.9016	23.52	1271.368	0.877	0.028	0.028	0.72	0.77	NO	6.8
[redacted]	35	Total-tetrafurans	303.9016	23.40	0.000	0.877	0.000	0.214	0.58	0.77	YES	35.0
[redacted]	35	Total-tetrafurans	303.9016	22.82	0.000	0.877	0.000	0.044	0.59	0.77	YES	8.5
[redacted]	35	Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.045	1.05	0.77	YES	10.8
[redacted]	35	Total-tetrafurans	303.9016	26.29	4228.664	0.877	0.093	0.093	0.76	0.77	NO	13.8
[redacted]	35	Total-tetrafurans	303.9016	26.20	1139.650	0.877	0.025	0.025	0.71	0.77	NO	4.1
[redacted]	1	2378-TCDF	303.9016	26.06	3962.526	0.877	0.088	0.088	0.78	0.77	NO	15.0
[redacted]	35	Total-tetrafurans	303.9016	25.87	0.000	0.877	0.000	0.052	1.06	0.77	YES	7.5
[redacted]	35	Total-tetrafurans	303.9016	25.56	0.000	0.877	0.000	0.023	1.02	0.77	YES	5.0
[redacted]	35	Total-tetrafurans	303.9016	25.38	1802.853	0.877	0.040	0.040	0.67	0.77	NO	6.2
[redacted]	35	Total-tetrafurans	303.9016	25.15	3095.002	0.877	0.068	0.068	0.77	0.77	NO	11.4
[redacted]	35	Total-tetrafurans	303.9016	24.97	6351.696	0.877	0.140	0.140	0.68	0.77	NO	23.6
[redacted]	35	Total-tetrafurans	303.9016	24.82	0.000	0.877	0.000	0.031	0.43	0.77	YES	6.6
[redacted]	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.075	0.89	0.77	YES	12.3
[redacted]	40	Total-Furans	303.9016	28.18	0.000	1.041	0.000	0.016	1.25	0.77	YES	4.2
[redacted]	37	Total-pentafurans	339.8597	29.14	11022.171	0.911	0.287	0.287	1.58	1.55	NO	45.1
[redacted]	37	Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.118	1.30	1.55	YES	26.3
[redacted]	37	Total-pentafurans	339.8597	28.93	3257.862	0.911	0.085	0.085	1.46	1.55	NO	10.4
[redacted]	37	Total-pentafurans	339.8597	28.82	1174.586	0.911	0.031	0.031	1.39	1.55	NO	4.3
[redacted]	3	23478-PeCDF	339.8597	31.56	3100.448	0.926	0.000	0.073	1.91	1.55	YES	14.6
[redacted]	37	Total-pentafurans	339.8597	31.40	3038.250	0.911	0.079	0.079	1.61	1.55	NO	13.1
[redacted]	37	Total-pentafurans	339.8597	31.27	0.000	0.911	0.000	0.016	6.47	1.55	YES	10.2
[redacted]	37	Total-pentafurans	339.8597	30.50	1428.419	0.911	0.037	0.037	1.56	1.55	NO	6.3
[redacted]	37	Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.065	1.16	1.55	YES	12.4
[redacted]	2	12378-PeCDF	339.8597	30.20	3154.823	0.896	0.080	0.080	1.66	1.55	NO	14.8
[redacted]	37	Total-pentafurans	339.8597	29.84	5973.507	0.911	0.156	0.156	1.32	1.55	NO	18.9
[redacted]	38	Total-hexafurans	373.8208	34.26	0.000	1.032	0.000	0.024	0.68	1.24	YES	4.5
[redacted]	38	Total-hexafurans	373.8208	33.72	59102.599	1.032	1.861	1.861	1.15	1.24	NO	295.9
[redacted]	38	Total-hexafurans	373.8208	33.50	18283.191	1.032	0.576	0.576	1.09	1.24	NO	90.5
[redacted]	38	Total-hexafurans	373.8208	37.60	0.000	1.032	0.000	0.008	2.87	1.24	YES	3.6
[redacted]	7	123789-HxCDF	373.8208	37.42	4076.139	0.987	0.133	0.133	1.31	1.24	NO	23.4
[redacted]	5	234678-HxCDF	373.8208	36.30	8234.352	1.037	0.268	0.268	1.09	1.24	NO	29.1
[redacted]	6	123678-HxCDF	373.8208	35.37	6187.484	1.035	0.000	0.150	0.79	1.24	YES	25.7
[redacted]	4	123478-HxCDF	373.8208	35.23	9107.237	1.068	0.279	0.279	1.23	1.24	NO	47.5
[redacted]	38	Total-hexafurans	373.8208	35.07	0.000	1.032	0.000	0.039	0.79	1.24	YES	9.3
[redacted]	38	Total-hexafurans	373.8208	34.57	72318.196	1.032	2.277	2.277	1.24	1.24	NO	390.7
[redacted]	9	1234789-HpCDF	407.7818	42.21	7072.277	1.215	0.288	0.288	0.96	1.05	NO	37.9
[redacted]	39	Total-heptafurans	407.7818	40.74	0.000	1.223	0.000	0.008	2.06	1.05	YES	5.4
[redacted]	39	Total-heptafurans	407.7818	40.32	166580.172	1.223	6.298	6.298	0.97	1.05	NO	963.2
[redacted]	39	Total-heptafurans	407.7818	40.00	1498.047	1.223	0.057	0.057	0.91	1.05	NO	8.3
[redacted]	8	1234678-HpCDF	407.7818	39.52	89426.434	1.232	3.151	3.151	0.99	1.05	NO	534.8
[redacted]	10	OCDF	441.7428	47.51	117605.942	1.138	7.026	7.026	0.82	0.89	NO	789.4

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Total	RT	Abs Area	RRF %	[redacted]	EMPC	1° Ratio	2° Ratio	1° R	S/N
[redacted]	36	Total-penta1	339.8597	27.48	45337.590		1.174	1.174	1.59	1.55	NO	353.1
[redacted]	41	Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.030	0.46	0.77	YES	6.2
[redacted]	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.052	0.94	0.77	YES	13.0
[redacted]	41	Total-tetradioxins	319.8965	25.05	1638.847	1.049	0.045	0.045	0.70	0.77	NO	7.9
[redacted]	41	Total-tetradioxins	319.8965	24.84	5762.871	1.049	0.160	0.160	0.71	0.77	NO	33.3
[redacted]	41	Total-tetradioxins	319.8965	24.33	0.000	1.049	0.000	0.019	1.58	0.77	YES	7.3
[redacted]	41	Total-tetradioxins	319.8965	24.12	6884.245	1.049	0.191	0.191	0.79	0.77	NO	36.9
[redacted]	41	Total-tetradioxins	319.8965	23.85	6741.906	1.049	0.187	0.187	0.88	0.77	NO	39.5
[redacted]	41	Total-tetradioxins	319.8965	27.29	0.000	1.049	0.000	0.061	0.99	0.77	YES	14.7
[redacted]	41	Total-tetradioxins	319.8965	26.84	1075.898	1.049	0.030	0.030	0.67	0.77	NO	6.1
[redacted]	11	2378-TCDD	319.8965	26.71	3313.512	1.049	0.000	0.046	0.28	0.77	YES	8.8
[redacted]	41	Total-tetradioxins	319.8965	26.32	1244.562	1.049	0.034	0.034	0.87	0.77	NO	6.0
[redacted]	42	Total-pentadioxins	355.8546	31.12	0.000	0.998	0.000	0.037	1.27	1.55	YES	3.7
[redacted]	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.054	1.51	1.55	NO	6.4
[redacted]	42	Total-pentadioxins	355.8546	30.72	0.000	0.998	0.000	0.055	1.12	1.55	YES	6.1
[redacted]	42	Total-pentadioxins	355.8546	30.56	2932.735	0.998	0.111	0.111	1.54	1.55	NO	11.3
[redacted]	42	Total-pentadioxins	355.8546	30.42	3020.400	0.998	0.114	0.114	1.55	1.55	NO	11.8
[redacted]	42	Total-pentadioxins	355.8546	30.21	0.000	0.998	0.000	0.124	1.83	1.55	YES	15.5
[redacted]	42	Total-pentadioxins	355.8546	29.60	2120.548	0.998	0.080	0.080	1.34	1.55	NO	8.6
[redacted]	42	Total-pentadioxins	355.8546	29.10	0.000	0.998	0.000	0.214	2.82	1.55	YES	22.0
[redacted]	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.035	1.97	1.55	YES	4.7
[redacted]	12	12378-PeCDD	355.8546	31.81	4048.437	0.998	0.153	0.153	1.49	1.55	NO	13.7
[redacted]	14	123678-HxCDD	389.8157	36.59	15590.164	0.918	0.630	0.630	1.11	1.24	NO	105.4
[redacted]	13	123478-HxCDD	389.8157	36.46	5203.933	0.971	0.208	0.208	1.26	1.24	NO	38.2
[redacted]	43	Total-hexadioxins	389.8157	35.58	1998.866	0.940	0.081	0.081	1.41	1.24	NO	17.2
[redacted]	43	Total-hexadioxins	389.8157	35.50	37973.106	0.940	1.533	1.533	1.23	1.24	NO	174.6
[redacted]	43	Total-hexadioxins	389.8157	35.11	7200.856	0.940	0.291	0.291	1.14	1.24	NO	55.5
[redacted]	43	Total-hexadioxins	389.8157	34.30	27717.675	0.940	1.119	1.119	1.22	1.24	NO	190.8
[redacted]	15	123789-HxCDD	389.8157	37.02	10173.727	0.932	0.414	0.414	1.20	1.24	NO	70.4
[redacted]	43	Total-hexadioxins	389.8157	36.78	3033.161	0.940	0.122	0.122	1.42	1.24	NO	21.6
[redacted]	16	1234678-HpCDD	423.7766	41.34	277815.484	1.017	12.467	12.467	1.04	1.05	NO	873.7
[redacted]	44	Total-heptadioxins	423.7766	40.08	250834.204	1.017	11.256	11.256	1.07	1.05	NO	869.4
[redacted]	17	OCDD	457.7377	47.25	1258525.188	1.008	84.824	84.824	0.89	0.89	NO	3908.0
[redacted]	42	Total-pentadioxins	355.8546	29.13	2679.994	0.998	0.102	0.102	1.61	1.55	NO	20.2

PFK1

[redacted]	#	Name	Total	RT	Abs Area	RRF %	[redacted]	EMPC	1° Ratio	2° Ratio	1° R	S/N
[redacted]	48	FUNCTION1 PFK	330.9792	22.73	0.000							5.0
[redacted]	48	FUNCTION1 PFK	330.9792	22.16	0.000							10.2
[redacted]	48	FUNCTION1 PFK	330.9792	21.92	0.000							22.4
[redacted]	48	FUNCTION1 PFK	330.9792	21.61	0.000							35.7
[redacted]	48	FUNCTION1 PFK	330.9792	21.57	0.000							38.4
[redacted]	48	FUNCTION1 PFK	330.9792	26.74	0.000							2.4
[redacted]	48	FUNCTION1 PFK	330.9792	24.36	0.000							1.3
[redacted]	48	FUNCTION1 PFK	330.9792	24.30	0.000							1.7
[redacted]	48	FUNCTION1 PFK	330.9792	23.05	0.000							2.7
[redacted]	48	FUNCTION1 PFK	330.9792	22.94	0.000							5.9

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PFK2

	#	Name	Mass	RT	Area Ratio	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	49	FUNCTION2 PFK	366.9792	32.94	0.000		0.000					1.3
	49	FUNCTION2 PFK	366.9792	32.26	0.000		0.000					0.6
	49	FUNCTION2 PFK	366.9792	31.46	0.000		0.000					1.9
	49	FUNCTION2 PFK	366.9792	31.21	0.000		0.000					1.4
	49	FUNCTION2 PFK	366.9792	29.71	0.000		0.000					2.7
	49	FUNCTION2 PFK	366.9792	29.64	0.000		0.000					4.6
	49	FUNCTION2 PFK	366.9792	29.19	0.000		0.000					1.7
	49	FUNCTION2 PFK	366.9792	28.38	0.000		0.000					1.9

PFK3

	#	Name	Mass	RT	Area Ratio	RRF M...	pg	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	33.19	0.000		0.000					45.0
	50	FUNCTION3 PFK	380.9760	35.40	0.000		0.000					0.9
	50	FUNCTION3 PFK	380.9760	35.35	0.000		0.000					1.8
	50	FUNCTION3 PFK	380.9760	35.31	0.000		0.000					0.6
	50	FUNCTION3 PFK	380.9760	35.27	0.000		0.000					0.4
	50	FUNCTION3 PFK	380.9760	35.05	0.000		0.000					2.4
	50	FUNCTION3 PFK	380.9760	34.98	0.000		0.000					1.3
	50	FUNCTION3 PFK	380.9760	34.88	0.000		0.000					0.8
	50	FUNCTION3 PFK	380.9760	34.44	0.000		0.000					1.6
	50	FUNCTION3 PFK	380.9760	34.38	0.000		0.000					1.6
	50	FUNCTION3 PFK	380.9760	34.13	0.000		0.000					8.9
	50	FUNCTION3 PFK	380.9760	34.02	0.000		0.000					10.0
	50	FUNCTION3 PFK	380.9760	33.74	0.000		0.000					23.3
	50	FUNCTION3 PFK	380.9760	33.71	0.000		0.000					24.3
	50	FUNCTION3 PFK	380.9760	33.63	0.000		0.000					27.2
	50	FUNCTION3 PFK	380.9760	33.34	0.000		0.000					43.0
	50	FUNCTION3 PFK	380.9760	33.29	0.000		0.000					44.8
	50	FUNCTION3 PFK	380.9760	37.65	0.000		0.000					5.7
	50	FUNCTION3 PFK	380.9760	37.58	0.000		0.000					6.6
	50	FUNCTION3 PFK	380.9760	37.42	0.000		0.000					10.0
	50	FUNCTION3 PFK	380.9760	37.34	0.000		0.000					9.0
	50	FUNCTION3 PFK	380.9760	37.25	0.000		0.000					4.3
	50	FUNCTION3 PFK	380.9760	36.82	0.000		0.000					0.9
	50	FUNCTION3 PFK	380.9760	36.68	0.000		0.000					0.4
	50	FUNCTION3 PFK	380.9760	36.64	0.000		0.000					0.9
	50	FUNCTION3 PFK	380.9760	36.50	0.000		0.000					1.3
	50	FUNCTION3 PFK	380.9760	36.21	0.000		0.000					1.1
	50	FUNCTION3 PFK	380.9760	36.15	0.000		0.000					1.5
	50	FUNCTION3 PFK	380.9760	36.11	0.000		0.000					0.4
	50	FUNCTION3 PFK	380.9760	35.98	0.000		0.000					1.0
	50	FUNCTION3 PFK	380.9760	35.75	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	35.62	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	35.57	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	38.03	0.000		0.000					0.4

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PFK4

[redacted]	#	Name	Trace	RT	Area Ratio	RRF %	pg	EMPC	1° Ratio	2° Ratio	1° %	2° S/N
[redacted]	51	FUNCTION4 PFK	430.9728	41.33	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	41.18	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.63	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.21	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	40.08	0.000							0.7
[redacted]	51	FUNCTION4 PFK	430.9728	39.91	0.000							2.1
[redacted]	51	FUNCTION4 PFK	430.9728	39.69	0.000							4.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.65	0.000							5.8
[redacted]	51	FUNCTION4 PFK	430.9728	39.55	0.000							10.1
[redacted]	51	FUNCTION4 PFK	430.9728	39.39	0.000							15.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.21	0.000							21.2
[redacted]	51	FUNCTION4 PFK	430.9728	39.10	0.000							26.0
[redacted]	51	FUNCTION4 PFK	430.9728	38.98	0.000							28.4
[redacted]	51	FUNCTION4 PFK	430.9728	38.84	0.000							33.6
[redacted]	51	FUNCTION4 PFK	430.9728	44.13	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	43.84	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	43.73	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	43.66	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	43.50	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	43.43	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	43.39	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	43.17	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	42.82	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.77	0.000							0.7
[redacted]	51	FUNCTION4 PFK	430.9728	42.64	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.19	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	42.11	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	41.40	0.000							0.8

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PFK5

		Name	Trace	RT	Area Ratio	Area Mark	Sig	EMPO	Ion Ratio	Ion Ratio 2	Ion Ratio 3	S/N
[redacted]	52	FUNCTION5 PFK	480.9696	45.08	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	46.16	0.000							1.7
[redacted]	52	FUNCTION5 PFK	480.9696	46.11	0.000							1.7
[redacted]	52	FUNCTION5 PFK	480.9696	46.07	0.000							0.4
[redacted]	52	FUNCTION5 PFK	480.9696	45.97	0.000							2.2
[redacted]	52	FUNCTION5 PFK	480.9696	45.87	0.000							1.7
[redacted]	52	FUNCTION5 PFK	480.9696	45.81	0.000							2.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.72	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	45.68	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	45.65	0.000							1.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.54	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	45.34	0.000							1.4
[redacted]	52	FUNCTION5 PFK	480.9696	45.31	0.000							1.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.25	0.000							1.5
[redacted]	52	FUNCTION5 PFK	480.9696	45.20	0.000							1.5
[redacted]	52	FUNCTION5 PFK	480.9696	45.14	0.000							1.3
[redacted]	52	FUNCTION5 PFK	480.9696	45.11	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	47.24	0.000							1.5
[redacted]	52	FUNCTION5 PFK	480.9696	47.19	0.000							1.4
[redacted]	52	FUNCTION5 PFK	480.9696	47.15	0.000							0.4
[redacted]	52	FUNCTION5 PFK	480.9696	47.11	0.000							0.5
[redacted]	52	FUNCTION5 PFK	480.9696	47.03	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	46.99	0.000							1.3
[redacted]	52	FUNCTION5 PFK	480.9696	46.84	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	46.79	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	46.75	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	46.69	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	46.55	0.000							1.2
[redacted]	52	FUNCTION5 PFK	480.9696	46.53	0.000							0.5
[redacted]	52	FUNCTION5 PFK	480.9696	46.47	0.000							2.1
[redacted]	52	FUNCTION5 PFK	480.9696	46.31	0.000							0.5
[redacted]	52	FUNCTION5 PFK	480.9696	46.24	0.000							1.4
[redacted]	52	FUNCTION5 PFK	480.9696	46.19	0.000							1.5
[redacted]	52	FUNCTION5 PFK	480.9696	48.55	0.000							1.6
[redacted]	52	FUNCTION5 PFK	480.9696	48.51	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	48.45	0.000							2.1
[redacted]	52	FUNCTION5 PFK	480.9696	48.33	0.000							2.2
[redacted]	52	FUNCTION5 PFK	480.9696	48.30	0.000							2.2
[redacted]	52	FUNCTION5 PFK	480.9696	48.24	0.000							2.5
[redacted]	52	FUNCTION5 PFK	480.9696	48.16	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	48.09	0.000							0.4
[redacted]	52	FUNCTION5 PFK	480.9696	48.06	0.000							0.3
[redacted]	52	FUNCTION5 PFK	480.9696	47.96	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	47.91	0.000							2.1
[redacted]	52	FUNCTION5 PFK	480.9696	47.70	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	47.47	0.000							0.5
[redacted]	52	FUNCTION5 PFK	480.9696	47.41	0.000							1.0
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[redacted]	52	FUNCTION5 PFK	480.9696	47.31	0.000							1.8

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

PFK5

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	52	FUNCTION5 PFK	480.9696	48.98	0.000							0.6
	52	FUNCTION5 PFK	480.9696	48.94	0.000							0.7
	52	FUNCTION5 PFK	480.9696	48.79	0.000							0.5
	52	FUNCTION5 PFK	480.9696	48.72	0.000							1.3
	52	FUNCTION5 PFK	480.9696	48.69	0.000							1.8
	52	FUNCTION5 PFK	480.9696	48.64	0.000							2.1
	52	FUNCTION5 PFK	480.9696	48.61	0.000							1.8

ETHERS1

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	53	FUNCTION1 HXCD...	375.8364	26.12	0.000	0.000						1.6
	53	FUNCTION1 HXCD...	375.8364	25.14	0.000	0.000						3.2
	53	FUNCTION1 HXCD...	375.8364	25.05	0.000	0.000						6.4
	53	FUNCTION1 HXCD...	375.8364	23.93	0.000	0.000						26.2
	53	FUNCTION1 HXCD...	375.8364	21.33	0.000	0.000						4.6

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	21.24	0.000	0.000						2.3
	54	FUNCTION1 HPCD...	409.7974	21.18	0.000	0.000						3.0
	54	FUNCTION1 HPCD...	409.7974	25.18	0.000	0.000						1.3
	54	FUNCTION1 HPCD...	409.7974	25.06	0.000	0.000						1.7
	54	FUNCTION1 HPCD...	409.7974	24.08	0.000	0.000						1.8
	54	FUNCTION1 HPCD...	409.7974	23.19	0.000	0.000						2.4
	54	FUNCTION1 HPCD...	409.7974	23.12	0.000	0.000						3.7
	54	FUNCTION1 HPCD...	409.7974	22.37	0.000	0.000						12.8
	54	FUNCTION1 HPCD...	409.7974	21.58	0.000	0.000						3.3

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	32.88	0.000	0.000						2.1
	55	FUNCTION2 HPCD...	409.7974	30.26	0.000	0.000						4.2
	55	FUNCTION2 HPCD...	409.7974	30.18	0.000	0.000						3.3
	55	FUNCTION2 HPCD...	409.7974	29.85	0.000	0.000						1.8

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	56	FUNCTION3 OCDPE	445.7555	36.76	0.000	0.000						4.0
	56	FUNCTION3 OCDPE	445.7555	35.56	0.000	0.000						1.9
	56	FUNCTION3 OCDPE	445.7555	34.10	0.000	0.000						2.8

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M	S/N
	57	FUNCTION4 NCDPE	479.7165	42.94	0.000	0.000	2.3
	57	FUNCTION4 NCDPE	479.7165	42.70	0.000	0.000	2.5
	57	FUNCTION4 NCDPE	479.7165	40.38	0.000	0.000	2.2
	57	FUNCTION4 NCDPE	479.7165	39.11	0.000	0.000	254.1
	57	FUNCTION4 NCDPE	479.7165	38.75	0.000	0.000	3.5

ETHERS6

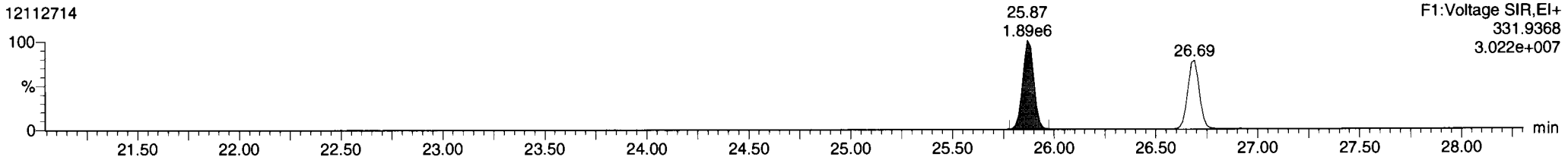
	#	Name	Trace	RT	Abs Resp	RRF M	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

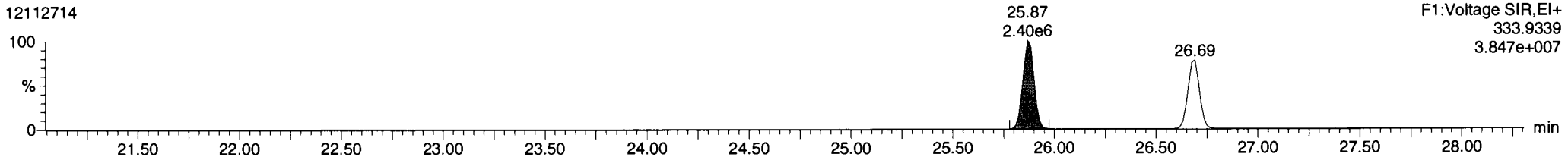
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

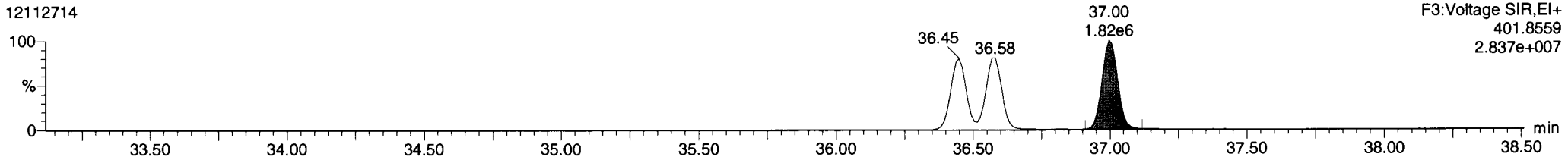
13C-1234-TCDD



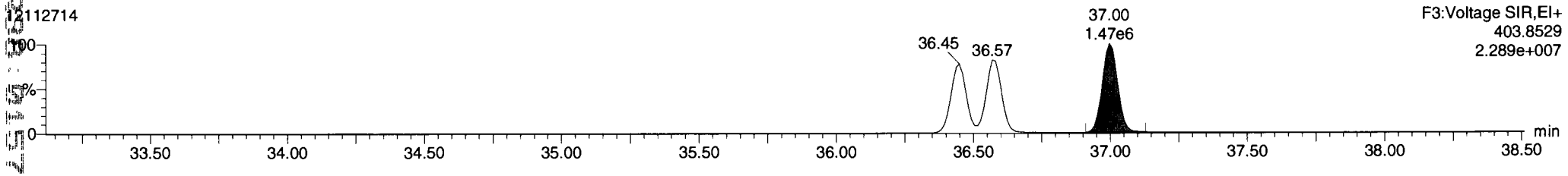
13C-1234-TCDD



13C-123789-HxCDD



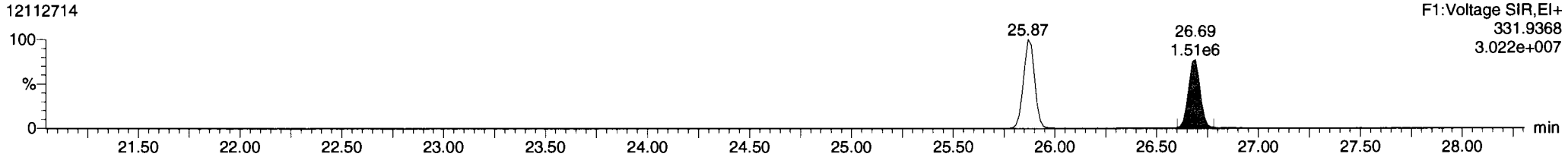
13C-123789-HxCDD



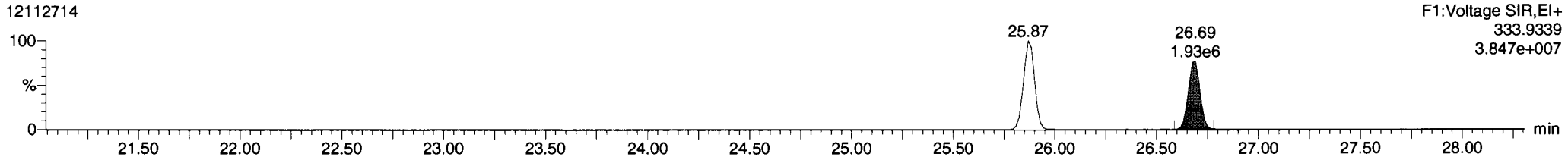
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

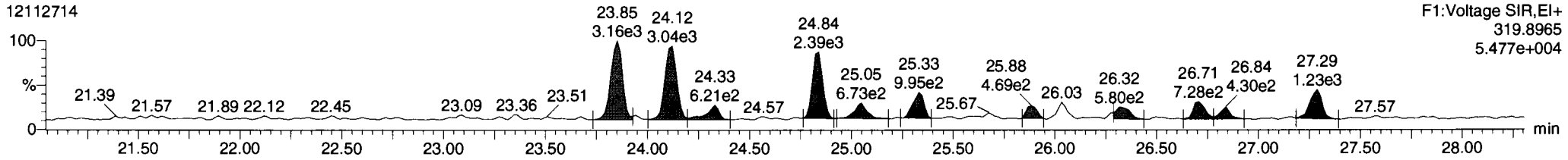
13C-2378-TCDD



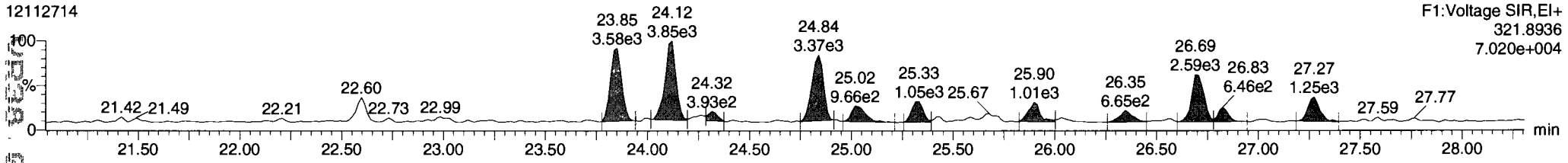
13C-2378-TCDD



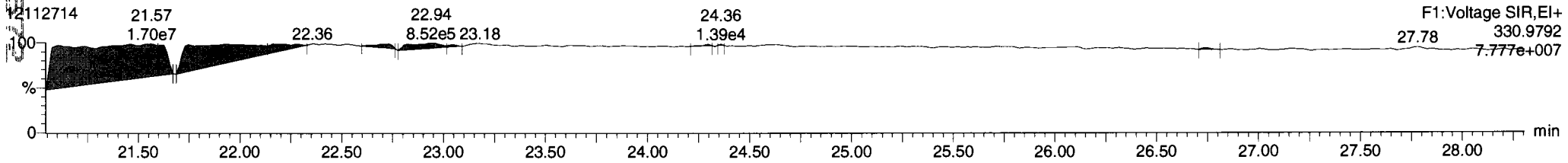
Total-tetradioxins



Total-tetradioxins



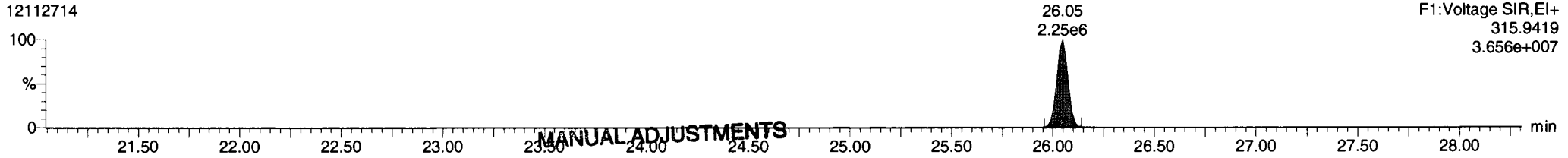
FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

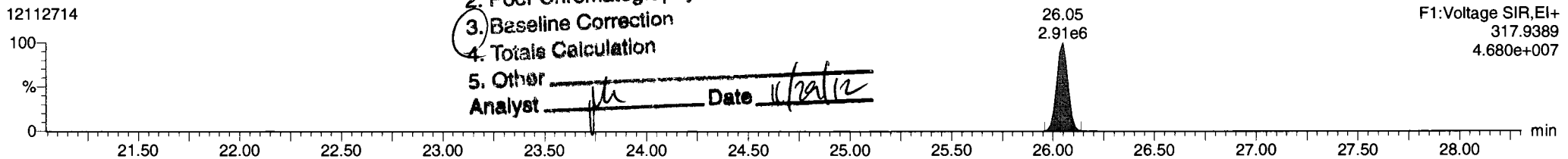


MANUAL ADJUSTMENTS

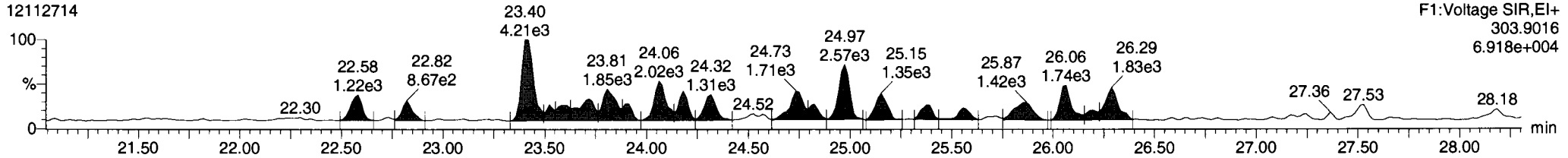
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/29/12

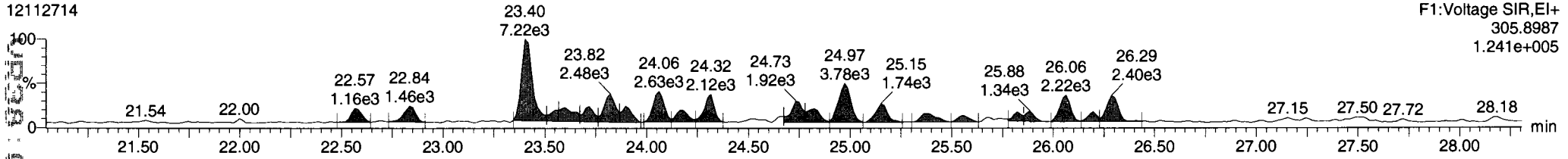
13C-2378-TCDF



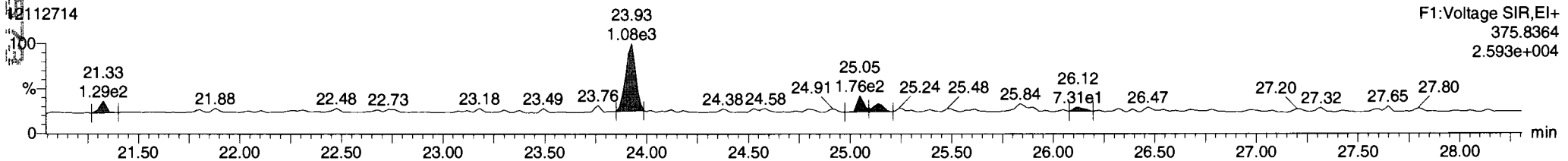
Total-tetrafurans



Total-tetrafurans



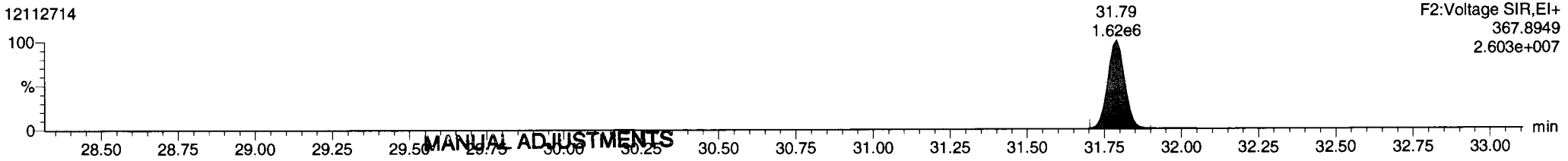
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

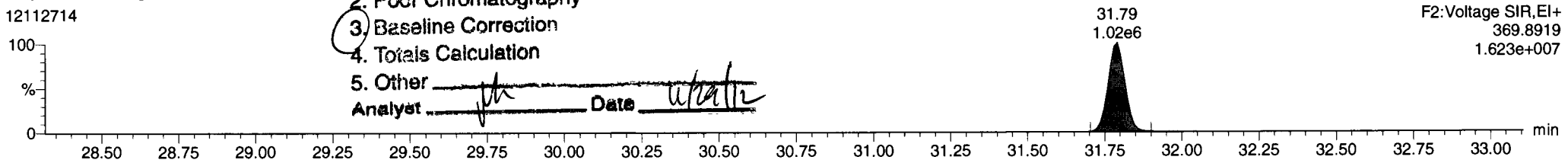


MANUAL ADJUSTMENTS

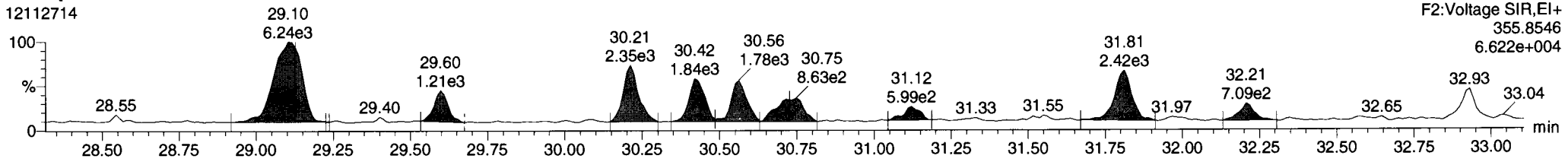
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

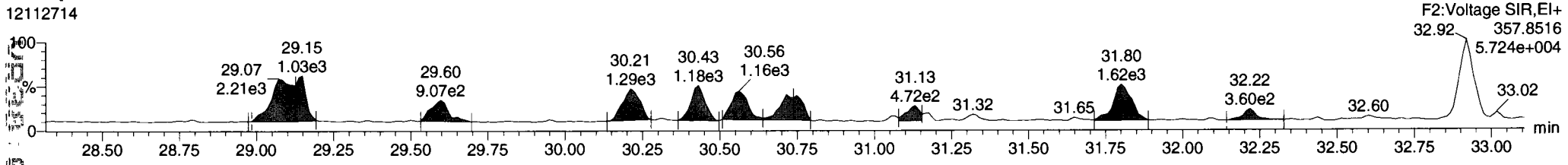
13C-12378-PeCDD



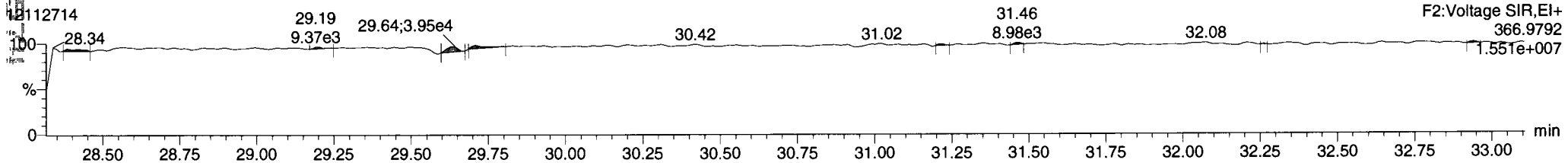
Total-pentadioxins



Total-pentadioxins



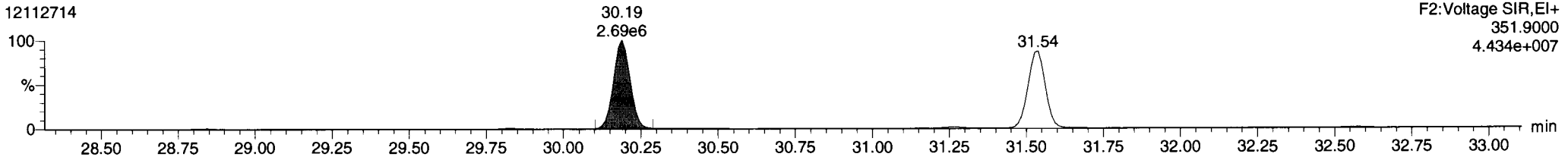
FUNCTION2 PFK



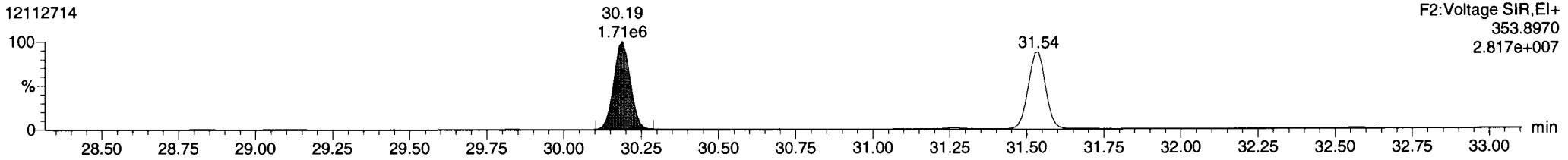
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

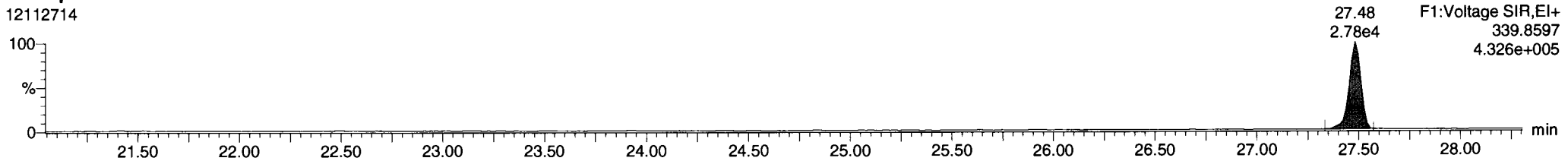
13C-12378-PeCDF



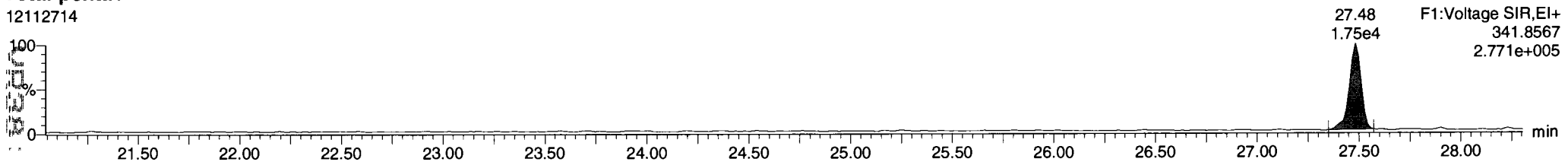
13C-12378-PeCDF



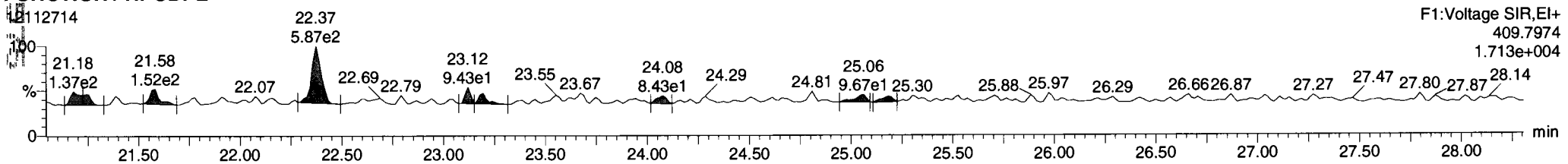
Total-penta1



Total-penta1



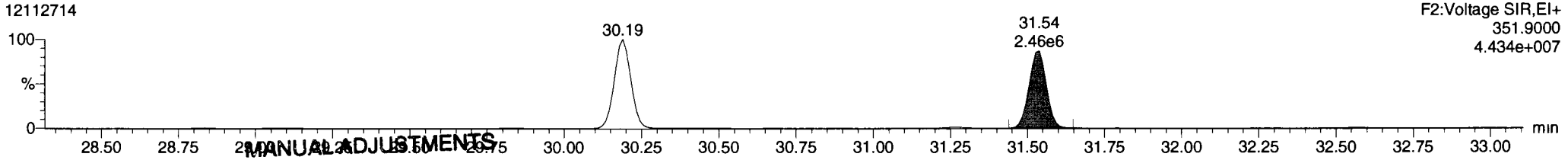
FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

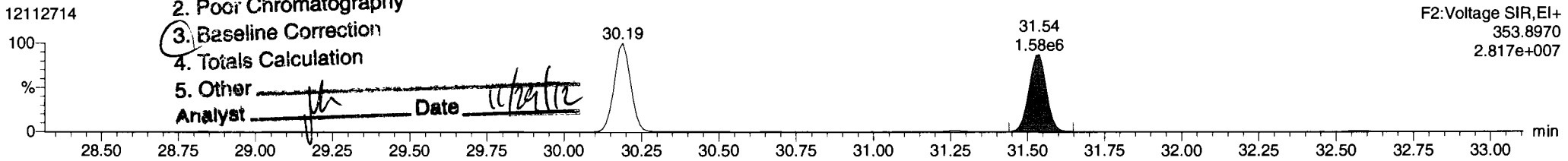
13C-23478-PeCDF



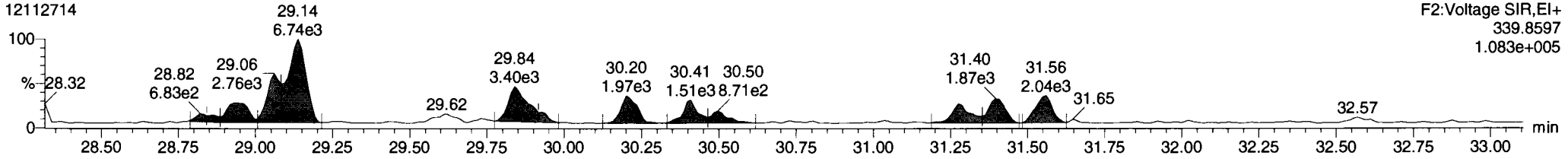
13C-23478-PeCDF

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

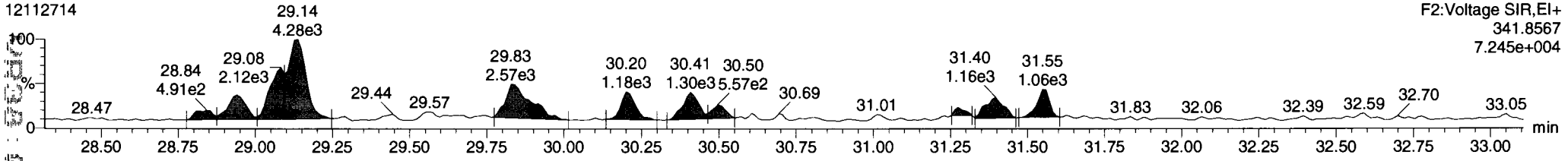
Analyst _____ Date 11/29/12



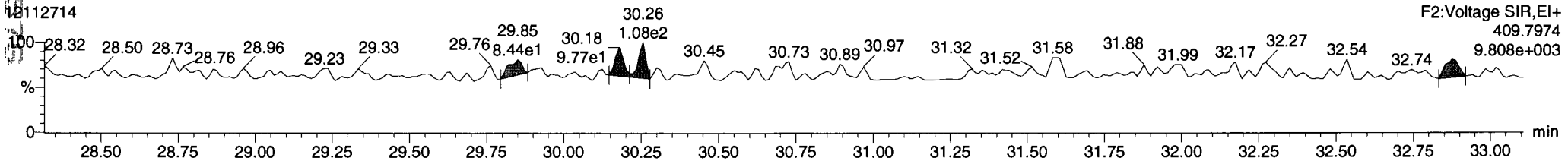
Total-pentafurans



Total-pentafurans



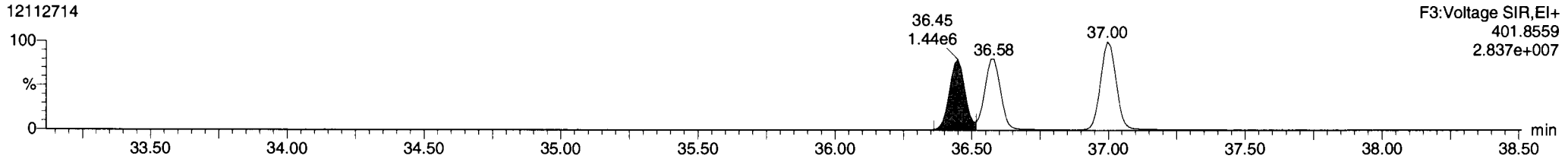
FUNCTION2 HPCDPE



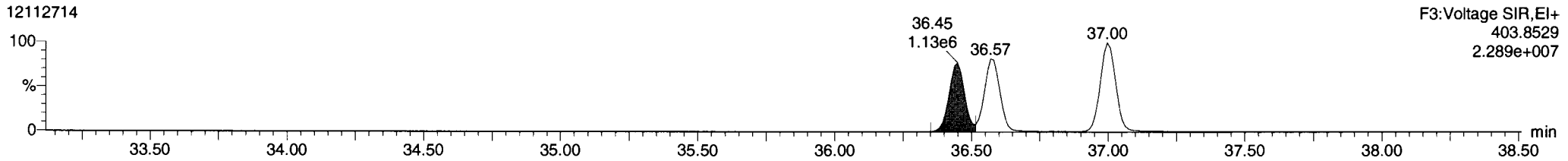
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

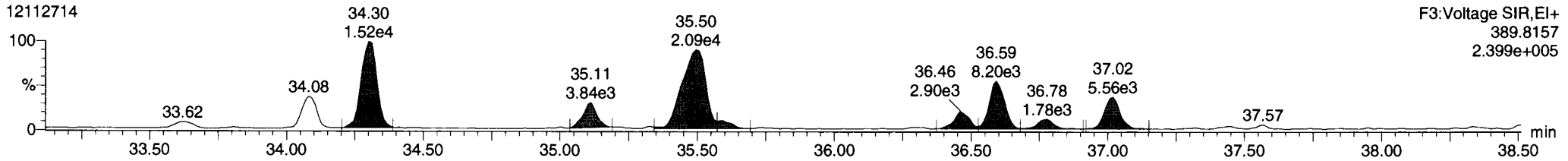
13C-123478-HxCDD



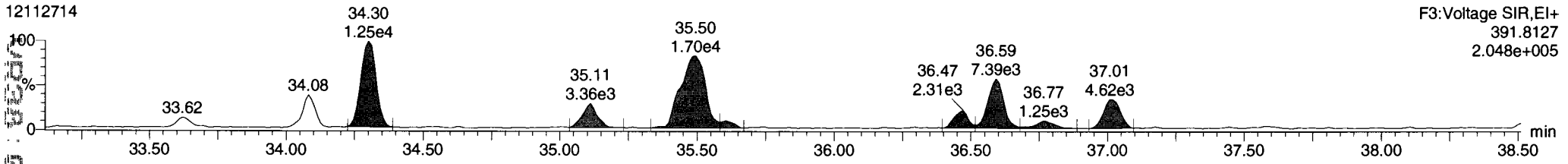
13C-123478-HxCDD



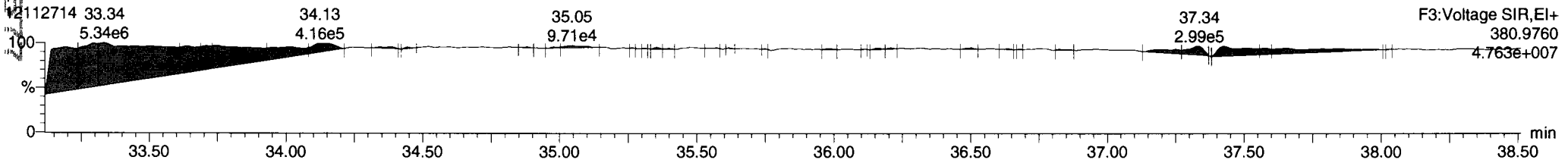
Total-hexadioxins



Total-hexadioxins



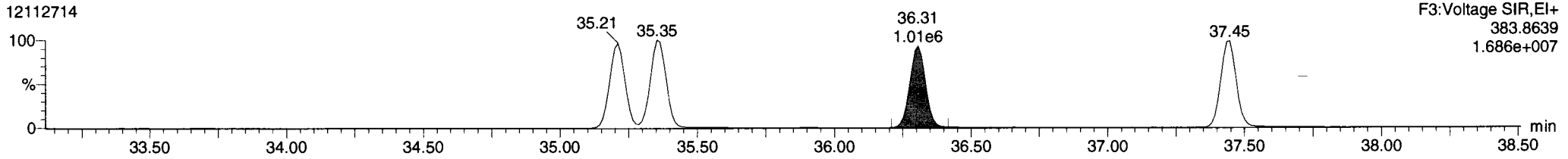
FUNCTION3 PFK



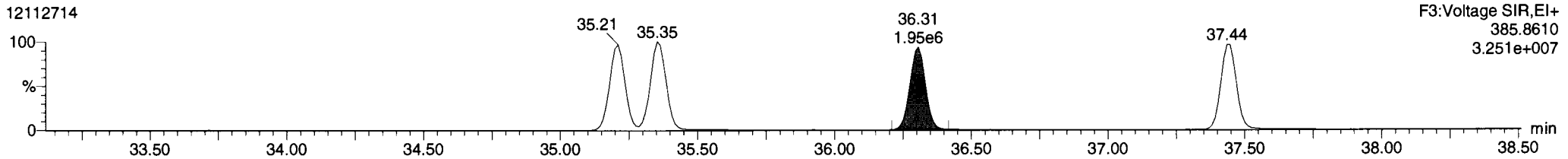
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

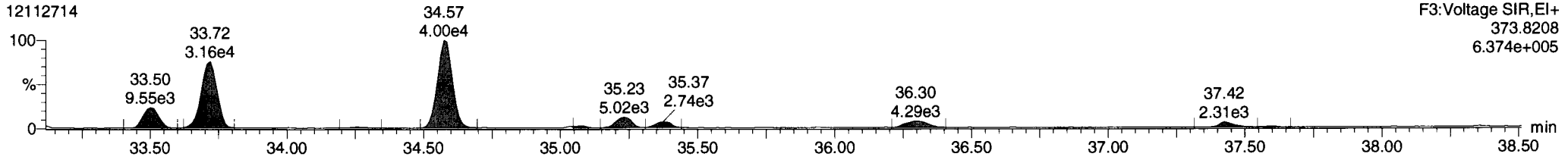
13C-234678-HxCDF



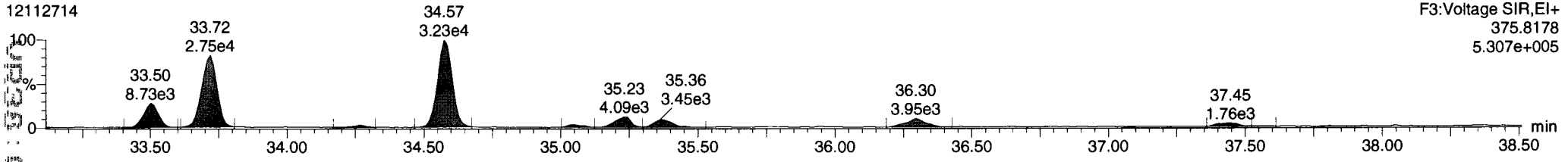
13C-234678-HxCDF



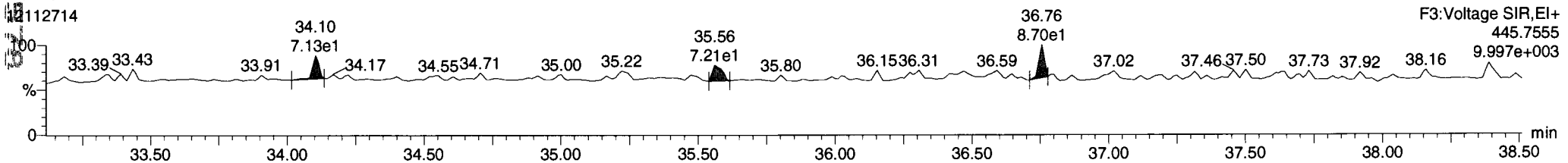
Total-hexafurans



Total-hexafurans



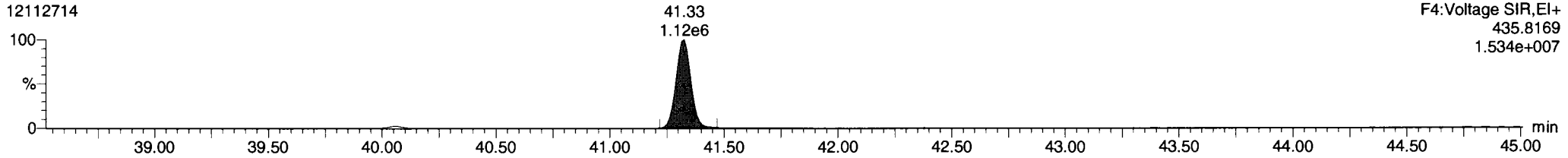
FUNCTION3 OCDPE



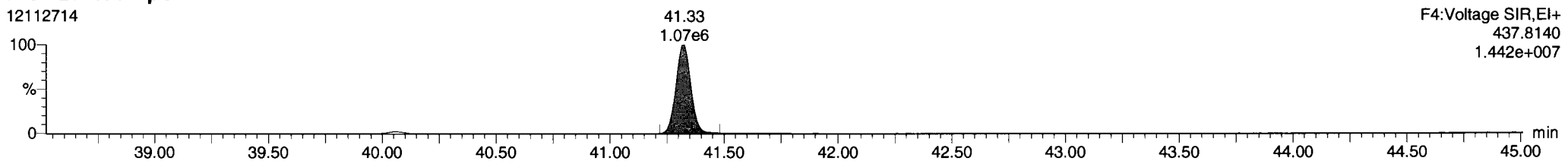
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

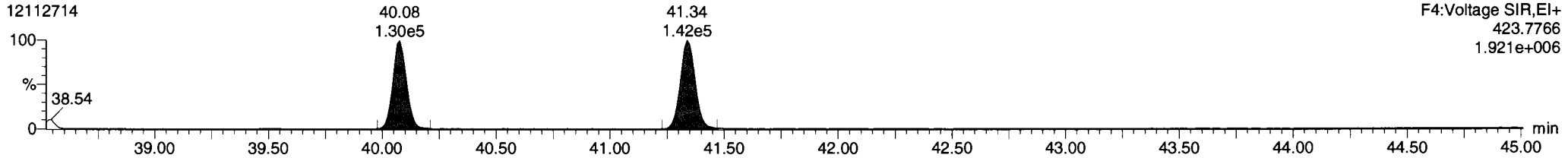
13C-1234678-HpCDD



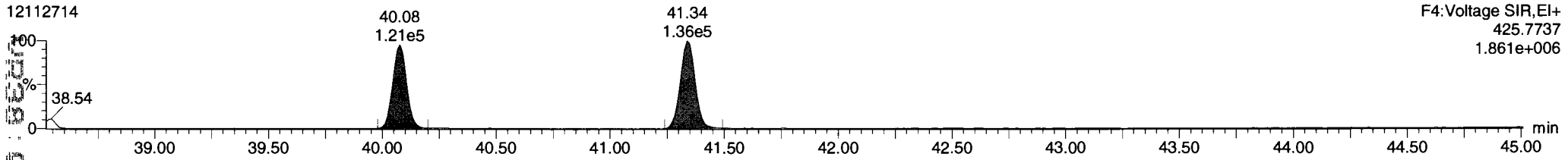
13C-1234678-HpCDD



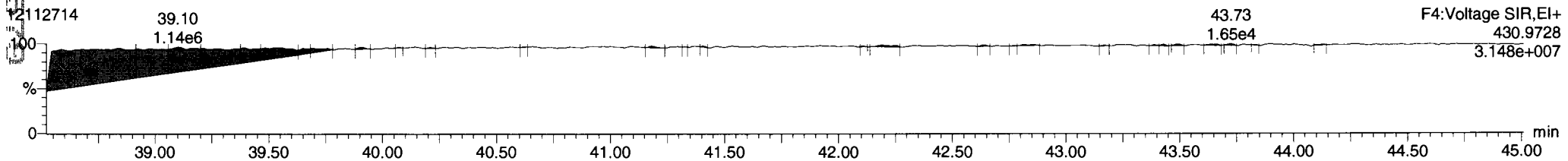
Total-heptadioxins



Total-heptadioxins



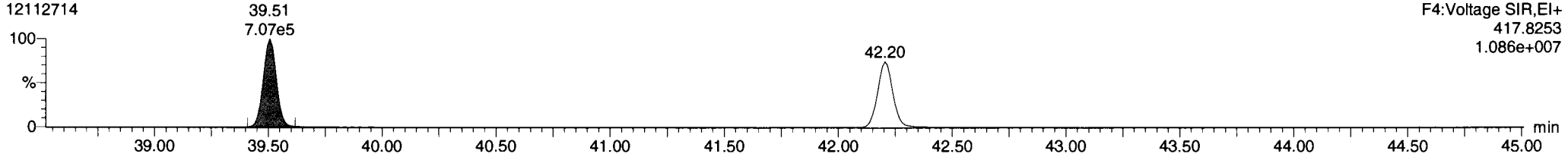
FUNCTION4 PFK



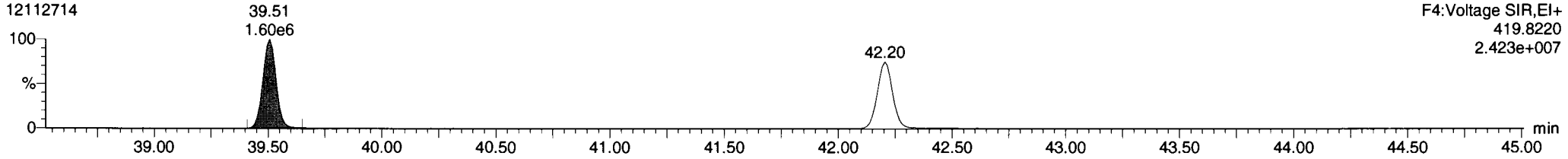
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

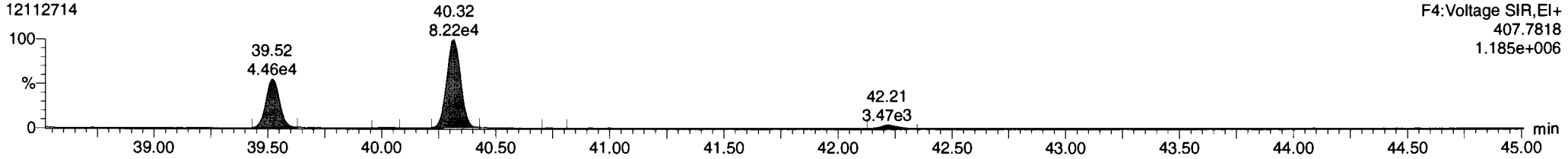
13C-1234678-HpCDF



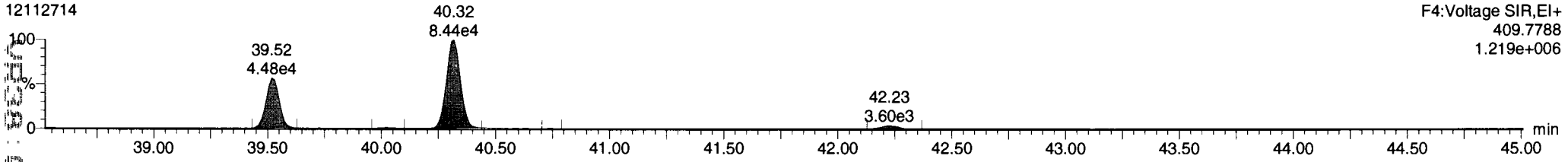
13C-1234678-HpCDF



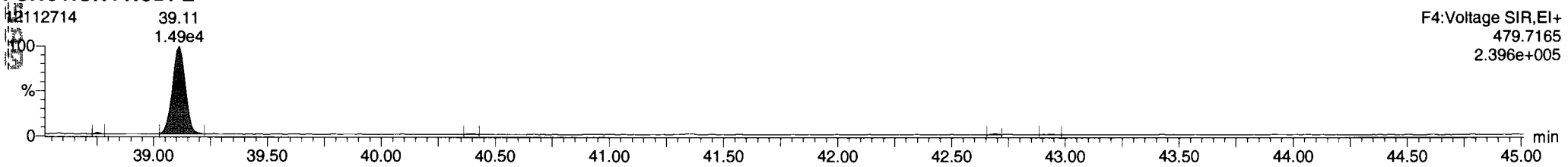
Total-heptafurans



Total-heptafurans



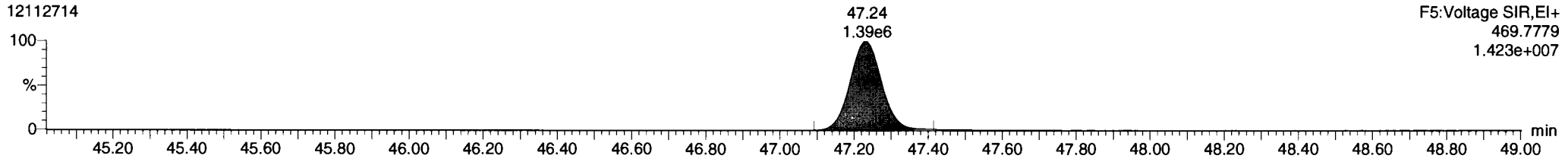
FUNCTION4 NCDPE



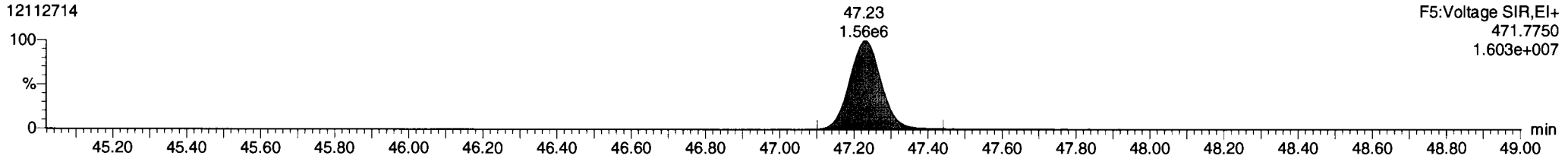
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

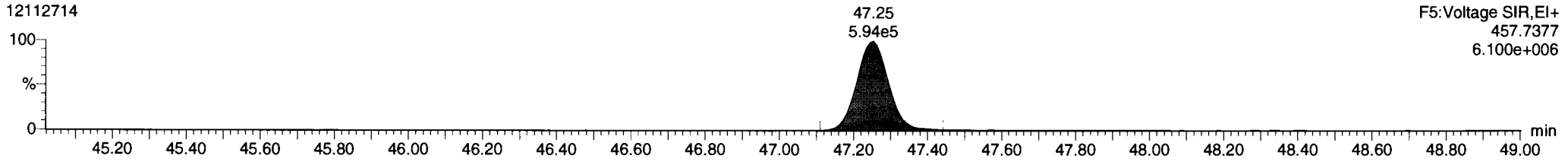
13C-OCDD



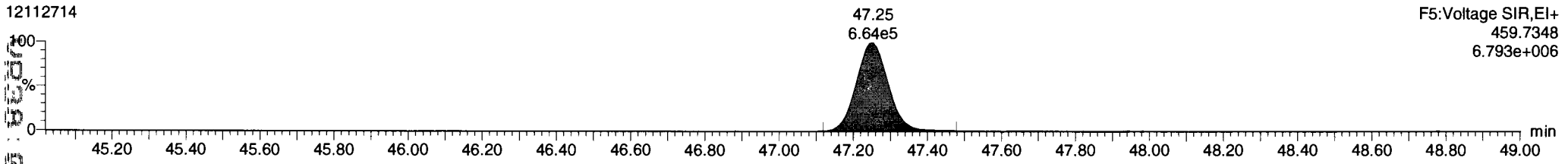
13C-OCDD



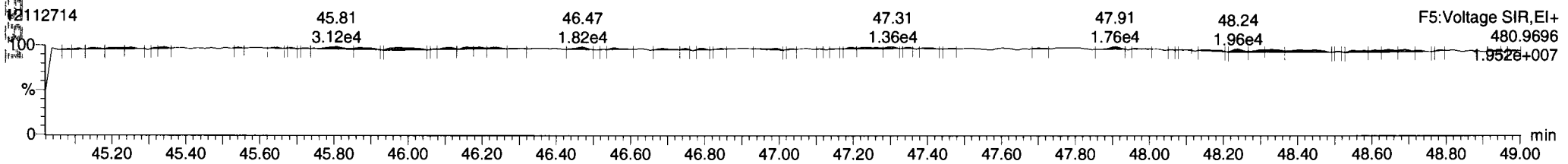
OCDD



OCDD



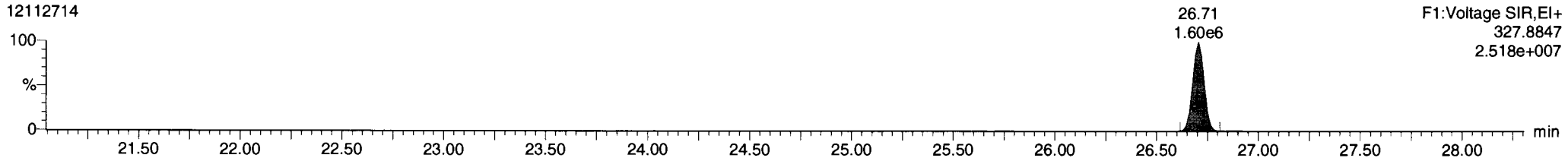
FUNCTION5 PFK



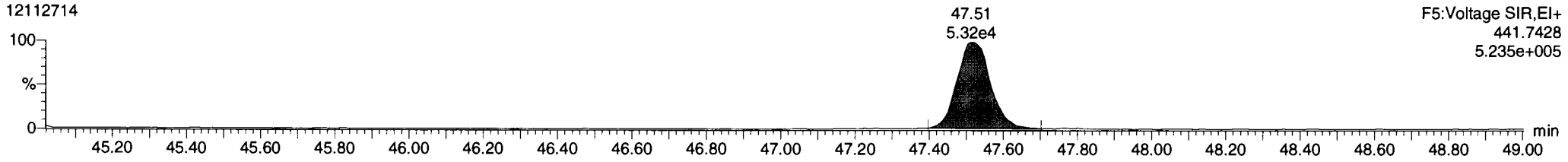
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:13 Pacific Standard Time

Name: 12112714, Date: 27-Nov-2012, Time: 22:13:15, ID: VR38G, Conditions: AUTOSPEC01, User: pk

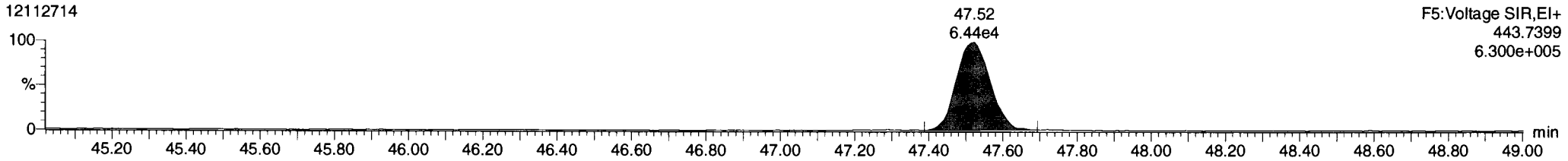
37CL-2378-TCDD



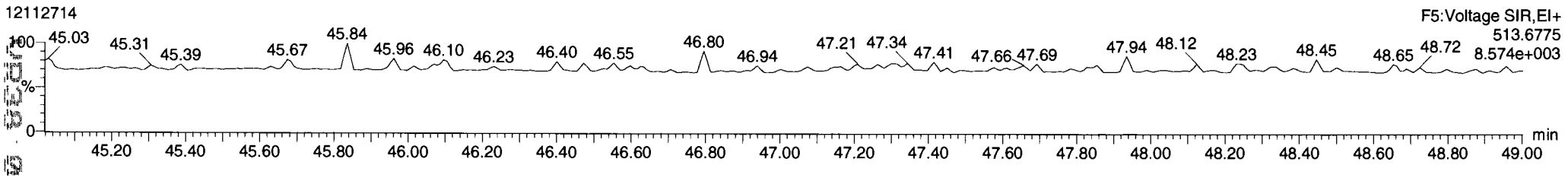
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

pk 11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Lab Area	Total Area	Total Area	In	RRF	Ratio	Ratio	Flags	S/N	EMPC	pg
1	2378-TCDF	26.063	1.001	712	841	1553	bb	0.877	0.846	0.770	NO	6.1	0.038	0.038 B
2	12378-PeCDF	30.212	1.001	1021	673	1694	bb	0.896	1.517	1.550	NO	7.3	0.046	0.046 B
3	23478-PeCDF	31.549	1.001	1553	893	2446	bb	0.926	1.740	1.550	NO	18.6	0.074	0.074
4	123478-HxCDF	35.222	1.001	1257	761	2018	MM	1.068	1.652	1.240	YES	16.1	0.058	0.069
5	234678-HxCDF	36.307	1.000	918	868	1785	MM	1.037	1.058	1.240	NO	8.9	0.065	0.065
6	123678-HxCDF	35.375	1.001	1026	774	1800	bb	1.035	1.326	1.240	NO	10.0	0.060	0.060
7	123789-HxCDF							0.987		1.240				
8	1234678-HpCDF	39.508	1.000	6539	7024	13563	bb	1.232	0.931	1.050	NO	138.2	0.533	0.533
9	1234789-HpCDF	42.238	1.001	397	323	720	MM	1.215	1.229	1.050	YES	12.7	0.031	0.033
10	OCDF	47.513	1.006	7994	9796	17790	bb	1.138	0.816	0.890	NO	148.0	1.203	1.203
11	2378-TCDD	26.721	1.001	576	2197	2773	bd	1.049	0.262	0.770	YES	11.7	0.041	0.085
12	12378-PeCDD	31.813	1.001	724	657	1381	MM	0.998	1.102	1.550	YES	8.7	0.051	0.059 B
13	123478-HxCDD							0.971		1.240				
14	123678-HxCDD	36.592	1.001	2198	1997	4195	db	0.918	1.101	1.240	NO	33.3	0.191	0.191
15	123789-HxCDD	37.020	1.012	1477	1248	2726	bb	0.932	1.183	1.240	NO	17.7	0.124	0.124
16	1234678-HpCDD	41.339	1.001	31929	31177	63106	bb	1.017	1.024	1 050	NO	336.4	3.199	3.199
17	OCDD	47.243	1.001	125523	140718	266241	bb	1.008	0.892	0.890	NO	747.2	20.307	20.307
18	13C-2378-TCDF	26.049	1.007	2050079	2649080	4699159	bb	1.473	0.774	0.770	NO	7785.2		92.196
19	13C-12378-PeCDF	30.190	1.167	2499754	1591080	4090834	bb	1.148	1.571	1.550	NO	11761.7		102.966
20	13C-23478-PeCDF	31.528	1.219	2161637	1387237	3548873	bb	1.113	1.558	1.550	NO	10175.5		92.146
21	13C-123478-HxCDF	35.200	0.951	936317	1807021	2743339	bd	1.209	0.518	0.510	NO	4180.6		87.960
22	13C-123678-HxCDF	35.353	0.956	991352	1906090	2897442	db	1.269	0.520	0.510	NO	4505.4		88.534
23	13C-234678-HxCDF	36.296	0.981	900858	1736260	2637117	bb	1.236	0.519	0.510	NO	4112.0		82.719
24	13C-123789-HxCDF	37.436	1.012	886278	1715198	2601476	bb	1.107	0.517	0.510	NO	4042.3		91.120
25	13C-1234678-HpCDF	39.497	1.068	631519	1433872	2065391	bb	1.051	0.440	0.440	NO	4906.7		76.169
26	13C-1234789-HpCDF	42.205	1.141	545896	1226855	1772751	bb	0.815	0.445	0.440	NO	3694.1		84.349
27	13C-1234-TCDD	25.869	0.000	1519507	1941673	3461179	bb	1.000	0.783	0.770	NO	7241.9		100.000
28	13C-2378-TCDD	26.691	1.032	1361519	1730221	3091740	bb	0.946	0.787	0.770	NO	6345.6		94.452
29	13C-12378-PeCDD	31.791	1.229	1443789	918722	2362511	bb	0.721	1.571	1.550	NO	12753.0		94.713
30	13C-123478-HxCDD	36.438	0.985	1291986	1016286	2308272	bd	0.991	1.271	1.240	NO	5809.4		90.304
31	13C-123678-HxCDD	36.570	0.988	1324735	1069676	2394411	db	1.025	1.238	1.240	NO	5821.6		90.582
32	13C-1234678-HpCDD	41.317	1.117	994213	945402	1939615	bb	0.866	1.052	1.050	NO	5375.2		86.805
33	13C-OCDD	47.216	1.276	1230161	1370177	2600338	bb	0.769	0.898	0.890	NO	5926.2		131.058

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

36	13C-123789-HxCDD	36.998	0.000	1426631	1153084	2579715	bb	1.000	1.237	1.240	NO	6107.5		100.000
38	Total-tetrafurans			15560				0.877					1.426	0.879
39	Total-penta1			13393									0.658	0.658
37	Total-pentafurans			9933				0.911					0.726	0.474
35	Total-hexafurans			15584				1.032					1.244	1.042
34	Total-heptafurans			6539				1.223					1.383	0.533
40	Total-Furans			69636				1.041					6.669	4.818
41	Total-tetradioxins			0				1.049					0.171	0.000
42	Total-pentadioxins			1599				0.998					0.312	0.118
43	Total-hexadioxins			13671				0.940					1.162	1.117
44	Total-heptadioxins			55314				1.017					5.577	5.577
45	Total-Dioxins			196107				0.985					27.528	27.118
46	Total-TEQ			265743									34.197	31.937
47	37CL-2378-TCDD	26.706	1.032	1414239		1414239		1.044				11194.4		39.153
48	FUNCTION1 PFK			30497396										
49	FUNCTION2 PFK			0										
50	FUNCTION3 PFK			484025										0.000
51	FUNCTION4 PFK			700972										
52	FUNCTION5 PFK			0										
53	FUNCTION1 HXCDPE			5410										0.000
54	FUNCTION1 HPCDPE			721										0.000
55	FUNCTION2 HPCDPE			303										0.000
56	FUNCTION3 OCDPE			86										0.000
57	FUNCTION4 NCDPE			2554										0.000
58	FUNCTION5 DCDPE			0										

1384 1.132

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	35	Total-tetrafurans	303.9016	24.06	2951.224	0.877	0.072	0.072	0.72	0.77	NO	13.0
	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.097	0.58	0.77	YES	14.9
	35	Total-tetrafurans	303.9016	23.72	11164.050	0.877	0.271	0.271	0.72	0.77	NO	36.9
	35	Total-tetrafurans	303.9016	23.54	0.000	0.877	0.000	0.050	0.93	0.77	YES	6.8
	35	Total-tetrafurans	303.9016	23.40	6234.838	0.877	0.151	0.151	0.71	0.77	NO	21.1
	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.046	0.58	0.77	YES	9.0
	35	Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.019	0.41	0.77	YES	3.5
	35	Total-tetrafurans	303.9016	26.29	0.000	0.877	0.000	0.046	0.99	0.77	YES	8.3
	1	2378-TCDF	303.9016	26.06	1553.489	0.877	0.038	0.038	0.85	0.77	NO	6.1
	35	Total-tetrafurans	303.9016	25.82	9611.208	0.877	0.233	0.233	0.83	0.77	NO	30.0
	35	Total-tetrafurans	303.9016	25.57	1188.856	0.877	0.029	0.029	0.83	0.77	NO	4.8
	35	Total-tetrafurans	303.9016	25.38	0.000	0.877	0.000	0.023	0.54	0.77	YES	3.8
	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.051	0.95	0.77	YES	9.2
	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.088	0.95	0.77	YES	13.4
	35	Total-tetrafurans	303.9016	24.81	1920.414	0.877	0.047	0.047	0.73	0.77	NO	6.6
	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.087	0.58	0.77	YES	9.6
	35	Total-tetrafurans	303.9016	24.30	1598.186	0.877	0.039	0.039	0.67	0.77	NO	6.2
	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.024	0.34	0.77	YES	3.6
	35	Total-tetrafurans	303.9016	27.51	0.000	0.877	0.000	0.016	0.47	0.77	YES	2.7

PP

	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	36	Total-penta1	339.8597	27.48	23040.868		0.658	0.658	1.39	1.55	NO	130.4

PF

	#	Name	Trace	RT	Abs Area	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	37	Total-pentafurans	339.8597	28.94	0.000	0.911	0.000	0.050	1.19	1.55	YES	10.6
	3	23478-PeCDF	339.8597	31.55	2446.161	0.926	0.074	0.074	1.74	1.55	NO	18.6
	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.048	1.29	1.55	YES	8.4
	37	Total-pentafurans	339.8597	31.28	1407.152	0.911	0.040	0.040	1.72	1.55	NO	9.9
	2	12378-PeCDF	339.8597	30.21	1693.562	0.896	0.046	0.046	1.52	1.55	NO	7.3
	37	Total-pentafurans	339.8597	29.88	0.000	0.911	0.000	0.153	1.15	1.55	YES	16.7
	37	Total-pentafurans	339.8597	29.62	498.762	0.911	0.014	0.014	1.46	1.55	NO	3.3
	37	Total-pentafurans	339.8597	29.13	10383.110	0.911	0.298	0.298	1.47	1.55	NO	37.7

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HF

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	[redacted]	EMPC	1° Rat...	2° Rat...	T/F	S/N
[redacted]	38	Total-hexafurans	373.8208	33.71	14200.933	1.032	0.506	0.506	1.11	1.24	NO	93.2
[redacted]	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.128	1.03	1.24	YES	27.6
[redacted]	38	Total-hexafurans	373.8208	36.34	0.000	1.032	0.000	0.017	0.72	1.24	YES	7.0
[redacted]	5	234678-HxCDF	373.8208	36.31	1785.431	1.037	0.065	0.065	1.06	1.24	NO	8.9
[redacted]	6	123678-HxCDF	373.8208	35.38	1799.586	1.035	0.060	0.060	1.33	1.24	NO	10.0
[redacted]	4	123478-HxCDF	373.8208	35.22	2018.181	1.068	0.000	0.058	1.65	1.24	YES	16.1
[redacted]	38	Total-hexafurans	373.8208	35.06	841.027	1.032	0.030	0.030	1.24	1.24	NO	6.0
[redacted]	38	Total-hexafurans	373.8208	34.57	10674.912	1.032	0.380	0.380	1.15	1.24	NO	61.5

HPF

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	[redacted]	[redacted]	1° Rat...	2° Rat...	T/F	S/N
[redacted]	8	1234678-HpCDF	407.7818	39.51	13563.016	1.232	0.533	0.533	0.93	1.05	NO	138.2
[redacted]	9	1234789-HpCDF	407.7818	42.24	720.109	1.215	0.000	0.031	1.23	1.05	YES	12.7
[redacted]	39	Total-heptafurans	407.7818	40.31	0.000	1.223	0.000	0.811	0.89	1.05	YES	225.6
[redacted]	39	Total-heptafurans	407.7818	40.01	0.000	1.223	0.000	0.008	0.67	1.05	YES	4.3

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Furans,TF,PP,PF,HF,HPF,OF

[redacted]	#	Name	Mass	RT	Area	RRF M...	Pa	EMPC	R Ratio	T Ratio	IS R...	SN
[redacted]	35	Total-tetrafurans	303.9016	24.06	2951.224	0.877	0.072	0.072	0.72	0.77	NO	13.0
[redacted]	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.097	0.58	0.77	YES	14.9
[redacted]	35	Total-tetrafurans	303.9016	23.72	11164.050	0.877	0.271	0.271	0.72	0.77	NO	36.9
[redacted]	35	Total-tetrafurans	303.9016	23.54	0.000	0.877	0.000	0.050	0.93	0.77	YES	6.8
[redacted]	35	Total-tetrafurans	303.9016	23.40	6234.838	0.877	0.151	0.151	0.71	0.77	NO	21.1
[redacted]	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.046	0.58	0.77	YES	9.0
[redacted]	35	Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.019	0.41	0.77	YES	3.5
[redacted]	35	Total-tetrafurans	303.9016	26.29	0.000	0.877	0.000	0.046	0.99	0.77	YES	8.3
[redacted]	1	2378-TCDF	303.9016	26.06	1553.489	0.877	0.038	0.038	0.85	0.77	NO	6.1
[redacted]	35	Total-tetrafurans	303.9016	25.82	9611.208	0.877	0.233	0.233	0.83	0.77	NO	30.0
[redacted]	35	Total-tetrafurans	303.9016	25.57	1188.856	0.877	0.029	0.029	0.83	0.77	NO	4.8
[redacted]	35	Total-tetrafurans	303.9016	25.38	0.000	0.877	0.000	0.023	0.54	0.77	YES	3.8
[redacted]	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.051	0.95	0.77	YES	9.2
[redacted]	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.088	0.95	0.77	YES	13.4
[redacted]	35	Total-tetrafurans	303.9016	24.81	1920.414	0.877	0.047	0.047	0.73	0.77	NO	6.6
[redacted]	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.087	0.58	0.77	YES	9.6
[redacted]	35	Total-tetrafurans	303.9016	24.30	1598.186	0.877	0.039	0.039	0.67	0.77	NO	6.2
[redacted]	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.024	0.34	0.77	YES	3.6
[redacted]	40	Total-Furans	303.9016	28.17	1446.277	1.041	0.030	0.030	0.78	0.77	NO	5.4
[redacted]	35	Total-tetrafurans	303.9016	27.51	0.000	0.877	0.000	0.016	0.47	0.77	YES	2.7
[redacted]	37	Total-pentafurans	339.8597	28.94	0.000	0.911	0.000	0.050	1.19	1.55	YES	10.6
[redacted]	3	23478-PeCDF	339.8597	31.55	2446.161	0.926	0.074	0.074	1.74	1.55	NO	18.6
[redacted]	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.048	1.29	1.55	YES	8.4
[redacted]	37	Total-pentafurans	339.8597	31.28	1407.152	0.911	0.040	0.040	1.72	1.55	NO	9.9
[redacted]	2	12378-PeCDF	339.8597	30.21	1693.562	0.896	0.046	0.046	1.52	1.55	NO	7.3
[redacted]	37	Total-pentafurans	339.8597	29.88	0.000	0.911	0.000	0.153	1.15	1.55	YES	16.7
[redacted]	37	Total-pentafurans	339.8597	29.62	498.762	0.911	0.014	0.014	1.46	1.55	NO	3.3
[redacted]	37	Total-pentafurans	339.8597	29.13	10383.110	0.911	0.298	0.298	1.47	1.55	NO	37.7
[redacted]	38	Total-hexafurans	373.8208	33.71	14200.933	1.032	0.506	0.506	1.11	1.24	NO	93.2
[redacted]	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.128	1.03	1.24	YES	27.6
[redacted]	38	Total-hexafurans	373.8208	36.34	0.000	1.032	0.000	0.017	0.72	1.24	YES	7.0
[redacted]	5	234678-HxCDF	373.8208	36.31	1785.431	1.037	0.065	0.065	1.06	1.24	NO	8.9
[redacted]	6	123678-HxCDF	373.8208	35.38	1799.586	1.035	0.060	0.060	1.33	1.24	NO	10.0
[redacted]	4	123478-HxCDF	373.8208	35.22	2018.181	1.068	0.000	0.058	1.65	1.24	YES	16.1
[redacted]	38	Total-hexafurans	373.8208	35.06	841.027	1.032	0.030	0.030	1.24	1.24	NO	6.0
[redacted]	38	Total-hexafurans	373.8208	34.57	10674.912	1.032	0.380	0.380	1.15	1.24	NO	61.5
[redacted]	8	1234678-HpCDF	407.7818	39.51	13563.016	1.232	0.533	0.533	0.93	1.05	NO	138.2
[redacted]	9	1234789-HpCDF	407.7818	42.24	720.109	1.215	0.000	0.031	1.23	1.05	YES	12.7
[redacted]	39	Total-heptafurans	407.7818	40.31	0.000	1.223	0.000	0.811	0.89	1.05	YES	225.6
[redacted]	39	Total-heptafurans	407.7818	40.01	0.000	1.223	0.000	0.008	0.67	1.05	YES	4.3
[redacted]	10	OCDF	441.7428	47.51	17790.031	1.138	1.203	1.203	0.82	0.89	NO	148.0
[redacted]	36	Total-penta1	339.8597	27.48	23040.868		0.658	0.658	1.39	1.55	NO	130.4

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TD

	#	Name	Trace	RT	Abs Resp	RRF M...	Δ%	EMPC	1° Ratio	1° Ratio...	Pass	S/N
	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.043	0.90	0.77	YES	9.7
	41	Total-tetradioxins	319.8965	24.12	0.000	1.049	0.000	0.017	1.08	0.77	YES	6.1
	41	Total-tetradioxins	319.8965	23.85	0.000	1.049	0.000	0.038	0.53	0.77	YES	8.9
	41	Total-tetradioxins	319.8965	26.81	0.000	1.049	0.000	0.007	0.26	0.77	YES	2.9
	11	2378-TCDD	319.8965	26.72	2773.118	1.049	0.000	0.041	0.26	0.77	YES	11.7
	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.013	1.04	0.77	YES	3.9
	41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.012	0.92	0.77	YES	4.3

PD

	#	Name	Trace	RT	Abs Resp	RRF M...	Δ%	EMPC	1° Ratio	1° Ratio...	Pass	S/N
	42	Total-pentadioxins	355.8546	30.69	0.000	0.998	0.000	0.034	1.13	1.55	YES	6.7
	42	Total-pentadioxins	355.8546	30.54	0.000	0.998	0.000	0.034	1.87	1.55	YES	7.7
	42	Total-pentadioxins	355.8546	30.43	1023.683	0.998	0.043	0.043	1.38	1.55	NO	6.2
	42	Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.014	0.70	1.55	YES	3.5
	42	Total-pentadioxins	355.8546	29.14	1758.852	0.998	0.075	0.075	1.33	1.55	NO	11.7
	42	Total-pentadioxins	355.8546	29.07	0.000	0.998	0.000	0.037	2.56	1.55	YES	11.2
	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.025	1.21	1.55	YES	3.4
	12	12378-PeCDD	355.8546	31.81	1380.614	0.998	0.000	0.051	1.10	1.55	YES	8.7

HD

	#	Name	Trace	RT	Abs Resp	RRF M...	Δ%	EMPC	1° Ratio	1° Ratio	1° R...	S/N
	43	Total-hexadioxins	389.8157	35.09	0.000	0.940	0.000	0.046	0.78	1.24	YES	9.9
	43	Total-hexadioxins	389.8157	34.30	7655.021	0.940	0.346	0.346	1.34	1.24	NO	55.8
	15	123789-HxCDD	389.8157	37.02	2725.727	0.932	0.124	0.124	1.18	1.24	NO	17.7
	14	123678-HxCDD	389.8157	36.59	4194.890	0.918	0.191	0.191	1.10	1.24	NO	33.3
	43	Total-hexadioxins	389.8157	35.50	10068.590	0.940	0.455	0.455	1.26	1.24	NO	45.7

HPD

	#	Name	Trace	RT	Abs Resp	RRF M...	Δ%	EMPC	1° Ratio	1° Ratio...	1° R...	S/N
	16	1234678-HpCDD	423.7766	41.34	63105.672	1.017	3.199	3.199	1.02	1.05	NO	336.4
	44	Total-heptadioxins	423.7766	40.07	46888.535	1.017	2.377	2.377	1.00	1.05	NO	262.6

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Dioxins,TD,PD,HD,HPD,OD

	#	Name	Trace			RRF M...		EMPC				
3	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.043	0.90	0.77	YES	9.7
4	41	Total-tetradioxins	319.8965	24.12	0.000	1.049	0.000	0.017	1.08	0.77	YES	6.1
5	41	Total-tetradioxins	319.8965	23.85	0.000	1.049	0.000	0.038	0.53	0.77	YES	8.9
6	41	Total-tetradioxins	319.8965	26.81	0.000	1.049	0.000	0.007	0.26	0.77	YES	2.9
7	11	2378-TCDD	319.8965	26.72	2773.118	1.049	0.000	0.041	0.26	0.77	YES	11.7
8	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.013	1.04	0.77	YES	3.9
9	41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.012	0.92	0.77	YES	4.3
10	42	Total-pentadioxins	355.8546	30.69	0.000	0.998	0.000	0.034	1.13	1.55	YES	6.7
11	42	Total-pentadioxins	355.8546	30.54	0.000	0.998	0.000	0.034	1.87	1.55	YES	7.7
12	42	Total-pentadioxins	355.8546	30.43	1023.683	0.998	0.043	0.043	1.38	1.55	NO	6.2
13	42	Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.014	0.70	1.55	YES	3.5
14	42	Total-pentadioxins	355.8546	29.14	1758.852	0.998	0.075	0.075	1.33	1.55	NO	11.7
15	42	Total-pentadioxins	355.8546	29.07	0.000	0.998	0.000	0.037	2.56	1.55	YES	11.2
16	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.025	1.21	1.55	YES	3.4
17	12	12378-PeCDD	355.8546	31.81	1380.614	0.998	0.000	0.051	1.10	1.55	YES	8.7
18	43	Total-hexadioxins	389.8157	35.09	0.000	0.940	0.000	0.046	0.78	1.24	YES	9.9
19	43	Total-hexadioxins	389.8157	34.30	7655.021	0.940	0.346	0.346	1.34	1.24	NO	55.8
20	15	123789-HxCDD	389.8157	37.02	2725.727	0.932	0.124	0.124	1.18	1.24	NO	17.7
21	14	123678-HxCDD	389.8157	36.59	4194.890	0.918	0.191	0.191	1.10	1.24	NO	33.3
22	43	Total-hexadioxins	389.8157	35.50	10068.590	0.940	0.455	0.455	1.26	1.24	NO	45.7
23	16	1234678-HpCDD	423.7766	41.34	63105.672	1.017	3.199	3.199	1.02	1.05	NO	336.4
24	44	Total-heptadioxins	423.7766	40.07	46888.535	1.017	2.377	2.377	1.00	1.05	NO	262.6
25	17	OCDD	457.7377	47.24	266240.883	1.008	20.307	20.307	0.89	0.89	NO	747.2

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TotalTEQ,Furans,Dioxins

	35	Total-tetrafurans	303.9016	24.06	2951.224	0.877	0.072	0.072	0.72	0.77	NO	13.0
	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.097	0.58	0.77	YES	14.9
	35	Total-tetrafurans	303.9016	23.72	11164.050	0.877	0.271	0.271	0.72	0.77	NO	36.9
	35	Total-tetrafurans	303.9016	23.54	0.000	0.877	0.000	0.050	0.93	0.77	YES	6.8
	35	Total-tetrafurans	303.9016	23.40	6234.838	0.877	0.151	0.151	0.71	0.77	NO	21.1
	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.046	0.58	0.77	YES	9.0
	35	Total-tetrafurans	303.9016	22.58	0.000	0.877	0.000	0.019	0.41	0.77	YES	3.5
	35	Total-tetrafurans	303.9016	26.29	0.000	0.877	0.000	0.046	0.99	0.77	YES	8.3
	1	2378-TCDF	303.9016	26.06	1553.489	0.877	0.038	0.038	0.85	0.77	NO	6.1
	35	Total-tetrafurans	303.9016	25.82	9611.208	0.877	0.233	0.233	0.83	0.77	NO	30.0
	35	Total-tetrafurans	303.9016	25.57	1188.856	0.877	0.029	0.029	0.83	0.77	NO	4.8
	35	Total-tetrafurans	303.9016	25.38	0.000	0.877	0.000	0.023	0.54	0.77	YES	3.8
	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.051	0.95	0.77	YES	9.2
	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.088	0.95	0.77	YES	13.4
	35	Total-tetrafurans	303.9016	24.81	1920.414	0.877	0.047	0.047	0.73	0.77	NO	6.6
	35	Total-tetrafurans	303.9016	24.73	0.000	0.877	0.000	0.087	0.58	0.77	YES	9.6
	35	Total-tetrafurans	303.9016	24.30	1598.186	0.877	0.039	0.039	0.67	0.77	NO	6.2
	35	Total-tetrafurans	303.9016	24.18	0.000	0.877	0.000	0.024	0.34	0.77	YES	3.6
	40	Total-Furans	303.9016	28.17	1446.277	1.041	0.030	0.030	0.78	0.77	NO	5.4
	35	Total-tetrafurans	303.9016	27.51	0.000	0.877	0.000	0.016	0.47	0.77	YES	2.7
	37	Total-pentafurans	339.8597	28.94	0.000	0.911	0.000	0.050	1.19	1.55	YES	10.6
	3	23478-PeCDF	339.8597	31.55	2446.161	0.926	0.074	0.074	1.74	1.55	NO	18.6
	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.048	1.29	1.55	YES	8.4
	37	Total-pentafurans	339.8597	31.28	1407.152	0.911	0.040	0.040	1.72	1.55	NO	9.9
	2	12378-PeCDF	339.8597	30.21	1693.562	0.896	0.046	0.046	1.52	1.55	NO	7.3
	37	Total-pentafurans	339.8597	29.88	0.000	0.911	0.000	0.153	1.15	1.55	YES	16.7
	37	Total-pentafurans	339.8597	29.62	498.762	0.911	0.014	0.014	1.46	1.55	NO	3.3
	37	Total-pentafurans	339.8597	29.13	10383.110	0.911	0.298	0.298	1.47	1.55	NO	37.7
	38	Total-hexafurans	373.8208	33.71	14200.933	1.032	0.506	0.506	1.11	1.24	NO	93.2
	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.128	1.03	1.24	YES	27.6
	38	Total-hexafurans	373.8208	36.34	0.000	1.032	0.000	0.017	0.72	1.24	YES	7.0
	5	234678-HxCDF	373.8208	36.31	1785.431	1.037	0.065	0.065	1.06	1.24	NO	8.9
	6	123678-HxCDF	373.8208	35.38	1799.586	1.035	0.060	0.060	1.33	1.24	NO	10.0
	4	123478-HxCDF	373.8208	35.22	2018.181	1.068	0.000	0.058	1.65	1.24	YES	16.1
	38	Total-hexafurans	373.8208	35.06	841.027	1.032	0.030	0.030	1.24	1.24	NO	6.0
	38	Total-hexafurans	373.8208	34.57	10674.912	1.032	0.380	0.380	1.15	1.24	NO	61.5
	8	1234678-HpCDF	407.7818	39.51	13563.016	1.232	0.533	0.533	0.93	1.05	NO	138.2
	9	1234789-HpCDF	407.7818	42.24	720.109	1.215	0.000	0.031	1.23	1.05	YES	12.7
	39	Total-heptafurans	407.7818	40.31	0.000	1.223	0.000	0.811	0.89	1.05	YES	225.6
	39	Total-heptafurans	407.7818	40.01	0.000	1.223	0.000	0.008	0.67	1.05	YES	4.3
	10	OCDF	441.7428	47.51	17790.031	1.138	1.203	1.203	0.82	0.89	NO	148.0
	36	Total-penta1	339.8597	27.48	23040.868		0.658	0.658	1.39	1.55	NO	130.4
	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.043	0.90	0.77	YES	9.7
	41	Total-tetradioxins	319.8965	24.12	0.000	1.049	0.000	0.017	1.08	0.77	YES	6.1
	41	Total-tetradioxins	319.8965	23.85	0.000	1.049	0.000	0.038	0.53	0.77	YES	8.9
	41	Total-tetradioxins	319.8965	26.81	0.000	1.049	0.000	0.007	0.26	0.77	YES	2.9
	11	2378-TCDD	319.8965	26.72	2773.118	1.049	0.000	0.041	0.26	0.77	YES	11.7
	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.013	1.04	0.77	YES	3.9
	41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.012	0.92	0.77	YES	4.3

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Mass	RT	Area/Resp	RRF M...	pg	EMPC	I. Ratio	C. Ratio	T/F R...	S/N
[redacted]	42	Total-pentadioxins	355.8546	30.69	0.000	0.998	0.000	0.034	1.13	1.55	YES	6.7
[redacted]	42	Total-pentadioxins	355.8546	30.54	0.000	0.998	0.000	0.034	1.87	1.55	YES	7.7
[redacted]	42	Total-pentadioxins	355.8546	30.43	1023.683	0.998	0.043	0.043	1.38	1.55	NO	6.2
[redacted]	42	Total-pentadioxins	355.8546	29.59	0.000	0.998	0.000	0.014	0.70	1.55	YES	3.5
[redacted]	42	Total-pentadioxins	355.8546	29.14	1758.852	0.998	0.075	0.075	1.33	1.55	NO	11.7
[redacted]	42	Total-pentadioxins	355.8546	29.07	0.000	0.998	0.000	0.037	2.56	1.55	YES	11.2
[redacted]	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.025	1.21	1.55	YES	3.4
[redacted]	12	12378-PeCDD	355.8546	31.81	1380.614	0.998	0.000	0.051	1.10	1.55	YES	8.7
[redacted]	43	Total-hexadioxins	389.8157	35.09	0.000	0.940	0.000	0.046	0.78	1.24	YES	9.9
[redacted]	43	Total-hexadioxins	389.8157	34.30	7655.021	0.940	0.346	0.346	1.34	1.24	NO	55.8
[redacted]	15	123789-HxCDD	389.8157	37.02	2725.727	0.932	0.124	0.124	1.18	1.24	NO	17.7
[redacted]	14	123678-HxCDD	389.8157	36.59	4194.890	0.918	0.191	0.191	1.10	1.24	NO	33.3
[redacted]	43	Total-hexadioxins	389.8157	35.50	10068.590	0.940	0.455	0.455	1.26	1.24	NO	45.7
[redacted]	16	1234678-HpCDD	423.7766	41.34	63105.672	1.017	3.199	3.199	1.02	1.05	NO	336.4
[redacted]	44	Total-heptadioxins	423.7766	40.07	46888.535	1.017	2.377	2.377	1.00	1.05	NO	262.6
[redacted]	17	OCDD	457.7377	47.24	266240.883	1.008	20.307	20.307	0.89	0.89	NO	747.2

PFK1

[redacted]	#	Name	Mass	RT	Area/Resp	RRF M...	pg	EMPC	I. Ratio	C. Ratio	T/F R...	S/N
[redacted]	48	FUNCTION1 PFK	330.9792	23.69	0.000							0.4
[redacted]	48	FUNCTION1 PFK	330.9792	23.43	0.000							2.4
[redacted]	48	FUNCTION1 PFK	330.9792	23.27	0.000							2.5
[redacted]	48	FUNCTION1 PFK	330.9792	23.16	0.000							4.0
[redacted]	48	FUNCTION1 PFK	330.9792	22.96	0.000							1.4
[redacted]	48	FUNCTION1 PFK	330.9792	22.40	0.000							13.0
[redacted]	48	FUNCTION1 PFK	330.9792	22.30	0.000							16.7
[redacted]	48	FUNCTION1 PFK	330.9792	22.21	0.000							19.6
[redacted]	48	FUNCTION1 PFK	330.9792	21.94	0.000							30.7
[redacted]	48	FUNCTION1 PFK	330.9792	21.82	0.000							35.3
[redacted]	48	FUNCTION1 PFK	330.9792	21.57	0.000							43.7
[redacted]	48	FUNCTION1 PFK	330.9792	21.43	0.000							47.7
[redacted]	48	FUNCTION1 PFK	330.9792	21.31	0.000							48.4
[redacted]	48	FUNCTION1 PFK	330.9792	21.22	0.000							49.6
[redacted]	48	FUNCTION1 PFK	330.9792	21.10	0.000							54.0
[redacted]	48	FUNCTION1 PFK	330.9792	28.10	0.000							0.8
[redacted]	48	FUNCTION1 PFK	330.9792	28.02	0.000							0.8
[redacted]	48	FUNCTION1 PFK	330.9792	27.92	0.000							0.9
[redacted]	48	FUNCTION1 PFK	330.9792	27.47	0.000							1.4
[redacted]	48	FUNCTION1 PFK	330.9792	26.57	0.000							0.9
[redacted]	48	FUNCTION1 PFK	330.9792	26.50	0.000							1.0
[redacted]	48	FUNCTION1 PFK	330.9792	26.42	0.000							1.2
[redacted]	48	FUNCTION1 PFK	330.9792	26.03	0.000							1.0
[redacted]	48	FUNCTION1 PFK	330.9792	25.59	0.000							0.5
[redacted]	48	FUNCTION1 PFK	330.9792	25.09	0.000							1.5
[redacted]	48	FUNCTION1 PFK	330.9792	25.00	0.000							1.5
[redacted]	48	FUNCTION1 PFK	330.9792	24.93	0.000							2.1
[redacted]	48	FUNCTION1 PFK	330.9792	24.58	0.000							1.7
[redacted]	48	FUNCTION1 PFK	330.9792	24.00	0.000							1.2

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PFK2

		Name	Trace	RT	Abs Resp	RRF M...	Dil	EMPC	1° Ratio	2° Ratio	1° R...	S/N

PFK3

		Name	Trace	RT	Abs Resp	RRF M...	Dil	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	36.16	0.000	0.000						1.7
	50	FUNCTION3 PFK	380.9760	35.86	0.000	0.000						1.0
	50	FUNCTION3 PFK	380.9760	35.33	0.000	0.000						2.4
	50	FUNCTION3 PFK	380.9760	35.28	0.000	0.000						0.7
	50	FUNCTION3 PFK	380.9760	35.23	0.000	0.000						1.1
	50	FUNCTION3 PFK	380.9760	34.88	0.000	0.000						0.8
	50	FUNCTION3 PFK	380.9760	34.71	0.000	0.000						0.9
	50	FUNCTION3 PFK	380.9760	34.65	0.000	0.000						1.4
	50	FUNCTION3 PFK	380.9760	34.39	0.000	0.000						0.7
	50	FUNCTION3 PFK	380.9760	33.73	0.000	0.000						1.6
	50	FUNCTION3 PFK	380.9760	33.67	0.000	0.000						1.1
	50	FUNCTION3 PFK	380.9760	33.56	0.000	0.000						1.6
	50	FUNCTION3 PFK	380.9760	33.51	0.000	0.000						1.2
	50	FUNCTION3 PFK	380.9760	33.29	0.000	0.000						2.0
	50	FUNCTION3 PFK	380.9760	33.23	0.000	0.000						1.1
	50	FUNCTION3 PFK	380.9760	33.18	0.000	0.000						2.0
	50	FUNCTION3 PFK	380.9760	38.12	0.000	0.000						1.8
	50	FUNCTION3 PFK	380.9760	37.38	0.000	0.000						3.6
	50	FUNCTION3 PFK	380.9760	37.36	0.000	0.000						3.5
	50	FUNCTION3 PFK	380.9760	36.96	0.000	0.000						0.7
	50	FUNCTION3 PFK	380.9760	36.91	0.000	0.000						1.1
	50	FUNCTION3 PFK	380.9760	36.83	0.000	0.000						1.4
	50	FUNCTION3 PFK	380.9760	36.57	0.000	0.000						1.5
	50	FUNCTION3 PFK	380.9760	36.30	0.000	0.000						1.0

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PFK4

[redacted]	#	Name	Trace	RT	Area Ratio	RF Mon	pg	EMPC	1 Rat	2 Rat	3 Rat	S/N
[redacted]	51	FUNCTION4 PFK	430.9728	39.29	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	38.89	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	38.82	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	38.72	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	38.70	0.000							0.7
[redacted]	51	FUNCTION4 PFK	430.9728	38.64	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	38.61	0.000							2.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.54	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	41.47	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	41.35	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	41.09	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	40.97	0.000							2.2
[redacted]	51	FUNCTION4 PFK	430.9728	40.90	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	40.85	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	40.75	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.64	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	40.59	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	40.47	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	40.35	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	39.96	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.64	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.55	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.42	0.000							2.3
[redacted]	51	FUNCTION4 PFK	430.9728	43.94	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	43.79	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	43.58	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	43.11	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	42.98	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	42.92	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.86	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	42.65	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	42.52	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.39	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.33	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.23	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	41.96	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	41.89	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	41.74	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	41.65	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.96	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	44.89	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	44.82	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.79	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.65	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	44.43	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.35	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.30	0.000							2.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.11	0.000							1.5

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PFK5

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	T' Rati...	T' Rati...	T' R...	S/N
1												

ETHERS1

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	T' Rati...	T' Rati...	T' R...	S/N
1	53	FUNCTION1 HXCD...	375.8364	24.39	0.000		0.000					4.4
2	53	FUNCTION1 HXCD...	375.8364	23.93	0.000		0.000					71.7
3	53	FUNCTION1 HXCD...	375.8364	22.48	0.000		0.000					4.3
4	53	FUNCTION1 HXCD...	375.8364	21.79	0.000		0.000					2.8
5	53	FUNCTION1 HXCD...	375.8364	21.76	0.000		0.000					2.8
6	53	FUNCTION1 HXCD...	375.8364	26.51	0.000		0.000					1.6
7	53	FUNCTION1 HXCD...	375.8364	25.91	0.000		0.000					2.4
8	53	FUNCTION1 HXCD...	375.8364	25.26	0.000		0.000					3.2
9	53	FUNCTION1 HXCD...	375.8364	25.14	0.000		0.000					12.4
10	53	FUNCTION1 HXCD...	375.8364	24.55	0.000		0.000					4.1

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	T' Rati...	T' Rati...	T' R...	S/N
1	54	FUNCTION1 HPCD...	409.7974	26.74	0.000		0.000					2.5
2	54	FUNCTION1 HPCD...	409.7974	26.54	0.000		0.000					2.5
3	54	FUNCTION1 HPCD...	409.7974	24.88	0.000		0.000					1.7
4	54	FUNCTION1 HPCD...	409.7974	24.69	0.000		0.000					2.4
5	54	FUNCTION1 HPCD...	409.7974	24.27	0.000		0.000					2.4
6	54	FUNCTION1 HPCD...	409.7974	23.93	0.000		0.000					2.1
7	54	FUNCTION1 HPCD...	409.7974	22.97	0.000		0.000					2.4
8	54	FUNCTION1 HPCD...	409.7974	21.16	0.000		0.000					1.8

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	T' Rati...	T' Rati...	T' R...	S/N
1	55	FUNCTION2 HPCD...	409.7974	29.84	0.000		0.000					5.1
2	55	FUNCTION2 HPCD...	409.7974	30.96	0.000		0.000					1.7
3	55	FUNCTION2 HPCD...	409.7974	30.35	0.000		0.000					1.8

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	T' Rati...	T' Rati...	T' R...	S/N
1	56	FUNCTION3 OCDPE	445.7555	37.22	0.000		0.000					7.2

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	T' Rati...	T' Rati...	T' R...	S/N
1	57	FUNCTION4 NCDPE	479.7165	44.43	0.000		0.000					4.3
2	57	FUNCTION4 NCDPE	479.7165	39.95	0.000		0.000					5.2
3	57	FUNCTION4 NCDPE	479.7165	39.09	0.000		0.000					59.9

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

ETHERS6

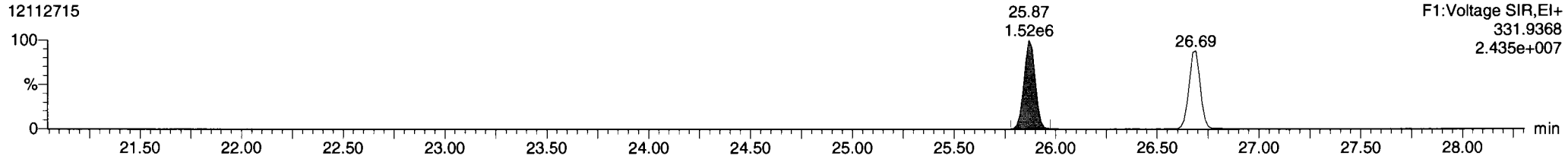
	#	Name	Trace			RF M...		PB	EMPC	1C Rat...	1C Ratio	IS %		S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

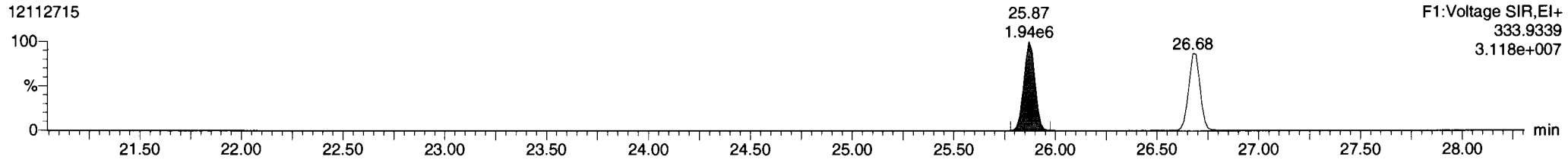
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

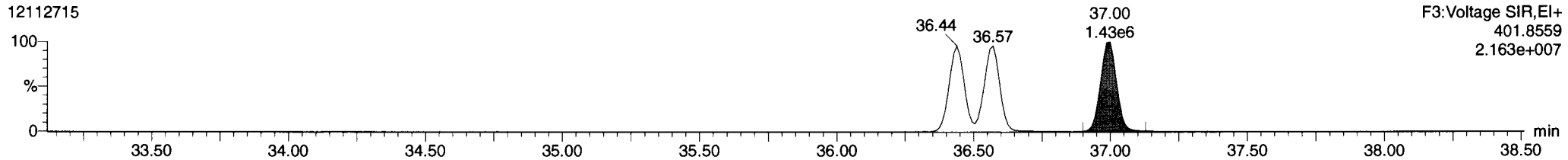
13C-1234-TCDD



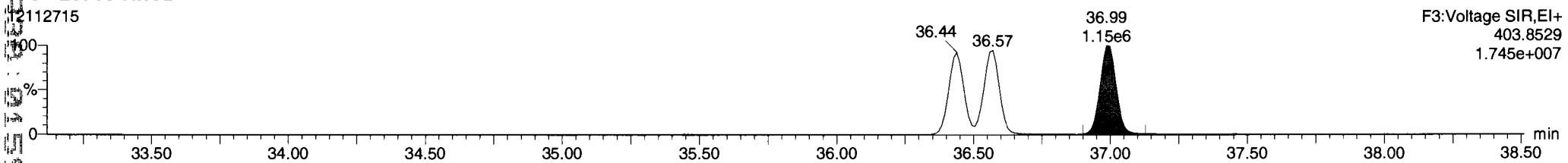
13C-1234-TCDD



13C-123789-HxCDD



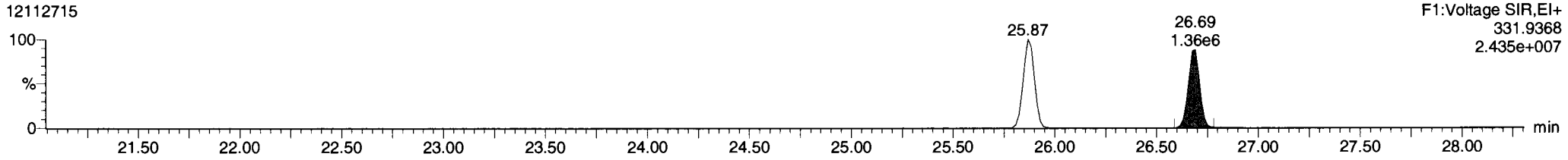
13C-123789-HxCDD



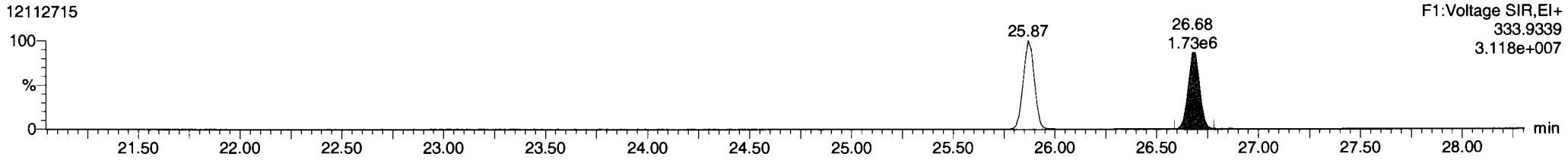
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

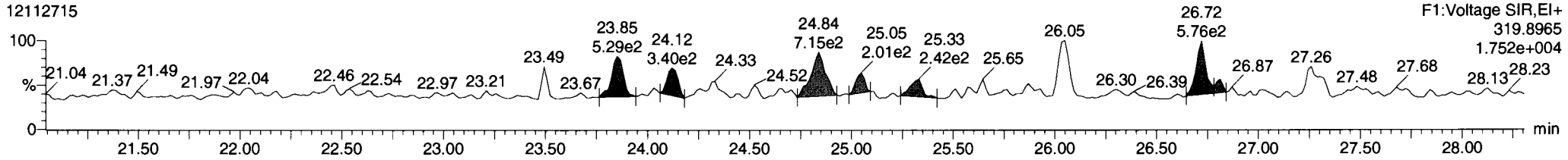
13C-2378-TCDD



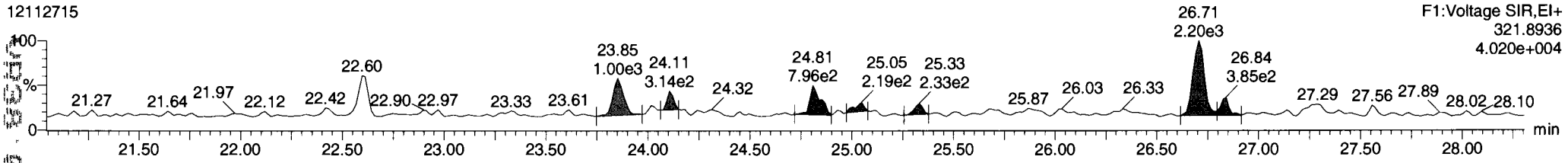
13C-2378-TCDD



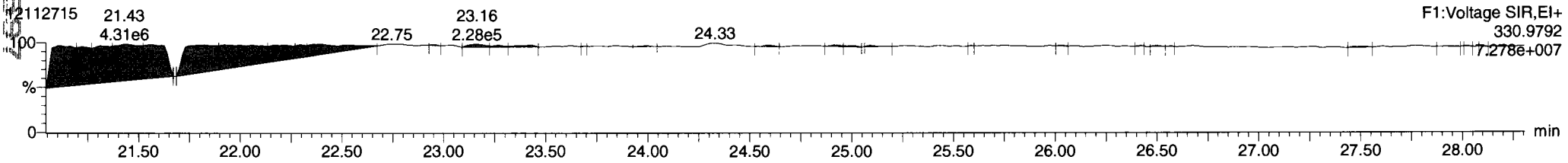
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
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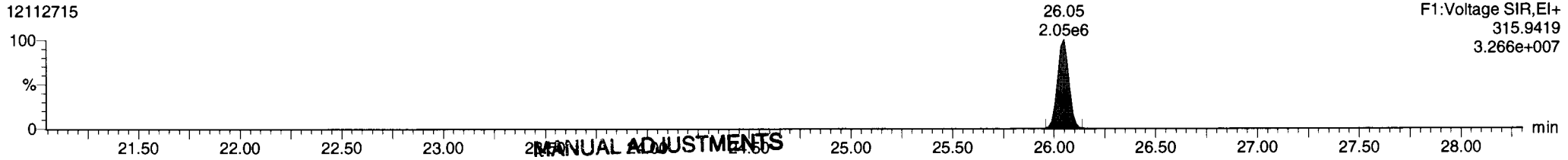
Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

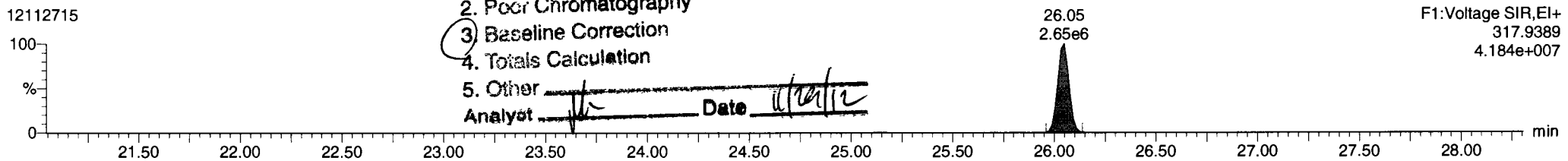


MANUAL ADJUSTMENTS

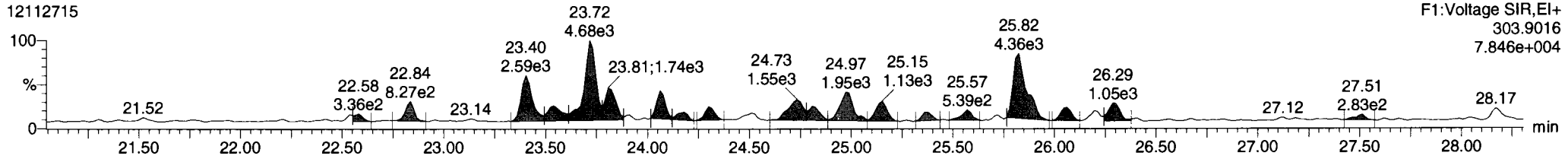
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

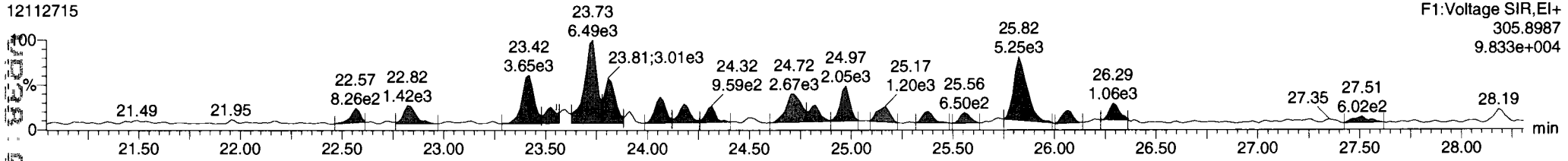
13C-2378-TCDF



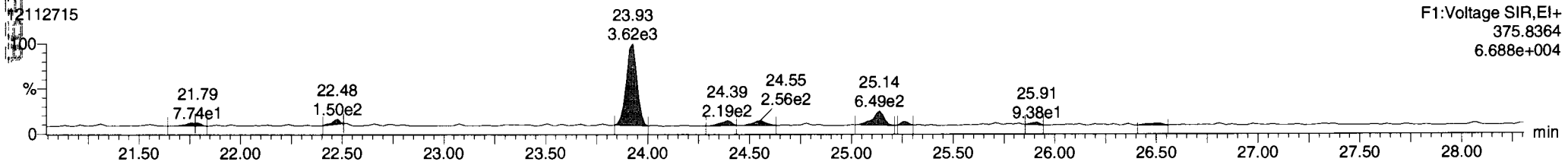
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
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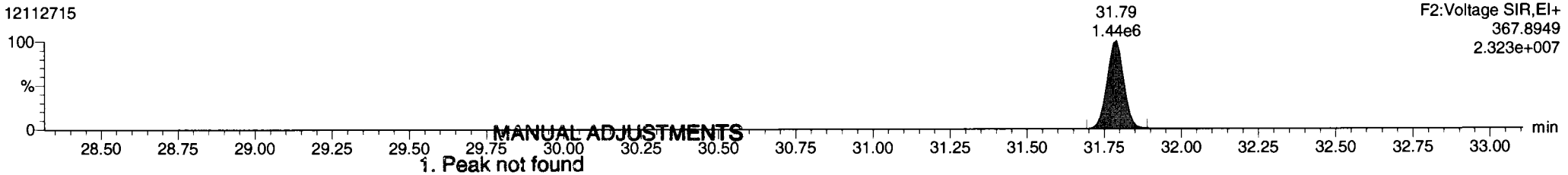
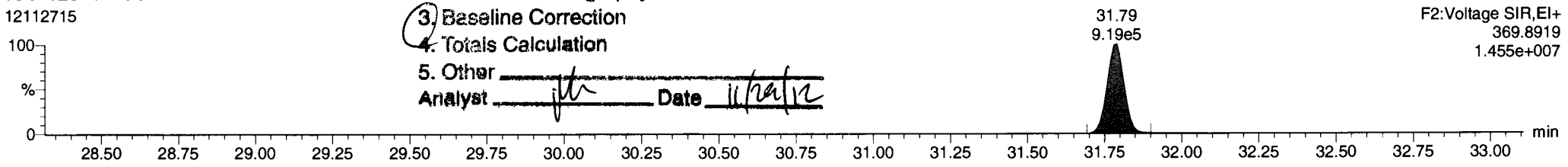
Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

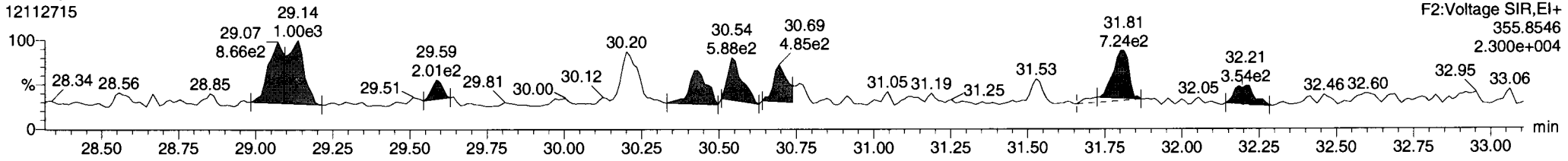


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 11/28/12

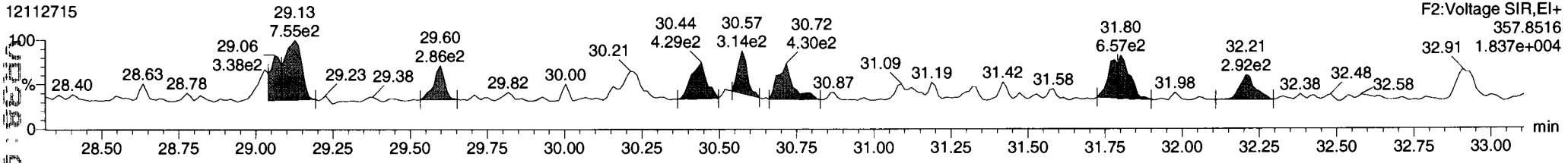
13C-12378-PeCDD



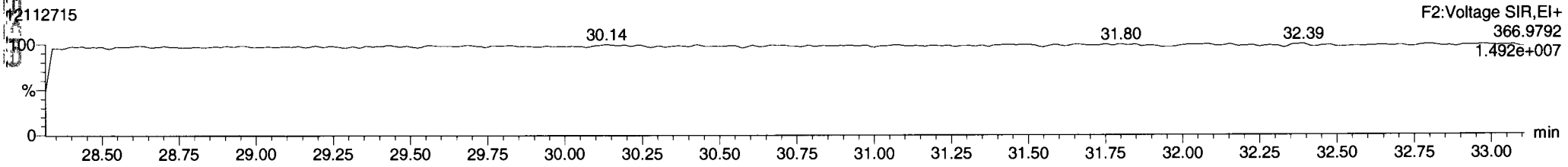
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
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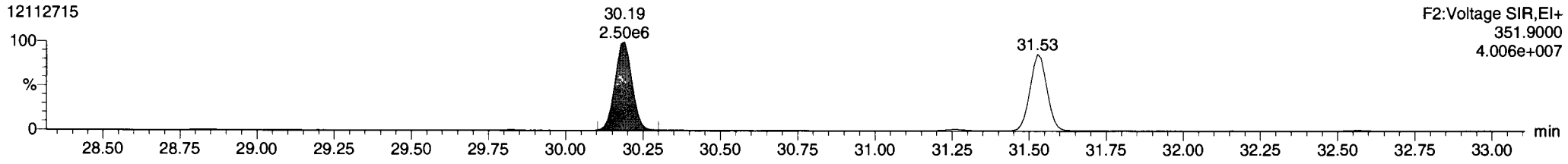
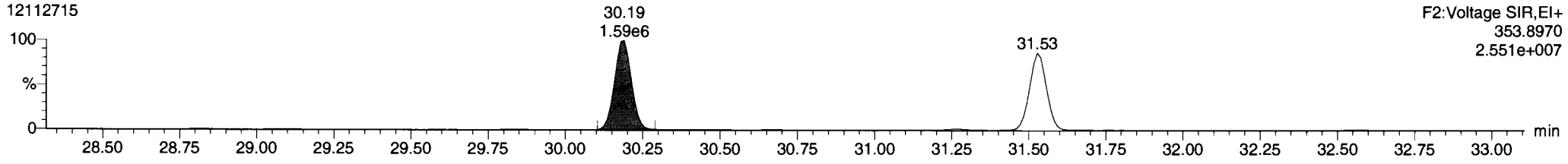
Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

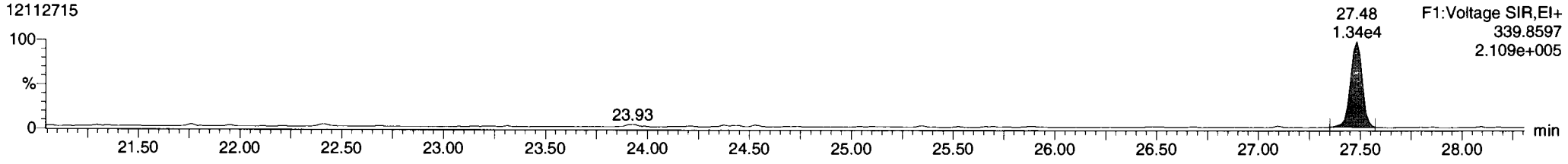
13C-12378-PeCDF



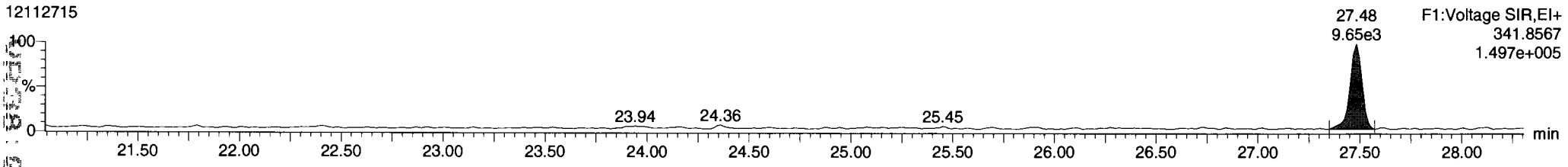
13C-12378-PeCDF



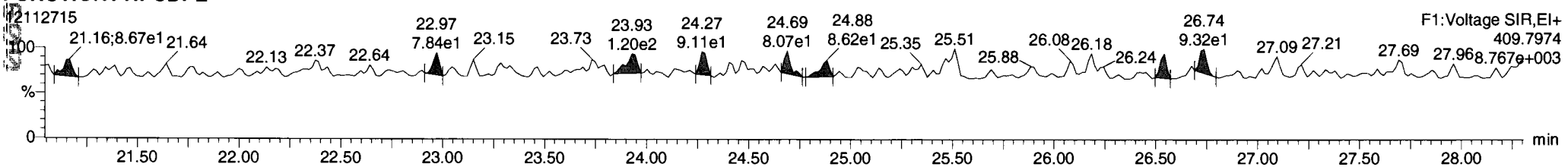
Total-penta1



Total-penta1



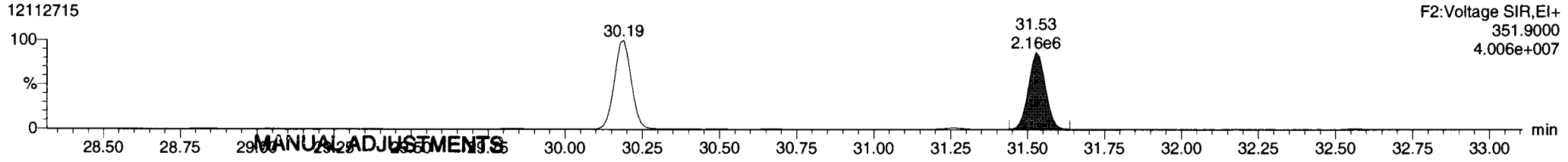
FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

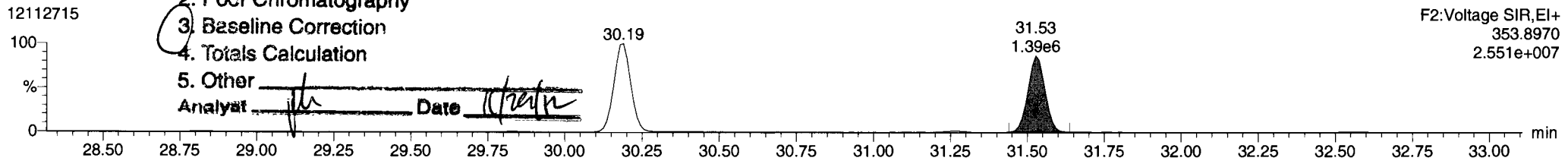
Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

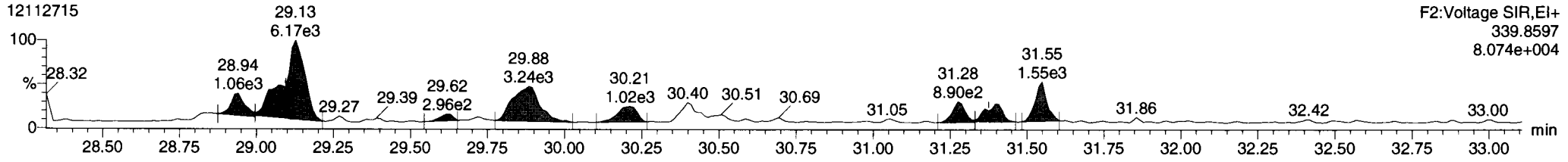


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date _____

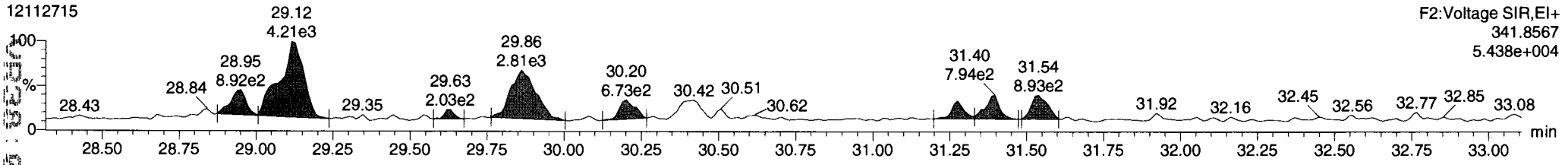
13C-23478-PeCDF



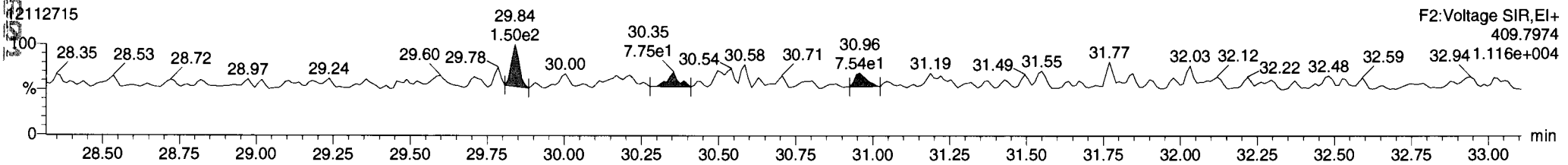
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
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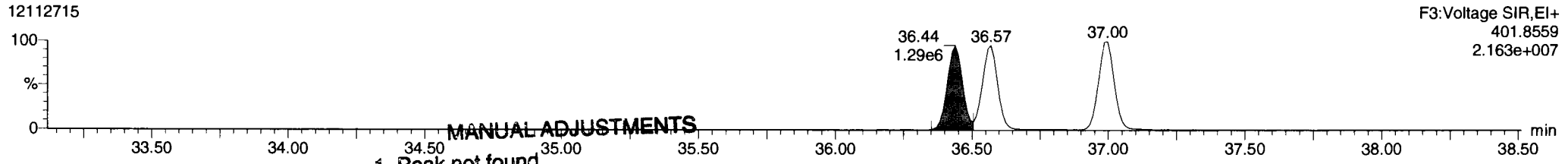
Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

13C-123478-HxCDD

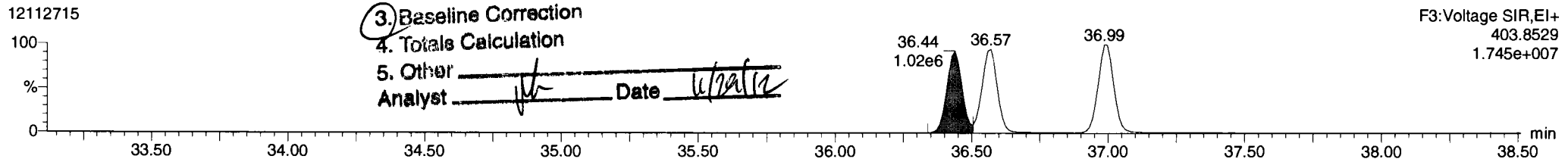


MANUAL ADJUSTMENTS

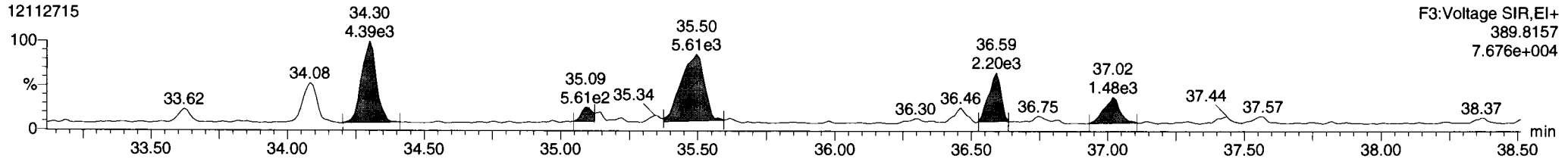
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

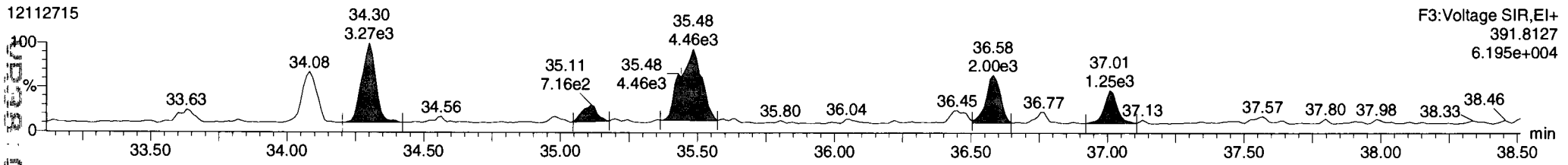
13C-123478-HxCDD



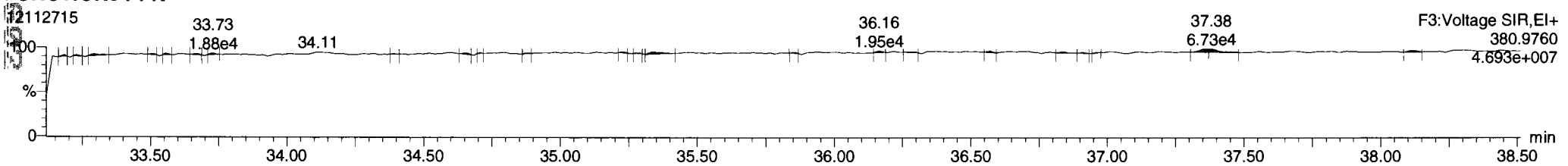
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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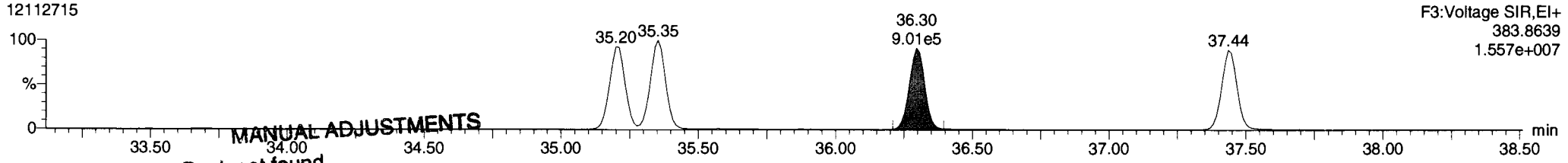
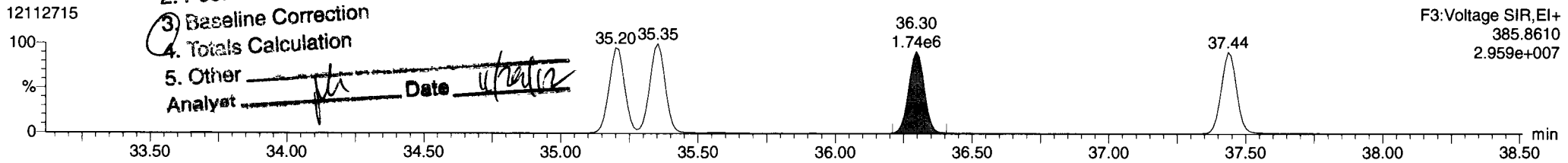
Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF

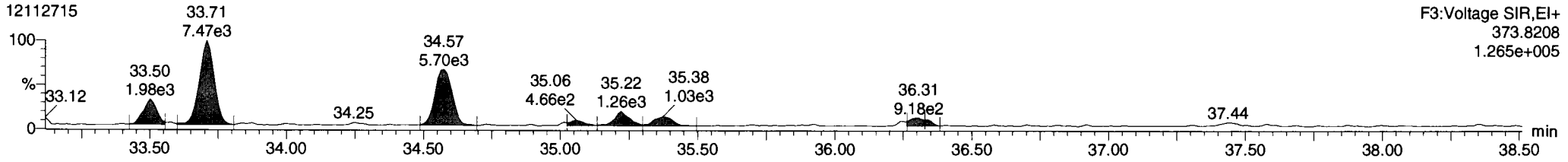


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date 11/28/12

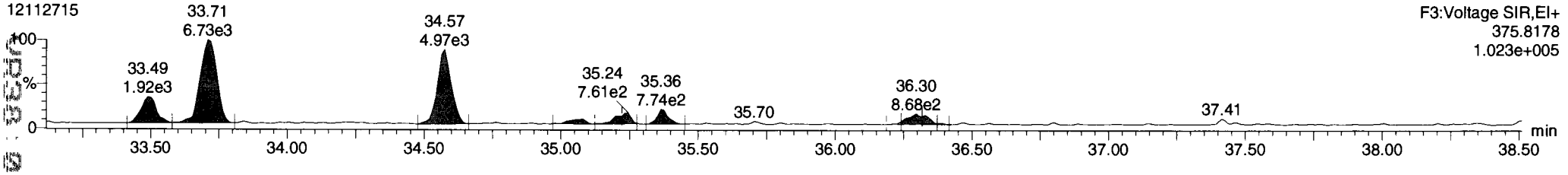
13C-234678-HxCDF



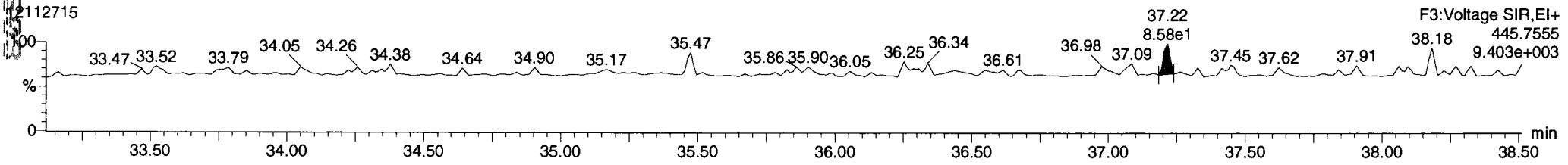
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
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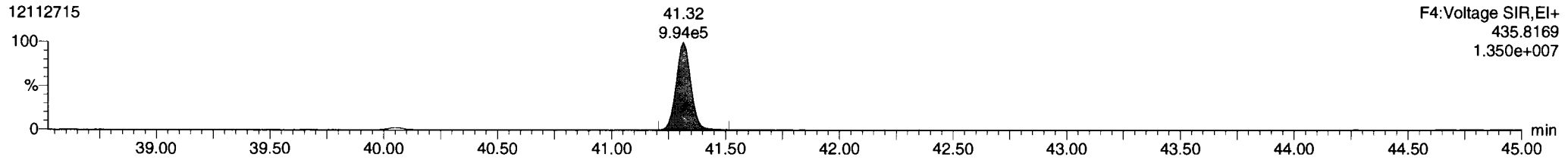
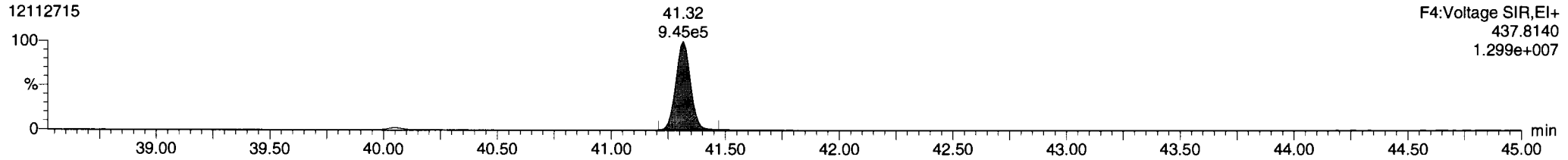
Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

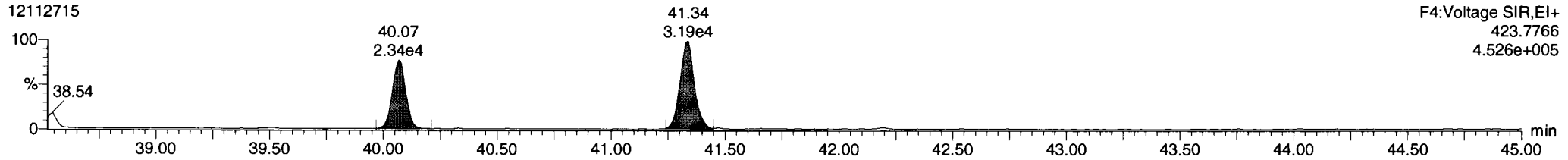
13C-1234678-HpCDD



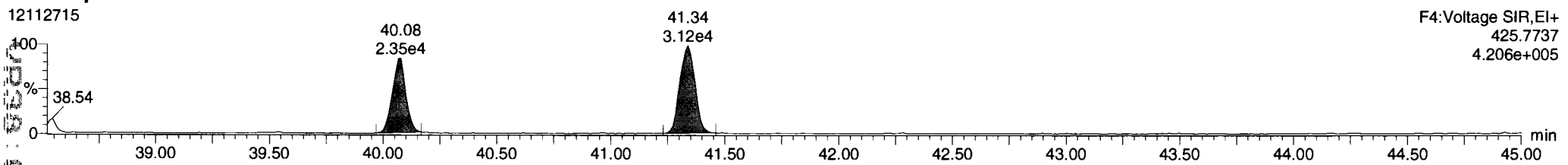
13C-1234678-HpCDD



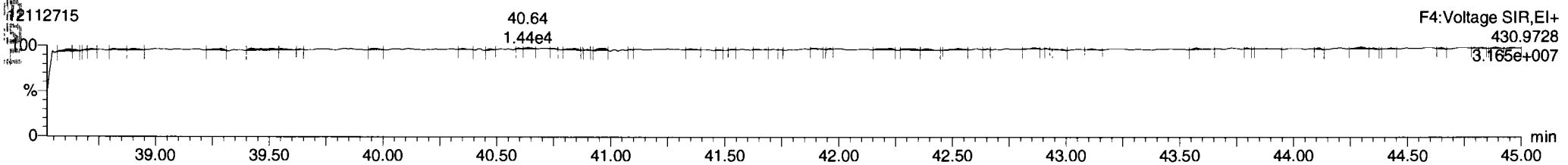
Total-heptadioxins



Total-heptadioxins



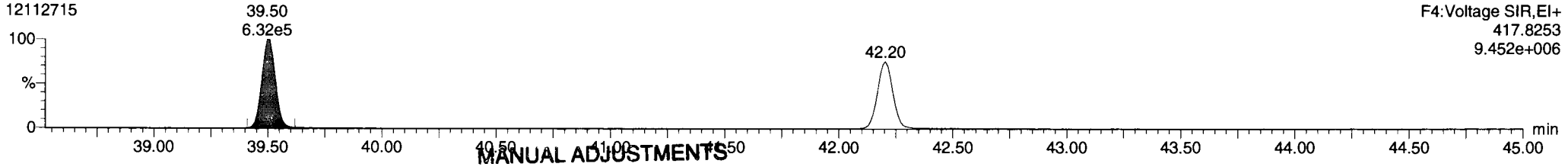
FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF

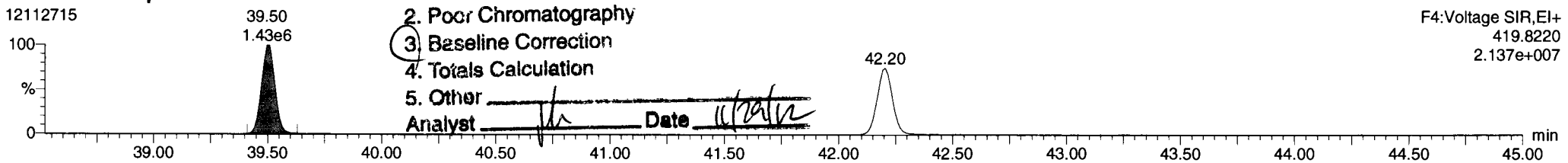


MANUAL ADJUSTMENTS

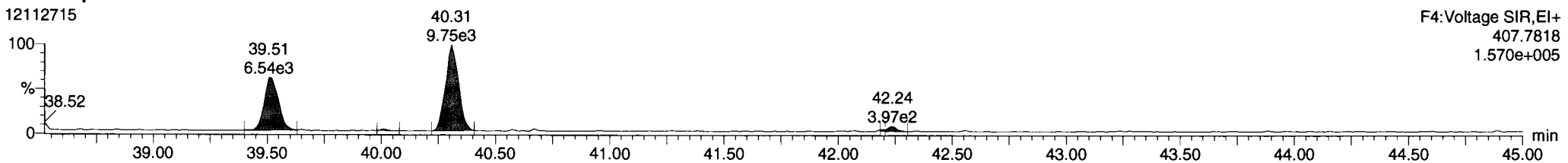
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

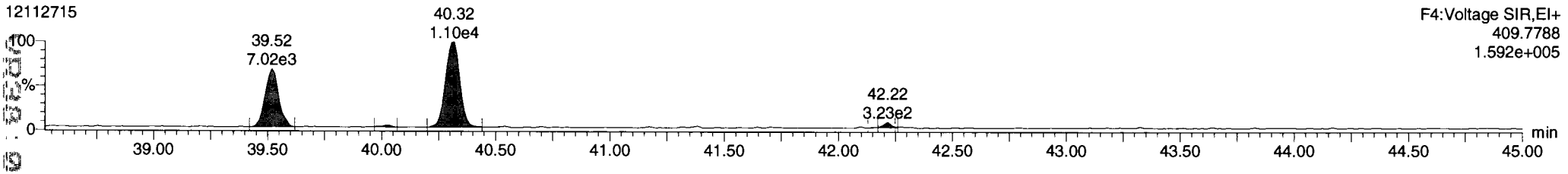
13C-1234678-HpCDF



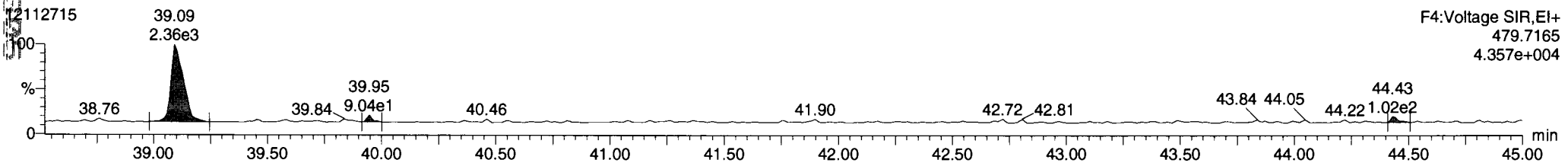
Total-heptafurans



Total-heptafurans



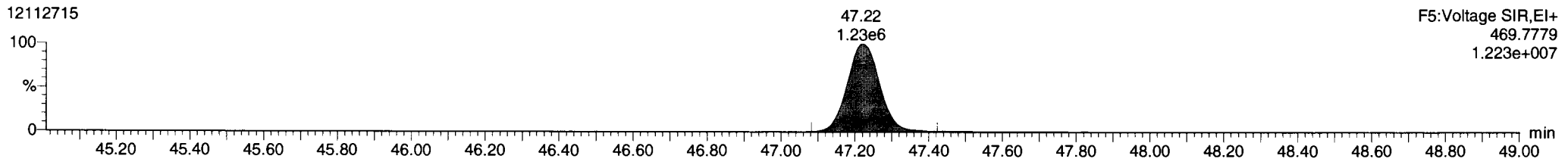
FUNCTION4 NCDPE



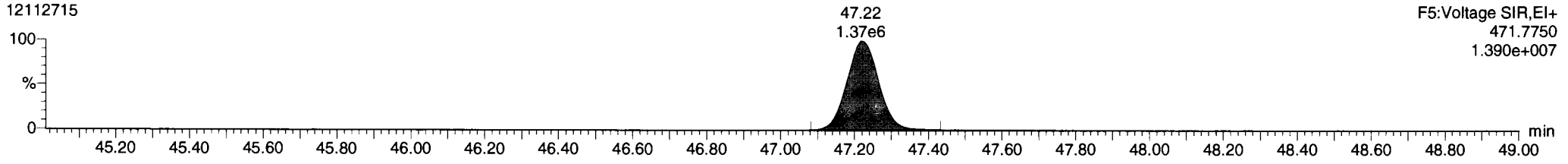
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

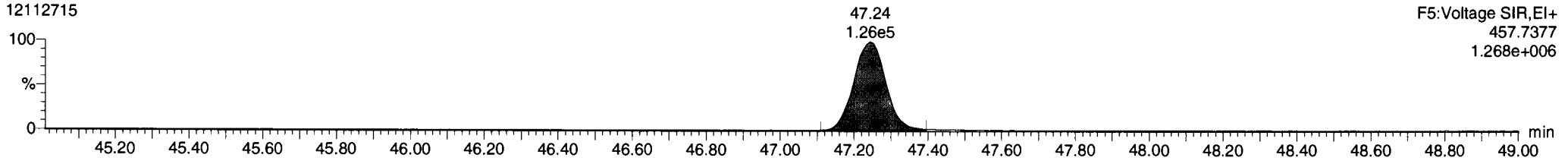
13C-OCDD



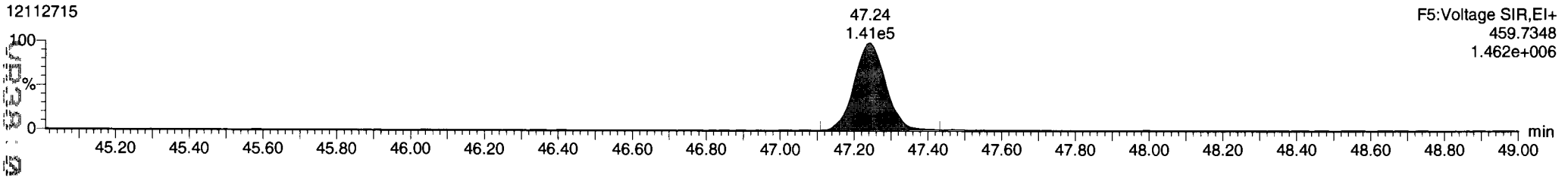
13C-OCDD



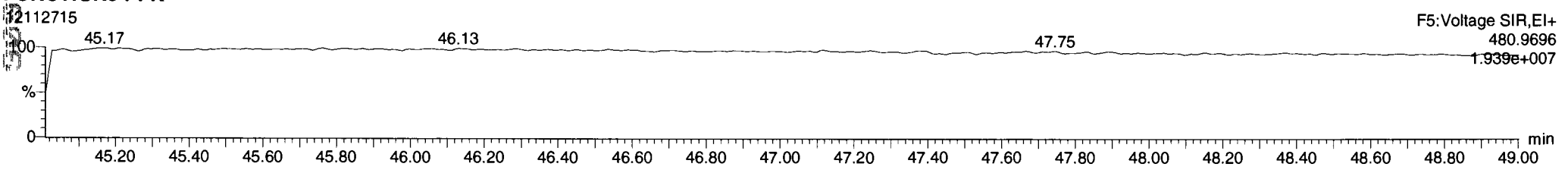
OCDD



OCDD



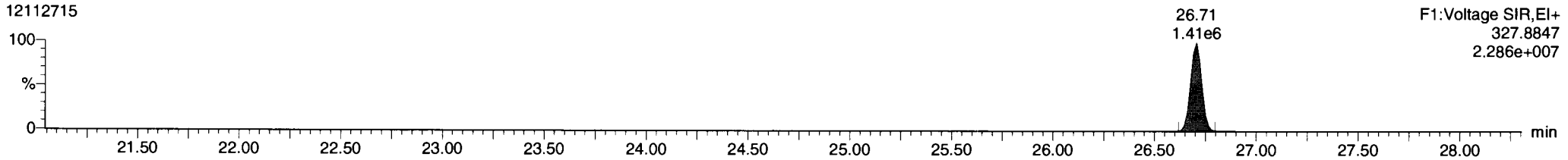
FUNCTION5 PFK



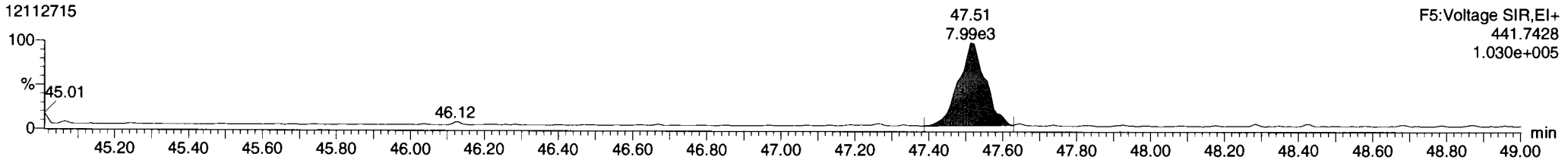
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:04:37 Pacific Standard Time

Name: 12112715, Date: 27-Nov-2012, Time: 23:05:35, ID: VR38H, Conditions: AUTOSPEC01, User: pk

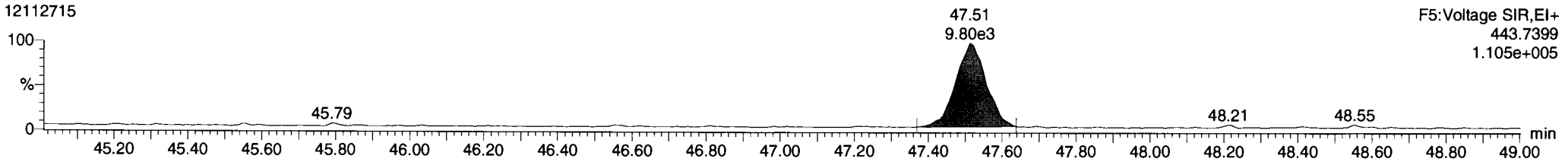
37CL-2378-TCDD



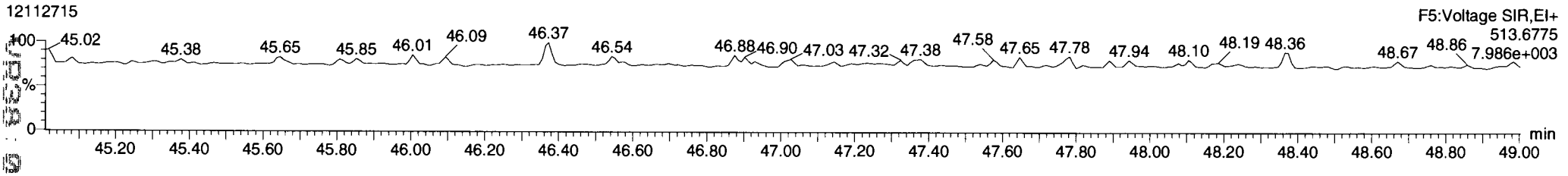
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

PK 11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Lock Area	Qual Area	Total Area	Int	RRF	Ratio	Ratio	Flags	S/N	EMPC	ng
1	2378-TCDF							0.877		0.770				
2	12378-PeCDF	30.201	1.000	635	480	1115	bb	0.896	1.323	1.550	NO	9.9	0.029	0.029 B
3	23478-PeCDF	31.527	1.000	507	334	841	bb	0.926	1.517	1.550	NO	9.2	0.024	0.024
4	123478-HxCDF	35.232	1.001	770	569	1338	bb	1.068	1.354	1.240	NO	9.7	0.043	0.043
5	234678-HxCDF	36.307	1.000	895	1042	1937	db	1.037	0.859	1.240	YES	12.9	0.058	0.069
6	123678-HxCDF	35.375	1.001	475	625	1099	MM	1.035	0.760	1.240	YES	5.6	0.027	0.034
7	123789-HxCDF							0.987		1.240				
8	1234678-HpCDF	39.519	1.000	5551	6113	11664	bd	1.232	0.908	1.050	NO	63.6	0.433	0.433
9	1234789-HpCDF	42.204	1.000	162	205	368	MM	1.215	0.791	1.050	YES	3.1	0.014	0.017
10	OCDF	47.522	1.006	6063	6698	12761	bd	1.138	0.905	0.890	NO	89.7	0.829	0.829
11	2378-TCDD	26.721	1.001	404	2360	2764	bb	1.049	0.171	0.770	YES	4.5	0.026	0.079
12	12378-PeCDD	31.812	1.001	445	394	839	MM	0.998	1.128	1.550	YES	2.7	0.029	0.034 B
13	123478-HxCDD	36.449	1.000	570	293	863	bd	0.971	1.944	1.240	YES	7.4	0.028	0.037
14	123678-HxCDD	36.581	1.000	2137	1538	3675	db	0.918	1.390	1.240	NO	23.4	0.161	0.161
15	123789-HxCDD	37.019	1.012	880	326	1205	MM	0.932	2.702	1.240	YES	12.4	0.032	0.053
16	1234678-HpCDD	41.338	1.001	29452	28492	57944	bb	1.017	1.034	1.050	NO	278.4	2.810	2.810
17	OCDD	47.244	1.000	148532	167189	315720	bd	1.008	0.888	0.890	NO	969.7	23.126	23.126
18	13C-2378-TCDF	26.048	1.006	2316178	2976589	5292767	bb	1.473	0.778	0.770	NO	11522.4		90.376
19	13C-12378-PeCDF	30.190	1.166	2579033	1653221	4232254	bb	1.148	1.560	1.550	NO	12918.3		92.711
20	13C-23478-PeCDF	31.527	1.218	2319670	1489843	3809513	bb	1.113	1.557	1.550	NO	11234.2		86.086
21	13C-123478-HxCDF	35.210	0.952	1003394	1944099	2947493	bd	1.209	0.516	0.510	NO	4645.5		85.269
22	13C-123678-HxCDF	35.353	0.956	1064061	2043655	3107717	db	1.269	0.521	0.510	NO	4961.5		85.678
23	13C-234678-HxCDF	36.296	0.981	927539	1781551	2709090	bb	1.236	0.521	0.510	NO	4302.8		76.672
24	13C-123789-HxCDF	37.436	1.012	920903	1754499	2675402	bb	1.107	0.525	0.510	NO	4301.3		84.550
25	13C-1234678-HpCDF	39.507	1.068	674999	1513553	2188552	bb	1.051	0.446	0.440	NO	4881.1		72.822
26	13C-1234789-HpCDF	42.204	1.141	562497	1249658	1812155	bb	0.815	0.450	0.440	NO	3438.2		77.796
27	13C-1234-TCDD	25.884	0.000	1751251	2225676	3976927	bb	1.000	0.787	0.770	NO	7177.8		100.000
28	13C-2378-TCDD	26.691	1.031	1464199	1888459	3352658	bb	0.946	0.775	0.770	NO	6048.5		89.140
29	13C-12378-PeCDD	31.791	1.228	1533251	966873	2500125	bb	0.721	1.586	1.550	NO	8318.9		87.232
30	13C-123478-HxCDD	36.438	0.985	1324749	1053234	2377983	bd	0.991	1.258	1.240	NO	7532.4		83.938
31	13C-123678-HxCDD	36.570	0.988	1384197	1104446	2488643	db	1.025	1.253	1.240	NO	7873.8		84.945
32	13C-1234678-HpCDD	41.316	1.117	1038923	988642	2027565	bb	0.866	1.051	1.050	NO	4280.8		81.873
33	13C-OCDD	47.226	1.276	1280045	1427639	2707684	bb	0.769	0.897	0.890	NO	6373.5		123.130

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Ion Area			Total Area		Ratio				S/N	EMPC	
34	13C-123789-HxCDD	36.997	0.000	1586306	1272861		2859166	bb	1.000	1.246	1.240	NO	8759.4		100.000
35	Total-tetrafurans			2225					0.877					0.371	0.108
36	Total-penta1			21974										0.956	0.956
37	Total-pentafurans			9176					0.911					0.573	0.414
38	Total-hexafurans			11425					1.032					1.286	0.683
39	Total-heptafurans			13870					1.223					1.148	1.134
40	Total-Furans			64733					1.041					5.175	4.124
41	Total-tetradioxins			349					1.049					0.176	0.024
42	Total-pentadioxins			908					0.998					0.151	0.057
43	Total-hexadioxins			9888					0.940					0.906	0.781
44	Total-heptadioxins			76160					1.017					7.236	7.236
45	Total-Dioxins			235837					0.985					31.596	31.226
46	Total-TEQ			300571										36.771	35.350
47	37CL-2378-TCDD	26.706	1.032	1538122			1538122		1.044				12953.7		37.060
48	FUNCTION1 PFK			131094860											
49	FUNCTION2 PFK			0											
50	FUNCTION3 PFK			0											
51	FUNCTION4 PFK			404162											
52	FUNCTION5 PFK			0											
53	FUNCTION1 HXCDPE			1818											0.000
54	FUNCTION1 HPCDPE			615											0.000
55	FUNCTION2 HPCDPE			175											0.000
56	FUNCTION3 OCDPE			0											
57	FUNCTION4 NCDPE			1803											0.000
58	FUNCTION5 DCDPE			0											

1.529 1.370

5/5/15 12:55:21

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	4° Ratl...	1° R...	S/N
[redacted]	35	Total-tetrafurans	303.9016	24.08	3552.923	0.877	0.077	0.077	0.80	0.77	NO	7.2
[redacted]	35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.048	0.90	0.77	YES	5.7
[redacted]	35	Total-tetrafurans	303.9016	23.42	0.000	0.877	0.000	0.143	0.93	0.77	YES	14.3
[redacted]	35	Total-tetrafurans	303.9016	22.84	1478.790	0.877	0.032	0.032	0.78	0.77	NO	3.4
[redacted]	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.071	1.03	0.77	YES	8.3

PP

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	2° Ratl...	3° Ratl...	1° R...	S/N
[redacted]	36	Total-penta1	339.8597	27.48	35249.576		0.956	0.956	1.66	1.55	NO	407.6

PF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	3° Ratl...	1° R...	S/N
[redacted]	3	23478-PeCDF	339.8597	31.53	841.350	0.926	0.024	0.024	1.52	1.55	NO	9.2
[redacted]	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.076	1.94	1.55	YES	31.4
[redacted]	37	Total-pentafurans	339.8597	31.26	0.000	0.911	0.000	0.012	2.12	1.55	YES	7.4
[redacted]	37	Total-pentafurans	339.8597	30.41	1240.764	0.911	0.034	0.034	1.69	1.55	NO	12.6
[redacted]	2	12378-PeCDF	339.8597	30.20	1114.598	0.896	0.029	0.029	1.32	1.55	NO	9.9
[redacted]	37	Total-pentafurans	339.8597	29.85	0.000	0.911	0.000	0.060	2.14	1.55	YES	26.6
[redacted]	37	Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.011	1.30	1.55	YES	4.4
[redacted]	37	Total-pentafurans	339.8597	29.13	8092.025	0.911	0.221	0.221	1.58	1.55	NO	82.2
[redacted]	37	Total-pentafurans	339.8597	29.07	3891.038	0.911	0.106	0.106	1.44	1.55	NO	39.1

HF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	3° Ratl...	1° R...	S/N
[redacted]	5	234678-HxCDF	373.8208	36.31	1936.893	1.037	0.000	0.058	0.86	1.24	YES	12.9
[redacted]	38	Total-hexafurans	373.8208	36.27	0.000	1.032	0.000	0.026	1.54	1.24	YES	9.6
[redacted]	4	123478-HxCDF	373.8208	35.23	1338.266	1.068	0.043	0.043	1.35	1.24	NO	9.7
[redacted]	38	Total-hexafurans	373.8208	34.57	14750.073	1.032	0.500	0.500	1.28	1.24	NO	105.3
[redacted]	38	Total-hexafurans	373.8208	33.72	0.000	1.032	0.000	0.492	0.97	1.24	YES	99.1
[redacted]	38	Total-hexafurans	373.8208	33.50	4147.093	1.032	0.141	0.141	1.34	1.24	NO	24.5
[redacted]	6	123678-HxCDF	373.8208	35.37	1099.334	1.035	0.000	0.027	0.76	1.24	YES	5.6

HPF

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	4° Ratl...	1° R...	S/N
[redacted]	9	1234789-HpCDF	407.7818	42.20	367.821	1.215	0.000	0.014	0.79	1.05	YES	3.1
[redacted]	39	Total-heptafurans	407.7818	40.31	17158.043	1.223	0.701	0.701	0.94	1.05	NO	82.0
[redacted]	8	1234678-HpCDF	407.7818	39.52	11663.881	1.232	0.433	0.433	0.91	1.05	NO	63.6

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Mass	RT	Area	RRF	Conc	Ratio	LT Ratio	UT Ratio	IS R	S/N
	35	Total-tetrafurans	303.9016	24.08	3552.923	0.877	0.077	0.077	0.80	0.77	NO	7.2
	35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.048	0.90	0.77	YES	5.7
	35	Total-tetrafurans	303.9016	23.42	0.000	0.877	0.000	0.143	0.93	0.77	YES	14.3
	35	Total-tetrafurans	303.9016	22.84	1478.790	0.877	0.032	0.032	0.78	0.77	NO	3.4
	40	Total-Furans	303.9016	21.97	0.000	1.041	0.000	0.004	0.58	0.77	YES	0.8
	40	Total-Furans	303.9016	21.52	0.000	1.041	0.000	0.003	2.17	0.77	YES	0.8
	40	Total-Furans	303.9016	28.18	0.000	1.041	0.000	0.006	0.60	0.77	YES	1.0
	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.071	1.03	0.77	YES	8.3
	3	23478-PeCDF	339.8597	31.53	841.350	0.926	0.024	0.024	1.52	1.55	NO	9.2
	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.076	1.94	1.55	YES	31.4
	37	Total-pentafurans	339.8597	31.26	0.000	0.911	0.000	0.012	2.12	1.55	YES	7.4
	37	Total-pentafurans	339.8597	30.41	1240.764	0.911	0.034	0.034	1.69	1.55	NO	12.6
	2	12378-PeCDF	339.8597	30.20	1114.598	0.896	0.029	0.029	1.32	1.55	NO	9.9
	37	Total-pentafurans	339.8597	29.85	0.000	0.911	0.000	0.060	2.14	1.55	YES	26.6
	37	Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.011	1.30	1.55	YES	4.4
	37	Total-pentafurans	339.8597	29.13	8092.025	0.911	0.221	0.221	1.58	1.55	NO	82.2
	37	Total-pentafurans	339.8597	29.07	3891.038	0.911	0.106	0.106	1.44	1.55	NO	39.1
	5	234678-HxCDF	373.8208	36.31	1936.893	1.037	0.000	0.058	0.86	1.24	YES	12.9
	38	Total-hexafurans	373.8208	36.27	0.000	1.032	0.000	0.026	1.54	1.24	YES	9.6
	4	123478-HxCDF	373.8208	35.23	1338.266	1.068	0.043	0.043	1.35	1.24	NO	9.7
	38	Total-hexafurans	373.8208	34.57	14750.073	1.032	0.500	0.500	1.28	1.24	NO	105.3
	38	Total-hexafurans	373.8208	33.72	0.000	1.032	0.000	0.492	0.97	1.24	YES	99.1
	38	Total-hexafurans	373.8208	33.50	4147.093	1.032	0.141	0.141	1.34	1.24	NO	24.5
	9	1234789-HpCDF	407.7818	42.20	367.821	1.215	0.000	0.014	0.79	1.05	YES	3.1
	39	Total-heptafurans	407.7818	40.31	17158.043	1.223	0.701	0.701	0.94	1.05	NO	82.0
	8	1234678-HpCDF	407.7818	39.52	11663.881	1.232	0.433	0.433	0.91	1.05	NO	63.6
	10	OCDF	441.7428	47.52	12761.116	1.138	0.829	0.829	0.91	0.89	NO	89.7
	36	Total-penta1	339.8597	27.48	35249.576		0.956	0.956	1.66	1.55	NO	407.6
	6	123678-HxCDF	373.8208	35.37	1099.334	1.035	0.000	0.027	0.76	1.24	YES	5.6

TD

	#	Name	Mass	RT	Area	RRF	Conc	Ratio	LT Ratio	UT Ratio	IS R	S/N
	11	2378-TCDD	319.8965	26.72	2763.835	1.049	0.000	0.026	0.17	0.77	YES	4.5
	41	Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.012	0.48	0.77	YES	4.6
	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.022	1.34	0.77	YES	7.2
	41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.013	1.32	0.77	YES	5.5
	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.037	0.91	0.77	YES	8.9
	41	Total-tetradioxins	319.8965	24.11	860.417	1.049	0.024	0.024	0.68	0.77	NO	4.9
	41	Total-tetradioxins	319.8965	23.87	0.000	1.049	0.000	0.027	1.43	0.77	YES	12.9
	41	Total-tetradioxins	319.8965	27.27	0.000	1.049	0.000	0.016	1.28	0.77	YES	6.9

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PD

#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
42	Total-pentadioxins	355.8546	30.23	0.000	0.998	0.000	0.013	0.76	1.55	YES	2.6
42	Total-pentadioxins	355.8546	30.19	0.000	0.998	0.000	0.014	4.05	1.55	YES	4.3
42	Total-pentadioxins	355.8546	29.12	0.000	0.998	0.000	0.038	2.45	1.55	YES	6.6
42	Total-pentadioxins	355.8546	29.07	1430.550	0.998	0.057	0.057	1.74	1.55	NO	5.6
12	12378-PeCDD	355.8546	31.81	838.902	0.998	0.000	0.029	1.13	1.55	YES	2.7

HD

#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
43	Total-hexadioxins	389.8157	35.60	0.000	0.940	0.000	0.016	0.85	1.24	YES	2.9
43	Total-hexadioxins	389.8157	35.48	8557.463	0.940	0.374	0.374	1.18	1.24	NO	30.9
43	Total-hexadioxins	389.8157	35.11	0.000	0.940	0.000	0.047	1.77	1.24	YES	6.7
43	Total-hexadioxins	389.8157	34.29	5639.664	0.940	0.246	0.246	1.23	1.24	NO	30.6
15	123789-HxCDD	389.8157	37.02	1205.032	0.932	0.000	0.032	2.70	1.24	YES	12.4
14	123678-HxCDD	389.8157	36.58	3674.810	0.918	0.161	0.161	1.39	1.24	NO	23.4
13	123478-HxCDD	389.8157	36.45	863.282	0.971	0.000	0.028	1.94	1.24	YES	7.4

HPD

#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
16	1234678-HpCDD	423.7766	41.34	57943.864	1.017	2.810	2.810	1.03	1.05	NO	278.4
44	Total-heptadioxins	423.7766	40.07	91256.281	1.017	4.426	4.426	1.05	1.05	NO	502.3

Dioxins,TD,PD,HD,HPD,OD

#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
11	2378-TCDD	319.8965	26.72	2763.835	1.049	0.000	0.026	0.17	0.77	YES	4.5
41	Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.012	0.48	0.77	YES	4.6
41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.022	1.34	0.77	YES	7.2
41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.013	1.32	0.77	YES	5.5
41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.037	0.91	0.77	YES	8.9
41	Total-tetradioxins	319.8965	24.11	860.417	1.049	0.024	0.024	0.68	0.77	NO	4.9
41	Total-tetradioxins	319.8965	23.87	0.000	1.049	0.000	0.027	1.43	0.77	YES	12.9
41	Total-tetradioxins	319.8965	27.27	0.000	1.049	0.000	0.016	1.28	0.77	YES	6.9
42	Total-pentadioxins	355.8546	30.23	0.000	0.998	0.000	0.013	0.76	1.55	YES	2.6
42	Total-pentadioxins	355.8546	30.19	0.000	0.998	0.000	0.014	4.05	1.55	YES	4.3
42	Total-pentadioxins	355.8546	29.12	0.000	0.998	0.000	0.038	2.45	1.55	YES	6.6
42	Total-pentadioxins	355.8546	29.07	1430.550	0.998	0.057	0.057	1.74	1.55	NO	5.6
12	12378-PeCDD	355.8546	31.81	838.902	0.998	0.000	0.029	1.13	1.55	YES	2.7
43	Total-hexadioxins	389.8157	35.60	0.000	0.940	0.000	0.016	0.85	1.24	YES	2.9
43	Total-hexadioxins	389.8157	35.48	8557.463	0.940	0.374	0.374	1.18	1.24	NO	30.9
43	Total-hexadioxins	389.8157	35.11	0.000	0.940	0.000	0.047	1.77	1.24	YES	6.7
43	Total-hexadioxins	389.8157	34.29	5639.664	0.940	0.246	0.246	1.23	1.24	NO	30.6
15	123789-HxCDD	389.8157	37.02	1205.032	0.932	0.000	0.032	2.70	1.24	YES	12.4
14	123678-HxCDD	389.8157	36.58	3674.810	0.918	0.161	0.161	1.39	1.24	NO	23.4
13	123478-HxCDD	389.8157	36.45	863.282	0.971	0.000	0.028	1.94	1.24	YES	7.4
16	1234678-HpCDD	423.7766	41.34	57943.864	1.017	2.810	2.810	1.03	1.05	NO	278.4
44	Total-heptadioxins	423.7766	40.07	91256.281	1.017	4.426	4.426	1.05	1.05	NO	502.3
17	OCDD	457.7377	47.24	315720.391	1.008	23.126	23.126	0.89	0.89	NO	969.7

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TotalTEQ,Furans,Dioxins

	35	Total-tetrafurans	303.9016	24.08	3552.923	0.877	0.077	0.077	0.80	0.77	NO	7.2
	35	Total-tetrafurans	303.9016	23.82	0.000	0.877	0.000	0.048	0.90	0.77	YES	5.7
	35	Total-tetrafurans	303.9016	23.42	0.000	0.877	0.000	0.143	0.93	0.77	YES	14.3
	35	Total-tetrafurans	303.9016	22.84	1478.790	0.877	0.032	0.032	0.78	0.77	NO	3.4
	40	Total-Furans	303.9016	21.97	0.000	1.041	0.000	0.004	0.58	0.77	YES	0.8
	40	Total-Furans	303.9016	21.52	0.000	1.041	0.000	0.003	2.17	0.77	YES	0.8
	40	Total-Furans	303.9016	28.18	0.000	1.041	0.000	0.006	0.60	0.77	YES	1.0
	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.071	1.03	0.77	YES	8.3
	3	23478-PeCDF	339.8597	31.53	841.350	0.926	0.024	0.024	1.52	1.55	NO	9.2
	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.076	1.94	1.55	YES	31.4
	37	Total-pentafurans	339.8597	31.26	0.000	0.911	0.000	0.012	2.12	1.55	YES	7.4
	37	Total-pentafurans	339.8597	30.41	1240.764	0.911	0.034	0.034	1.69	1.55	NO	12.6
	2	12378-PeCDF	339.8597	30.20	1114.598	0.896	0.029	0.029	1.32	1.55	NO	9.9
	37	Total-pentafurans	339.8597	29.85	0.000	0.911	0.000	0.060	2.14	1.55	YES	26.6
	37	Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.011	1.30	1.55	YES	4.4
	37	Total-pentafurans	339.8597	29.13	8092.025	0.911	0.221	0.221	1.58	1.55	NO	82.2
	37	Total-pentafurans	339.8597	29.07	3891.038	0.911	0.106	0.106	1.44	1.55	NO	39.1
	5	234678-HxCDF	373.8208	36.31	1936.893	1.037	0.000	0.058	0.86	1.24	YES	12.9
	38	Total-hexafurans	373.8208	36.27	0.000	1.032	0.000	0.026	1.54	1.24	YES	9.6
	4	123478-HxCDF	373.8208	35.23	1338.266	1.068	0.043	0.043	1.35	1.24	NO	9.7
	38	Total-hexafurans	373.8208	34.57	14750.073	1.032	0.500	0.500	1.28	1.24	NO	105.3
	38	Total-hexafurans	373.8208	33.72	0.000	1.032	0.000	0.492	0.97	1.24	YES	99.1
	38	Total-hexafurans	373.8208	33.50	4147.093	1.032	0.141	0.141	1.34	1.24	NO	24.5
	9	1234789-HpCDF	407.7818	42.20	367.821	1.215	0.000	0.014	0.79	1.05	YES	3.1
	39	Total-heptafurans	407.7818	40.31	17158.043	1.223	0.701	0.701	0.94	1.05	NO	82.0
	8	1234678-HpCDF	407.7818	39.52	11663.881	1.232	0.433	0.433	0.91	1.05	NO	63.6
	10	OCDF	441.7428	47.52	12761.116	1.138	0.829	0.829	0.91	0.89	NO	89.7
	36	Total-penta1	339.8597	27.48	35249.576		0.956	0.956	1.66	1.55	NO	407.6
	6	123678-HxCDF	373.8208	35.37	1099.334	1.035	0.000	0.027	0.76	1.24	YES	5.6
	11	2378-TCDD	319.8965	26.72	2763.835	1.049	0.000	0.026	0.17	0.77	YES	4.5
	41	Total-tetradioxins	319.8965	25.88	0.000	1.049	0.000	0.012	0.48	0.77	YES	4.6
	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.022	1.34	0.77	YES	7.2
	41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.013	1.32	0.77	YES	5.5
	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.037	0.91	0.77	YES	8.9
	41	Total-tetradioxins	319.8965	24.11	860.417	1.049	0.024	0.024	0.68	0.77	NO	4.9
	41	Total-tetradioxins	319.8965	23.87	0.000	1.049	0.000	0.027	1.43	0.77	YES	12.9
	41	Total-tetradioxins	319.8965	27.27	0.000	1.049	0.000	0.016	1.28	0.77	YES	6 9
	42	Total-pentadioxins	355.8546	30.23	0.000	0.998	0.000	0.013	0.76	1.55	YES	2.6
	42	Total-pentadioxins	355.8546	30.19	0.000	0.998	0.000	0.014	4.05	1.55	YES	4.3
	42	Total-pentadioxins	355.8546	29.12	0.000	0.998	0.000	0.038	2.45	1.55	YES	6.6
	42	Total-pentadioxins	355.8546	29.07	1430.550	0.998	0.057	0.057	1.74	1.55	NO	5.6
	12	12378-PeCDD	355.8546	31.81	838.902	0.998	0.000	0.029	1.13	1.55	YES	2.7
	43	Total-hexadioxins	389.8157	35.60	0.000	0.940	0.000	0.016	0.85	1.24	YES	2.9
	43	Total-hexadioxins	389.8157	35.48	8557.463	0.940	0.374	0.374	1.18	1.24	NO	30.9
	43	Total-hexadioxins	389.8157	35.11	0.000	0.940	0.000	0.047	1.77	1.24	YES	6.7
	43	Total-hexadioxins	389.8157	34.29	5639.664	0.940	0.246	0.246	1.23	1.24	NO	30.6
	15	123789-HxCDD	389.8157	37.02	1205.032	0.932	0.000	0.032	2.70	1.24	YES	12.4
	14	123678-HxCDD	389.8157	36.58	3674.810	0.918	0.161	0.161	1.39	1.24	NO	23.4
	13	123478-HxCDD	389.8157	36.45	863.282	0.971	0.000	0.028	1.94	1.24	YES	7.4

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TotalTEQ,Furans,Dioxins

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
	16	1234678-HpCDD	423.7766	41.34	57943.864	1.017	2.810	2.810	1.03	1.05	NO	278.4
	44	Total-heptadioxins	423.7766	40.07	91256.281	1.017	4.426	4.426	1.05	1.05	NO	502.3
	17	OCDD	457.7377	47.24	315720.391	1.008	23.126	23.126	0.89	0.89	NO	969.7

PFK1

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
	48	FUNCTION1 PFK	330.9792	23.11	0.000							50.0
	48	FUNCTION1 PFK	330.9792	22.99	0.000							50.6
	48	FUNCTION1 PFK	330.9792	22.91	0.000							50.6
	48	FUNCTION1 PFK	330.9792	22.67	0.000							55.9
	48	FUNCTION1 PFK	330.9792	22.55	0.000							57.4
	48	FUNCTION1 PFK	330.9792	22.24	0.000							61.6
	48	FUNCTION1 PFK	330.9792	21.95	0.000							61.7
	48	FUNCTION1 PFK	330.9792	21.51	0.000							57.9
	48	FUNCTION1 PFK	330.9792	21.39	0.000							54.7
	48	FUNCTION1 PFK	330.9792	21.15	0.000							46.5
	48	FUNCTION1 PFK	330.9792	24.51	0.000							28.7
	48	FUNCTION1 PFK	330.9792	24.27	0.000							33.9
	48	FUNCTION1 PFK	330.9792	23.79	0.000							41.2

PFK2

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N

PFK3

	#	Name	Trace	RT	Abs.Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N

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PFK4

[redacted]	#	Name	Mass	RT	Abs.Resp	RRF M...	dd	EMPC	1° Ratio	1° Ratio...	1° R...	S/N
[redacted]	51	FUNCTION4 PFK	430.9728	41.03	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	40.98	0.000							2.9
[redacted]	51	FUNCTION4 PFK	430.9728	40.67	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	40.09	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.96	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	39.65	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	39.50	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	38.73	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	38.65	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	38.60	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	44.42	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	43.87	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	43.82	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	43.44	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	43.39	0.000							2.7
[redacted]	51	FUNCTION4 PFK	430.9728	43.30	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	43.18	0.000							2.3
[redacted]	51	FUNCTION4 PFK	430.9728	43.07	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	42.88	0.000							0.7
[redacted]	51	FUNCTION4 PFK	430.9728	42.74	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	42.45	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.20	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	41.94	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	41.85	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	41.79	0.000							0.7
[redacted]	51	FUNCTION4 PFK	430.9728	41.60	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.76	0.000							1.0

PFK5

[redacted]	#	Name	Mass	RT	Abs.Resp	RRF M...	dd	EMPC	1° Ratio	1° Ratio...	1° R...	S/N

ETHERS1

[redacted]	#	Name	Mass	RT	Abs.Resp	RRF M...	dd	EMPC	1° Ratio	1° Ratio...	1° R...	S/N
[redacted]	53	FUNCTION1 HXCD...	375.8364	28.01	0.000		0.000					4.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.69	0.000		0.000					1.6
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.53	0.000		0.000					1.6
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.12	0.000		0.000					2.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.42	0.000		0.000					3.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	23.93	0.000		0.000					33.2

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	27.21	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	26.90	0.000		0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	25.50	0.000		0.000					2.1
	54	FUNCTION1 HPCD...	409.7974	25.35	0.000		0.000					2.0
	54	FUNCTION1 HPCD...	409.7974	22.97	0.000		0.000					2.8
	54	FUNCTION1 HPCD...	409.7974	21.57	0.000		0.000					2.0
	54	FUNCTION1 HPCD...	409.7974	27.27	0.000		0.000					2.7

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	32.01	0.000		0.000					2.4
	55	FUNCTION2 HPCD...	409.7974	31.22	0.000		0.000					2.1

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	57	FUNCTION4 NCDPE	479.7165	41.35	0.000		0.000					4.0
	57	FUNCTION4 NCDPE	479.7165	39.11	0.000		0.000					38.5

ETHERS6

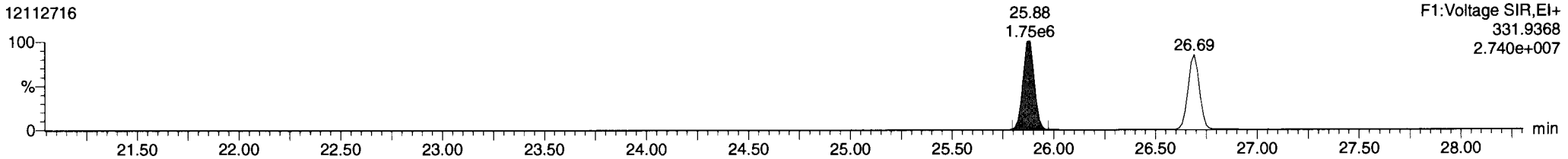
	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

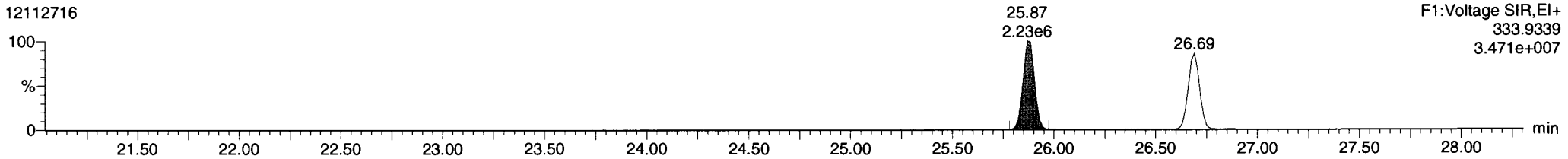
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

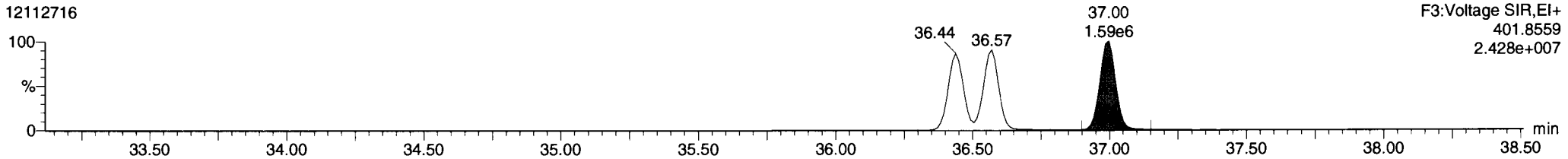
13C-1234-TCDD



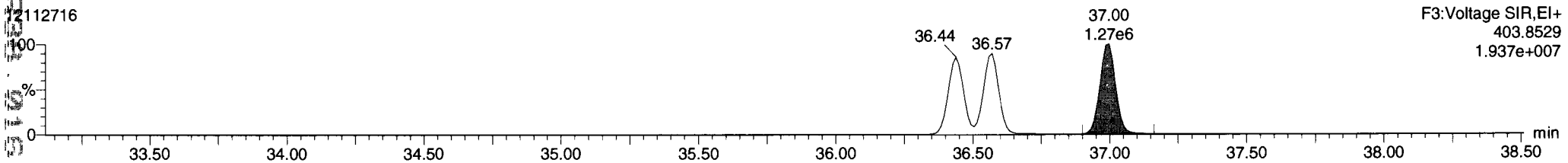
13C-1234-TCDD



13C-123789-HxCDD



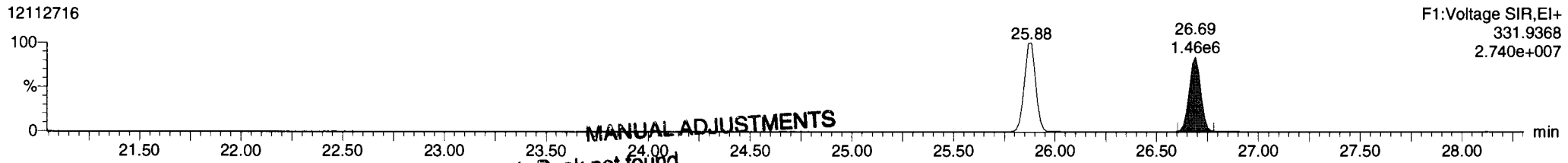
13C-123789-HxCDD



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

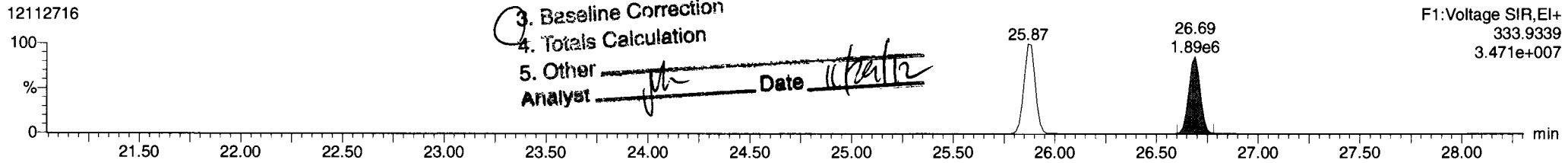
Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD

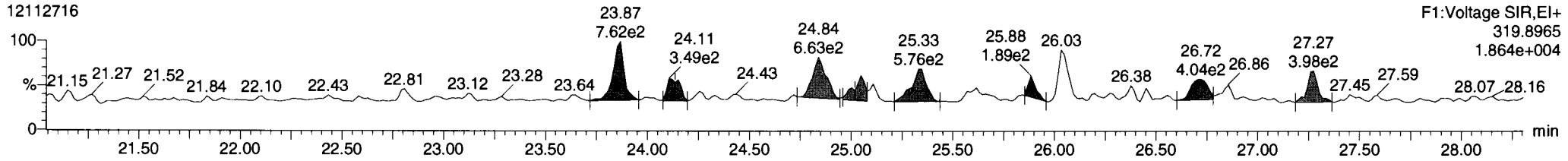


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date 11/28/12

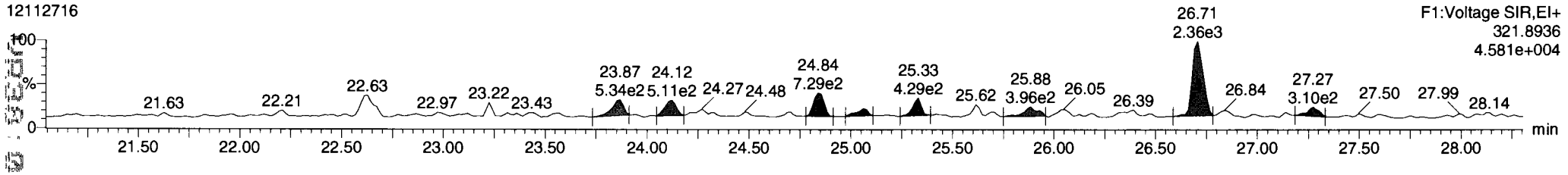
13C-2378-TCDD



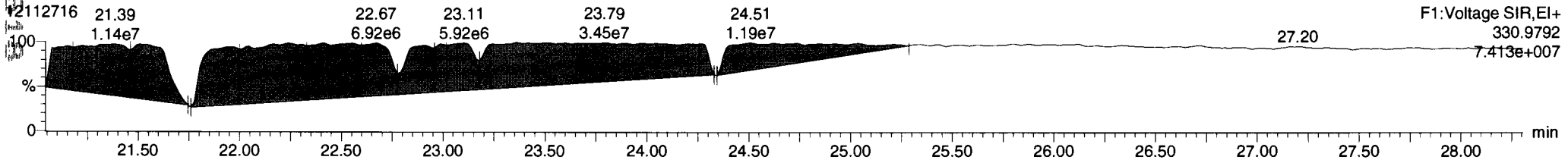
Total-tetradioxins



Total-tetradioxins



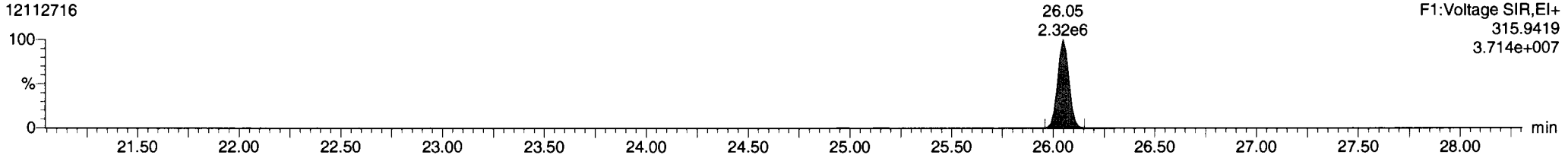
FUNCTION1 PFK



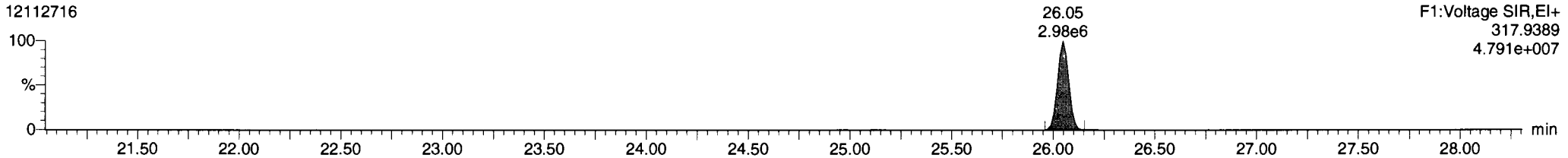
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

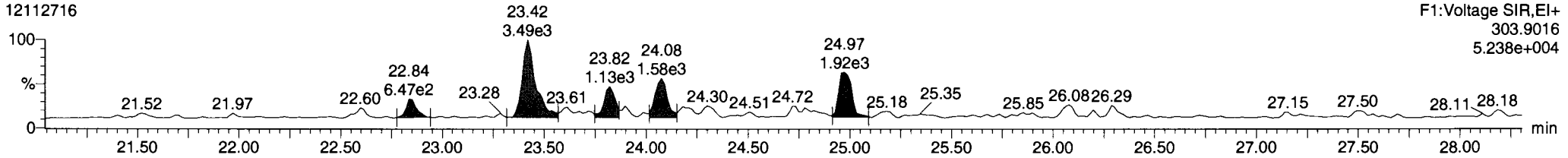
13C-2378-TCDF



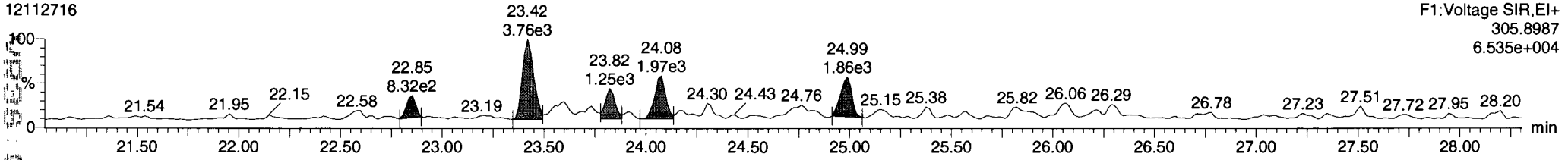
13C-2378-TCDF



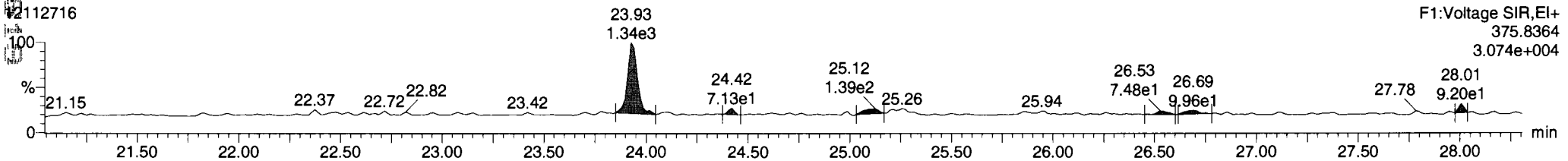
Total-tetrafurans



Total-tetrafurans



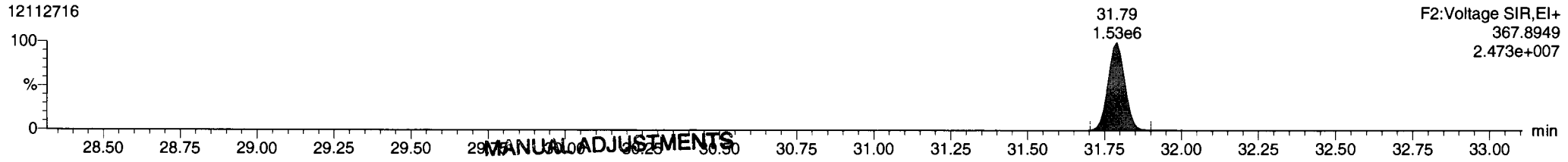
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

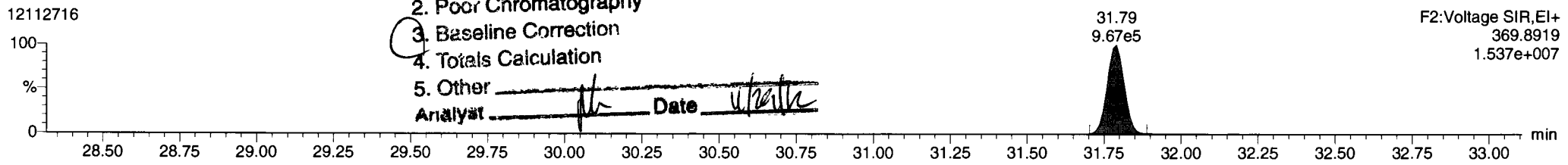


MANUAL ADJUSTMENTS

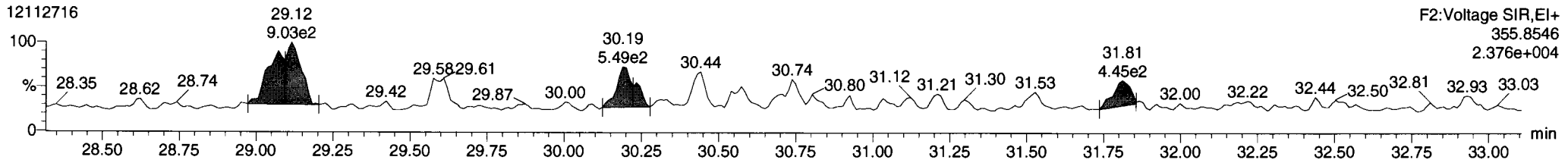
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst Date

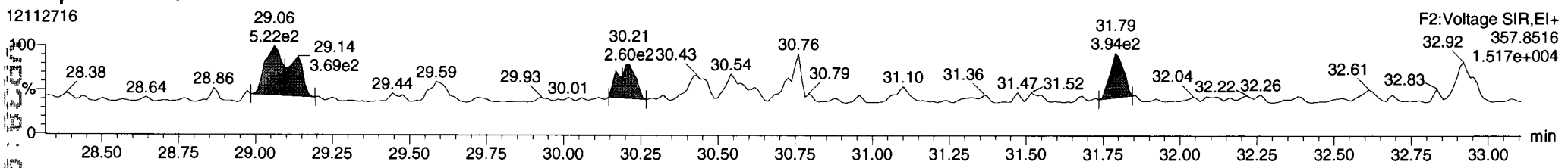
13C-12378-PeCDD



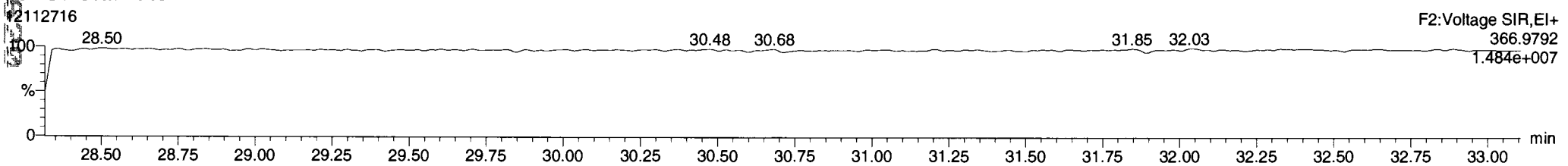
Total-pentadioxins



Total-pentadioxins



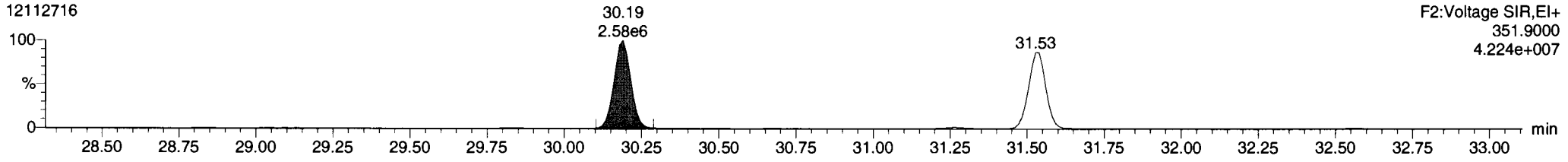
FUNCTION2 PFK



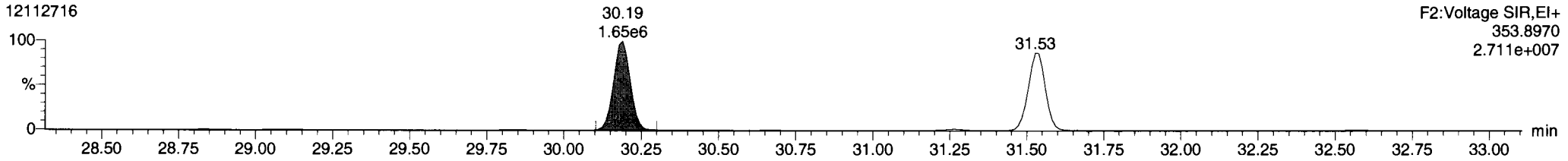
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

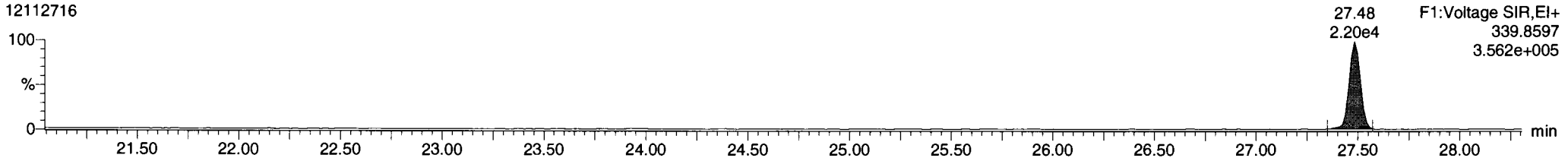
13C-12378-PeCDF



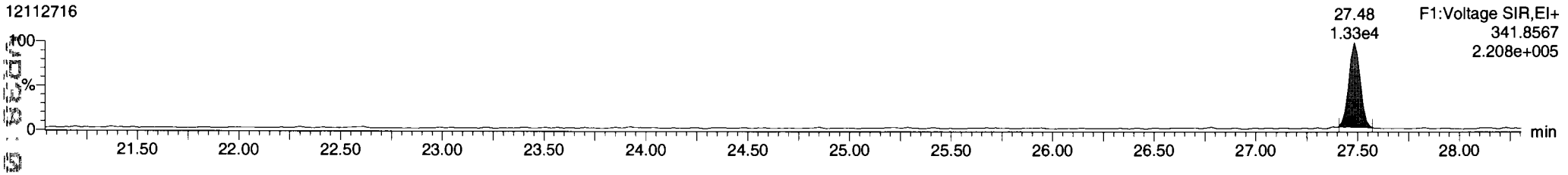
13C-12378-PeCDF



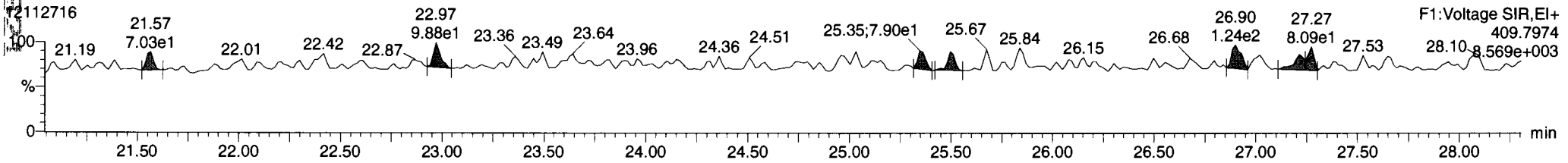
Total-penta1



Total-penta1



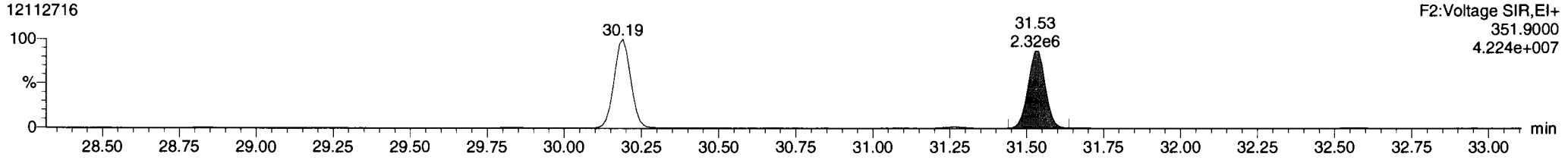
FUNCTION1 HPCDPE



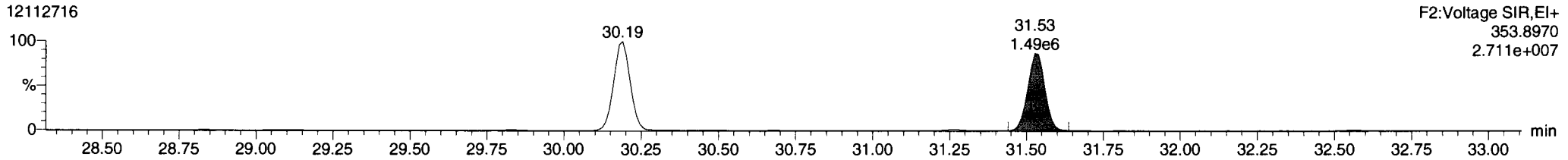
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

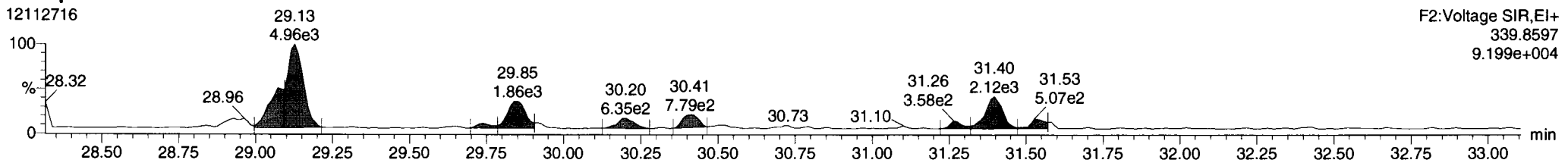
13C-23478-PeCDF



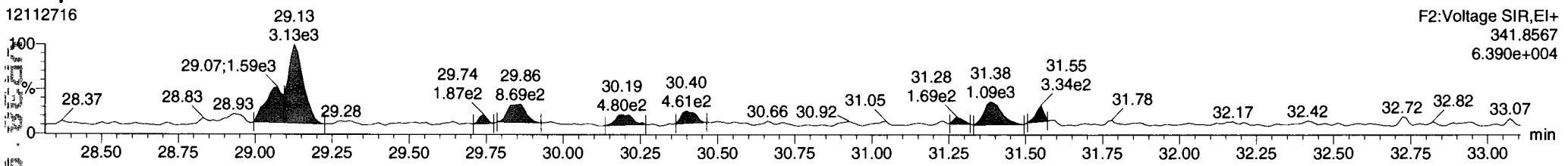
13C-23478-PeCDF



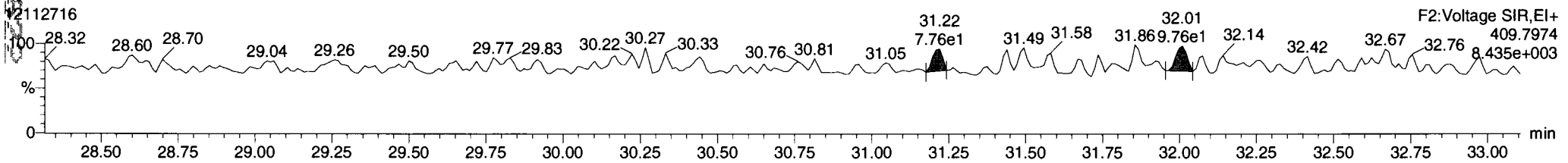
Total-pentafurans



Total-pentafurans



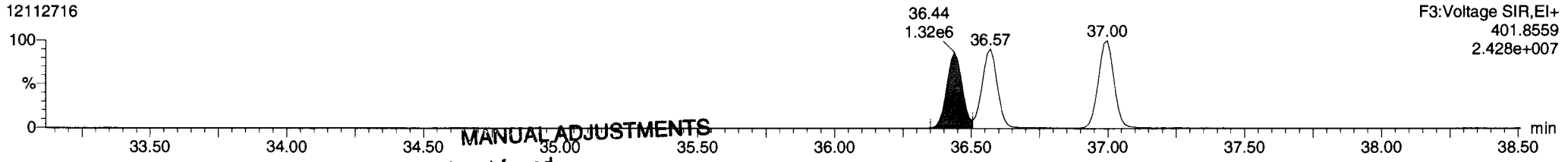
FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

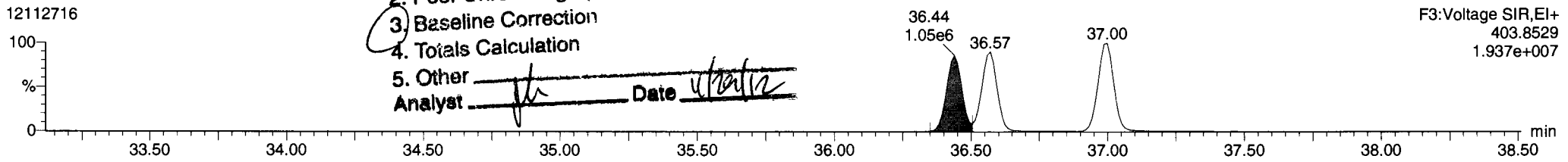
Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

13C-123478-HxCDD

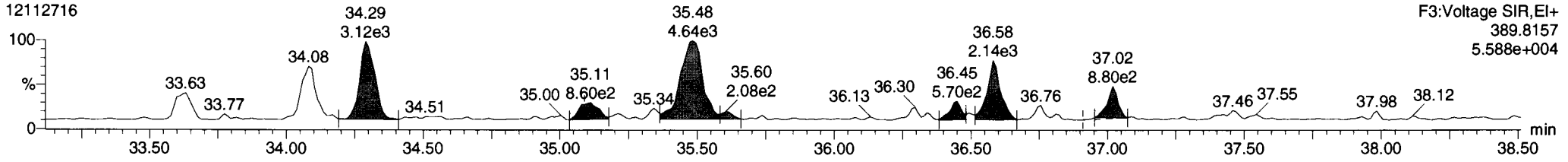


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date _____

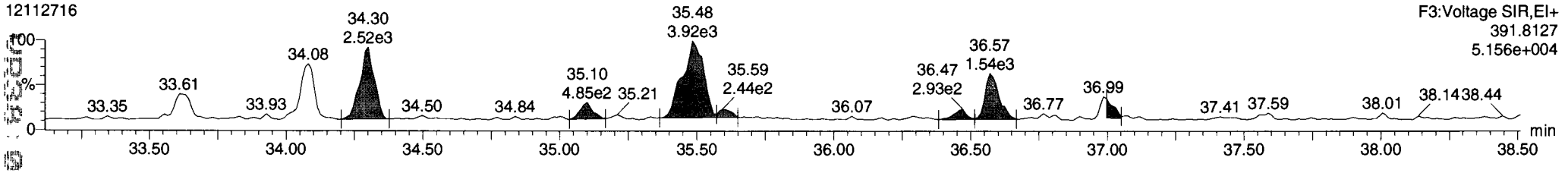
13C-123478-HxCDD



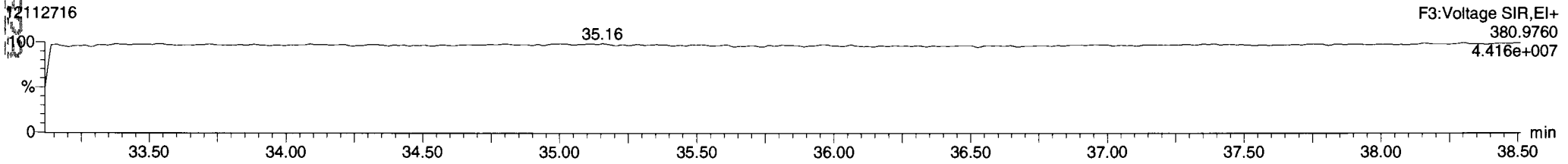
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
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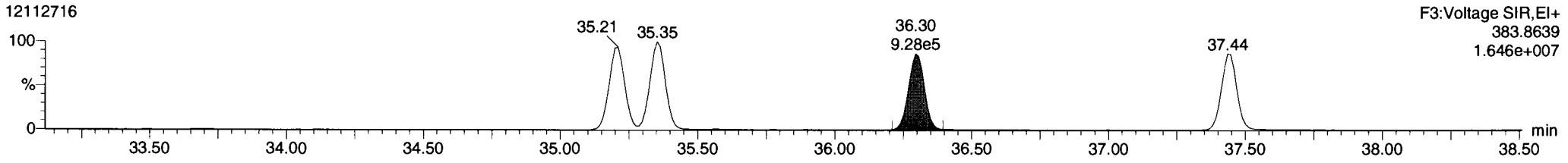
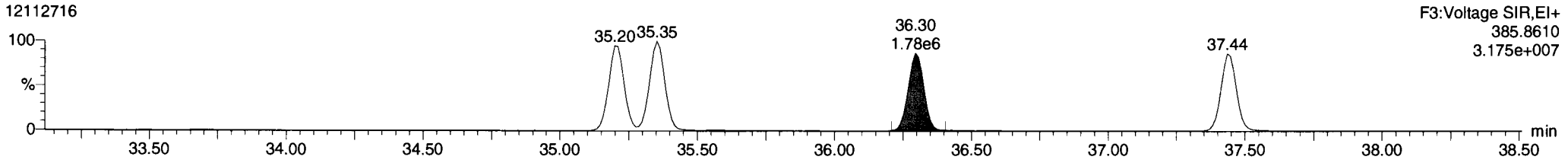
Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

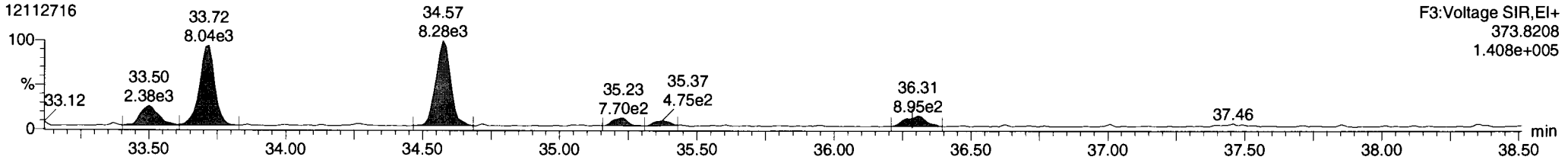
13C-234678-HxCDF



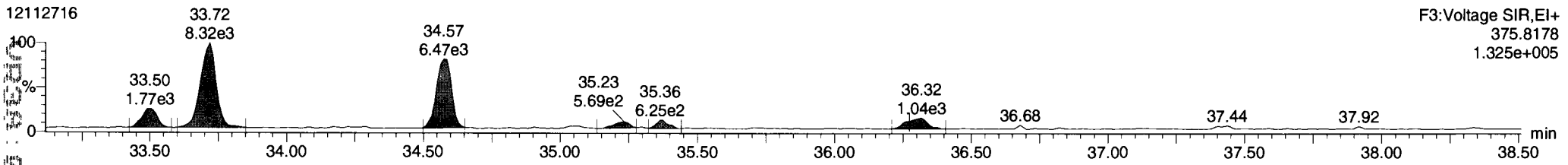
13C-234678-HxCDF



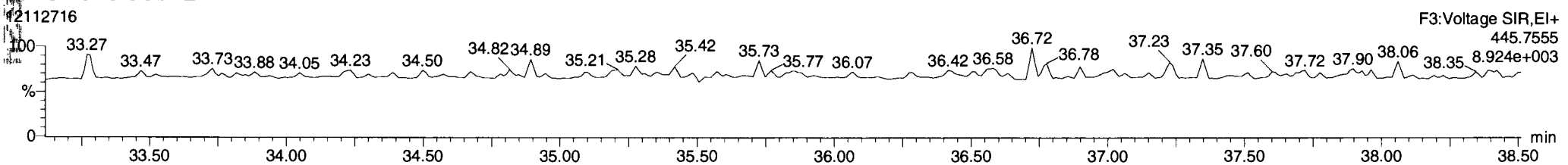
Total-hexafurans



Total-hexafurans



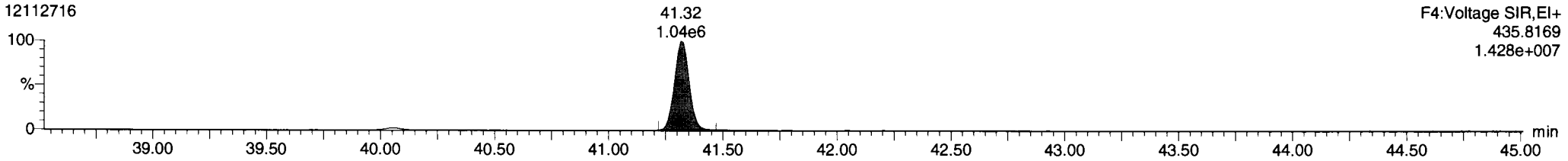
FUNCTION3 OCDPE



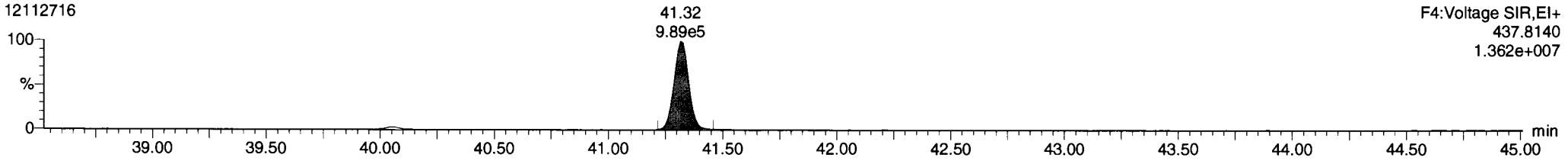
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

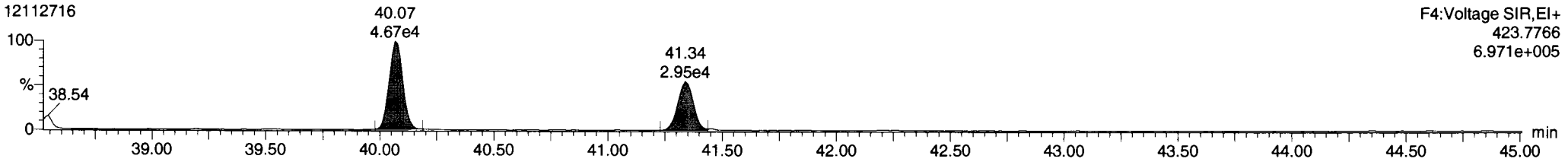
13C-1234678-HpCDD



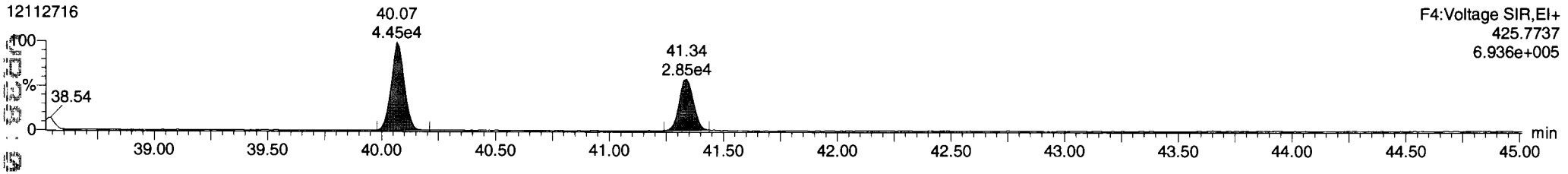
13C-1234678-HpCDD



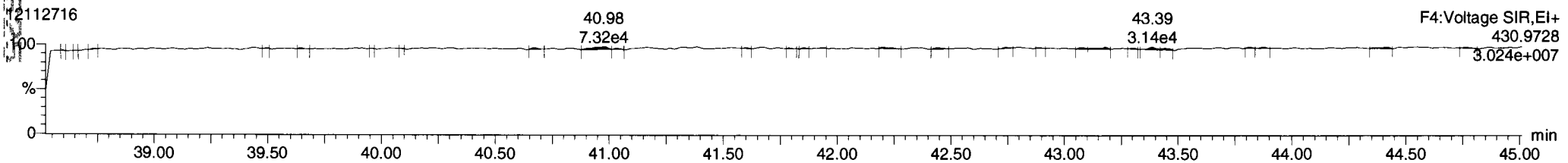
Total-heptadioxins



Total-heptadioxins



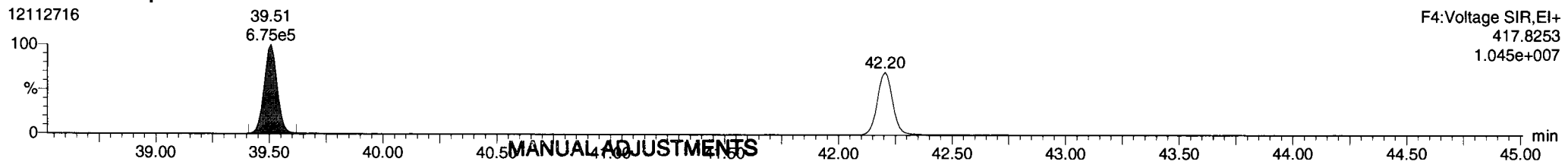
FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF

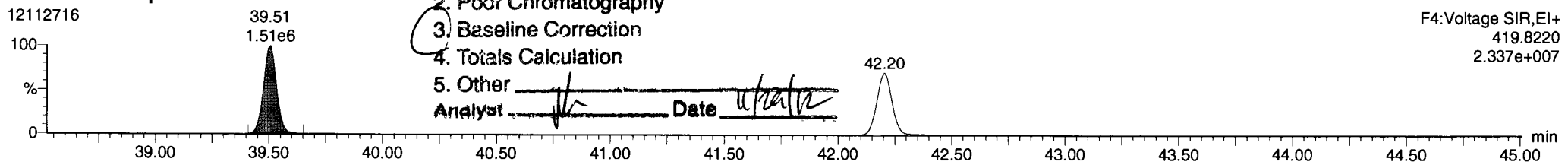


MANUAL ADJUSTMENTS

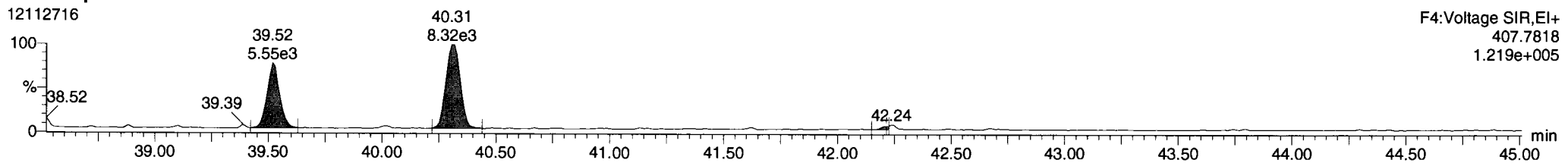
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

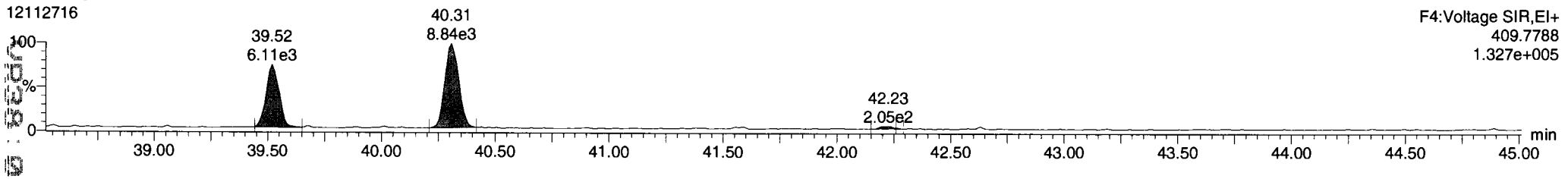
13C-1234678-HpCDF



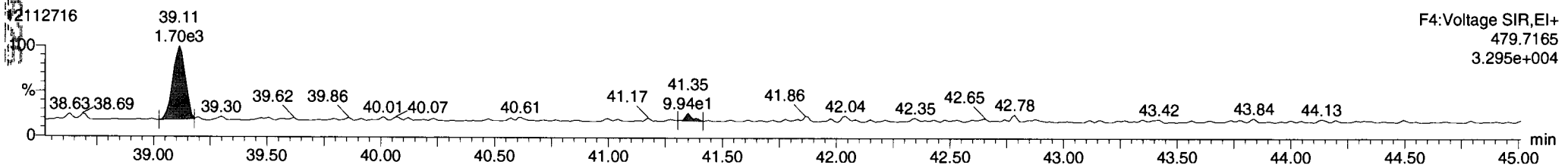
Total-heptafurans



Total-heptafurans



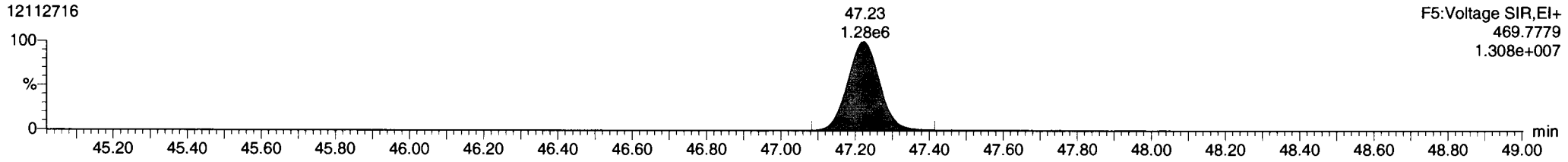
FUNCTION4 NCDPE



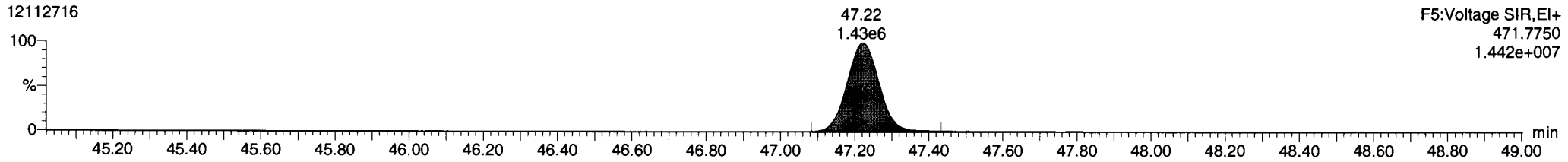
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

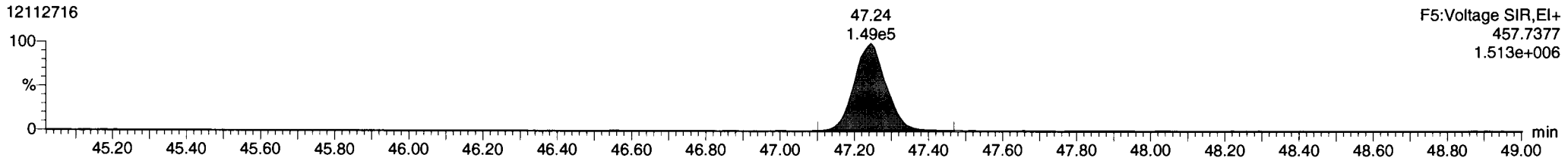
13C-OCDD



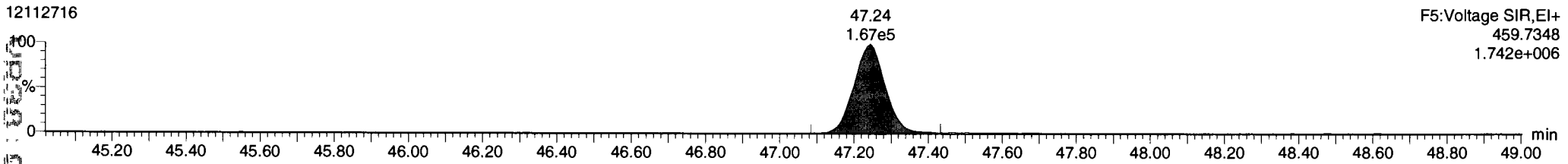
13C-OCDD



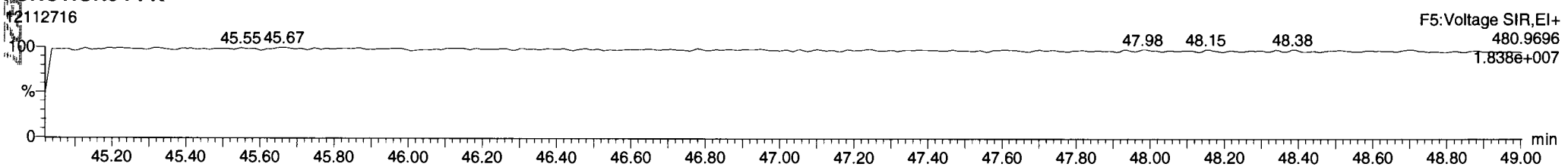
OCDD



OCDD



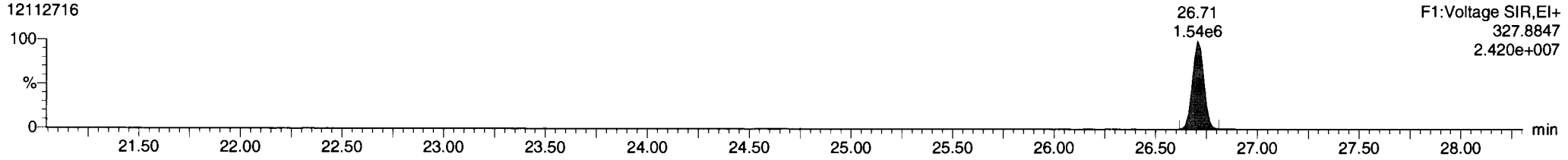
FUNCTION5 PFK



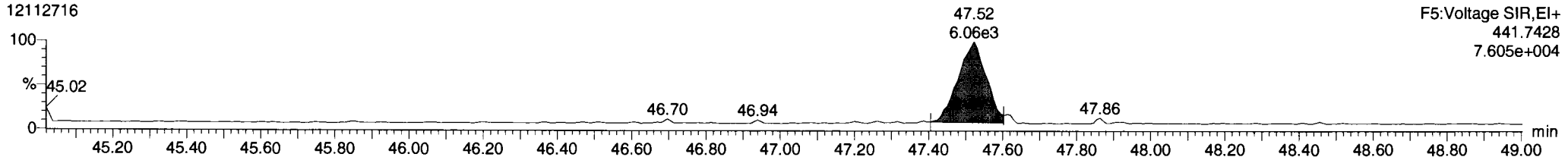
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:21 Pacific Standard Time

Name: 12112716, Date: 27-Nov-2012, Time: 23:57:50, ID: VR38I, Conditions: AUTOSPEC01, User: pk

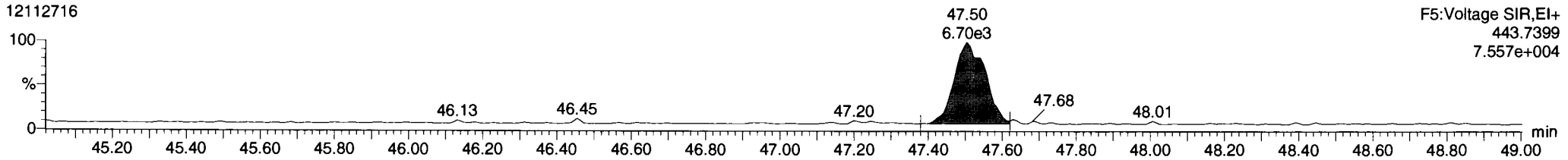
37CL-2378-TCDD



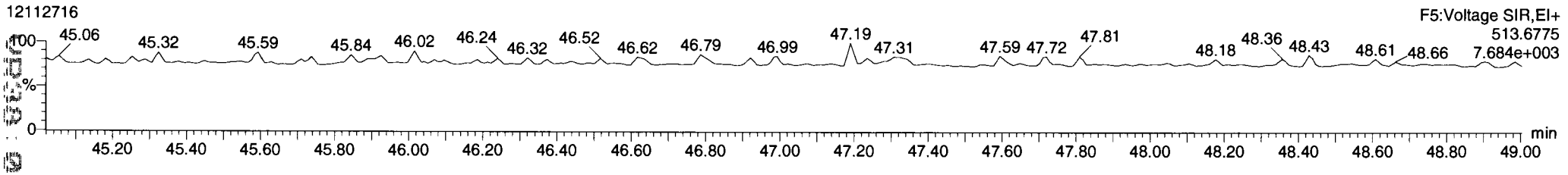
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

jlc 11/28/12

G4464

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Ion1 Area	Ion2 Area	Total Area	Int	RRF	Ratio	Prob%	Flag	S/N	EMPC	Conc
1	2378-TCDF	26.063	1.001	2507	3689	6196	bd	0.877	0.680	0.770	NO	8.6	0.126	0.126
2	12378-PeCDF	30.212	1.001	2503	1715	4218	db	0.896	1.459	1.550	NO	28.3	0.102	0.102 BX
3	23478-PeCDF	31.549	1.000	2758	2108	4866	db	0.926	1.308	1.550	YES	35.9	0.117	0.126
4	123478-HxCDF	35.232	1.001	5267	4239	9506	bd	1.068	1.242	1.240	NO	37.6	0.280	0.280
5	234678-HxCDF	36.317	1.000	4531	3576	8107	MM	1.037	1.267	1.240	NO	20.0	0.252	0.252
6	123678-HxCDF	35.375	1.000	3368	2229	5598	db	1.035	1.511	1.240	YES	21.7	0.143	0.160
7	123789-HxCDF	37.436	1.000	1603	1210	2813	bd	0.987	1.324	1.240	NO	12.2	0.090	0.090
8	1234678-HpCDF	39.529	1.001	30648	30870	61517	bb	1.232	0.993	1.050	NO	452.0	1.967	1.967
9	1234789-HpCDF	42.226	1.001	2005	2008	4013	bb	1.215	0.998	1.050	NO	29.6	0.151	0.151
10	OCDF	47.522	1.006	38531	46503	85034	bb	1.138	0.829	0.890	NO	375.8	4.403	4.403
11	2378-TCDD	26.721	1.001	396	2907	3303	bd	1.049	0.136	0.770	YES	4.9	0.024	0.088
12	12378-PeCDD	31.812	1.001	2118	1662	3781	bb	0.998	1.274	1.550	YES	20.6	0.127	0.137
13	123478-HxCDD	36.471	1.001	2906	1972	4878	bd	0.971	1.473	1.240	YES	27.0	0.169	0.187
14	123678-HxCDD	36.591	1.000	10681	8910	19591	dd	0.918	1.199	1.240	NO	109.4	0.750	0.750
15	123789-HxCDD	37.019	1.012	5751	4374	10125	bb	0.932	1.315	1.240	NO	58.7	0.393	0.393
16	1234678-HpCDD	41.338	1.000	157290	152326	309616	bb	1.017	1.033	1.050	NO	823.8	12.692	12.692
17	OCDD	47.253	1.000	756489	857097	1613587	bb	1.008	0.883	0.890	NO	3451.8	94.255	94.255
18	13C-2378-TCDF	26.049	1.006	2444352	3161090	5605442	bb	1.473	0.773	0.770	NO	10489.3		88.863
19	13C-12378-PeCDF	30.190	1.166	2826067	1795837	4621903	bb	1.148	1.574	1.550	NO	13641.4		93.999
20	13C-23478-PeCDF	31.538	1.218	2541424	1631196	4172620	bb	1.113	1.558	1.550	NO	12356.2		87.541
21	13C-123478-HxCDF	35.210	0.951	1093476	2083088	3176564	bd	1.209	0.525	0.510	NO	4247.3		78.912
22	13C-123678-HxCDF	35.364	0.956	1159177	2212804	3371981	db	1.269	0.524	0.510	NO	4412.1		79.829
23	13C-234678-HxCDF	36.306	0.981	1062845	2042426	3105270	bb	1.236	0.520	0.510	NO	4102.1		75.467
24	13C-123789-HxCDF	37.446	1.012	1091565	2087979	3179544	bb	1.107	0.523	0.510	NO	4196.9		86.286
25	13C-1234678-HpCDF	39.507	1.068	781854	1756753	2538607	bb	1.051	0.445	0.440	NO	4282.2		72.536
26	13C-1234789-HpCDF	42.204	1.140	668943	1514316	2183258	bb	0.815	0.442	0.440	NO	3224.8		80.485
27	13C-1234-TCDD	25.884	0.000	1886531	2397047	4283578	bb	1.000	0.787	0.770	NO	9537.6		100.000
28	13C-2378-TCDD	26.691	1.031	1576582	2002734	3579315	bb	0.946	0.787	0.770	NO	8015.5		88.354
29	13C-12378-PeCDD	31.790	1.228	1692587	1066059	2758646	bb	0.721	1.588	1.550	NO	10888.3		89.361
30	13C-123478-HxCDD	36.449	0.985	1500723	1184664	2685386	bd	0.991	1.267	1.240	NO	6608.2		81.397
31	13C-123678-HxCDD	36.581	0.988	1578525	1265238	2843763	db	1.025	1.248	1.240	NO	6828.0		83.352
32	13C-1234678-HpCDD	41.327	1.117	1221492	1177361	2398853	bd	0.866	1.038	1.050	NO	5051.3		83.180
33	13C-OCDD	47.235	1.276	1597247	1798133	3395380	bb	0.769	0.888	0.890	NO	8132.9		132.588

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Ion1 Area	Ion2 Area	Total Area	Int	RRF	Ratio	Theo	Flag	Conc (pg/µL)	EMPC	pg
34	13C-123789-HxCDD	37.008	0.000	1844942	1484642	3329584	bb	1.000	1.243	1.240	NO	7802.7		100.000
35	Total-tetrafurans			27128				0.877					2.045	1.228
36	Total-penta1			36536									1.496	1.496
37	Total-pentafurans			24959				0.911					1.562	1.034
38	Total-hexafurans			67747				1.032					4.380	3.728
39	Total-heptafurans			84086				1.223					5.812	5.782
40	Total-Furans			283183				1.041					19.883	17.845
41	Total-tetradioxins			3939				1.049					0.629	0.251
42	Total-pentadioxins			5878				0.998					0.888	0.259
43	Total-hexadioxins			59959				0.940					4.584	4.141
44	Total-heptadioxins			292689				1.017					23.695	23.695
45	Total-Dioxins			1119029				0.985					124.056	122.605
46	Total-TEQ			1402211									143.938	140.451
47	37CL-2378-TCDD	26.706	1.032	1682587		1682587		1.044				13602.6		37.639
48	FUNCTION1 PFK			28521934										
49	FUNCTION2 PFK			246769										0.000
50	FUNCTION3 PFK			262288										0.000
51	FUNCTION4 PFK			453905										
52	FUNCTION5 PFK			1925231										
53	FUNCTION1 HXCDPE			4109										0.000
54	FUNCTION1 HPCDPE			1134										0.000
55	FUNCTION2 HPCDPE			831										0.000
56	FUNCTION3 OCDPE			85										0.000
57	FUNCTION4 NCDPE			4789										0.000
58	FUNCTION5 DCDPE			0										

3052 2532

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Trace	RT	Abs.Resp	SRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	35	Total-tetrafurans	303.9016	24.06	0.000	0.877	0.000	0.108	1.03	0.77	YES	12.1
	35	Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.035	0.49	0.77	YES	3.1
	35	Total-tetrafurans	303.9016	23.82	6832.244	0.877	0.139	0.139	0.67	0.77	NO	10.9
	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.079	1.37	0.77	YES	4.8
	35	Total-tetrafurans	303.9016	23.54	0.000	0.877	0.000	0.038	0.58	0.77	YES	3.9
	35	Total-tetrafurans	303.9016	23.42	13340.844	0.877	0.271	0.271	0.84	0.77	NO	22.2
	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.062	0.89	0.77	YES	5.6
	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.025	0.60	0.77	YES	3.3
	1	2378-TCDF	303.9016	26.06	6196.436	0.877	0.126	0.126	0.68	0.77	NO	8.6
	35	Total-tetrafurans	303.9016	25.88	0.000	0.877	0.000	0.067	0.92	0.77	YES	8.4
	35	Total-tetrafurans	303.9016	25.82	2690.962	0.877	0.055	0.055	0.82	0.77	NO	5.3
	35	Total-tetrafurans	303.9016	25.73	0.000	0.877	0.000	0.046	0.52	0.77	YES	4.0
	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.054	0.77	0.77	NO	5.1
	35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.078	0.89	0.77	YES	6.7
	35	Total-tetrafurans	303.9016	24.99	7493.522	0.877	0.152	0.152	0.76	0.77	NO	14.2
	35	Total-tetrafurans	303.9016	24.82	0.000	0.877	0.000	0.078	0.62	0.77	YES	5.6
	35	Total-tetrafurans	303.9016	24.72	5342.872	0.877	0.109	0.109	0.80	0.77	NO	5.9
	35	Total-tetrafurans	303.9016	24.51	0.000	0.877	0.000	0.056	0.49	0.77	YES	3.7
	35	Total-tetrafurans	303.9016	24.32	5675.320	0.877	0.115	0.115	0.69	0.77	NO	8.1
	35	Total-tetrafurans	303.9016	24.20	4928.253	0.877	0.100	0.100	0.80	0.77	NO	6.7
	35	Total-tetrafurans	303.9016	27.48	0.000	0.877	0.000	0.012	2.95	0.77	YES	4.3
	35	Total-tetrafurans	303.9016	27.38	0.000	0.877	0.000	0.028	0.63	0.77	YES	2.6
	35	Total-tetrafurans	303.9016	27.24	0.000	0.877	0.000	0.051	1.27	0.77	YES	5.7
	35	Total-tetrafurans	303.9016	26.30	7858.177	0.877	0.160	0.160	0.72	0.77	NO	11.7

PP

	#	Name	Trace	RT	Abs.Resp	SRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	36	Total-penta1	339.8597	27.48	60319.291		1.496	1.496	1.54	1.55	NO	323.9

PF

	#	Name	Trace	RT	Abs.Resp	SRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	37	Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.023	0.83	1.55	YES	11.0
	37	Total-pentafurans	339.8597	29.63	1272.879	0.911	0.032	0.032	1.47	1.55	NO	9.9
	37	Total-pentafurans	339.8597	29.14	14692.269	0.911	0.367	0.367	1.55	1.55	NO	107.4
	37	Total-pentafurans	339.8597	29.07	8364.364	0.911	0.209	0.209	1.33	1.55	NO	75.4
	37	Total-pentafurans	339.8597	28.94	0.000	0.911	0.000	0.124	1.26	1.55	YES	31.8
	37	Total-pentafurans	339.8597	28.83	0.000	0.911	0.000	0.033	1.83	1.55	YES	11.3
	3	23478-PeCDF	339.8597	31.55	4866.440	0.926	0.000	0.117	1.31	1.55	YES	35.9
	37	Total-pentafurans	339.8597	31.41	4837.433	0.911	0.121	0.121	1.44	1.55	NO	33.6
	37	Total-pentafurans	339.8597	31.29	0.000	0.911	0.000	0.065	1.24	1.55	YES	20.8
	37	Total-pentafurans	339.8597	30.50	0.000	0.911	0.000	0.066	1.05	1.55	YES	20.6
	37	Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.100	2.07	1.55	YES	45.1
	2	12378-PeCDF	339.8597	30.21	4218.483	0.896	0.102	0.102	1.46	1.55	NO	28.3
	37	Total-pentafurans	339.8597	29.86	8189.065	0.911	0.204	0.204	1.68	1.55	NO	47.3

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HF

	#	Name	Theor.	RT	Area Ratio	RRF M.	DL	S/N Fit	T. Rat.	IT Rat.	I.T.R.	S/N
	38	Total-hexafurans	373.8208	35.07	1998.070	1.032	0.060	0.060	1.06	1.24	NO	6.9
	38	Total-hexafurans	373.8208	34.59	49942.793	1.032	1.509	1.509	1.23	1.24	NO	184.6
	38	Total-hexafurans	373.8208	34.29	0.000	1.032	0.000	0.010	3.34	1.24	YES	3.0
	38	Total-hexafurans	373.8208	33.72	50880.938	1.032	1.537	1.537	1.20	1.24	NO	192.0
	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.499	1.04	1.24	YES	63.7
	7	123789-HxCDF	373.8208	37.44	2813.130	0.987	0.090	0.090	1.32	1.24	NO	12.2
	5	234678-HxCDF	373.8208	36.32	8106.776	1.037	0.252	0.252	1.27	1.24	NO	20.0
	6	123678-HxCDF	373.8208	35.37	5597.532	1.035	0.000	0.143	1.51	1.24	YES	21.7
	4	123478-HxCDF	373.8208	35.23	9505.820	1.068	0.280	0.280	1.24	1.24	NO	37.6

HPF

	#	Name	Theor.	RT	Area Ratio	RRF M.	DL	S/N Fit	T. Rat.	IT Rat.	I.T.R.	S/N
	9	1234789-HpCDF	407.7818	42.23	4013.494	1.215	0.151	0.151	1.00	1.05	NO	29.6
	39	Total-heptafurans	407.7818	40.32	105810.230	1.223	3.663	3.663	0.95	1.05	NO	759.0
	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.031	0.59	1.05	YES	11.5
	8	1234678-HpCDF	407.7818	39.53	61517.430	1.232	1.967	1.967	0.99	1.05	NO	452.0

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Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Trace									
	35	Total-tetrafurans	303.9016	24.06	0.000	0.877	0.000	0.108	1.03	0.77	YES	12.1
	35	Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.035	0.49	0.77	YES	3.1
	35	Total-tetrafurans	303.9016	23.82	6832.244	0.877	0.139	0.139	0.67	0.77	NO	10.9
	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.079	1.37	0.77	YES	4.8
	35	Total-tetrafurans	303.9016	23.54	0.000	0.877	0.000	0.038	0.58	0.77	YES	3.9
	35	Total-tetrafurans	303.9016	23.42	13340.844	0.877	0.271	0.271	0.84	0.77	NO	22.2
	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.062	0.89	0.77	YES	5.6
	40	Total-Furans	303.9016	22.33	200.162	1.041	0.003	0.003	0.74	0.77	NO	0.7
	40	Total-Furans	303.9016	21.55	0.000	1.041	0.000	0.005	0.31	0.77	YES	0.6
	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.025	0.60	0.77	YES	3.3
	1	2378-TCDF	303.9016	26.06	6196.436	0.877	0.126	0.126	0.68	0.77	NO	8.6
	35	Total-tetrafurans	303.9016	25.88	0.000	0.877	0.000	0.067	0.92	0.77	YES	8.4
	35	Total-tetrafurans	303.9016	25.82	2690.962	0.877	0.055	0.055	0.82	0.77	NO	5.3
	35	Total-tetrafurans	303.9016	25.73	0.000	0.877	0.000	0.046	0.52	0.77	YES	4.0
	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.054	0.77	0.77	NO	5.1
	35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.078	0.89	0.77	YES	6.7
	35	Total-tetrafurans	303.9016	24.99	7493.522	0.877	0.152	0.152	0.76	0.77	NO	14.2
	35	Total-tetrafurans	303.9016	24.82	0.000	0.877	0.000	0.078	0.62	0.77	YES	5.6
	35	Total-tetrafurans	303.9016	24.72	5342.872	0.877	0.109	0.109	0.80	0.77	NO	5.9
	35	Total-tetrafurans	303.9016	24.51	0.000	0.877	0.000	0.056	0.49	0.77	YES	3.7
	35	Total-tetrafurans	303.9016	24.32	5675.320	0.877	0.115	0.115	0.69	0.77	NO	8.1
	35	Total-tetrafurans	303.9016	24.20	4928.253	0.877	0.100	0.100	0.80	0.77	NO	6.7
	40	Total-Furans	303.9016	28.18	9937.631	1.041	0.170	0.170	0.71	0.77	NO	16.2
	40	Total-Furans	303.9016	27.86	0.000	1.041	0.000	0.006	1.72	0.77	YES	1.4
	35	Total-tetrafurans	303.9016	27.48	0.000	0.877	0.000	0.012	2.95	0.77	YES	4.3
	35	Total-tetrafurans	303.9016	27.38	0.000	0.877	0.000	0.028	0.63	0.77	YES	2.6
	35	Total-tetrafurans	303.9016	27.24	0.000	0.877	0.000	0.051	1.27	0.77	YES	5.7
	35	Total-tetrafurans	303.9016	26.30	7858.177	0.877	0.160	0.160	0.72	0.77	NO	11.7
	37	Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.023	0.83	1.55	YES	11.0
	37	Total-pentafurans	339.8597	29.63	1272.879	0.911	0.032	0.032	1.47	1.55	NO	9.9
	37	Total-pentafurans	339.8597	29.14	14692.269	0.911	0.367	0.367	1.55	1.55	NO	107.4
	37	Total-pentafurans	339.8597	29.07	8364.364	0.911	0.209	0.209	1.33	1.55	NO	75.4
	37	Total-pentafurans	339.8597	28.94	0.000	0.911	0.000	0.124	1.26	1.55	YES	31.8
	37	Total-pentafurans	339.8597	28.83	0.000	0.911	0.000	0.033	1.83	1.55	YES	11.3
	3	23478-PeCDF	339.8597	31.55	4866.440	0.926	0.000	0.117	1.31	1.55	YES	35.9
	37	Total-pentafurans	339.8597	31.41	4837.433	0.911	0.121	0.121	1.44	1.55	NO	33.6
	37	Total-pentafurans	339.8597	31.29	0.000	0.911	0.000	0.065	1.24	1.55	YES	20.8
	37	Total-pentafurans	339.8597	30.50	0.000	0.911	0.000	0.066	1.05	1.55	YES	20.6
	37	Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.100	2.07	1.55	YES	45.1
	2	12378-PeCDF	339.8597	30.21	4218.483	0.896	0.102	0.102	1.46	1.55	NO	28.3
	37	Total-pentafurans	339.8597	29.86	8189.065	0.911	0.204	0.204	1.68	1.55	NO	47.3
	38	Total-hexafurans	373.8208	35.07	1998.070	1.032	0.060	0.060	1.06	1.24	NO	6.9
	38	Total-hexafurans	373.8208	34.59	49942.793	1.032	1.509	1.509	1.23	1.24	NO	184.6
	38	Total-hexafurans	373.8208	34.29	0.000	1.032	0.000	0.010	3.34	1.24	YES	3.0
	38	Total-hexafurans	373.8208	33.72	50880.938	1.032	1.537	1.537	1.20	1.24	NO	192.0
	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.499	1.04	1.24	YES	63.7
	7	123789-HxCDF	373.8208	37.44	2813.130	0.987	0.090	0.090	1.32	1.24	NO	12.2
	5	234678-HxCDF	373.8208	36.32	8106.776	1.037	0.252	0.252	1.27	1.24	NO	20.0
	6	123678-HxCDF	373.8208	35.37	5597.532	1.035	0.000	0.143	1.51	1.24	YES	21.7

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Furans,TF,PP,PF,HF,HPF,OF

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
[redacted]	4	123478-HxCDF	373.8208	35.23	9505.820	1.068	0.280	0.280	1.24	1.24	NO	37.6
[redacted]	9	1234789-HpCDF	407.7818	42.23	4013.494	1.215	0.151	0.151	1.00	1.05	NO	29.6
[redacted]	39	Total-heptafurans	407.7818	40.32	105810.230	1.223	3.663	3.663	0.95	1.05	NO	759.0
[redacted]	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.031	0.59	1.05	YES	11.5
[redacted]	8	1234678-HpCDF	407.7818	39.53	61517.430	1.232	1.967	1.967	0.99	1.05	NO	452.0
[redacted]	10	OCDF	441.7428	47.52	85034.016	1.138	4.403	4.403	0.83	0.89	NO	375.8
[redacted]	36	Total-penta1	339.8597	27.48	60319.291		1.496	1.496	1.54	1.55	NO	323.9

TD

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
[redacted]	41	Total-tetradioxins	319.8965	24.35	0.000	1.049	0.000	0.023	1.11	0.77	YES	6.3
[redacted]	41	Total-tetradioxins	319.8965	24.11	2261.736	1.049	0.060	0.060	0.76	0.77	NO	12.8
[redacted]	41	Total-tetradioxins	319.8965	23.85	4389.318	1.049	0.117	0.117	0.67	0.77	NO	24.1
[redacted]	41	Total-tetradioxins	319.8965	27.27	0.000	1.049	0.000	0.182	0.61	0.77	YES	30.2
[redacted]	41	Total-tetradioxins	319.8965	26.83	597.657	1.049	0.016	0.016	0.68	0.77	NO	3.5
[redacted]	11	2378-TCDD	319.8965	26.72	3302.740	1.049	0.000	0.024	0.14	0.77	YES	4.9
[redacted]	41	Total-tetradioxins	319.8965	26.30	0.000	1.049	0.000	0.018	0.89	0.77	YES	3.4
[redacted]	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.022	1.85	0.77	YES	11.9
[redacted]	41	Total-tetradioxins	319.8965	25.88	824.633	1.049	0.022	0.022	0.83	0.77	NO	4.9
[redacted]	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.040	1.33	0.77	YES	14.7
[redacted]	41	Total-tetradioxins	319.8965	25.06	1336.683	1.049	0.036	0.036	0.80	0.77	NO	6.0
[redacted]	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.069	0.64	0.77	YES	15.2

PD

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rat...	1° Rat...	1° R...	S/N
[redacted]	42	Total-pentadioxins	355.8546	30.71	0.000	0.998	0.000	0.033	0.79	1.55	YES	6.2
[redacted]	42	Total-pentadioxins	355.8546	30.57	0.000	0.998	0.000	0.082	1.53	1.55	NO	19.8
[redacted]	42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.098	1.92	1.55	YES	21.6
[redacted]	42	Total-pentadioxins	355.8546	30.22	0.000	0.998	0.000	0.091	2.12	1.55	YES	23.8
[redacted]	42	Total-pentadioxins	355.8546	29.59	2029.672	0.998	0.074	0.074	1.66	1.55	NO	13.0
[redacted]	42	Total-pentadioxins	355.8546	29.14	0.000	0.998	0.000	0.140	1.13	1.55	YES	28.1
[redacted]	42	Total-pentadioxins	355.8546	29.06	5105.015	0.998	0.185	0.185	1.75	1.55	NO	27.5
[redacted]	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.033	1.85	1.55	YES	6.4
[redacted]	12	12378-PeCDD	355.8546	31.81	3780.725	0.998	0.000	0.127	1.27	1.55	YES	20.6
[redacted]	42	Total-pentadioxins	355.8546	31.12	0.000	0.998	0.000	0.015	4.78	1.55	YES	6.8
[redacted]	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.011	6.13	1.55	YES	9.7

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HD

	#	Name	Trace	RT	Area Ratio	RRF M/	Δ	EMPG	1° Ratio	1° Rat...	1° Ra...	S/N
	13	123478-HxCDD	389.8157	36.47	4877.970	0.971	0.000	0.169	1.47	1.24	YES	27.0
	43	Total-hexadioxins	389.8157	35.62	0.000	0.940	0.000	0.047	1.69	1.24	YES	10.1
	43	Total-hexadioxins	389.8157	35.51	48720.644	0.940	1.874	1.874	1.26	1.24	NO	194.0
	43	Total-hexadioxins	389.8157	35.36	378.419	0.940	0.015	0.015	1.13	1.24	NO	3.7
	43	Total-hexadioxins	389.8157	35.12	0.000	0.940	0.000	0.204	1.47	1.24	YES	33.3
	43	Total-hexadioxins	389.8157	34.99	0.000	0.940	0.000	0.022	1.83	1.24	YES	5.9
	43	Total-hexadioxins	389.8157	34.30	26779.627	0.940	1.030	1.030	1.28	1.24	NO	155.6
	15	123789-HxCDD	389.8157	37.02	10124.969	0.932	0.393	0.393	1.31	1.24	NO	58.7
	43	Total-hexadioxins	389.8157	36.78	2069.343	0.940	0.080	0.080	1.22	1.24	NO	8.8
	14	123678-HxCDD	389.8157	36.59	19590.529	0.918	0.750	0.750	1.20	1.24	NO	109.4

HPD

	#	Name	Trace	RT	Area Ratio	RRF M/	Δ	EMPG	1° Ratio	1° Rat...	1° Ra...	S/N
	44	Total-heptadioxins	423.7766	40.08	268394.813	1.017	11.003	11.003	1.02	1.05	NO	797.7
	16	1234678-HpCDD	423.7766	41.34	309616.312	1.017	12.692	12.692	1.03	1.05	NO	823.8

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Dioxins,TD,PD,HD,HPD,OD

	41	Total-tetradioxins	319.8965	24.35	0.000	1.049	0.000	0.023	1.11	0.77	YES	6.3
	41	Total-tetradioxins	319.8965	24.11	2261.736	1.049	0.060	0.060	0.76	0.77	NO	12.8
	41	Total-tetradioxins	319.8965	23.85	4389.318	1.049	0.117	0.117	0.67	0.77	NO	24.1
	45	Total-Dioxins	319.8965	21.86	160.295	0.985	0.005	0.005	0.86	0.77	NO	1.0
	41	Total-tetradioxins	319.8965	27.27	0.000	1.049	0.000	0.182	0.61	0.77	YES	30.2
	41	Total-tetradioxins	319.8965	26.83	597.657	1.049	0.016	0.016	0.68	0.77	NO	3.5
	11	2378-TCDD	319.8965	26.72	3302.740	1.049	0.000	0.024	0.14	0.77	YES	4.9
	41	Total-tetradioxins	319.8965	26.30	0.000	1.049	0.000	0.018	0.89	0.77	YES	3.4
	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.022	1.85	0.77	YES	11.9
	41	Total-tetradioxins	319.8965	25.88	824.633	1.049	0.022	0.022	0.83	0.77	NO	4.9
	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.040	1.33	0.77	YES	14.7
	41	Total-tetradioxins	319.8965	25.06	1336.683	1.049	0.036	0.036	0.80	0.77	NO	6.0
	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.069	0.64	0.77	YES	15.2
	42	Total-pentadioxins	355.8546	30.71	0.000	0.998	0.000	0.033	0.79	1.55	YES	6.2
	42	Total-pentadioxins	355.8546	30.57	0.000	0.998	0.000	0.082	1.53	1.55	NO	19.8
	42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.098	1.92	1.55	YES	21.6
	42	Total-pentadioxins	355.8546	30.22	0.000	0.998	0.000	0.091	2.12	1.55	YES	23.8
	42	Total-pentadioxins	355.8546	29.59	2029.672	0.998	0.074	0.074	1.66	1.55	NO	13.0
	42	Total-pentadioxins	355.8546	29.14	0.000	0.998	0.000	0.140	1.13	1.55	YES	28.1
	42	Total-pentadioxins	355.8546	29.06	5105.015	0.998	0.185	0.185	1.75	1.55	NO	27.5
	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.033	1.85	1.55	YES	6.4
	12	12378-PeCDD	355.8546	31.81	3780.725	0.998	0.000	0.127	1.27	1.55	YES	20.6
	42	Total-pentadioxins	355.8546	31.12	0.000	0.998	0.000	0.015	4.78	1.55	YES	6.8
	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.011	6.13	1.55	YES	9.7
	13	123478-HxCDD	389.8157	36.47	4877.970	0.971	0.000	0.169	1.47	1.24	YES	27.0
	43	Total-hexadioxins	389.8157	35.62	0.000	0.940	0.000	0.047	1.69	1.24	YES	10.1
	43	Total-hexadioxins	389.8157	35.51	48720.644	0.940	1.874	1.874	1.26	1.24	NO	194.0
	43	Total-hexadioxins	389.8157	35.36	378.419	0.940	0.015	0.015	1.13	1.24	NO	3.7
	43	Total-hexadioxins	389.8157	35.12	0.000	0.940	0.000	0.204	1.47	1.24	YES	33.3
	43	Total-hexadioxins	389.8157	34.99	0.000	0.940	0.000	0.022	1.83	1.24	YES	5.9
	43	Total-hexadioxins	389.8157	34.30	26779.627	0.940	1.030	1.030	1.28	1.24	NO	155.6
	15	123789-HxCDD	389.8157	37.02	10124.969	0.932	0.393	0.393	1.31	1.24	NO	58.7
	43	Total-hexadioxins	389.8157	36.78	2069.343	0.940	0.080	0.080	1.22	1.24	NO	8.8
	14	123678-HxCDD	389.8157	36.59	19590.529	0.918	0.750	0.750	1.20	1.24	NO	109.4
	44	Total-heptadioxins	423.7766	40.08	268394.813	1.017	11.003	11.003	1.02	1.05	NO	797.7
	16	1234678-HpCDD	423.7766	41.34	309616.312	1.017	12.692	12.692	1.03	1.05	NO	823.8
	17	OCDD	457.7377	47.25	1613586.563	1.008	94.255	94.255	0.88	0.89	NO	3451.8

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TotalTEQ,Furans,Dioxins

	#	Name	Trgt	RT	Area	RRF	Conc	S/N	2 Ratio	3 Ratio	4 Ratio	%D
[redacted]	35	Total-tetrafurans	303.9016	24.06	0.000	0.877	0.000	0.108	1.03	0.77	YES	12.1
[redacted]	35	Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.035	0.49	0.77	YES	3.1
[redacted]	35	Total-tetrafurans	303.9016	23.82	6832.244	0.877	0.139	0.139	0.67	0.77	NO	10.9
[redacted]	35	Total-tetrafurans	303.9016	23.72	0.000	0.877	0.000	0.079	1.37	0.77	YES	4.8
[redacted]	35	Total-tetrafurans	303.9016	23.54	0.000	0.877	0.000	0.038	0.58	0.77	YES	3.9
[redacted]	35	Total-tetrafurans	303.9016	23.42	13340.844	0.877	0.271	0.271	0.84	0.77	NO	22.2
[redacted]	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.062	0.89	0.77	YES	5.6
[redacted]	40	Total-Furans	303.9016	22.33	200.162	1.041	0.003	0.003	0.74	0.77	NO	0.7
[redacted]	40	Total-Furans	303.9016	21.55	0.000	1.041	0.000	0.005	0.31	0.77	YES	0.6
[redacted]	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.025	0.60	0.77	YES	3.3
[redacted]	1	2378-TCDF	303.9016	26.06	6196.436	0.877	0.126	0.126	0.68	0.77	NO	8.6
[redacted]	35	Total-tetrafurans	303.9016	25.88	0.000	0.877	0.000	0.067	0.92	0.77	YES	8.4
[redacted]	35	Total-tetrafurans	303.9016	25.82	2690.962	0.877	0.055	0.055	0.82	0.77	NO	5.3
[redacted]	35	Total-tetrafurans	303.9016	25.73	0.000	0.877	0.000	0.046	0.52	0.77	YES	4.0
[redacted]	35	Total-tetrafurans	303.9016	25.39	0.000	0.877	0.000	0.054	0.77	0.77	NO	5.1
[redacted]	35	Total-tetrafurans	303.9016	25.17	0.000	0.877	0.000	0.078	0.89	0.77	YES	6.7
[redacted]	35	Total-tetrafurans	303.9016	24.99	7493.522	0.877	0.152	0.152	0.76	0.77	NO	14.2
[redacted]	35	Total-tetrafurans	303.9016	24.82	0.000	0.877	0.000	0.078	0.62	0.77	YES	5.6
[redacted]	35	Total-tetrafurans	303.9016	24.72	5342.872	0.877	0.109	0.109	0.80	0.77	NO	5.9
[redacted]	35	Total-tetrafurans	303.9016	24.51	0.000	0.877	0.000	0.056	0.49	0.77	YES	3.7
[redacted]	35	Total-tetrafurans	303.9016	24.32	5675.320	0.877	0.115	0.115	0.69	0.77	NO	8.1
[redacted]	35	Total-tetrafurans	303.9016	24.20	4928.253	0.877	0.100	0.100	0.80	0.77	NO	6.7
[redacted]	40	Total-Furans	303.9016	28.18	9937.631	1.041	0.170	0.170	0.71	0.77	NO	16.2
[redacted]	40	Total-Furans	303.9016	27.86	0.000	1.041	0.000	0.006	1.72	0.77	YES	1.4
[redacted]	35	Total-tetrafurans	303.9016	27.48	0.000	0.877	0.000	0.012	2.95	0.77	YES	4.3
[redacted]	35	Total-tetrafurans	303.9016	27.38	0.000	0.877	0.000	0.028	0.63	0.77	YES	2.6
[redacted]	35	Total-tetrafurans	303.9016	27.24	0.000	0.877	0.000	0.051	1.27	0.77	YES	5.7
[redacted]	35	Total-tetrafurans	303.9016	26.30	7858.177	0.877	0.160	0.160	0.72	0.77	NO	11.7
[redacted]	37	Total-pentafurans	339.8597	29.74	0.000	0.911	0.000	0.023	0.83	1.55	YES	11.0
[redacted]	37	Total-pentafurans	339.8597	29.63	1272.879	0.911	0.032	0.032	1.47	1.55	NO	9.9
[redacted]	37	Total-pentafurans	339.8597	29.14	14692.269	0.911	0.367	0.367	1.55	1.55	NO	107.4
[redacted]	37	Total-pentafurans	339.8597	29.07	8364.364	0.911	0.209	0.209	1.33	1.55	NO	75.4
[redacted]	37	Total-pentafurans	339.8597	28.94	0.000	0.911	0.000	0.124	1.26	1.55	YES	31.8
[redacted]	37	Total-pentafurans	339.8597	28.83	0.000	0.911	0.000	0.033	1.83	1.55	YES	11.3
[redacted]	3	23478-PeCDF	339.8597	31.55	4866.440	0.926	0.000	0.117	1.31	1.55	YES	35.9
[redacted]	37	Total-pentafurans	339.8597	31.41	4837.433	0.911	0.121	0.121	1.44	1.55	NO	33.6
[redacted]	37	Total-pentafurans	339.8597	31.29	0.000	0.911	0.000	0.065	1.24	1.55	YES	20.8
[redacted]	37	Total-pentafurans	339.8597	30.50	0.000	0.911	0.000	0.066	1.05	1.55	YES	20.6
[redacted]	37	Total-pentafurans	339.8597	30.41	0.000	0.911	0.000	0.100	2.07	1.55	YES	45.1
[redacted]	2	12378-PeCDF	339.8597	30.21	4218.483	0.896	0.102	0.102	1.46	1.55	NO	28.3
[redacted]	37	Total-pentafurans	339.8597	29.86	8189.065	0.911	0.204	0.204	1.68	1.55	NO	47.3
[redacted]	38	Total-hexafurans	373.8208	35.07	1998.070	1.032	0.060	0.060	1.06	1.24	NO	6.9
[redacted]	38	Total-hexafurans	373.8208	34.59	49942.793	1.032	1.509	1.509	1.23	1.24	NO	184.6
[redacted]	38	Total-hexafurans	373.8208	34.29	0.000	1.032	0.000	0.010	3.34	1.24	YES	3.0
[redacted]	38	Total-hexafurans	373.8208	33.72	50880.938	1.032	1.537	1.537	1.20	1.24	NO	192.0
[redacted]	38	Total-hexafurans	373.8208	33.50	0.000	1.032	0.000	0.499	1.04	1.24	YES	63.7
[redacted]	7	123789-HxCDF	373.8208	37.44	2813.130	0.987	0.090	0.090	1.32	1.24	NO	12.2
[redacted]	5	234678-HxCDF	373.8208	36.32	8106.776	1.037	0.252	0.252	1.27	1.24	NO	20.0
[redacted]	6	123678-HxCDF	373.8208	35.37	5597.532	1.035	0.000	0.143	1.51	1.24	YES	21.7

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Trace	[redacted]	[redacted]	RRFM	[redacted]	RMFG	[redacted]	[redacted]	[redacted]	S/N
[redacted]	4	123478-HxCDF	373.8208	35.23	9505.820	1.068	0.280	0.280	1.24	1.24	NO	37.6
[redacted]	9	1234789-HpCDF	407.7818	42.23	4013.494	1.215	0.151	0.151	1.00	1.05	NO	29.6
[redacted]	39	Total-heptafurans	407.7818	40.32	105810.230	1.223	3.663	3.663	0.95	1.05	NO	759.0
[redacted]	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.031	0.59	1.05	YES	11.5
[redacted]	8	1234678-HpCDF	407.7818	39.53	61517.430	1.232	1.967	1.967	0.99	1.05	NO	452.0
[redacted]	10	OCDF	441.7428	47.52	85034.016	1.138	4.403	4.403	0.83	0.89	NO	375.8
[redacted]	36	Total-penta1	339.8597	27.48	60319.291		1.496	1.496	1.54	1.55	NO	323.9
[redacted]	41	Total-tetradioxins	319.8965	24.35	0.000	1.049	0.000	0.023	1.11	0.77	YES	6.3
[redacted]	41	Total-tetradioxins	319.8965	24.11	2261.736	1.049	0.060	0.060	0.76	0.77	NO	12.8
[redacted]	41	Total-tetradioxins	319.8965	23.85	4389.318	1.049	0.117	0.117	0.67	0.77	NO	24.1
[redacted]	45	Total-Dioxins	319.8965	21.86	160.295	0.985	0.005	0.005	0.86	0.77	NO	1.0
[redacted]	41	Total-tetradioxins	319.8965	27.27	0.000	1.049	0.000	0.182	0.61	0.77	YES	30.2
[redacted]	41	Total-tetradioxins	319.8965	26.83	597.657	1.049	0.016	0.016	0.68	0.77	NO	3.5
[redacted]	11	2378-TCDD	319.8965	26.72	3302.740	1.049	0.000	0.024	0.14	0.77	YES	4.9
[redacted]	41	Total-tetradioxins	319.8965	26.30	0.000	1.049	0.000	0.018	0.89	0.77	YES	3.4
[redacted]	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.022	1.85	0.77	YES	11.9
[redacted]	41	Total-tetradioxins	319.8965	25.88	824.633	1.049	0.022	0.022	0.83	0.77	NO	4.9
[redacted]	41	Total-tetradioxins	319.8965	25.33	0.000	1.049	0.000	0.040	1.33	0.77	YES	14.7
[redacted]	41	Total-tetradioxins	319.8965	25.06	1336.683	1.049	0.036	0.036	0.80	0.77	NO	6.0
[redacted]	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.069	0.64	0.77	YES	15.2
[redacted]	42	Total-pentadioxins	355.8546	30.71	0.000	0.998	0.000	0.033	0.79	1.55	YES	6.2
[redacted]	42	Total-pentadioxins	355.8546	30.57	0.000	0.998	0.000	0.082	1.53	1.55	NO	19.8
[redacted]	42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.098	1.92	1.55	YES	21.6
[redacted]	42	Total-pentadioxins	355.8546	30.22	0.000	0.998	0.000	0.091	2.12	1.55	YES	23.8
[redacted]	42	Total-pentadioxins	355.8546	29.59	2029.672	0.998	0.074	0.074	1.66	1.55	NO	13.0
[redacted]	42	Total-pentadioxins	355.8546	29.14	0.000	0.998	0.000	0.140	1.13	1.55	YES	28.1
[redacted]	42	Total-pentadioxins	355.8546	29.06	5105.015	0.998	0.185	0.185	1.75	1.55	NO	27.5
[redacted]	42	Total-pentadioxins	355.8546	32.21	0.000	0.998	0.000	0.033	1.85	1.55	YES	6.4
[redacted]	12	12378-PeCDD	355.8546	31.81	3780.725	0.998	0.000	0.127	1.27	1.55	YES	20.6
[redacted]	42	Total-pentadioxins	355.8546	31.12	0.000	0.998	0.000	0.015	4.78	1.55	YES	6.8
[redacted]	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.011	6.13	1.55	YES	9.7
[redacted]	13	123478-HxCDD	389.8157	36.47	4877.970	0.971	0.000	0.169	1.47	1.24	YES	27.0
[redacted]	43	Total-hexadioxins	389.8157	35.62	0.000	0.940	0.000	0.047	1.69	1.24	YES	10.1
[redacted]	43	Total-hexadioxins	389.8157	35.51	48720.644	0.940	1.874	1.874	1.26	1.24	NO	194.0
[redacted]	43	Total-hexadioxins	389.8157	35.36	378.419	0.940	0.015	0.015	1.13	1.24	NO	3.7
[redacted]	43	Total-hexadioxins	389.8157	35.12	0.000	0.940	0.000	0.204	1.47	1.24	YES	33.3
[redacted]	43	Total-hexadioxins	389.8157	34.99	0.000	0.940	0.000	0.022	1.83	1.24	YES	5.9
[redacted]	43	Total-hexadioxins	389.8157	34.30	26779.627	0.940	1.030	1.030	1.28	1.24	NO	155.6
[redacted]	15	123789-HxCDD	389.8157	37.02	10124.969	0.932	0.393	0.393	1.31	1.24	NO	58.7
[redacted]	43	Total-hexadioxins	389.8157	36.78	2069.343	0.940	0.080	0.080	1.22	1.24	NO	8.8
[redacted]	14	123678-HxCDD	389.8157	36.59	19590.529	0.918	0.750	0.750	1.20	1.24	NO	109.4
[redacted]	44	Total-heptadioxins	423.7766	40.08	268394.813	1.017	11.003	11.003	1.02	1.05	NO	797.7
[redacted]	16	1234678-HpCDD	423.7766	41.34	309616.312	1.017	12.692	12.692	1.03	1.05	NO	823.8
[redacted]	17	OCDD	457.7377	47.25	1613586.563	1.008	94.255	94.255	0.88	0.89	NO	3451.8

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PFK1

	#	Name	Trace	RT	Area Ratio	PFK M...	Pg	EMPC	% Rel...	% Rel...	% Rel...	S/N
	48	FUNCTION1 PFK	330.9792	23.27	0.000							1.1
	48	FUNCTION1 PFK	330.9792	23.18	0.000							2.1
	48	FUNCTION1 PFK	330.9792	23.08	0.000							1.3
	48	FUNCTION1 PFK	330.9792	22.94	0.000							1.6
	48	FUNCTION1 PFK	330.9792	22.81	0.000							0.9
	48	FUNCTION1 PFK	330.9792	22.52	0.000							5.4
	48	FUNCTION1 PFK	330.9792	22.37	0.000							10.6
	48	FUNCTION1 PFK	330.9792	22.22	0.000							13.6
	48	FUNCTION1 PFK	330.9792	22.00	0.000							19.0
	48	FUNCTION1 PFK	330.9792	21.76	0.000							25.6
	48	FUNCTION1 PFK	330.9792	21.63	0.000							31.6
	48	FUNCTION1 PFK	330.9792	21.45	0.000							36.4
	48	FUNCTION1 PFK	330.9792	21.36	0.000							36.6
	48	FUNCTION1 PFK	330.9792	27.93	0.000							0.9
	48	FUNCTION1 PFK	330.9792	27.57	0.000							0.2
	48	FUNCTION1 PFK	330.9792	27.27	0.000							0.5
	48	FUNCTION1 PFK	330.9792	27.20	0.000							1.8
	48	FUNCTION1 PFK	330.9792	26.80	0.000							0.4
	48	FUNCTION1 PFK	330.9792	26.71	0.000							1.8
	48	FUNCTION1 PFK	330.9792	26.65	0.000							0.7
	48	FUNCTION1 PFK	330.9792	26.59	0.000							0.4
	48	FUNCTION1 PFK	330.9792	26.27	0.000							1.2
	48	FUNCTION1 PFK	330.9792	25.76	0.000							1.7
	48	FUNCTION1 PFK	330.9792	25.47	0.000							1.2
	48	FUNCTION1 PFK	330.9792	24.99	0.000							0.4
	48	FUNCTION1 PFK	330.9792	24.35	0.000							2.6
	48	FUNCTION1 PFK	330.9792	24.18	0.000							0.6
	48	FUNCTION1 PFK	330.9792	23.64	0.000							1.0
	48	FUNCTION1 PFK	330.9792	23.54	0.000							1.2
	48	FUNCTION1 PFK	330.9792	28.26	0.000							1.5

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PFK2

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	49	FUNCTION2 PFK	366.9792	31.11	0.000		0.000					1.5
[redacted]	49	FUNCTION2 PFK	366.9792	31.00	0.000		0.000					1.5
[redacted]	49	FUNCTION2 PFK	366.9792	30.94	0.000		0.000					1.0
[redacted]	49	FUNCTION2 PFK	366.9792	30.09	0.000		0.000					2.9
[redacted]	49	FUNCTION2 PFK	366.9792	30.03	0.000		0.000					2.0
[redacted]	49	FUNCTION2 PFK	366.9792	29.97	0.000		0.000					1.9
[redacted]	49	FUNCTION2 PFK	366.9792	29.86	0.000		0.000					1.0
[redacted]	49	FUNCTION2 PFK	366.9792	29.70	0.000		0.000					0.6
[redacted]	49	FUNCTION2 PFK	366.9792	29.55	0.000		0.000					1.1
[redacted]	49	FUNCTION2 PFK	366.9792	29.31	0.000		0.000					0.7
[redacted]	49	FUNCTION2 PFK	366.9792	29.03	0.000		0.000					0.4
[redacted]	49	FUNCTION2 PFK	366.9792	28.60	0.000		0.000					1.5
[redacted]	49	FUNCTION2 PFK	366.9792	28.56	0.000		0.000					0.5
[redacted]	49	FUNCTION2 PFK	366.9792	28.38	0.000		0.000					1.5
[redacted]	49	FUNCTION2 PFK	366.9792	33.07	0.000		0.000					1.1
[redacted]	49	FUNCTION2 PFK	366.9792	32.83	0.000		0.000					1.7
[redacted]	49	FUNCTION2 PFK	366.9792	32.78	0.000		0.000					1.6
[redacted]	49	FUNCTION2 PFK	366.9792	32.39	0.000		0.000					1.2
[redacted]	49	FUNCTION2 PFK	366.9792	32.17	0.000		0.000					0.8
[redacted]	49	FUNCTION2 PFK	366.9792	32.02	0.000		0.000					1.8
[redacted]	49	FUNCTION2 PFK	366.9792	31.94	0.000		0.000					1.2
[redacted]	49	FUNCTION2 PFK	366.9792	31.69	0.000		0.000					0.9
[redacted]	49	FUNCTION2 PFK	366.9792	31.65	0.000		0.000					0.9
[redacted]	49	FUNCTION2 PFK	366.9792	31.59	0.000		0.000					1.4
[redacted]	49	FUNCTION2 PFK	366.9792	31.55	0.000		0.000					1.1
[redacted]	49	FUNCTION2 PFK	366.9792	31.49	0.000		0.000					0.8

PFK3

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
[redacted]	50	FUNCTION3 PFK	380.9760	37.36	0.000		0.000					5.5

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

PFK4

[redacted]	#	Name	Mass	RT	Abs Resp	RRF M...	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	S/N
[redacted]	51	FUNCTION4 PFK	430.9728	38.60	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	41.32	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	41.18	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.10	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	40.71	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	40.47	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.31	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	40.08	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	39.97	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.85	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.75	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	39.60	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.56	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.50	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.46	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	38.97	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	38.69	0.000							0.7
[redacted]	51	FUNCTION4 PFK	430.9728	44.25	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.14	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	43.64	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	43.56	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	43.43	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	43.32	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	43.19	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.96	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	42.84	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	42.77	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.68	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.57	0.000							2.9
[redacted]	51	FUNCTION4 PFK	430.9728	42.47	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	42.08	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	41.90	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.36	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	44.81	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.41	0.000							1.1

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

PFK5

#	Name	Trace	RT	Abs.Resp	RRT M...	Δ	S/N
52	FUNCTION5 PFK	480.9696	47.34	0.000			2.0
52	FUNCTION5 PFK	480.9696	47.22	0.000			1.3
52	FUNCTION5 PFK	480.9696	46.99	0.000			1.5
52	FUNCTION5 PFK	480.9696	46.60	0.000			1.0
52	FUNCTION5 PFK	480.9696	46.49	0.000			1.3
52	FUNCTION5 PFK	480.9696	46.18	0.000			1.4
52	FUNCTION5 PFK	480.9696	46.10	0.000			0.4
52	FUNCTION5 PFK	480.9696	45.69	0.000			0.7
52	FUNCTION5 PFK	480.9696	45.56	0.000			0.7
52	FUNCTION5 PFK	480.9696	45.34	0.000			10.5
52	FUNCTION5 PFK	480.9696	45.17	0.000			23.8
52	FUNCTION5 PFK	480.9696	45.14	0.000			26.1
52	FUNCTION5 PFK	480.9696	45.10	0.000			29.6
52	FUNCTION5 PFK	480.9696	48.85	0.000			1.0
52	FUNCTION5 PFK	480.9696	48.81	0.000			1.2
52	FUNCTION5 PFK	480.9696	48.58	0.000			0.7
52	FUNCTION5 PFK	480.9696	47.95	0.000			0.9
52	FUNCTION5 PFK	480.9696	47.76	0.000			1.3

ETHERS1

#	Name	Trace	RT	Abs.Resp	RRT M...	Δ	S/N
53	FUNCTION1 HXCD...	375.8364	25.91	0.000	0.000		1.7
53	FUNCTION1 HXCD...	375.8364	25.87	0.000	0.000		3.4
53	FUNCTION1 HXCD...	375.8364	25.82	0.000	0.000		3.0
53	FUNCTION1 HXCD...	375.8364	25.17	0.000	0.000		8.1
53	FUNCTION1 HXCD...	375.8364	25.06	0.000	0.000		2.8
53	FUNCTION1 HXCD...	375.8364	24.57	0.000	0.000		3.5
53	FUNCTION1 HXCD...	375.8364	24.54	0.000	0.000		3.5
53	FUNCTION1 HXCD...	375.8364	24.38	0.000	0.000		2.5
53	FUNCTION1 HXCD...	375.8364	24.33	0.000	0.000		2.3
53	FUNCTION1 HXCD...	375.8364	23.93	0.000	0.000		55.5
53	FUNCTION1 HXCD...	375.8364	28.07	0.000	0.000		4.9
53	FUNCTION1 HXCD...	375.8364	27.09	0.000	0.000		2.7
53	FUNCTION1 HXCD...	375.8364	26.75	0.000	0.000		1.8

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	28.01	0.000		0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	27.54	0.000		0.000					1.3
	54	FUNCTION1 HPCD...	409.7974	26.78	0.000		0.000					0.8
	54	FUNCTION1 HPCD...	409.7974	25.75	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	25.21	0.000		0.000					1.3
	54	FUNCTION1 HPCD...	409.7974	24.58	0.000		0.000					2.0
	54	FUNCTION1 HPCD...	409.7974	23.91	0.000		0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	23.76	0.000		0.000					0.7
	54	FUNCTION1 HPCD...	409.7974	23.60	0.000		0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	23.02	0.000		0.000					3.0
	54	FUNCTION1 HPCD...	409.7974	22.39	0.000		0.000					1.8
	54	FUNCTION1 HPCD...	409.7974	21.92	0.000		0.000					1.3

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	32.91	0.000		0.000					2.6
	55	FUNCTION2 HPCD...	409.7974	31.74	0.000		0.000					2.7
	55	FUNCTION2 HPCD...	409.7974	31.28	0.000		0.000					2.8
	55	FUNCTION2 HPCD...	409.7974	31.02	0.000		0.000					1.9
	55	FUNCTION2 HPCD...	409.7974	30.98	0.000		0.000					2.2
	55	FUNCTION2 HPCD...	409.7974	30.81	0.000		0.000					2.1
	55	FUNCTION2 HPCD...	409.7974	30.34	0.000		0.000					4.0
	55	FUNCTION2 HPCD...	409.7974	30.19	0.000		0.000					2.8

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	56	FUNCTION3 OCDPE	445.7555	35.06	0.000		0.000					5.9

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N
	57	FUNCTION4 NCDPE	479.7165	39.11	0.000		0.000					120.9

ETHERS6

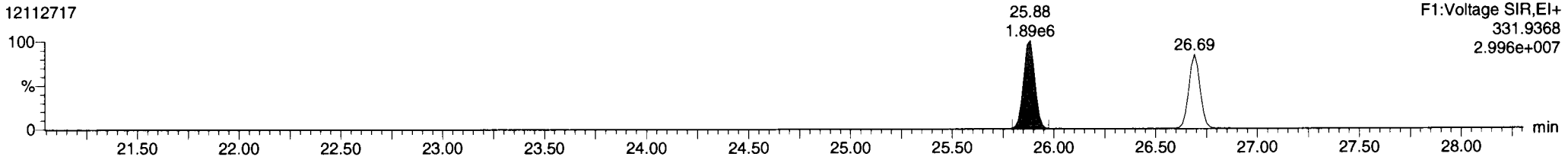
	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	1° Rati...	1° R...	S/N

Quantify Sample Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

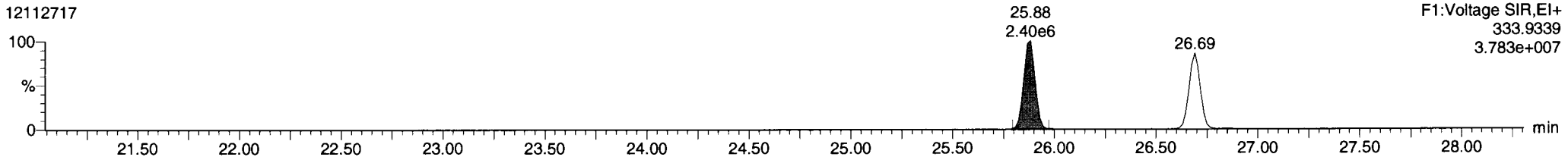
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

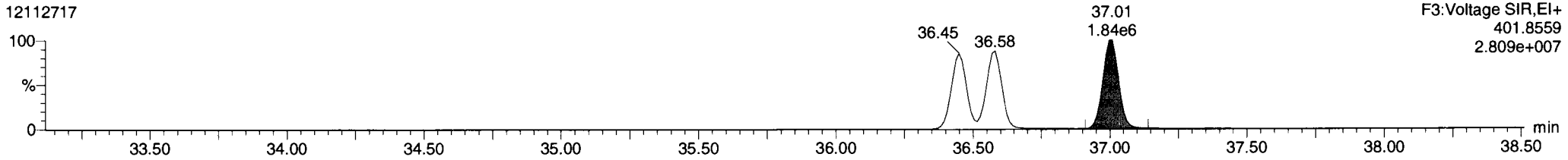
13C-1234-TCDD



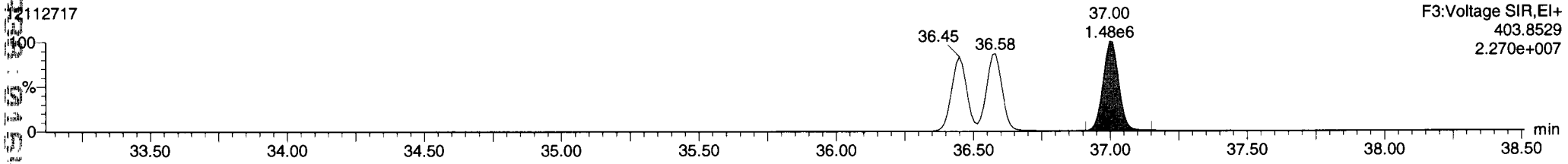
13C-1234-TCDD



13C-123789-HxCDD



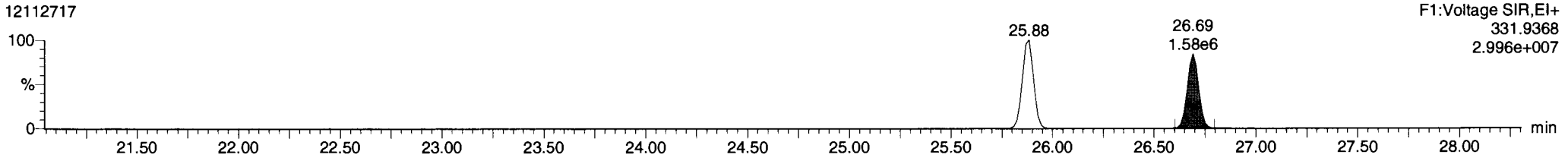
13C-123789-HxCDD



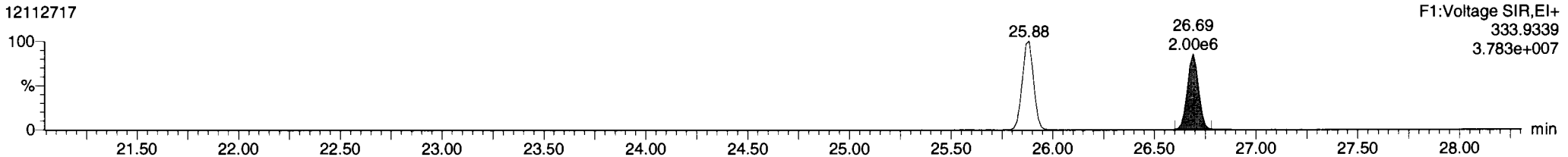
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

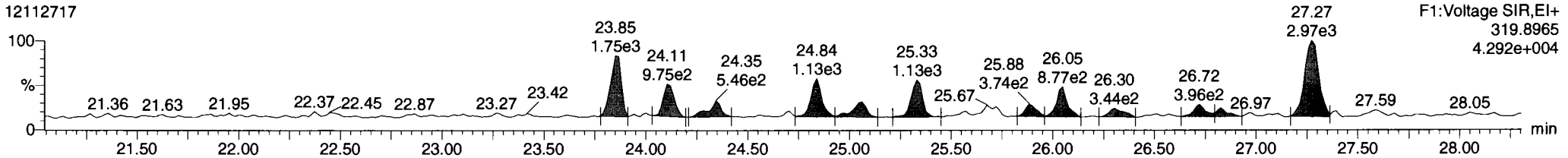
13C-2378-TCDD



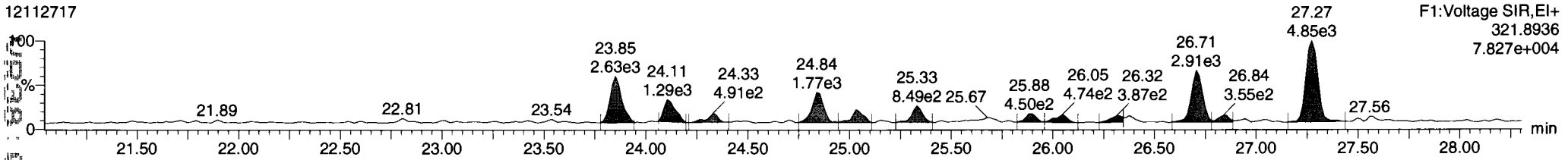
13C-2378-TCDD



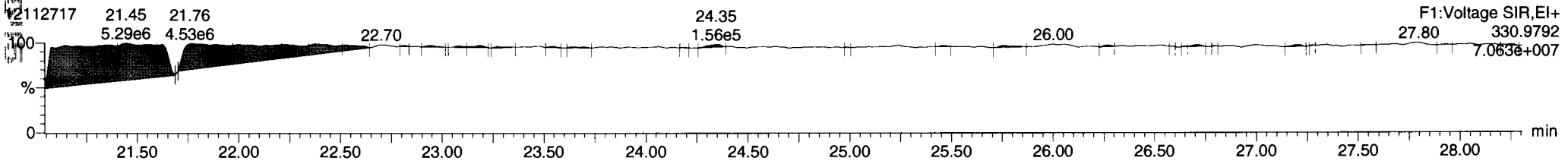
Total-tetradioxins



Total-tetradioxins



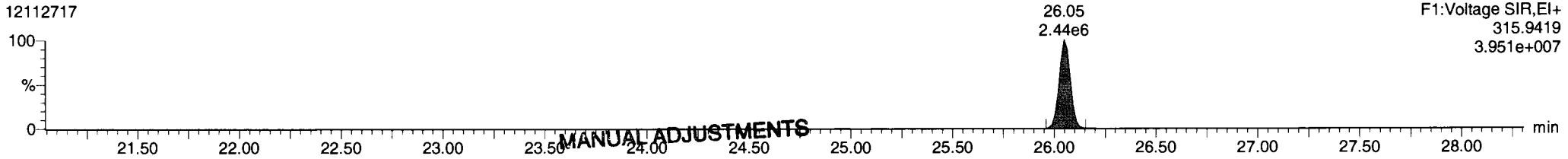
FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

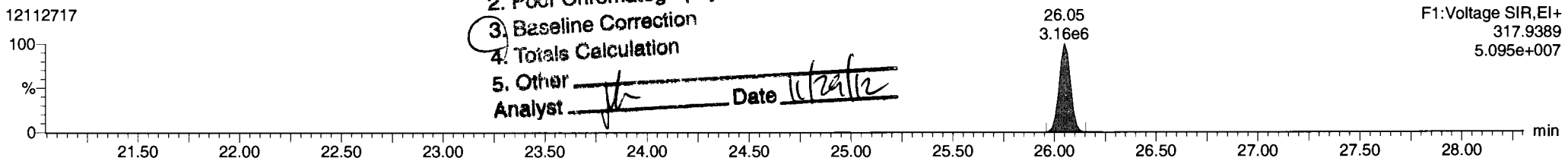
Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

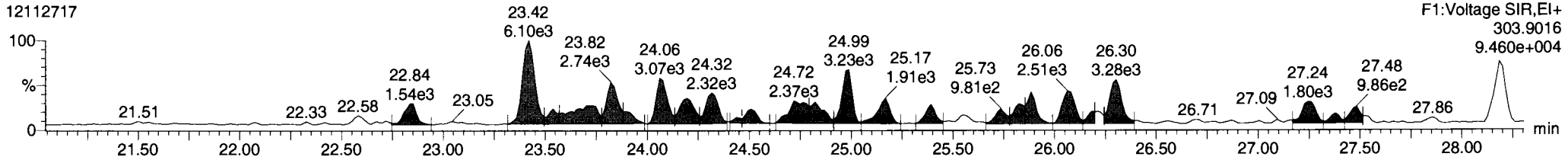


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst
Date 11/29/12

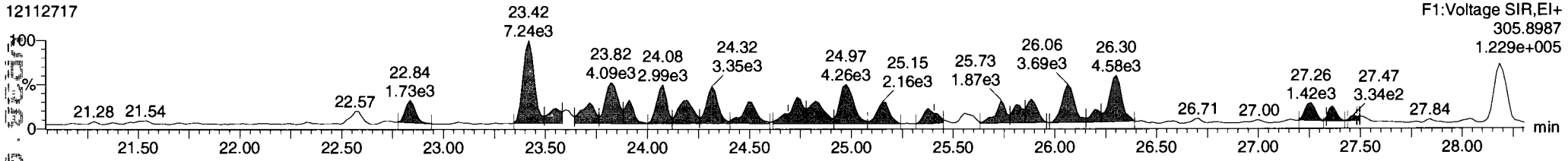
13C-2378-TCDF



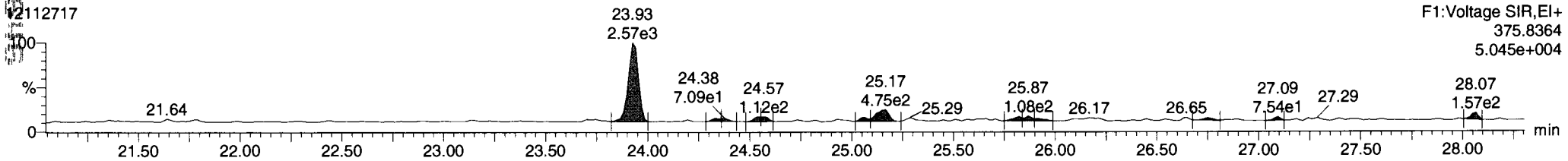
Total-tetrafurans



Total-tetrafurans



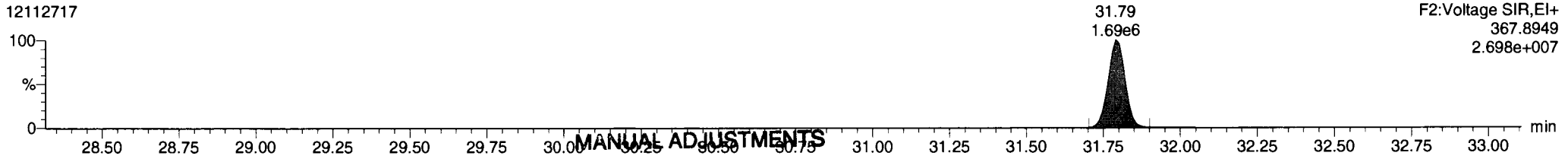
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

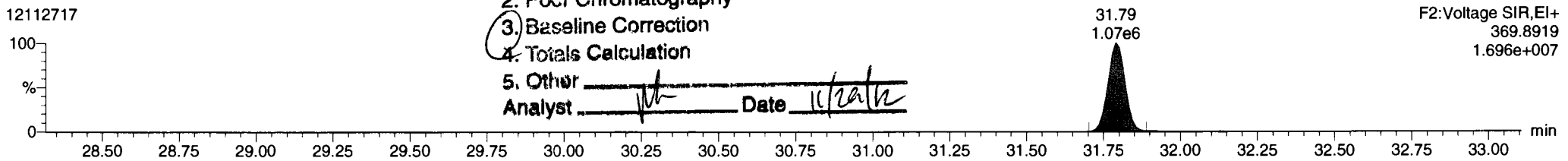
Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

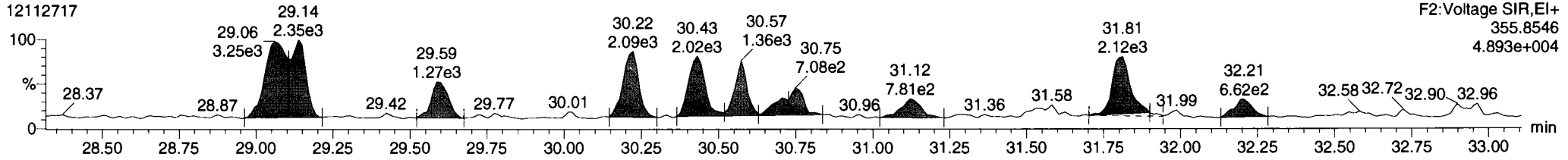


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date 11/28/12

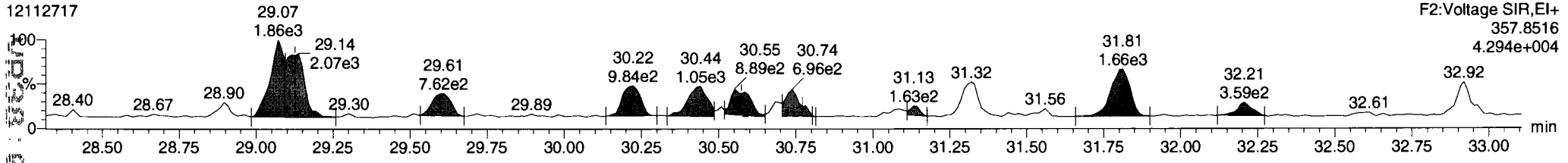
13C-12378-PeCDD



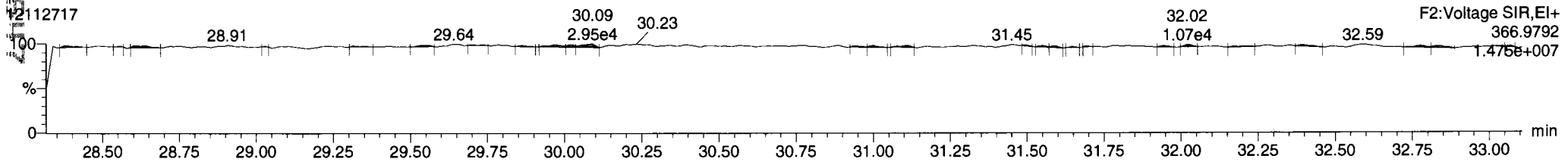
Total-pentadioxins



Total-pentadioxins



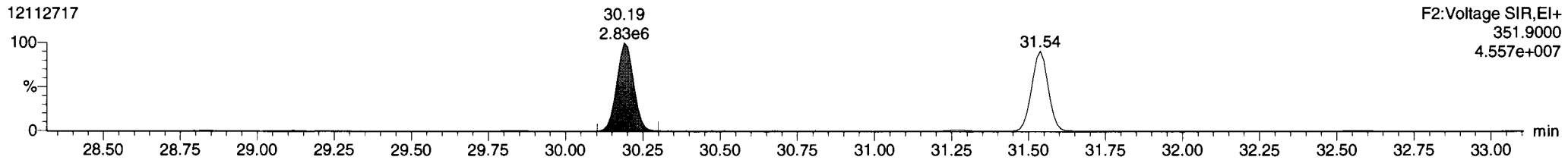
FUNCTION2 PFK



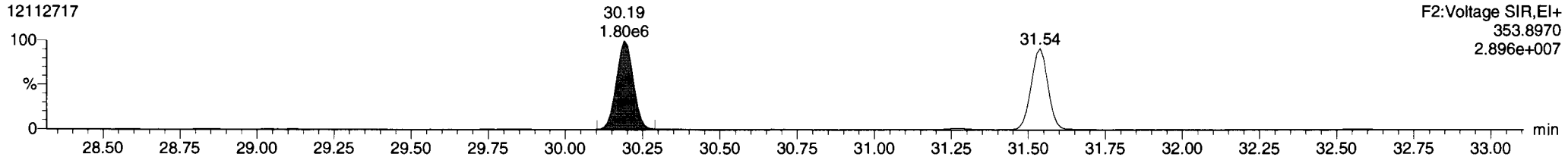
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

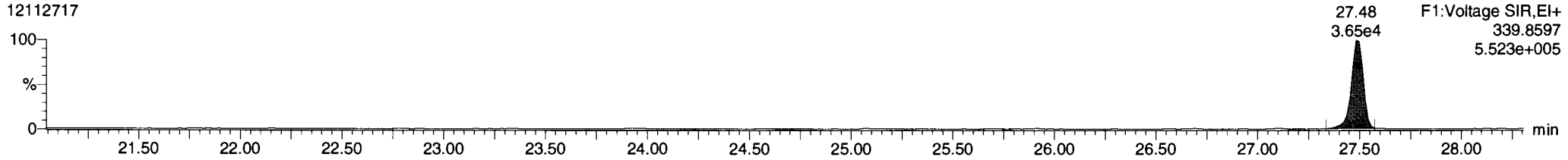
13C-12378-PeCDF



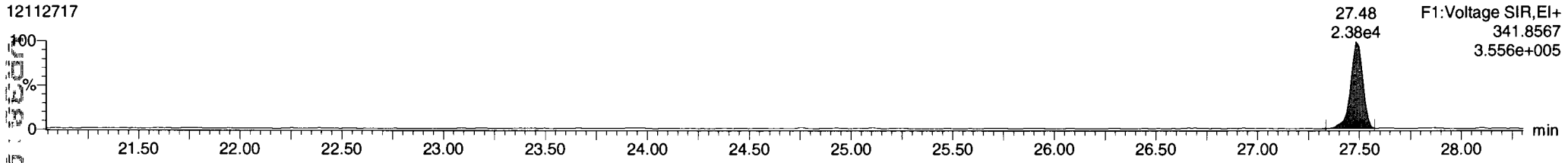
13C-12378-PeCDF



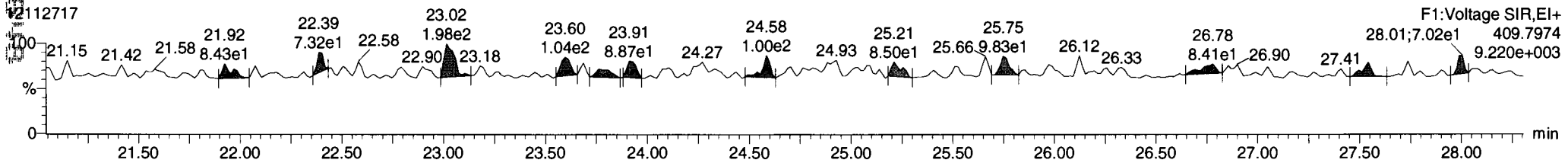
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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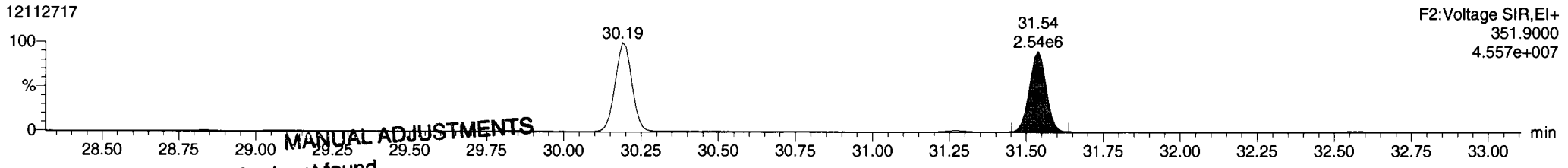
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

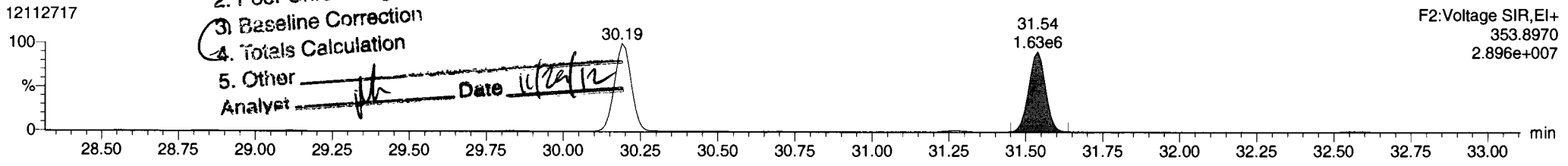
Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

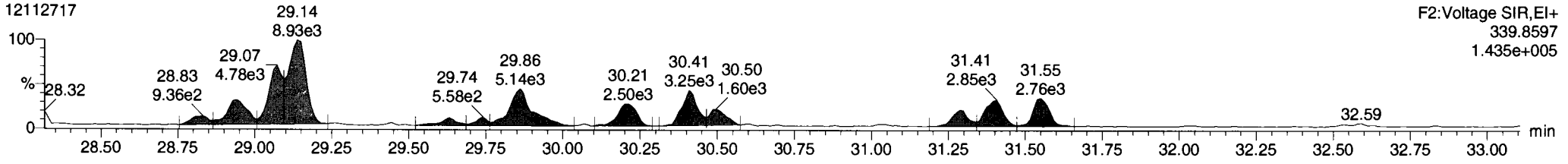


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 11/29/12

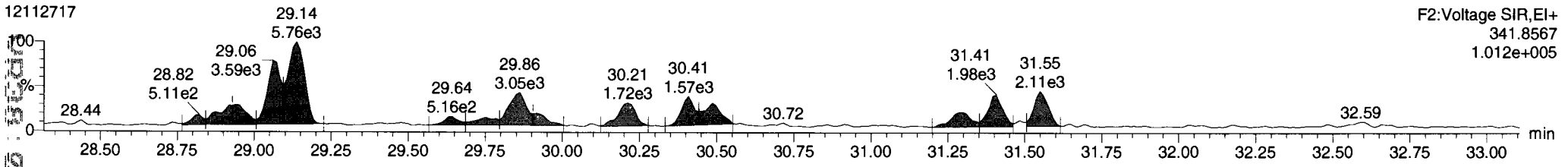
13C-23478-PeCDF



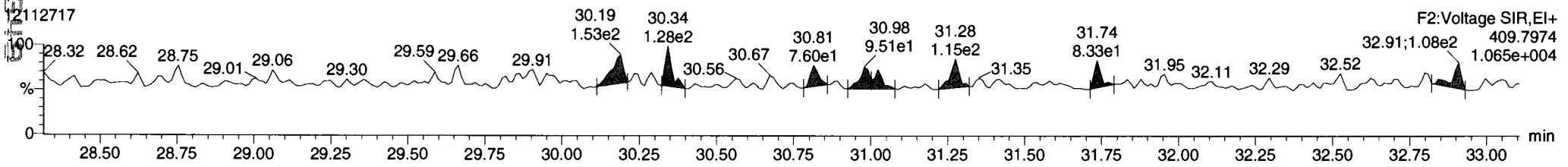
Total-pentafurans



Total-pentafurans



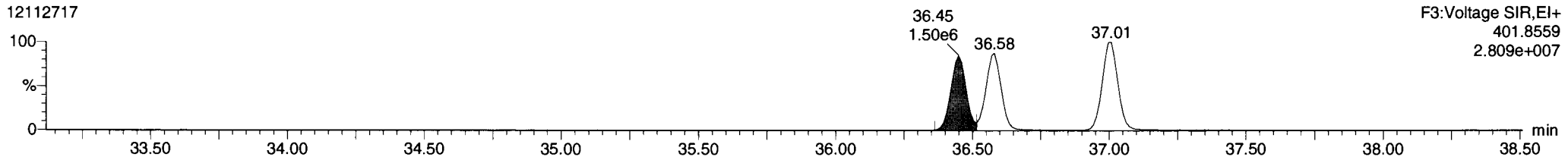
FUNCTION2 HPCDPE



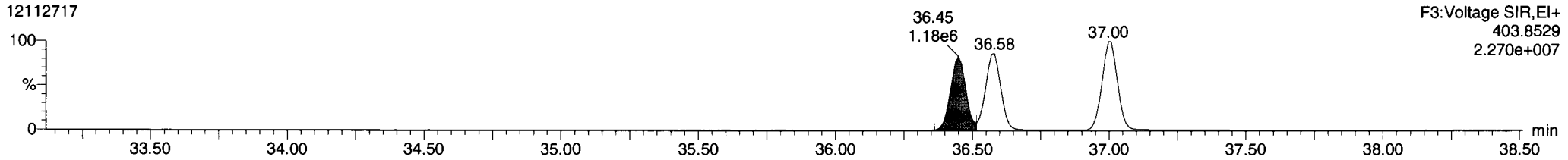
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

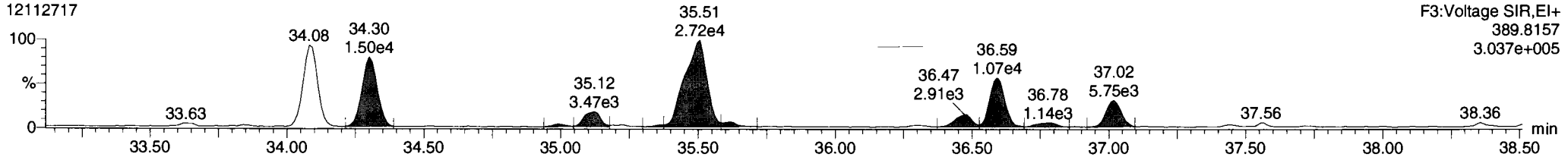
13C-123478-HxCDD



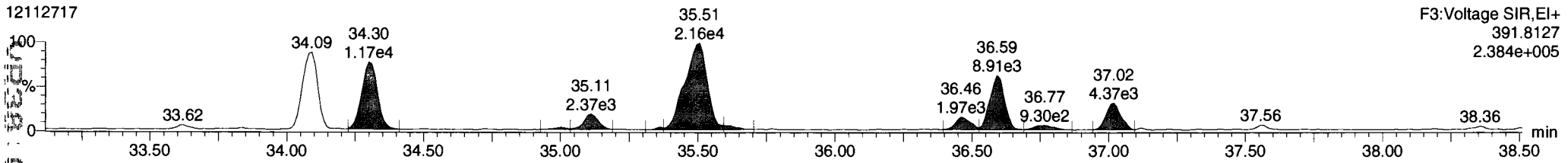
13C-123478-HxCDD



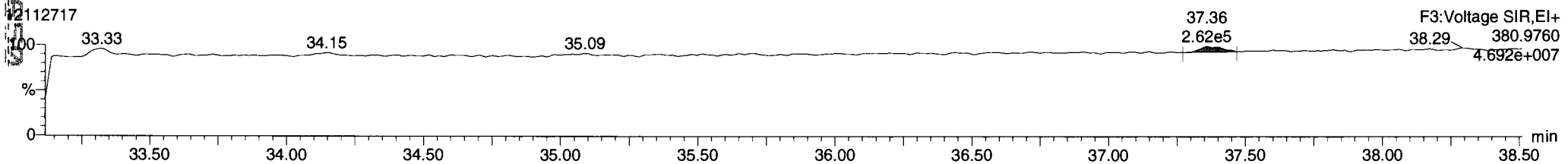
Total-hexadioxins



Total-hexadioxins



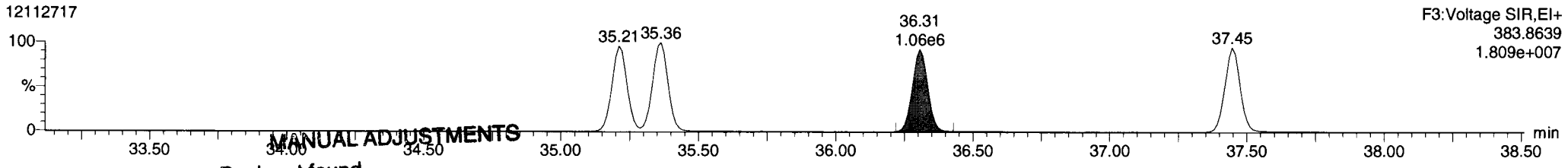
FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

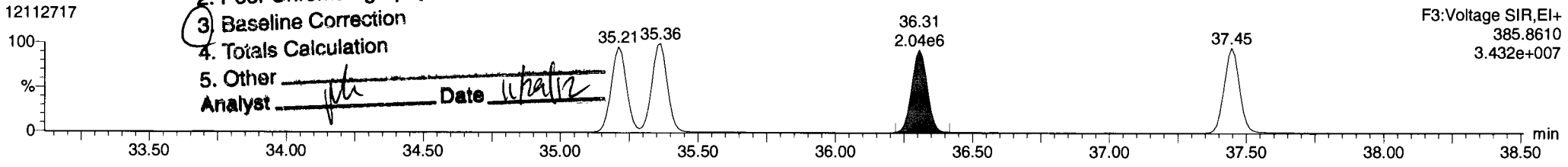
Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF

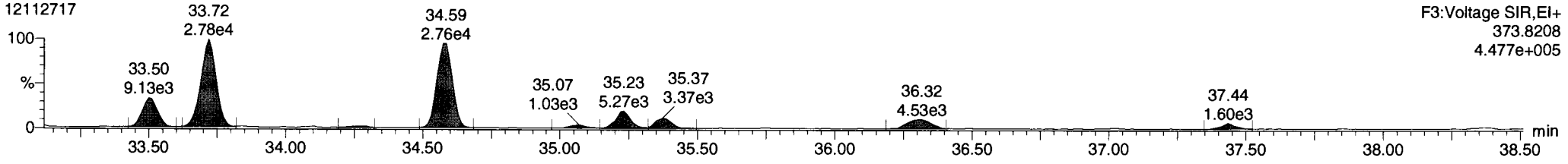


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date 11/29/12

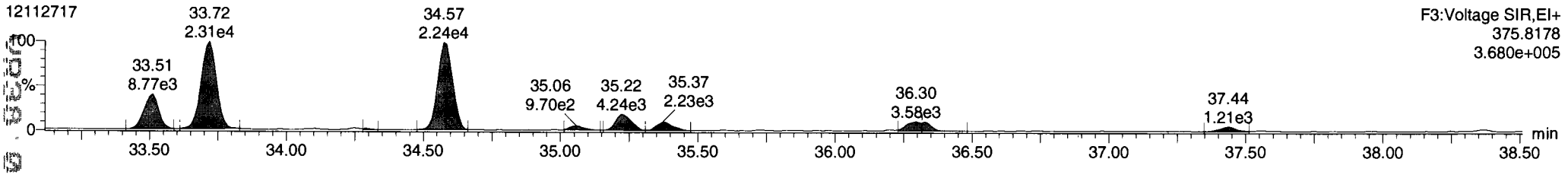
13C-234678-HxCDF



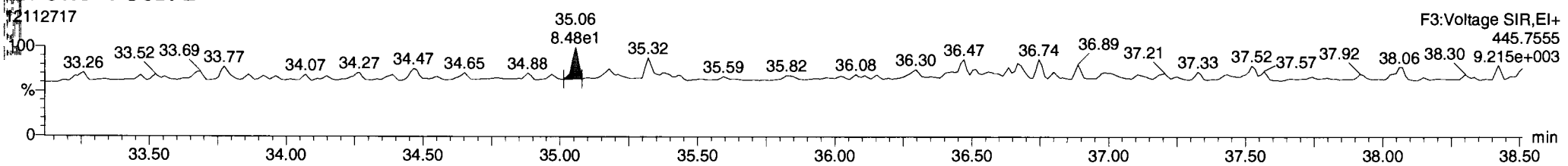
Total-hexafurans



Total-hexafurans



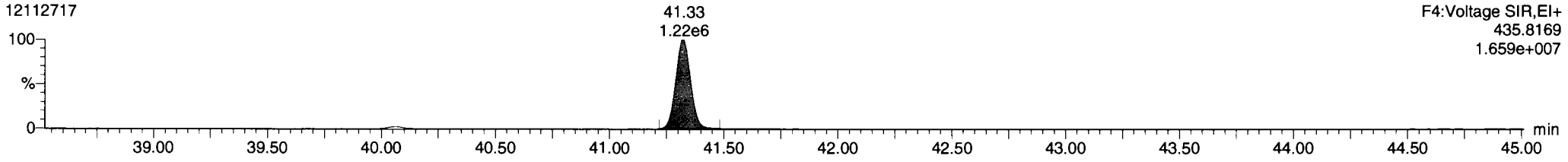
FUNCTION3 OCDPE



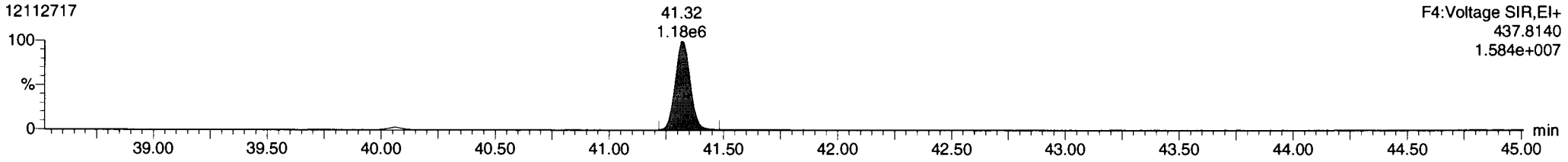
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

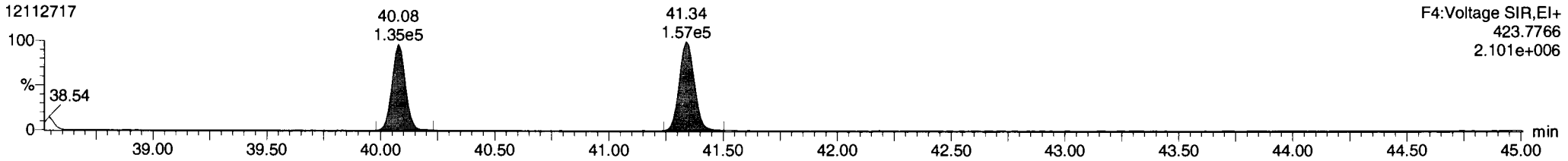
13C-1234678-HpCDD



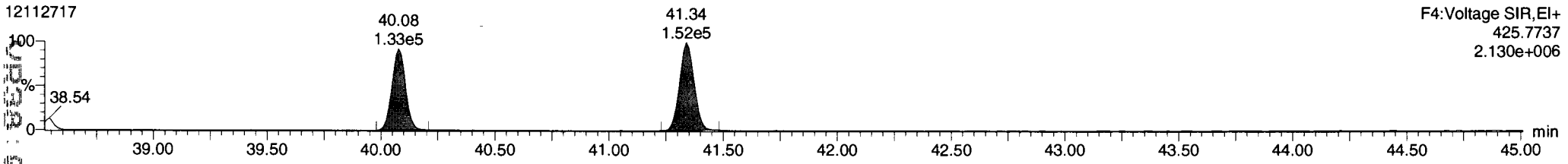
13C-1234678-HpCDD



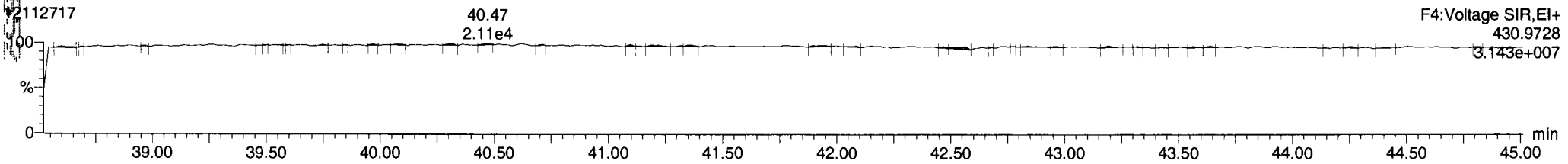
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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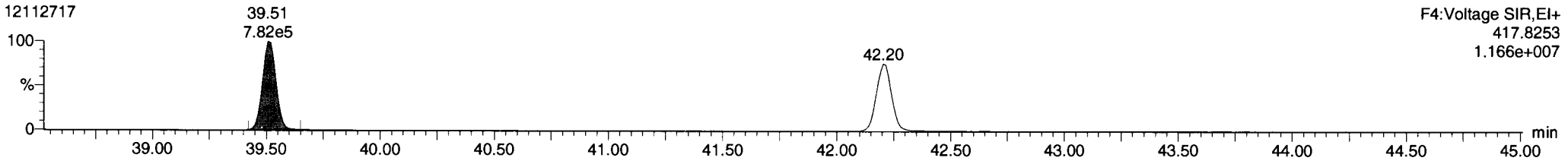
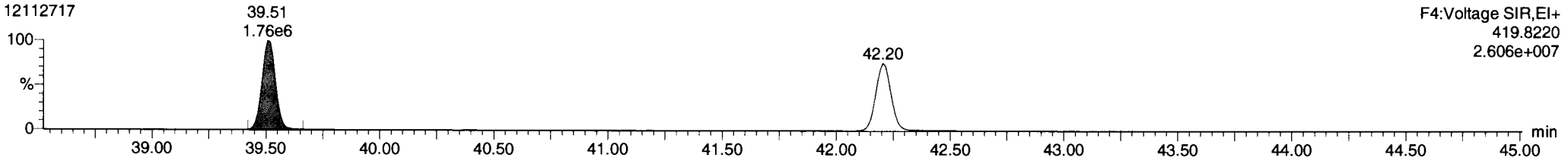
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

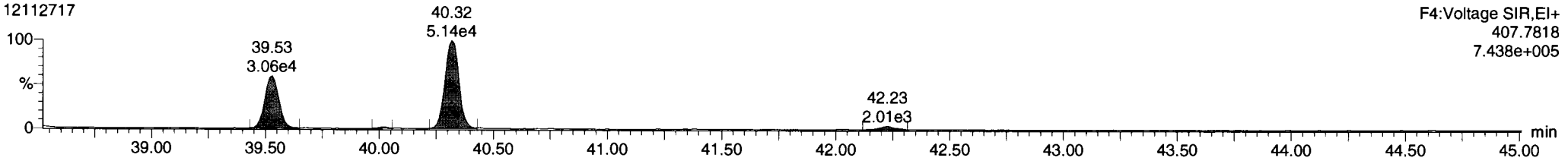
13C-1234678-HpCDF



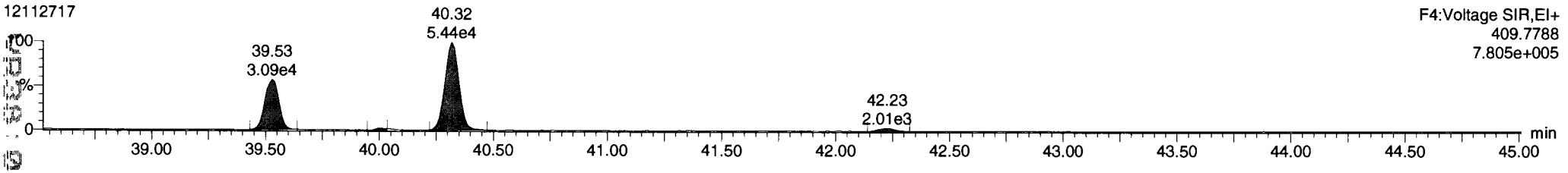
13C-1234678-HpCDF



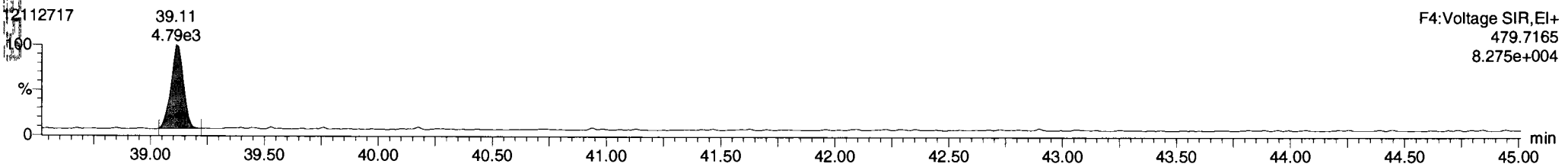
Total-heptafurans



Total-heptafurans



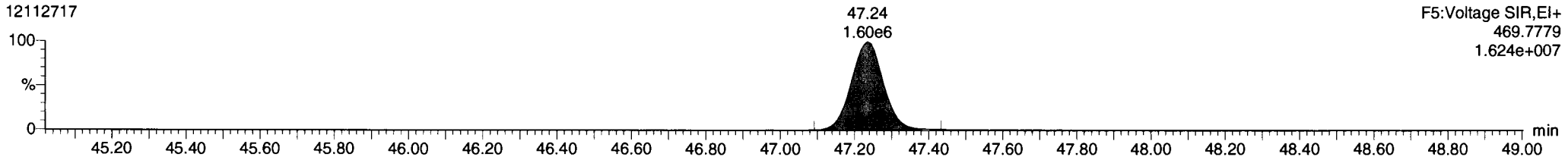
FUNCTION4 NCDPE



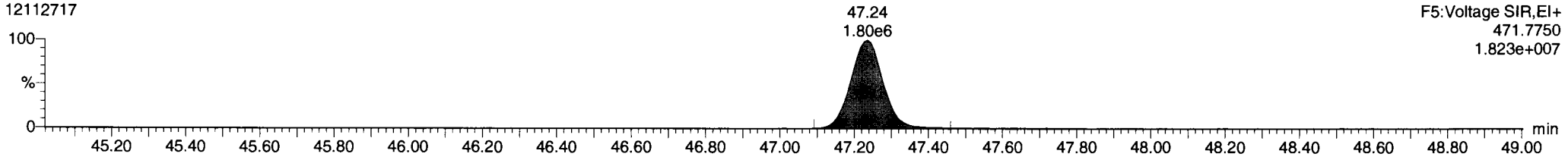
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

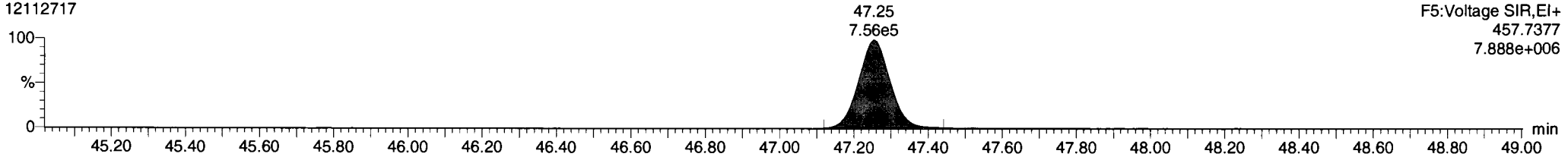
13C-OCDD



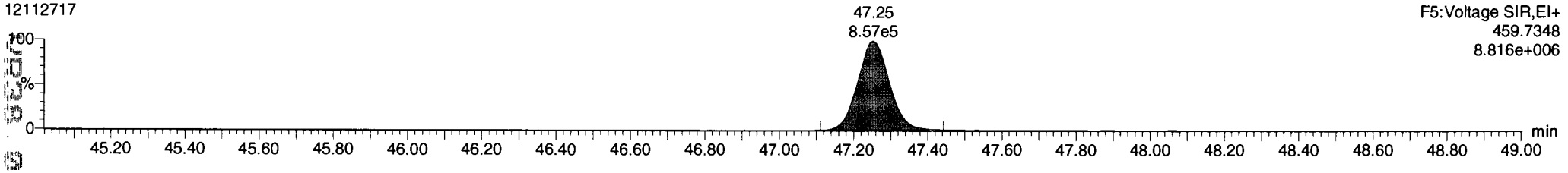
13C-OCDD



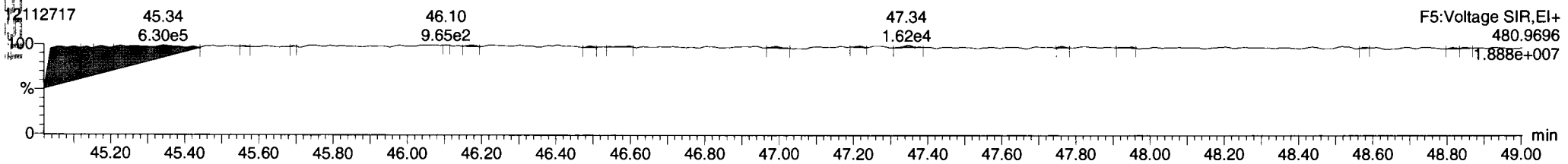
OCDD



OCDD



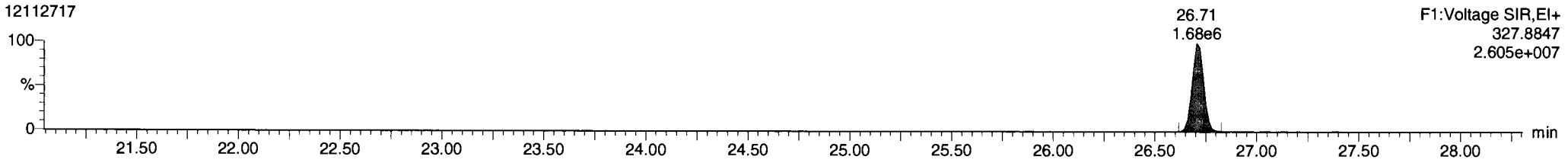
FUNCTION5 PFK



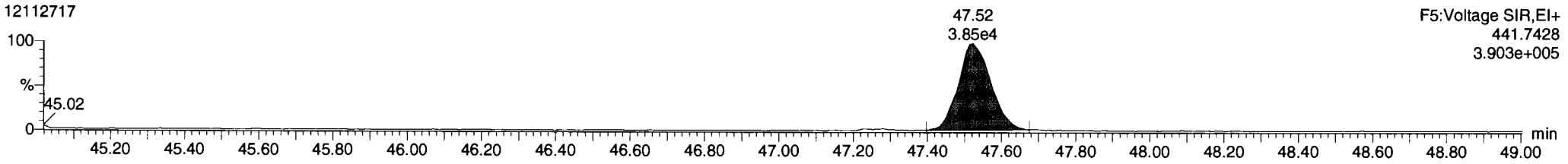
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:05:40 Pacific Standard Time

Name: 12112717, Date: 28-Nov-2012, Time: 00:50:37, ID: VR38J, Conditions: AUTOSPEC01, User: pk

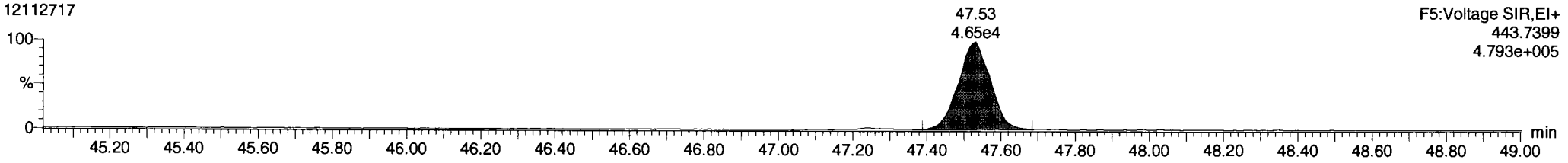
37CL-2378-TCDD



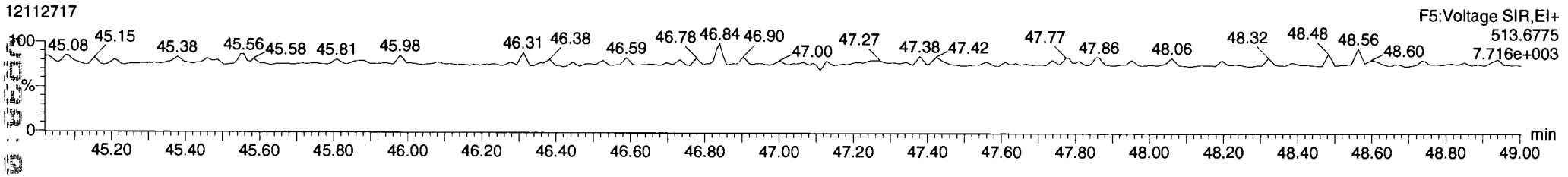
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:33 Pacific Standard Time

11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

		RT	RRT			Total Area	Id	RRF				S/N	EMPC	
1	2378-TCDF	26.063	1.001	869	1746	2614	dd	0.877	0.498	0.770	YES	7.7	0.044	0.058
2	12378-PeCDF	30.201	1.000	1627	1104	2730	bb	0.896	1.474	1.550	NO	16.3	0.071	0.071
3	23478-PeCDF	31.549	1.001	1667	1175	2842	MM	0.926	1.418	1.550	NO	17.6	0.078	0.078
4	123478-HxCDF	35.221	1.000	2450	1805	4255	MM	1.068	1.358	1.240	NO	18.5	0.131	0.131
5	234678-HxCDF	36.296	1.000	2890	2550	5441	bb	1.037	1.133	1.240	NO	14.5	0.178	0.178
6	123678-HxCDF	35.375	1.001	2135	1572	3707	bb	1.035	1.358	1.240	NO	15.1	0.111	0.111
7	123789-HxCDF	37.436	1.000	809	575	1384	bd	0.987	1.408	1.240	NO	6.5	0.046	0.046
8	1234678-HpCDF	39.518	1.000	24847	25387	50234	bd	1.232	0.979	1.050	NO	369.2	1.722	1.722
9	1234789-HpCDF	42.225	1.001	1270	1315	2585	bb	1.215	0.966	1.050	NO	17.4	0.108	0.108
10	OCDF	47.531	1.006	33612	41732	75345	bb	1.138	0.805	0.890	NO	137.7	4.786	4.786
11	2378-TCDD	26.691	1.001	586	2197	2783	bb	1.049	0.267	0.770	YES	7.3	0.038	0.078
12	12378-PeCDD	31.812	1.001	1586	1592	3177	bb	0.998	0.996	1.550	YES	15.8	0.100	0.122
13	123478-HxCDD	36.460	1.000	2288	2006	4294	bd	0.971	1.140	1.240	NO	21.3	0.174	0.174
14	123678-HxCDD	36.591	1.001	6546	4802	11348	db	0.918	1.363	1.240	NO	64.3	0.457	0.457
15	123789-HxCDD	37.019	1.012	4290	3810	8100	bb	0.932	1.126	1.240	NO	40.3	0.331	0.331
16	1234678-HpCDD	41.338	1.001	97404	93557	190960	bb	1.017	1.041	1.050	NO	748.0	8.585	8.585
17	OCDD	47.253	1.000	443266	510593	953859	bd	1.008	0.868	0.890	NO	3169.2	68.354	68.354
18	13C-2378-TCDF	26.049	1.007	2249248	2887733	5136981	bb	1.473	0.779	0.770	NO	8838.1		85.258
19	13C-12378-PeCDF	30.190	1.167	2607780	1654114	4261893	bb	1.148	1.577	1.550	NO	10906.9		90.744
20	13C-23478-PeCDF	31.528	1.219	2399025	1534169	3933193	bb	1.113	1.564	1.550	NO	10180.2		86.390
21	13C-123478-HxCDF	35.210	0.952	1035315	2014253	3049567	bd	1.209	0.514	0.510	NO	3912.6		80.346
22	13C-123678-HxCDF	35.353	0.956	1107895	2117599	3225493	db	1.269	0.523	0.510	NO	4080.4		80.986
23	13C-234678-HxCDF	36.306	0.981	1013982	1927877	2941859	bb	1.236	0.526	0.510	NO	3736.1		75.826
24	13C-123789-HxCDF	37.436	1.012	1048257	1996462	3044719	bb	1.107	0.525	0.510	NO	3906.6		87.632
25	13C-1234678-HpCDF	39.507	1.068	741979	1626710	2368690	bb	1.051	0.456	0.440	NO	5600.5		71.780
26	13C-1234789-HpCDF	42.204	1.141	607993	1367259	1975252	bb	0.815	0.445	0.440	NO	3881.4		77.228
27	13C-1234-TCDD	25.869	0.000	1803519	2288076	4091594	bb	1.000	0.788	0.770	NO	7770.3		100.000
28	13C-2378-TCDD	26.676	1.031	1480079	1909319	3389397	bb	0.946	0.775	0.770	NO	6133.1		87.592
29	13C-12378-PeCDD	31.779	1.228	1601827	1014334	2616160	bb	0.721	1.579	1.550	NO	12311.8		88.722
30	13C-123478-HxCDD	36.449	0.985	1413091	1127340	2540431	bd	0.991	1.253	1.240	NO	8146.8		81.667
31	13C-123678-HxCDD	36.569	0.988	1506057	1199739	2705796	db	1.025	1.255	1.240	NO	8397.1		84.112
32	13C-1234678-HpCDD	41.316	1.117	1119919	1067536	2187455	bb	0.866	1.049	1.050	NO	4273.5		80.443
33	13C-OCDD	47.235	1.277	1305615	1462104	2767719	bb	0.769	0.893	0.890	NO	9367.2		114.624

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34	13C-123789-HxCDD	36.997	0.000	1738858	1400580	3139438	bb	1.000	1.242	1.240	NO	10019.8		100.000
35	Total-tetrafurans			20002				0.877					2.023	1.013
36	Total-penta1			35246									2857 1.536	2454 1.536
37	Total-pentafurans			21839				0.911					1.321	0.898
38	Total-hexafurans			58803				1.032					3.435	3.353
39	Total-heptafurans			68667				1.223					5.137	5.110
40	Total-Furans			238885				1.041					18.434	16.726
41	Total-tetradioxins			7324				1.049					0.639	0.467
42	Total-pentadioxins			7369				0.998					0.843	0.459
43	Total-hexadioxins			40958				0.940					3.036	3.036
44	Total-heptadioxins			174116				1.017					15.246	15.246
45	Total-Dioxins			673032				0.985					88.118	87.562
46	Total-TEQ			911917									106.551	104.288
47	37CL-2378-TCDD	26.706	1.032	1582990		1582990		1.044				16481.3		37.072
48	FUNCTION1 PFK			33048084										
49	FUNCTION2 PFK			994764										0.000
50	FUNCTION3 PFK			11558990										0.000
51	FUNCTION4 PFK			10328082										
52	FUNCTION5 PFK			372593										
53	FUNCTION1 HXCDPE			5356										0.000
54	FUNCTION1 HPCDPE			1476										0.000
55	FUNCTION2 HPCDPE			484										0.000
56	FUNCTION3 OCDPE			0										
57	FUNCTION4 NCDPE			5201										0.000
58	FUNCTION5 DCDPE			0										

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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

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TF

[redacted]	#	Name	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	35	Total-tetrafurans	303.9016	24.06	7163.616	0.877	0.159	0.159	0.72	0.77	NO	20.9
[redacted]	35	Total-tetrafurans	303.9016	23.91	1831.427	0.877	0.041	0.041	0.67	0.77	NO	6.2
[redacted]	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.063	0.59	0.77	YES	10.2
[redacted]	35	Total-tetrafurans	303.9016	23.70	1670.842	0.877	0.037	0.037	0.86	0.77	NO	5.5
[redacted]	35	Total-tetrafurans	303.9016	23.60	3213.456	0.877	0.071	0.071	0.82	0.77	NO	6.4
[redacted]	35	Total-tetrafurans	303.9016	23.40	0.000	0.877	0.000	0.273	0.61	0.77	YES	41.2
[redacted]	35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.068	0.91	0.77	YES	10.7
[redacted]	35	Total-tetrafurans	303.9016	22.57	2016.293	0.877	0.045	0.045	0.67	0.77	NO	6.0
[redacted]	35	Total-tetrafurans	303.9016	25.91	0.000	0.877	0.000	0.008	2.00	0.77	YES	4.5
[redacted]	35	Total-tetrafurans	303.9016	25.81	4555.321	0.877	0.101	0.101	0.85	0.77	NO	13.2
[redacted]	35	Total-tetrafurans	303.9016	25.72	3310.270	0.877	0.074	0.074	0.73	0.77	NO	12.0
[redacted]	35	Total-tetrafurans	303.9016	25.56	0.000	0.877	0.000	0.025	0.49	0.77	YES	3.8
[redacted]	35	Total-tetrafurans	303.9016	25.47	0.000	0.877	0.000	0.019	0.91	0.77	YES	4.9
[redacted]	35	Total-tetrafurans	303.9016	25.35	0.000	0.877	0.000	0.025	0.90	0.77	YES	3.7
[redacted]	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.053	0.91	0.77	YES	8.5
[redacted]	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.170	0.93	0.77	YES	30.1
[redacted]	35	Total-tetrafurans	303.9016	24.73	7537.344	0.877	0.167	0.167	0.77	0.77	NO	14.1
[redacted]	35	Total-tetrafurans	303.9016	24.67	0.000	0.877	0.000	0.013	1.27	0.77	YES	3.6
[redacted]	35	Total-tetrafurans	303.9016	24.51	7041.573	0.877	0.156	0.156	0.79	0.77	NO	23.7
[redacted]	35	Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.052	0.91	0.77	YES	8.2
[redacted]	35	Total-tetrafurans	303.9016	24.21	0.000	0.877	0.000	0.091	0.64	0.77	YES	13.8
[redacted]	35	Total-tetrafurans	303.9016	27.47	0.000	0.877	0.000	0.022	0.52	0.77	YES	3.4
[redacted]	35	Total-tetrafurans	303.9016	27.36	2397.382	0.877	0.053	0.053	0.84	0.77	NO	9.4
[redacted]	35	Total-tetrafurans	303.9016	27.24	4889.153	0.877	0.109	0.109	0.87	0.77	NO	19.1
[redacted]	35	Total-tetrafurans	303.9016	26.29	0.000	0.877	0.000	0.067	0.56	0.77	YES	9.7
[redacted]	35	Total-tetrafurans	303.9016	26.20	0.000	0.877	0.000	0.017	0.37	0.77	YES	3.1
[redacted]	1	2378-TCDF	303.9016	26.06	2614.468	0.877	0.000	0.044	0.50	0.77	YES	7.7

PP

[redacted]	#	Name	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	36	Total-penta1	339.8597	27.48	57719.643		1.536	1.536	1.57	1.55	NO	428.7

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PF

	37	Total-pentafurans	339.8597	29.14	15135.997	0.911	0.405	0.405	1.42	1.55	NO	87.3
	37	Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.109	2.05	1.55	YES	39.5
	37	Total-pentafurans	339.8597	28.96	3215.600	0.911	0.086	0.086	1.35	1.55	NO	13.9
	37	Total-pentafurans	339.8597	28.82	0.000	0.911	0.000	0.079	1.16	1.55	YES	13.5
	3	23478-PeCDF	339.8597	31.55	2841.574	0.926	0.078	0.078	1.42	1.55	NO	17.6
	37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.101	1.39	1.55	NO	21.4
	37	Total-pentafurans	339.8597	31.28	0.000	0.911	0.000	0.039	2.06	1.55	YES	11.7
	37	Total-pentafurans	339.8597	30.49	0.000	0.911	0.000	0.095	1.21	1.55	YES	18.9
	37	Total-pentafurans	339.8597	30.40	2673.230	0.911	0.072	0.072	1.58	1.55	NO	14.4
	2	12378-PeCDF	339.8597	30.20	2730.489	0.896	0.071	0.071	1.47	1.55	NO	16.3
	37	Total-pentafurans	339.8597	29.85	6914.319	0.911	0.185	0.185	1.36	1.55	NO	32.5

HF

	38	Total-hexafurans	373.8208	37.56	0.000	1.032	0.000	0.030	0.76	1.24	YES	5.0
	7	123789-HxCDF	373.8208	37.44	1383.678	0.987	0.046	0.046	1.41	1.24	NO	6.5
	5	234678-HxCDF	373.8208	36.30	5440.688	1.037	0.178	0.178	1.13	1.24	NO	14.5
	6	123678-HxCDF	373.8208	35.37	3706.923	1.035	0.111	0.111	1.36	1.24	NO	15.1
	4	123478-HxCDF	373.8208	35.22	4254.605	1.068	0.131	0.131	1.36	1.24	NO	18.5
	38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.037	0.93	1.24	YES	4.4
	38	Total-hexafurans	373.8208	34.57	36886.510	1.032	1.167	1.167	1.21	1.24	NO	146.0
	38	Total-hexafurans	373.8208	34.26	719.591	1.032	0.023	0.023	1.27	1.24	NO	3.9
	38	Total-hexafurans	373.8208	33.84	0.000	1.032	0.000	0.015	1.74	1.24	YES	3.5
	38	Total-hexafurans	373.8208	33.71	40735.715	1.032	1.288	1.288	1.25	1.24	NO	157.8
	38	Total-hexafurans	373.8208	33.49	12950.859	1.032	0.410	0.410	1.30	1.24	NO	52.5

HPF

	9	1234789-HpCDF	407.7818	42.23	2584.730	1.215	0.108	0.108	0.97	1.05	NO	17.4
	39	Total-heptafurans	407.7818	40.32	87171.953	1.223	3.280	3.280	0.95	1.05	NO	612.3
	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.027	0.52	1.05	YES	6.5
	8	1234678-HpCDF	407.7818	39.52	50234.023	1.232	1.722	1.722	0.98	1.05	NO	369.2

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Furans,TF,PP,PF,HF,HPF,OF

#	Name										
35	Total-tetrafurans	303.9016	24.06	7163.616	0.877	0.159	0.159	0.72	0.77	NO	20.9
35	Total-tetrafurans	303.9016	23.91	1831.427	0.877	0.041	0.041	0.67	0.77	NO	6.2
35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.063	0.59	0.77	YES	10.2
35	Total-tetrafurans	303.9016	23.70	1670.842	0.877	0.037	0.037	0.86	0.77	NO	5.5
35	Total-tetrafurans	303.9016	23.60	3213.456	0.877	0.071	0.071	0.82	0.77	NO	6.4
35	Total-tetrafurans	303.9016	23.40	0.000	0.877	0.000	0.273	0.61	0.77	YES	41.2
35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.068	0.91	0.77	YES	10.7
35	Total-tetrafurans	303.9016	22.57	2016.293	0.877	0.045	0.045	0.67	0.77	NO	6.0
40	Total-Furans	303.9016	21.51	1598.836	1.041	0.030	0.030	0.81	0.77	NO	6.0
35	Total-tetrafurans	303.9016	25.91	0.000	0.877	0.000	0.008	2.00	0.77	YES	4.5
35	Total-tetrafurans	303.9016	25.81	4555.321	0.877	0.101	0.101	0.85	0.77	NO	13.2
35	Total-tetrafurans	303.9016	25.72	3310.270	0.877	0.074	0.074	0.73	0.77	NO	12.0
35	Total-tetrafurans	303.9016	25.56	0.000	0.877	0.000	0.025	0.49	0.77	YES	3.8
35	Total-tetrafurans	303.9016	25.47	0.000	0.877	0.000	0.019	0.91	0.77	YES	4.9
35	Total-tetrafurans	303.9016	25.35	0.000	0.877	0.000	0.025	0.90	0.77	YES	3.7
35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.053	0.91	0.77	YES	8.5
35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.170	0.93	0.77	YES	30.1
35	Total-tetrafurans	303.9016	24.73	7537.344	0.877	0.167	0.167	0.77	0.77	NO	14.1
35	Total-tetrafurans	303.9016	24.67	0.000	0.877	0.000	0.013	1.27	0.77	YES	3.6
35	Total-tetrafurans	303.9016	24.51	7041.573	0.877	0.156	0.156	0.79	0.77	NO	23.7
35	Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.052	0.91	0.77	YES	8.2
35	Total-tetrafurans	303.9016	24.21	0.000	0.877	0.000	0.091	0.64	0.77	YES	13.8
40	Total-Furans	303.9016	28.19	0.000	1.041	0.000	0.153	0.65	0.77	YES	26.3
40	Total-Furans	303.9016	27.84	0.000	1.041	0.000	0.013	0.98	0.77	YES	3.2
35	Total-tetrafurans	303.9016	27.47	0.000	0.877	0.000	0.022	0.52	0.77	YES	3.4
35	Total-tetrafurans	303.9016	27.36	2397.382	0.877	0.053	0.053	0.84	0.77	NO	9.4
35	Total-tetrafurans	303.9016	27.24	4889.153	0.877	0.109	0.109	0.87	0.77	NO	19.1
35	Total-tetrafurans	303.9016	26.29	0.000	0.877	0.000	0.067	0.56	0.77	YES	9.7
35	Total-tetrafurans	303.9016	26.20	0.000	0.877	0.000	0.017	0.37	0.77	YES	3.1
1	2378-TCDF	303.9016	26.06	2614.468	0.877	0.000	0.044	0.50	0.77	YES	7.7
37	Total-pentafurans	339.8597	29.14	15135.997	0.911	0.405	0.405	1.42	1.55	NO	87.3
37	Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.109	2.05	1.55	YES	39.5
37	Total-pentafurans	339.8597	28.96	3215.600	0.911	0.086	0.086	1.35	1.55	NO	13.9
37	Total-pentafurans	339.8597	28.82	0.000	0.911	0.000	0.079	1.16	1.55	YES	13.5
3	23478-PeCDF	339.8597	31.55	2841.574	0.926	0.078	0.078	1.42	1.55	NO	17.6
37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.101	1.39	1.55	NO	21.4
37	Total-pentafurans	339.8597	31.28	0.000	0.911	0.000	0.039	2.06	1.55	YES	11.7
37	Total-pentafurans	339.8597	30.49	0.000	0.911	0.000	0.095	1.21	1.55	YES	18.9
37	Total-pentafurans	339.8597	30.40	2673.230	0.911	0.072	0.072	1.58	1.55	NO	14.4
2	12378-PeCDF	339.8597	30.20	2730.489	0.896	0.071	0.071	1.47	1.55	NO	16.3
37	Total-pentafurans	339.8597	29.85	6914.319	0.911	0.185	0.185	1.36	1.55	NO	32.5
38	Total-hexafurans	373.8208	37.56	0.000	1.032	0.000	0.030	0.76	1.24	YES	5.0
7	123789-HxCDF	373.8208	37.44	1383.678	0.987	0.046	0.046	1.41	1.24	NO	6.5
5	234678-HxCDF	373.8208	36.30	5440.688	1.037	0.178	0.178	1.13	1.24	NO	14.5
6	123678-HxCDF	373.8208	35.37	3706.923	1.035	0.111	0.111	1.36	1.24	NO	15.1
4	123478-HxCDF	373.8208	35.22	4254.605	1.068	0.131	0.131	1.36	1.24	NO	18.5
38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.037	0.93	1.24	YES	4.4
38	Total-hexafurans	373.8208	34.57	36886.510	1.032	1.167	1.167	1.21	1.24	NO	146.0
38	Total-hexafurans	373.8208	34.26	719.591	1.032	0.023	0.023	1.27	1.24	NO	3.9

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Furans,TF,PP,PF,HF,HPF,OF

#	Name	Trace	RT	Area	RRF	%	EMPC	S/N Ratio	%F Ratio	Ref	S/N
38	Total-hexafurans	373.8208	33.84	0.000	1.032	0.000	0.015	1.74	1.24	YES	3.5
38	Total-hexafurans	373.8208	33.71	40735.715	1.032	1.288	1.288	1.25	1.24	NO	157.8
38	Total-hexafurans	373.8208	33.49	12950.859	1.032	0.410	0.410	1.30	1.24	NO	52.5
9	1234789-HpCDF	407.7818	42.23	2584.730	1.215	0.108	0.108	0.97	1.05	NO	17.4
39	Total-heptafurans	407.7818	40.32	87171.953	1.223	3.280	3.280	0.95	1.05	NO	612.3
39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.027	0.52	1.05	YES	6.5
8	1234678-HpCDF	407.7818	39.52	50234.023	1.232	1.722	1.722	0.98	1.05	NO	369.2
10	OCDF	441.7428	47.53	75344.531	1.138	4.786	4.786	0.81	0.89	NO	137.7
36	Total-penta1	339.8597	27.48	57719.643		1.536	1.536	1.57	1.55	NO	428.7

TD

#	Name	Trace	RT	Area	RRF	%	EMPC	S/N Ratio	%F Ratio	Ref	S/N
41	Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.047	1.00	0.77	YES	14.8
41	Total-tetradioxins	319.8965	23.85	3231.495	1.049	0.091	0.091	0.80	0.77	NO	20.4
11	2378-TCDD	319.8965	26.69	2783.303	1.049	0.000	0.038	0.27	0.77	YES	7.3
41	Total-tetradioxins	319.8965	26.30	970.413	1.049	0.027	0.027	0.66	0.77	NO	4.4
41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.018	2.57	0.77	YES	11.7
41	Total-tetradioxins	319.8965	25.88	895.592	1.049	0.025	0.025	0.71	0.77	NO	4.2
41	Total-tetradioxins	319.8965	25.69	0.000	1.049	0.000	0.019	1.11	0.77	YES	3.3
41	Total-tetradioxins	319.8965	25.32	1417.926	1.049	0.040	0.040	0.77	0.77	NO	9.6
41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.017	0.32	0.77	YES	4.8
41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.033	0.40	0.77	YES	8.6
41	Total-tetradioxins	319.8965	24.32	1240.532	1.049	0.035	0.035	0.79	0.77	NO	7.3
41	Total-tetradioxins	319.8965	27.26	8859.069	1.049	0.249	0.249	0.81	0.77	NO	54.8

PD

#	Name	Trace	RT	Area	RRF	%	EMPC	S/N Ratio	%F Ratio	Ref	S/N
42	Total-pentadioxins	355.8546	32.20	0.000	0.998	0.000	0.026	2.37	1.55	YES	6.7
12	12378-PeCDD	355.8546	31.81	3177.448	0.998	0.000	0.100	1.00	1.55	YES	15.8
42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.077	2.01	1.55	YES	11.5
42	Total-pentadioxins	355.8546	30.56	0.000	0.998	0.000	0.084	1.86	1.55	YES	16.3
42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.098	2.08	1.55	YES	22.7
42	Total-pentadioxins	355.8546	30.22	3034.657	0.998	0.116	0.116	1.46	1.55	NO	18.8
42	Total-pentadioxins	355.8546	29.59	1690.809	0.998	0.065	0.065	1.62	1.55	NO	11.7
42	Total-pentadioxins	355.8546	29.13	2780.657	0.998	0.106	0.106	1.67	1.55	NO	23.6
42	Total-pentadioxins	355.8546	29.07	4474.590	0.998	0.171	0.171	1.65	1.55	NO	27.7

HD

#	Name	Trace	RT	Area	RRF	%	EMPC	S/N Ratio	%F Ratio	Ref	S/N
14	123678-HxCDD	389.8157	36.59	11347.993	0.918	0.457	0.457	1.36	1.24	NO	64.3
13	123478-HxCDD	389.8157	36.46	4293.886	0.971	0.174	0.174	1.14	1.24	NO	21.3
43	Total-hexadioxins	389.8157	35.48	27523.949	0.940	1.116	1.116	1.10	1.24	NO	91.7
43	Total-hexadioxins	389.8157	35.09	4809.727	0.940	0.195	0.195	1.29	1.24	NO	20.9
43	Total-hexadioxins	389.8157	34.30	17053.051	0.940	0.691	0.691	1.34	1.24	NO	86.9
15	123789-HxCDD	389.8157	37.02	8100.157	0.932	0.331	0.331	1.13	1.24	NO	40.3
43	Total-hexadioxins	389.8157	36.77	1768.862	0.940	0.072	0.072	1.23	1.24	NO	8.2

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HPD

	#	Name										
	16	1234678-HpCDD	423.7766	41.34	190960.446	1.017	8.585	8.585	1.04	1.05	NO	748.0
	44	Total-heptadioxins	423.7766	40.08	148179.391	1.017	6.662	6.662	1.07	1.05	NO	622.1

Dioxins,TD,PD,HD,HPD,OD

	#	Name										
	41	Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.047	1.00	0.77	YES	14.8
	41	Total-tetradioxins	319.8965	23.85	3231.495	1.049	0.091	0.091	0.80	0.77	NO	20.4
	11	2378-TCDD	319.8965	26.69	2783.303	1.049	0.000	0.038	0.27	0.77	YES	7.3
	41	Total-tetradioxins	319.8965	26.30	970.413	1.049	0.027	0.027	0.66	0.77	NO	4.4
	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.018	2.57	0.77	YES	11.7
	41	Total-tetradioxins	319.8965	25.88	895.592	1.049	0.025	0.025	0.71	0.77	NO	4.2
	41	Total-tetradioxins	319.8965	25.69	0.000	1.049	0.000	0.019	1.11	0.77	YES	3.3
	41	Total-tetradioxins	319.8965	25.32	1417.926	1.049	0.040	0.040	0.77	0.77	NO	9.6
	41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.017	0.32	0.77	YES	4.8
	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.033	0.40	0.77	YES	8.6
	41	Total-tetradioxins	319.8965	24.32	1240.532	1.049	0.035	0.035	0.79	0.77	NO	7.3
	41	Total-tetradioxins	319.8965	27.26	8859.069	1.049	0.249	0.249	0.81	0.77	NO	54.8
	42	Total-pentadioxins	355.8546	32.20	0.000	0.998	0.000	0.026	2.37	1.55	YES	6.7
	12	12378-PeCDD	355.8546	31.81	3177.448	0.998	0.000	0.100	1.00	1.55	YES	15.8
	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.077	2.01	1.55	YES	11.5
	42	Total-pentadioxins	355.8546	30.56	0.000	0.998	0.000	0.084	1.86	1.55	YES	16.3
	42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.098	2.08	1.55	YES	22.7
	42	Total-pentadioxins	355.8546	30.22	3034.657	0.998	0.116	0.116	1.46	1.55	NO	18.8
	42	Total-pentadioxins	355.8546	29.59	1690.809	0.998	0.065	0.065	1.62	1.55	NO	11.7
	42	Total-pentadioxins	355.8546	29.13	2780.657	0.998	0.106	0.106	1.67	1.55	NO	23.6
	42	Total-pentadioxins	355.8546	29.07	4474.590	0.998	0.171	0.171	1.65	1.55	NO	27.7
	14	123678-HxCDD	389.8157	36.59	11347.993	0.918	0.457	0.457	1.36	1.24	NO	64.3
	13	123478-HxCDD	389.8157	36.46	4293.886	0.971	0.174	0.174	1.14	1.24	NO	21.3
	43	Total-hexadioxins	389.8157	35.48	27523.949	0.940	1.116	1.116	1.10	1.24	NO	91.7
	43	Total-hexadioxins	389.8157	35.09	4809.727	0.940	0.195	0.195	1.29	1.24	NO	20.9
	43	Total-hexadioxins	389.8157	34.30	17053.051	0.940	0.691	0.691	1.34	1.24	NO	86.9
	15	123789-HxCDD	389.8157	37.02	8100.157	0.932	0.331	0.331	1.13	1.24	NO	40.3
	43	Total-hexadioxins	389.8157	36.77	1768.862	0.940	0.072	0.072	1.23	1.24	NO	8.2
	16	1234678-HpCDD	423.7766	41.34	190960.446	1.017	8.585	8.585	1.04	1.05	NO	748.0
	44	Total-heptadioxins	423.7766	40.08	148179.391	1.017	6.662	6.662	1.07	1.05	NO	622.1
	17	OCDD	457.7377	47.25	953858.594	1.008	68.354	68.354	0.87	0.89	NO	3169.2

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TotalTEQ,Furans,Dioxins

#	Name	Theo. m/z	RT	Area Ratio	RRF M...	Conc. pg	EMRC	S/N Ratio	I. Ratio	RT Flag	S/N
35	Total-tetrafurans	303.9016	24.06	7163.616	0.877	0.159	0.159	0.72	0.77	NO	20.9
35	Total-tetrafurans	303.9016	23.91	1831.427	0.877	0.041	0.041	0.67	0.77	NO	6.2
35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.063	0.59	0.77	YES	10.2
35	Total-tetrafurans	303.9016	23.70	1670.842	0.877	0.037	0.037	0.86	0.77	NO	5.5
35	Total-tetrafurans	303.9016	23.60	3213.456	0.877	0.071	0.071	0.82	0.77	NO	6.4
35	Total-tetrafurans	303.9016	23.40	0.000	0.877	0.000	0.273	0.61	0.77	YES	41.2
35	Total-tetrafurans	303.9016	22.84	0.000	0.877	0.000	0.068	0.91	0.77	YES	10.7
35	Total-tetrafurans	303.9016	22.57	2016.293	0.877	0.045	0.045	0.67	0.77	NO	6.0
40	Total-Furans	303.9016	21.51	1598.836	1.041	0.030	0.030	0.81	0.77	NO	6.0
35	Total-tetrafurans	303.9016	25.91	0.000	0.877	0.000	0.008	2.00	0.77	YES	4.5
35	Total-tetrafurans	303.9016	25.81	4555.321	0.877	0.101	0.101	0.85	0.77	NO	13.2
35	Total-tetrafurans	303.9016	25.72	3310.270	0.877	0.074	0.074	0.73	0.77	NO	12.0
35	Total-tetrafurans	303.9016	25.56	0.000	0.877	0.000	0.025	0.49	0.77	YES	3.8
35	Total-tetrafurans	303.9016	25.47	0.000	0.877	0.000	0.019	0.91	0.77	YES	4.9
35	Total-tetrafurans	303.9016	25.35	0.000	0.877	0.000	0.025	0.90	0.77	YES	3.7
35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.053	0.91	0.77	YES	8.5
35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.170	0.93	0.77	YES	30.1
35	Total-tetrafurans	303.9016	24.73	7537.344	0.877	0.167	0.167	0.77	0.77	NO	14.1
35	Total-tetrafurans	303.9016	24.67	0.000	0.877	0.000	0.013	1.27	0.77	YES	3.6
35	Total-tetrafurans	303.9016	24.51	7041.573	0.877	0.156	0.156	0.79	0.77	NO	23.7
35	Total-tetrafurans	303.9016	24.32	0.000	0.877	0.000	0.052	0.91	0.77	YES	8.2
35	Total-tetrafurans	303.9016	24.21	0.000	0.877	0.000	0.091	0.64	0.77	YES	13.8
40	Total-Furans	303.9016	28.19	0.000	1.041	0.000	0.153	0.65	0.77	YES	26.3
40	Total-Furans	303.9016	27.84	0.000	1.041	0.000	0.013	0.98	0.77	YES	3.2
35	Total-tetrafurans	303.9016	27.47	0.000	0.877	0.000	0.022	0.52	0.77	YES	3.4
35	Total-tetrafurans	303.9016	27.36	2397.382	0.877	0.053	0.053	0.84	0.77	NO	9.4
35	Total-tetrafurans	303.9016	27.24	4889.153	0.877	0.109	0.109	0.87	0.77	NO	19.1
35	Total-tetrafurans	303.9016	26.29	0.000	0.877	0.000	0.067	0.56	0.77	YES	9.7
35	Total-tetrafurans	303.9016	26.20	0.000	0.877	0.000	0.017	0.37	0.77	YES	3.1
1	2378-TCDF	303.9016	26.06	2614.468	0.877	0.000	0.044	0.50	0.77	YES	7.7
37	Total-pentafurans	339.8597	29.14	15135.997	0.911	0.405	0.405	1.42	1.55	NO	87.3
37	Total-pentafurans	339.8597	29.06	0.000	0.911	0.000	0.109	2.05	1.55	YES	39.5
37	Total-pentafurans	339.8597	28.96	3215.600	0.911	0.086	0.086	1.35	1.55	NO	13.9
37	Total-pentafurans	339.8597	28.82	0.000	0.911	0.000	0.079	1.16	1.55	YES	13.5
3	23478-PeCDF	339.8597	31.55	2841.574	0.926	0.078	0.078	1.42	1.55	NO	17.6
37	Total-pentafurans	339.8597	31.40	0.000	0.911	0.000	0.101	1.39	1.55	NO	21.4
37	Total-pentafurans	339.8597	31.28	0.000	0.911	0.000	0.039	2.06	1.55	YES	11.7
37	Total-pentafurans	339.8597	30.49	0.000	0.911	0.000	0.095	1.21	1.55	YES	18.9
37	Total-pentafurans	339.8597	30.40	2673.230	0.911	0.072	0.072	1.58	1.55	NO	14.4
2	12378-PeCDF	339.8597	30.20	2730.489	0.896	0.071	0.071	1.47	1.55	NO	16.3
37	Total-pentafurans	339.8597	29.85	6914.319	0.911	0.185	0.185	1.36	1.55	NO	32.5
38	Total-hexafurans	373.8208	37.56	0.000	1.032	0.000	0.030	0.76	1.24	YES	5.0
7	123789-HxCDF	373.8208	37.44	1383.678	0.987	0.046	0.046	1.41	1.24	NO	6.5
5	234678-HxCDF	373.8208	36.30	5440.688	1.037	0.178	0.178	1.13	1.24	NO	14.5
6	123678-HxCDF	373.8208	35.37	3706.923	1.035	0.111	0.111	1.36	1.24	NO	15.1
4	123478-HxCDF	373.8208	35.22	4254.605	1.068	0.131	0.131	1.36	1.24	NO	18.5
38	Total-hexafurans	373.8208	35.06	0.000	1.032	0.000	0.037	0.93	1.24	YES	4.4
38	Total-hexafurans	373.8208	34.57	36886.510	1.032	1.167	1.167	1.21	1.24	NO	146.0
38	Total-hexafurans	373.8208	34.26	719.591	1.032	0.023	0.023	1.27	1.24	NO	3.9

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TotalTEQ,Furans,Dioxins

	#	Name										
	38	Total-hexafurans	373.8208	33.84	0.000	1.032	0.000	0.015	1.74	1.24	YES	3.5
	38	Total-hexafurans	373.8208	33.71	40735.715	1.032	1.288	1.288	1.25	1.24	NO	157.8
	38	Total-hexafurans	373.8208	33.49	12950.859	1.032	0.410	0.410	1.30	1.24	NO	52.5
	9	1234789-HpCDF	407.7818	42.23	2584.730	1.215	0.108	0.108	0.97	1.05	NO	17.4
	39	Total-heptafurans	407.7818	40.32	87171.953	1.223	3.280	3.280	0.95	1.05	NO	612.3
	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.027	0.52	1.05	YES	6.5
	8	1234678-HpCDF	407.7818	39.52	50234.023	1.232	1.722	1.722	0.98	1.05	NO	369.2
	10	OCDF	441.7428	47.53	75344.531	1.138	4.786	4.786	0.81	0.89	NO	137.7
	36	Total-penta1	339.8597	27.48	57719.643		1.536	1.536	1.57	1.55	NO	428.7
	41	Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.047	1.00	0.77	YES	14.8
	41	Total-tetradioxins	319.8965	23.85	3231.495	1.049	0.091	0.091	0.80	0.77	NO	20.4
	11	2378-TCDD	319.8965	26.69	2783.303	1.049	0.000	0.038	0.27	0.77	YES	7.3
	41	Total-tetradioxins	319.8965	26.30	970.413	1.049	0.027	0.027	0.66	0.77	NO	4.4
	41	Total-tetradioxins	319.8965	26.05	0.000	1.049	0.000	0.018	2.57	0.77	YES	11.7
	41	Total-tetradioxins	319.8965	25.88	895.592	1.049	0.025	0.025	0.71	0.77	NO	4.2
	41	Total-tetradioxins	319.8965	25.69	0.000	1.049	0.000	0.019	1.11	0.77	YES	3.3
	41	Total-tetradioxins	319.8965	25.32	1417.926	1.049	0.040	0.040	0.77	0.77	NO	9.6
	41	Total-tetradioxins	319.8965	25.05	0.000	1.049	0.000	0.017	0.32	0.77	YES	4.8
	41	Total-tetradioxins	319.8965	24.84	0.000	1.049	0.000	0.033	0.40	0.77	YES	8.6
	41	Total-tetradioxins	319.8965	24.32	1240.532	1.049	0.035	0.035	0.79	0.77	NO	7.3
	41	Total-tetradioxins	319.8965	27.26	8859.069	1.049	0.249	0.249	0.81	0.77	NO	54.8
	42	Total-pentadioxins	355.8546	32.20	0.000	0.998	0.000	0.026	2.37	1.55	YES	6.7
	12	12378-PeCDD	355.8546	31.81	3177.448	0.998	0.000	0.100	1.00	1.55	YES	15.8
	42	Total-pentadioxins	355.8546	30.75	0.000	0.998	0.000	0.077	2.01	1.55	YES	11.5
	42	Total-pentadioxins	355.8546	30.56	0.000	0.998	0.000	0.084	1.86	1.55	YES	16.3
	42	Total-pentadioxins	355.8546	30.43	0.000	0.998	0.000	0.098	2.08	1.55	YES	22.7
	42	Total-pentadioxins	355.8546	30.22	3034.657	0.998	0.116	0.116	1.46	1.55	NO	18.8
	42	Total-pentadioxins	355.8546	29.59	1690.809	0.998	0.065	0.065	1.62	1.55	NO	11.7
	42	Total-pentadioxins	355.8546	29.13	2780.657	0.998	0.106	0.106	1.67	1.55	NO	23.6
	42	Total-pentadioxins	355.8546	29.07	4474.590	0.998	0.171	0.171	1.65	1.55	NO	27.7
	14	123678-HxCDD	389.8157	36.59	11347.993	0.918	0.457	0.457	1.36	1.24	NO	64.3
	13	123478-HxCDD	389.8157	36.46	4293.886	0.971	0.174	0.174	1.14	1.24	NO	21.3
	43	Total-hexadioxins	389.8157	35.48	27523.949	0.940	1.116	1.116	1.10	1.24	NO	91.7
	43	Total-hexadioxins	389.8157	35.09	4809.727	0.940	0.195	0.195	1.29	1.24	NO	20.9
	43	Total-hexadioxins	389.8157	34.30	17053.051	0.940	0.691	0.691	1.34	1.24	NO	86.9
	15	123789-HxCDD	389.8157	37.02	8100.157	0.932	0.331	0.331	1.13	1.24	NO	40.3
	43	Total-hexadioxins	389.8157	36.77	1768.862	0.940	0.072	0.072	1.23	1.24	NO	8.2
	16	1234678-HpCDD	423.7766	41.34	190960.446	1.017	8.585	8.585	1.04	1.05	NO	748.0
	44	Total-heptadioxins	423.7766	40.08	148179.391	1.017	6.662	6.662	1.07	1.05	NO	622.1
	17	OCDD	457.7377	47.25	953858.594	1.008	68.354	68.354	0.87	0.89	NO	3169.2

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PFK1

	#	Name	Mass	RT	Area Ratio	RRF M...	[M]	EMPC	R Ratio	S/N Ratio	R Fit	S/N
	48	FUNCTION1 PFK	330.9792	23.16	0.000							1.3
	48	FUNCTION1 PFK	330.9792	22.76	0.000							5.8
	48	FUNCTION1 PFK	330.9792	22.52	0.000							11.5
	48	FUNCTION1 PFK	330.9792	22.39	0.000							14.0
	48	FUNCTION1 PFK	330.9792	22.22	0.000							17.8
	48	FUNCTION1 PFK	330.9792	21.83	0.000							27.3
	48	FUNCTION1 PFK	330.9792	21.72	0.000							30.8
	48	FUNCTION1 PFK	330.9792	21.63	0.000							31.7
	48	FUNCTION1 PFK	330.9792	21.55	0.000							33.6
	48	FUNCTION1 PFK	330.9792	21.45	0.000							37.2
	48	FUNCTION1 PFK	330.9792	21.33	0.000							39.3
	48	FUNCTION1 PFK	330.9792	21.27	0.000							39.3
	48	FUNCTION1 PFK	330.9792	21.12	0.000							44.4
	48	FUNCTION1 PFK	330.9792	26.83	0.000							1.4
	48	FUNCTION1 PFK	330.9792	26.68	0.000							1.7
	48	FUNCTION1 PFK	330.9792	26.47	0.000							1.2
	48	FUNCTION1 PFK	330.9792	26.23	0.000							0.0
	48	FUNCTION1 PFK	330.9792	25.94	0.000							0.5
	48	FUNCTION1 PFK	330.9792	25.87	0.000							1.8
	48	FUNCTION1 PFK	330.9792	25.76	0.000							2.1
	48	FUNCTION1 PFK	330.9792	25.72	0.000							2.4
	48	FUNCTION1 PFK	330.9792	25.26	0.000							1.3
	48	FUNCTION1 PFK	330.9792	25.17	0.000							1.0
	48	FUNCTION1 PFK	330.9792	24.72	0.000							0.4
	48	FUNCTION1 PFK	330.9792	24.61	0.000							1.2
	48	FUNCTION1 PFK	330.9792	24.43	0.000							0.5
	48	FUNCTION1 PFK	330.9792	23.61	0.000							0.4
	48	FUNCTION1 PFK	330.9792	23.36	0.000							1.4
	48	FUNCTION1 PFK	330.9792	23.22	0.000							1.3
	48	FUNCTION1 PFK	330.9792	28.26	0.000							0.8
	48	FUNCTION1 PFK	330.9792	28.11	0.000							1.3
	48	FUNCTION1 PFK	330.9792	28.04	0.000							1.5
	48	FUNCTION1 PFK	330.9792	27.96	0.000							1.0
	48	FUNCTION1 PFK	330.9792	27.77	0.000							3.4
	48	FUNCTION1 PFK	330.9792	27.62	0.000							0.5
	48	FUNCTION1 PFK	330.9792	27.39	0.000							0.8
	48	FUNCTION1 PFK	330.9792	27.33	0.000							0.6
	48	FUNCTION1 PFK	330.9792	27.23	0.000							0.3
	48	FUNCTION1 PFK	330.9792	27.17	0.000							1.5
	48	FUNCTION1 PFK	330.9792	27.02	0.000							1.5

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PFK2

	49	FUNCTION2 PFK	366.9792	28.76	0.000	0.000				1.2
	49	FUNCTION2 PFK	366.9792	28.71	0.000	0.000				0.7
	49	FUNCTION2 PFK	366.9792	28.44	0.000	0.000				1.7
	49	FUNCTION2 PFK	366.9792	28.38	0.000	0.000				0.7
	49	FUNCTION2 PFK	366.9792	30.29	0.000	0.000				0.3
	49	FUNCTION2 PFK	366.9792	30.19	0.000	0.000				1.2
	49	FUNCTION2 PFK	366.9792	30.15	0.000	0.000				1.4
	49	FUNCTION2 PFK	366.9792	30.11	0.000	0.000				1.3
	49	FUNCTION2 PFK	366.9792	30.05	0.000	0.000				1.6
	49	FUNCTION2 PFK	366.9792	29.99	0.000	0.000				0.8
	49	FUNCTION2 PFK	366.9792	29.89	0.000	0.000				2.2
	49	FUNCTION2 PFK	366.9792	29.82	0.000	0.000				3.5
	49	FUNCTION2 PFK	366.9792	29.74	0.000	0.000				4.9
	49	FUNCTION2 PFK	366.9792	29.63	0.000	0.000				6.1
	49	FUNCTION2 PFK	366.9792	29.53	0.000	0.000				7.6
	49	FUNCTION2 PFK	366.9792	29.38	0.000	0.000				5.9
	49	FUNCTION2 PFK	366.9792	29.34	0.000	0.000				5.0
	49	FUNCTION2 PFK	366.9792	29.20	0.000	0.000				4.6
	49	FUNCTION2 PFK	366.9792	29.05	0.000	0.000				3.6
	49	FUNCTION2 PFK	366.9792	29.00	0.000	0.000				2.5
	49	FUNCTION2 PFK	366.9792	31.74	0.000	0.000				0.7
	49	FUNCTION2 PFK	366.9792	31.69	0.000	0.000				0.6
	49	FUNCTION2 PFK	366.9792	31.63	0.000	0.000				0.7
	49	FUNCTION2 PFK	366.9792	31.58	0.000	0.000				0.8
	49	FUNCTION2 PFK	366.9792	31.54	0.000	0.000				1.3
	49	FUNCTION2 PFK	366.9792	31.42	0.000	0.000				1.2
	49	FUNCTION2 PFK	366.9792	31.36	0.000	0.000				1.8
	49	FUNCTION2 PFK	366.9792	31.31	0.000	0.000				1.4
	49	FUNCTION2 PFK	366.9792	31.01	0.000	0.000				1.3
	49	FUNCTION2 PFK	366.9792	30.95	0.000	0.000				0.7
	49	FUNCTION2 PFK	366.9792	30.90	0.000	0.000				1.2
	49	FUNCTION2 PFK	366.9792	30.73	0.000	0.000				1.6
	49	FUNCTION2 PFK	366.9792	30.68	0.000	0.000				1.5
	49	FUNCTION2 PFK	366.9792	30.57	0.000	0.000				1.6
	49	FUNCTION2 PFK	366.9792	30.51	0.000	0.000				1.9
	49	FUNCTION2 PFK	366.9792	30.44	0.000	0.000				1.3
	49	FUNCTION2 PFK	366.9792	32.99	0.000	0.000				0.7
	49	FUNCTION2 PFK	366.9792	32.82	0.000	0.000				1.2
	49	FUNCTION2 PFK	366.9792	32.68	0.000	0.000				0.8
	49	FUNCTION2 PFK	366.9792	32.62	0.000	0.000				1.2
	49	FUNCTION2 PFK	366.9792	32.52	0.000	0.000				0.3
	49	FUNCTION2 PFK	366.9792	32.45	0.000	0.000				0.5
	49	FUNCTION2 PFK	366.9792	32.21	0.000	0.000				1.7
	49	FUNCTION2 PFK	366.9792	32.10	0.000	0.000				1.1
	49	FUNCTION2 PFK	366.9792	32.03	0.000	0.000				2.0

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PFK3

[redacted]	#	Name	Mass	RT	Area	ARF M...	Ht	EMPG	T. Ratio	T. Ratio	T. Ri...	S/N
	50	FUNCTION3 PFK	380.9760	34.36	0.000		0.000					1.0
	50	FUNCTION3 PFK	380.9760	34.30	0.000		0.000					1.2
	50	FUNCTION3 PFK	380.9760	33.72	0.000		0.000					20.1
	50	FUNCTION3 PFK	380.9760	33.45	0.000		0.000					33.1
	50	FUNCTION3 PFK	380.9760	33.33	0.000		0.000					37.4
	50	FUNCTION3 PFK	380.9760	33.16	0.000		0.000					45.6
	50	FUNCTION3 PFK	380.9760	38.31	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	38.07	0.000		0.000					1.0
	50	FUNCTION3 PFK	380.9760	37.83	0.000		0.000					2.3
	50	FUNCTION3 PFK	380.9760	37.74	0.000		0.000					3.0
	50	FUNCTION3 PFK	380.9760	37.42	0.000		0.000					11.0
	50	FUNCTION3 PFK	380.9760	37.33	0.000		0.000					9.8
	50	FUNCTION3 PFK	380.9760	37.11	0.000		0.000					2.7
	50	FUNCTION3 PFK	380.9760	36.38	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	36.34	0.000		0.000					1.0
	50	FUNCTION3 PFK	380.9760	36.24	0.000		0.000					0.5
	50	FUNCTION3 PFK	380.9760	36.15	0.000		0.000					1.4
	50	FUNCTION3 PFK	380.9760	36.08	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	35.84	0.000		0.000					0.9
	50	FUNCTION3 PFK	380.9760	35.40	0.000		0.000					0.7

PFK4

[redacted]	#	Name	Mass	RT	Area	ARF M...	Ht	EMPG	T. Ratio	T. Ratio	T. Ri...	S/N
	51	FUNCTION4 PFK	430.9728	38.59	0.000							38.0
	51	FUNCTION4 PFK	430.9728	44.14	0.000							0.4
	51	FUNCTION4 PFK	430.9728	43.55	0.000							0.5
	51	FUNCTION4 PFK	430.9728	42.87	0.000							0.4
	51	FUNCTION4 PFK	430.9728	42.08	0.000							0.6
	51	FUNCTION4 PFK	430.9728	41.86	0.000							1.0
	51	FUNCTION4 PFK	430.9728	41.82	0.000							1.6
	51	FUNCTION4 PFK	430.9728	41.73	0.000							1.5
	51	FUNCTION4 PFK	430.9728	41.28	0.000							0.8
	51	FUNCTION4 PFK	430.9728	41.04	0.000							0.0
	51	FUNCTION4 PFK	430.9728	40.87	0.000							1.3
	51	FUNCTION4 PFK	430.9728	40.80	0.000							0.8
	51	FUNCTION4 PFK	430.9728	40.08	0.000							1.7
	51	FUNCTION4 PFK	430.9728	39.85	0.000							2.0
	51	FUNCTION4 PFK	430.9728	39.66	0.000							7.5
	51	FUNCTION4 PFK	430.9728	39.51	0.000							12.2
	51	FUNCTION4 PFK	430.9728	38.66	0.000							36.6
	51	FUNCTION4 PFK	430.9728	44.28	0.000							0.5

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PFK5

	52	FUNCTION5 PFK	480.9696	46.47	0.000					0.4
	52	FUNCTION5 PFK	480.9696	46.35	0.000					0.7
	52	FUNCTION5 PFK	480.9696	46.30	0.000					1.4
	52	FUNCTION5 PFK	480.9696	46.19	0.000					1.1
	52	FUNCTION5 PFK	480.9696	45.91	0.000					1.3
	52	FUNCTION5 PFK	480.9696	45.86	0.000					1.2
	52	FUNCTION5 PFK	480.9696	45.82	0.000					1.0
	52	FUNCTION5 PFK	480.9696	45.78	0.000					2.0
	52	FUNCTION5 PFK	480.9696	45.75	0.000					2.2
	52	FUNCTION5 PFK	480.9696	45.66	0.000					0.5
	52	FUNCTION5 PFK	480.9696	45.34	0.000					0.5
	52	FUNCTION5 PFK	480.9696	45.19	0.000					1.1
	52	FUNCTION5 PFK	480.9696	45.14	0.000					1.3
	52	FUNCTION5 PFK	480.9696	45.06	0.000					0.5
	52	FUNCTION5 PFK	480.9696	48.82	0.000					1.7
	52	FUNCTION5 PFK	480.9696	48.68	0.000					0.8
	52	FUNCTION5 PFK	480.9696	48.55	0.000					3.2
	52	FUNCTION5 PFK	480.9696	48.53	0.000					2.5
	52	FUNCTION5 PFK	480.9696	48.46	0.000					4.8
	52	FUNCTION5 PFK	480.9696	48.41	0.000					4.2
	52	FUNCTION5 PFK	480.9696	48.34	0.000					0.9
	52	FUNCTION5 PFK	480.9696	47.95	0.000					0.3
	52	FUNCTION5 PFK	480.9696	47.75	0.000					2.0
	52	FUNCTION5 PFK	480.9696	47.68	0.000					1.9
	52	FUNCTION5 PFK	480.9696	47.63	0.000					1.4
	52	FUNCTION5 PFK	480.9696	47.47	0.000					1.2
	52	FUNCTION5 PFK	480.9696	47.28	0.000					1.5
	52	FUNCTION5 PFK	480.9696	47.03	0.000					1.0
	52	FUNCTION5 PFK	480.9696	46.71	0.000					1.3
	52	FUNCTION5 PFK	480.9696	46.67	0.000					0.7
	52	FUNCTION5 PFK	480.9696	48.93	0.000					0.6
	52	FUNCTION5 PFK	480.9696	48.86	0.000					0.5

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ETHERS1

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1-2...	S/N
[redacted]	53	FUNCTION1 HXCD...	375.8364	26.08	0.000		0.000					3.1
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.82	0.000		0.000					1.7
[redacted]	53	FUNCTION1 HXCD...	375.8364	25.12	0.000		0.000					7.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.55	0.000		0.000					2.4
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.33	0.000		0.000					3.8
[redacted]	53	FUNCTION1 HXCD...	375.8364	23.93	0.000		0.000					52.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	23.76	0.000		0.000					4.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	23.34	0.000		0.000					1.8
[redacted]	53	FUNCTION1 HXCD...	375.8364	22.63	0.000		0.000					2.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	22.45	0.000		0.000					1.9
[redacted]	53	FUNCTION1 HXCD...	375.8364	22.39	0.000		0.000					3.7
[redacted]	53	FUNCTION1 HXCD...	375.8364	21.81	0.000		0.000					1.9
[redacted]	53	FUNCTION1 HXCD...	375.8364	21.67	0.000		0.000					2.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	28.04	0.000		0.000					2.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	27.35	0.000		0.000					2.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	27.11	0.000		0.000					2.6

ETHERS2

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1-2...	S/N
[redacted]	54	FUNCTION1 HPCD...	409.7974	28.16	0.000		0.000					2.0
[redacted]	54	FUNCTION1 HPCD...	409.7974	27.23	0.000		0.000					1.5
[redacted]	54	FUNCTION1 HPCD...	409.7974	25.53	0.000		0.000					2.1
[redacted]	54	FUNCTION1 HPCD...	409.7974	25.03	0.000		0.000					2.2
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.67	0.000		0.000					6.4
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.37	0.000		0.000					1.5
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.24	0.000		0.000					4.1
[redacted]	54	FUNCTION1 HPCD...	409.7974	22.42	0.000		0.000					1.3
[redacted]	54	FUNCTION1 HPCD...	409.7974	21.66	0.000		0.000					1.8
[redacted]	54	FUNCTION1 HPCD...	409.7974	21.25	0.000		0.000					1.6
[redacted]	54	FUNCTION1 HPCD...	409.7974	21.13	0.000		0.000					3.6

ETHERS3

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1-2...	S/N
[redacted]	55	FUNCTION2 HPCD...	409.7974	32.09	0.000		0.000					2.0
[redacted]	55	FUNCTION2 HPCD...	409.7974	31.39	0.000		0.000					1.7
[redacted]	55	FUNCTION2 HPCD...	409.7974	30.96	0.000		0.000					2.8
[redacted]	55	FUNCTION2 HPCD...	409.7974	30.92	0.000		0.000					4.1
[redacted]	55	FUNCTION2 HPCD...	409.7974	29.60	0.000		0.000					1.4

ETHERS4

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1-2...	S/N

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ETHERS5

	57	FUNCTION4 NCDPE	479.7165	39.35	0.000	0.000					3.4
	57	FUNCTION4 NCDPE	479.7165	39.11	0.000	0.000					127.9

ETHERS6

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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

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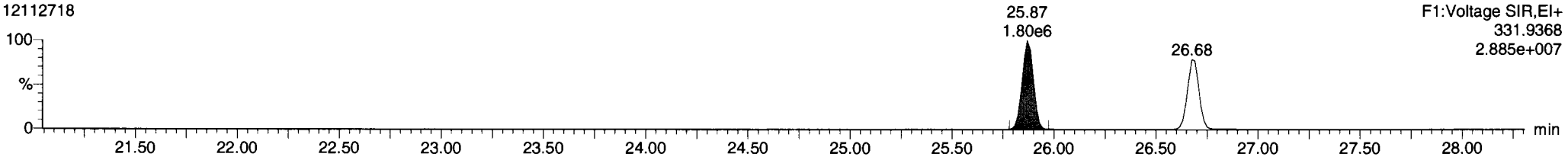
13C-1234-TCDD



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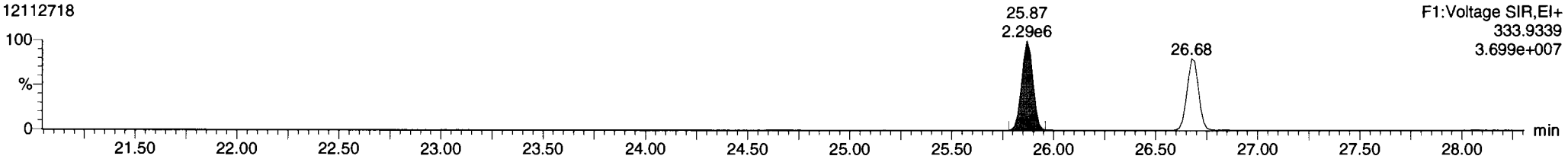

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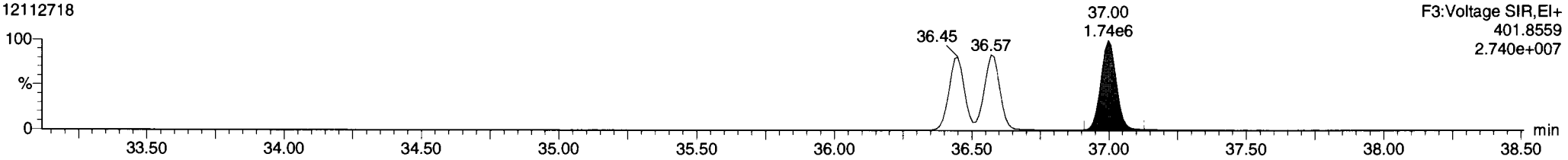

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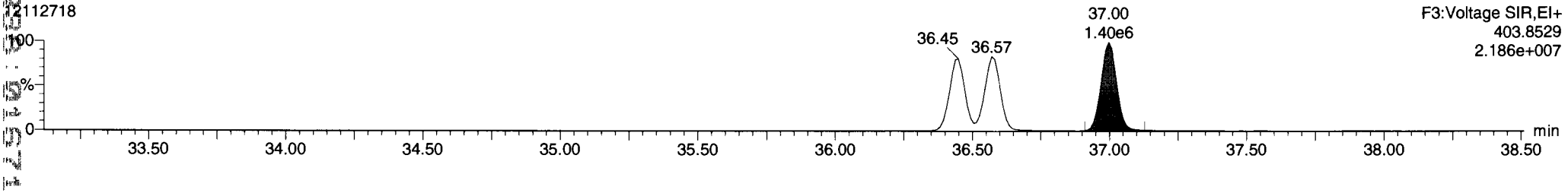

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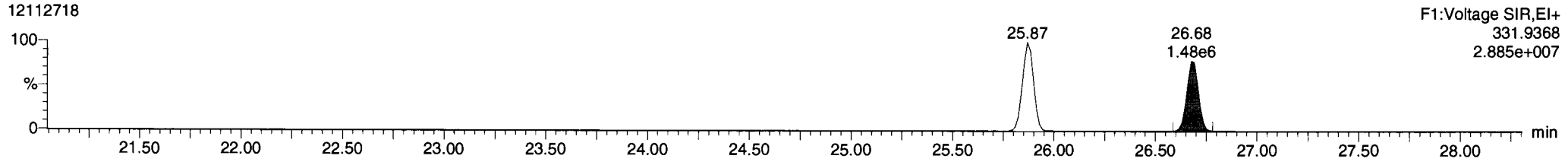
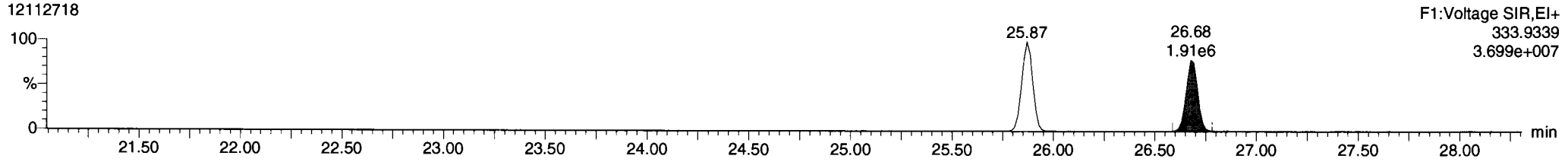
Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

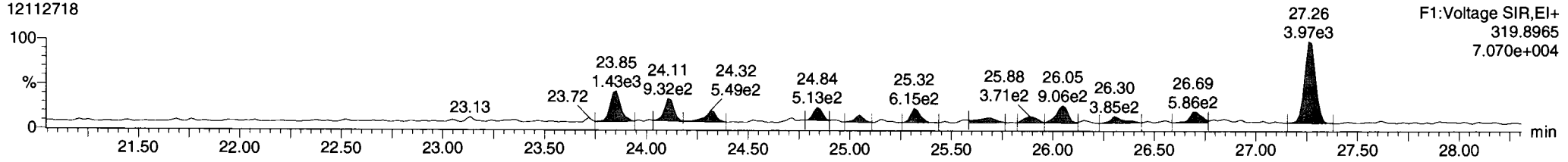
13C-2378-TCDD



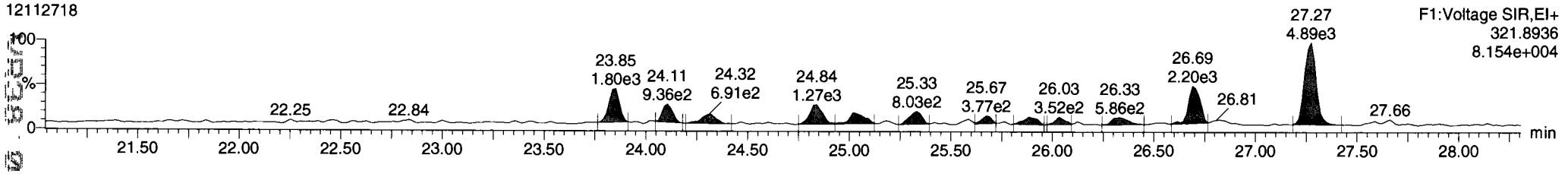
13C-2378-TCDD



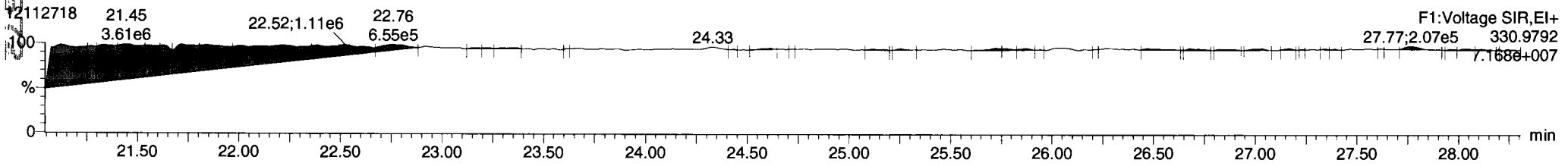
Total-tetradioxins



Total-tetradioxins



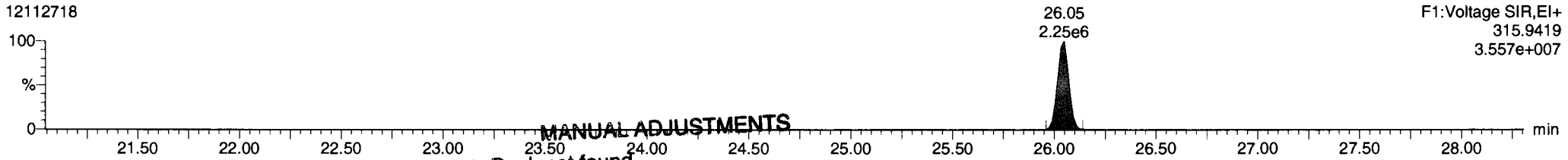
FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:33 Pacific Standard Time

Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

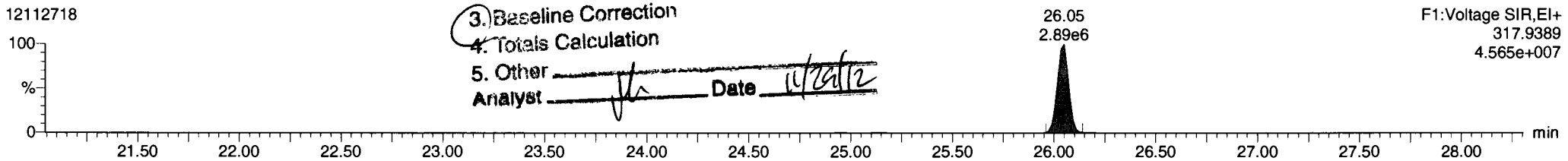


MANUAL ADJUSTMENTS

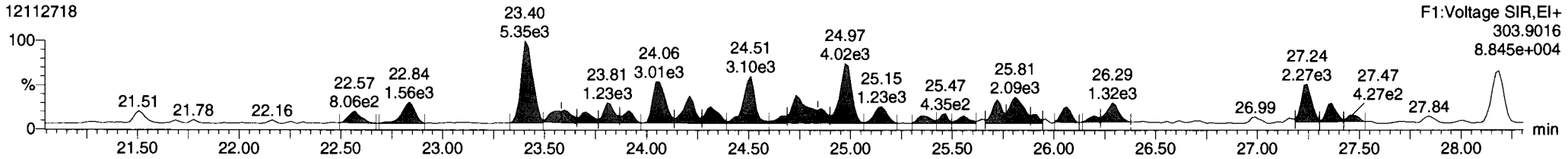
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

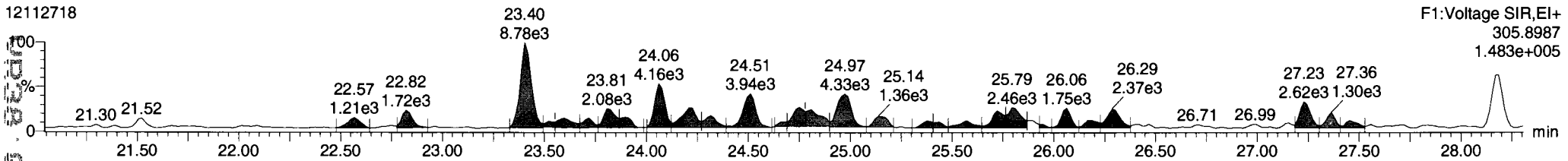
13C-2378-TCDF



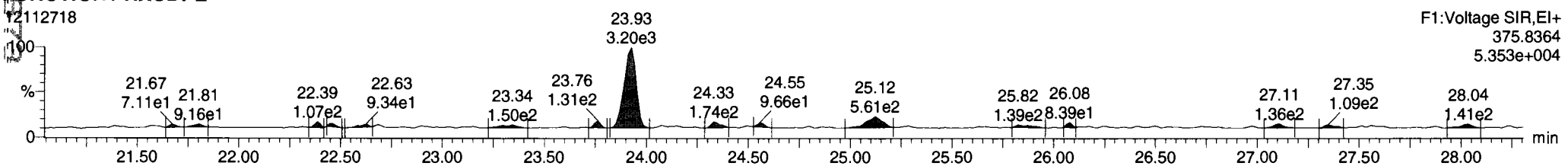
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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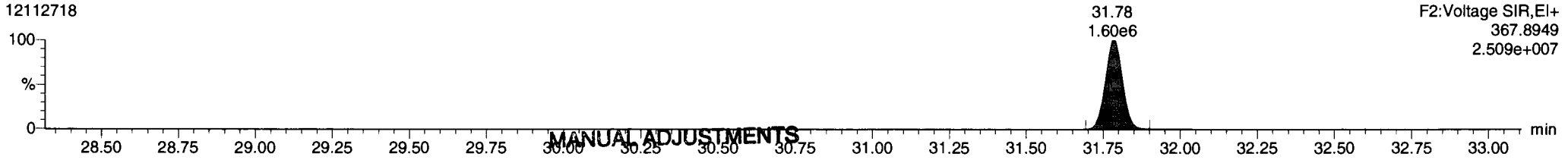
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:33 Pacific Standard Time

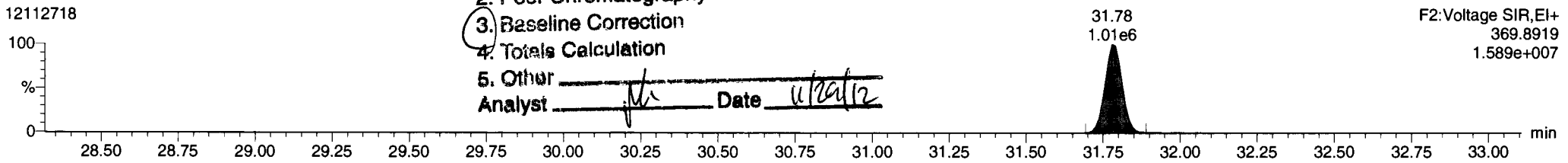
Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

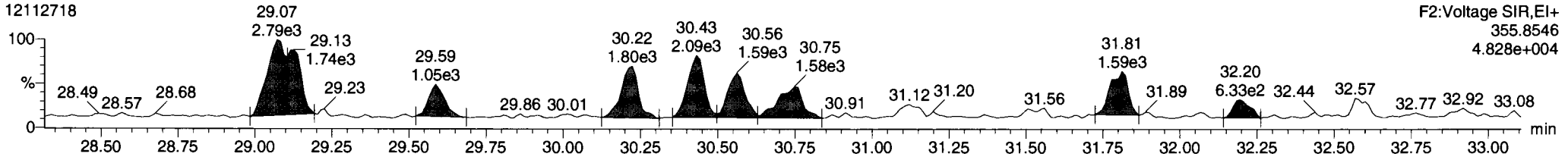


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date 11/29/12

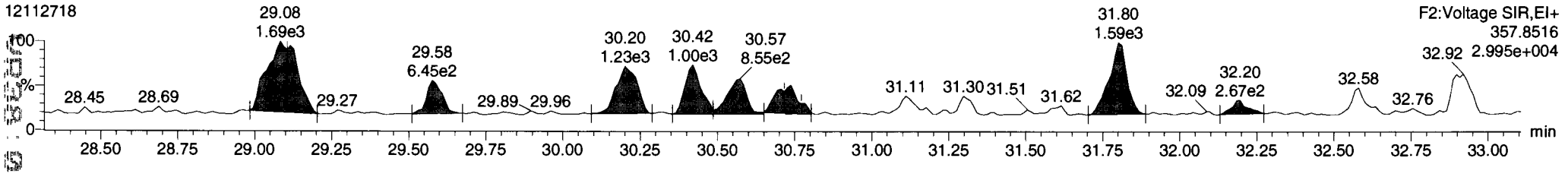
13C-12378-PeCDD



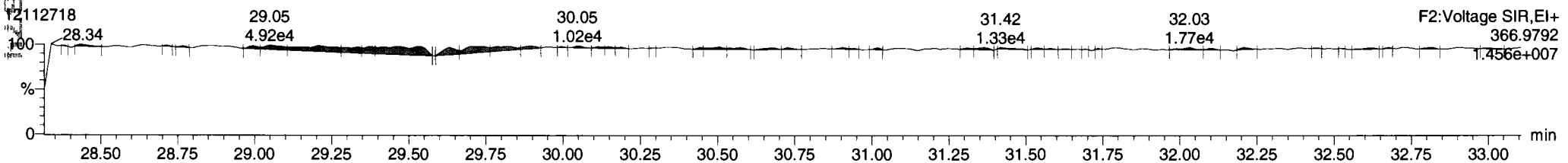
Total-pentadioxins



Total-pentadioxins



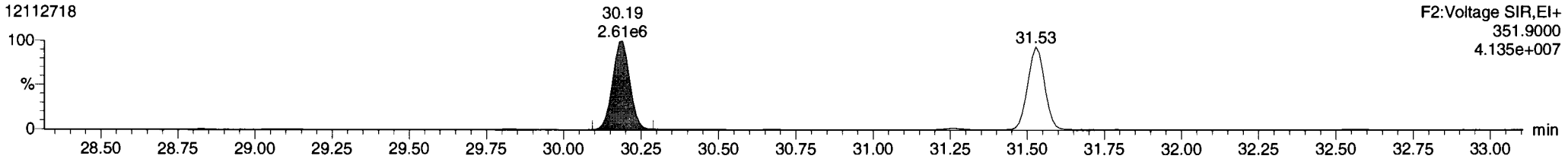
FUNCTION2 PFK



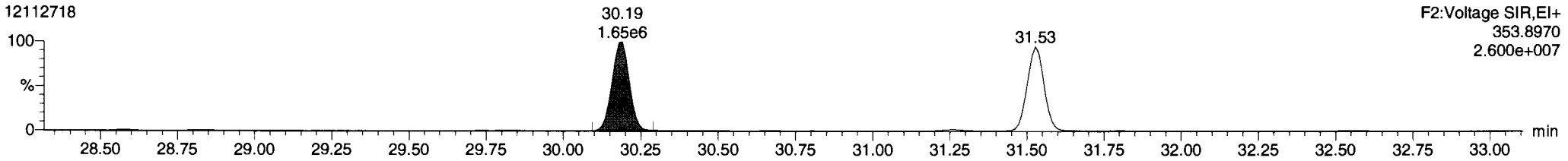
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:33 Pacific Standard Time

Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

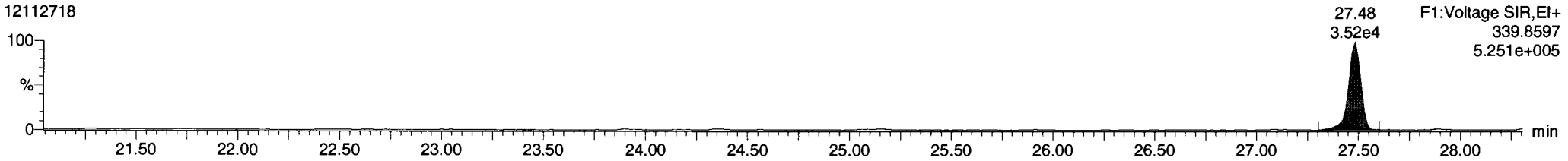
13C-12378-PeCDF



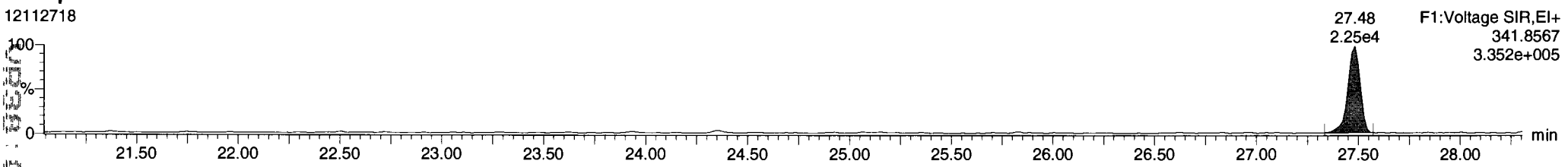
13C-12378-PeCDF



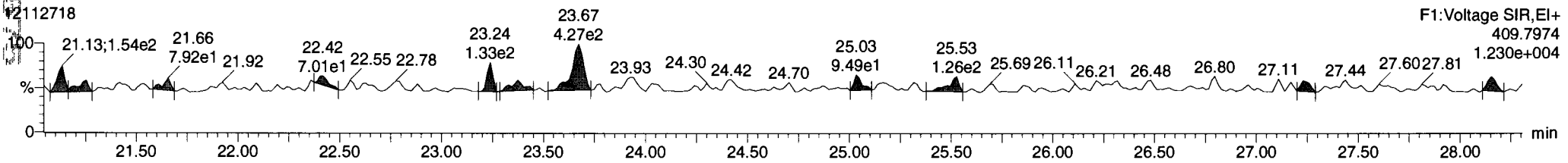
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
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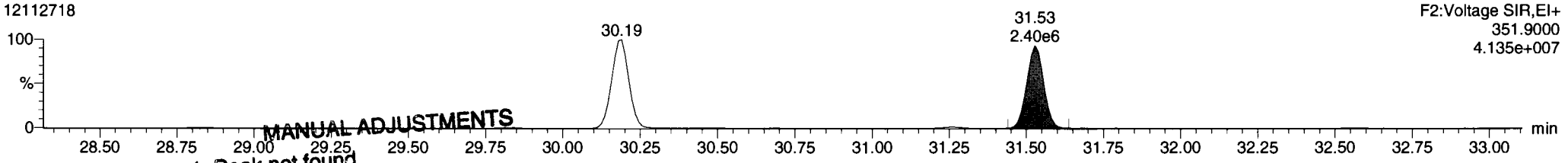
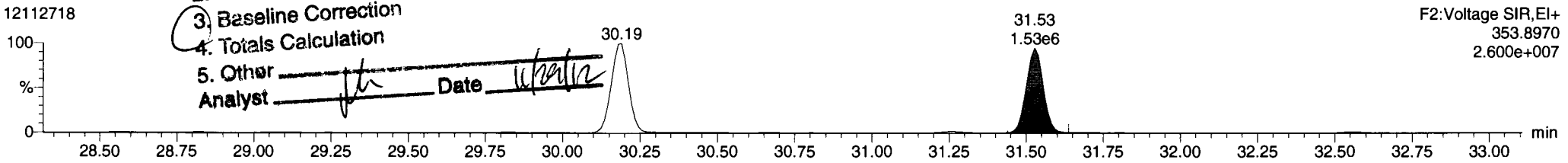
Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

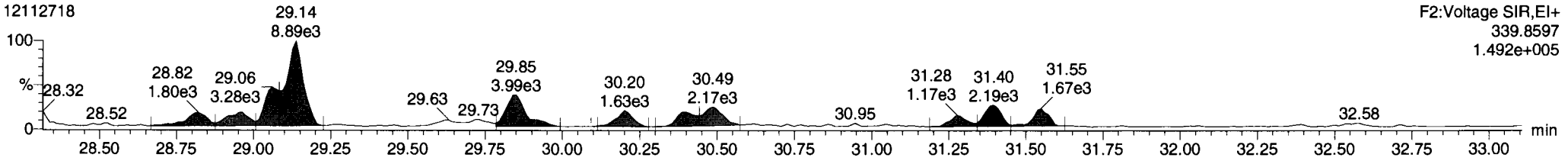


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst Date 1/28/13

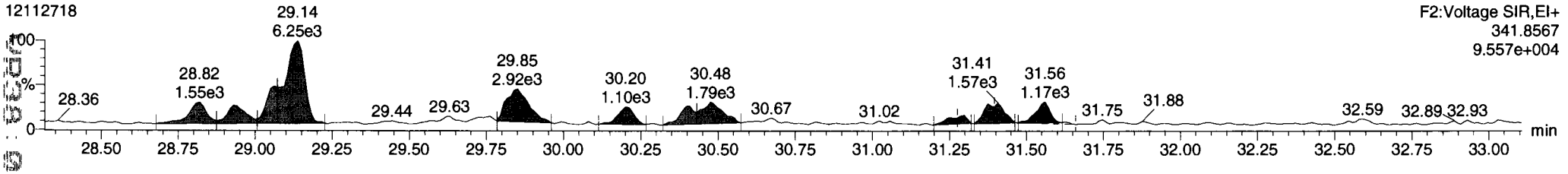
13C-23478-PeCDF



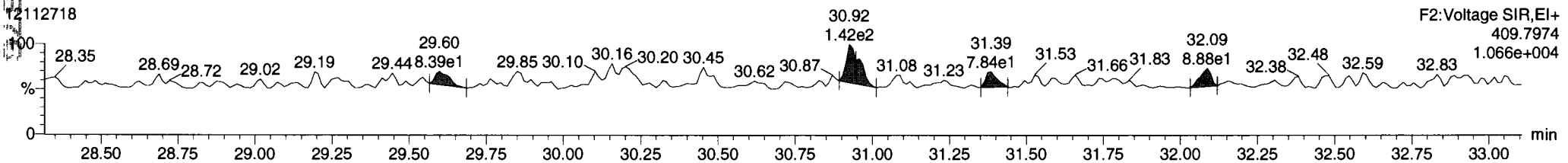
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
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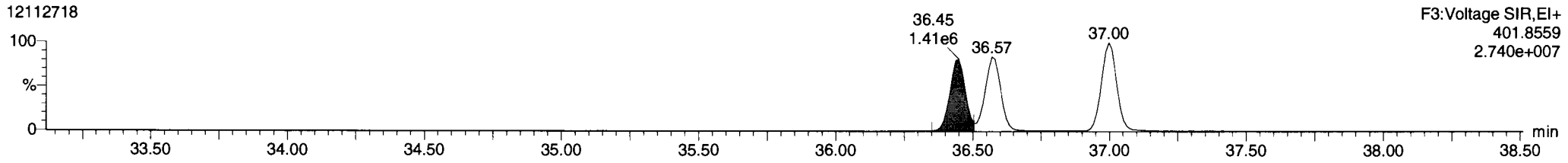
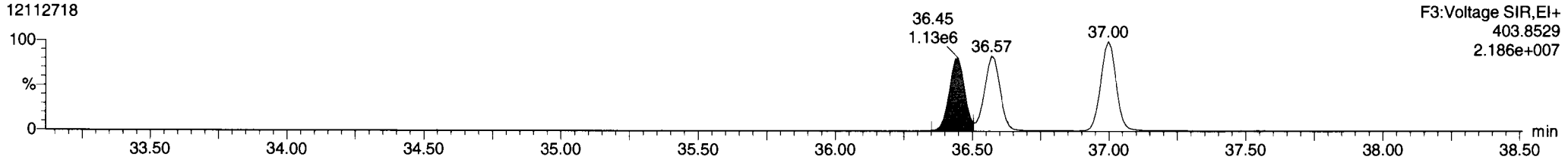
Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

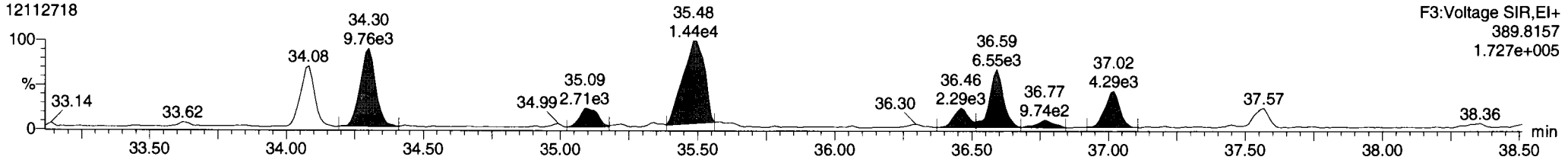
13C-123478-HxCDD



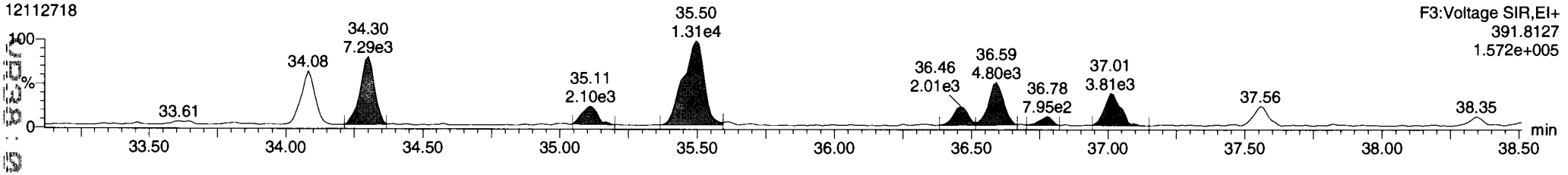
13C-123478-HxCDD



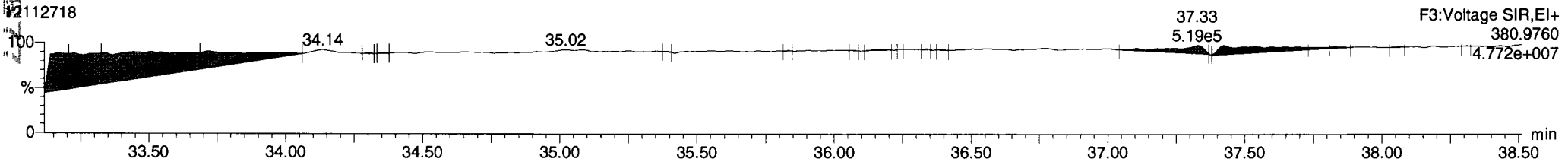
Total-hexadioxins



Total-hexadioxins



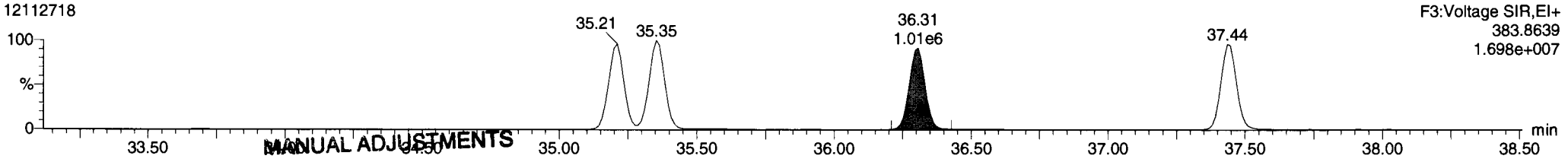
FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:33 Pacific Standard Time

Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF

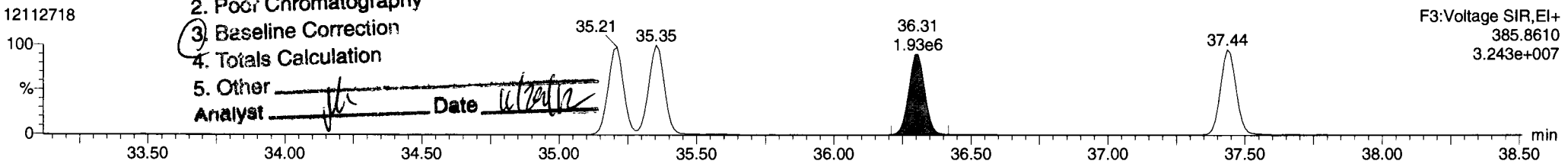


MANUAL ADJUSTMENTS

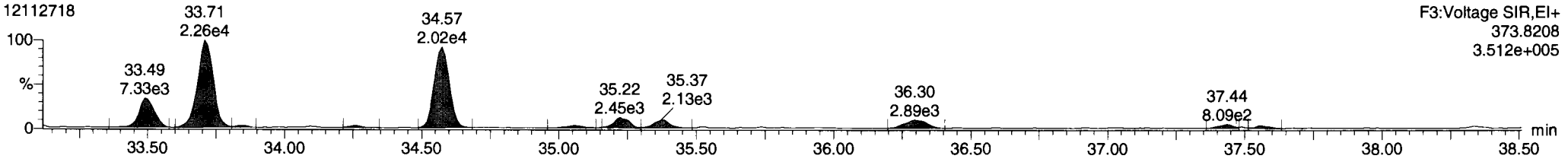
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

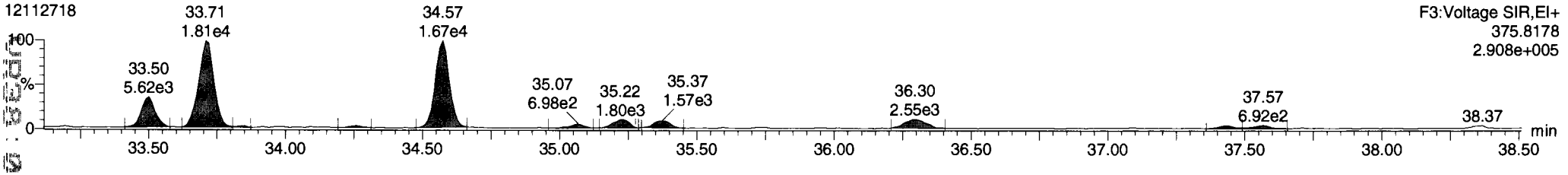
13C-234678-HxCDF



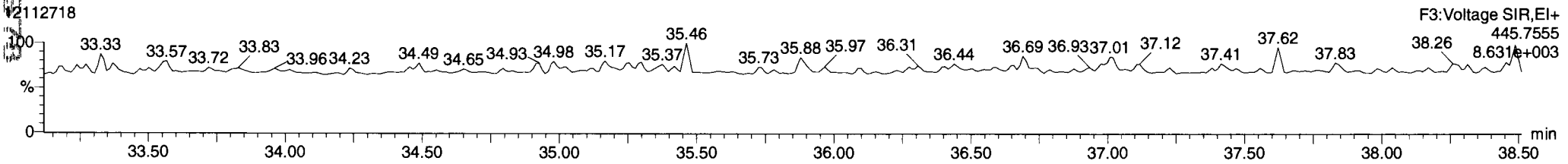
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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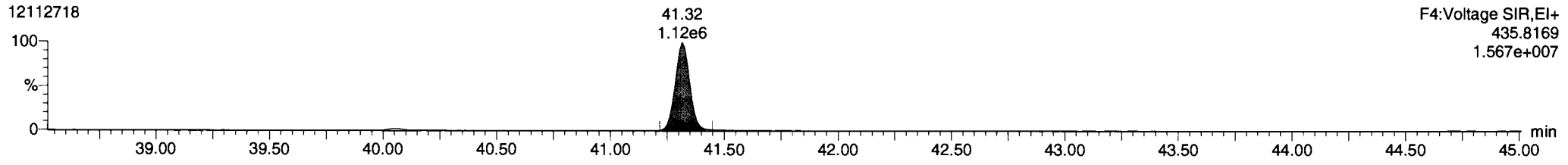
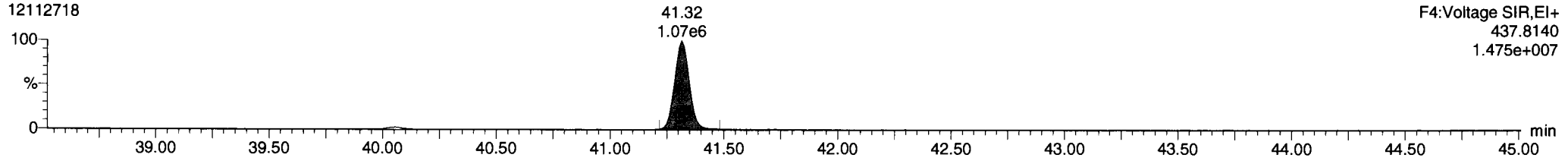
Printed: Wednesday, November 28, 2012 16:27:33 Pacific Standard Time

Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

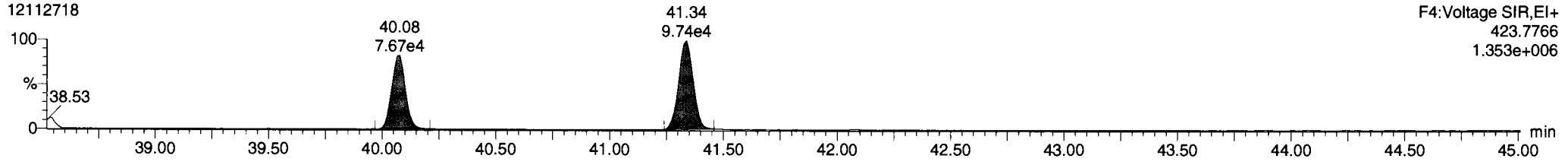
13C-1234678-HpCDD



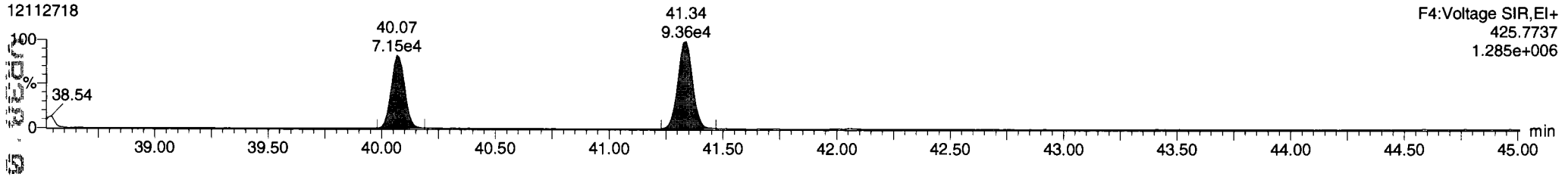
13C-1234678-HpCDD



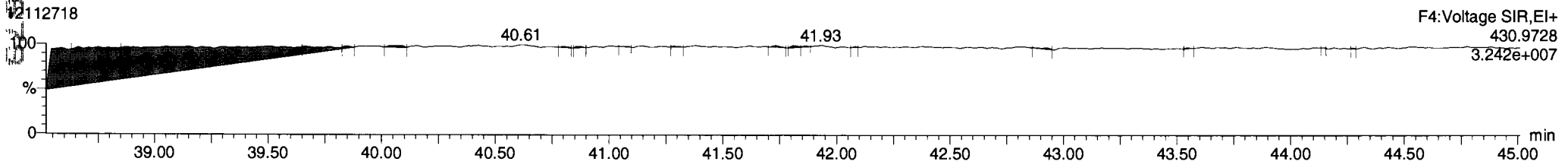
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
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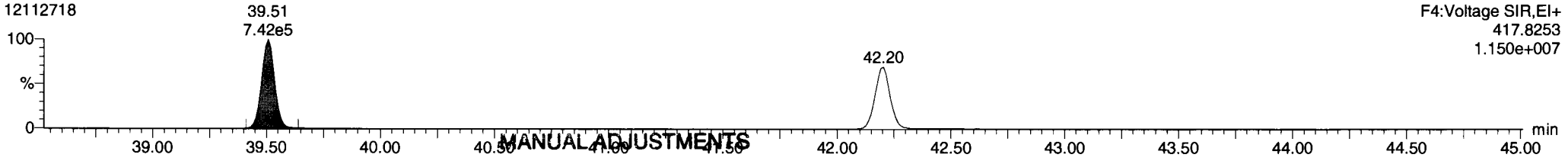
Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF

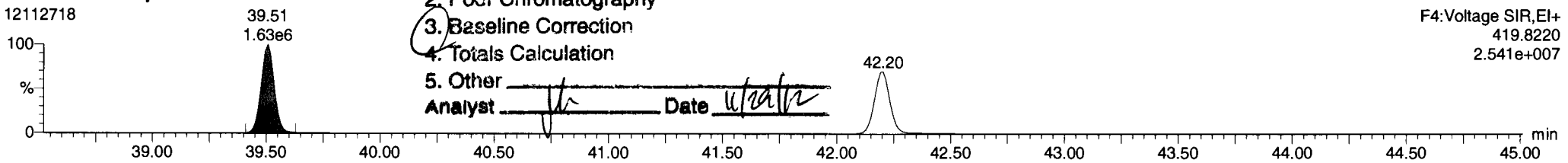


MANUAL ADJUSTMENTS

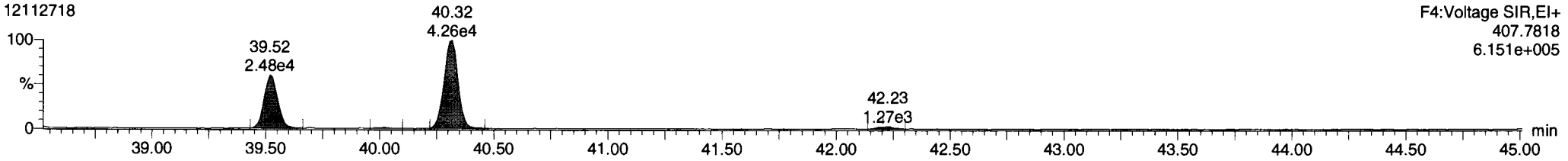
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

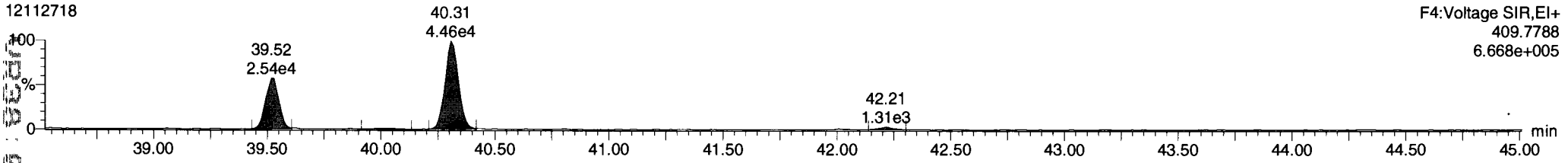
13C-1234678-HpCDF



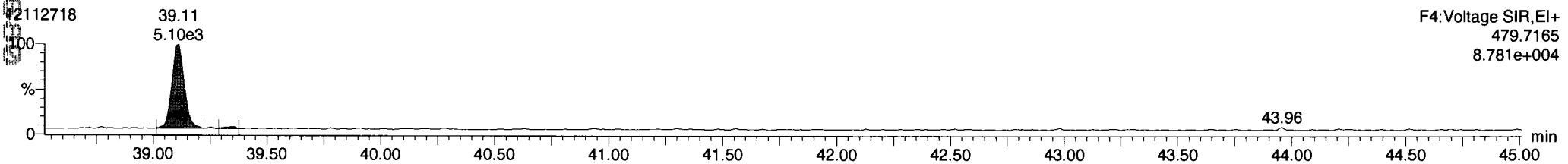
Total-heptafurans



Total-heptafurans



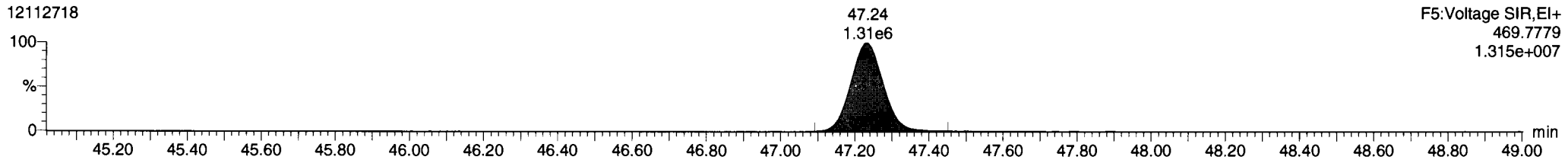
FUNCTION4 NCDPE



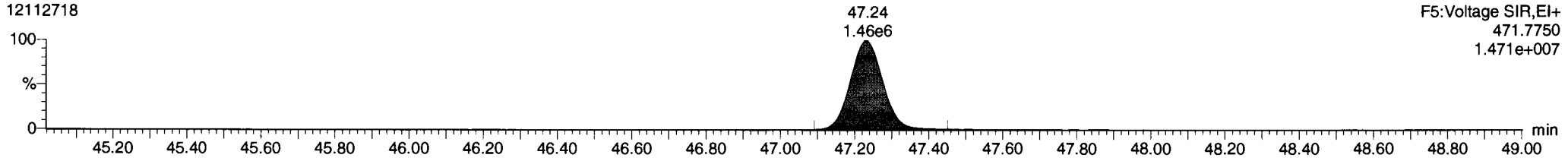
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:33 Pacific Standard Time

Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

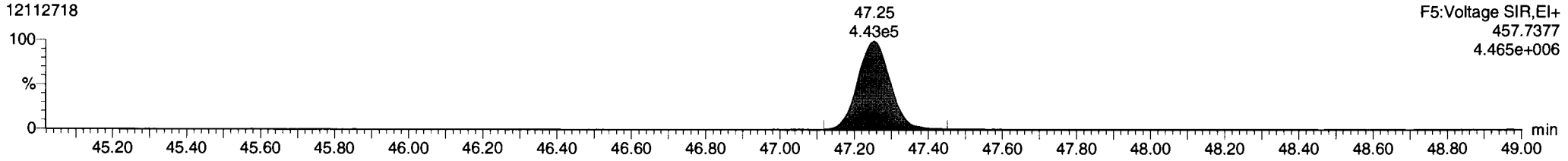
13C-OCDD



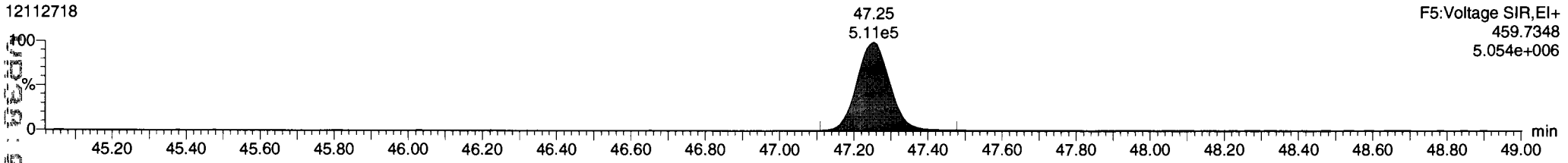
13C-OCDD



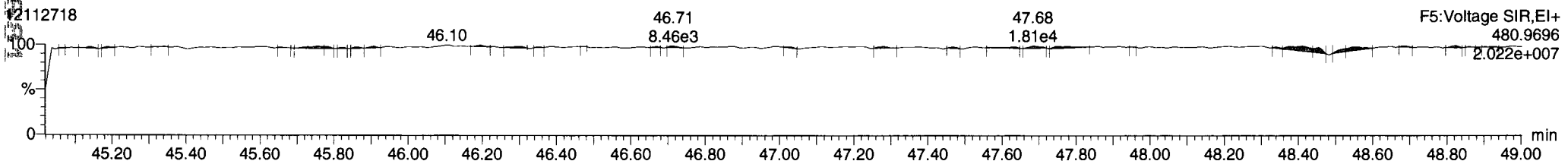
OCDD



OCDD



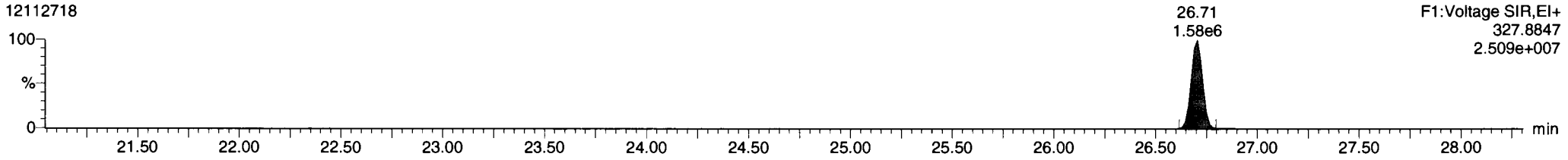
FUNCTION5 PFK



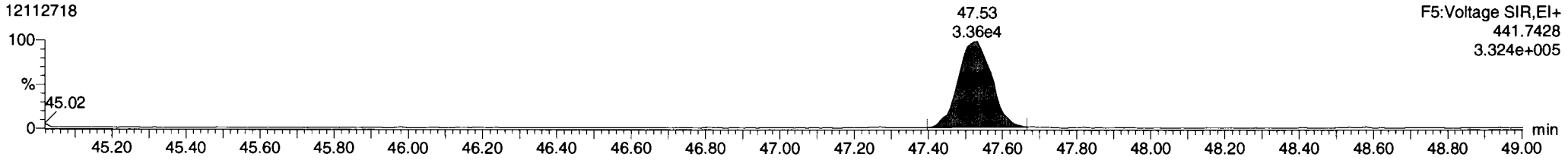
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:33 Pacific Standard Time

Name: 12112718, Date: 28-Nov-2012, Time: 01:42:50, ID: VR38K, Conditions: AUTOSPEC01, User: pk

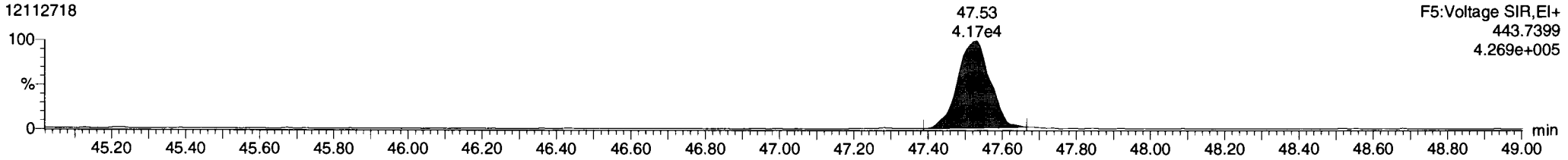
37CL-2378-TCDD



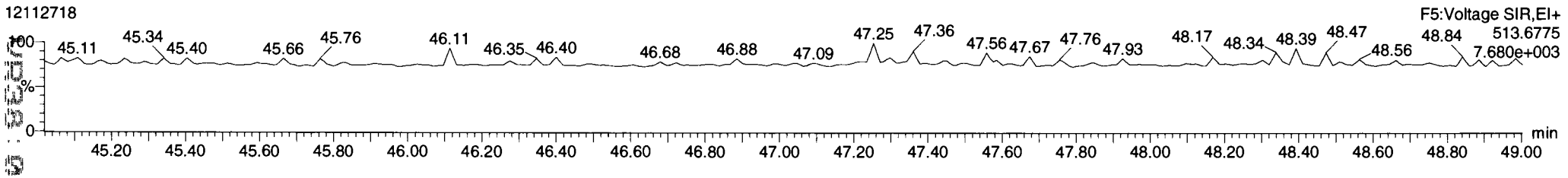
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

11/28/12

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Int Area	Ion Abund	Total Area	Ty	RRF	Ratio	Theory	Qual	S/N	EMPC	ng
1	2378-TCDF	26.063	1.001	1156	1880	3036	bd	0.877	0.615	0.770	YES	5.8	0.050	0.057 B
2	12378-PeCDF	30.189	1.000	1409	1217	2626	MM	0.896	1.158	1.550	YES	15.9	0.051	0.058 B
3	23478-PeCDF	31.538	1.000	1883	1334	3216	bb	0.926	1.412	1.550	NO	23.0	0.077	0.077
4	123478-HxCDF	35.221	1.001	2818	2056	4874	dd	1.068	1.370	1.240	NO	39.6	0.133	0.133
5	234678-HxCDF	36.295	1.000	3523	2808	6331	bb	1.037	1.255	1.240	NO	29.0	0.185	0.185
6	123678-HxCDF	35.363	1.000	2314	1799	4113	db	1.035	1.286	1.240	NO	33.9	0.110	0.110
7	123789-HxCDF	37.446	1.000	1013	869	1882	MM	0.987	1.166	1.240	NO	12.1	0.057	0.057
8	1234678-HpCDF	39.518	1.001	27276	28988	56264	bb	1.232	0.941	1.050	NO	476.4	1.735	1.735
9	1234789-HpCDF	42.225	1.001	1418	1387	2805	MM	1.215	1.022	1.050	NO	20.9	0.107	0.107
10	OCDF	47.513	1.006	37639	42100	79739	bb	1.138	0.894	0.890	NO	473.6	4.387	4.387
11	2378-TCDD	26.705	1.001	451	2555	3006	bd	1.049	0.176	0.770	YES	4.7	0.025	0.072
12	12378-PeCDD	31.790	1.000	2119	1511	3630	bb	0.998	1.403	1.550	NO	16.2	0.121	0.121
13	123478-HxCDD	36.459	1.001	2462	1973	4435	bd	0.971	1.248	1.240	NO	19.4	0.158	0.158
14	123678-HxCDD	36.580	1.000	6598	5208	11806	db	0.918	1.267	1.240	NO	49.9	0.426	0.426
15	123789-HxCDD	37.007	1.012	4948	3807	8755	bb	0.932	1.300	1.240	NO	33.7	0.318	0.318
16	1234678-HpCDD	41.326	1.001	103604	100267	203872	bb	1.017	1.033	1.050	NO	850.3	8.243	8.243
17	OCDD	47.244	1.000	495162	559066	1054228	bd	1.008	0.886	0.890	NO	3232.4	65.428	65.428
18	13C-2378-TCDF	26.033	1.006	2656605	3402646	6059251	bb	1.473	0.781	0.770	NO	10895.9		91.262
19	13C-12378-PeCDF	30.178	1.167	3106561	1973948	5080509	bb	1.148	1.574	1.550	NO	11912.6		98.167
20	13C-23478-PeCDF	31.527	1.219	2763521	1756031	4519552	bb	1.113	1.574	1.550	NO	10429.7		90.087
21	13C-123478-HxCDF	35.199	0.952	1179387	2258043	3437430	bd	1.209	0.522	0.510	NO	5481.0		87.604
22	13C-123678-HxCDF	35.352	0.956	1250202	2368284	3618485	db	1.269	0.528	0.510	NO	5785.8		87.883
23	13C-234678-HxCDF	36.295	0.981	1138353	2161117	3299469	bb	1.236	0.527	0.510	NO	5186.9		82.263
24	13C-123789-HxCDF	37.435	1.012	1148437	2183954	3332391	bb	1.107	0.526	0.510	NO	5275.5		92.776
25	13C-1234678-HpCDF	39.496	1.068	817897	1815277	2633174	bb	1.051	0.451	0.440	NO	5001.5		77.186
26	13C-1234789-HpCDF	42.192	1.141	661540	1505321	2166860	bb	0.815	0.440	0.440	NO	3528.7		81.949
27	13C-1234-TCDD	25.869	0.000	1989445	2519214	4508659	bb	1.000	0.790	0.770	NO	9997.8		100.000
28	13C-2378-TCDD	26.676	1.031	1750188	2225347	3975534	bb	0.946	0.786	0.770	NO	8733.6		93.235
29	13C-12378-PeCDD	31.779	1.228	1833943	1167672	3001615	bb	0.721	1.571	1.550	NO	19629.1		92.378
30	13C-123478-HxCDD	36.438	0.985	1612688	1275396	2888084	bd	0.991	1.265	1.240	NO	10663.2		89.808
31	13C-123678-HxCDD	36.569	0.989	1668671	1350938	3019609	db	1.025	1.235	1.240	NO	11074.2		90.798
32	13C-1234678-HpCDD	41.304	1.117	1256236	1176072	2432308	bb	0.866	1.068	1.050	NO	5451.8		86.523
33	13C-OCDD	47.226	1.277	1507885	1687865	3195750	bb	0.769	0.893	0.890	NO	8694.6		128.024

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

	Name			Ion1 Area	Ion2 Area									
34	13C-123789-HxCDD	36.986	0.000	1798194	1447354	3245548	bb	1.000	1.242	1.240	NO	11855.7		100.000
35	Total-tetrafurans			20242				0.877					1.619	0.922
36	Total-penta1			33795									1.231	1.231
37	Total-pentafurans			17503				0.911					0.958	0.691
38	Total-hexafurans			61720				1.032					3.298	3.233
39	Total-heptafurans			75240				1.223					5.080	5.053
40	Total-Furans			250996				1.041					16.746	15.690
41	Total-tetradioxins			5196				1.049					0.553	0.278
42	Total-pentadioxins			11305				0.998					0.802	0.440
43	Total-hexadioxins			34256				0.940					2.933	2.250
44	Total-heptadioxins			183921				1.017					14.593	14.593
45	Total-Dioxins			729840				0.985					84.322	82.988
46	Total-TEQ			980836									101.068	98.678
47	37CL-2378-TCDD	26.691	1.032	1891913		1891913		1.044				15980.2		40.208
48	FUNCTION1 PFK			45696059										
49	FUNCTION2 PFK			91286										0.000
50	FUNCTION3 PFK			123631										0.000
51	FUNCTION4 PFK			645923										
52	FUNCTION5 PFK			430243										
53	FUNCTION1 HXCDPE			4888										0.000
54	FUNCTION1 HPCDPE			1302										0.000
55	FUNCTION2 HPCDPE			1058										0.000
56	FUNCTION3 OCDPE			0										
57	FUNCTION4 NCDPE			6057										0.000
58	FUNCTION5 DCDPE			0										

2185 1.922

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

TF

		Name	Trace	RT	Area	RRF M...	Dil	EMPC	12 Ratio	13 Ratio	Pass	S/N
	35	Total-tetrafurans	303.9016	24.51	0.000	0.877	0.000	0.096	0.65	0.77	YES	9.4
	35	Total-tetrafurans	303.9016	24.33	0.000	0.877	0.000	0.029	1.33	0.77	YES	3.7
	35	Total-tetrafurans	303.9016	24.20	0.000	0.877	0.000	0.067	1.06	0.77	YES	9.3
	35	Total-tetrafurans	303.9016	24.05	5432.244	0.877	0.102	0.102	0.75	0.77	NO	10.6
	35	Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.028	1.02	0.77	YES	5.2
	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.057	1.08	0.77	YES	8.9
	35	Total-tetrafurans	303.9016	23.70	0.000	0.877	0.000	0.037	0.47	0.77	YES	4.0
	35	Total-tetrafurans	303.9016	23.58	0.000	0.877	0.000	0.046	1.13	0.77	YES	4.2
	35	Total-tetrafurans	303.9016	23.40	13887.146	0.877	0.261	0.261	0.71	0.77	NO	26.6
	35	Total-tetrafurans	303.9016	22.84	2579.368	0.877	0.049	0.049	0.70	0.77	NO	5.5
	35	Total-tetrafurans	303.9016	22.57	1295.360	0.877	0.024	0.024	0.70	0.77	NO	2.9
	35	Total-tetrafurans	303.9016	27.35	0.000	0.877	0.000	0.030	0.43	0.77	YES	3.7
	35	Total-tetrafurans	303.9016	27.23	5836.249	0.877	0.110	0.110	0.66	0.77	NO	12.0
	35	Total-tetrafurans	303.9016	26.29	4300.929	0.877	0.081	0.081	0.76	0.77	NO	8.4
	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.029	1.07	0.77	YES	5.0
	1	2378-TCDF	303.9016	26.06	3036.464	0.877	0.000	0.050	0.61	0.77	YES	5.8
	35	Total-tetrafurans	303.9016	25.81	5819.544	0.877	0.110	0.110	0.68	0.77	NO	6.1
	35	Total-tetrafurans	303.9016	25.72	0.000	0.877	0.000	0.053	0.58	0.77	YES	5.9
	35	Total-tetrafurans	303.9016	25.36	1502.714	0.877	0.028	0.028	0.74	0.77	NO	3.9
	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.047	0.58	0.77	YES	5.4
	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.128	0.95	0.77	YES	13.4
	35	Total-tetrafurans	303.9016	24.79	8293.109	0.877	0.156	0.156	0.68	0.77	NO	8.8

PP

		Name	Trace	RT	Area	RRF M...	Dil	EMPC	12 Ratio	13 Ratio	Pass	S/N
	36	Total-penta1	339.8597	27.47	54172.029		1.231	1.231	1.66	1.55	NO	355.6

PF

		Name	Trace	RT	Area	RRF M...	Dil	EMPC	12 Ratio	13 Ratio	Pass	S/N
	37	Total-pentafurans	339.8597	29.84	0.000	0.911	0.000	0.104	1.81	1.55	YES	39.5
	37	Total-pentafurans	339.8597	29.13	11619.143	0.911	0.266	0.266	1.39	1.55	NO	78.8
	37	Total-pentafurans	339.8597	29.06	5740.252	0.911	0.131	0.131	1.45	1.55	NO	46.6
	37	Total-pentafurans	339.8597	28.95	2567.701	0.911	0.059	0.059	1.45	1.55	NO	15.3
	37	Total-pentafurans	339.8597	28.80	0.000	0.911	0.000	0.051	1.26	1.55	YES	18.2
	3	23478-PeCDF	339.8597	31.54	3216.232	0.926	0.077	0.077	1.41	1.55	NO	23.0
	37	Total-pentafurans	339.8597	31.38	0.000	0.911	0.000	0.062	1.19	1.55	YES	24.5
	37	Total-pentafurans	339.8597	30.46	4011.027	0.911	0.092	0.092	1.34	1.55	NO	22.9
	37	Total-pentafurans	339.8597	30.41	2903.380	0.911	0.066	0.066	1.33	1.55	NO	20.2
	2	12378-PeCDF	339.8597	30.19	2625.732	0.896	0.000	0.051	1.16	1.55	YES	15.9

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
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Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

HF

		Name	Trace	RT	Area/Ht	RRF/M	Conc	S/N/RS	LR Ratio	UR Ratio	M Rat	Ion Abn
	6	123678-HxCDF	373.8208	35.36	4113.079	1.035	0.110	0.110	1.29	1.24	NO	33.9
	4	123478-HxCDF	373.8208	35.22	4874.019	1.068	0.133	0.133	1.37	1.24	NO	39.6
	38	Total-hexafurans	373.8208	35.05	0.000	1.032	0.000	0.042	1.64	1.24	YES	14.3
	38	Total-hexafurans	373.8208	34.56	39643.965	1.032	1.123	1.123	1.16	1.24	NO	297.3
	38	Total-hexafurans	373.8208	33.71	43895.955	1.032	1.244	1.244	1.16	1.24	NO	316.8
	38	Total-hexafurans	373.8208	33.49	13451.453	1.032	0.381	0.381	1.17	1.24	NO	111.0
	38	Total-hexafurans	373.8208	37.54	0.000	1.032	0.000	0.023	0.88	1.24	YES	6.5
	7	123789-HxCDF	373.8208	37.45	1881.894	0.987	0.057	0.057	1.17	1.24	NO	12.1
	5	234678-HxCDF	373.8208	36.29	6330.729	1.037	0.185	0.185	1.25	1.24	NO	29.0

HPF

		Name	Trace	RT	Area/Ht	RRF/M	Conc	S/N/RS	LR Ratio	UR Ratio	M Rat	Ion Abn
	9	1234789-HpCDF	407.7818	42.23	2804.851	1.215	0.107	0.107	1.02	1.05	NO	20.9
	39	Total-heptafurans	407.7818	40.31	94328.516	1.223	3.212	3.212	0.97	1.05	NO	760.3
	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.026	0.62	1.05	YES	9.0
	8	1234678-HpCDF	407.7818	39.52	56263.828	1.232	1.735	1.735	0.94	1.05	NO	476.4

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
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Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Mass	RT	Area	Ret R	Int	EMRR	S/N	Res	Ion Ratio	S/N
	35	Total-tetrafurans	303.9016	24.51	0.000	0.877	0.000	0.096	0.65	0.77	YES	9.4
	35	Total-tetrafurans	303.9016	24.33	0.000	0.877	0.000	0.029	1.33	0.77	YES	3.7
	35	Total-tetrafurans	303.9016	24.20	0.000	0.877	0.000	0.067	1.06	0.77	YES	9.3
	35	Total-tetrafurans	303.9016	24.05	5432.244	0.877	0.102	0.102	0.75	0.77	NO	10.6
	35	Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.028	1.02	0.77	YES	5.2
	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.057	1.08	0.77	YES	8.9
	35	Total-tetrafurans	303.9016	23.70	0.000	0.877	0.000	0.037	0.47	0.77	YES	4.0
	35	Total-tetrafurans	303.9016	23.58	0.000	0.877	0.000	0.046	1.13	0.77	YES	4.2
	35	Total-tetrafurans	303.9016	23.40	13887.146	0.877	0.261	0.261	0.71	0.77	NO	26.6
	35	Total-tetrafurans	303.9016	22.84	2579.368	0.877	0.049	0.049	0.70	0.77	NO	5.5
	35	Total-tetrafurans	303.9016	22.57	1295.360	0.877	0.024	0.024	0.70	0.77	NO	2.9
	40	Total-Furans	303.9016	21.52	1650.417	1.041	0.026	0.026	0.73	0.77	NO	3.6
	35	Total-tetrafurans	303.9016	27.35	0.000	0.877	0.000	0.030	0.43	0.77	YES	3.7
	35	Total-tetrafurans	303.9016	27.23	5836.249	0.877	0.110	0.110	0.66	0.77	NO	12.0
	35	Total-tetrafurans	303.9016	26.29	4300.929	0.877	0.081	0.081	0.76	0.77	NO	8.4
	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.029	1.07	0.77	YES	5.0
	1	2378-TCDF	303.9016	26.06	3036.464	0.877	0.000	0.050	0.61	0.77	YES	5.8
	35	Total-tetrafurans	303.9016	25.81	5819.544	0.877	0.110	0.110	0.68	0.77	NO	6.1
	35	Total-tetrafurans	303.9016	25.72	0.000	0.877	0.000	0.053	0.58	0.77	YES	5.9
	35	Total-tetrafurans	303.9016	25.36	1502.714	0.877	0.028	0.028	0.74	0.77	NO	3.9
	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.047	0.58	0.77	YES	5.4
	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.128	0.95	0.77	YES	13.4
	35	Total-tetrafurans	303.9016	24.79	8293.109	0.877	0.156	0.156	0.68	0.77	NO	8.8
	40	Total-Furans	303.9016	28.17	9343.132	1.041	0.148	0.148	0.80	0.77	NO	16.3
	37	Total-pentafurans	339.8597	29.84	0.000	0.911	0.000	0.104	1.81	1.55	YES	39.5
	37	Total-pentafurans	339.8597	29.13	11619.143	0.911	0.266	0.266	1.39	1.55	NO	78.8
	37	Total-pentafurans	339.8597	29.06	5740.252	0.911	0.131	0.131	1.45	1.55	NO	46.6
	37	Total-pentafurans	339.8597	28.95	2567.701	0.911	0.059	0.059	1.45	1.55	NO	15.3
	37	Total-pentafurans	339.8597	28.80	0.000	0.911	0.000	0.051	1.26	1.55	YES	18.2
	3	23478-PeCDF	339.8597	31.54	3216.232	0.926	0.077	0.077	1.41	1.55	NO	23.0
	37	Total-pentafurans	339.8597	31.38	0.000	0.911	0.000	0.062	1.19	1.55	YES	24.5
	37	Total-pentafurans	339.8597	30.46	4011.027	0.911	0.092	0.092	1.34	1.55	NO	22.9
	37	Total-pentafurans	339.8597	30.41	2903.380	0.911	0.066	0.066	1.33	1.55	NO	20.2
	2	12378-PeCDF	339.8597	30.19	2625.732	0.896	0.000	0.051	1.16	1.55	YES	15.9
	6	123678-HxCDF	373.8208	35.36	4113.079	1.035	0.110	0.110	1.29	1.24	NO	33.9
	4	123478-HxCDF	373.8208	35.22	4874.019	1.068	0.133	0.133	1.37	1.24	NO	39.6
	38	Total-hexafurans	373.8208	35.05	0.000	1.032	0.000	0.042	1.64	1.24	YES	14.3
	38	Total-hexafurans	373.8208	34.56	39643.965	1.032	1.123	1.123	1.16	1.24	NO	297.3
	38	Total-hexafurans	373.8208	33.71	43895.955	1.032	1.244	1.244	1.16	1.24	NO	316.8
	38	Total-hexafurans	373.8208	33.49	13451.453	1.032	0.381	0.381	1.17	1.24	NO	111.0
	38	Total-hexafurans	373.8208	37.54	0.000	1.032	0.000	0.023	0.88	1.24	YES	6.5
	7	123789-HxCDF	373.8208	37.45	1881.894	0.987	0.057	0.057	1.17	1.24	NO	12.1
	5	234678-HxCDF	373.8208	36.29	6330.729	1.037	0.185	0.185	1.25	1.24	NO	29.0
	9	1234789-HpCDF	407.7818	42.23	2804.851	1.215	0.107	0.107	1.02	1.05	NO	20.9
	39	Total-heptafurans	407.7818	40.31	94328.516	1.223	3.212	3.212	0.97	1.05	NO	760.3
	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.026	0.62	1.05	YES	9.0
	8	1234678-HpCDF	407.7818	39.52	56263.828	1.232	1.735	1.735	0.94	1.05	NO	476.4
	10	OCDF	441.7428	47.51	79739.000	1.138	4.387	4.387	0.89	0.89	NO	473.6
	36	Total-penta1	339.8597	27.47	54172.029		1.231	1.231	1.66	1.55	NO	355.6

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TD

	#	Name	Trace	RT	Abs Peak	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	41	Total-tetradioxins	319.8965	25.03	1206.562	1.049	0.029	0.029	0.73	0.77	NO	4.7
	41	Total-tetradioxins	319.8965	24.82	0.000	1.049	0.000	0.041	0.94	0.77	YES	8.2
	41	Total-tetradioxins	319.8965	24.30	0.000	1.049	0.000	0.015	1.60	0.77	YES	4.7
	41	Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.057	0.98	0.77	YES	13.3
	41	Total-tetradioxins	319.8965	23.84	0.000	1.049	0.000	0.088	0.93	0.77	YES	18.7
	41	Total-tetradioxins	319.8965	27.26	7745.961	1.049	0.186	0.186	0.86	0.77	NO	37.2
	41	Total-tetradioxins	319.8965	26.83	0.000	1.049	0.000	0.020	0.96	0.77	YES	5.7
	11	2378-TCDD	319.8965	26.71	3005.759	1.049	0.000	0.025	0.18	0.77	YES	4.7
	41	Total-tetradioxins	319.8965	26.35	683.842	1.049	0.016	0.016	0.66	0.77	NO	3.4
	41	Total-tetradioxins	319.8965	26.03	0.000	1.049	0.000	0.013	3.22	0.77	YES	11.8
	41	Total-tetradioxins	319.8965	25.87	0.000	1.049	0.000	0.016	0.34	0.77	YES	3.3
	41	Total-tetradioxins	319.8965	25.30	1944.207	1.049	0.047	0.047	0.76	0.77	NO	8.1

PD

	#	Name	Trace	RT	Abs Peak	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	12	12378-PeCDD	355.8546	31.79	3630.382	0.998	0.121	0.121	1.40	1.55	NO	16.2
	42	Total-pentadioxins	355.8546	31.10	690.787	0.998	0.023	0.023	1.61	1.55	NO	4.3
	42	Total-pentadioxins	355.8546	30.74	0.000	0.998	0.000	0.044	1.36	1.55	NO	7.4
	42	Total-pentadioxins	355.8546	30.69	0.000	0.998	0.000	0.044	1.36	1.55	NO	8.0
	42	Total-pentadioxins	355.8546	30.56	0.000	0.998	0.000	0.080	1.17	1.55	YES	13.3
	42	Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.100	1.55	1.55	NO	19.4
	42	Total-pentadioxins	355.8546	30.19	3483.953	0.998	0.116	0.116	1.45	1.55	NO	17.1
	42	Total-pentadioxins	355.8546	29.59	1481.528	0.998	0.049	0.049	1.47	1.55	NO	7.1
	42	Total-pentadioxins	355.8546	29.09	3900.225	0.998	0.130	0.130	1.73	1.55	NO	19.7
	42	Total-pentadioxins	355.8546	29.06	0.000	0.998	0.000	0.093	1.07	1.55	YES	16.3

HD

	#	Name	Trace	RT	Abs Peak	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	43	Total-hexadioxins	389.8157	35.48	32316.285	0.940	1.163	1.163	1.20	1.24	NO	84.5
	43	Total-hexadioxins	389.8157	35.09	5121.743	0.940	0.184	0.184	1.06	1.24	NO	19.3
	43	Total-hexadioxins	389.8157	34.29	0.000	0.940	0.000	0.613	1.43	1.24	YES	79.8
	15	123789-HxCDD	389.8157	37.01	8754.731	0.932	0.318	0.318	1.30	1.24	NO	33.7
	43	Total-hexadioxins	389.8157	36.78	0.000	0.940	0.000	0.057	1.48	1.24	YES	8.2
	14	123678-HxCDD	389.8157	36.58	11806.266	0.918	0.426	0.426	1.27	1.24	NO	49.9
	13	123478-HxCDD	389.8157	36.46	4435.223	0.971	0.158	0.158	1.25	1.24	NO	19.4
	43	Total-hexadioxins	389.8157	36.31	0.000	0.940	0.000	0.013	1.73	1.24	YES	3.0

HPD

	#	Name	Trace	RT	Abs Peak	RRF M...	pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	16	1234678-HpCDD	423.7766	41.33	203871.632	1.017	8.243	8.243	1.03	1.05	NO	850.3
	44	Total-heptadioxins	423.7766	40.07	157058.977	1.017	6.350	6.350	1.05	1.05	NO	692.2

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Dioxins,TD,PD,HD,HPD,OD

	41 Total-tetradioxins	319.8965	25.03	1206.562	1.049	0.029	0.029	0.73	0.77	NO	4.7
	41 Total-tetradioxins	319.8965	24.82	0.000	1.049	0.000	0.041	0.94	0.77	YES	8.2
	41 Total-tetradioxins	319.8965	24.30	0.000	1.049	0.000	0.015	1.60	0.77	YES	4.7
	41 Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.057	0.98	0.77	YES	13.3
	41 Total-tetradioxins	319.8965	23.84	0.000	1.049	0.000	0.088	0.93	0.77	YES	18.7
	45 Total-Dioxins	319.8965	23.66	0.000	0.985	0.000	0.003	1.76	0.77	YES	1.6
	45 Total-Dioxins	319.8965	22.91	0.000	0.985	0.000	0.003	2.17	0.77	YES	2.1
	45 Total-Dioxins	319.8965	27.57	0.000	0.985	0.000	0.008	0.28	0.77	YES	1.8
	41 Total-tetradioxins	319.8965	27.26	7745.961	1.049	0.186	0.186	0.86	0.77	NO	37.2
	41 Total-tetradioxins	319.8965	26.83	0.000	1.049	0.000	0.020	0.96	0.77	YES	5.7
	11 2378-TCDD	319.8965	26.71	3005.759	1.049	0.000	0.025	0.18	0.77	YES	4.7
	41 Total-tetradioxins	319.8965	26.35	683.842	1.049	0.016	0.016	0.66	0.77	NO	3.4
	41 Total-tetradioxins	319.8965	26.03	0.000	1.049	0.000	0.013	3.22	0.77	YES	11.8
	41 Total-tetradioxins	319.8965	25.87	0.000	1.049	0.000	0.016	0.34	0.77	YES	3.3
	41 Total-tetradioxins	319.8965	25.30	1944.207	1.049	0.047	0.047	0.76	0.77	NO	8.1
	12 12378-PeCDD	355.8546	31.79	3630.382	0.998	0.121	0.121	1.40	1.55	NO	16.2
	42 Total-pentadioxins	355.8546	31.10	690.787	0.998	0.023	0.023	1.61	1.55	NO	4.3
	42 Total-pentadioxins	355.8546	30.74	0.000	0.998	0.000	0.044	1.36	1.55	NO	7.4
	42 Total-pentadioxins	355.8546	30.69	0.000	0.998	0.000	0.044	1.36	1.55	NO	8.0
	42 Total-pentadioxins	355.8546	30.56	0.000	0.998	0.000	0.080	1.17	1.55	YES	13.3
	42 Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.100	1.55	1.55	NO	19.4
	42 Total-pentadioxins	355.8546	30.19	3483.953	0.998	0.116	0.116	1.45	1.55	NO	17.1
	42 Total-pentadioxins	355.8546	29.59	1481.528	0.998	0.049	0.049	1.47	1.55	NO	7.1
	42 Total-pentadioxins	355.8546	29.09	3900.225	0.998	0.130	0.130	1.73	1.55	NO	19.7
	42 Total-pentadioxins	355.8546	29.06	0.000	0.998	0.000	0.093	1.07	1.55	YES	16.3
	43 Total-hexadioxins	389.8157	35.48	32316.285	0.940	1.163	1.163	1.20	1.24	NO	84.5
	43 Total-hexadioxins	389.8157	35.09	5121.743	0.940	0.184	0.184	1.06	1.24	NO	19.3
	43 Total-hexadioxins	389.8157	34.29	0.000	0.940	0.000	0.613	1.43	1.24	YES	79.8
	15 123789-HxCDD	389.8157	37.01	8754.731	0.932	0.318	0.318	1.30	1.24	NO	33.7
	43 Total-hexadioxins	389.8157	36.78	0.000	0.940	0.000	0.057	1.48	1.24	YES	8.2
	14 123678-HxCDD	389.8157	36.58	11806.266	0.918	0.426	0.426	1.27	1.24	NO	49.9
	13 123478-HxCDD	389.8157	36.46	4435.223	0.971	0.158	0.158	1.25	1.24	NO	19.4
	43 Total-hexadioxins	389.8157	36.31	0.000	0.940	0.000	0.013	1.73	1.24	YES	3.0
	16 1234678-HpCDD	423.7766	41.33	203871.632	1.017	8.243	8.243	1.03	1.05	NO	850.3
	44 Total-heptadioxins	423.7766	40.07	157058.977	1.017	6.350	6.350	1.05	1.05	NO	692.2
	17 OCDD	457.7377	47.24	1054228.250	1.008	65.428	65.428	0.89	0.89	NO	3232.4

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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Trace	[redacted]	[redacted]	RRF	[redacted]	EMPC	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	35	Total-tetrafurans	303.9016	24.51	0.000	0.877	0.000	0.096	0.65	0.77	YES	9.4
[redacted]	35	Total-tetrafurans	303.9016	24.33	0.000	0.877	0.000	0.029	1.33	0.77	YES	3.7
[redacted]	35	Total-tetrafurans	303.9016	24.20	0.000	0.877	0.000	0.067	1.06	0.77	YES	9.3
[redacted]	35	Total-tetrafurans	303.9016	24.05	5432.244	0.877	0.102	0.102	0.75	0.77	NO	10.6
[redacted]	35	Total-tetrafurans	303.9016	23.90	0.000	0.877	0.000	0.028	1.02	0.77	YES	5.2
[redacted]	35	Total-tetrafurans	303.9016	23.81	0.000	0.877	0.000	0.057	1.08	0.77	YES	8.9
[redacted]	35	Total-tetrafurans	303.9016	23.70	0.000	0.877	0.000	0.037	0.47	0.77	YES	4.0
[redacted]	35	Total-tetrafurans	303.9016	23.58	0.000	0.877	0.000	0.046	1.13	0.77	YES	4.2
[redacted]	35	Total-tetrafurans	303.9016	23.40	13887.146	0.877	0.261	0.261	0.71	0.77	NO	26.6
[redacted]	35	Total-tetrafurans	303.9016	22.84	2579.368	0.877	0.049	0.049	0.70	0.77	NO	5.5
[redacted]	35	Total-tetrafurans	303.9016	22.57	1295.360	0.877	0.024	0.024	0.70	0.77	NO	2.9
[redacted]	40	Total-Furans	303.9016	21.52	1650.417	1.041	0.026	0.026	0.73	0.77	NO	3.6
[redacted]	35	Total-tetrafurans	303.9016	27.35	0.000	0.877	0.000	0.030	0.43	0.77	YES	3.7
[redacted]	35	Total-tetrafurans	303.9016	27.23	5836.249	0.877	0.110	0.110	0.66	0.77	NO	12.0
[redacted]	35	Total-tetrafurans	303.9016	26.29	4300.929	0.877	0.081	0.081	0.76	0.77	NO	8.4
[redacted]	35	Total-tetrafurans	303.9016	26.18	0.000	0.877	0.000	0.029	1.07	0.77	YES	5.0
[redacted]	1	2378-TCDF	303.9016	26.06	3036.464	0.877	0.000	0.050	0.61	0.77	YES	5.8
[redacted]	35	Total-tetrafurans	303.9016	25.81	5819.544	0.877	0.110	0.110	0.68	0.77	NO	6.1
[redacted]	35	Total-tetrafurans	303.9016	25.72	0.000	0.877	0.000	0.053	0.58	0.77	YES	5.9
[redacted]	35	Total-tetrafurans	303.9016	25.36	1502.714	0.877	0.028	0.028	0.74	0.77	NO	3.9
[redacted]	35	Total-tetrafurans	303.9016	25.15	0.000	0.877	0.000	0.047	0.58	0.77	YES	5.4
[redacted]	35	Total-tetrafurans	303.9016	24.97	0.000	0.877	0.000	0.128	0.95	0.77	YES	13.4
[redacted]	35	Total-tetrafurans	303.9016	24.79	8293.109	0.877	0.156	0.156	0.68	0.77	NO	8.8
[redacted]	40	Total-Furans	303.9016	28.17	9343.132	1.041	0.148	0.148	0.80	0.77	NO	16.3
[redacted]	37	Total-pentafurans	339.8597	29.84	0.000	0.911	0.000	0.104	1.81	1.55	YES	39.5
[redacted]	37	Total-pentafurans	339.8597	29.13	11619.143	0.911	0.266	0.266	1.39	1.55	NO	78.8
[redacted]	37	Total-pentafurans	339.8597	29.06	5740.252	0.911	0.131	0.131	1.45	1.55	NO	46.6
[redacted]	37	Total-pentafurans	339.8597	28.95	2567.701	0.911	0.059	0.059	1.45	1.55	NO	15.3
[redacted]	37	Total-pentafurans	339.8597	28.80	0.000	0.911	0.000	0.051	1.26	1.55	YES	18.2
[redacted]	3	23478-PeCDF	339.8597	31.54	3216.232	0.926	0.077	0.077	1.41	1.55	NO	23.0
[redacted]	37	Total-pentafurans	339.8597	31.38	0.000	0.911	0.000	0.062	1.19	1.55	YES	24.5
[redacted]	37	Total-pentafurans	339.8597	30.46	4011.027	0.911	0.092	0.092	1.34	1.55	NO	22.9
[redacted]	37	Total-pentafurans	339.8597	30.41	2903.380	0.911	0.066	0.066	1.33	1.55	NO	20.2
[redacted]	2	12378-PeCDF	339.8597	30.19	2625.732	0.896	0.000	0.051	1.16	1.55	YES	15.9
[redacted]	6	123678-HxCDF	373.8208	35.36	4113.079	1.035	0.110	0.110	1.29	1.24	NO	33.9
[redacted]	4	123478-HxCDF	373.8208	35.22	4874.019	1.068	0.133	0.133	1.37	1.24	NO	39.6
[redacted]	38	Total-hexafurans	373.8208	35.05	0.000	1.032	0.000	0.042	1.64	1.24	YES	14.3
[redacted]	38	Total-hexafurans	373.8208	34.56	39643.965	1.032	1.123	1.123	1.16	1.24	NO	297.3
[redacted]	38	Total-hexafurans	373.8208	33.71	43895.955	1.032	1.244	1.244	1.16	1.24	NO	316.8
[redacted]	38	Total-hexafurans	373.8208	33.49	13451.453	1.032	0.381	0.381	1.17	1.24	NO	111.0
[redacted]	38	Total-hexafurans	373.8208	37.54	0.000	1.032	0.000	0.023	0.88	1.24	YES	6.5
[redacted]	7	123789-HxCDF	373.8208	37.45	1881.894	0.987	0.057	0.057	1.17	1.24	NO	12.1
[redacted]	5	234678-HxCDF	373.8208	36.29	6330.729	1.037	0.185	0.185	1.25	1.24	NO	29.0
[redacted]	9	1234789-HpCDF	407.7818	42.23	2804.851	1.215	0.107	0.107	1.02	1.05	NO	20.9
[redacted]	39	Total-heptafurans	407.7818	40.31	94328.516	1.223	3.212	3.212	0.97	1.05	NO	760.3
[redacted]	39	Total-heptafurans	407.7818	40.02	0.000	1.223	0.000	0.026	0.62	1.05	YES	9.0
[redacted]	8	1234678-HpCDF	407.7818	39.52	56263.828	1.232	1.735	1.735	0.94	1.05	NO	476.4
[redacted]	10	OCDF	441.7428	47.51	79739.000	1.138	4.387	4.387	0.89	0.89	NO	473.6
[redacted]	36	Total-penta1	339.8597	27.47	54172.029		1.231	1.231	1.66	1.55	NO	355.6

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TotalTEQ,Furans,Dioxins

		Name	Trace	RT	Area	RRF	Conc	EMPC	Ion Ratio	IS Ratio	Flags	S/N
	41	Total-tetradioxins	319.8965	25.03	1206.562	1.049	0.029	0.029	0.73	0.77	NO	4.7
	41	Total-tetradioxins	319.8965	24.82	0.000	1.049	0.000	0.041	0.94	0.77	YES	8.2
	41	Total-tetradioxins	319.8965	24.30	0.000	1.049	0.000	0.015	1.60	0.77	YES	4.7
	41	Total-tetradioxins	319.8965	24.11	0.000	1.049	0.000	0.057	0.98	0.77	YES	13.3
	41	Total-tetradioxins	319.8965	23.84	0.000	1.049	0.000	0.088	0.93	0.77	YES	18.7
	45	Total-Dioxins	319.8965	23.66	0.000	0.985	0.000	0.003	1.76	0.77	YES	1.6
	45	Total-Dioxins	319.8965	22.91	0.000	0.985	0.000	0.003	2.17	0.77	YES	2.1
	45	Total-Dioxins	319.8965	27.57	0.000	0.985	0.000	0.008	0.28	0.77	YES	1.8
	41	Total-tetradioxins	319.8965	27.26	7745.961	1.049	0.186	0.186	0.86	0.77	NO	37.2
	41	Total-tetradioxins	319.8965	26.83	0.000	1.049	0.000	0.020	0.96	0.77	YES	5.7
	11	2378-TCDD	319.8965	26.71	3005.759	1.049	0.000	0.025	0.18	0.77	YES	4.7
	41	Total-tetradioxins	319.8965	26.35	683.842	1.049	0.016	0.016	0.66	0.77	NO	3.4
	41	Total-tetradioxins	319.8965	26.03	0.000	1.049	0.000	0.013	3.22	0.77	YES	11.8
	41	Total-tetradioxins	319.8965	25.87	0.000	1.049	0.000	0.016	0.34	0.77	YES	3.3
	41	Total-tetradioxins	319.8965	25.30	1944.207	1.049	0.047	0.047	0.76	0.77	NO	8.1
	12	12378-PeCDD	355.8546	31.79	3630.382	0.998	0.121	0.121	1.40	1.55	NO	16.2
	42	Total-pentadioxins	355.8546	31.10	690.787	0.998	0.023	0.023	1.61	1.55	NO	4.3
	42	Total-pentadioxins	355.8546	30.74	0.000	0.998	0.000	0.044	1.36	1.55	NO	7.4
	42	Total-pentadioxins	355.8546	30.69	0.000	0.998	0.000	0.044	1.36	1.55	NO	8.0
	42	Total-pentadioxins	355.8546	30.56	0.000	0.998	0.000	0.080	1.17	1.55	YES	13.3
	42	Total-pentadioxins	355.8546	30.42	0.000	0.998	0.000	0.100	1.55	1.55	NO	19.4
	42	Total-pentadioxins	355.8546	30.19	3483.953	0.998	0.116	0.116	1.45	1.55	NO	17.1
	42	Total-pentadioxins	355.8546	29.59	1481.528	0.998	0.049	0.049	1.47	1.55	NO	7.1
	42	Total-pentadioxins	355.8546	29.09	3900.225	0.998	0.130	0.130	1.73	1.55	NO	19.7
	42	Total-pentadioxins	355.8546	29.06	0.000	0.998	0.000	0.093	1.07	1.55	YES	16.3
	43	Total-hexadioxins	389.8157	35.48	32316.285	0.940	1.163	1.163	1.20	1.24	NO	84.5
	43	Total-hexadioxins	389.8157	35.09	5121.743	0.940	0.184	0.184	1.06	1.24	NO	19.3
	43	Total-hexadioxins	389.8157	34.29	0.000	0.940	0.000	0.613	1.43	1.24	YES	79.8
	15	123789-HxCDD	389.8157	37.01	8754.731	0.932	0.318	0.318	1.30	1.24	NO	33.7
	43	Total-hexadioxins	389.8157	36.78	0.000	0.940	0.000	0.057	1.48	1.24	YES	8.2
	14	123678-HxCDD	389.8157	36.58	11806.266	0.918	0.426	0.426	1.27	1.24	NO	49.9
	13	123478-HxCDD	389.8157	36.46	4435.223	0.971	0.158	0.158	1.25	1.24	NO	19.4
	43	Total-hexadioxins	389.8157	36.31	0.000	0.940	0.000	0.013	1.73	1.24	YES	3.0
	16	1234678-HpCDD	423.7766	41.33	203871.632	1.017	8.243	8.243	1.03	1.05	NO	850.3
	44	Total-heptadioxins	423.7766	40.07	157058.977	1.017	6.350	6.350	1.05	1.05	NO	692.2
	17	OCDD	457.7377	47.24	1054228.250	1.008	65.428	65.428	0.89	0.89	NO	3232.4

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PFK1

		Name	Mass								
	48	FUNCTION1 PFK	330.9792	21.31	0.000						45.2
	48	FUNCTION1 PFK	330.9792	21.24	0.000						45.3
	48	FUNCTION1 PFK	330.9792	21.13	0.000						47.4
	48	FUNCTION1 PFK	330.9792	24.15	0.000						0.5
	48	FUNCTION1 PFK	330.9792	23.94	0.000						0.3
	48	FUNCTION1 PFK	330.9792	23.88	0.000						0.4
	48	FUNCTION1 PFK	330.9792	23.78	0.000						2.2
	48	FUNCTION1 PFK	330.9792	23.69	0.000						1.0
	48	FUNCTION1 PFK	330.9792	23.19	0.000						7.3
	48	FUNCTION1 PFK	330.9792	22.93	0.000						13.9
	48	FUNCTION1 PFK	330.9792	22.82	0.000						16.2
	48	FUNCTION1 PFK	330.9792	22.69	0.000						18.2
	48	FUNCTION1 PFK	330.9792	22.49	0.000						22.8
	48	FUNCTION1 PFK	330.9792	22.25	0.000						28.6
	48	FUNCTION1 PFK	330.9792	22.16	0.000						28.9
	48	FUNCTION1 PFK	330.9792	22.04	0.000						31.4
	48	FUNCTION1 PFK	330.9792	21.88	0.000						34.9
	48	FUNCTION1 PFK	330.9792	21.54	0.000						43.3
	48	FUNCTION1 PFK	330.9792	21.43	0.000						45.0
	48	FUNCTION1 PFK	330.9792	27.14	0.000						1.6
	48	FUNCTION1 PFK	330.9792	27.08	0.000						1.4
	48	FUNCTION1 PFK	330.9792	26.93	0.000						1.5
	48	FUNCTION1 PFK	330.9792	26.57	0.000						0.5
	48	FUNCTION1 PFK	330.9792	26.54	0.000						1.2
	48	FUNCTION1 PFK	330.9792	26.29	0.000						1.2
	48	FUNCTION1 PFK	330.9792	26.15	0.000						0.6
	48	FUNCTION1 PFK	330.9792	25.90	0.000						1.4
	48	FUNCTION1 PFK	330.9792	25.44	0.000						0.0
	48	FUNCTION1 PFK	330.9792	25.35	0.000						0.4
	48	FUNCTION1 PFK	330.9792	25.23	0.000						0.3
	48	FUNCTION1 PFK	330.9792	25.15	0.000						1.0
	48	FUNCTION1 PFK	330.9792	25.02	0.000						0.9
	48	FUNCTION1 PFK	330.9792	24.96	0.000						2.1
	48	FUNCTION1 PFK	330.9792	24.36	0.000						1.2
	48	FUNCTION1 PFK	330.9792	24.30	0.000						2.6
	48	FUNCTION1 PFK	330.9792	28.11	0.000						0.8
	48	FUNCTION1 PFK	330.9792	28.01	0.000						0.5
	48	FUNCTION1 PFK	330.9792	27.78	0.000						2.0
	48	FUNCTION1 PFK	330.9792	27.69	0.000						0.4
	48	FUNCTION1 PFK	330.9792	27.62	0.000						1.0
	48	FUNCTION1 PFK	330.9792	27.54	0.000						1.0
	48	FUNCTION1 PFK	330.9792	27.23	0.000						1.4

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PFK2

	#	Name	Mass	RT	Abs Resp	RRF M...	Amt	EMRR	2° Resp...	1° Resp...	1° R...	S/N
[redacted]	49	FUNCTION2 PFK	366.9792	30.41	0.000		0.000					1.2
[redacted]	49	FUNCTION2 PFK	366.9792	29.95	0.000		0.000					1.4
[redacted]	49	FUNCTION2 PFK	366.9792	29.41	0.000		0.000					0.9
[redacted]	49	FUNCTION2 PFK	366.9792	29.32	0.000		0.000					1.4
[redacted]	49	FUNCTION2 PFK	366.9792	29.29	0.000		0.000					0.9
[redacted]	49	FUNCTION2 PFK	366.9792	28.84	0.000		0.000					2.0
[redacted]	49	FUNCTION2 PFK	366.9792	28.42	0.000		0.000					1.4
[redacted]	49	FUNCTION2 PFK	366.9792	28.37	0.000		0.000					1.1
[redacted]	49	FUNCTION2 PFK	366.9792	32.94	0.000		0.000					0.6
[redacted]	49	FUNCTION2 PFK	366.9792	31.98	0.000		0.000					1.0
[redacted]	49	FUNCTION2 PFK	366.9792	31.63	0.000		0.000					1.7
[redacted]	49	FUNCTION2 PFK	366.9792	31.41	0.000		0.000					0.5
[redacted]	49	FUNCTION2 PFK	366.9792	30.98	0.000		0.000					2.0

PFK3

	#	Name	Mass	RT	Abs Resp	RRF M...	Amt	EMRR	2° Resp...	1° Resp...	1° R...	S/N
[redacted]	50	FUNCTION3 PFK	380.9760	37.40	0.000		0.000					3.8
[redacted]	50	FUNCTION3 PFK	380.9760	37.34	0.000		0.000					3.3

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PFK4

[redacted]	#	Name	[redacted]	RT	Abs Area	RRF M...	[redacted]	EMRR	S/N Ratio	S/N Ratio	16 Ex...	S/N
[redacted]	51	FUNCTION4 PFK	430.9728	39.27	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	38.95	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	38.88	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	38.81	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	38.68	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	38.62	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	38.58	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	41.91	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.86	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	41.75	0.000							1.9
[redacted]	51	FUNCTION4 PFK	430.9728	41.70	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	41.64	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	41.58	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	41.35	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	41.24	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	41.03	0.000							1.9
[redacted]	51	FUNCTION4 PFK	430.9728	40.66	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	40.26	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	40.21	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	40.02	0.000							1.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.99	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	39.84	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	39.65	0.000							2.2
[redacted]	51	FUNCTION4 PFK	430.9728	44.48	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.41	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.21	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	44.17	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.12	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.09	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	43.54	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	43.42	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	43.33	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	43.28	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	43.22	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	43.01	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.93	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	42.71	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	42.37	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	42.14	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.93	0.000							2.6
[redacted]	51	FUNCTION4 PFK	430.9728	44.89	0.000							2.2
[redacted]	51	FUNCTION4 PFK	430.9728	44.81	0.000							3.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.75	0.000							2.3
[redacted]	51	FUNCTION4 PFK	430.9728	44.64	0.000							1.3

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PFK5

	52	FUNCTION5 PFK	480.9696	45.80	0.000						0.5
	52	FUNCTION5 PFK	480.9696	45.76	0.000						0.7
	52	FUNCTION5 PFK	480.9696	45.72	0.000						0.4
	52	FUNCTION5 PFK	480.9696	45.59	0.000						1.5
	52	FUNCTION5 PFK	480.9696	45.47	0.000						1.8
	52	FUNCTION5 PFK	480.9696	45.32	0.000						0.8
	52	FUNCTION5 PFK	480.9696	45.28	0.000						1.5
	52	FUNCTION5 PFK	480.9696	45.21	0.000						2.0
	52	FUNCTION5 PFK	480.9696	45.15	0.000						1.6
	52	FUNCTION5 PFK	480.9696	45.12	0.000						0.7
	52	FUNCTION5 PFK	480.9696	46.99	0.000						1.1
	52	FUNCTION5 PFK	480.9696	46.92	0.000						0.6
	52	FUNCTION5 PFK	480.9696	46.79	0.000						1.5
	52	FUNCTION5 PFK	480.9696	46.74	0.000						1.2
	52	FUNCTION5 PFK	480.9696	46.71	0.000						0.8
	52	FUNCTION5 PFK	480.9696	46.68	0.000						0.8
	52	FUNCTION5 PFK	480.9696	46.59	0.000						1.0
	52	FUNCTION5 PFK	480.9696	46.45	0.000						1.5
	52	FUNCTION5 PFK	480.9696	46.40	0.000						0.8
	52	FUNCTION5 PFK	480.9696	46.34	0.000						0.9
	52	FUNCTION5 PFK	480.9696	46.27	0.000						2.0
	52	FUNCTION5 PFK	480.9696	46.16	0.000						1.8
	52	FUNCTION5 PFK	480.9696	46.11	0.000						0.5
	52	FUNCTION5 PFK	480.9696	46.08	0.000						1.7
	52	FUNCTION5 PFK	480.9696	46.00	0.000						1.0
	52	FUNCTION5 PFK	480.9696	45.95	0.000						1.0
	52	FUNCTION5 PFK	480.9696	48.81	0.000						0.5
	52	FUNCTION5 PFK	480.9696	48.79	0.000						0.3
	52	FUNCTION5 PFK	480.9696	48.58	0.000						1.2
	52	FUNCTION5 PFK	480.9696	48.54	0.000						1.5
	52	FUNCTION5 PFK	480.9696	48.46	0.000						1.4
	52	FUNCTION5 PFK	480.9696	48.34	0.000						0.8
	52	FUNCTION5 PFK	480.9696	48.30	0.000						1.1
	52	FUNCTION5 PFK	480.9696	48.14	0.000						1.1
	52	FUNCTION5 PFK	480.9696	47.87	0.000						0.8
	52	FUNCTION5 PFK	480.9696	47.71	0.000						1.0
	52	FUNCTION5 PFK	480.9696	47.65	0.000						1.4
	52	FUNCTION5 PFK	480.9696	47.50	0.000						1.7
	52	FUNCTION5 PFK	480.9696	47.47	0.000						1.6
	52	FUNCTION5 PFK	480.9696	47.35	0.000						1.6
	52	FUNCTION5 PFK	480.9696	47.31	0.000						1.3
	52	FUNCTION5 PFK	480.9696	47.12	0.000						1.6
	52	FUNCTION5 PFK	480.9696	48.98	0.000						0.7
	52	FUNCTION5 PFK	480.9696	48.90	0.000						1.3

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ETHERS1

	#	Name	Trace	RT	Abs Ratio	Ref M	pg	Exp%	1° Rat	2° Rat	1° R	S/N
	53	FUNCTION1 HXCD...	375.8364	27.08	0.000		0.000					2.5
	53	FUNCTION1 HXCD...	375.8364	25.82	0.000		0.000					3.2
	53	FUNCTION1 HXCD...	375.8364	25.18	0.000		0.000					5.2
	53	FUNCTION1 HXCD...	375.8364	25.11	0.000		0.000					5.2
	53	FUNCTION1 HXCD...	375.8364	25.06	0.000		0.000					5.3
	53	FUNCTION1 HXCD...	375.8364	24.54	0.000		0.000					3.4
	53	FUNCTION1 HXCD...	375.8364	24.37	0.000		0.000					3.3
	53	FUNCTION1 HXCD...	375.8364	23.91	0.000		0.000					77.8
	53	FUNCTION1 HXCD...	375.8364	23.76	0.000		0.000					3.3
	53	FUNCTION1 HXCD...	375.8364	22.46	0.000		0.000					4.2
	53	FUNCTION1 HXCD...	375.8364	22.24	0.000		0.000					2.0

ETHERS2

	#	Name	Trace	RT	Abs Ratio	Ref M	pg	Exp%	1° Rat	2° Rat	1° R	S/N
	54	FUNCTION1 HPCD...	409.7974	21.36	0.000		0.000					1.9
	54	FUNCTION1 HPCD...	409.7974	27.66	0.000		0.000					1.9
	54	FUNCTION1 HPCD...	409.7974	26.29	0.000		0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	25.97	0.000		0.000					1.1
	54	FUNCTION1 HPCD...	409.7974	25.91	0.000		0.000					2.1
	54	FUNCTION1 HPCD...	409.7974	24.70	0.000		0.000					1.2
	54	FUNCTION1 HPCD...	409.7974	24.51	0.000		0.000					1.9
	54	FUNCTION1 HPCD...	409.7974	23.93	0.000		0.000					1.2
	54	FUNCTION1 HPCD...	409.7974	23.66	0.000		0.000					4.6
	54	FUNCTION1 HPCD...	409.7974	22.94	0.000		0.000					1.3
	54	FUNCTION1 HPCD...	409.7974	22.33	0.000		0.000					1.5

ETHERS3

	#	Name	Trace	RT	Abs Ratio	Ref M	pg	Exp%	1° Rat	2° Rat	1° R	S/N
	55	FUNCTION2 HPCD...	409.7974	29.85	0.000		0.000					1.7
	55	FUNCTION2 HPCD...	409.7974	29.59	0.000		0.000					1.2
	55	FUNCTION2 HPCD...	409.7974	29.26	0.000		0.000					1.5
	55	FUNCTION2 HPCD...	409.7974	29.22	0.000		0.000					1.4
	55	FUNCTION2 HPCD...	409.7974	28.52	0.000		0.000					1.5
	55	FUNCTION2 HPCD...	409.7974	31.75	0.000		0.000					1.4
	55	FUNCTION2 HPCD...	409.7974	31.69	0.000		0.000					1.6
	55	FUNCTION2 HPCD...	409.7974	30.92	0.000		0.000					4.5
	55	FUNCTION2 HPCD...	409.7974	30.15	0.000		0.000					2.2

ETHERS4

	#	Name	Trace	RT	Abs Ratio	Ref M	pg	Exp%	1° Rat	2° Rat	1° R	S/N

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

ETHERS5

	57	FUNCTION4 NCDPE	479.7165	43.52	0.000	0.000					3.9
	57	FUNCTION4 NCDPE	479.7165	39.61	0.000	0.000					5.1
	57	FUNCTION4 NCDPE	479.7165	39.10	0.000	0.000					128.7

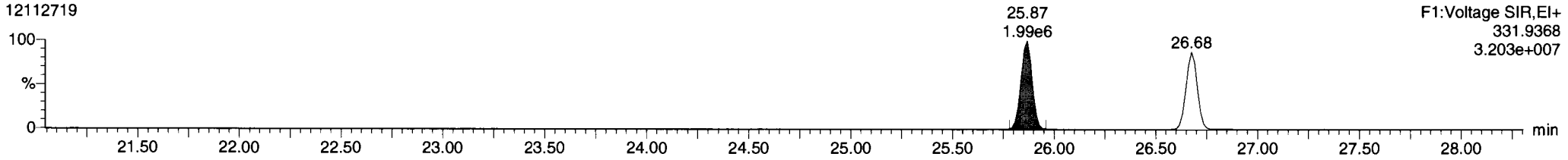
ETHERS6

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

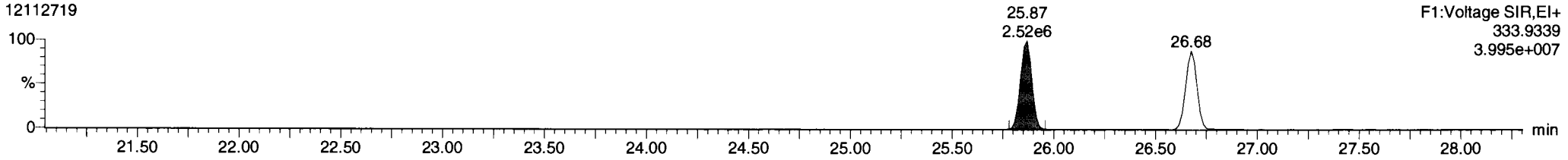
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

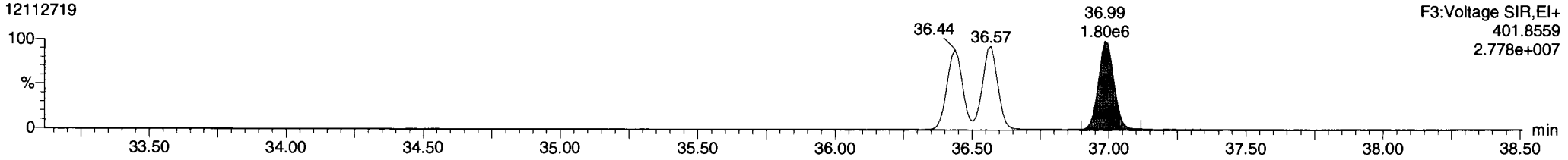
13C-1234-TCDD



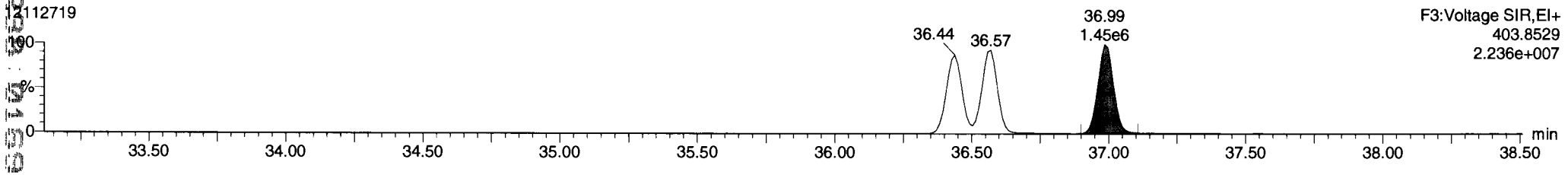
13C-1234-TCDD



13C-123789-HxCDD



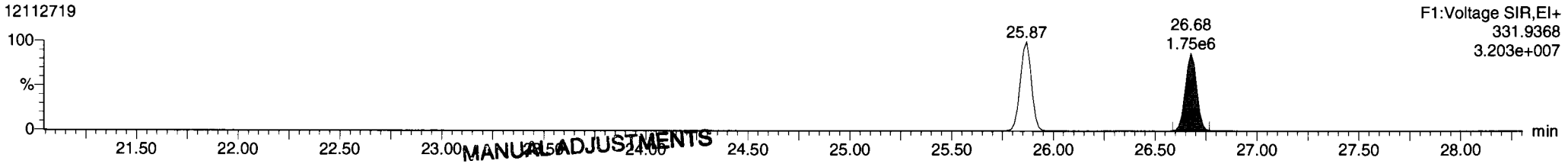
13C-123789-HxCDD



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD

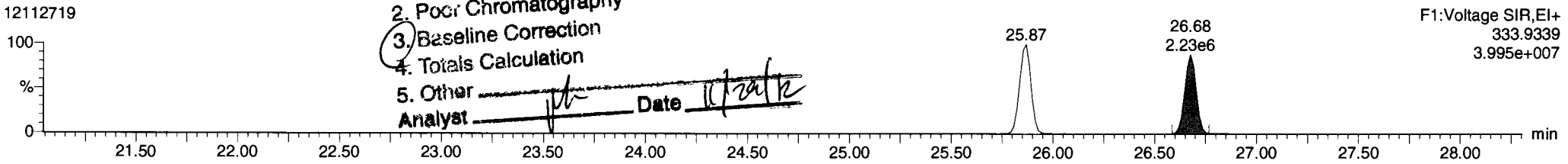


MANUAL ADJUSTMENTS

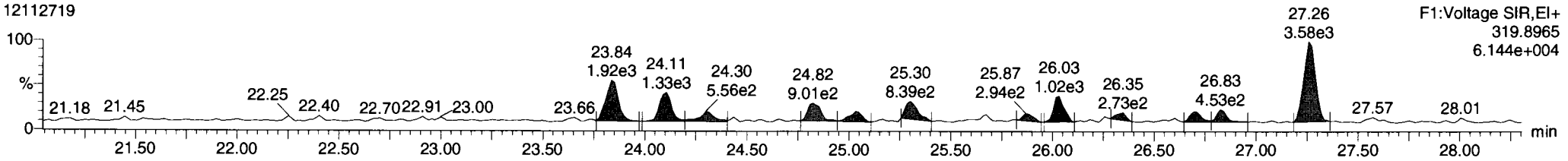
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

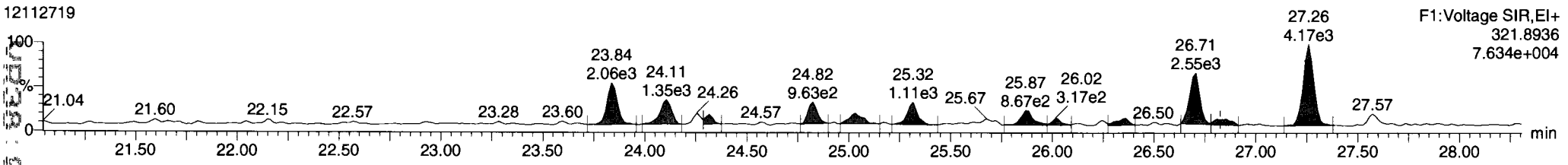
13C-2378-TCDD



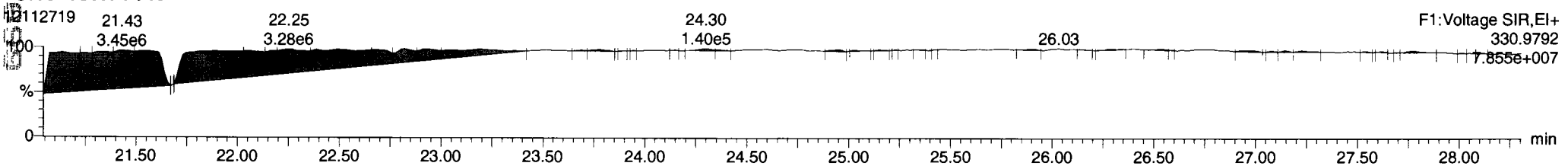
Total-tetradioxins



Total-tetradioxins



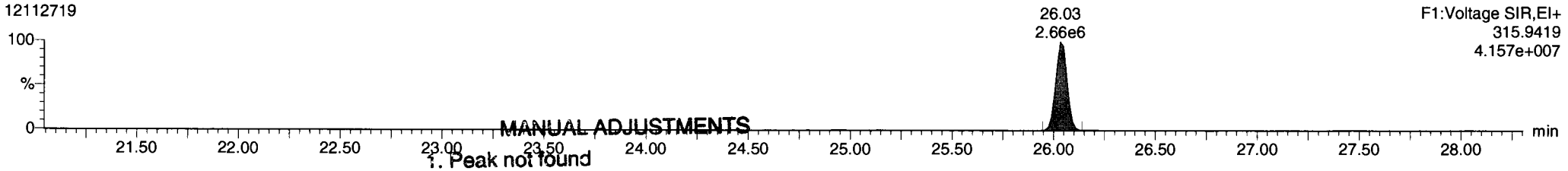
FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

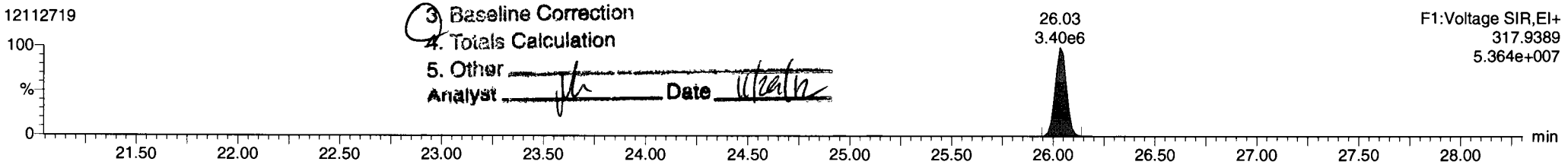
Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

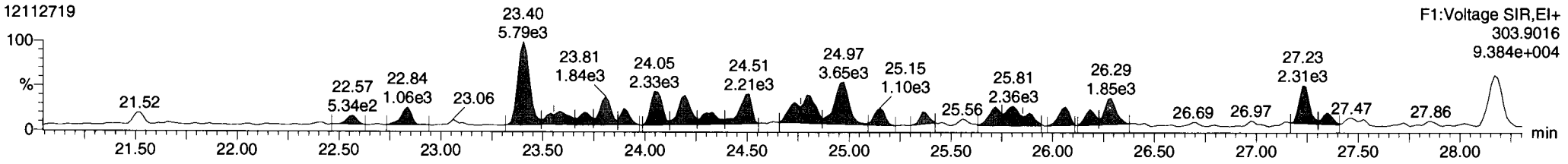


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date _____

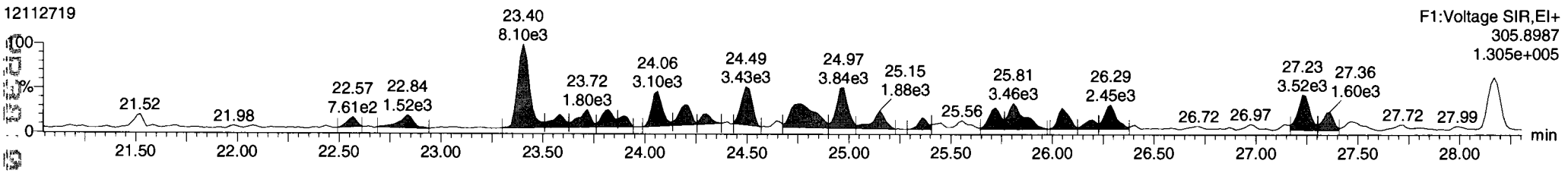
13C-2378-TCDF



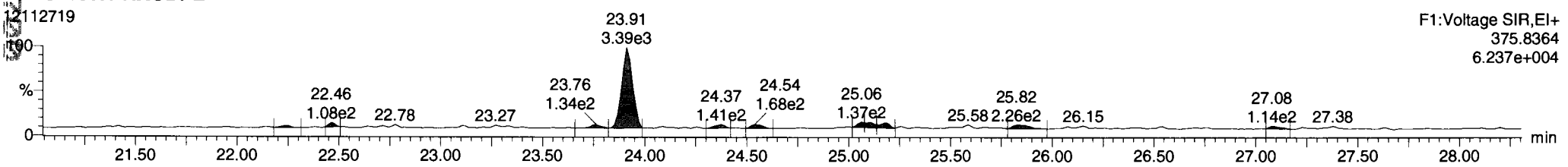
Total-tetrafurans



Total-tetrafurans



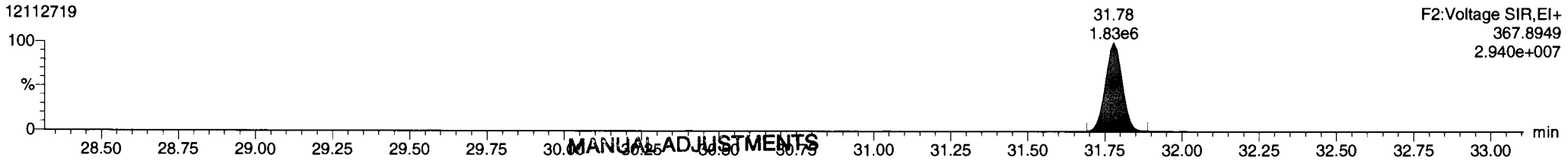
FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

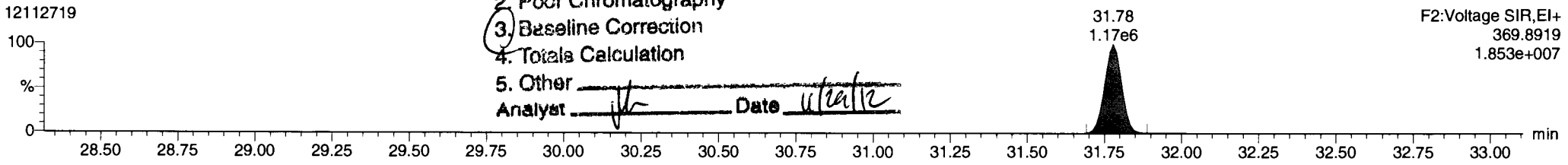


MANUAL ADJUSTMENTS

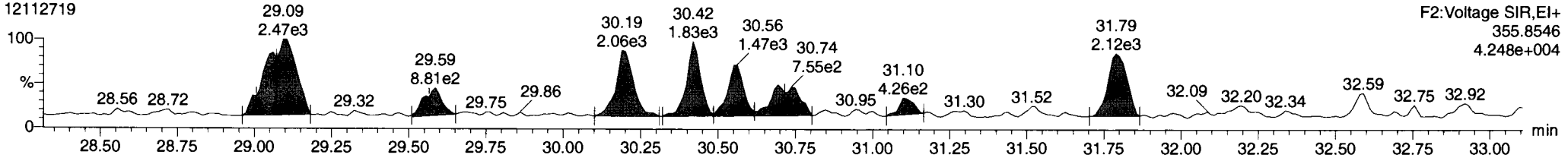
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 11/28/12

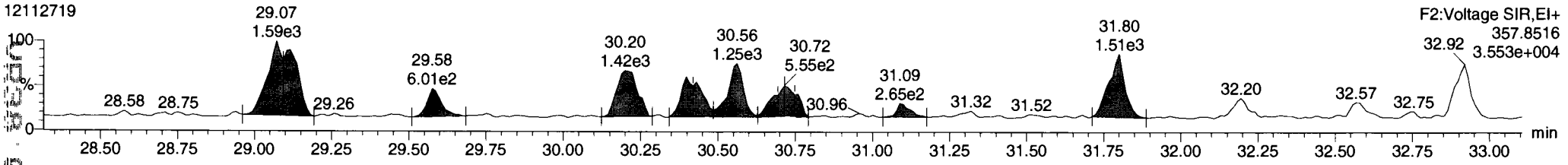
13C-12378-PeCDD



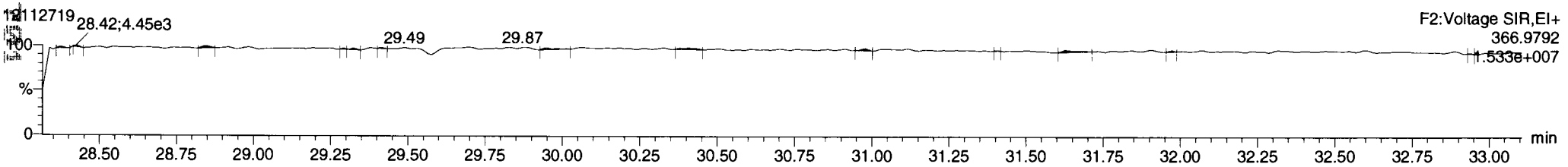
Total-pentadioxins



Total-pentadioxins



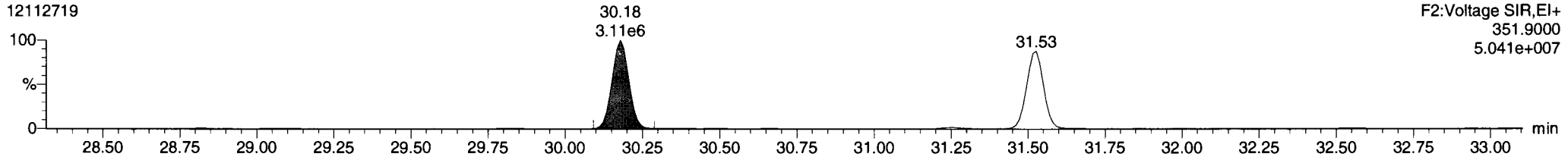
FUNCTION2 PFK



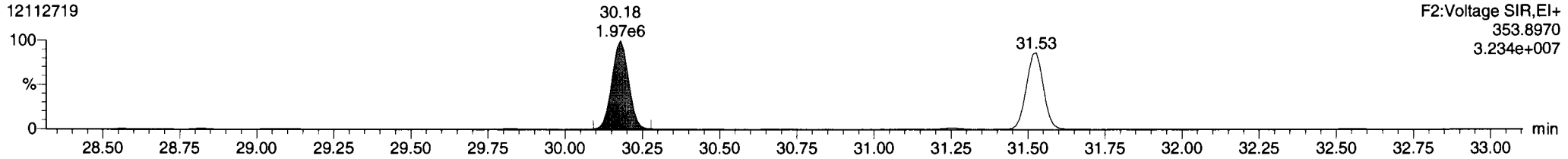
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

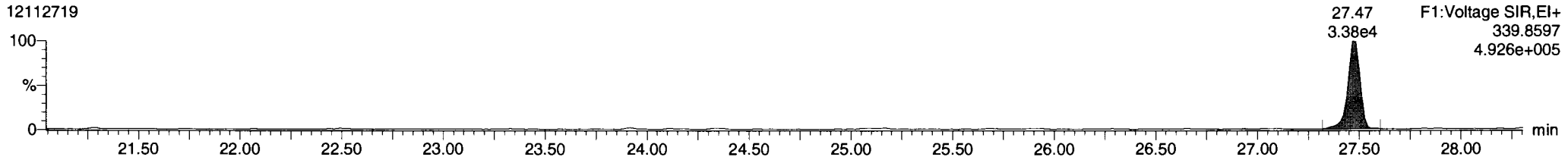
13C-12378-PeCDF



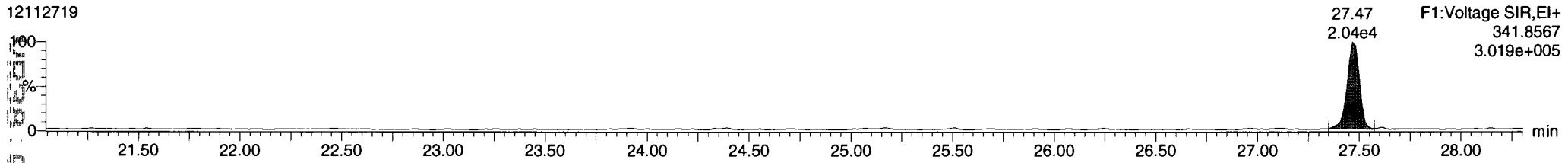
13C-12378-PeCDF



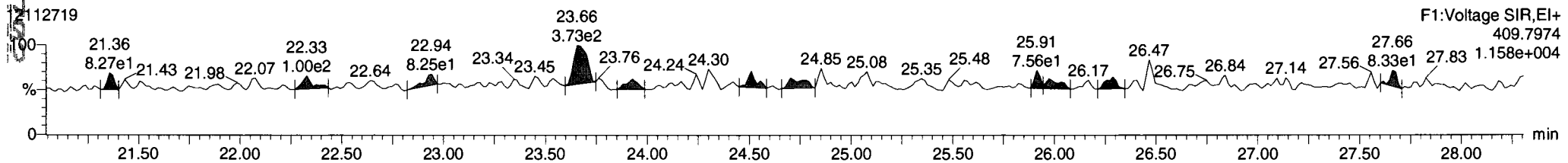
Total-penta1



Total-penta1



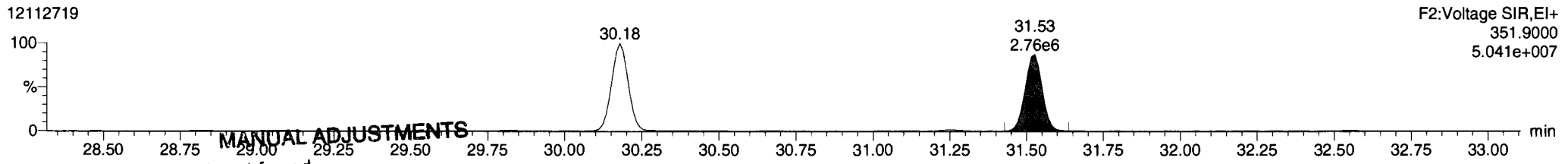
FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

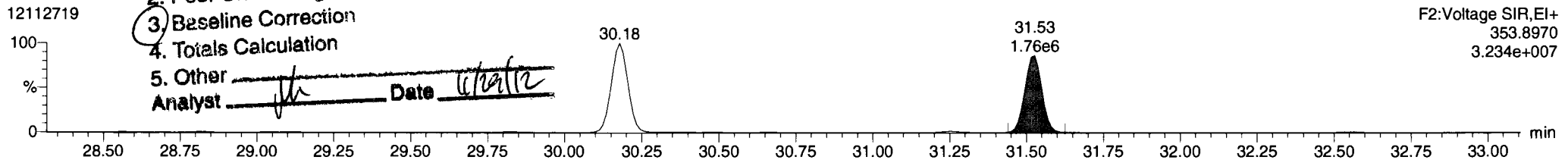
Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

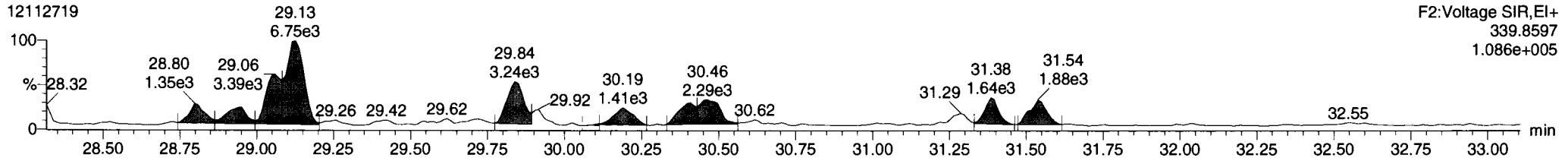


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date _____

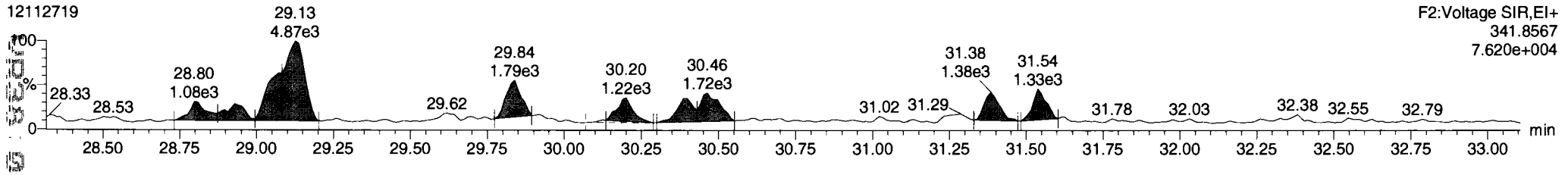
13C-23478-PeCDF



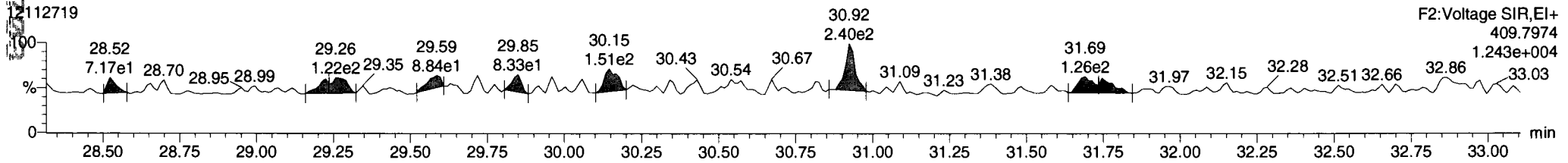
Total-pentafurans



Total-pentafurans



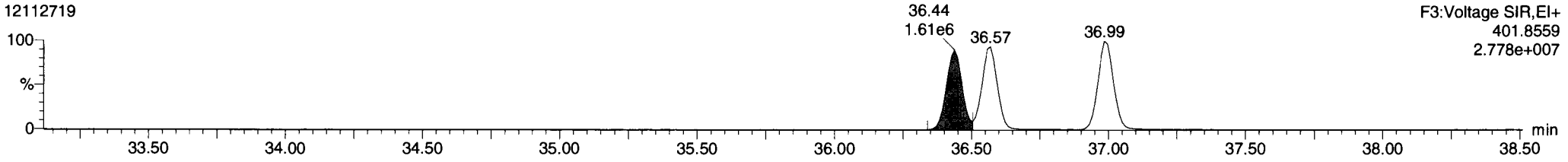
FUNCTION2 HPCDPE



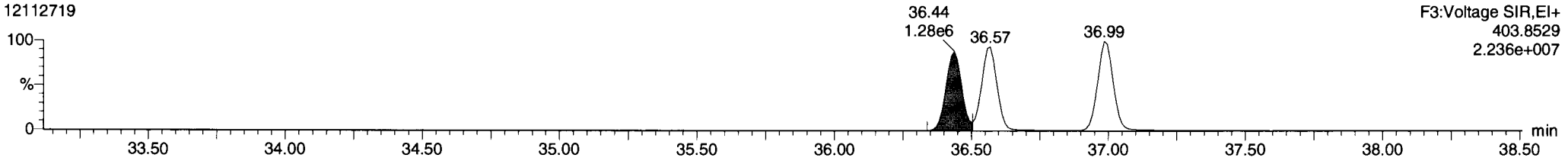
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

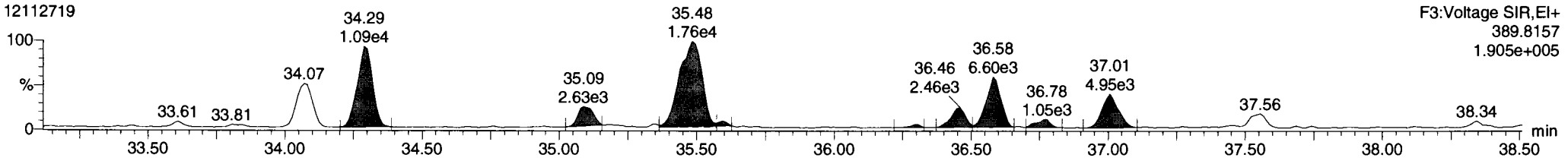
13C-123478-HxCDD



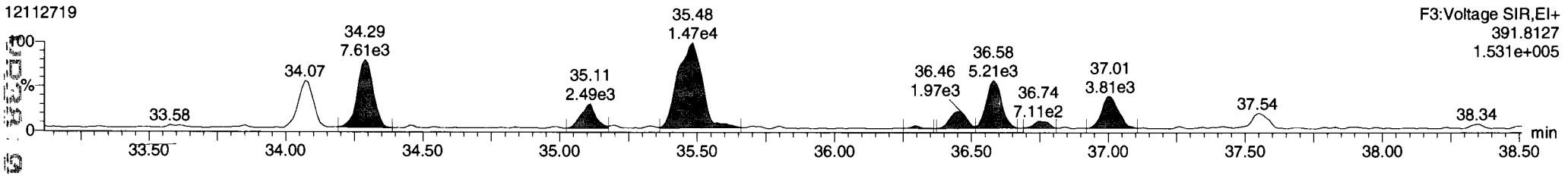
13C-123478-HxCDD



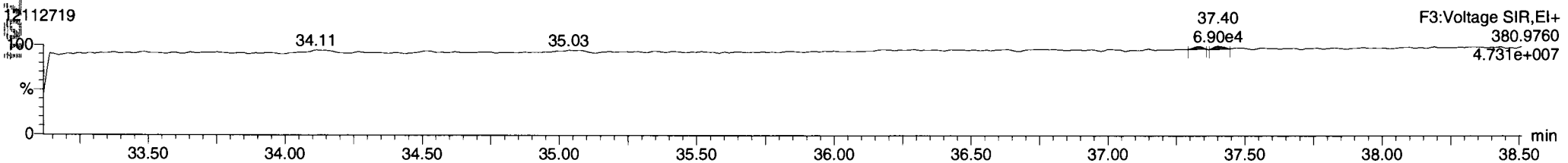
Total-hexadioxins



Total-hexadioxins



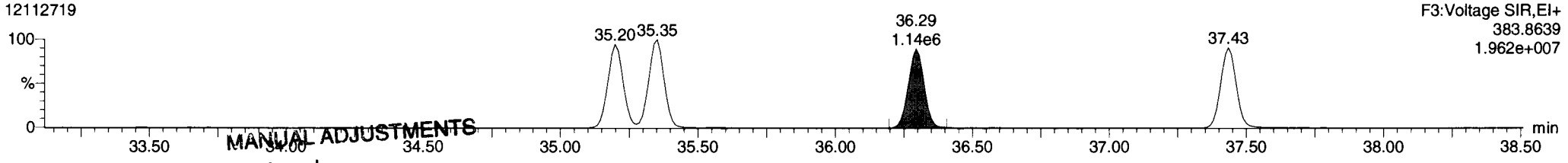
FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

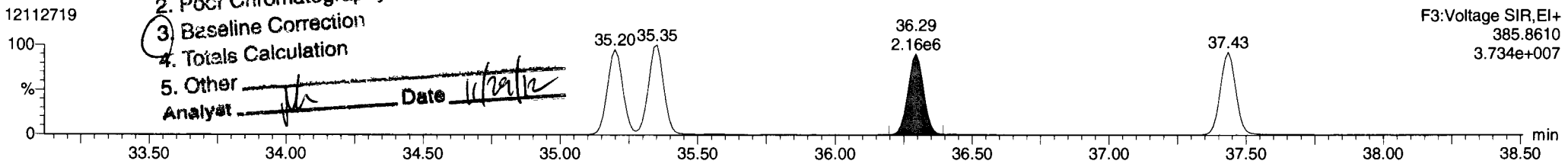
Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF

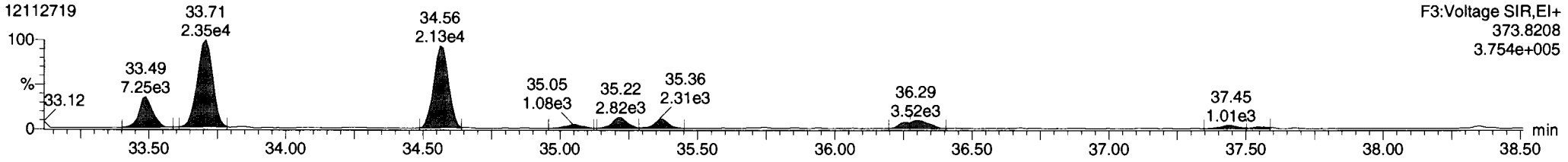


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst
Date 11/29/12

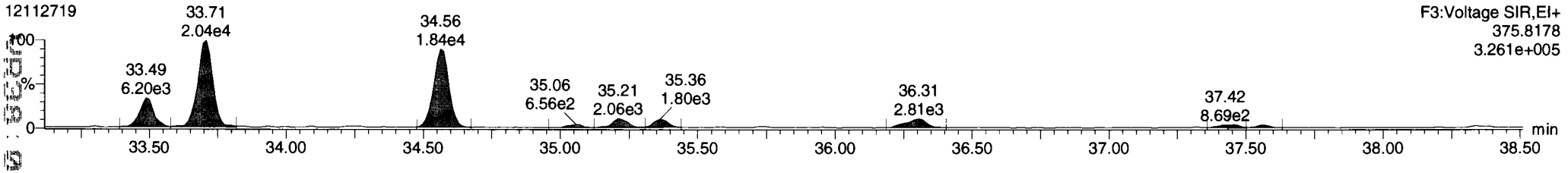
13C-234678-HxCDF



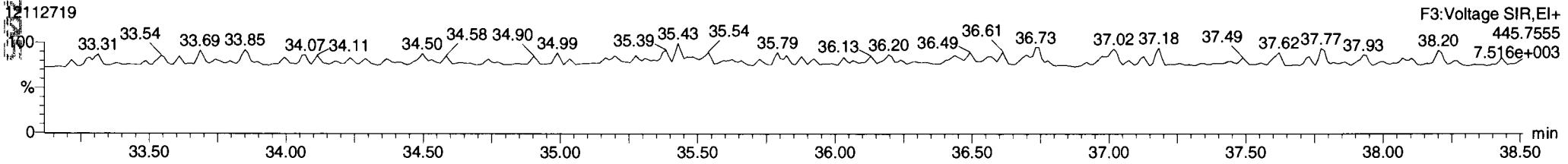
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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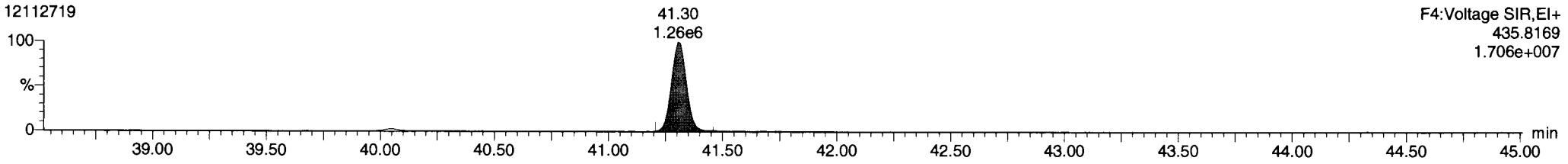
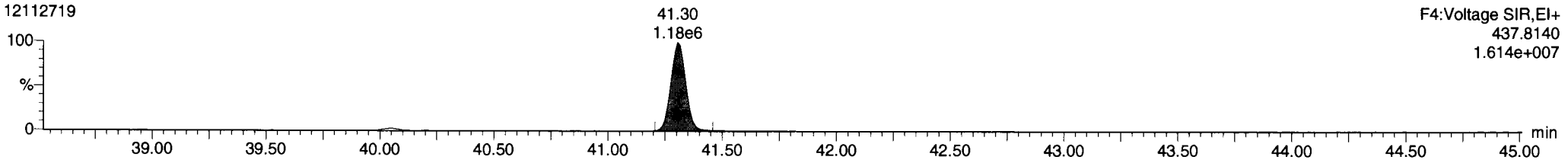
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

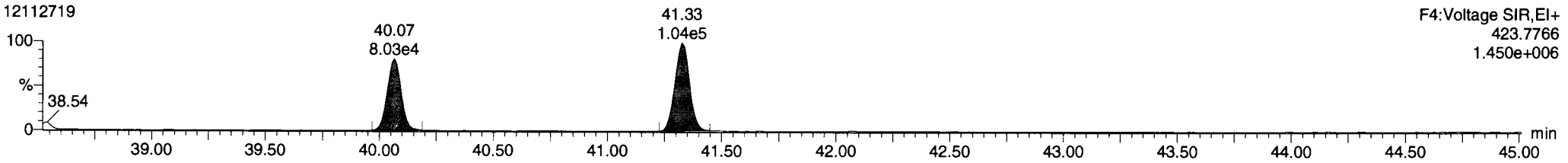
13C-1234678-HpCDD



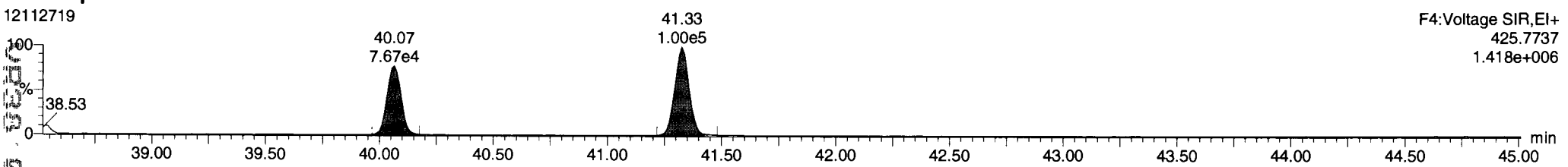
13C-1234678-HpCDD



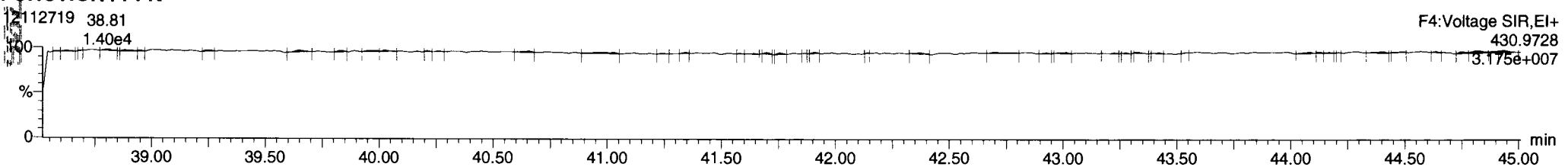
Total-heptadioxins



Total-heptadioxins



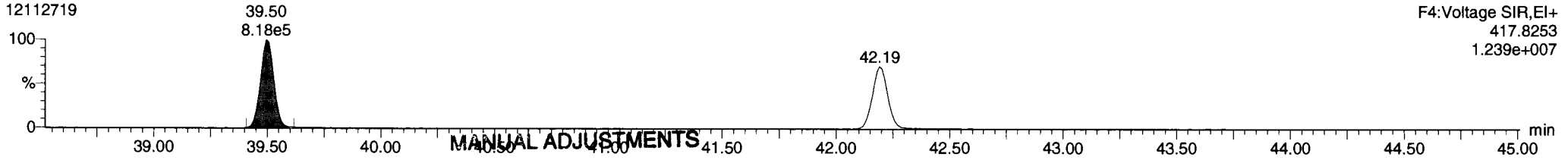
FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF

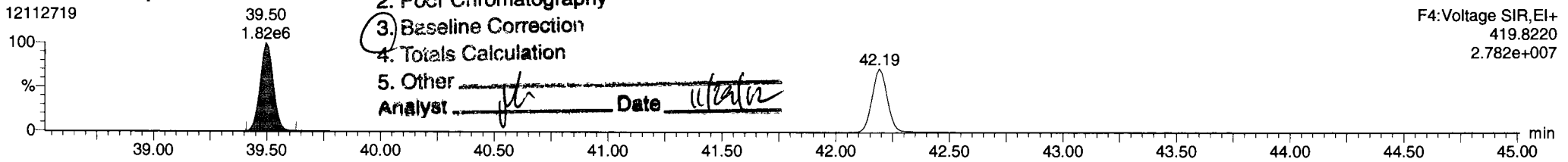


MANUAL ADJUSTMENTS

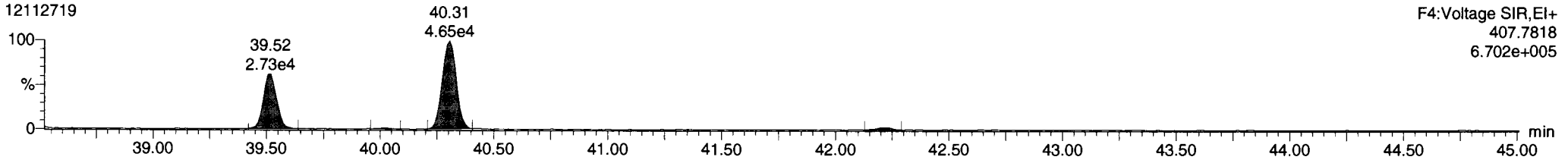
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date _____

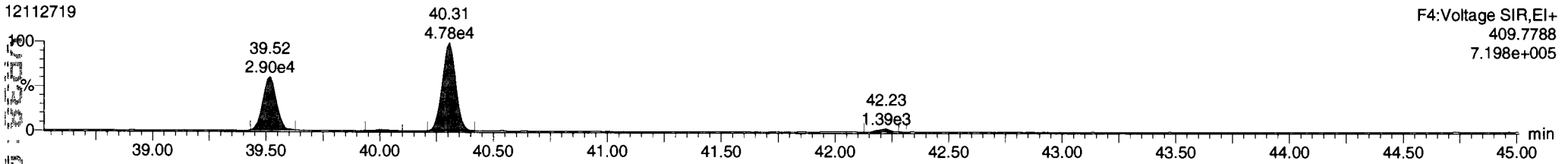
13C-1234678-HpCDF



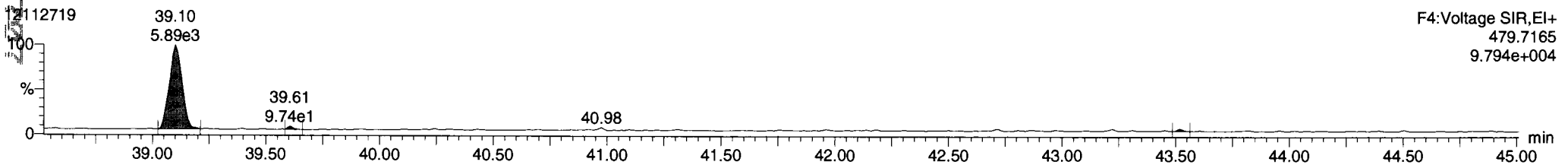
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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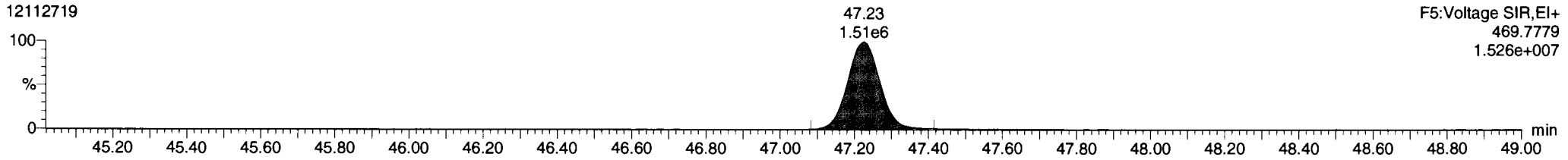
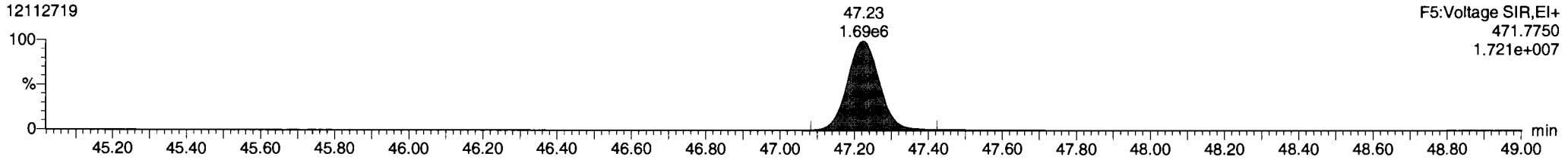
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:27:58 Pacific Standard Time

Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

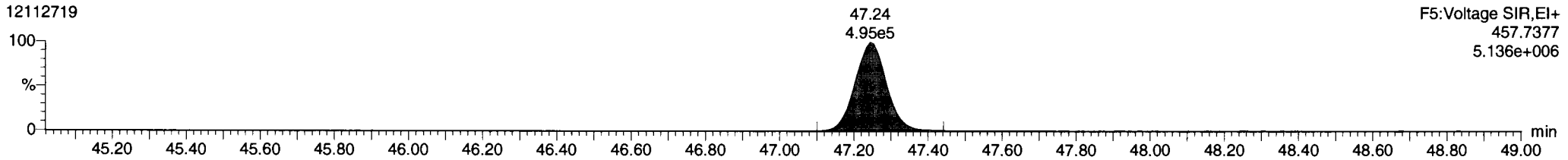
13C-OCDD



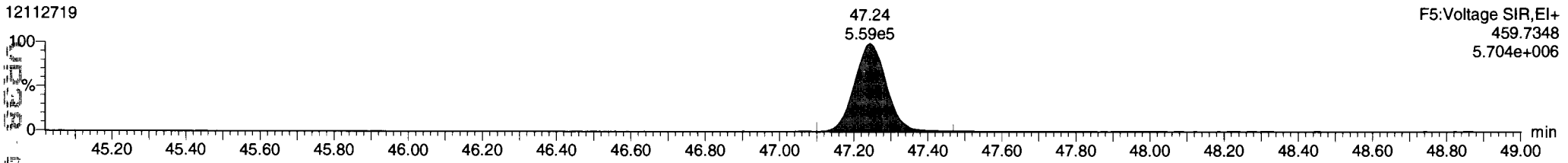
13C-OCDD



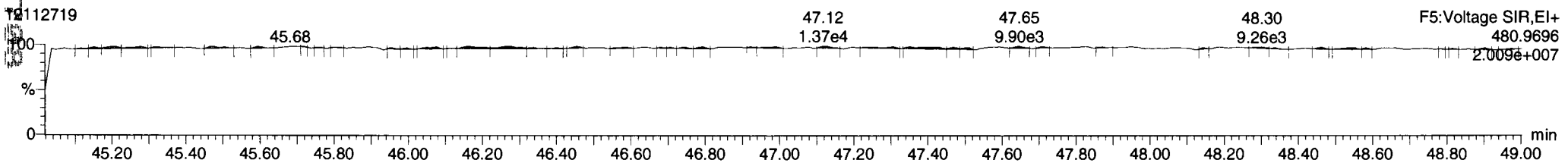
OCDD



OCDD



FUNCTION5 PFK



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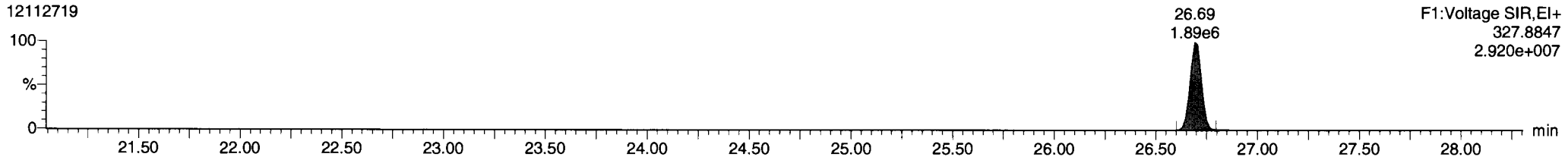
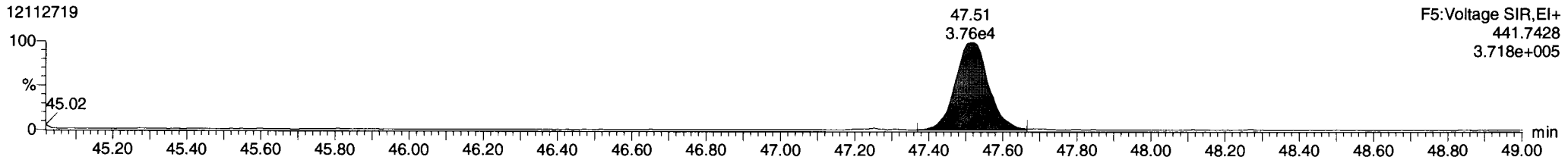
Name: 12112719, Date: 28-Nov-2012, Time: 02:35:11, ID: VR38KDUP, Conditions: AUTOSPEC01, User: pk

37CL-2378-TCDD



OCDF



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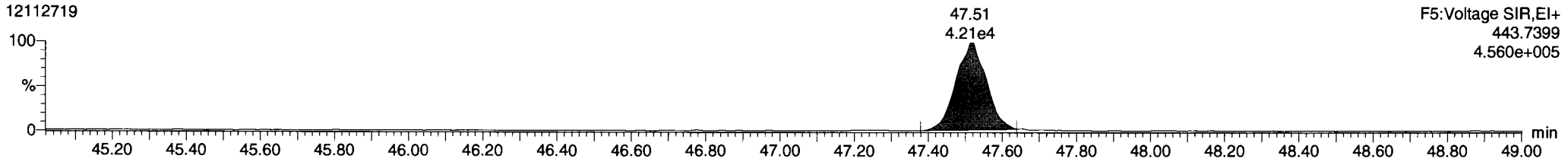
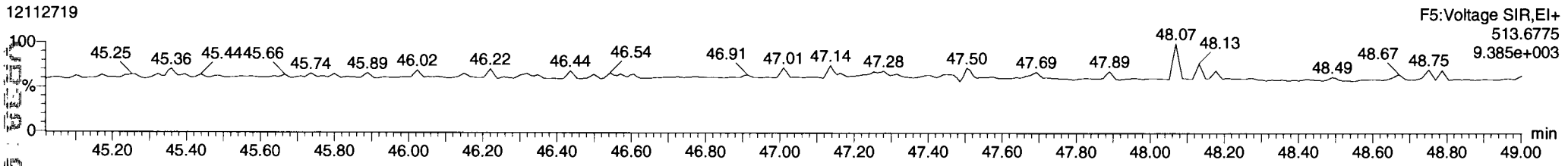


FUNCTION5 DCDPE



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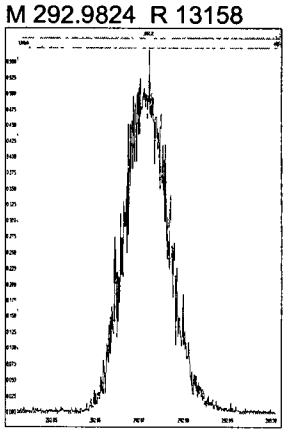
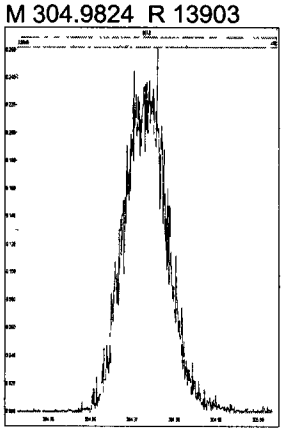
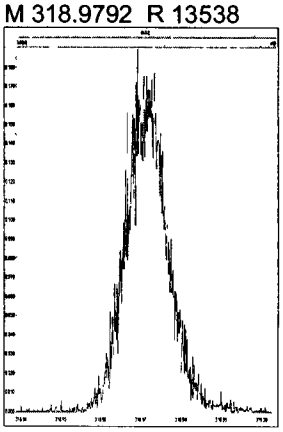
M 292.9824 R 13158



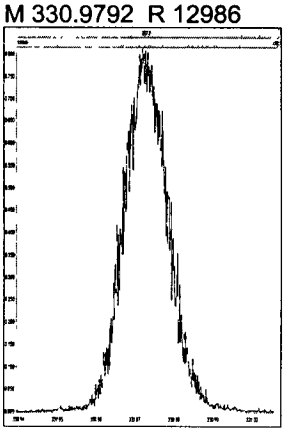
M 304.9824 R 13903



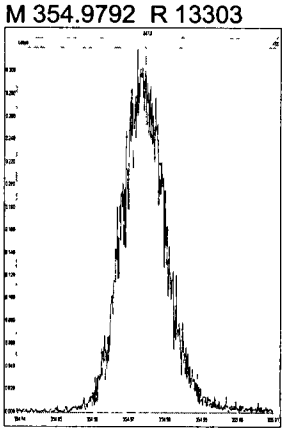
M 318.9792 R 13538



M 330.9792 R 12986



M 354.9792 R 13303



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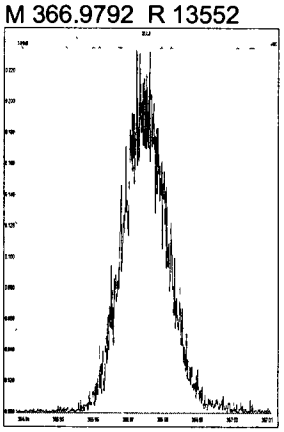
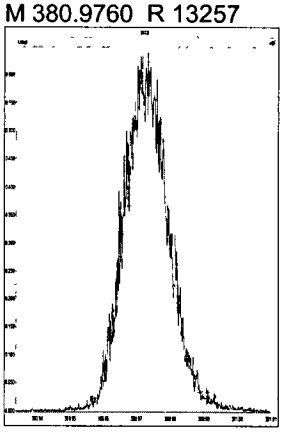
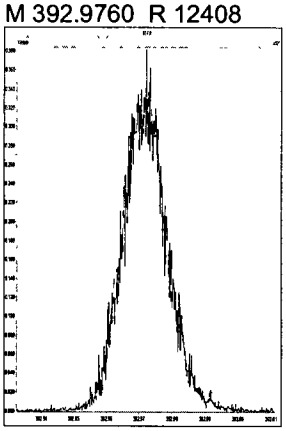


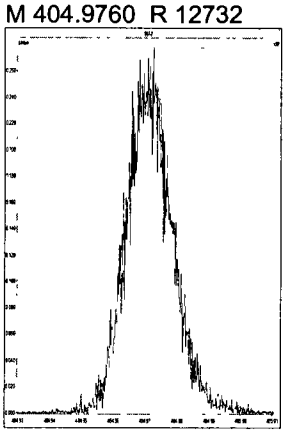
M 380.9760 R 13257



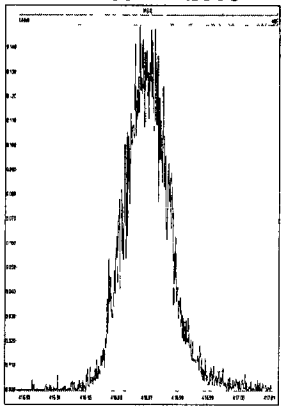
M 392.9760 R 12408



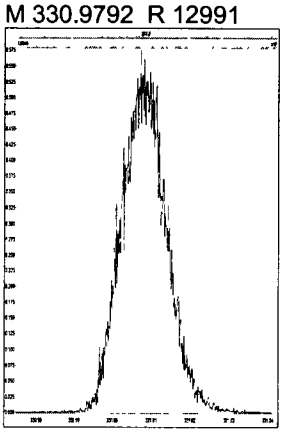
M 404.9760 R 12732



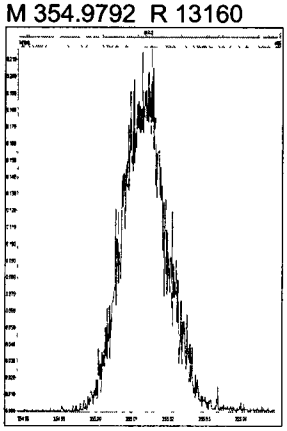
M 416.9760 R 12563



M 330.9792 R 12991



M 354.9792 R 13160



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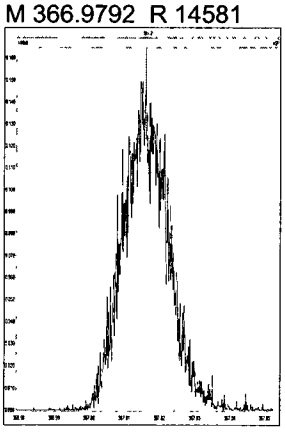
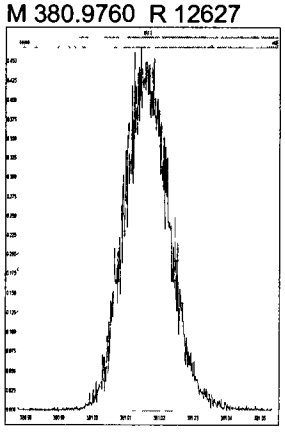
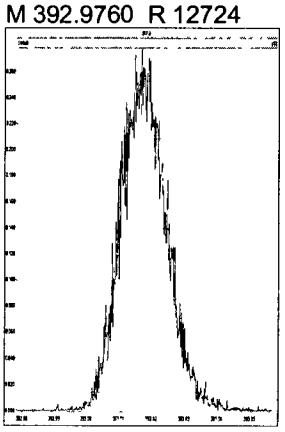


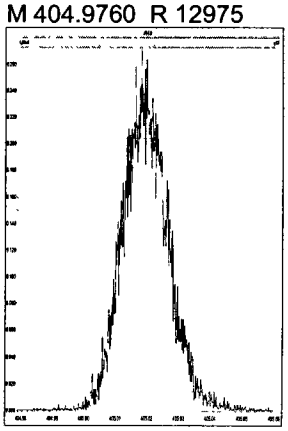
M 380.9760 R 12627



M 392.9760 R 12724



M 404.9760 R 12975



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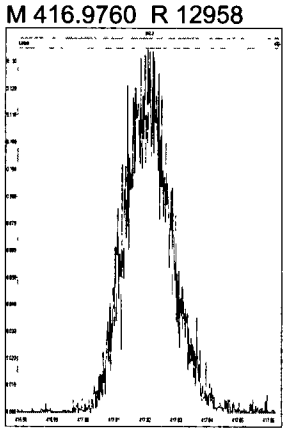
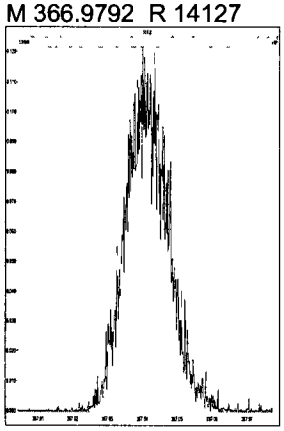
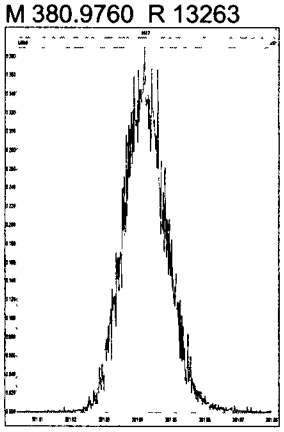


M 366.9792 R 14127



M 380.9760 R 13263



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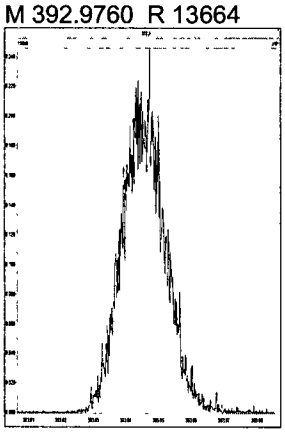

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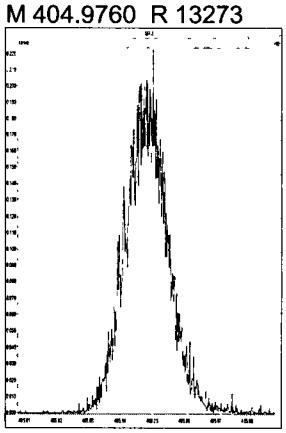

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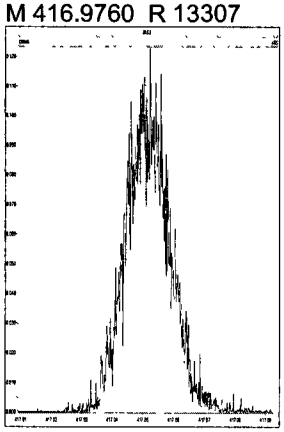
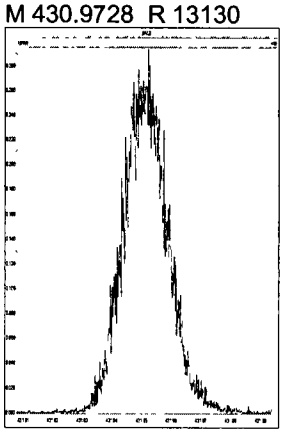
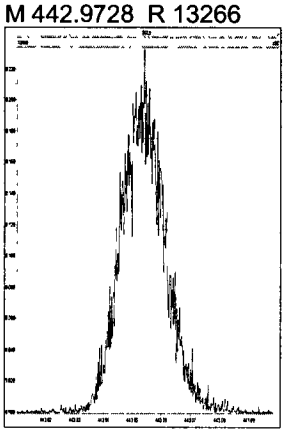


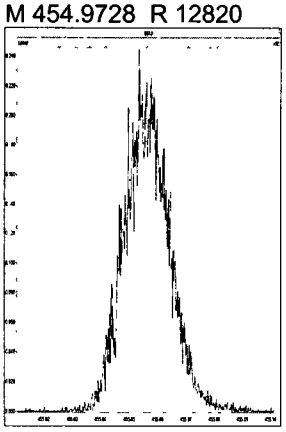
M 430.9728 R 13130



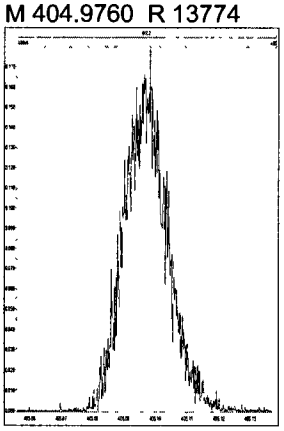
M 442.9728 R 13266



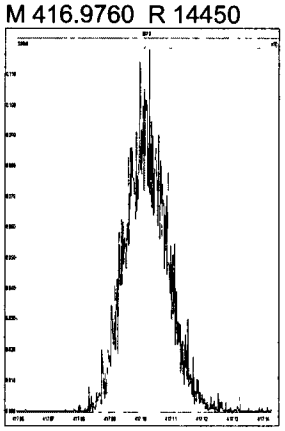
M 454.9728 R 12820



M 404.9760 R 13774



M 416.9760 R 14450



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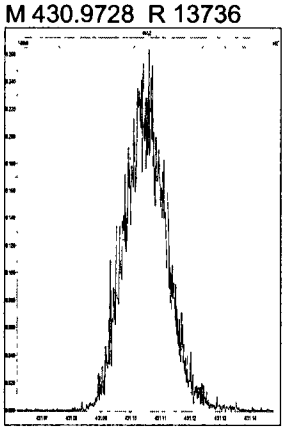
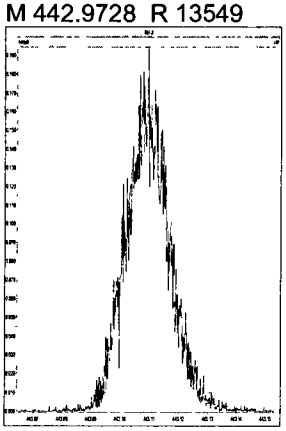
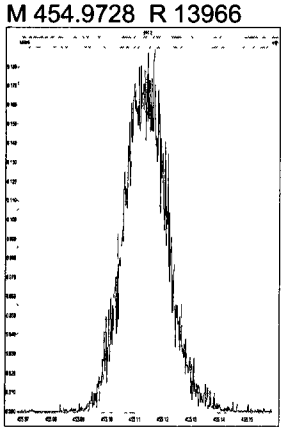


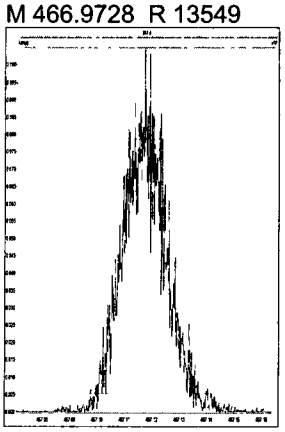
M 442.9728 R 13549



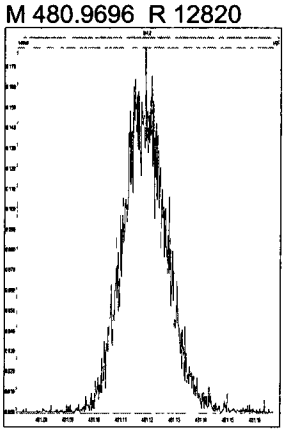
M 454.9728 R 13966



M 466.9728 R 13549



M 480.9696 R 12820



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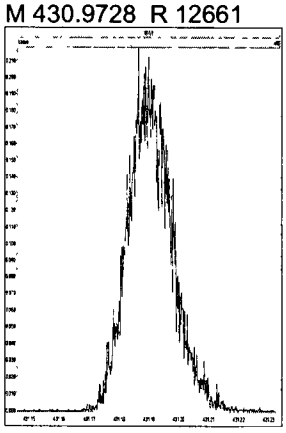
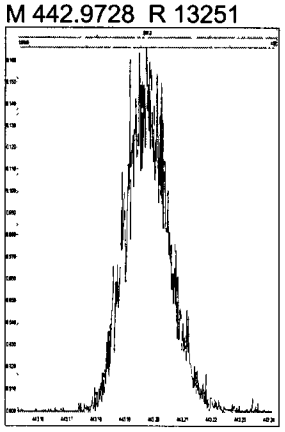
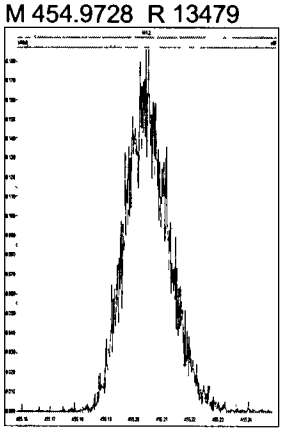
M 430.9728 R 12661



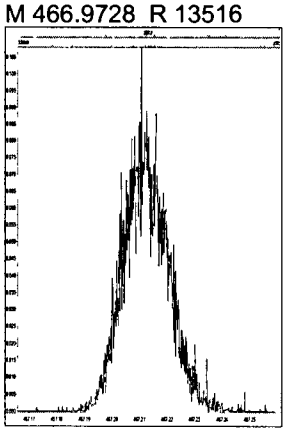
M 442.9728 R 13251



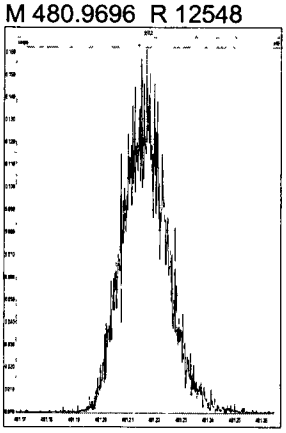
M 454.9728 R 13479



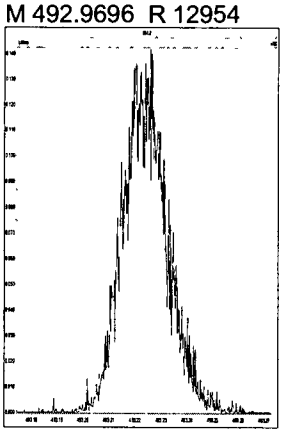
M 466.9728 R 13516



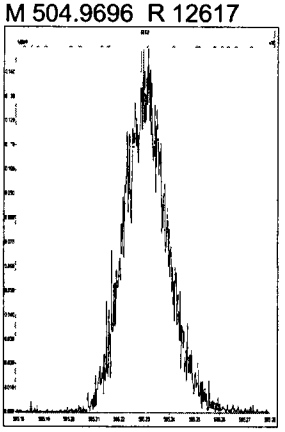
M 480.9696 R 12548



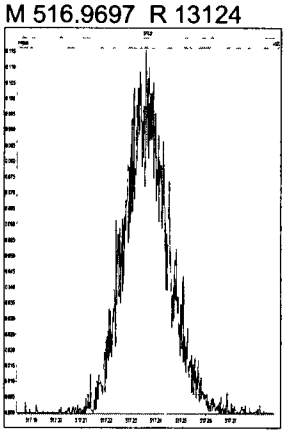
M 492.9696 R 12954



M 504.9696 R 12617



M 516.9697 R 13124



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:02:39 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

	Name	RT		Ion1 Area	Ion2 Area									
1	2378-TCDF	26.063	1.001	245359	338656	584015	bb	0.877	0.725	0.770	NO	1955.0	9.809	9.809
2	12378-PeCDF	30.201	1.000	1433710	943053	2376763	bb	0.896	1.520	1.550	NO	9982.2	50.194	50.194
3	23478-PeCDF	31.549	1.000	1439730	963586	2403316	bb	0.926	1.494	1.550	NO	10306.5	50.091	50.091
4	123478-HxCDF	35.221	1.000	1156416	977045	2133461	bd	1.068	1.184	1.240	NO	4645.2	49.972	49.972
5	234678-HxCDF	36.317	1.001	1179208	996739	2175947	bb	1.037	1.183	1.240	NO	4820.3	50.612	50.612
6	123678-HxCDF	35.375	1.001	1200244	1004915	2205159	db	1.035	1.194	1.240	NO	4953.7	50.642	50.642
7	123789-HxCDF	37.457	1.000	1009065	836238	1845303	bb	0.987	1.207	1.240	NO	4124.7	50.150	50.150
8	1234678-HpCDF	39.518	1.000	1033678	1053407	2087086	bb	1.232	0.981	1.050	NO	5025.8	49.193	49.193
9	1234789-HpCDF	42.225	1.000	827617	840037	1667654	bb	1.215	0.985	1.050	NO	3574.1	49.824	49.824
10	OCDF	47.522	1.006	1336241	1564404	2900645	bd	1.138	0.854	0.890	NO	5688.8	101.105	101.105
11	2378-TCDD	26.706	1.001	190728	250907	441635	bb	1.049	0.760	0.770	NO	2758.7	9.750	9.750
12	12378-PeCDD	31.812	1.001	1017127	650530	1667657	bb	0.998	1.564	1.550	NO	4893.4	49.617	49.617
13	123478-HxCDD	36.460	1.001	911145	726314	1637459	bd	0.971	1.255	1.240	NO	4798.3	51.235	51.235
14	123678-HxCDD	36.580	1.000	868811	705493	1574304	db	0.918	1.232	1.240	NO	4451.7	49.989	49.989
15	123789-HxCDD	37.008	1.012	876395	708936	1585331	bb	0.932	1.236	1.240	NO	4439.5	50.588	50.588
16	1234678-HpCDD	41.338	1.000	741688	716069	1457757	bb	1.017	1.036	1.050	NO	3540.8	49.180	49.180
17	OCDD	47.244	1.000	1175086	1322615	2497701	bb	1.008	0.888	0.890	NO	6980.4	98.215	98.215
18	13C-2378-TCDF	26.048	1.007	2972783	3819097	6791880	bb	1.473	0.778	0.770	NO	14356.9		102.263
19	13C-12378-PeCDF	30.190	1.167	3219191	2064472	5283663	bb	1.148	1.559	1.550	NO	15033.0		102.059
20	13C-23478-PeCDF	31.538	1.219	3171549	2008976	5180525	bb	1.113	1.579	1.550	NO	14550.9		103.227
21	13C-123478-HxCDF	35.210	0.952	1364791	2631981	3996772	bd	1.209	0.518	0.510	NO	5099.8		97.559
22	13C-123678-HxCDF	35.353	0.956	1444858	2764007	4208865	db	1.269	0.523	0.510	NO	5394.0		97.906
23	13C-234678-HxCDF	36.295	0.981	1421889	2725002	4146891	bb	1.236	0.522	0.510	NO	5350.4		99.027
24	13C-123789-HxCDF	37.446	1.012	1285150	2444251	3729401	bb	1.107	0.526	0.510	NO	4895.5		99.446
25	13C-1234678-HpCDF	39.507	1.068	1060392	2383587	3443979	bb	1.051	0.445	0.440	NO	7544.8		96.691
26	13C-1234789-HpCDF	42.203	1.141	845869	1908868	2754737	bb	0.815	0.443	0.440	NO	4964.8		99.784
27	13C-1234-TCDD	25.869	0.000	1993240	2516908	4510149	bb	1.000	0.792	0.770	NO	8406.4		100.000
28	13C-2378-TCDD	26.691	1.032	1894273	2422857	4317130	bb	0.946	0.782	0.770	NO	7939.3		101.213
29	13C-12378-PeCDD	31.790	1.229	2056680	1310967	3367647	bb	0.721	1.569	1.550	NO	20069.9		103.609
30	13C-123478-HxCDD	36.438	0.985	1837088	1455031	3292119	bd	0.991	1.263	1.240	NO	8293.2		98.050
31	13C-123678-HxCDD	36.569	0.988	1901435	1528757	3430192	db	1.025	1.244	1.240	NO	8544.9		98.790
32	13C-1234678-HpCDD	41.315	1.117	1483837	1431045	2914883	bb	0.866	1.037	1.050	NO	6072.3		99.313
33	13C-OCDD	47.226	1.276	2367774	2676075	5043848	bb	0.769	0.885	0.890	NO	8257.2		193.530

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
Printed: Wednesday, November 28, 2012 16:02:39 Pacific Standard Time

Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

		RT	RRT	Area	Area	Area	Id	RRF	Ratio	Ratio	Ratio	S/N	Ret	Conc
34	13C-123789-HxCDD	36.997	0.000	1880197	1508398	3388594	bb	1.000	1.247	1.240	NO	8414.2		100.000
35	Total-tetrafurans			772190				0.877					30.730	30.730
36	Total-penta1			1942957									66.770	66.770
37	Total-pentafurans			4362041				0.911					152.371	152.178
38	Total-hexafurans			5906762				1.032					261.907	261.676
39	Total-heptafurans			1861295				1.223					99.184	99.017
40	Total-Furans			16181485				1.041					712.072	711.477
41	Total-tetradioxins			1083356				1.049					54.680	54.669
42	Total-pentadioxins			3508645				0.998					171.237	171.200
43	Total-hexadioxins			3796952				0.940					217.691	216.541
44	Total-heptadioxins			1604813				1.017					106.376	106.361
45	Total-Dioxins			11168852				0.985					648.205	646.987
46	Total-TEQ			27350338									1360.277	1358.464
47	37CL-2378-TCDD	26.706	1.032	483237		483237		1.044				3073.2		10.267
48	FUNCTION1 PFK			1825127										
49	FUNCTION2 PFK			202349										0.000
50	FUNCTION3 PFK			0										
51	FUNCTION4 PFK			278801										
52	FUNCTION5 PFK			191280										
53	FUNCTION1 HXCDPE			371										0.000
54	FUNCTION1 HPCDPE			1081										0.000
55	FUNCTION2 HPCDPE			2567										0.000
56	FUNCTION3 OCDPE			0										
57	FUNCTION4 NCDPE			0										
58	FUNCTION5 DCDPE			0										

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Last Altered: Wednesday, November 28, 2012 16:01:29 Pacific Standard Time
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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

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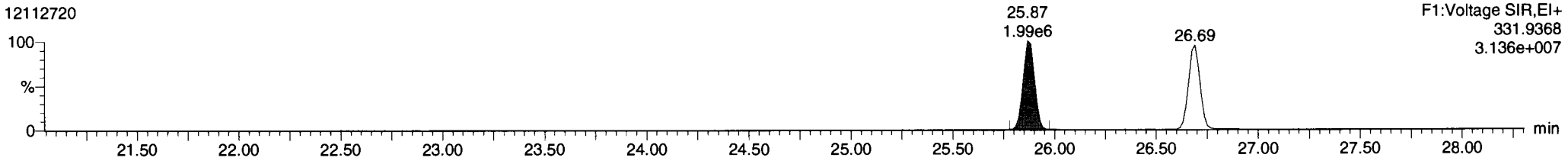
13C-1234-TCDD



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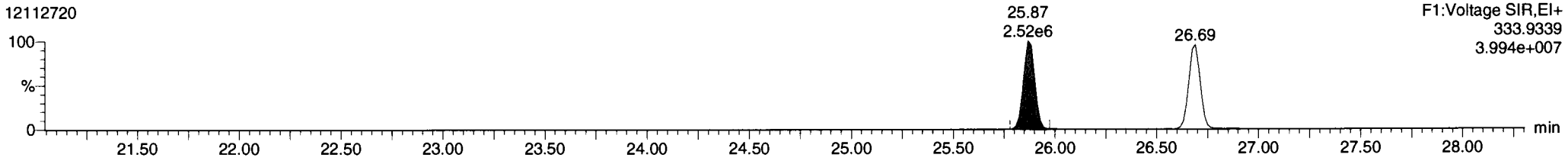

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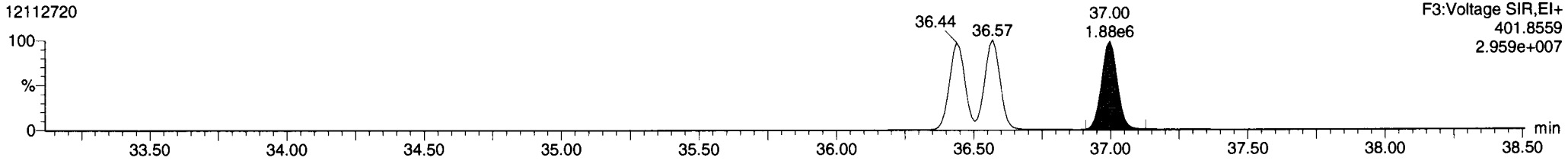

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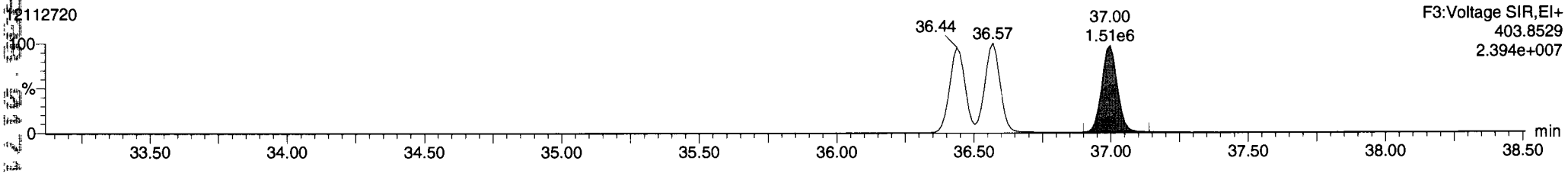

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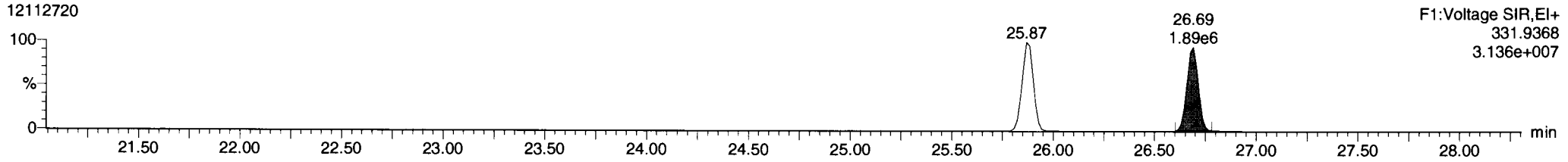
Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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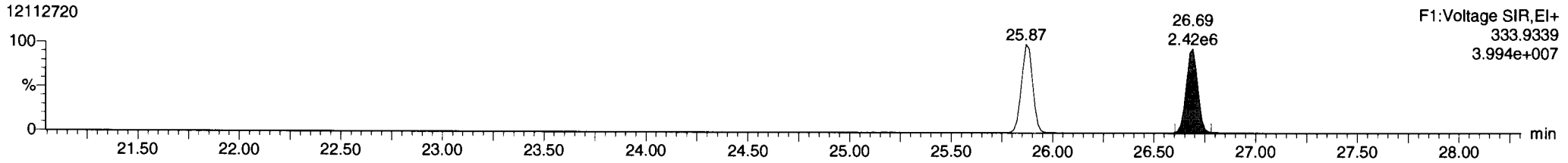
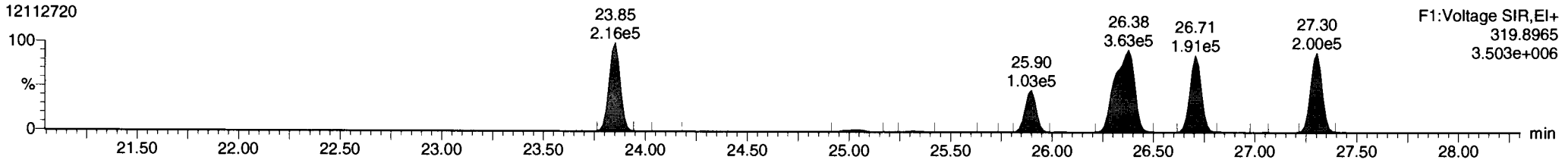
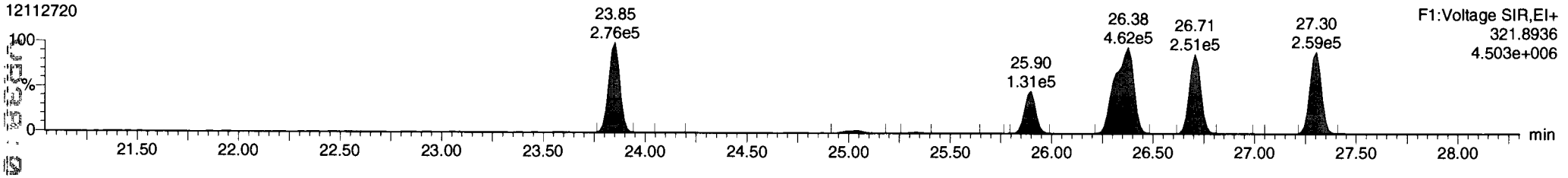


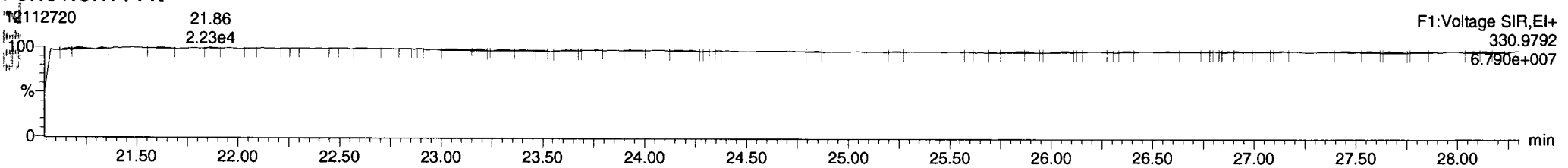
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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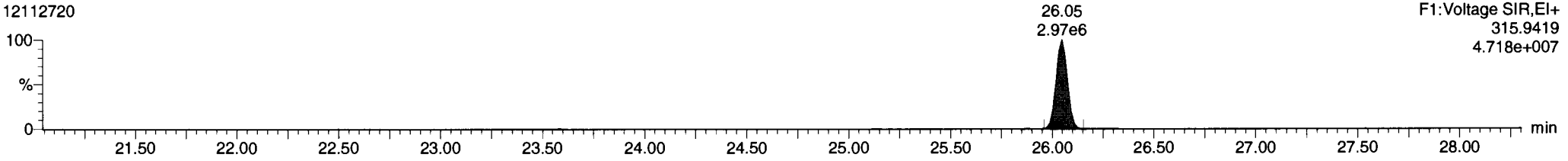
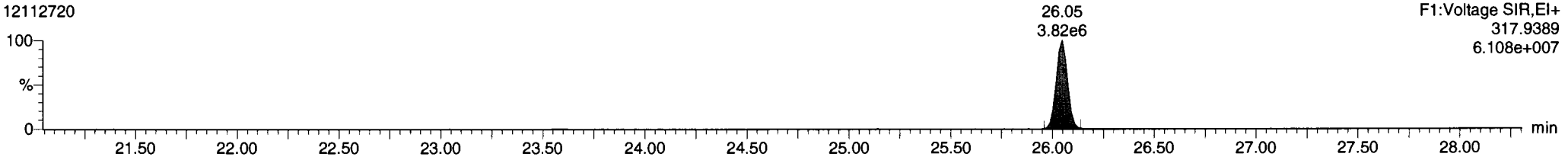
Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

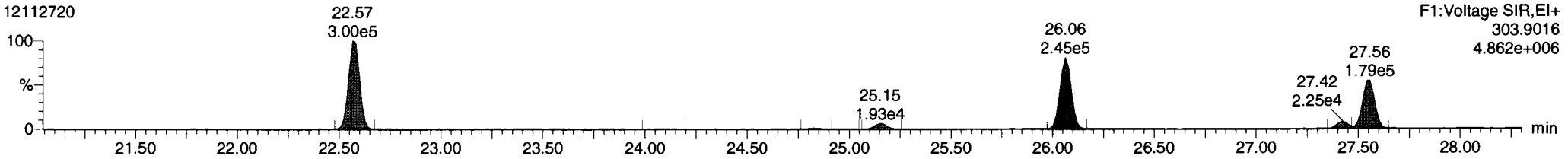
13C-2378-TCDF



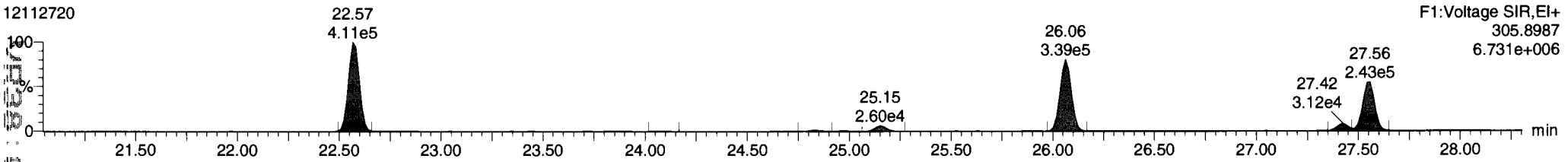
13C-2378-TCDF



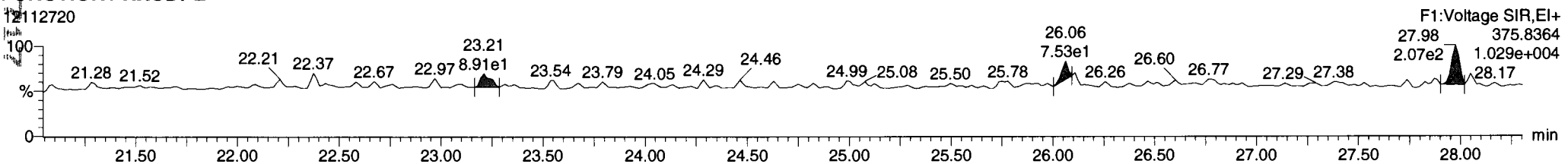
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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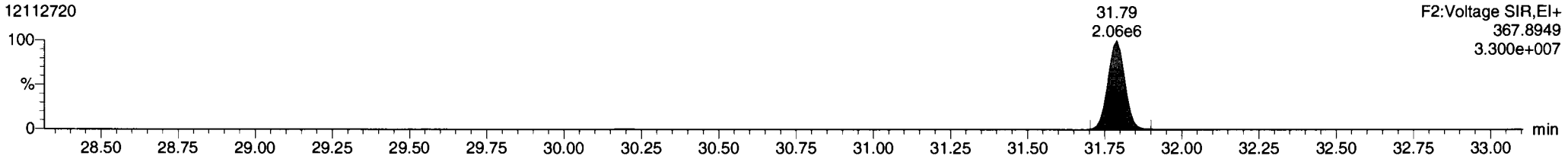
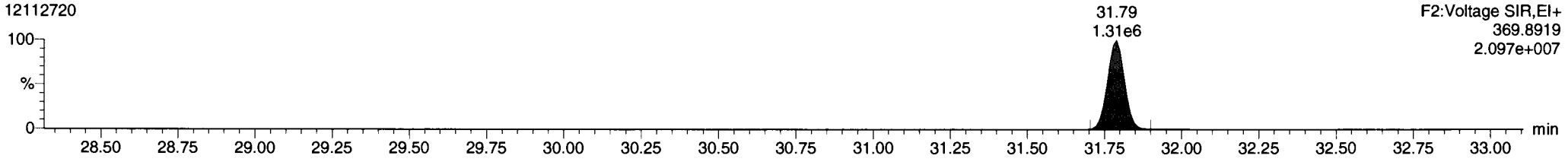
Printed: Wednesday, November 28, 2012 16:02:39 Pacific Standard Time

Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

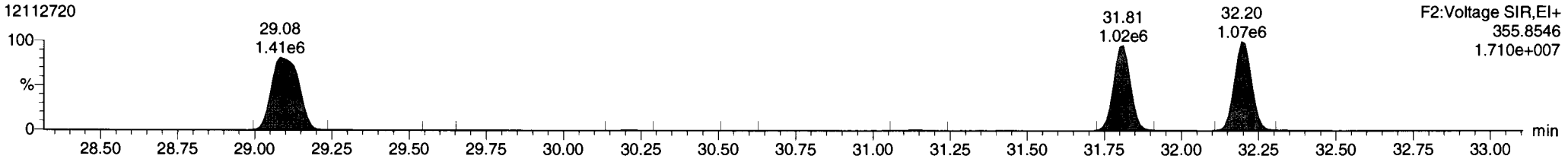
13C-12378-PeCDD



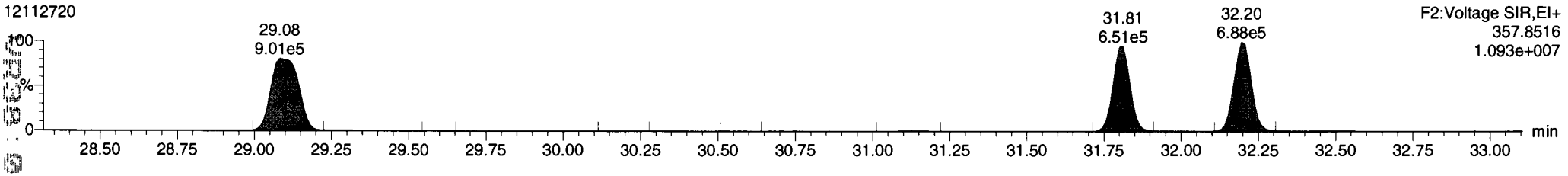
13C-12378-PeCDD



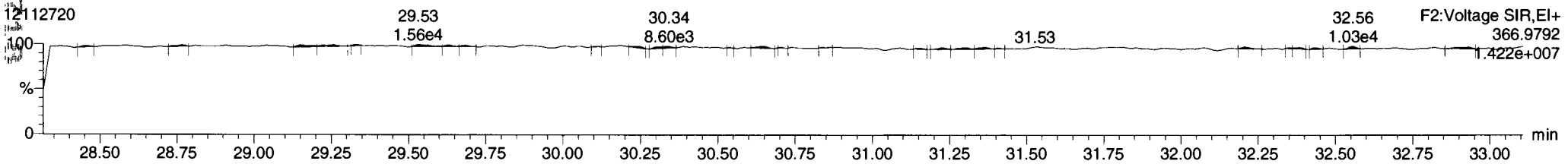
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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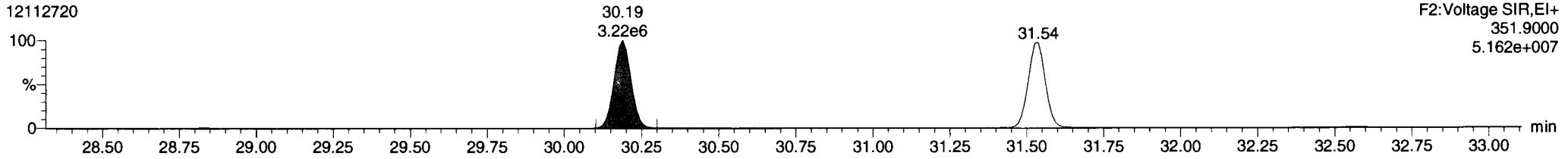
Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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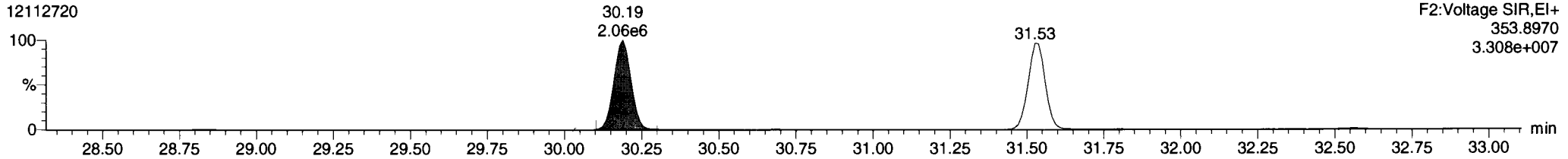
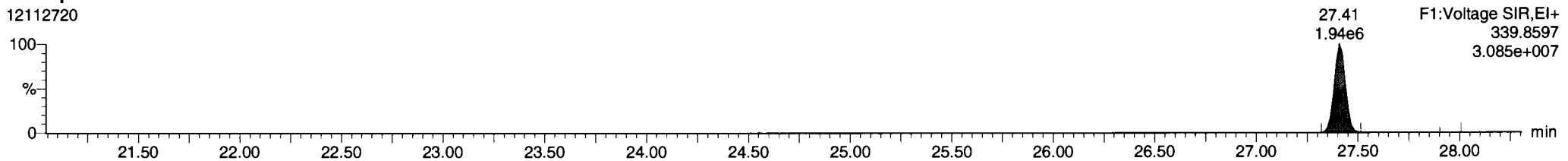
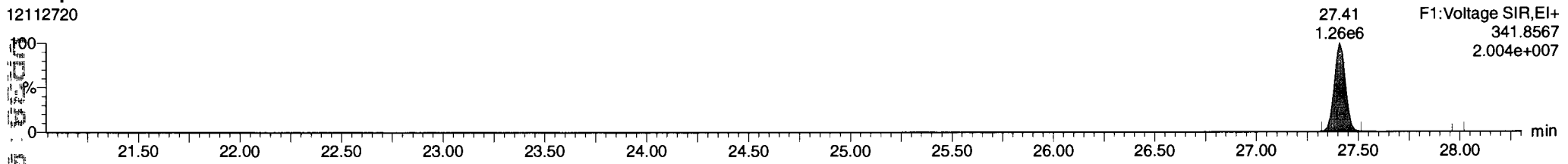


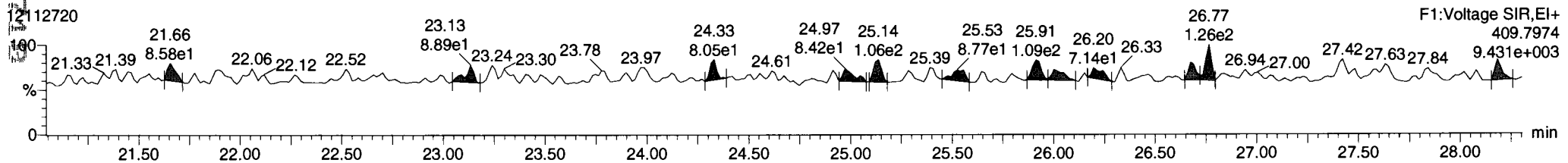
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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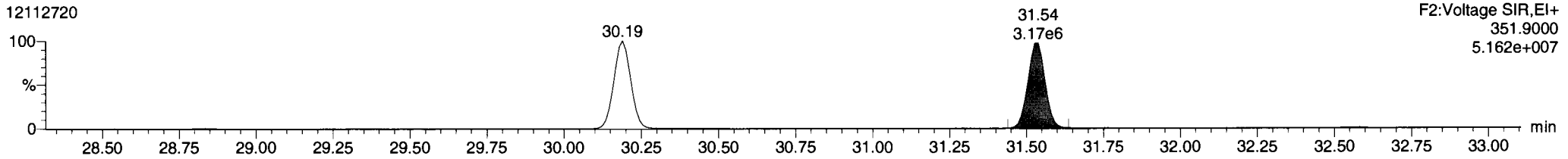
Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF



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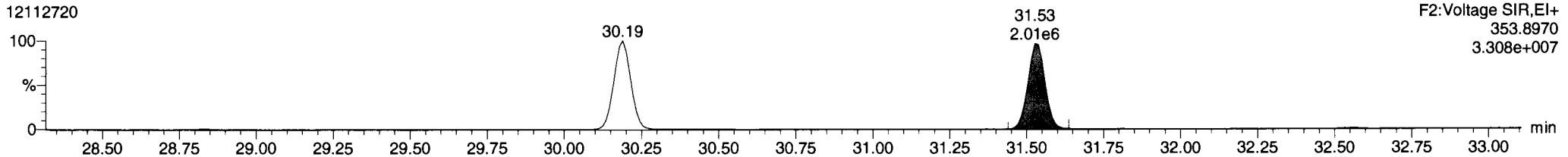
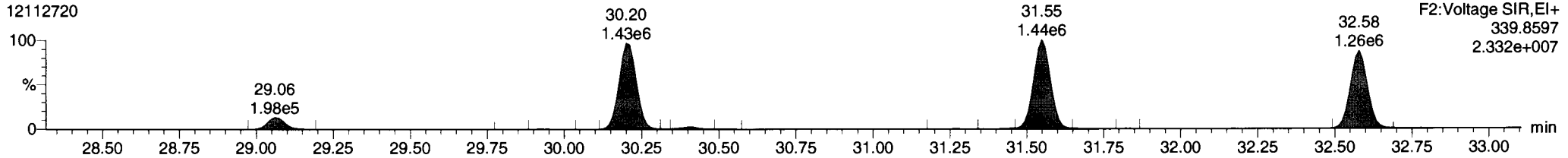
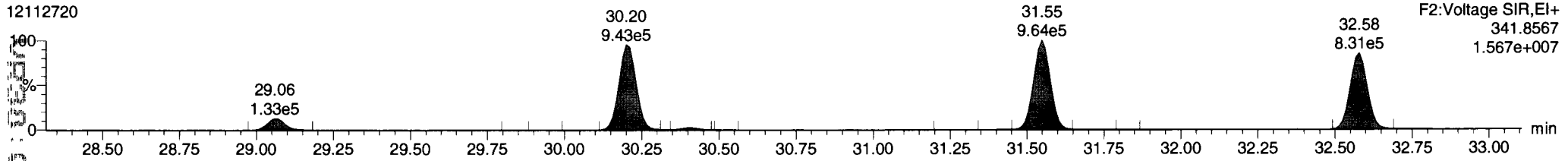


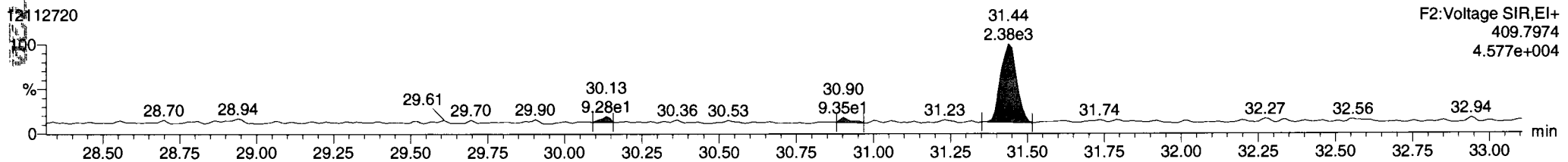
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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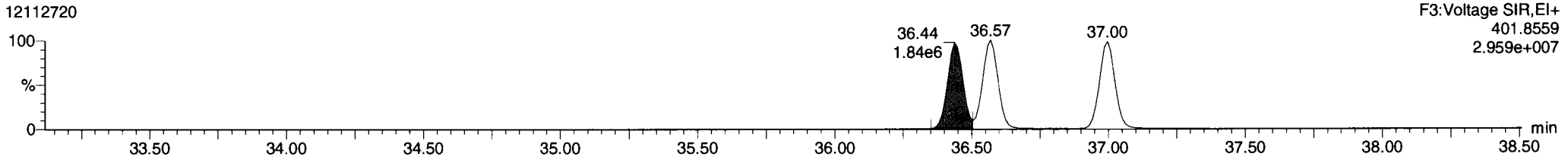
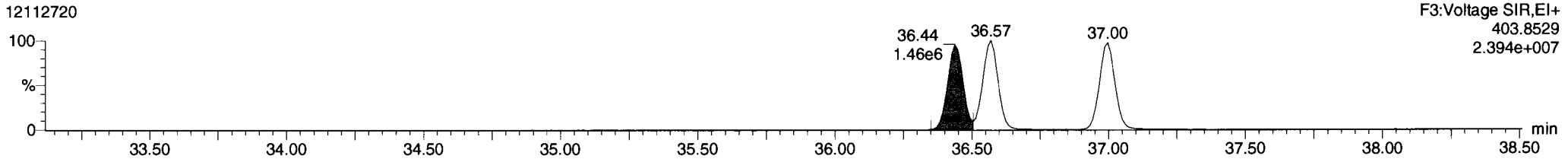
Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

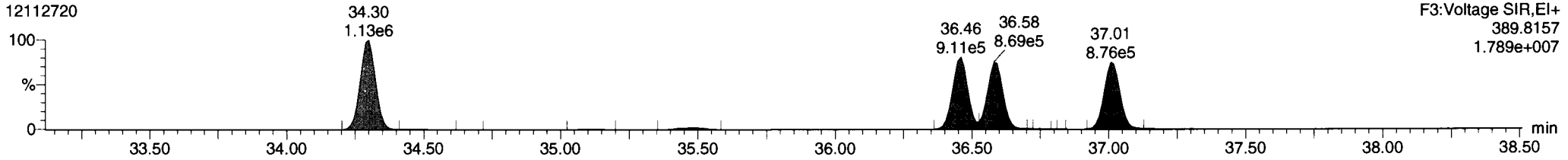
13C-123478-HxCDD



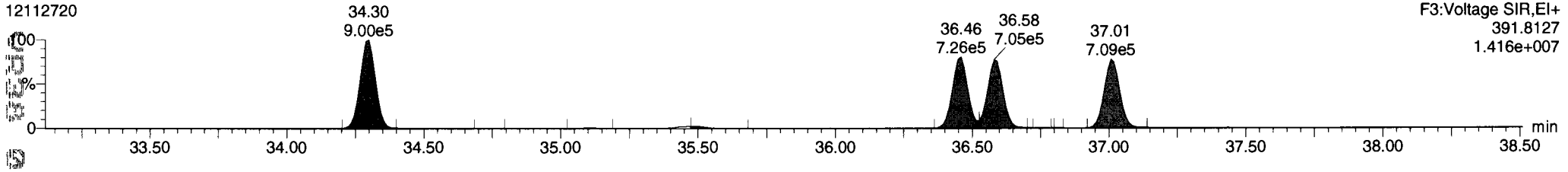
13C-123478-HxCDD



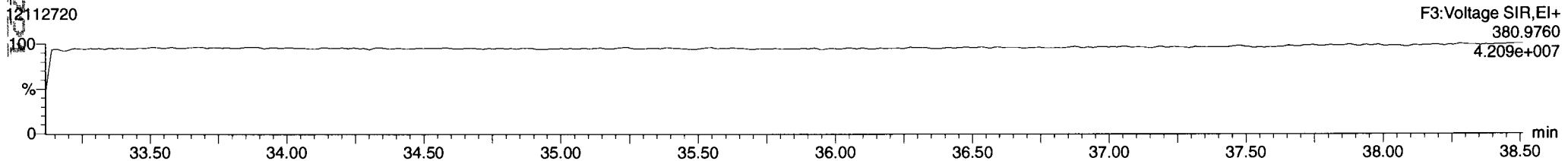
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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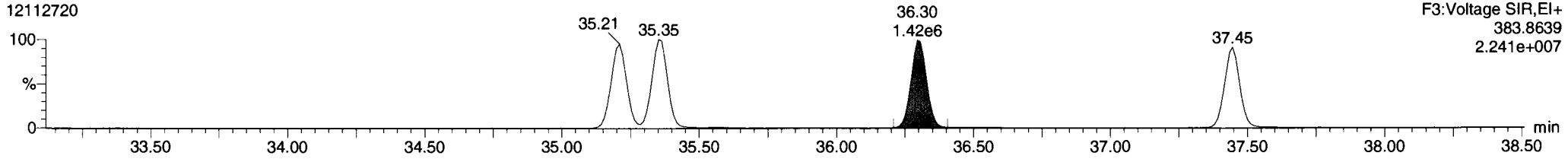
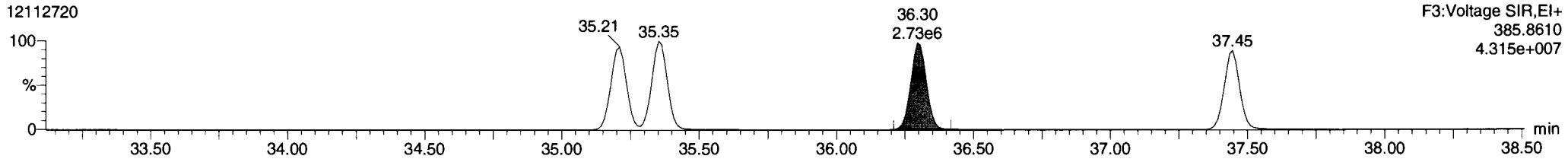
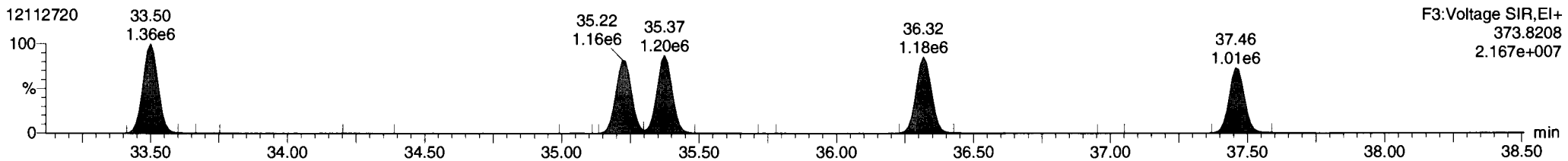
13C-234678-HxCDF



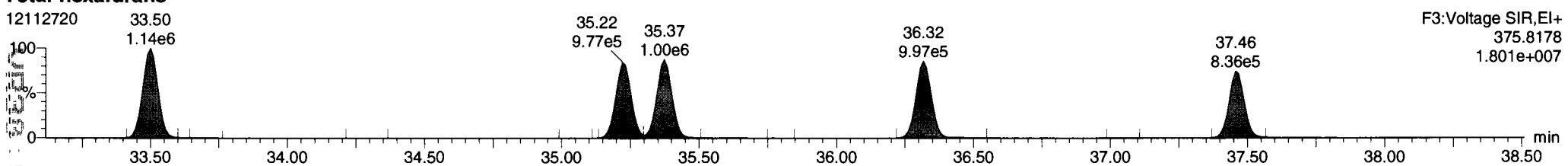
13C-234678-HxCDF



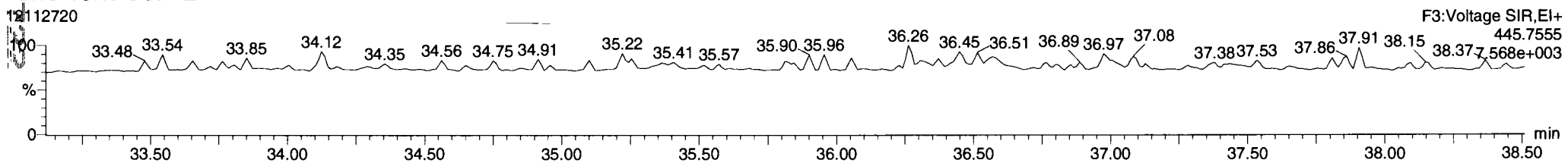
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
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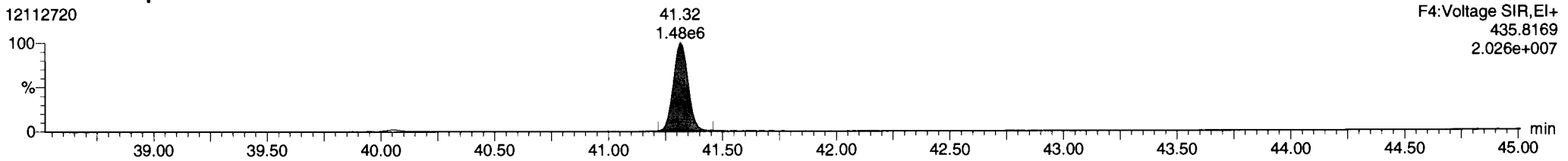
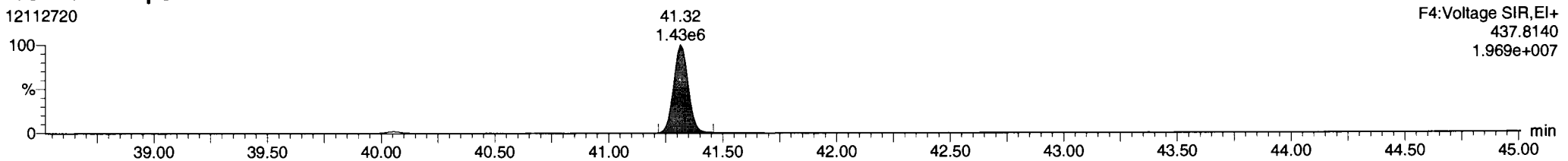
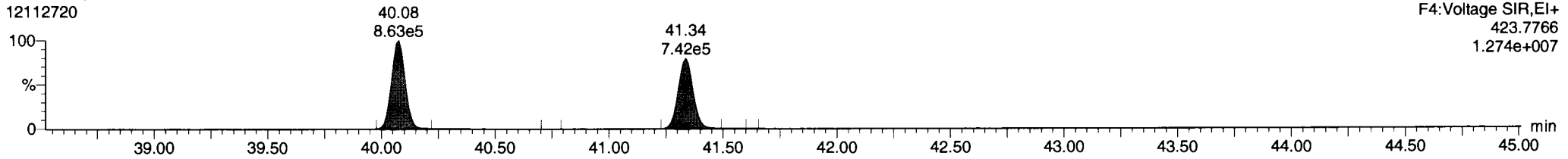
13C-1234678-HpCDD



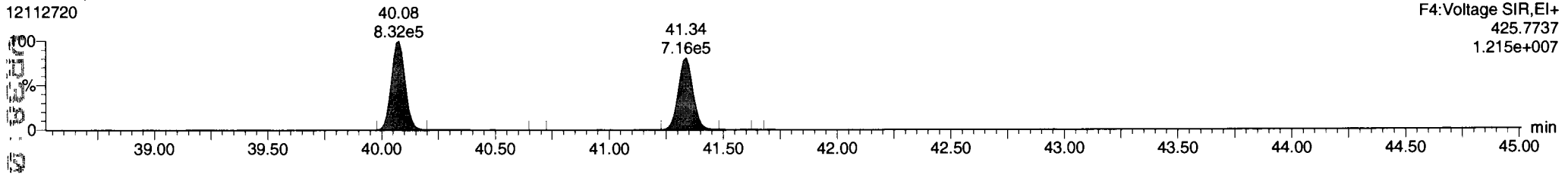
13C-1234678-HpCDD



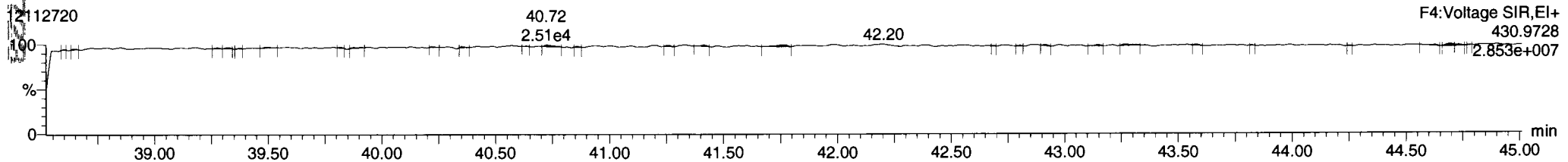
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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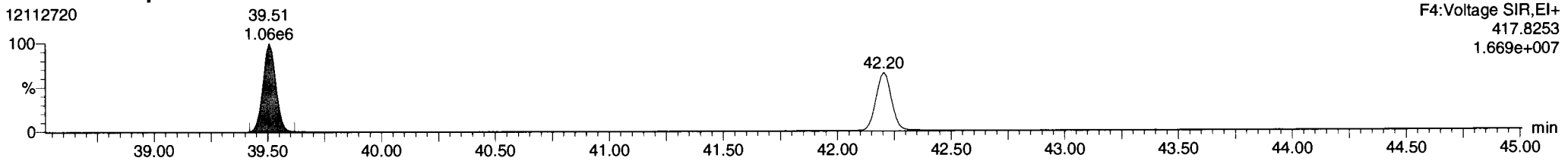
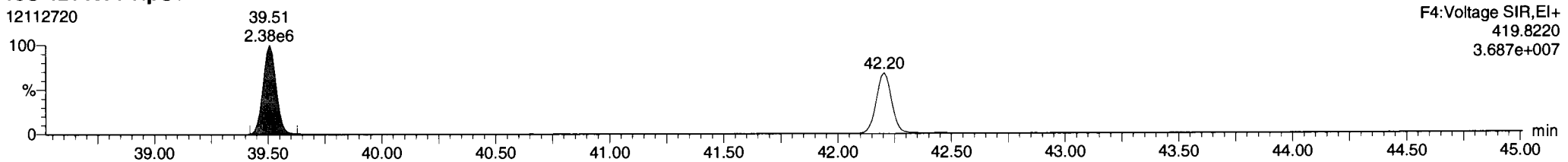
Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

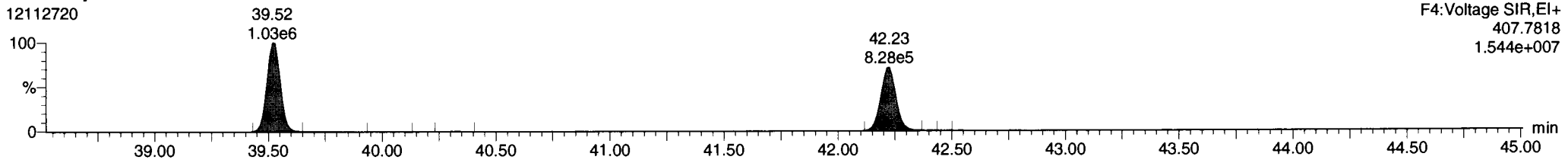
13C-1234678-HpCDF



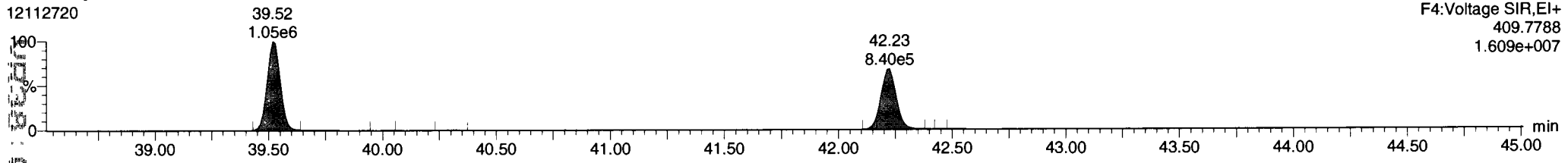
13C-1234678-HpCDF



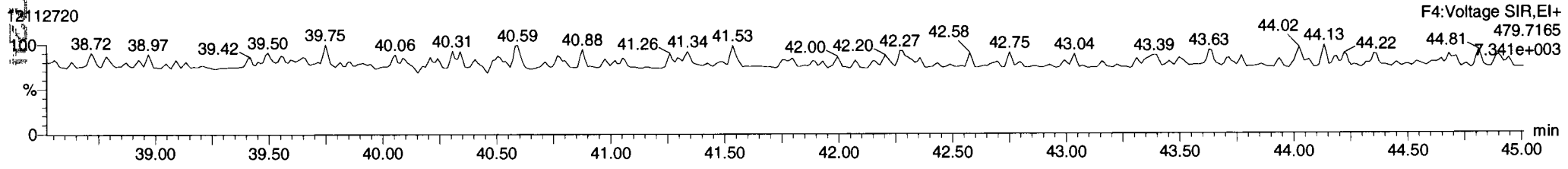
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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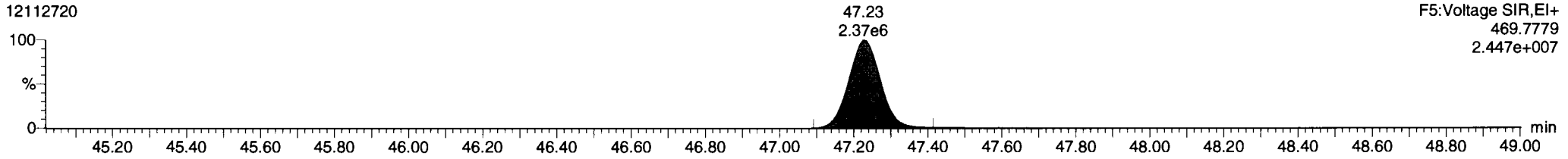
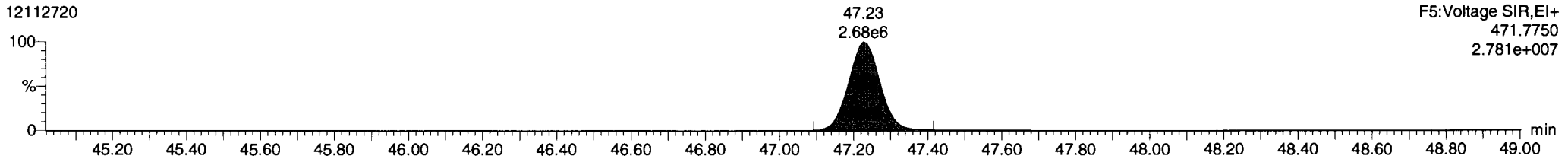
Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

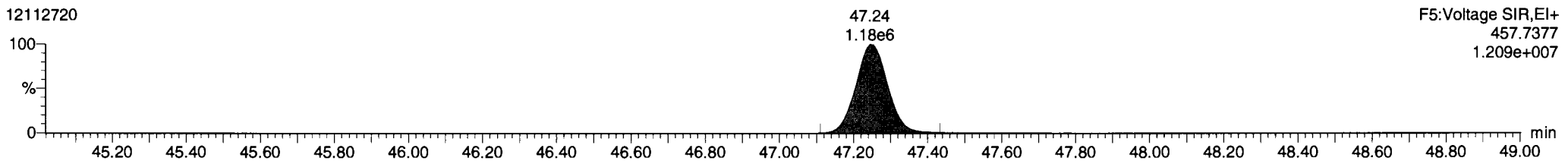
13C-OCDD



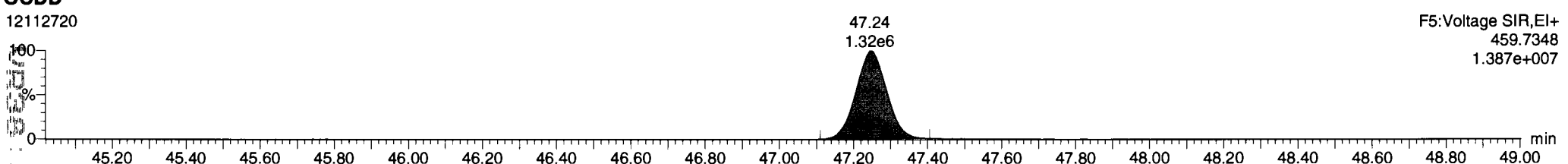
13C-OCDD



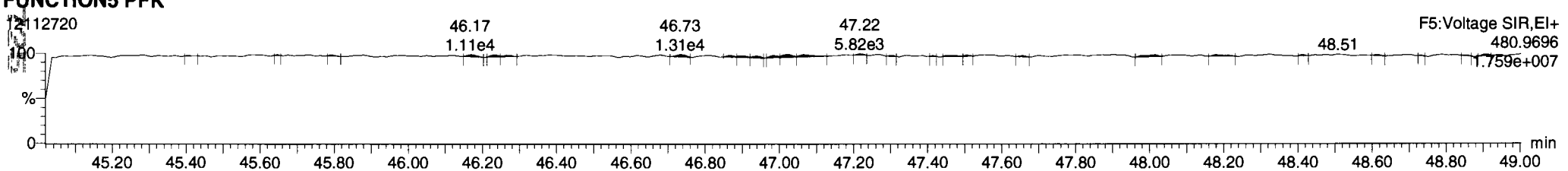
OCDD



OCDD



FUNCTION5 PFK



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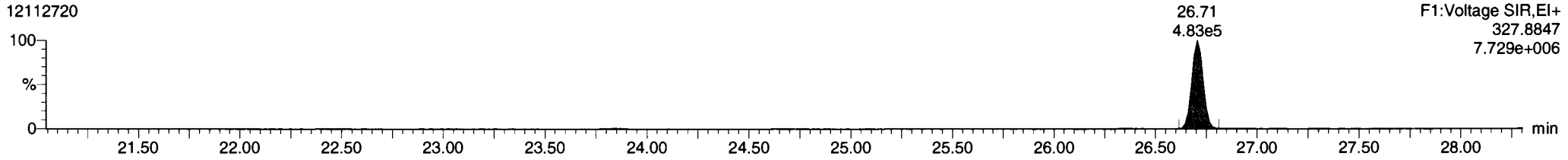
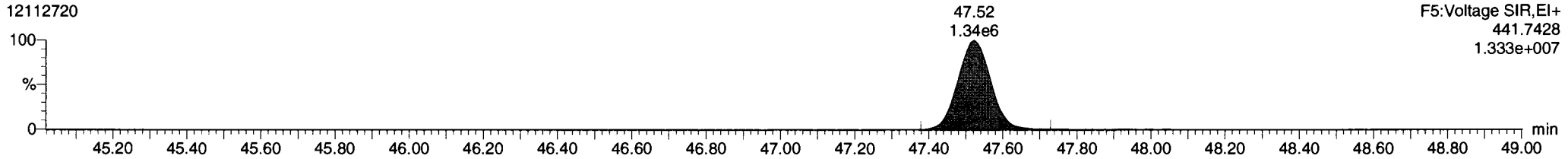
Printed: Wednesday, November 28, 2012 16:02:39 Pacific Standard Time

Name: 12112720, Date: 28-Nov-2012, Time: 03:27:25, ID: CS3, Conditions: AUTOSPEC01, User: pk

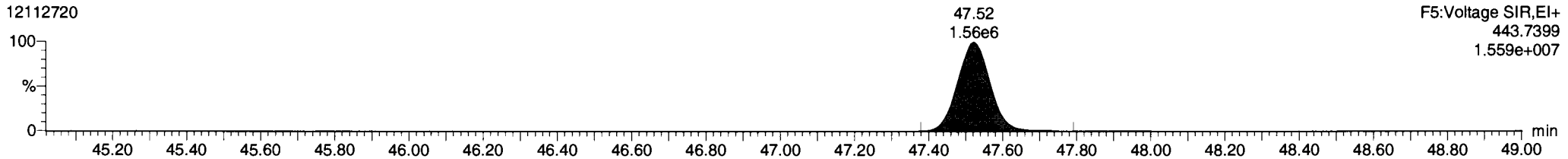
37CL-2378-TCDD



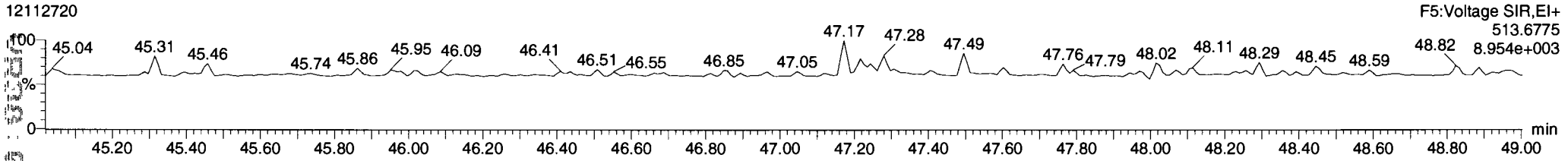
OCDF



OCDF



FUNCTION5 DCDPE



VR38MB

EDLs

Curve Date **11/23/2012**

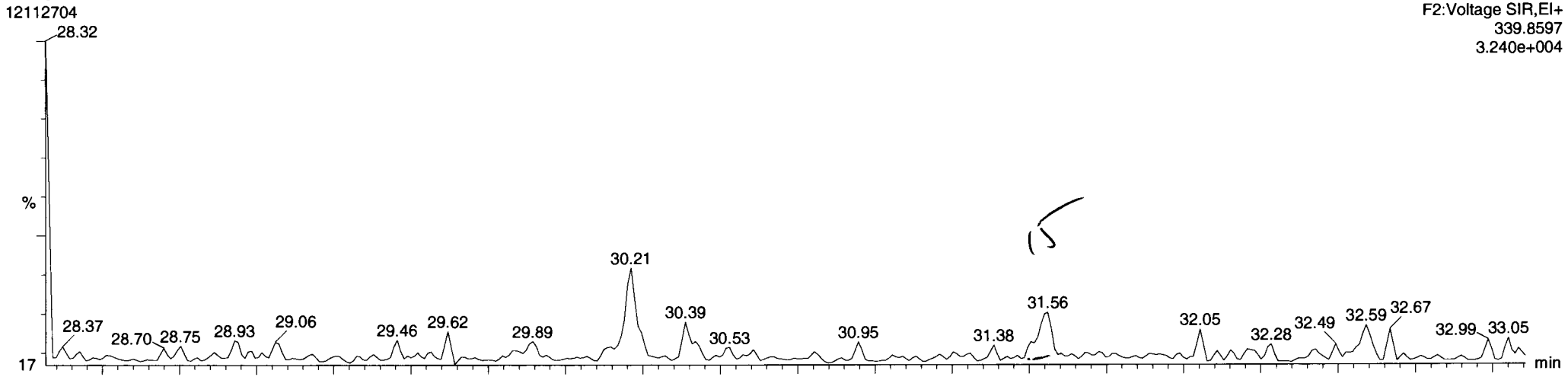
12112704

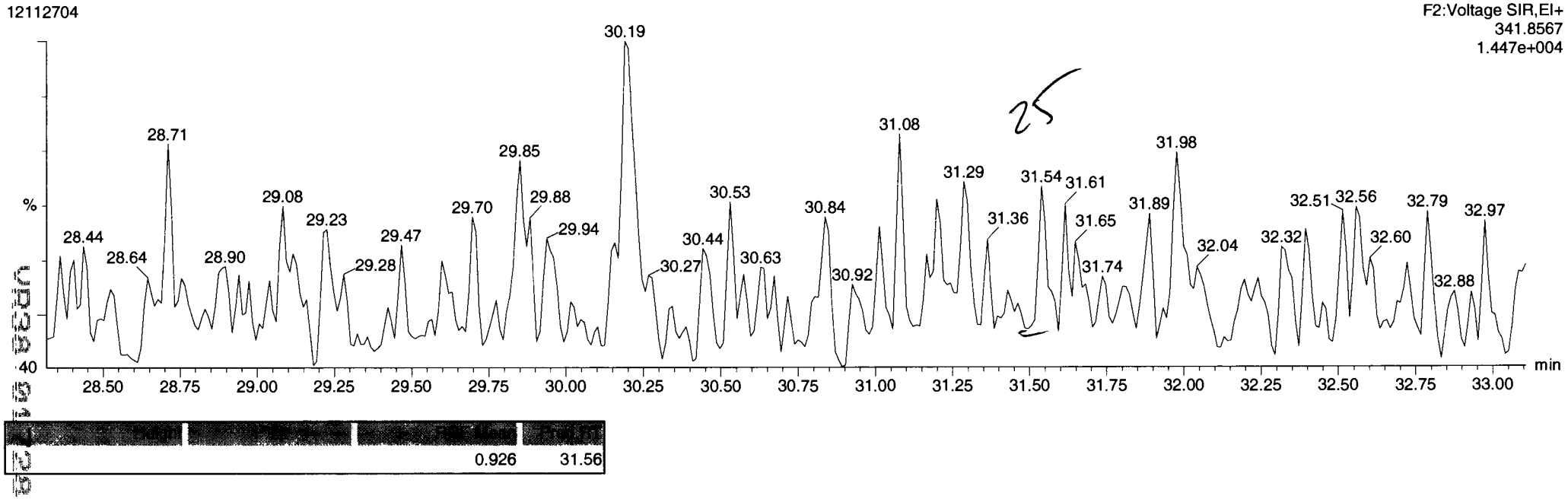
	Noise 1	Noise 1	Noise 2	Noise 2	Label 1	Label 2		
	Percent	**Height**	**Percent**	**Height**	**Height**	**Height**	**RRF Mean**	**EDL (pg)**
2378-TCDD	20	17570	80	31910	23823246	30889238	1.049	2.530
12378-PeCDD							0.998	#DIV/0!
123478-HxCDD	25	12460	20	11120	19297138	15197113	0.971	0.797
123678-HxCDD	15	12460	20	11120	20097012	16391429	0.918	0.611
123789-HxCDD	20	12460	15	11120	19297138	15197113	0.932	0.647
1234678-HpCDD							1.017	#DIV/0!
OCDD							1.008	#DIV/0!
2378-TCDF							0.877	#DIV/0!
12378-PeCDF							0.896	#DIV/0!
23478-PeCDF	15	32400	25	14470	36184072	22804668	0.926	0.776
123478-HxCDF	45	12230	10	12770	14677421	28279862	1.068	0.739
234678-HxCDF	25	12230	15	12770	12967607	14943424	1.037	0.859
123678-HxCDF	20	12230	20	12770	15652903	29873964	1.035	0.531
123789-HxCDF	20	12230	20	12770	12467414	23272458	0.987	0.709
1234678-HpCDF							1.232	#DIV/0!
1234789-HpCDF	10	11960	5	12550	6099491	13646207	1.215	0.380
OCDF	5	16180	20	9480	10605389	11815510	1.138	1.060

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 23478-PeCDF

Sample Name: 12112704

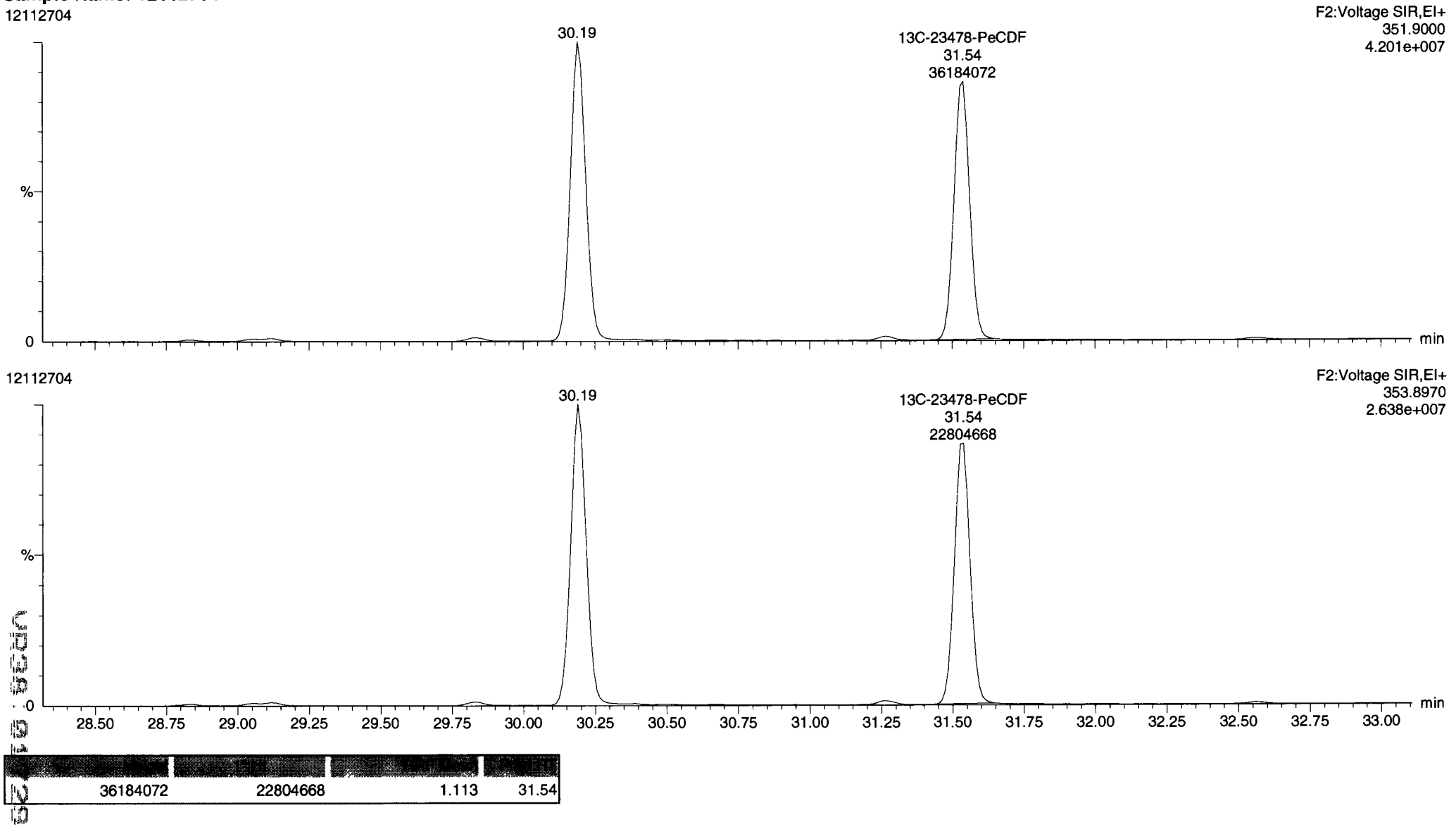




Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-23478-PeCDF

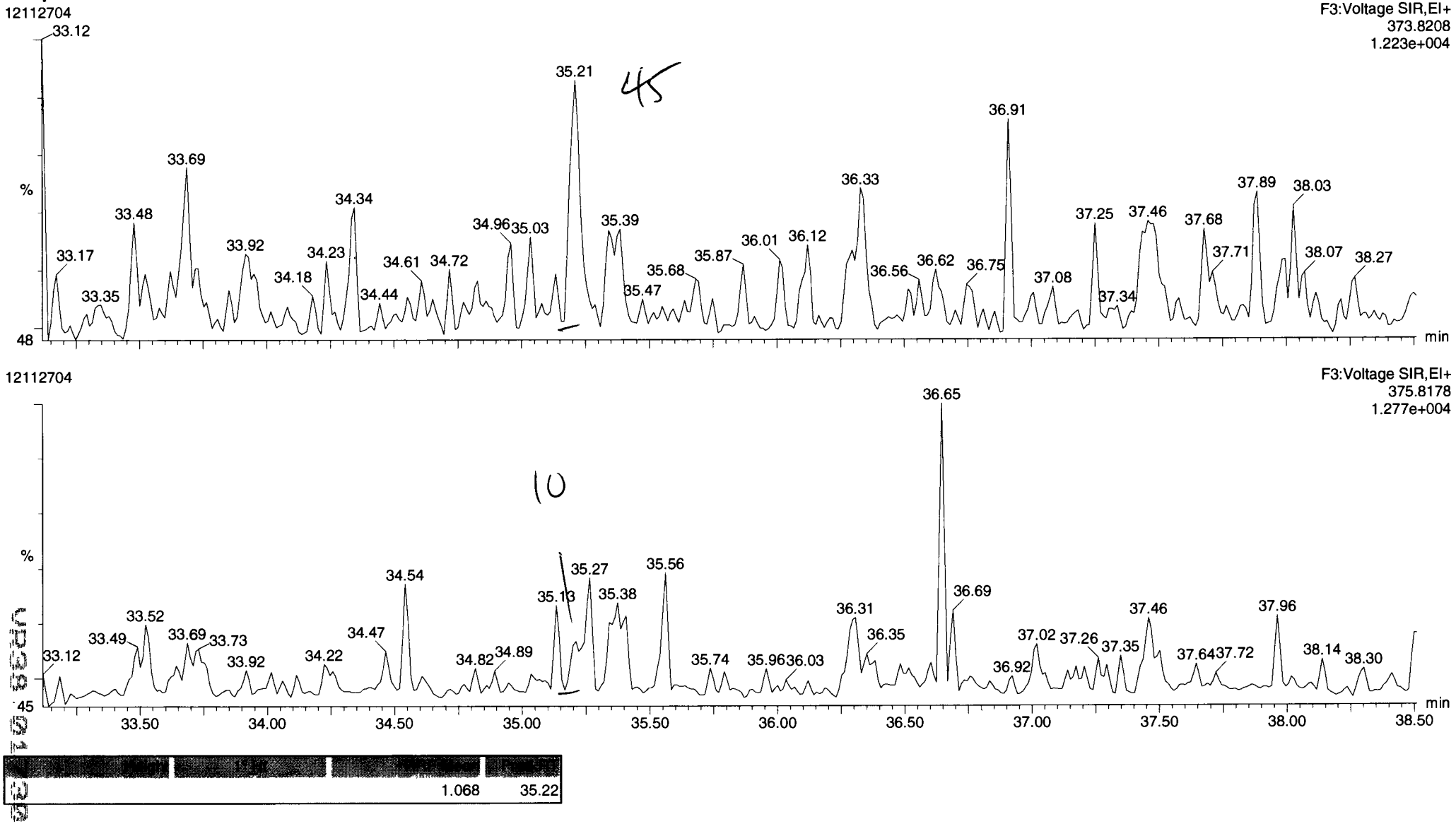
Sample Name: 12112704



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 123478-HxCDF

Sample Name: 12112704



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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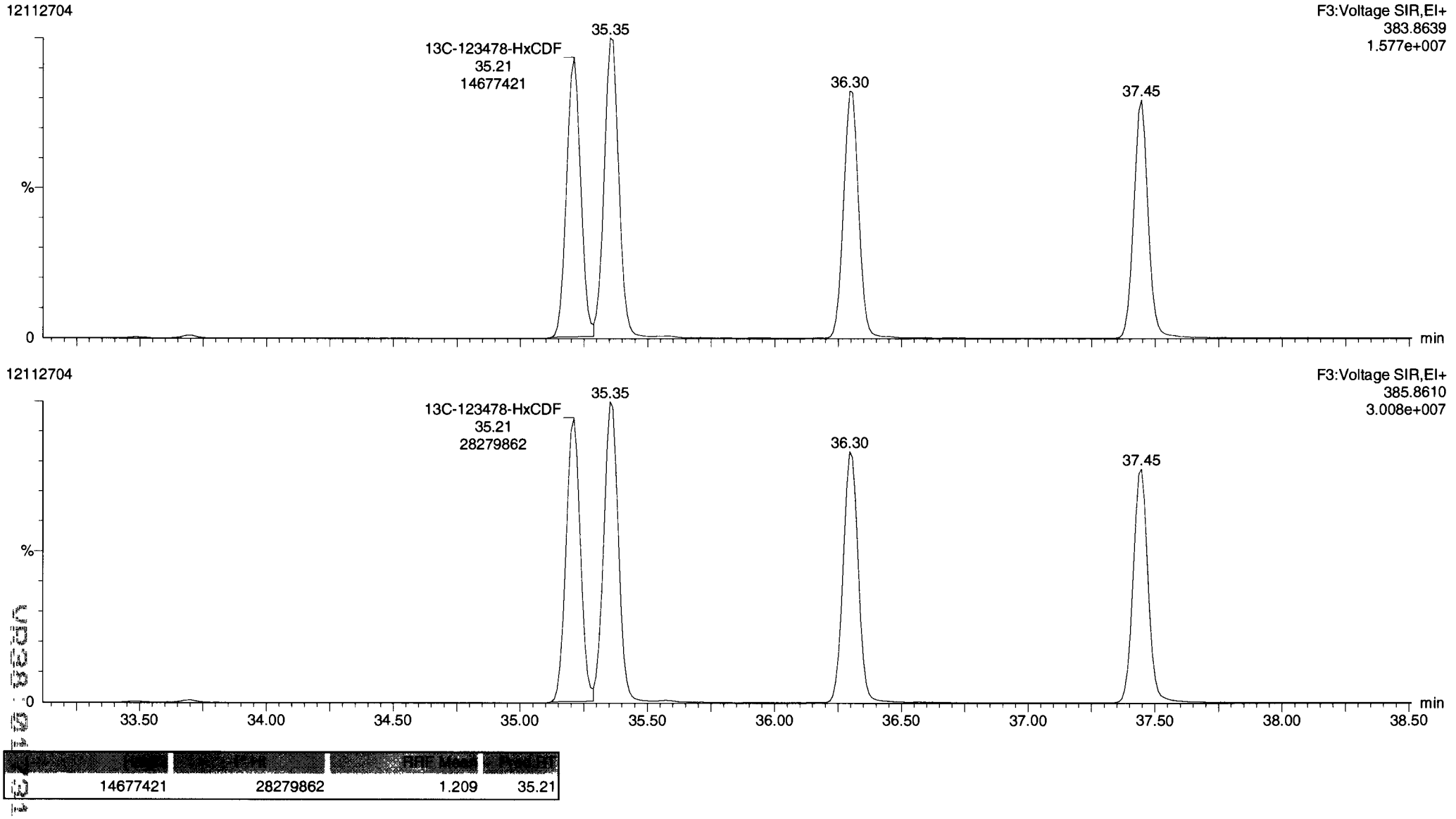
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-123478-HxCDF

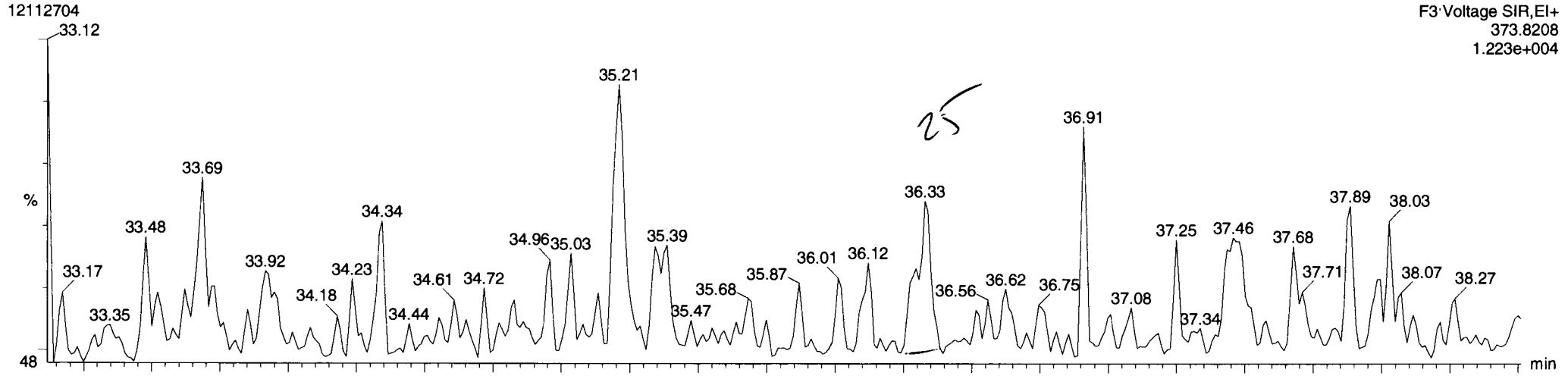
Sample Name: 12112704

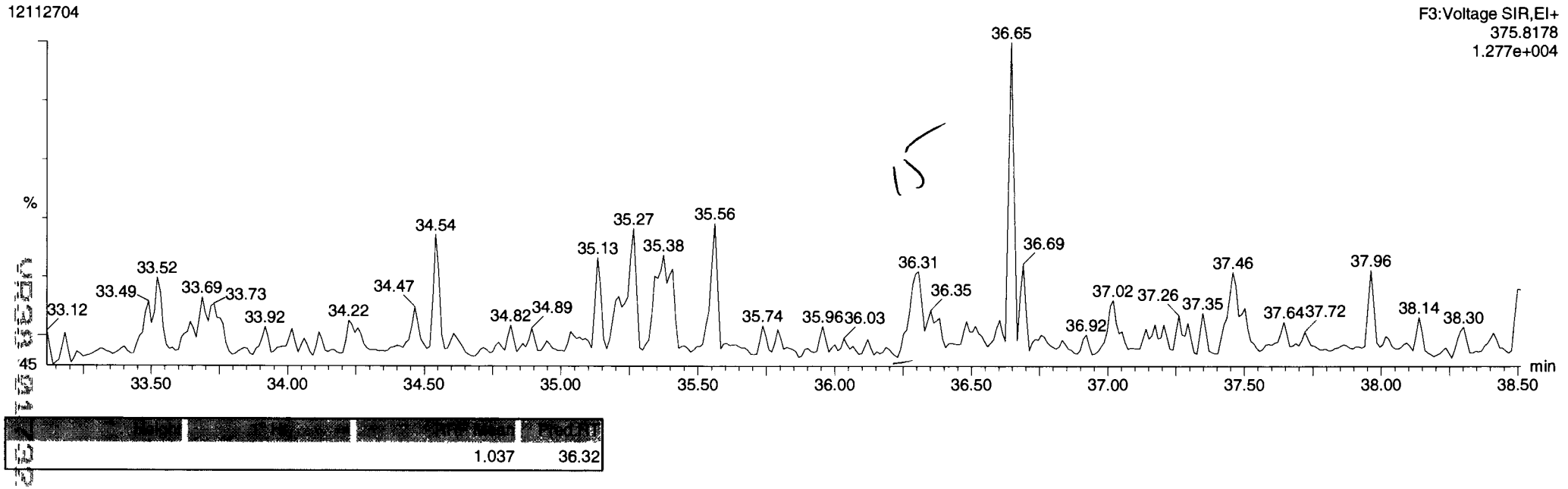


Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 234678-HxCDF

Sample Name: 12112704

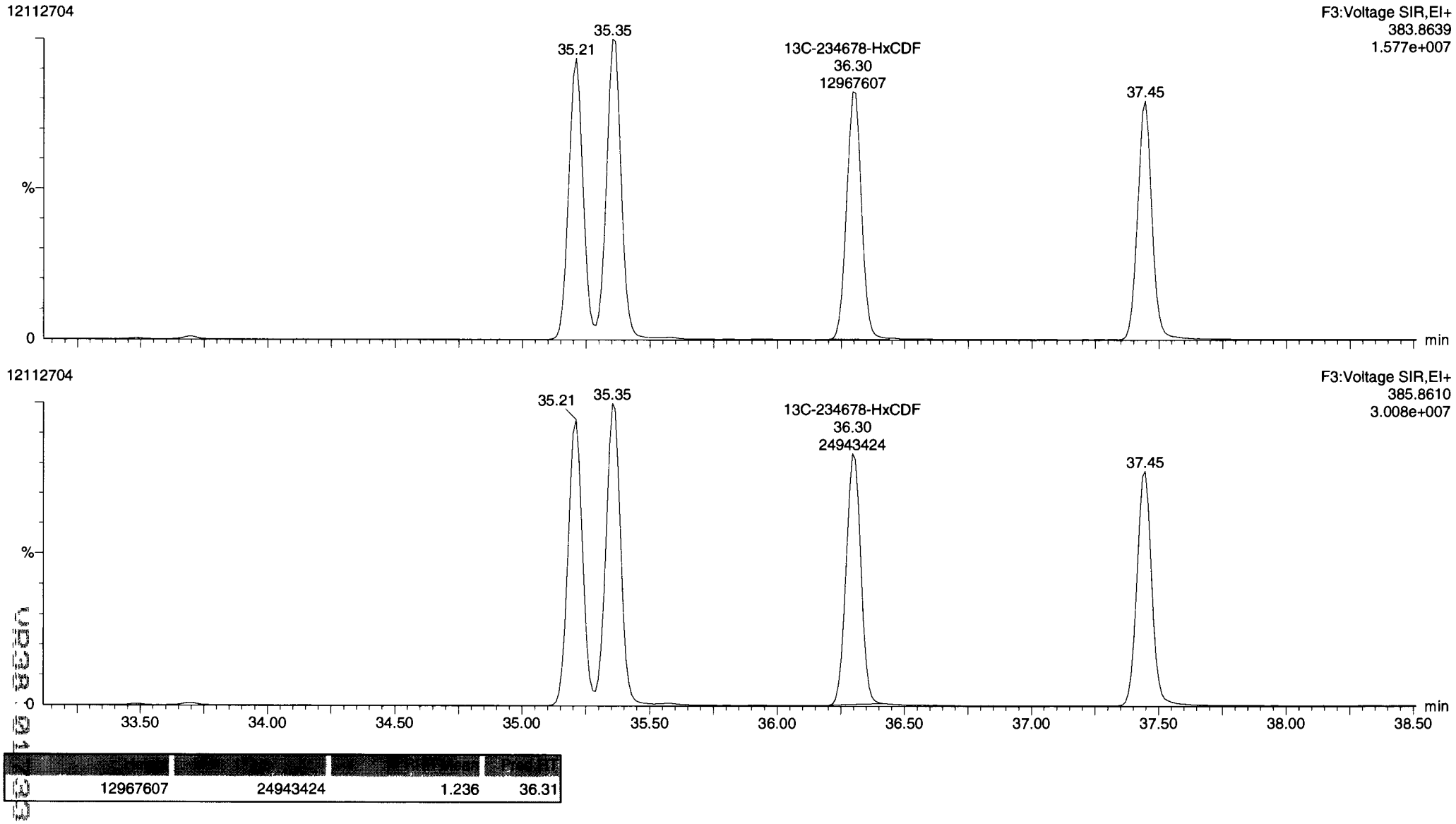




Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-234678-HxCDF

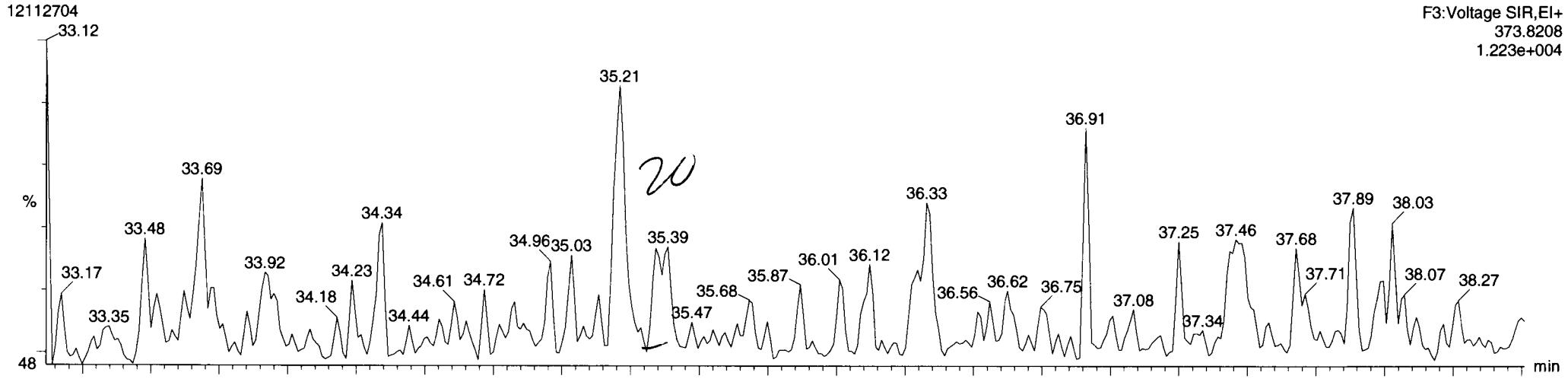
Sample Name: 12112704

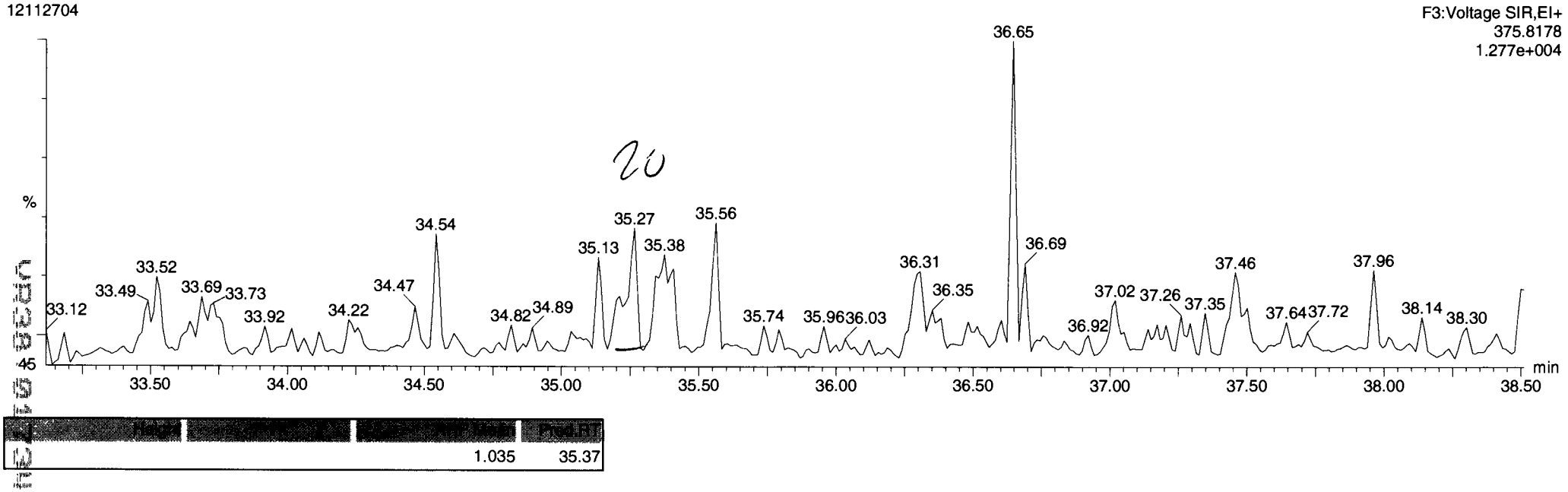


Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 123678-HxCDF

Sample Name: 12112704

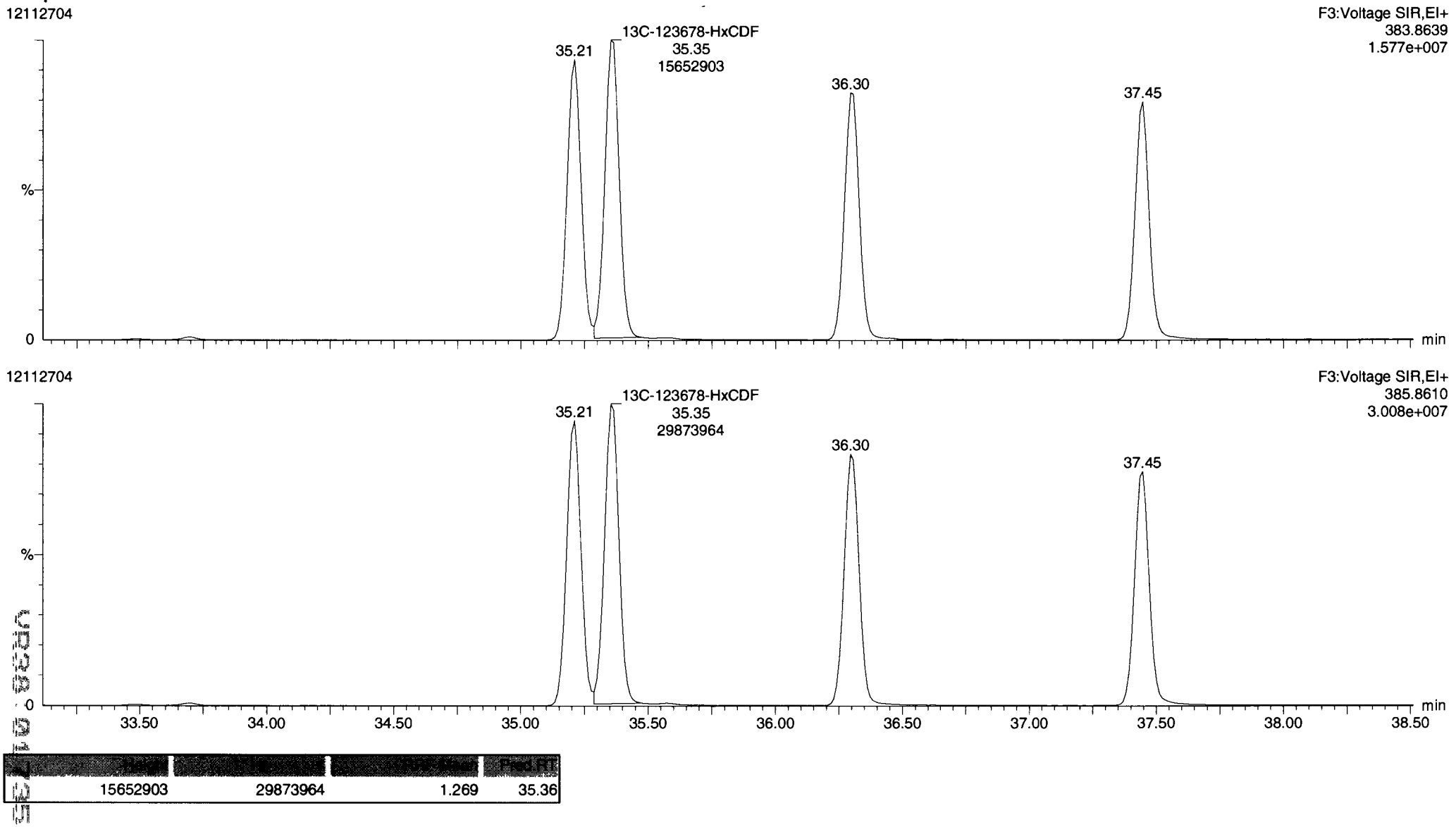




Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-123678-HxCDF

Sample Name: 12112704

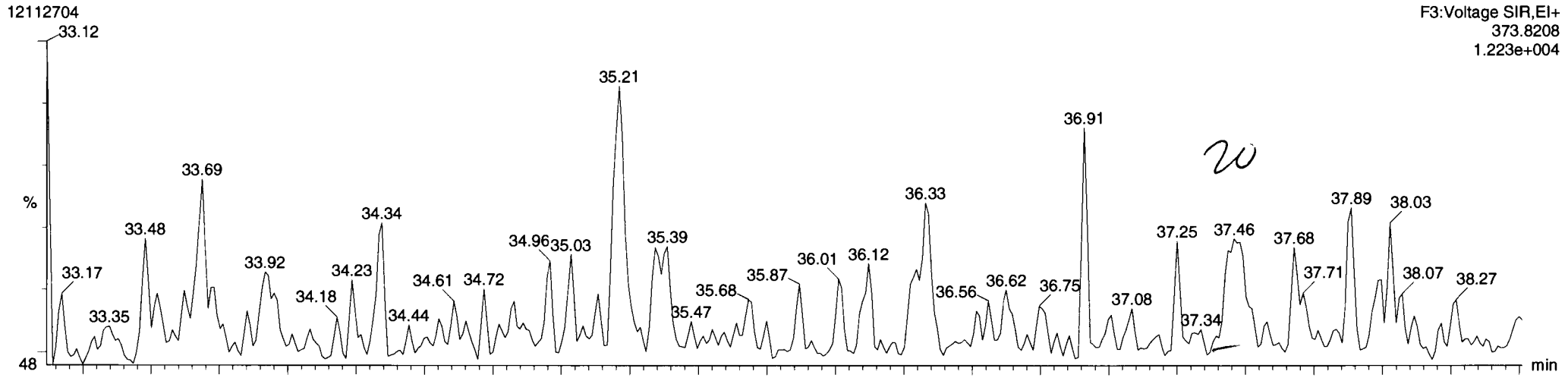


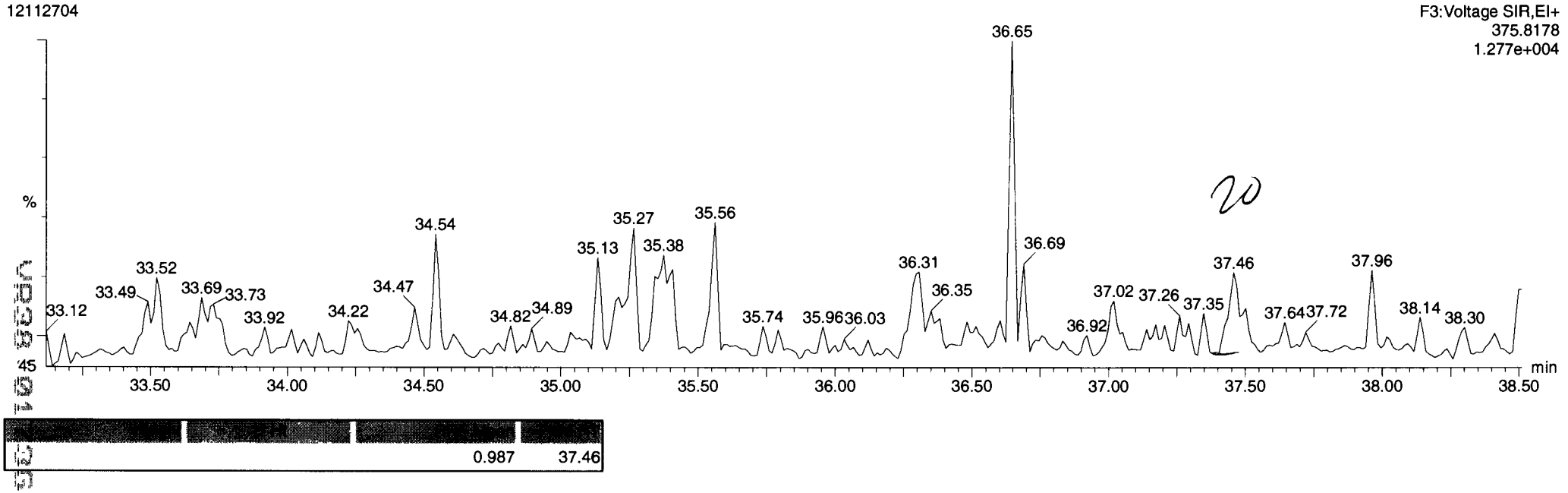
15652903	29873964	1.269	35.36

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 123789-HxCDF

Sample Name: 12112704

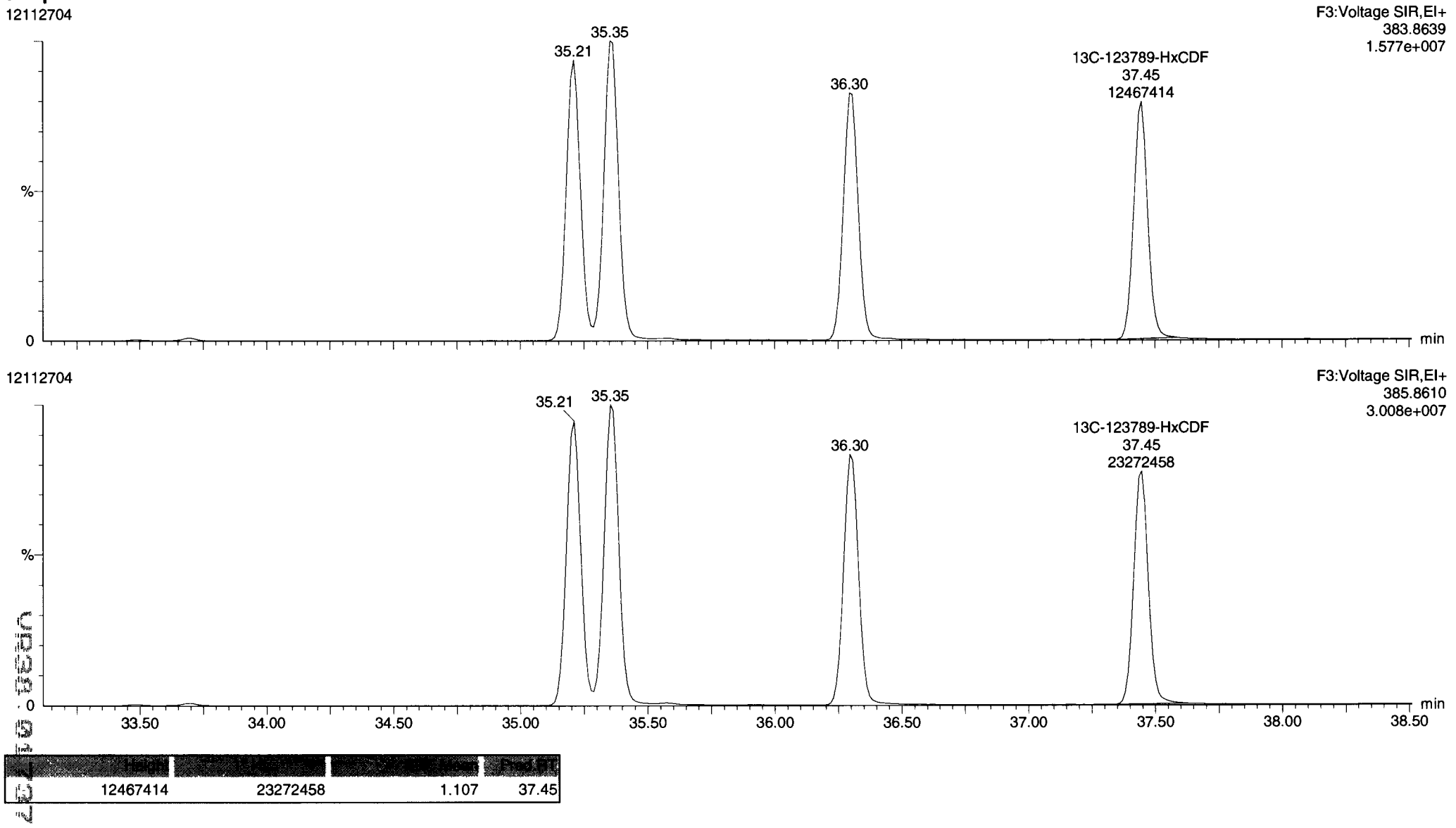




Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-123789-HxCDF

Sample Name: 12112704



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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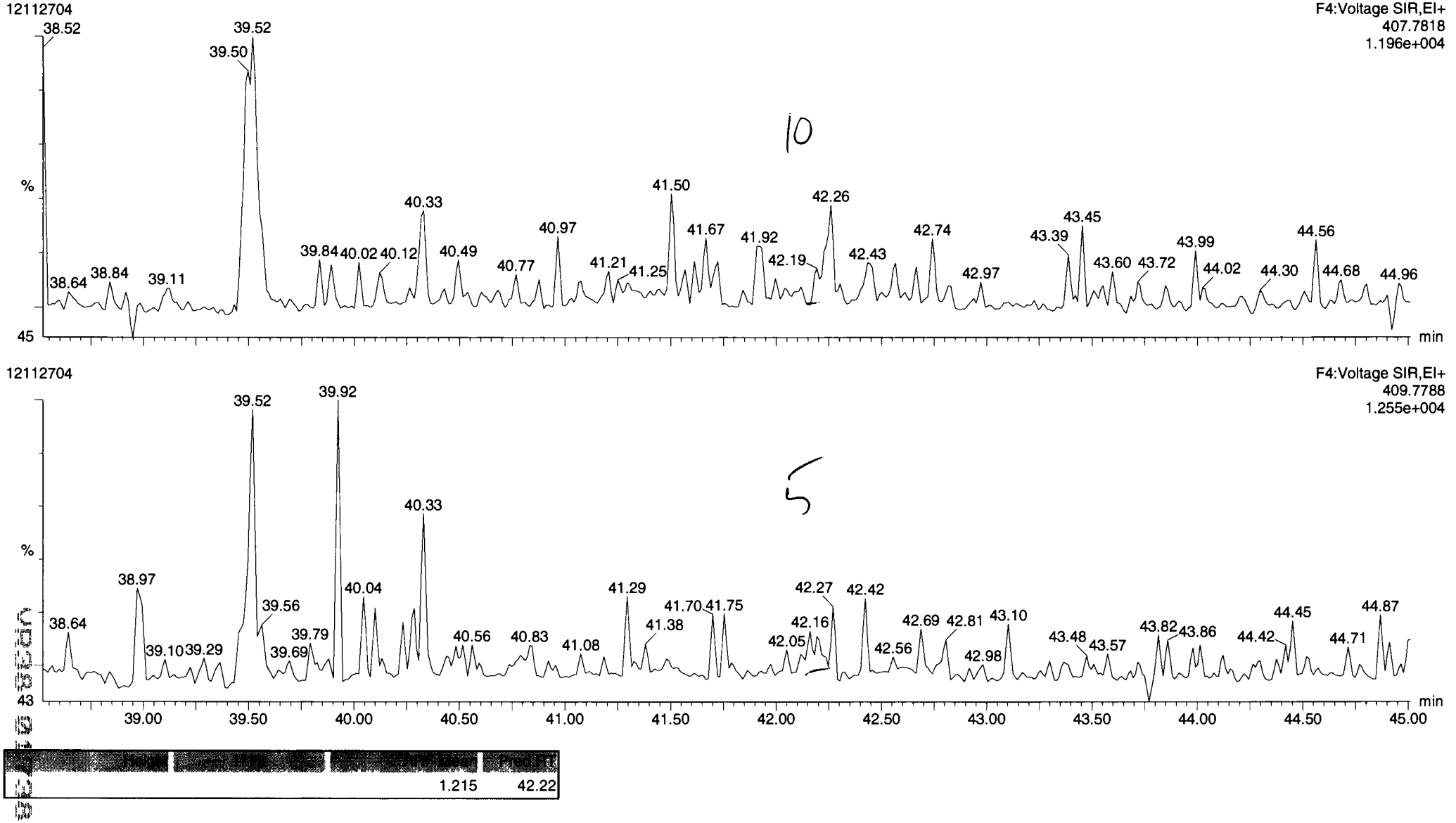
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 1234789-HpCDF

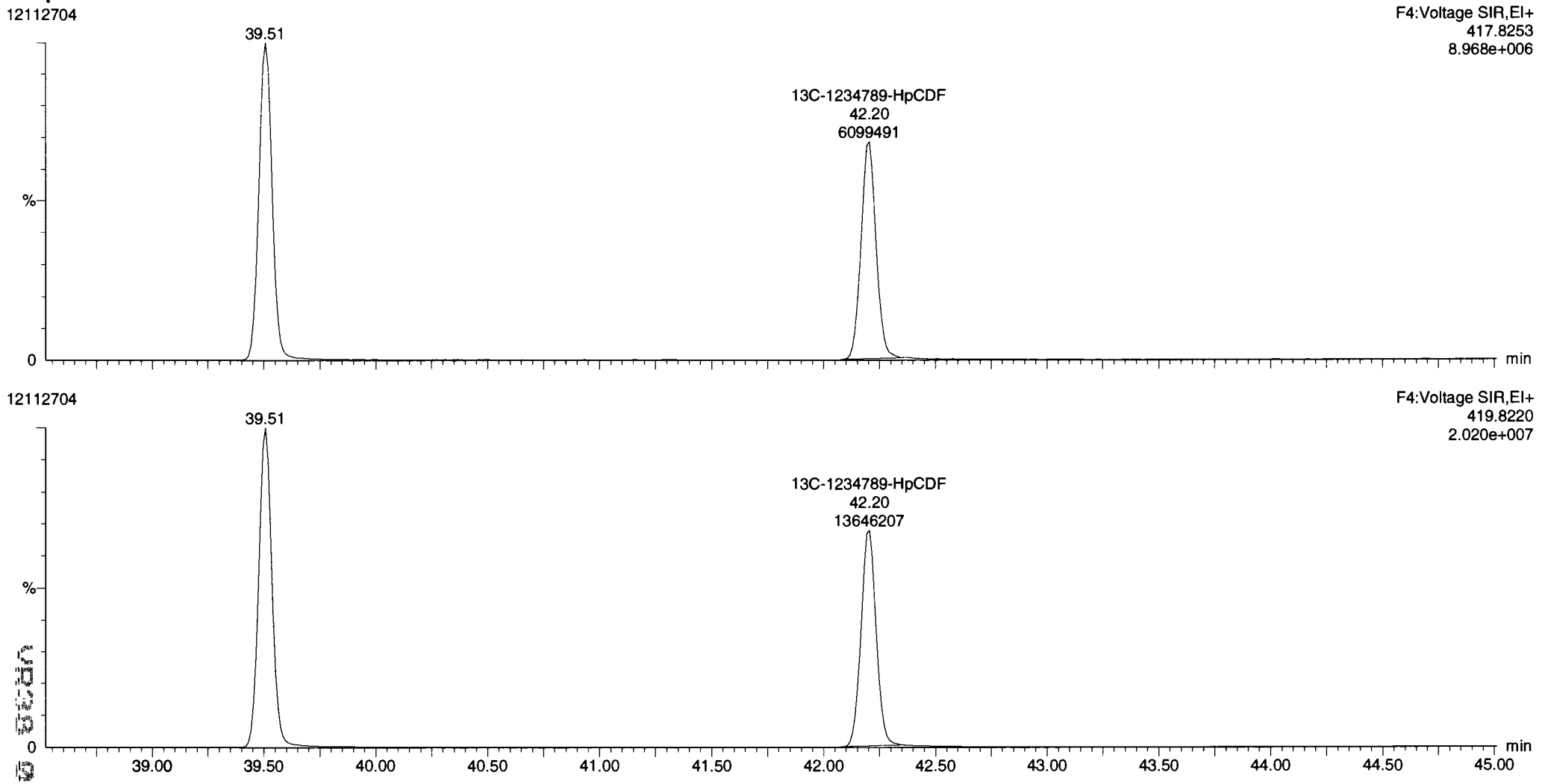
Sample Name: 12112704



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-1234789-HpCDF

Sample Name: 12112704

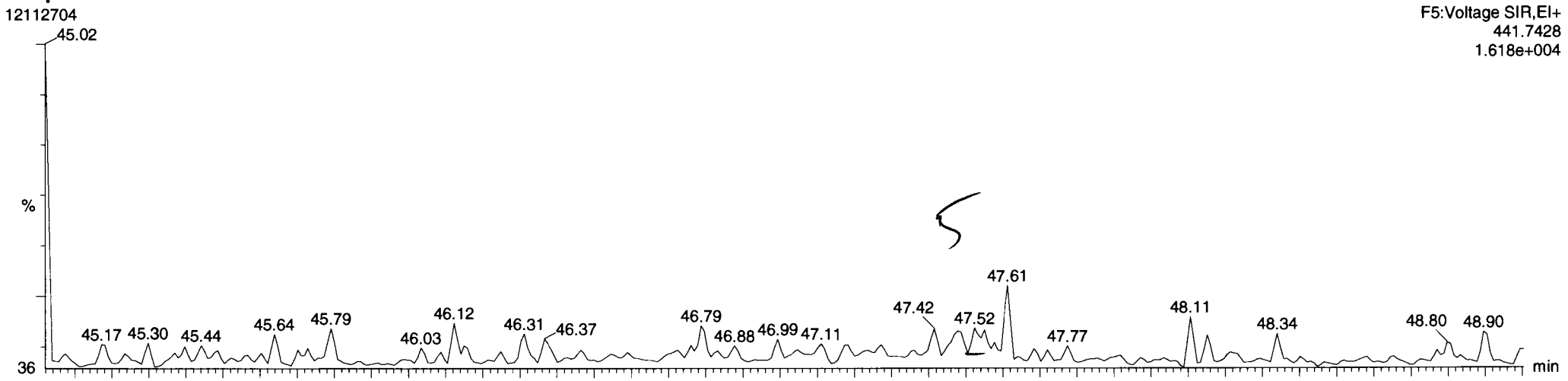


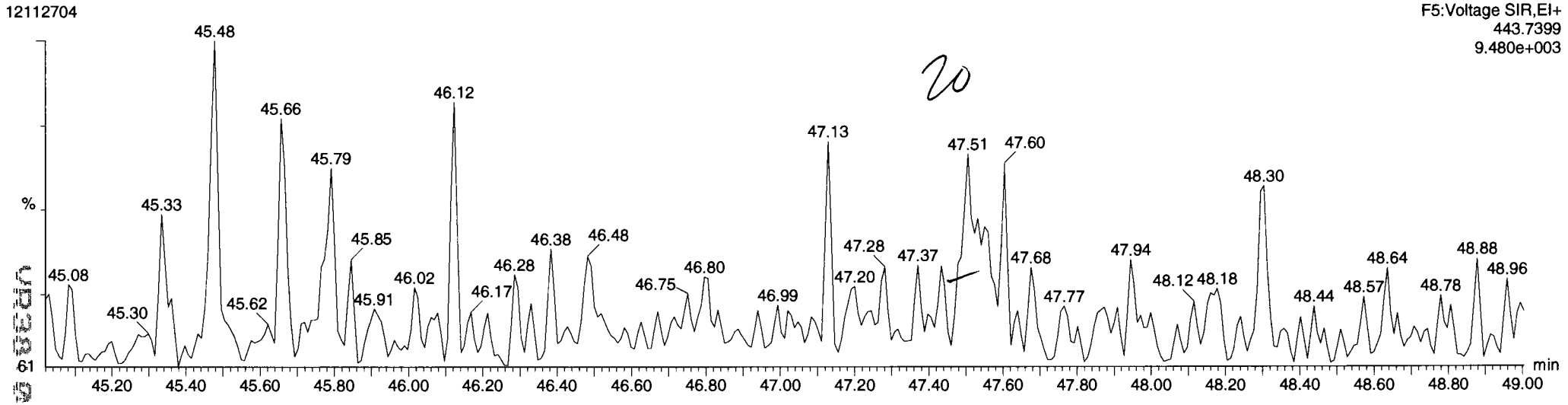
	Height		Peak Mean	Prod.RT
2	6099491	13646207	0.815	42.23

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: OCDF

Sample Name: 12112704

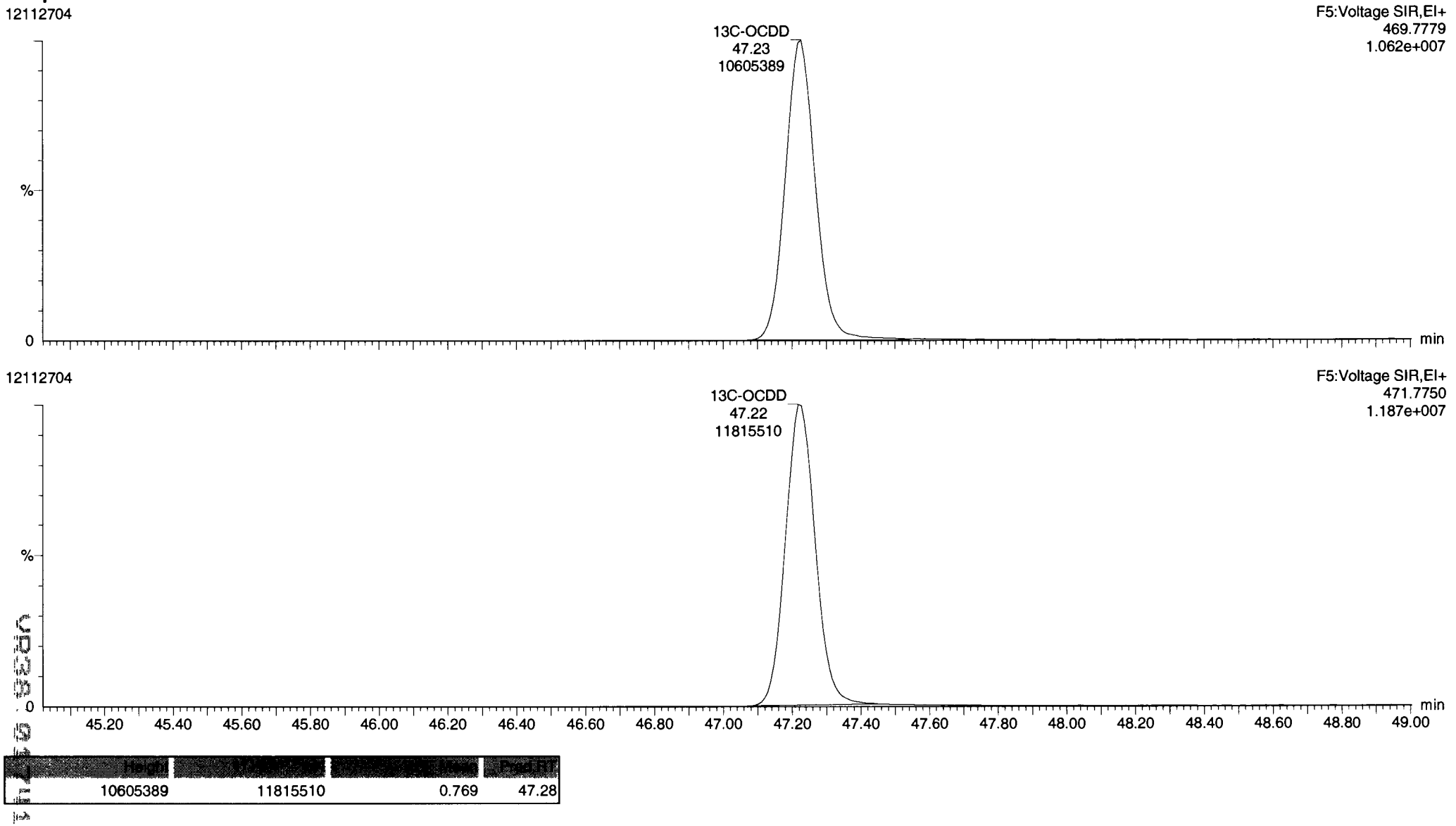




Height	S/N	RRF Mean	Pred RT
		1.138	47.51

Compound Name: 13C-OCDD

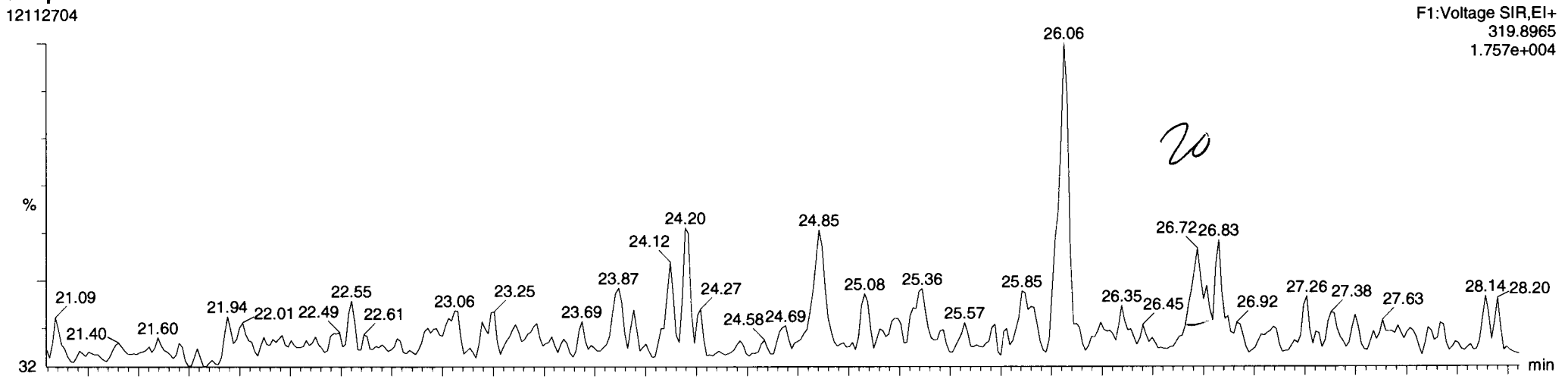
Sample Name: 12112704

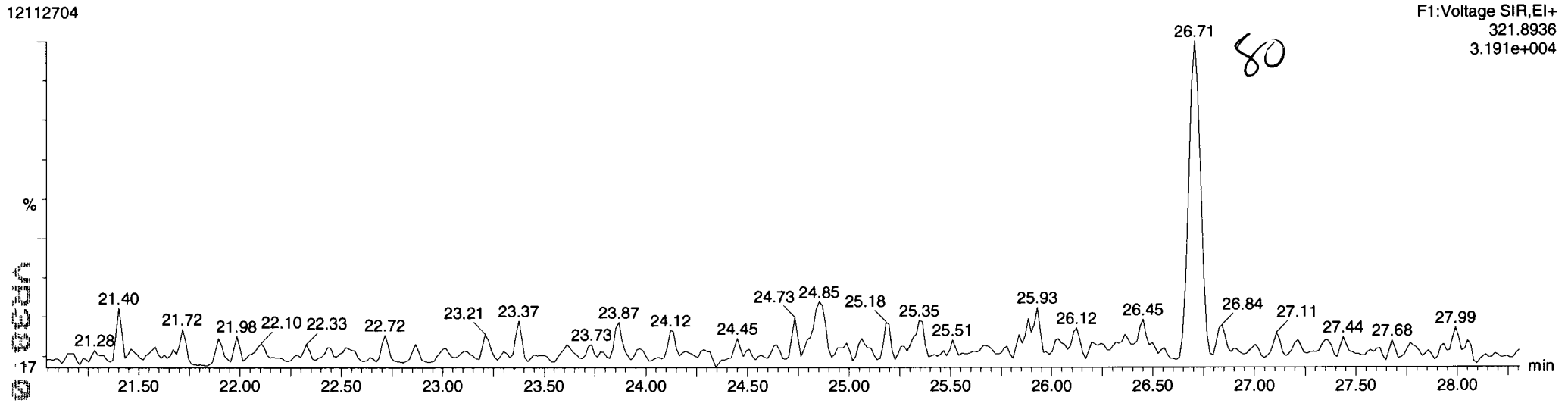


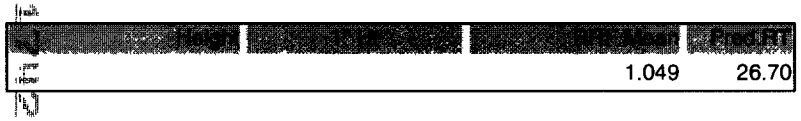
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 2378-TCDD

Sample Name: 12112704







Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
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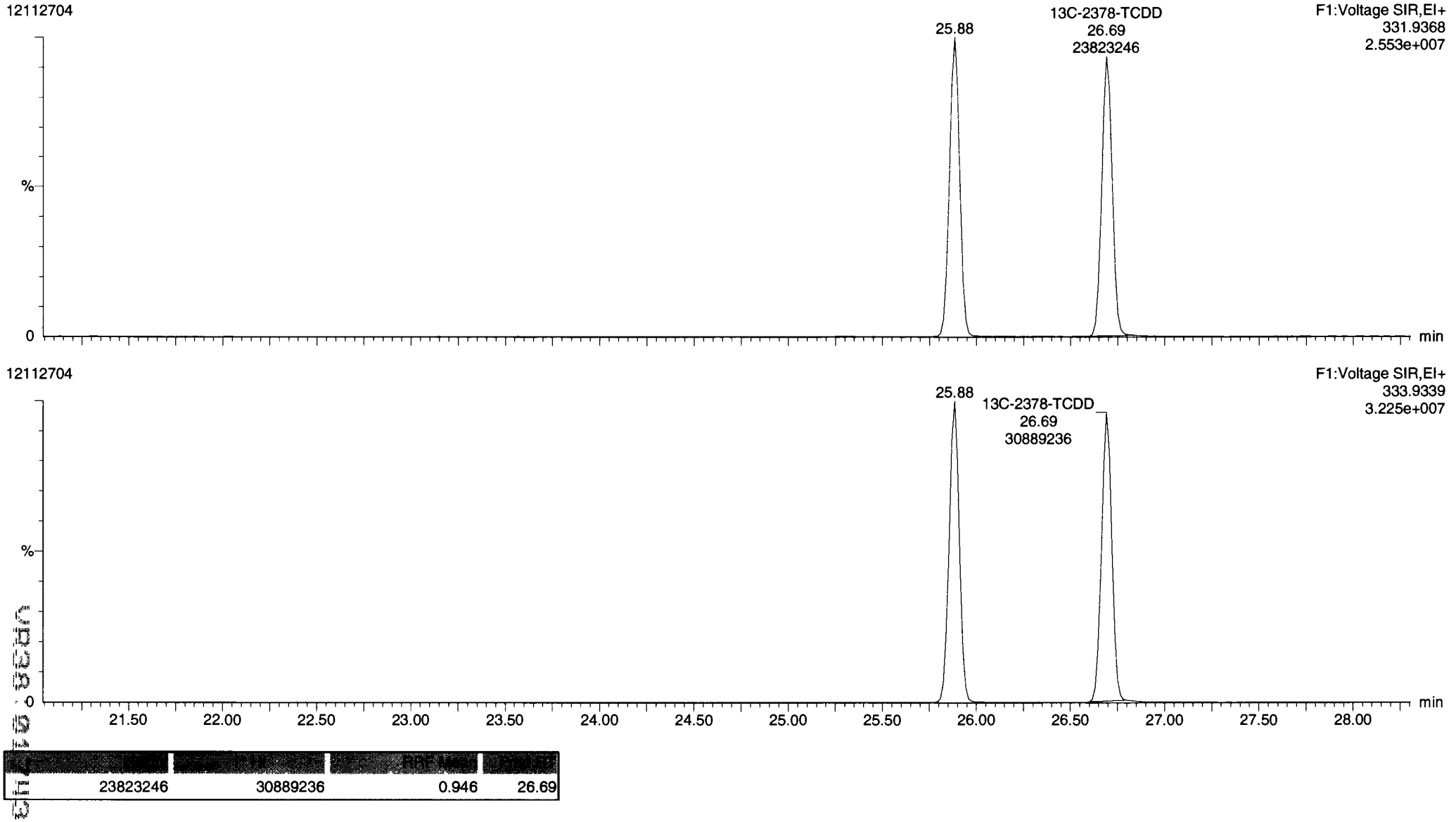
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-2378-TCDD

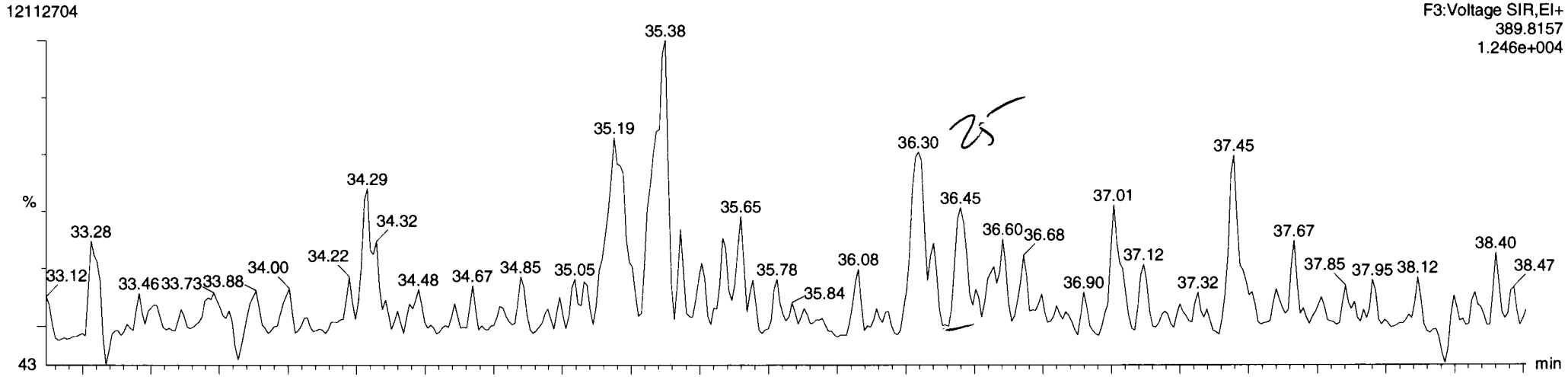
Sample Name: 12112704

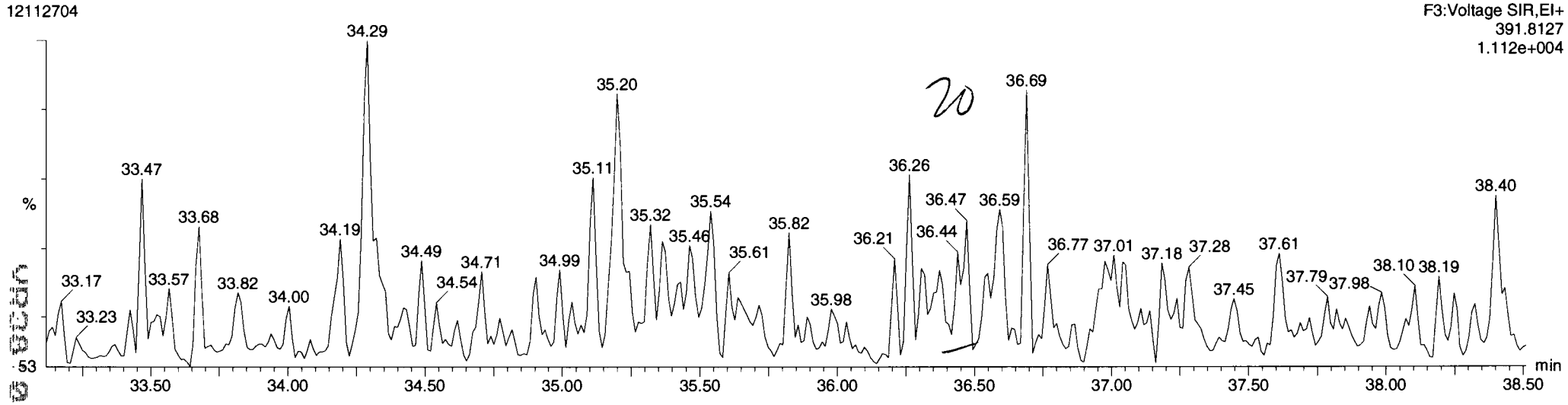


Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 123478-HxCDD

Sample Name: 12112704



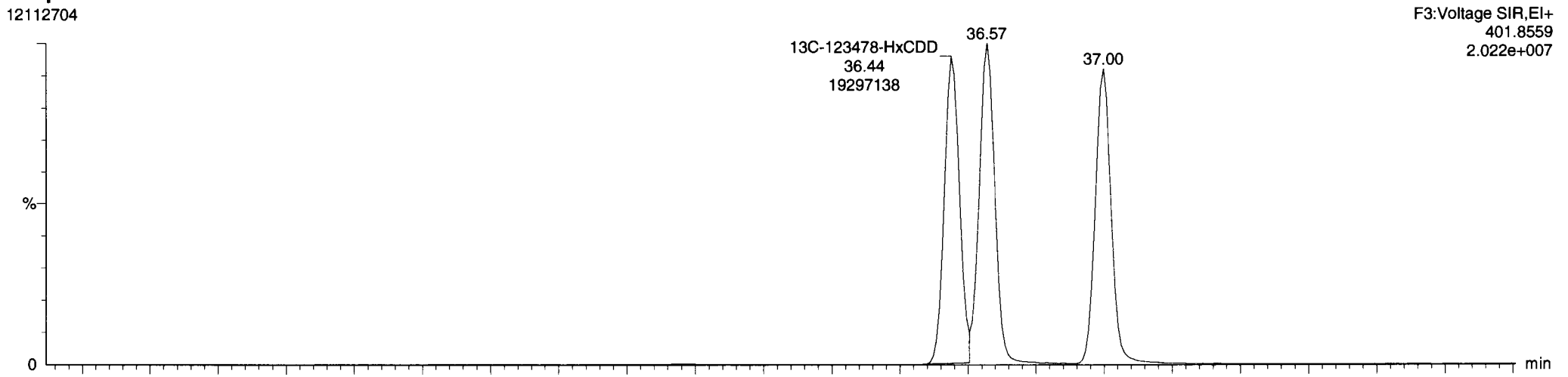


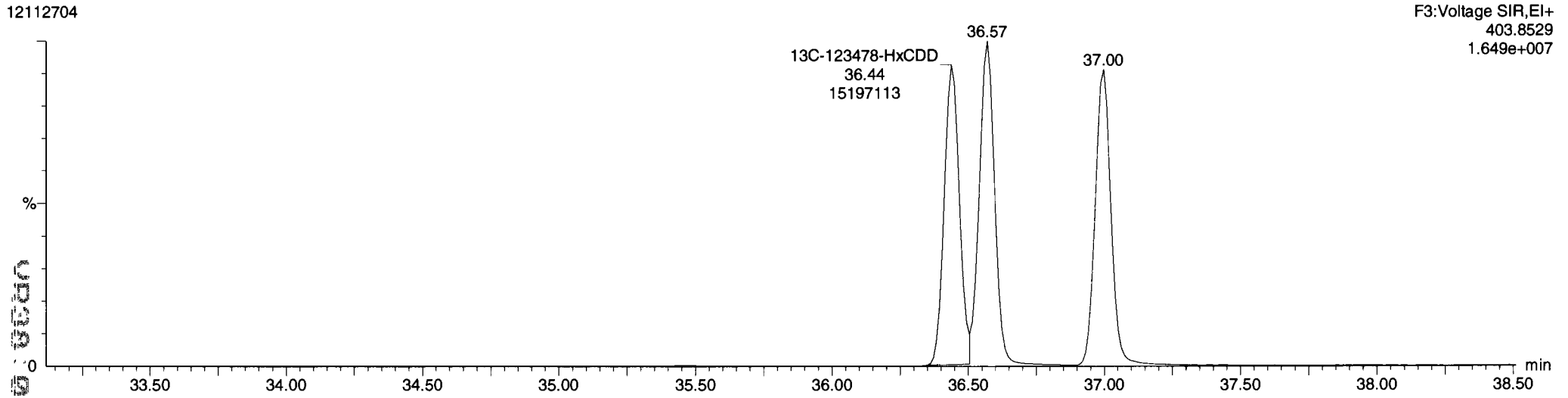
Height		RRF Mass	Pred.RT
		0.971	36.46

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-123478-HxCDD

Sample Name: 12112704



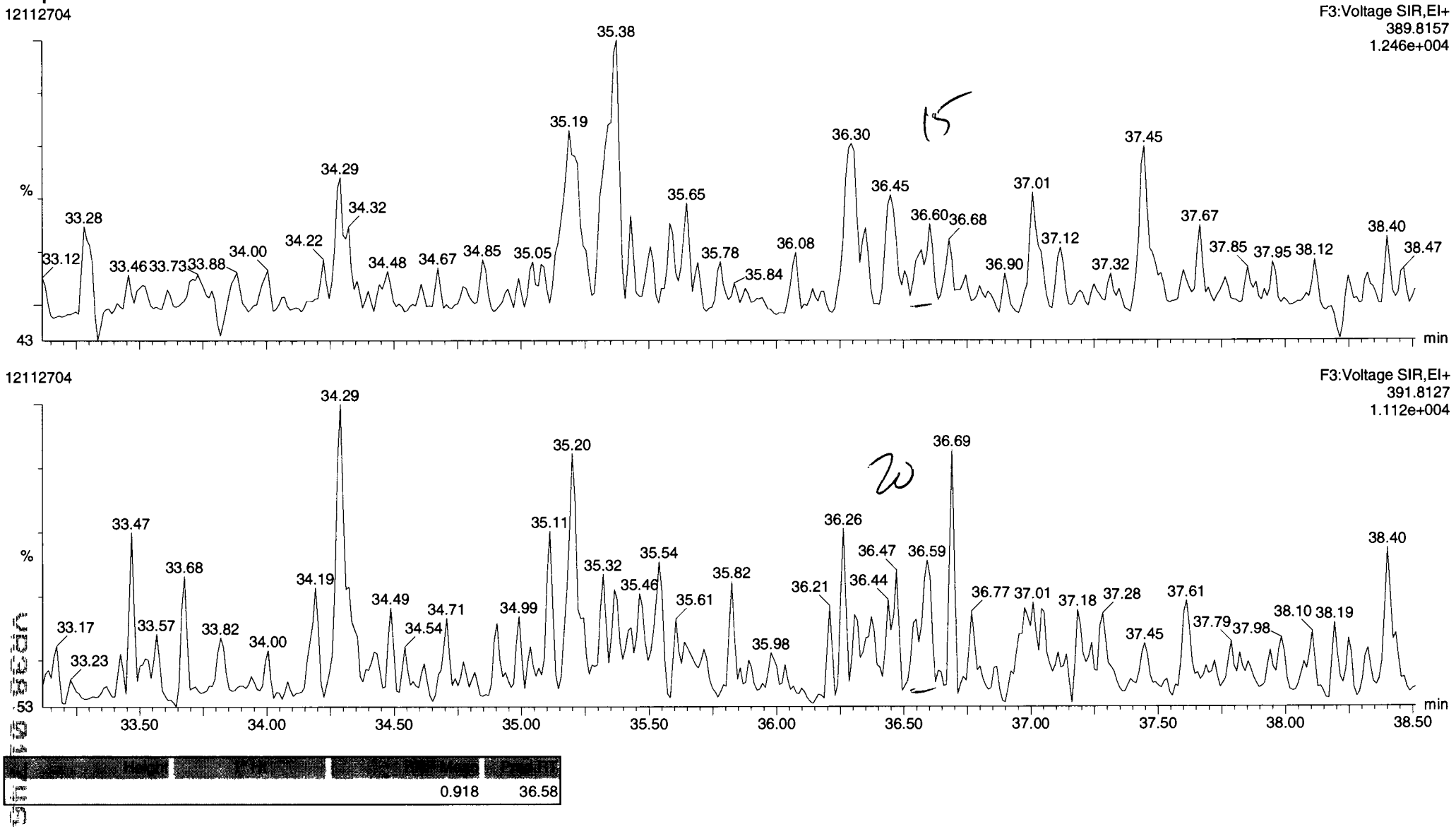


	Height			Fred.Rt
	19297138	15197113	0.991	36.45

Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 123678-HxCDD

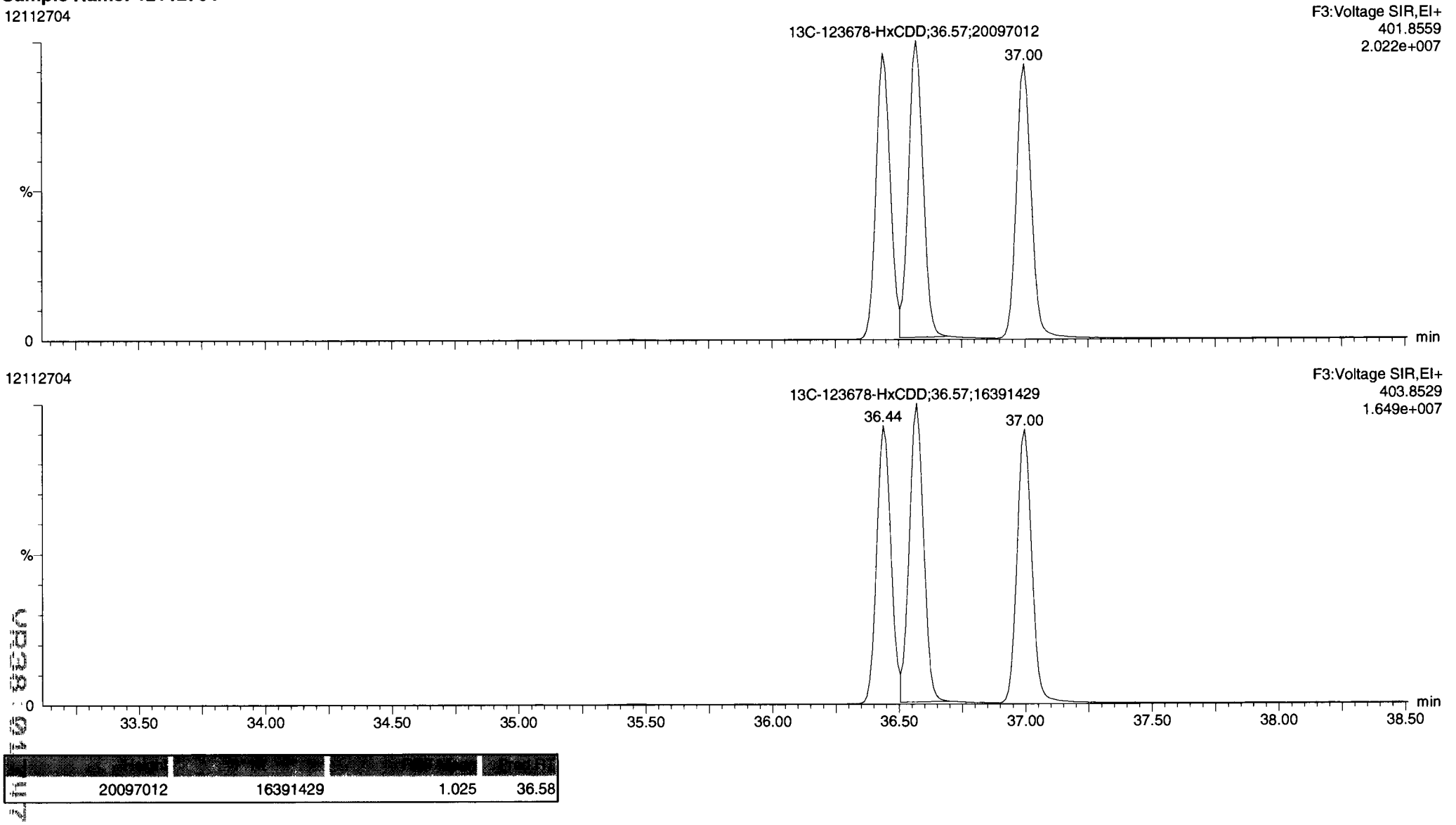
Sample Name: 12112704



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-123678-HxCDD

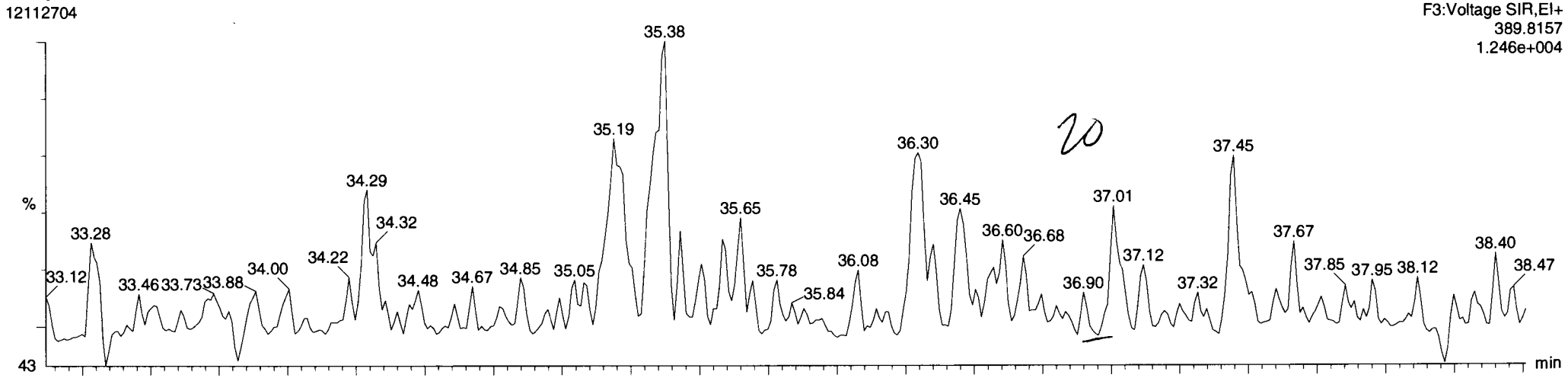
Sample Name: 12112704

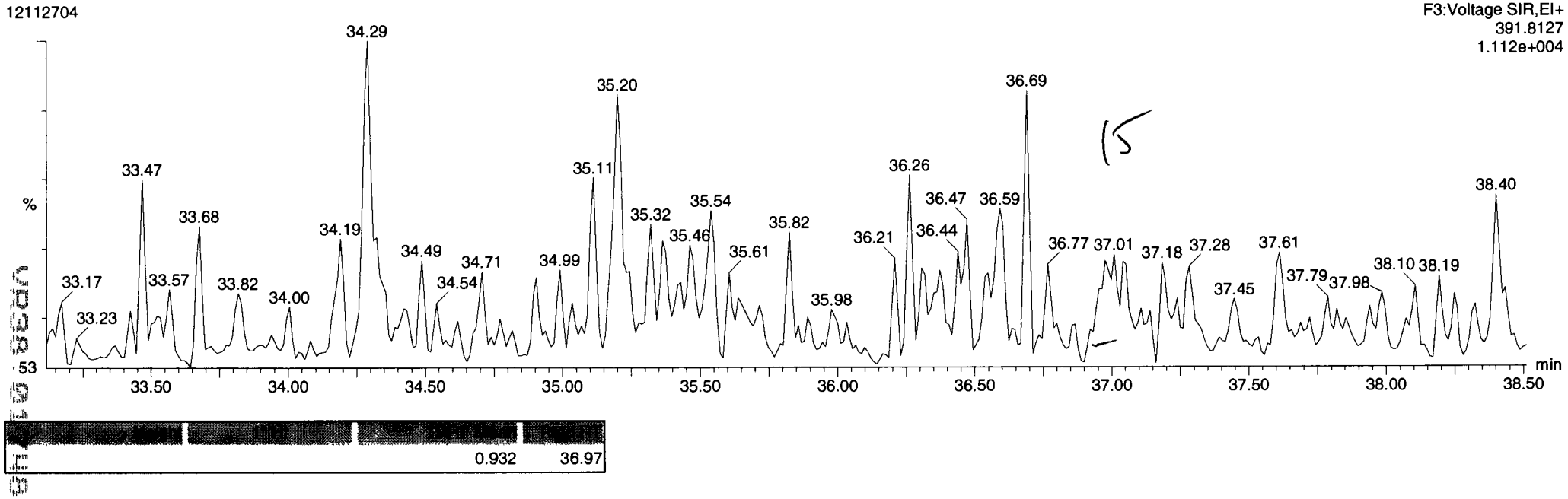


Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 123789-HxCDD

Sample Name: 12112704

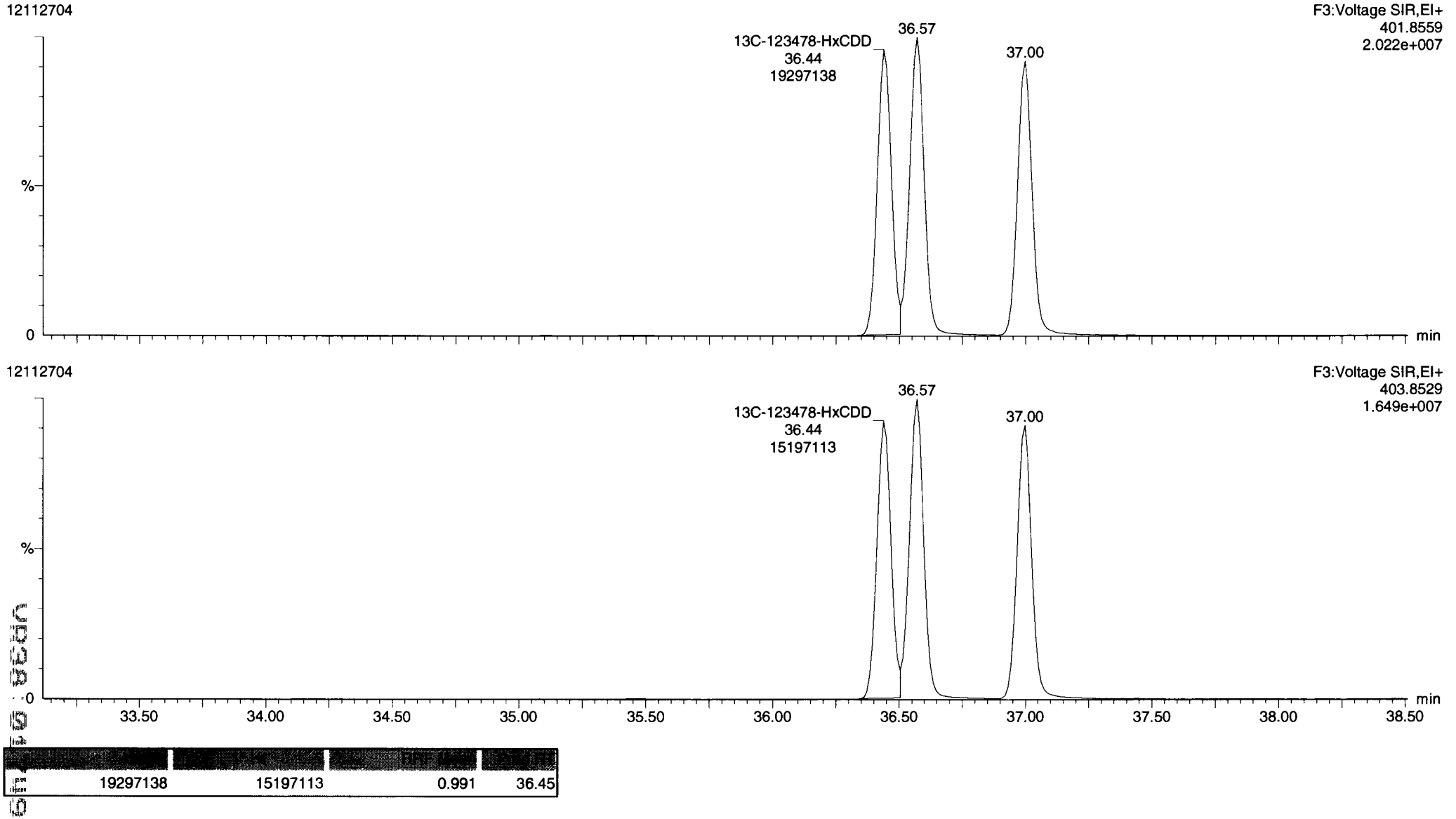




Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:17 Pacific Standard Time

Compound Name: 13C-123478-HxCDD

Sample Name: 12112704



VR38A

EDLs

Curve Date 11/23/2012

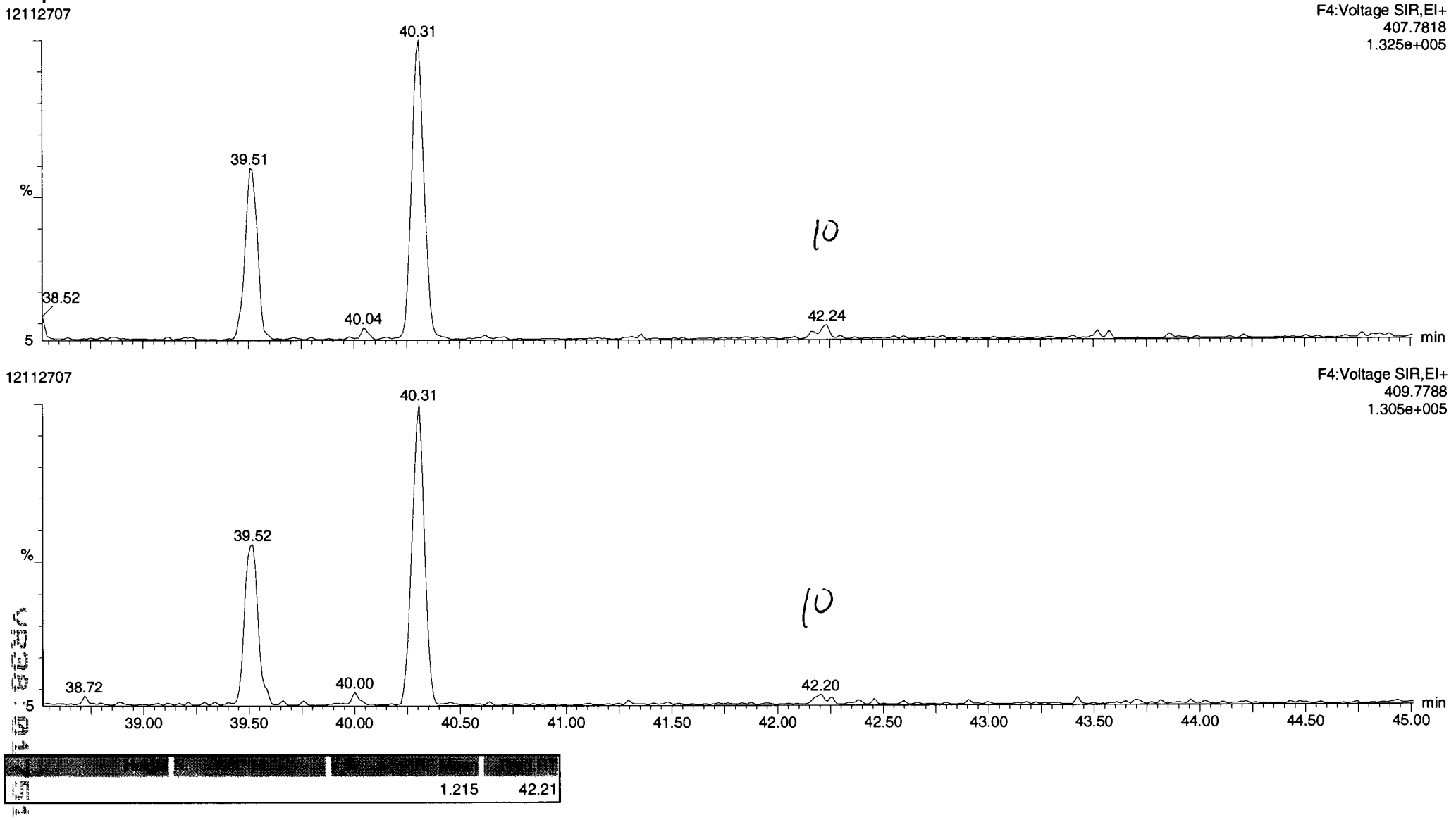
12112707

	Noise 1 Percent	Noise 1 Height	Noise 2 Percent	Noise 2 Height	Label 1 Height	Label 2 Height	RRF Mean	EDL (pg)
2378-TCDD							1.049	#DIV/0!
12378-PeCDD							0.998	#DIV/0!
123478-HxCDD	20	49130	15	47640	23098312	18211608	0.971	2.116
123678-HxCDD							0.918	#DIV/0!
123789-HxCDD							0.932	#DIV/0!
1234678-HpCDD							1.017	#DIV/0!
OCDD							1.008	#DIV/0!
2378-TCDF							0.877	#DIV/0!
12378-PeCDF							0.896	#DIV/0!
23478-PeCDF							0.926	#DIV/0!
123478-HxCDF							1.068	#DIV/0!
234678-HxCDF							1.037	#DIV/0!
123678-HxCDF							1.035	#DIV/0!
123789-HxCDF							0.987	#DIV/0!
1234678-HpCDF							1.232	#DIV/0!
1234789-HpCDF	10	132500	10	130500	7861102	17920334	1.215	4.198
OCDF							1.138	#DIV/0!

Compound Name: 1234789-HpCDF

VN238 A

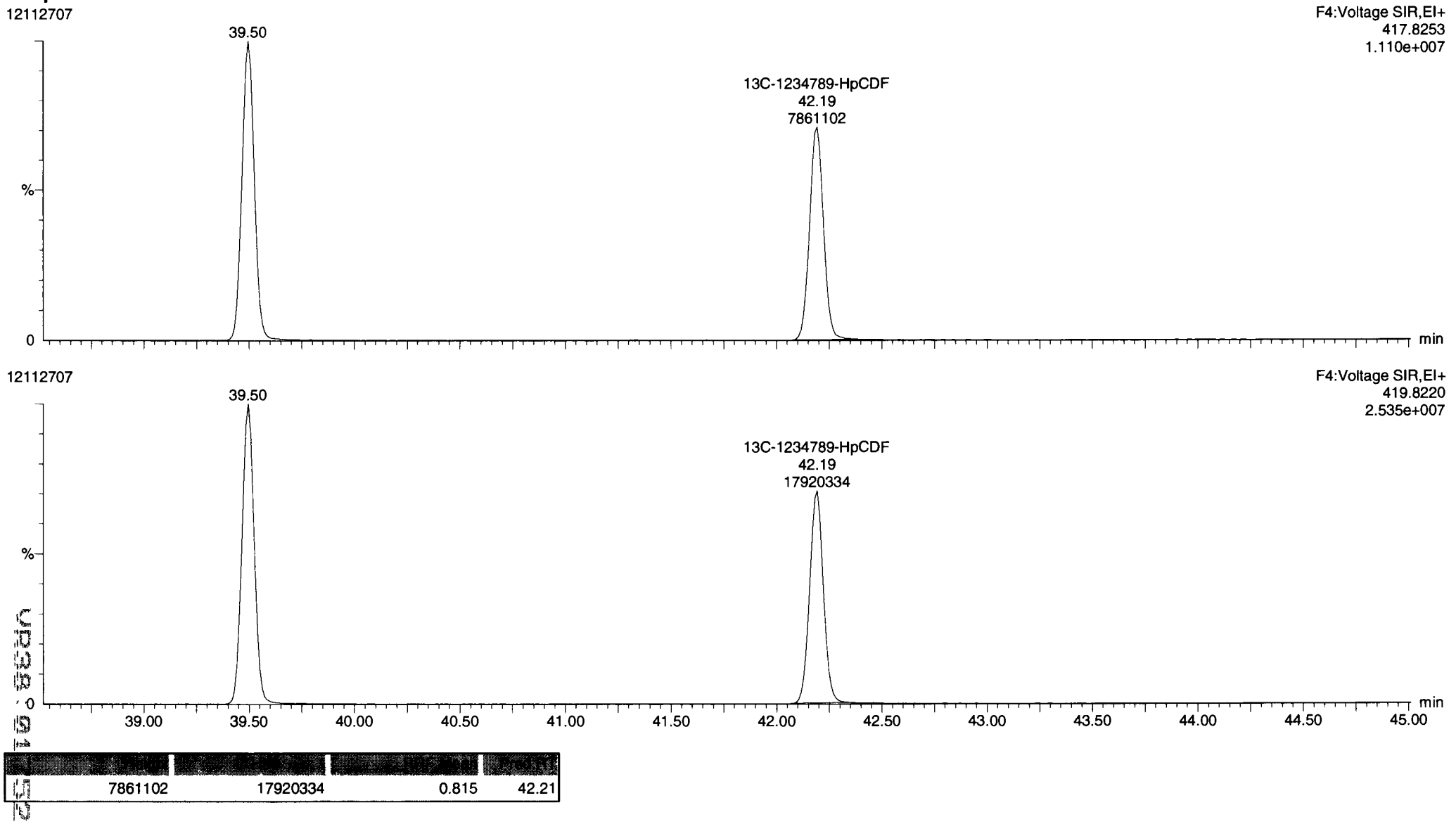
Sample Name: 12112707



Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:50 Pacific Standard Time

Compound Name: 13C-1234789-HpCDF

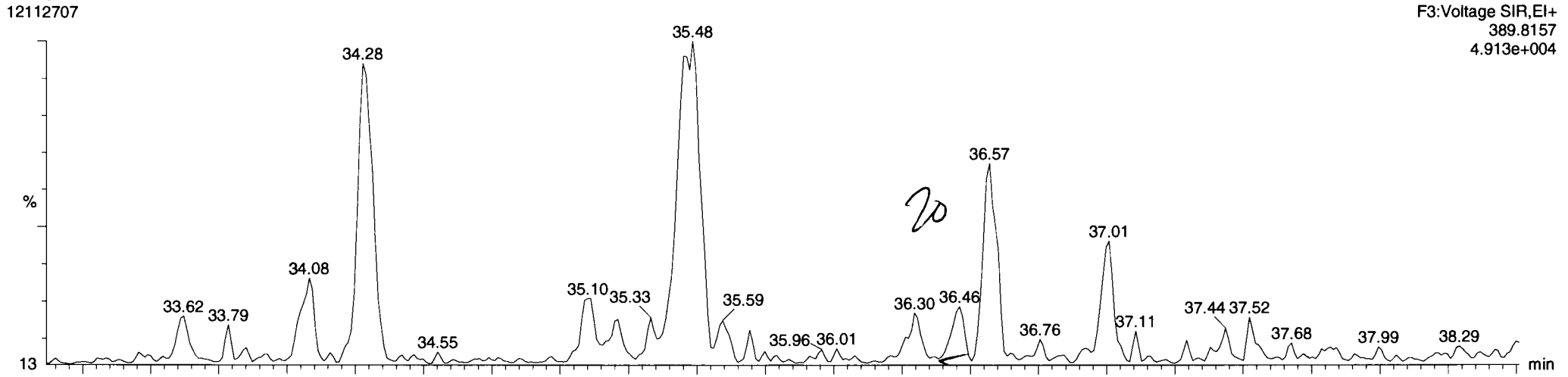
Sample Name: 12112707

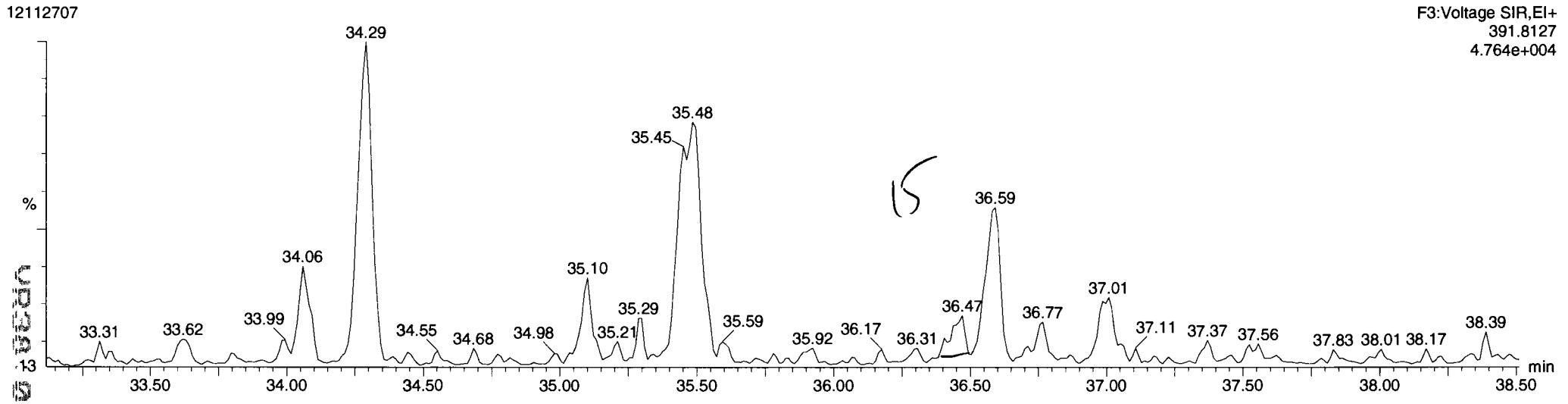


Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:50 Pacific Standard Time

Compound Name: 123478-HxCDD

Sample Name: 12112707

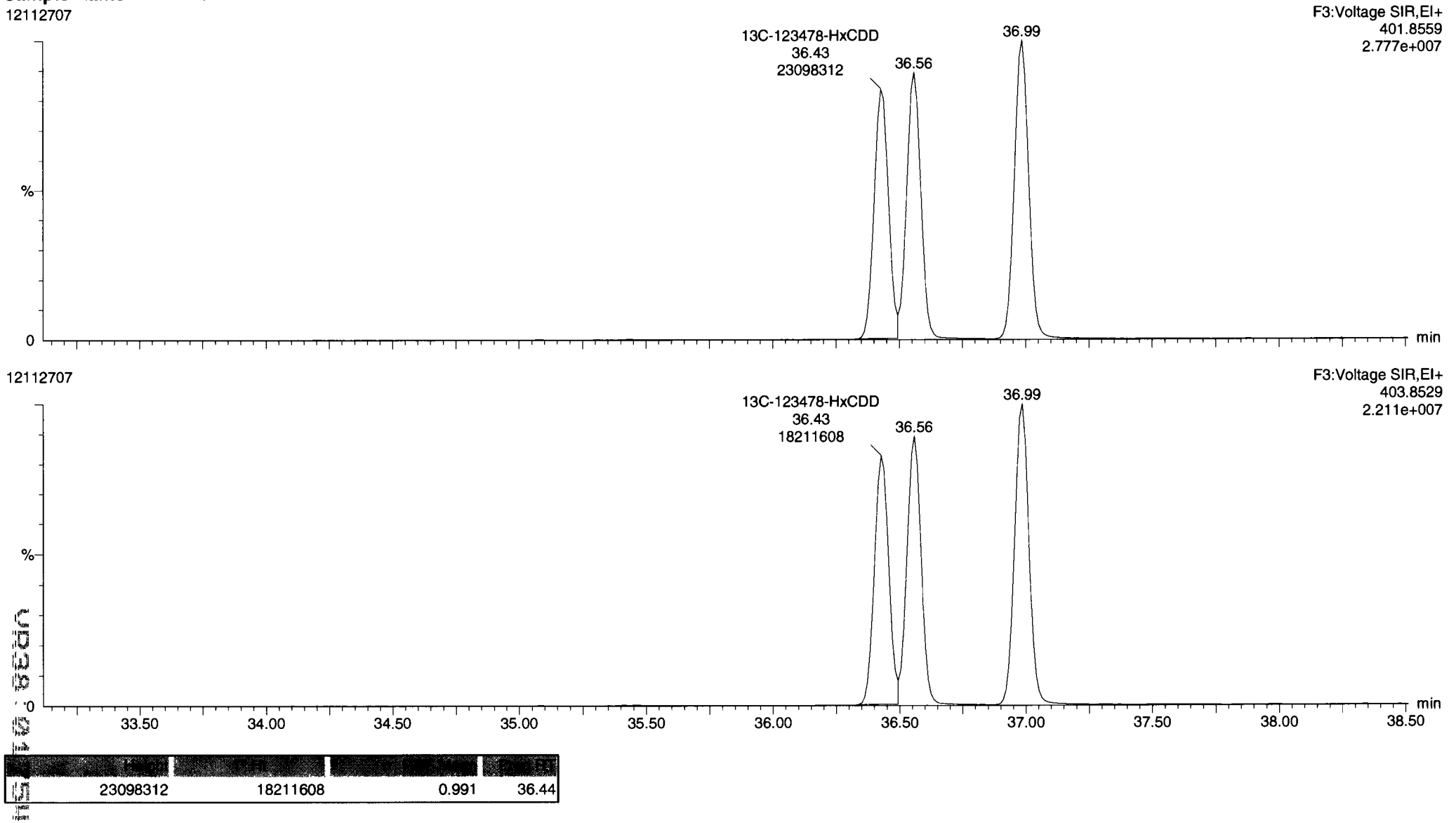




Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:35:50 Pacific Standard Time

Compound Name: 13C-123478-HxCDD

Sample Name: 12112707



VR38B

EDLs

Curve Date 11/23/2012

12112708

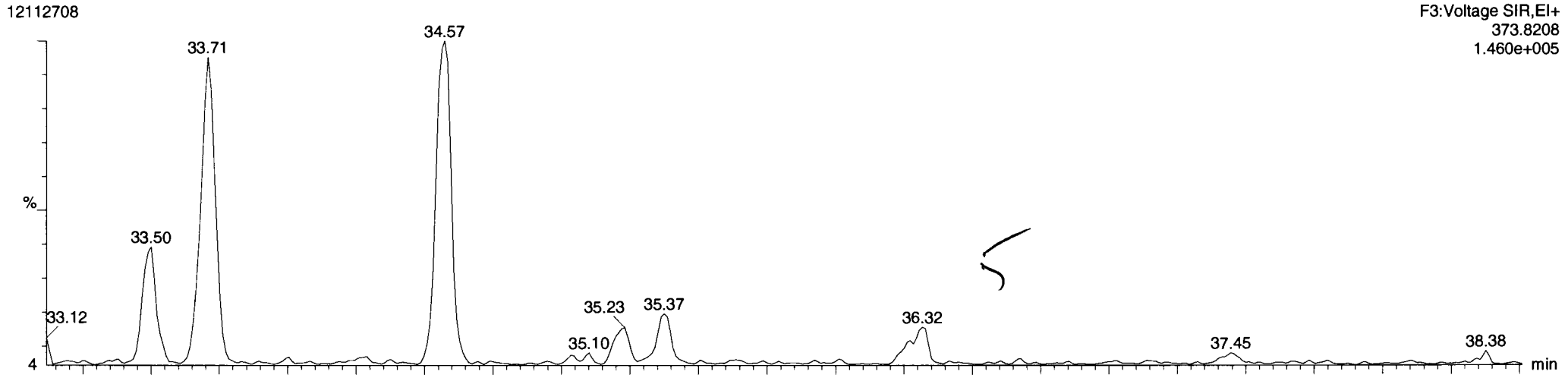
	Noise 1 Percent	Noise 1 Height	Noise 2 Percent	Noise 2 Height	Label 1 Height	Label 2 Height	RRF Mean	EDL (pg)
2378-TCDD							1.049	#DIV/0!
12378-PeCDD							0.998	#DIV/0!
123478-HxCDD							0.971	#DIV/0!
123678-HxCDD							0.918	#DIV/0!
123789-HxCDD							0.932	#DIV/0!
1234678-HpCDD							1.017	#DIV/0!
OCDD							1.008	#DIV/0!
2378-TCDF							0.877	#DIV/0!
12378-PeCDF							0.896	#DIV/0!
23478-PeCDF							0.926	#DIV/0!
123478-HxCDF							1.068	#DIV/0!
234678-HxCDF							1.037	#DIV/0!
123678-HxCDF							1.035	#DIV/0!
123789-HxCDF	5	146000	5	141300	17279236	32567772	0.987	1.460
1234678-HpCDF							1.232	#DIV/0!
1234789-HpCDF							1.215	#DIV/0!
OCDF							1.138	#DIV/0!

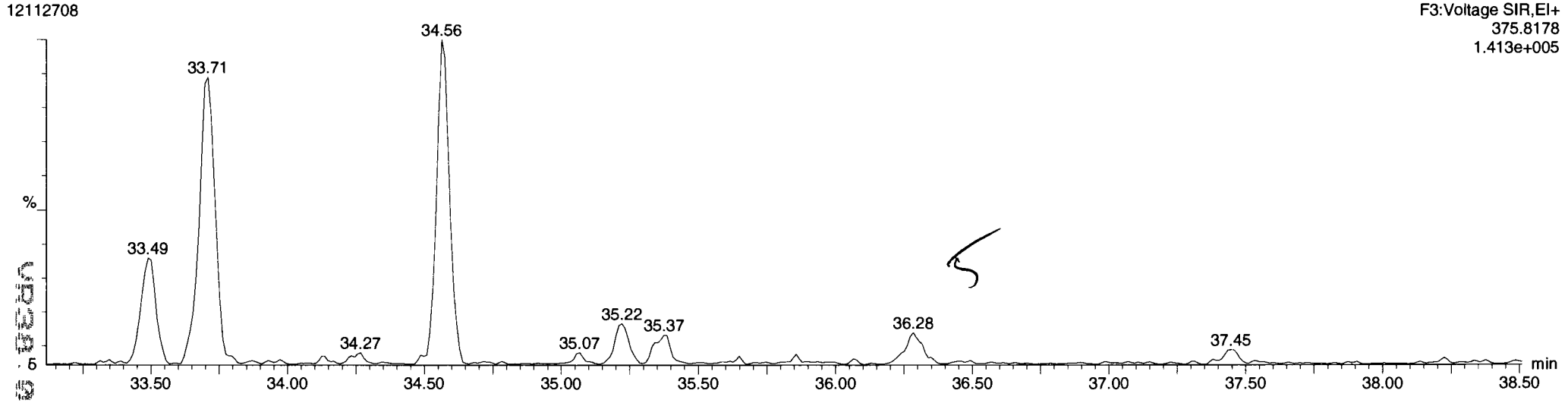
Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:36:15 Pacific Standard Time

Compound Name: 123789-HxCDF

VR388 B

Sample Name: 12112708

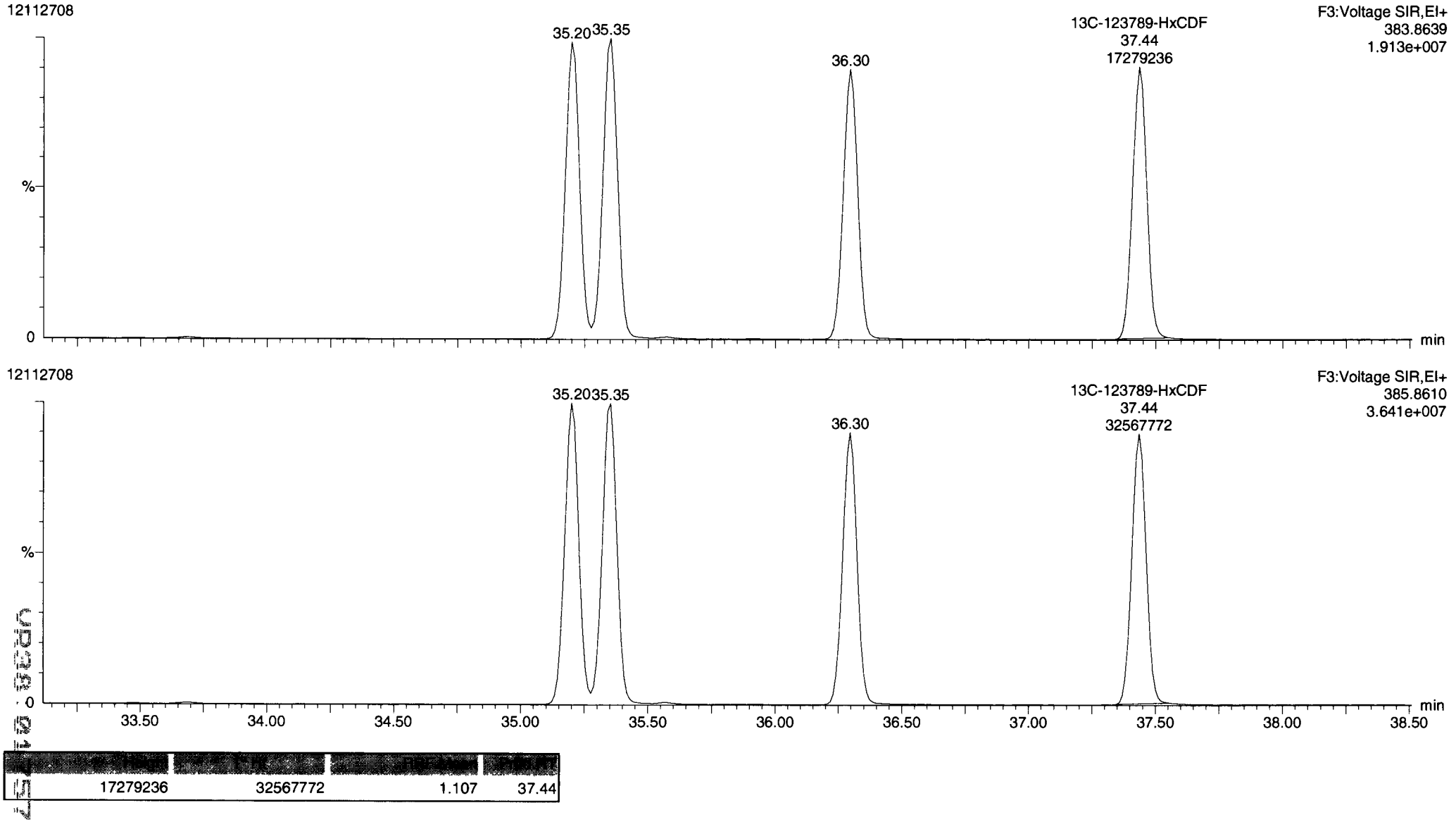




Dataset: P:\DIOXIN8290.PRO\121127DATA1.qld
Last Altered: Wednesday, November 28, 2012 14:42:27 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:36:15 Pacific Standard Time

Compound Name: 13C-123789-HxCDF

Sample Name: 12112708



VR38H

EDLs

Curve Date 11/23/2012

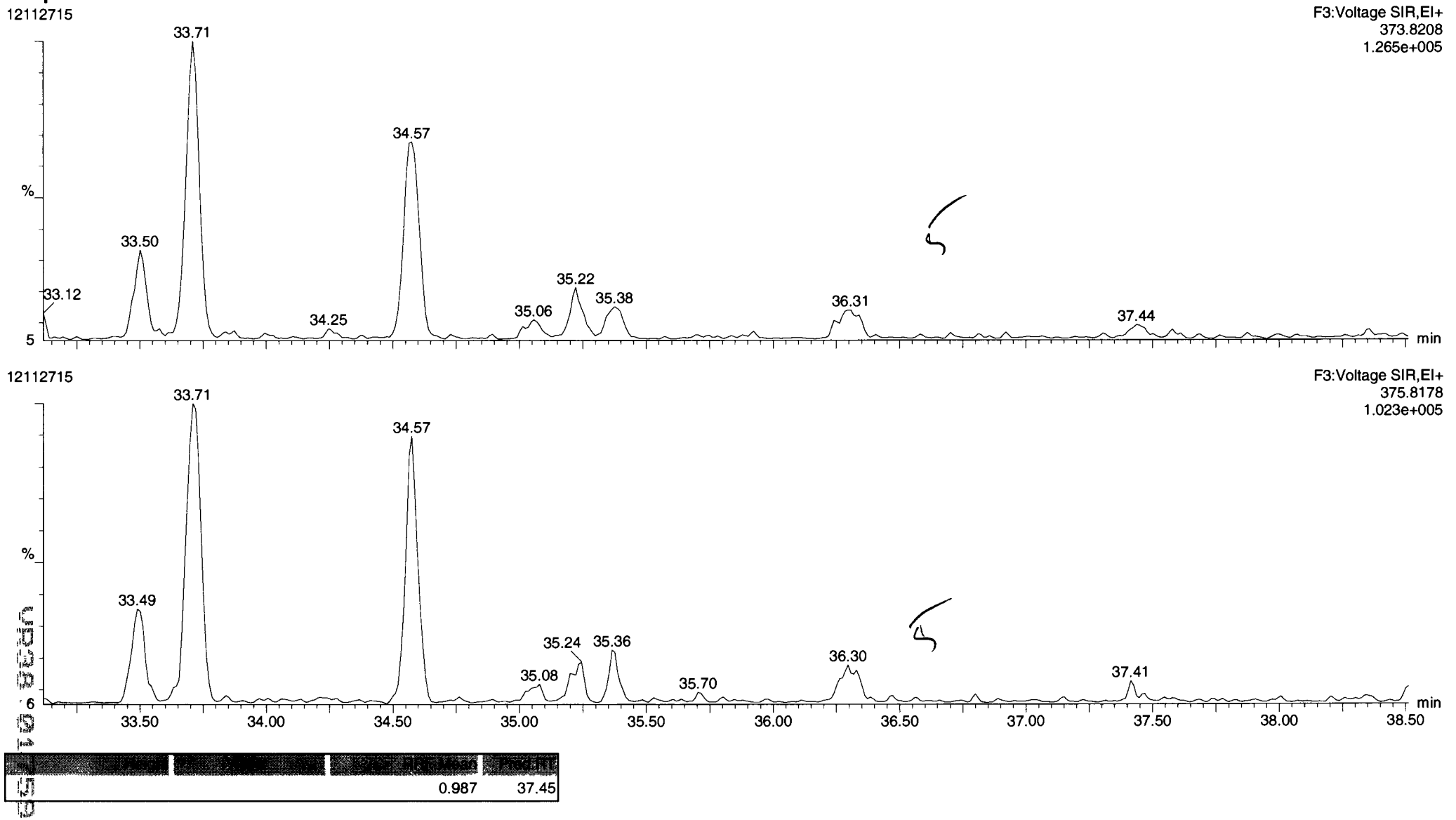
12112715

	Noise 1 Percent	Noise 1 Height	Noise 2 Percent	Noise 2 Height	Label 1 Height	Label 2 Height	RRF Mean	EDL (pg)
2378-TCDD							1.049	#DIV/0!
12378-PeCDD							0.998	#DIV/0!
123478-HxCDD	20	76750	20	31950	20487434	16030970	0.971	3.065
123678-HxCDD							0.918	#DIV/0!
123789-HxCDD							0.932	#DIV/0!
1234678-HpCDD							1.017	#DIV/0!
OCDD							1.008	#DIV/0!
2378-TCDF							0.877	#DIV/0!
12378-PeCDF							0.896	#DIV/0!
23478-PeCDF							0.926	#DIV/0!
123478-HxCDF							1.068	#DIV/0!
234678-HxCDF							1.037	#DIV/0!
123678-HxCDF							1.035	#DIV/0!
123789-HxCDF	5	126500	5	102300	13898658	26832962	0.987	1.423
1234678-HpCDF							1.232	#DIV/0!
1234789-HpCDF							1.215	#DIV/0!
OCDF							1.138	#DIV/0!

Compound Name: 123789-HxCDF

JR38H

Sample Name: 12112715

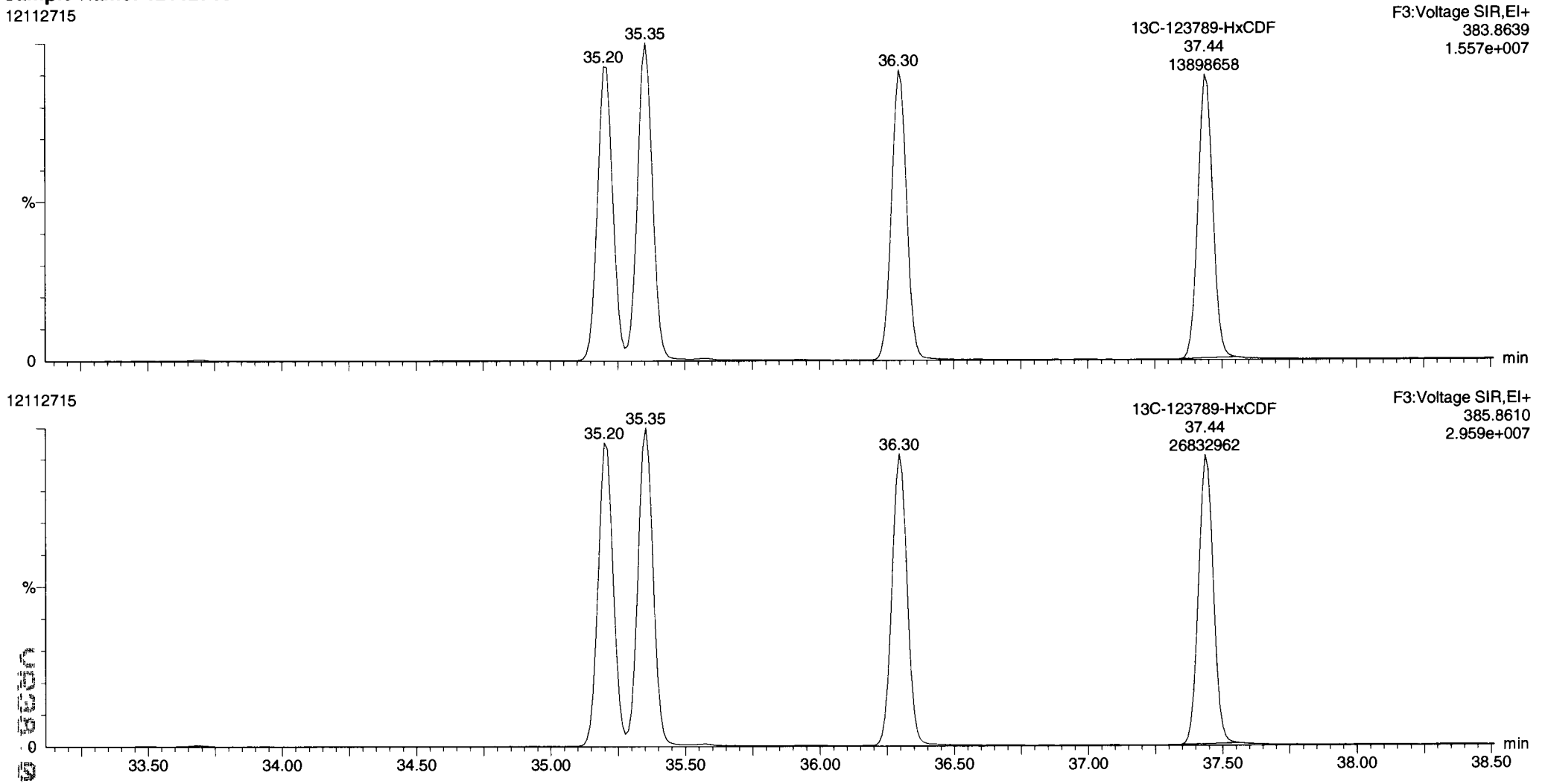


		0.987	37.45

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:37:42 Pacific Standard Time

Compound Name: 13C-123789-HxCDF

Sample Name: 12112715

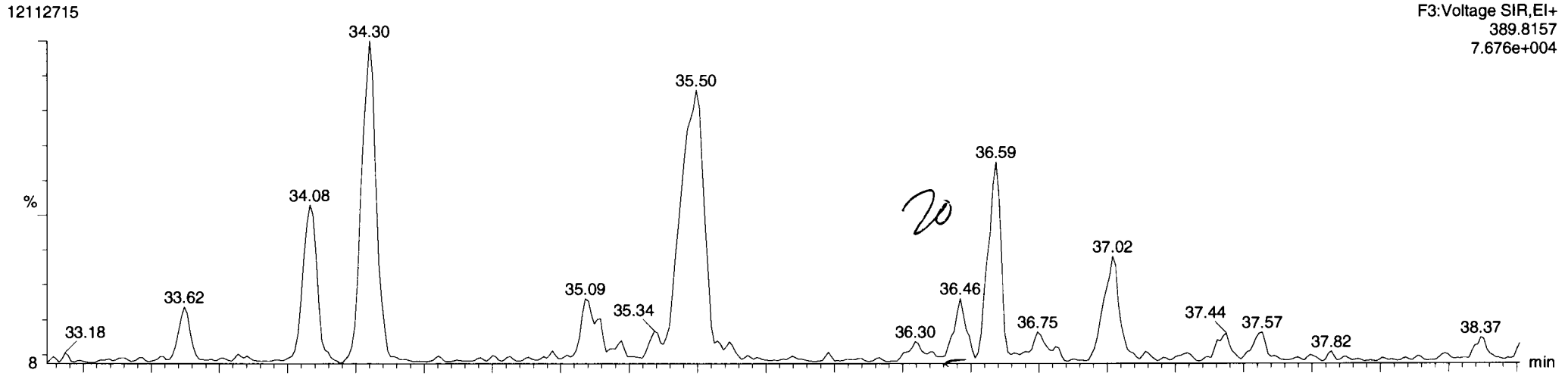


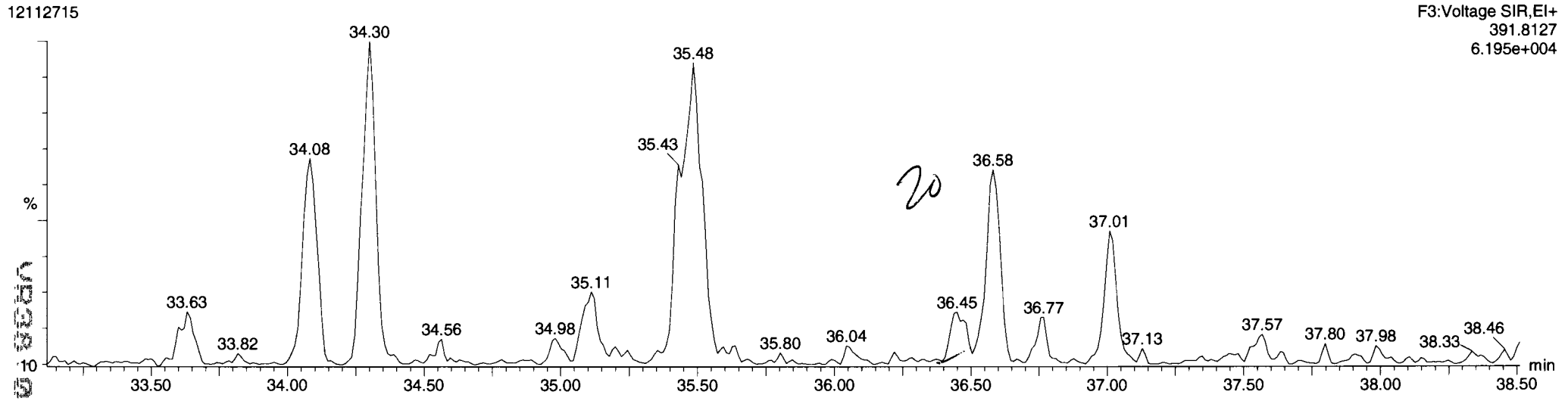
13898658	26832962	1.107	37.45

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:37:42 Pacific Standard Time

Compound Name: 123478-HxCDD

Sample Name: 12112715



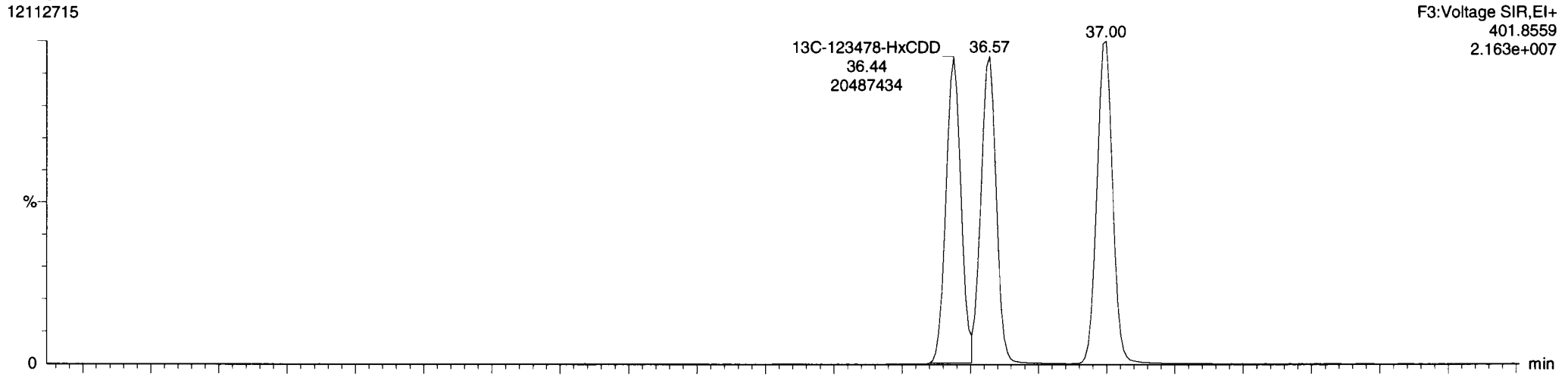


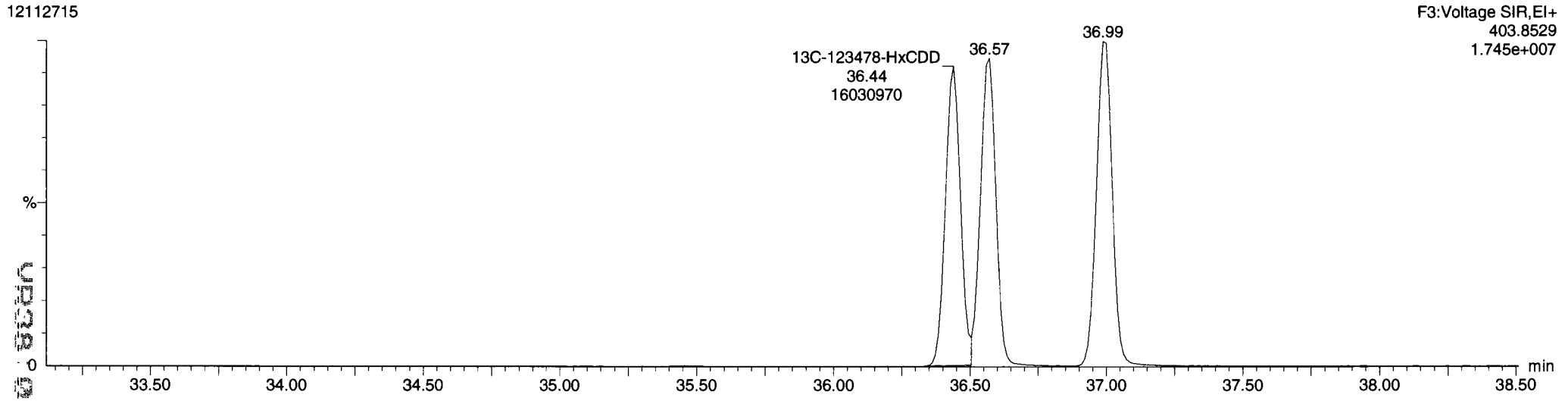
			0.971	36.46

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:37:42 Pacific Standard Time

Compound Name: 13C-123478-HxCDD

Sample Name: 12112715





	Height		Ratio	Fixed RT
	20487434	16030970	0.991	36.45

VR38I

EDLs

Curve Date 11/23/2012

12112716

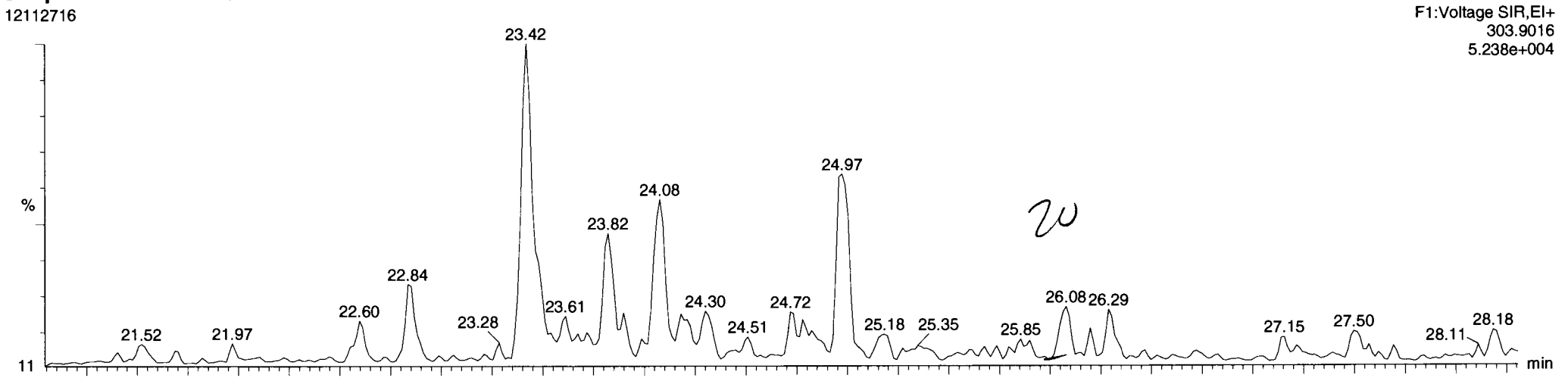
	Noise 1	Noise 1	Noise 2	Noise 2	Label 1	Label 2		
	Percent	Height	Percent	Height	Height	Height	RRF Mean	EDL (pg)
2378-TCDD							1.049	#DIV/0!
12378-PeCDD							0.998	#DIV/0!
123478-HxCDD							0.971	#DIV/0!
123678-HxCDD							0.918	#DIV/0!
123789-HxCDD							0.932	#DIV/0!
1234678-HpCDD							1.017	#DIV/0!
OCDD							1.008	#DIV/0!
2378-TCDF	20	52380	20	65350	37056272	47787688	0.877	1.582
12378-PeCDF							0.896	#DIV/0!
23478-PeCDF							0.926	#DIV/0!
123478-HxCDF							1.068	#DIV/0!
234678-HxCDF							1.037	#DIV/0!
123678-HxCDF							1.035	#DIV/0!
123789-HxCDF	5	140800	5	132500	14192221	27287436	0.987	1.669
1234678-HpCDF							1.232	#DIV/0!
1234789-HpCDF							1.215	#DIV/0!
OCDF							1.138	#DIV/0!

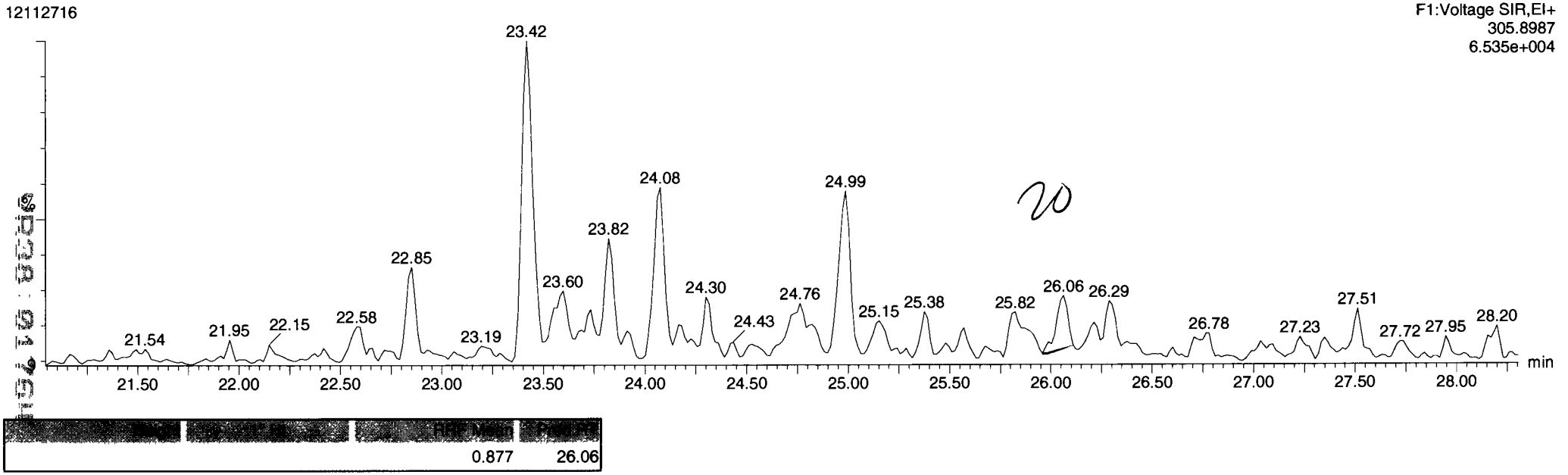
Quantify Compound Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:38:07 Pacific Standard Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin121123.mdb 23 Nov 2012 12:31:40
Calibration: P:\DIOXIN8290.PRO\CurveDB\121123ICAL.cdb 26 Nov 2012 09:23:13

Compound Name: 2378-TCDF VK358 I

Sample Name: 12112716

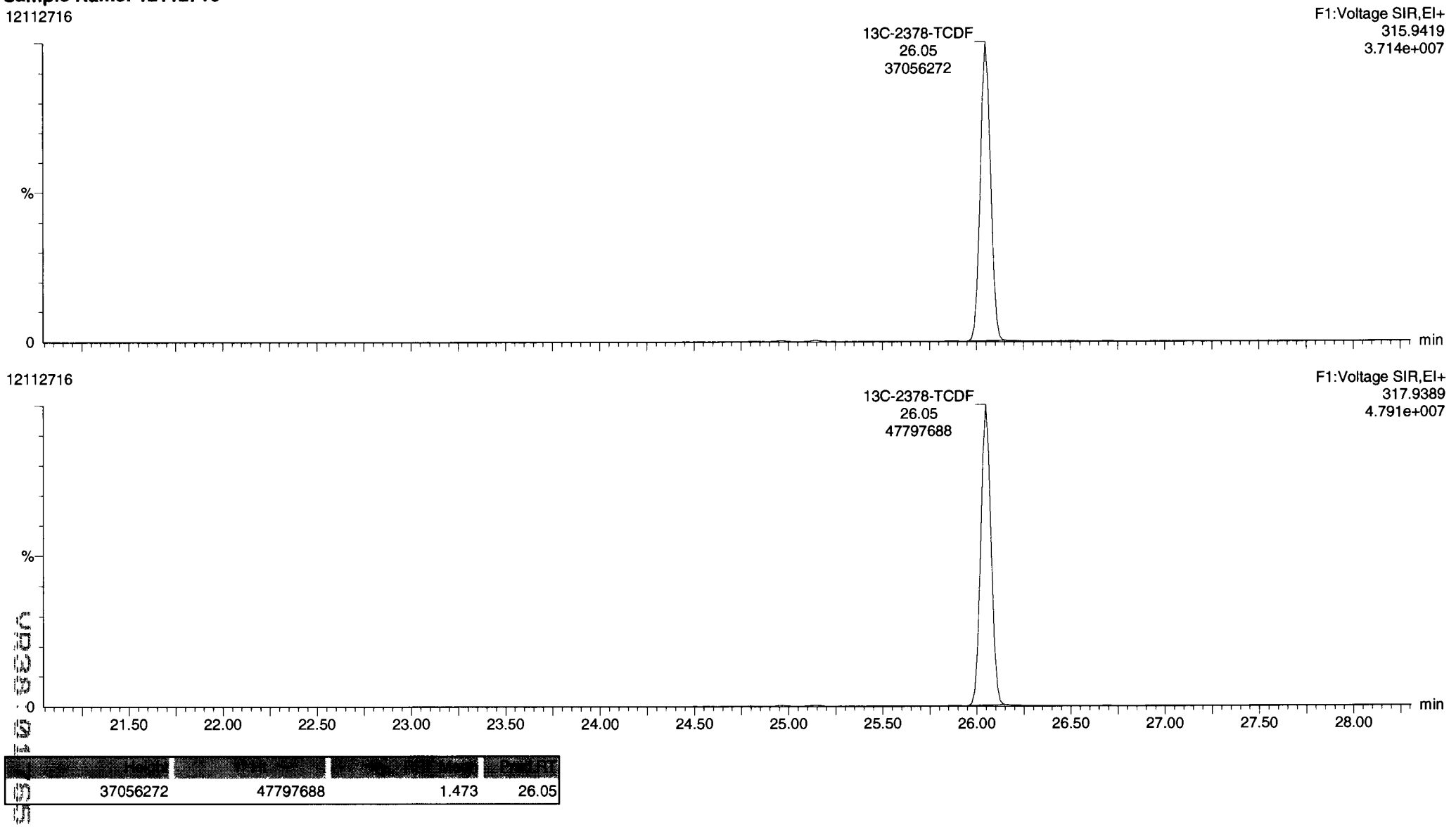




Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:38:07 Pacific Standard Time

Compound Name: 13C-2378-TCDF

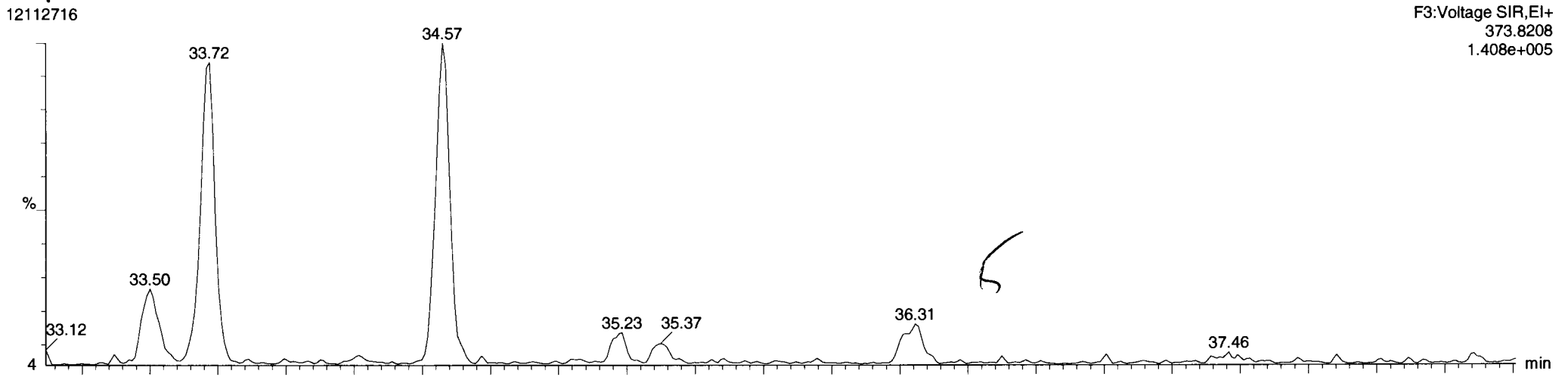
Sample Name: 12112716

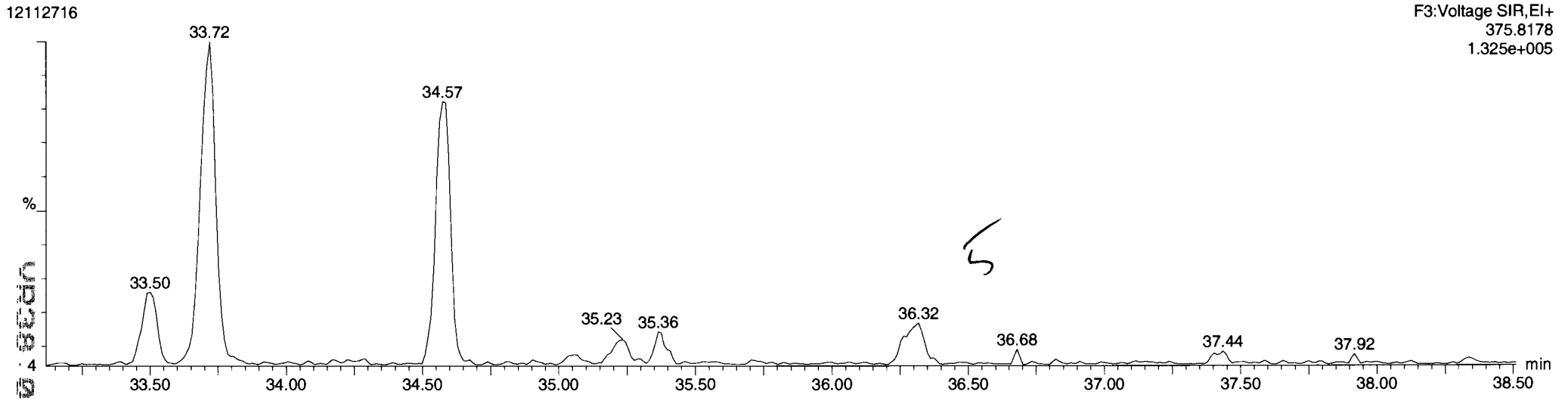


Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:38:07 Pacific Standard Time

Compound Name: 123789-HxCDF

Sample Name: 12112716



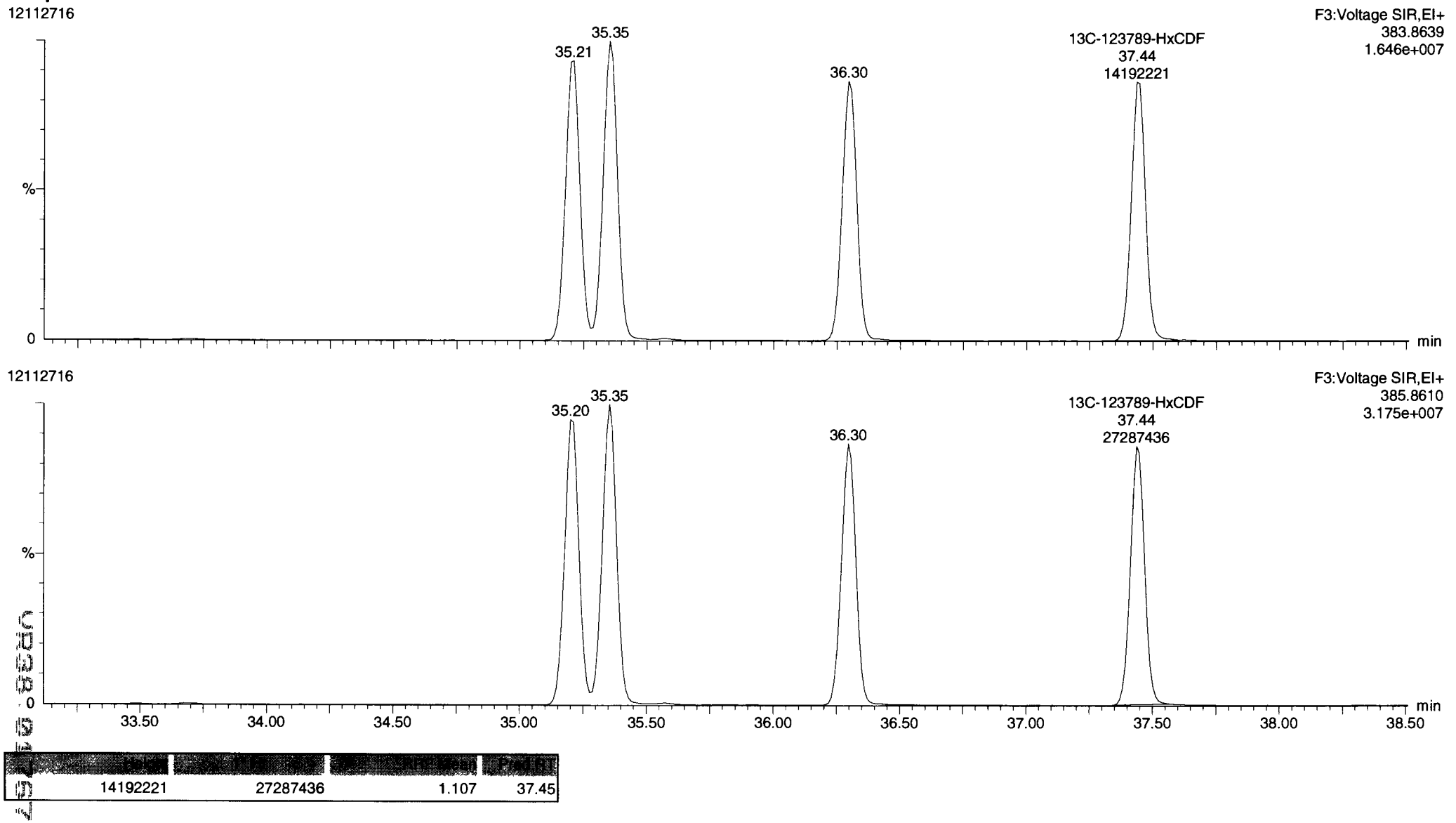


	Height			Area Ratio	Rnd RT
				0.987	37.45

Dataset: P:\DIOXIN8290.PRO\121127DATA2.qld
Last Altered: Wednesday, November 28, 2012 16:27:10 Pacific Standard Time
Printed: Thursday, November 29, 2012 10:38:07 Pacific Standard Time

Compound Name: 13C-123789-HxCDF

Sample Name: 12112716



Pesticide Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

Pest PSDDA – Soil/Sed
Microwave (3546) (SOP # 3304S)

Preparation Test Pest # 5 (PESSDMP) PSDDA (1-2ppb)

ARI Job No(s) VR38, VR58 Page 1 of 1 Batch set up by: SP

Bottle #	ARI Sample I.D.	Weight Extracted (eq. to 12.5 dry wt)	(REQ) Sulfur Clean 2mL+0.5mL Ethyl Acetate (1) 2 3	(REQ) Silica Gel Clean (1:2.5)	Final Effective Volume	Volume to Lab	Comment	Verify Client ID / Analyst/Date
	VR38 MBS	12.5g	2.5mL	(1:2.5) 1mL	2.5mL	1mL	(10g Actual Wt)	Microwave
	SBS	12.5g	2.5mL	(1:2.5) 1mL	2.5mL	1mL	(10g Actual Wt)	MJ 11/15/12
	~~SBS Dup.~~	~~12.5g~~	~~2.5mL~~	~~(1:2.5) 1mL~~	~~2.5mL~~	~~1mL~~	~~(10g Actual Wt)~~	Analyst/Date
5	~~QLS~~ VR38 J	~~12.5g~~ 16.12	2.5mL	(1:2.5) 1mL	2.5mL	1mL	(10g Actual Wt)	KD 100°C Hexane Exchange (2 X 20mL)
5	K	15.26	2.5mL	(1:2.5) 1mL	2.5mL	1mL		YC/RA
5	VR58 A	22.14	2.5mL	(1:2.5) 1mL	2.5mL	1mL		11/16/12
5	B	80.09	2.5mL	(1:2.5) 1mL	2.5mL	1mL	See Analyst note	Analyst/Date
5	C	42.35	2.5mL	(1:2.5) 1mL	2.5mL	1mL	See Analyst note	TurboVap (1) 2 3 Pre-Cleanups
5	D	53.06	2.5mL	(1:2.5) 1mL	2.5mL	1mL	See Analyst note	
5	E	53.14	2.5mL	(1:2.5) 1mL	2.5mL	1mL	See Analyst note	
5	F	27.18	2.5mL	(1:2.5) 1mL	2.5mL	1mL		11-19-12 Analyst/Date
5	G	17.11	2.5mL	(1:2.5) 1mL	2.5mL	1mL		TurboVap 1 2 (3) Post Cleanups
5	GmS	17.18	2.5mL	(1:2.5) 1mL	2.5mL	1mL		
5	GmSD	17.15	2.5mL	(1:2.5) 1mL	2.5mL	1mL		
Analyst/Date	MJ 11/15/12		11-19-12	11-19-12	11-19-12	11-19-12		11-19-12 Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N (2035-2)	2µg/mL	50µL	5/16/13	M	SP
Spike	3 (1983-1)	0.5/3/5µg/mL	100µL	12/13/12	M	SP
~~QLS Spike~~	~~10 ( )~~	~~0.25-2.5µg/mL~~	~~25µL~~			
Extraction Time: 1035			Balance ID: B14642614			

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 Hex/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-re-homogenize while hot then let cool 15 min in cold water. 7. Decant 1:1 Hex/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing neutral glasswool. 8. Rinse with Hexane 9. Microwave a 2nd time using 8:2 Hex/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 Hexane. 11. KD ~~(Small~~ or Large drying column) to 5mL at 100°C. 12. Exchange to Hexane (2 X with 20mL).
13. TurboVap. 14. Clean-ups. 15. TurboVap. 16. Vial in Hexane.
A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

22276
22335

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No.: VR38 Client ID: Anchor QEA, LLC

Parameter: PSDDA Pest Client Project: City of Kenmore Sediment

creens: Soil/Sediment/Solid/Other:	Analyst/Date
] No Anomalies (standard soil/wet sediment/sand/gravel)= A, B, C, D, E, F, G, H, I, J, K	YL ~~11/07/12~~ 11/07/12
] Standing Water Decanted (Not shared)= A, B, C, D, E, F, G, H, I, J, K.	YL 11/07/12
] Standing Water Homogenized (Shared samples)=	
] Clay/Clumps (Difficult to homogenize)=	
] Rocks (%+size)? E, small rocks ~2% 1.5 cm; F, G, H, I, J, K small rocks 2%	YL 11/07/12
] Organics (Leaves/sticks/grass)= C.	YL 11/07/12
] Oily, obvious fuel/sulfur odors=	
] Other (Details)=	
queous:	
] No Anomalies	
] Turbid/Color=	
] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
] Emulsions (%)=	
] Other (Details)=	
] Other Notes/Comments= (Note problems, concerns, corrective actions).	
:entrifuge#1 used for all Centrifugations)	

056F

Revision 009
08/14/12

Pesticide Raw Data
Initial Calibration

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A ~~FID-4B~~ FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 10/3/2012 Internal Standard ID 2006-1 Expiration 7/26/2013

Endrin/DDT Breakdown <15%?	YES / NO / NA	ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
DS	1991-1	1/14/2013	INDA ICV	1987-3	10/4/2012
IB	1982-2	5/16/2013	WND ICV	1988-1	11/30/2012
INDA	1982-1	12/13/2012	HCB/HCBD ICV	1870-2E	6/20/2012
WND	1982-3	1/21/2013			
Toxaphene	1984-3	12/4/2012			
Technical chlordane	1985-1	5/16/2013			

Detail problems, corrective actions and/or other pertinent information below:

Toxaphene, T-chlordane single points were added on 10/2/12.

Kepone single point was added on 10/3/12.

Analyst: _____ **Date:** 10/4/2012

Reviewer: _____ **Date:** 10/4/12

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20121003PEST.b/ical-2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	03-OCT-2012 15:10	1003A009.d	1	DS	
2	03-OCT-2012 15:27	1003A010.d	1	IB	
3	03-OCT-2012 15:45	1003A011.d	1	INDAE	
4	03-OCT-2012 16:03	1003A012.d	1	WNDE	
5	03-OCT-2012 16:21	1003A013.d	1	TOXAPH	
6	03-OCT-2012 16:39	1003A014.d	1	INDAE	
7	03-OCT-2012 16:56	1003A015.d	1	INDAA	
8	03-OCT-2012 17:14	1003A016.d	1	INDAB	
9	03-OCT-2012 17:32	1003A017.d	1	INDAC	
10	03-OCT-2012 17:50	1003A018.d	1	INDAD	
11	03-OCT-2012 18:08	1003A019.d	1	INDAF	
12	03-OCT-2012 18:26	1003A020.d	1	INDAG	
13	03-OCT-2012 18:43	1003A021.d	1	INDA ICV	
14	03-OCT-2012 19:01	1003A022.d	1	HCB/HCBD ICV	
15	03-OCT-2012 19:19	1003A023.d	1	WNDE	
16	03-OCT-2012 19:37	1003A024.d	1	WNDA	
17	03-OCT-2012 19:55	1003A025.d	1	WNDB	
18	03-OCT-2012 20:12	1003A026.d	1	WNDC	
19	03-OCT-2012 20:30	1003A027.d	1	WNDD	
20	03-OCT-2012 20:48	1003A028.d	1	WNDF	
21	03-OCT-2012 21:06	1003A029.d	1	WNDG	
22	03-OCT-2012 21:24	1003A030.d	1	WND ICV ← air inject	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2012 16:21
End Cal Date : 03-OCT-2012 21:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Cal Date : 04-Oct-2012 10:27 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A024.d
Level 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A025.d
Level 3: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A026.d
Level 4: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A027.d
Level 5: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A023.d
Level 6: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A028.d
Level 7: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A029.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
1 Hexachlorobutadiene	1.96452	1.88941	1.85758	1.72561	1.65924	1.55490		
	1.50700						1.73689	10.021
3 Hexachlorobenzene	1.77740	1.66369	1.61105	1.49324	1.40813	1.31793		
	1.24119						1.50180	12.885
4 alpha-BHC	1.70683	1.73283	1.80435	1.77722	1.76123	1.72410		
	1.70994						1.74521	2.105
5 gamma-BHC (Lindane)	1.60945	1.60439	1.63753	1.59885	1.57117	1.53148		
	1.49096						1.57769	3.216
6 beta-BHC	0.78856	0.75069	0.74994	0.70069	0.67462	0.65247		
	0.62743						0.70634	8.334
7 delta-BHC	1.33552	1.36638	1.41057	1.38376	1.41291	1.39443		
	1.38744						1.38443	1.938

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Cal Date : 04-Oct-2012 10:27 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
8 Heptachlor	1.58565	1.54846	1.55095	1.48197	1.41549	1.31649		
	1.21233						1.44448	9.568
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
9 Aldrin	1.51600	1.49789	1.51234	1.46276	1.40832	1.32410		
	1.22122						1.42038	7.844
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
11 Heptachlor epoxide b	1.44761	1.40029	1.37924	1.30458	1.23837	1.14382		
	1.04907						1.28042	11.345
12 gamma-Chlordane	1.49549	1.43152	1.40996	1.33982	1.29674	1.22454		
	1.15225						1.33576	9.055
13 alpha-Chlordane	1.37398	1.33392	1.32102	1.25634	1.20478	1.14711		
	1.08079						1.24542	8.587
14 Endosulfan I	1.26978	1.24395	1.23358	1.17303	1.11763	1.04639		
	0.96428						1.14981	9.850
15 4,4'-DDE	1.29981	1.27916	1.27711	1.20080	1.11468	1.01602		
	0.93083						1.15977	12.417

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Cal Date : 04-Oct-2012 10:27 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
16 Dieldrin	1.35910	1.33841	1.33147	1.25422	1.16627	1.07097		
	0.99399						1.21635	11.774
17 Endrin	1.59095	1.53734	1.49373	1.40919	1.32841	1.18568		
	1.11612						1.38020	12.998
18 4,4'-DDD	1.43433	1.40840	1.39214	1.33378	1.27120	1.16860		
	1.11604						1.30350	9.462
19 Endosulfan II	1.58713	1.52275	1.48555	1.39752	1.31774	1.20302		
	1.14354						1.37961	12.051
20 4,4'-DDT	1.34644	1.31004	1.30034	1.25878	1.21281	1.14333		
	1.11143						1.24045	7.123
21 Endrin aldehyde	1.25867	1.19525	1.15283	1.09374	1.03694	0.95492		
	0.91023						1.08608	11.693
22 Endosulfan sulfate	1.27852	1.24336	1.21726	1.17793	1.13201	1.05347		
	1.01791						1.16006	8.396
23 Methoxychlor	0.65922	0.60416	0.55266	0.49723	0.44948	0.41261		
	+++++						0.52923	17.734
24 Endrin ketone	1.34557	1.26901	1.21268	1.15254	1.09245	1.02737		
	1.01204						1.15881	10.754

Analytical Resources, Inc.

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Cal Date : 04-Oct-2012 10:27 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
34 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.04805	+++++		
	+++++						0.04805	0.000

Analytical Resources, Inc.

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Cal Date : 04-Oct-2012 10:27 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD	
	80.000 Level 7								
(2)	+++++	+++++	+++++	+++++	0.07107	+++++			
	+++++						0.07107	0.000	
(3)	+++++	+++++	+++++	+++++	0.07967	+++++			
	+++++						0.07967	0.000	
(4)	+++++	+++++	+++++	+++++	0.05935	+++++			
	+++++						0.05935	0.000	
(5)	+++++	+++++	+++++	+++++	0.02785	+++++			
	+++++						0.02785	0.000	
38 2,4-DDE	0.97949	0.83494	0.79987	0.73476	0.67624	0.60532			
	0.53372						0.73776	20.309	<-
39 2,4-DDD	1.13549	0.97967	0.94479	0.89950	0.84410	0.77710			
	0.69140						0.89601	16.137	
40 2,4-DDT	1.21207	1.05333	1.03069	0.98415	0.92238	0.86762			
	0.77228						0.97750	14.520	
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
42 Oxychlordane	1.22760	1.09508	1.08515	1.02028	0.96995	0.90368			
	0.83939						1.02016	12.758	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Cal Date : 04-Oct-2012 10:27 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
43 trans-Nonachlor	2.00494	1.77062	1.75652	1.68455	1.58512	1.48614		
	1.35598						1.66341	12.737
44 cis-Nonachlor	2.09733	1.84381	1.81720	1.74905	1.64786	1.56613		
	1.45320						1.73922	12.094
45 Mirex	1.27446	1.05839	1.00141	0.92483	0.86110	0.82792		
	0.78316						0.96161	17.505
46 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
56 Tech-Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Cal Date : 04-Oct-2012 10:27 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
$ 2 Tetrachloro-m-xylene	1.65121	1.58336	1.53549	1.40581	1.29451	1.16920		
	1.09384						1.39049	15.330
$ 25 Decachlorobiphenyl	1.54270	1.40157	1.29288	1.19023	1.11868	1.04550		
	1.01956						1.23016	15.688

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20121003PEST.b/ical-2.b

ARI Job No.: DS Method: PEST1003B.m Instrument: ecd6.i Date: 03-OCT-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1510	1003A009.d	DS		1	NO MANUAL INTEGRATION
1527	1003A010.d	IB		1	NO MANUAL INTEGRATION
1545	1003A011.d	INDAE		1	NO MANUAL INTEGRATION
1603	1003A012.d	WNDE		1	NO MANUAL INTEGRATION
1621	1003A013.d	TOXAPH		1	Toxaphene,
1639	1003A014.d	INDAE		1	NO MANUAL INTEGRATION
1656	1003A015.d	INDAA		1	NO MANUAL INTEGRATION
1714	1003A016.d	INDAB		1	NO MANUAL INTEGRATION
1732	1003A017.d	INDAC		1	NO MANUAL INTEGRATION
1750	1003A018.d	INDAD		1	NO MANUAL INTEGRATION
1808	1003A019.d	INDAF		1	NO MANUAL INTEGRATION
1826	1003A020.d	INDAG		1	NO MANUAL INTEGRATION
1843	1003A021.d	INDA ICV		1	NO MANUAL INTEGRATION
1901	1003A022.d	HCB/HCBD ICV		1	NO MANUAL INTEGRATION
1918	1003A023.d	WNDE		1	NO MANUAL INTEGRATION
1937	1003A024.d	WNDA		1	NO MANUAL INTEGRATION
1955	1003A025.d	WNDB		1	NO MANUAL INTEGRATION
2012	1003A026.d	WNDC		1	NO MANUAL INTEGRATION
2030	1003A027.d	WNDD		1	NO MANUAL INTEGRATION
2048	1003A028.d	WNDF		1	NO MANUAL INTEGRATION

2106 1003A029.d WNDG 1 NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20121003PEST.b/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2124	1003A030.d	WND ICV		1	NO MANUAL INTEGRATION
0836	1003A031.d	TECHLOR 200		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-2.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	1003A014	1003A015	1003A016	1003A017	1003A018	1003A019	1003A020
INJ.DATE:	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012
INJ.TIME:	16:39	16:56	17:14	17:32	17:50	18:08	18:26

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	Hexachlorobutadiene	2.376	2.376	2.376	2.376	2.376	2.377	2.377	2.376	2.326-2.426	2.376	0.001
* 52	1Bromo-2nitrobenzene	3.195	3.195	3.195	3.195	3.195	3.195	3.195	3.195	3.145-3.245	3.195	0.000
* 55	Hexabromobiphenyl	10.105	10.106	10.106	10.106	10.107	10.106	10.107	10.105	10.055-10.155	10.106	0.001
$ 2	Tetrachloro-m-xylene	4.007	4.006	4.007	4.006	4.007	4.007	4.008	4.007	3.957-4.057	4.007	0.000
3	Hexachlorobenzene	4.458	4.457	4.458	4.457	4.458	4.457	4.458	4.458	4.408-4.508	4.458	0.000
4	alpha-BHC	4.584	4.584	4.584	4.584	4.585	4.584	4.585	4.584	4.534-4.634	4.584	0.001
5	gamma-BHC (Lindane)	4.936	4.936	4.936	4.936	4.936	4.936	4.937	4.936	4.886-4.986	4.936	0.000
6	beta-BHC	5.007	5.006	5.006	5.006	5.007	5.006	5.007	5.007	4.957-5.057	5.006	0.000
7	delta-BHC	5.314	5.314	5.313	5.313	5.314	5.314	5.314	5.314	5.264-5.364	5.314	0.000
8	Heptachlor	5.397	5.396	5.396	5.396	5.397	5.396	5.397	5.397	5.347-5.447	5.396	0.001
37	Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
9	Aldrin	5.735	5.734	5.734	5.734	5.735	5.735	5.736	5.735	5.685-5.785	5.735	0.001
10	Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
11	Heptachlor epoxide b	6.293	6.292	6.292	6.292	6.293	6.292	6.293	6.293	6.243-6.343	6.293	0.001
12	gamma-Chlordane	6.475	6.475	6.475	6.474	6.475	6.475	6.476	6.475	6.425-6.525	6.475	0.001
13	alpha-Chlordane	6.614	6.613	6.613	6.613	6.614	6.613	6.615	6.614	6.564-6.664	6.614	0.001
14	Endosulfan I	6.680	6.679	6.679	6.679	6.679	6.679	6.680	6.680	6.630-6.730	6.679	0.000

Reviewer 1 AR Date: 10/4/2012

Reviewer 2 Date: 10/4/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	6.744	6.744	6.744	6.744	6.744	6.744	6.745	6.744	6.694-6.794	6.744	0.001
16 Dieldrin	6.938	6.938	6.937	6.937	6.938	6.937	6.939	6.938	6.888-6.988	6.938	0.001
17 Endrin	7.228	7.227	7.227	7.227	7.228	7.227	7.228	7.228	7.178-7.278	7.227	0.000
18 4,4'-DDD	7.282	7.282	7.281	7.281	7.282	7.282	7.283	7.282	7.232-7.332	7.282	0.001
19 Endosulfan II	7.416	7.416	7.415	7.415	7.416	7.416	7.416	7.416	7.366-7.466	7.416	0.000
20 4,4'-DDT	7.571	7.571	7.570	7.570	7.571	7.570	7.571	7.571	7.521-7.621	7.570	0.000
21 Endrin aldehyde	7.715	7.715	7.714	7.714	7.715	7.714	7.715	7.715	7.665-7.765	7.715	0.000
22 Endosulfan sulfate	7.960	7.959	7.959	7.959	7.959	7.959	7.960	7.960	7.910-8.010	7.959	0.000
23 Methoxychlor	8.156	8.156	8.155	8.155	8.156	8.156	8.158	8.156	8.106-8.206	8.156	0.001
24 Endrin ketone	8.448	8.447	8.447	8.447	8.448	8.447	8.449	8.448	8.398-8.498	8.448	0.001
$ 25 Decachlorobiphenyl	9.565	9.565	9.565	9.566	9.566	9.565	9.566	9.565	9.515-9.615	9.566	0.001
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.130-4.230	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.001-5.101	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.920-5.020	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.235-5.335	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.918-6.018	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.717-6.817	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.664-9.764	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.741-11.841	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.164	7.114-7.214	+++++	+++++
38 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.454	6.404-6.504	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.939	6.889-6.989	+++++	+++++
40 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.227	7.177-7.277	+++++	+++++
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.728	1.678-1.778	+++++	+++++
42 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.203	6.153-6.253	+++++	+++++
43 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.560	6.510-6.610	+++++	+++++
44 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.286	7.236-7.336	+++++	+++++
45 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.434	8.384-8.484	+++++	+++++
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
56 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.919	5.869-5.969	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-2.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	1003A023	1003A024	1003A025	1003A026	1003A027	1003A028	1003A029
INJ.DATE:	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012
INJ.TIME:	19:19	19:37	19:55	20:12	20:30	20:48	21:06

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.377	2.327-2.427	+++++	+++++
* 52 1Bromo-2nitrobenzene	3.195	3.195	3.195	3.195	3.195	3.195	3.195	3.195	3.145-3.245	3.195	0.000
* 55 Hexabromobiphenyl	10.105	10.106	10.106	10.106	10.106	10.106	10.106	10.105	10.055-10.155	10.106	0.000
$ 2 Tetrachloro-m-xylene	4.007	4.007	4.007	4.007	4.007	4.007	4.008	4.008	3.958-4.058	4.007	0.000
3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.458	4.408-4.508	+++++	+++++
4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.585	4.535-4.635	+++++	+++++
5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.937	4.887-4.987	+++++	+++++
6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.007	4.957-5.057	+++++	+++++
7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.314	5.264-5.364	+++++	+++++
8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.397	5.347-5.447	+++++	+++++
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.736	5.686-5.786	+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.293	6.243-6.343	+++++	+++++
12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.476	6.426-6.526	+++++	+++++
13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.615	6.565-6.665	+++++	+++++
14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.680	6.630-6.730	+++++	+++++

Reviewer 1 AR Date: 10/4/2012
Reviewer 2 _____ Date: 10/4/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-2.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.745	6.695-6.795	+++++	+++++
	16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.939	6.889-6.989	+++++	+++++
	17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.228	7.178-7.278	+++++	+++++
	18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.283	7.233-7.333	+++++	+++++
	19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.416	7.366-7.466	+++++	+++++
	20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.571	7.521-7.621	+++++	+++++
	21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.715	7.665-7.765	+++++	+++++
	22 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.960	7.910-8.010	+++++	+++++
	23 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.158	8.108-8.208	+++++	+++++
	24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.449	8.399-8.499	+++++	+++++
$	25 Decachlorobiphenyl	9.565	9.565	9.565	9.565	9.566	9.566	9.565	9.566	9.516-9.616	9.565	0.000
	26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.130-4.230	+++++	+++++
	27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.001-5.101	+++++	+++++
	28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
	29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.920-5.020	+++++	+++++
	30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.235-5.335	+++++	+++++
	31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.918-6.018	+++++	+++++
	32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.717-6.817	+++++	+++++
	33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.664-9.764	+++++	+++++
	34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.741-11.841	+++++	+++++
	35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.164	7.114-7.214	+++++	+++++
	38 2,4-DDE	6.454	6.453	6.453	6.453	6.453	6.454	6.453	6.454	6.404-6.504	6.453	0.000

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003B.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	6.939	6.939	6.939	6.939	6.939	6.939	6.939	6.939	6.889-6.989	6.939	0.000
40 2,4-DDT	7.227	7.227	7.227	7.227	7.227	7.227	7.227	7.227	7.177-7.277	7.227	0.000
41 Hexachloroethane	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.728	1.678-1.778	0.000	0.000
42 Oxychlordane	6.203	6.202	6.203	6.202	6.203	6.203	6.203	6.203	6.153-6.253	6.203	0.000
43 trans-Nonachlor	6.560	6.560	6.560	6.560	6.560	6.561	6.561	6.560	6.510-6.610	6.560	0.000
44 cis-Nonachlor	7.286	7.286	7.286	7.285	7.286	7.286	7.286	7.286	7.236-7.336	7.286	0.000
45 Mirex	8.433	8.433	8.433	8.433	8.434	8.434	8.434	8.433	8.383-8.483	8.434	0.000
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
56 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.919	5.869-5.969	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2012 16:21
End Cal Date : 03-OCT-2012 21:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Cal Date : 04-Oct-2012 10:53 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A024.d
Level 2: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A025.d
Level 3: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A026.d
Level 4: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A027.d
Level 5: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A023.d
Level 6: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A028.d
Level 7: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A029.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
1 Hexachlorobutadiene	2.08122	1.94023	1.88041	1.76338	1.70361	1.64246		
	1.63666						1.80685	9.234
3 Hexachlorobenzene	1.59035	1.45330	1.36965	1.26348	1.19689	1.13240		
	1.12008						1.30374	13.468
4 alpha-BHC	1.48360	1.46155	1.49380	1.48821	1.49848	1.49064		
	1.51994						1.49089	1.172
5 gamma-BHC (Lindane)	1.42027	1.37361	1.37657	1.35654	1.35517	1.34310		
	1.36284						1.36973	1.827
6 beta-BHC	0.75152	0.69280	0.65689	0.60737	0.58368	0.56247		
	0.55679						0.63022	11.590
7 delta-BHC	1.20266	1.17048	1.17866	1.18779	1.20882	1.21617		
	1.24776						1.20176	2.170

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2012 16:21
End Cal Date : 03-OCT-2012 21:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Cal Date : 04-Oct-2012 10:53 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	___ RRF	% RSD
	80.000 Level 7							
8 Heptachlor	1.37096	1.29380	1.26529	1.22345	1.20404	1.17174		
	1.16397						1.24189	5.941
9 Aldrin	1.38830	1.30944	1.28954	1.25093	1.23693	1.20472		
	1.19792						1.26825	5.272
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
11 Heptachlor epoxide b	1.41113	1.31130	1.26157	1.19952	1.17085	1.11494		
	1.08846						1.22254	9.310
12 gamma-Chlordane	1.37924	1.28112	1.23666	1.18606	1.16066	1.13221		
	1.13348						1.21563	7.442
13 alpha-Chlordane	1.34294	1.24571	1.19997	1.14614	1.11500	1.08492		
	1.07773						1.17320	8.221
14 Endosulfan I	1.30064	1.21267	1.16698	1.11141	1.07734	1.03495		
	1.01555						1.13136	9.025
15 4,4'-DDE	1.15090	1.10895	1.10913	1.08332	1.06301	1.02741		
	1.01565						1.07977	4.461

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2012 16:21
End Cal Date : 03-OCT-2012 21:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Cal Date : 04-Oct-2012 10:53 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
16 Dieldrin	1.26962	1.22036	1.21488	1.17193	1.14024	1.09397	1.07520	1.16946	6.059
17 Endrin	1.18550	1.13729	1.12312	1.08787	1.07574	1.01997	1.02212	1.09309	5.553
18 4,4'-DDD	1.03194	0.99156	0.97503	0.94745	0.93552	0.89862	0.90115	0.95447	5.092
19 Endosulfan II	1.18813	1.12694	1.09574	1.04233	1.01705	0.96342	0.95522	1.05555	8.159
20 4,4'-DDT	1.01190	0.98009	0.97205	0.95041	0.94668	0.92402	0.93269	0.95969	3.169
21 Endrin aldehyde	0.98487	0.92248	0.88072	0.83463	0.80715	0.76588	0.76300	0.85125	9.722
22 Methoxychlor	0.55785	0.52375	0.49243	0.45541	0.43083	0.40961	0.41454	0.46920	12.174
23 Endosulfan sulfate	0.98577	0.93736	0.90840	0.87882	0.85578	0.82638	0.82672	0.88846	6.672
24 Endrin ketone	1.22441	1.11557	1.06066	1.00861	0.96767	0.94155	0.95438	1.03898	9.892

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2012 16:21
End Cal Date : 03-OCT-2012 21:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Cal Date : 04-Oct-2012 10:53 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.02494	+++++		
	+++++						0.02494	0.000
(2)	+++++	+++++	+++++	+++++	0.03398	+++++		
	+++++						0.03398	0.000
(3)	+++++	+++++	+++++	+++++	0.02866	+++++		
	+++++						0.02866	0.000
(4)	+++++	+++++	+++++	+++++	0.03669	+++++		
	+++++						0.03669	0.000
(5)	+++++	+++++	+++++	+++++	0.03125	+++++		
	+++++						0.03125	0.000
(6)	+++++	+++++	+++++	+++++	0.02327	+++++		
	+++++						0.02327	0.000
39 2,4-DDE	0.88094	0.75976	0.74096	0.72970	0.70472	0.67437		
	0.62740						0.73112	10.891
40 2,4-DDD	0.80172	0.69242	0.66336	0.63593	0.62037	0.60087		
	0.57003						0.65496	11.613
41 2,4-DDT	0.89394	0.77741	0.74942	0.72250	0.70393	0.69236		
	0.65022						0.74140	10.608

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2012 16:21
End Cal Date : 03-OCT-2012 21:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Cal Date : 04-Oct-2012 10:53 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
43 Oxychlordane	1.20752	1.03897	1.01070	0.96914	0.94973	0.91913		
	0.86792						0.99473	11.010
44 trans-Nonachlor	1.39750	1.22359	1.19551	1.15838	1.13889	1.11496		
	1.06434						1.18474	9.055
45 cis-Nonachlor	1.44929	1.27172	1.25939	1.22765	1.21920	1.20345		
	1.15379						1.25493	7.488
46 Mirex	1.09310	0.90433	0.85442	0.79518	0.76223	0.73762		
	0.70039						0.83532	15.933
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
59 Tech-Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2012 16:21
End Cal Date : 03-OCT-2012 21:06
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Cal Date : 04-Oct-2012 10:53 aron
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
$ 2 Tetrachloro-m-xylene	1.34597	1.27986	1.24584	1.17341	1.12866	1.07044		
	1.05358						1.18539	9.261
$ 25 Decachlorobiphenyl	1.38903	1.22428	1.12392	1.02051	0.95315	0.89483		
	0.87835						1.06915	17.581

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20121003PEST.b/ical-1.b

ARI Job No.: DS Method: PEST1003.m Instrument: ecd6.i Date: 03-OCT-2012

ime	Filename	LabID	ClientId	DF	Manually Integrated Compounds
510	1003A009.d	DS		1	NO MANUAL INTEGRATION
527	1003A010.d	IB		1	NO MANUAL INTEGRATION
545	1003A011.d	INDAE		1	NO MANUAL INTEGRATION
503	1003A012.d	WNDE		1	NO MANUAL INTEGRATION
521	1003A013.d	TOXAPH		1	Toxaphene,
539	1003A014.d	INDAE		1	NO MANUAL INTEGRATION
556	1003A015.d	INDAA		1	NO MANUAL INTEGRATION
714	1003A016.d	INDAB		1	NO MANUAL INTEGRATION
732	1003A017.d	INDAC		1	NO MANUAL INTEGRATION
750	1003A018.d	INDAD		1	NO MANUAL INTEGRATION
808	1003A019.d	INDAF		1	NO MANUAL INTEGRATION
826	1003A020.d	INDAG		1	NO MANUAL INTEGRATION
843	1003A021.d	INDA ICV		1	NO MANUAL INTEGRATION
901	1003A022.d	HCB/HCBD ICV		1	NO MANUAL INTEGRATION
918	1003A023.d	WNDE		1	NO MANUAL INTEGRATION
937	1003A024.d	WNDA		1	NO MANUAL INTEGRATION
955	1003A025.d	WNDB		1	NO MANUAL INTEGRATION
012	1003A026.d	WNDC		1	NO MANUAL INTEGRATION
030	1003A027.d	WNDD		1	NO MANUAL INTEGRATION
048	1003A028.d	WNDF		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20121003PEST.b/ical-1.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
124	1003A030.d	WND ICV		1	NO MANUAL INTEGRATION
336	1003A031.d	TECHLOR 200		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-1.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	1003A014	1003A015	1003A016	1003A017	1003A018	1003A019	1003A020
INJ.DATE:	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012
INJ.TIME:	16:39	16:56	17:14	17:32	17:50	18:08	18:26

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.210	2.209	2.210	2.209	2.210	2.210	2.210	2.210	2.160-2.260	2.210	0.000
54 1Bromo-2nitrobenzene	3.015	3.015	3.015	3.015	3.015	3.015	3.015	3.015	2.965-3.065	3.015	0.000
58 Hexabromobiphenyl	8.750	8.750	8.750	8.750	8.750	8.750	8.750	8.750	8.700-8.800	8.750	0.000
2 Tetrachloro-m-xylene	3.670	3.670	3.670	3.669	3.670	3.670	3.670	3.670	3.620-3.720	3.670	0.000
3 Hexachlorobenzene	4.002	4.002	4.001	4.001	4.001	4.001	4.002	4.002	3.952-4.052	4.002	0.000
4 alpha-BHC	4.147	4.146	4.147	4.146	4.147	4.147	4.147	4.147	4.097-4.197	4.147	0.000
5 gamma-BHC (Lindane)	4.424	4.424	4.424	4.424	4.424	4.424	4.424	4.424	4.374-4.474	4.424	0.000
6 beta-BHC	4.497	4.497	4.497	4.497	4.497	4.497	4.497	4.497	4.447-4.547	4.497	0.000
7 delta-BHC	4.663	4.663	4.662	4.662	4.663	4.662	4.663	4.663	4.613-4.713	4.663	0.000
8 Heptachlor	4.862	4.861	4.861	4.861	4.861	4.861	4.862	4.862	4.812-4.912	4.861	0.000
9 Aldrin	5.148	5.148	5.148	5.147	5.148	5.148	5.149	5.149	5.098-5.199	5.148	0.000
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
11 Heptachlor epoxide b	5.723	5.723	5.722	5.722	5.722	5.722	5.723	5.723	5.673-5.773	5.722	0.000
12 gamma-Chlordane	5.843	5.842	5.842	5.842	5.842	5.842	5.842	5.842	5.792-5.892	5.842	0.000
13 alpha-Chlordane	5.967	5.966	5.967	5.966	5.966	5.966	5.967	5.967	5.917-6.017	5.967	0.000
14 Endosulfan I	6.099	6.099	6.099	6.098	6.099	6.098	6.099	6.099	6.049-6.149	6.099	0.000

Reviewer 1 AR Date: 10/4/2012

Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	6.027	6.026	6.026	6.026	6.027	6.026	6.027	6.027	5.977-6.077	6.027	0.000
16 Dieldrin	6.322	6.322	6.322	6.322	6.322	6.322	6.322	6.322	6.272-6.372	6.322	0.000
17 Endrin	6.540	6.541	6.540	6.539	6.540	6.539	6.540	6.540	6.490-6.590	6.540	0.000
18 4,4'-DDD	6.584	6.583	6.583	6.583	6.583	6.583	6.584	6.584	6.534-6.634	6.583	0.000
19 Endosulfan II	6.745	6.746	6.746	6.745	6.745	6.745	6.746	6.746	6.696-6.796	6.746	0.001
20 4,4'-DDT	6.841	6.842	6.841	6.841	6.841	6.841	6.842	6.842	6.792-6.892	6.841	0.001
21 Endrin aldehyde	7.123	7.124	7.123	7.123	7.124	7.123	7.123	7.123	7.073-7.173	7.123	0.000
22 Methoxychlor	7.271	7.271	7.270	7.270	7.271	7.270	7.271	7.271	7.221-7.321	7.270	0.000
23 Endosulfan sulfate	7.513	7.514	7.513	7.513	7.514	7.513	7.514	7.514	7.464-7.564	7.513	0.000
24 Endrin ketone	7.766	7.767	7.767	7.766	7.767	7.766	7.766	7.766	7.716-7.816	7.766	0.000
25 Decachlorobiphenyl	8.610	8.610	8.610	8.610	8.611	8.610	8.610	8.610	8.560-8.660	8.610	0.000
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.831-4.931	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.309-5.409	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.368-4.468	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.207-5.307	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	5.995-6.095	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.251-8.351	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.209-11.309	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.496	6.446-6.546	+++++	+++++
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.703	5.653-5.753	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.190	6.140-6.240	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.429	6.379-6.479	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.738	1.688-1.788	+++++	+++++
43 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.627	5.577-5.677	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.951	5.901-6.001	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.566	6.516-6.616	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.437	7.387-7.487	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
59 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.518	4.468-4.568	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-1.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	1003A023	1003A024	1003A025	1003A026	1003A027	1003A028	1003A029
INJ.DATE:	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012	03-OCT-2012
INJ.TIME:	19:19	19:37	19:55	20:12	20:30	20:48	21:06

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.210	2.160-2.260	+++++	+++++
* 54	1Bromo-2nitrobenzene	3.015	3.015	3.015	3.015	3.015	3.015	3.015	3.015	2.965-3.065	3.015	0.000
* 58	Hexabromobiphenyl	8.750	8.750	8.750	8.750	8.750	8.750	8.750	8.750	8.700-8.800	8.750	0.000
$ 2	Tetrachloro-m-xylene	3.670	3.670	3.670	3.670	3.670	3.670	3.670	3.670	3.620-3.720	3.670	0.000
3	Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.002	3.952-4.052	+++++	+++++
4	alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.147	4.097-4.197	+++++	+++++
5	gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.424	4.374-4.474	+++++	+++++
6	beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.497	4.447-4.547	+++++	+++++
7	delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.663	4.613-4.713	+++++	+++++
8	Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.862	4.812-4.912	+++++	+++++
9	Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.149	5.098-5.199	+++++	+++++
38	Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
10	Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
11	Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.723	5.673-5.773	+++++	+++++
12	gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.842	5.792-5.892	+++++	+++++
13	alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.967	5.917-6.017	+++++	+++++
14	Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.099	6.049-6.149	+++++	+++++

Reviewer 1 AR Date: 10/4/2012

Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-1.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.027	5.977-6.077	+++++	+++++
	16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.322	6.272-6.372	+++++	+++++
	17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.540	6.490-6.590	+++++	+++++
	18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.584	6.534-6.634	+++++	+++++
	19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.746	6.696-6.796	+++++	+++++
	20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.842	6.792-6.892	+++++	+++++
	21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.123	7.073-7.173	+++++	+++++
	22 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.271	7.221-7.321	+++++	+++++
	23 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.514	7.464-7.564	+++++	+++++
	24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.766	7.716-7.816	+++++	+++++
$	25 Decachlorobiphenyl	8.610	8.610	8.610	8.610	8.610	8.610	8.610	8.610	8.560-8.660	8.610	0.000
	26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
	27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.831-4.931	+++++	+++++
	28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.309-5.409	+++++	+++++
	29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
	30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.368-4.468	+++++	+++++
	31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.207-5.307	+++++	+++++
	32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	5.995-6.095	+++++	+++++
	33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.251-8.351	+++++	+++++
	34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.209-11.309	+++++	+++++
	35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.496	6.446-6.546	+++++	+++++
	39 2,4-DDE	5.704	5.704	5.704	5.703	5.703	5.704	5.703	5.703	5.653-5.753	5.703	0.000

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Batch File: /chem2/ecd6.i/20121003PEST.b/ical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	6.191	6.191	6.191	6.191	6.191	6.190	6.190	6.190	6.140-6.240	6.191	0.000
41 2,4-DDT	6.429	6.429	6.429	6.429	6.429	6.429	6.429	6.429	6.379-6.479	6.429	0.000
42 Hexachloroethane	0.000	0.000	0.000	1.738	0.000	0.000	0.000	1.738	1.688-1.788	0.248	0.657
43 Oxychlordane	5.627	5.627	5.627	5.627	5.627	5.627	5.627	5.627	5.577-5.677	5.627	0.000
44 trans-Nonachlor	5.951	5.951	5.951	5.951	5.950	5.951	5.951	5.951	5.901-6.001	5.951	0.000
45 cis-Nonachlor	6.567	6.567	6.567	6.566	6.567	6.566	6.566	6.566	6.516-6.616	6.567	0.000
46 Mirex	7.437	7.437	7.437	7.437	7.437	7.437	7.437	7.437	7.387-7.487	7.437	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
59 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.518	4.468-4.568	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5287634	4060064	-23.2
Hexabromobiphenyl	5848031	3748709	-35.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	23737838	21032891	-11.4
Hexabromobiphenyl	17554181	14864285	-15.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20121003PEST

Analysis Date: 03-OCT-2012 15:10 Init. Calib. Date: 03-OCT-2012

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.028	129828
Endrin	6.540	4737698
4,4'-DDD	6.583	154711
4,4'-DDT	6.842	4383976
Endrin ketone	7.767	279182
Endrin aldehyde	7.124	83451

DDT Percent Breakdown = 6.1 %
((129828+154711) * 100)/(129828+154711+4383976)

Endrin Percent Breakdown = 7.1 %
((83451+279182) * 100)/(83451+279182+4737698)

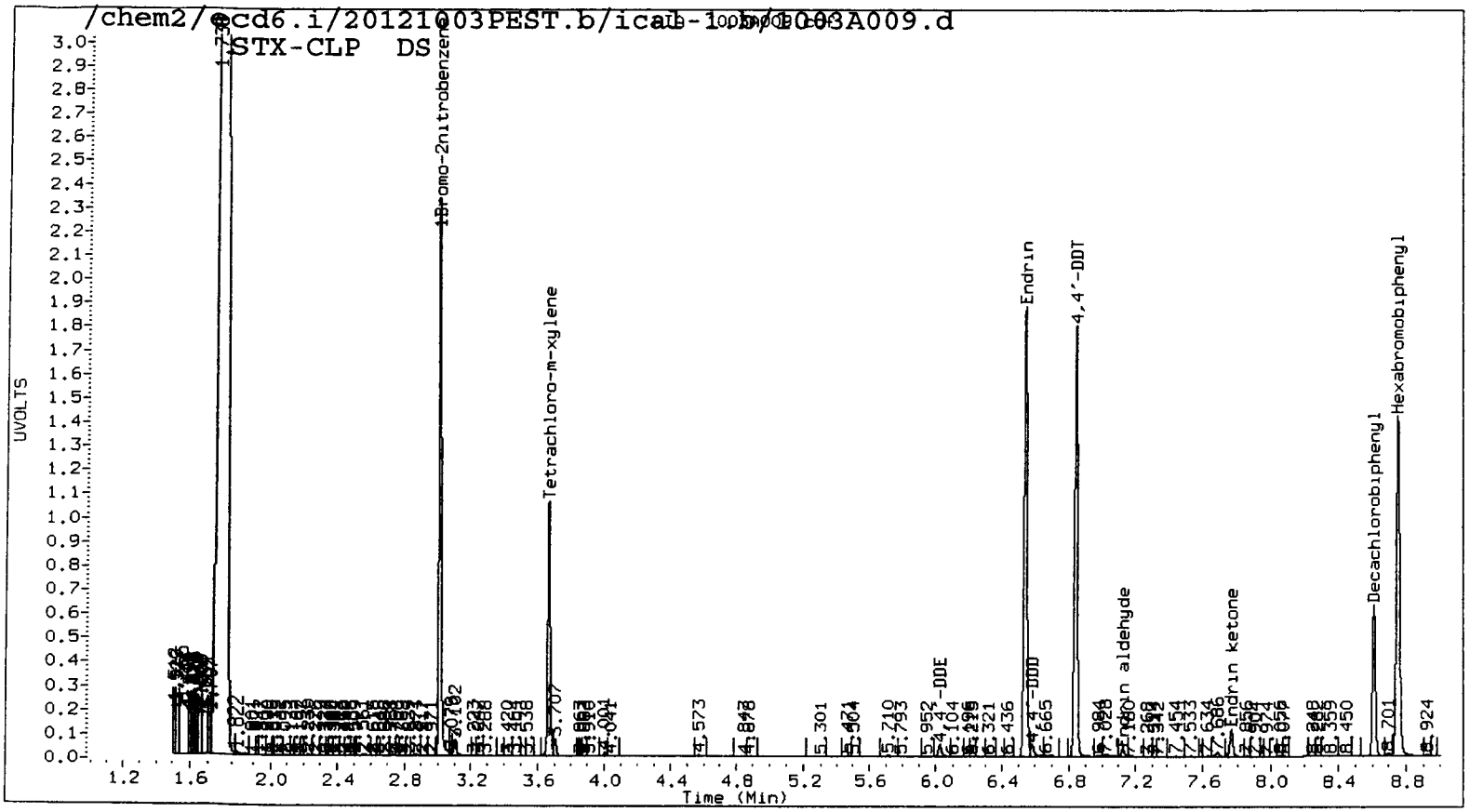
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.744	694290
Endrin	7.227	20939129
4,4'-DDD	7.282	1150787
4,4'-DDT	7.570	21036406
Endrin ketone	8.447	1215962
Endrin aldehyde	7.715	480634

DDT Percent Breakdown = 8.1 %
((694290+1150787) * 100)/(694290+1150787+21036406)

Endrin Percent Breakdown = 7.5 %
((480634+1215962) * 100)/(480634+1215962+20939129)

Form VII Pest-1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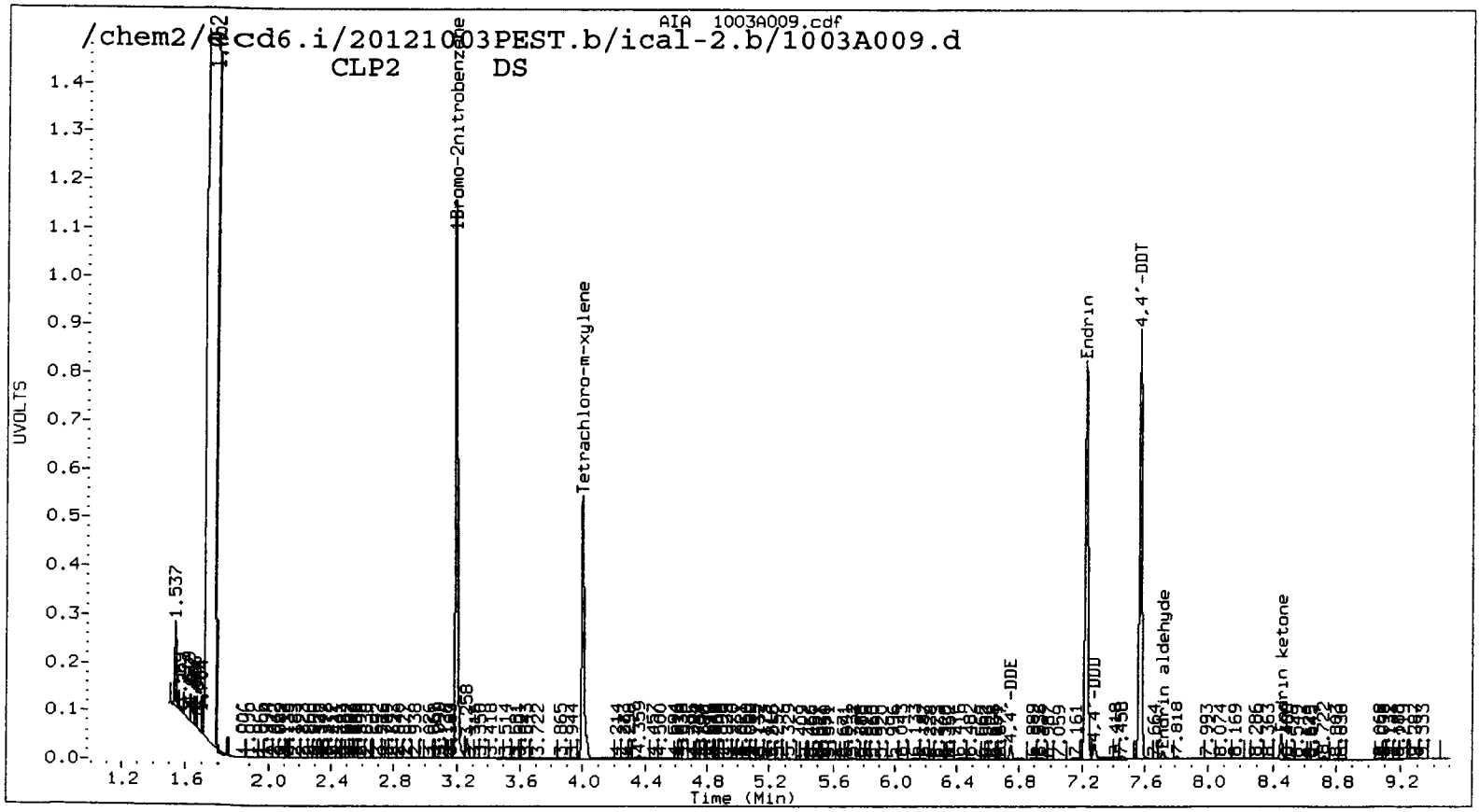
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
4,4'-DDE
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)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CLP2 DS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
4,4'-DDE
Endrin aldehyde
Endrin ketone
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A010.d ARI ID: IB
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A010.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 15:27
Compound Sublist: wpest Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.015	0.001	4103626	3.195	0.000	20811653	80.0000	80.0000	0.0	1Bromo-2nitrobenzer
----			4.606	0.021	1044	0.0000	0.0023	---	alpha-BHC
----			5.050	0.043	7493	0.0000	0.0408	---	beta-BHC
----			5.327	0.013	3004	0.0000	0.0083	---	delta-BHC
----			4.925	-0.011	4608	0.0000	0.0112	---	gamma-BHC (Lindane)
4.847	-0.014	1134	----			0.0178	0.0000	---	Heptachlor
----			5.732	-0.003	56026	0.0000	0.1516	---	Aldrin
----			6.311	0.017	4705	0.0000	0.0141	---	Heptachlor epoxide b
----			6.648	-0.032	2563	0.0000	0.0086	---	Endosulfan I
----			6.967	0.028	1742	0.0000	0.0055	---	Dieldrin
----			6.744	-0.002	6369	0.0000	0.0211	---	4,4'-DDE
----			7.199	-0.029	2168	0.0000	0.0085	---	Endrin
----			7.421	0.005	1443	0.0000	0.0056	---	Endosulfan II
----			7.281	-0.002	4668	0.0000	0.0193	---	4,4'-DDD
----			7.994	0.034	1856	0.0000	0.0086	---	Endosulfan sulfate
----			7.573	0.002	10627	0.0000	0.0463	---	4,4'-DDT
----			8.183	0.025	3290	0.0000	0.0336	---	Methoxychlor
7.762	-0.004	12452	8.451	0.002	2651	0.2547	0.0124	181.5*	Endrin ketone
7.125	0.001	1590	7.708	-0.007	3978	0.0397	0.0198	67.0*	Endrin aldehyde
5.794	-0.048	5701	6.484	0.008	17598	0.0914	0.0506	57.4*	gamma-Chlordane
----			6.625	0.010	2169	0.0000	0.0067	---	alpha-Chlordane
2.229	0.019	5725	2.368	-0.009	2576	0.0618	0.0057	166.2*	Hexachlorobutadiene
4.001	-0.001	27480	4.458	0.001	5327	0.4109	0.0136	187.2*	Hexachlorobenzene
----			6.231	0.028	4801	0.0000	0.0181	---	Oxychlordane
----			6.440	-0.014	1990	0.0000	0.0104	---	2,4-DDE
5.956	0.005	1123	6.570	0.009	1716	0.0202	0.0056	113.4*	trans-Nonachlor
----			6.936	-0.003	1182	0.0000	0.0071	---	2,4-DDD
----			7.225	-0.002	6574	0.0000	0.0363	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
----			8.423	-0.011	6159	0.0000	0.0346	---	Mirex
8.750	0.000	3763922	10.106	0.001	14817201	80.0000	80.0000	0.0	Hexabromobiphenyl
1.738	0.000	778151	1.701	-0.027	1065269	0.0000	0.0000	---	Hexachloroethane
3.670	0.000	2058750	4.007	0.000	12255032	33.8582	33.8790	0.1	Tetrachloro-m-xylen
8.610	0.000	1611572	9.566	0.000	7450885	32.0375	32.7016	2.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	84.6	84.7	84.6~	130- 0
Decachlorobiphenyl	80.1	81.8	80.1~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4103626	1.1
Hexabromobiphenyl	3748709	3763922	0.4

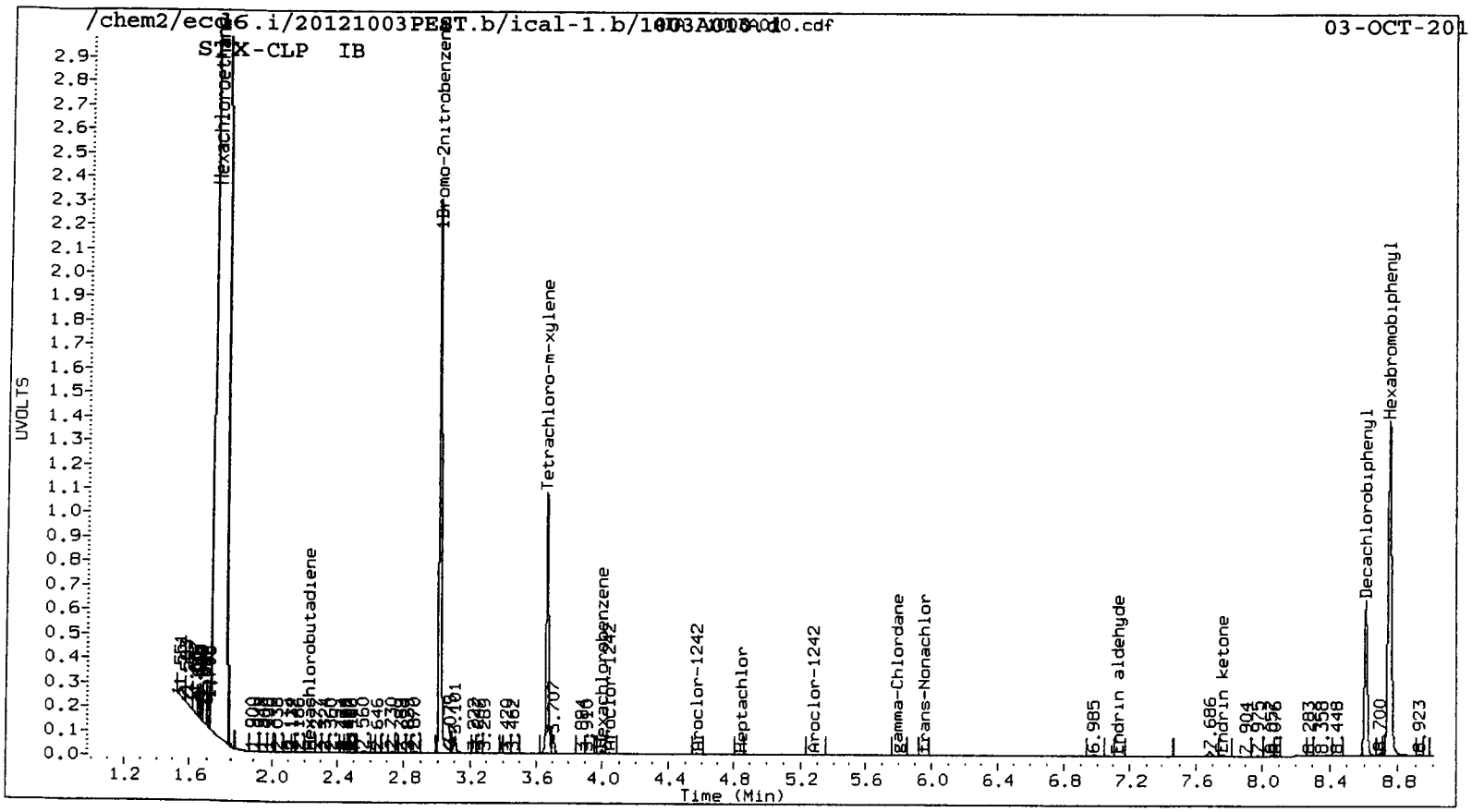
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	20811653	-1.1
Hexabromobiphenyl	14864285	14817201	-0.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	7.134	-0.030	3928	0.441
Toxaphene	2	---			0.000	2	7.459	-0.029	100077	7.603
Toxaphene	3	---			0.000	3	7.708	-0.011	3978	0.270
Toxaphene	4	---			0.000	4	8.183	-0.002	3290	0.299
Toxaphene	5	---			0.000	5	8.575	0.042	2632	0.510
Toxaphene	6	---			0.000	NS	---			----
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: 1.825				
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000
Aroclor-1242	6	---			0.000	NS	---			----

		STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1248	1	---	0.000	1	---	0.000
Aroclor-1248	2	---	0.000	2	---	0.000
Aroclor-1248	3	---	0.000	3	---	0.000
Aroclor-1248	4	---	0.000	4	---	0.000
Aroclor-1248	5	---	0.000	5	---	0.000
		STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1254	1	---	0.000	1	---	0.000
Aroclor-1254	2	---	0.000	2	---	0.000
Aroclor-1254	3	---	0.000	3	---	0.000
Aroclor-1254	4	---	0.000	4	---	0.000
Aroclor-1254	5	---	0.000	5	---	0.000
		STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1260	1	---	0.000	1	---	0.000
Aroclor-1260	2	---	0.000	2	---	0.000
Aroclor-1260	3	---	0.000	3	---	0.000
Aroclor-1260	4	---	0.000	4	---	0.000
Aroclor-1260	5	---	0.000	5	---	0.000
		STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1262	1	---	0.000	1	---	0.000
Aroclor-1262	2	---	0.000	2	---	0.000
Aroclor-1262	3	---	0.000	3	---	0.000
Aroclor-1262	4	---	0.000	4	---	0.000
Aroclor-1262	5	---	0.000	5	---	0.000
		STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	
Aroclor-1268	1	---	0.000	1	---	0.000
Aroclor-1268	2	---	0.000	2	---	0.000
Aroclor-1268	3	---	0.000	3	---	0.000
Aroclor-1268	4	---	0.000	4	---	0.000
Aroclor-1268	5	---	0.000	5	---	0.000
		STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks	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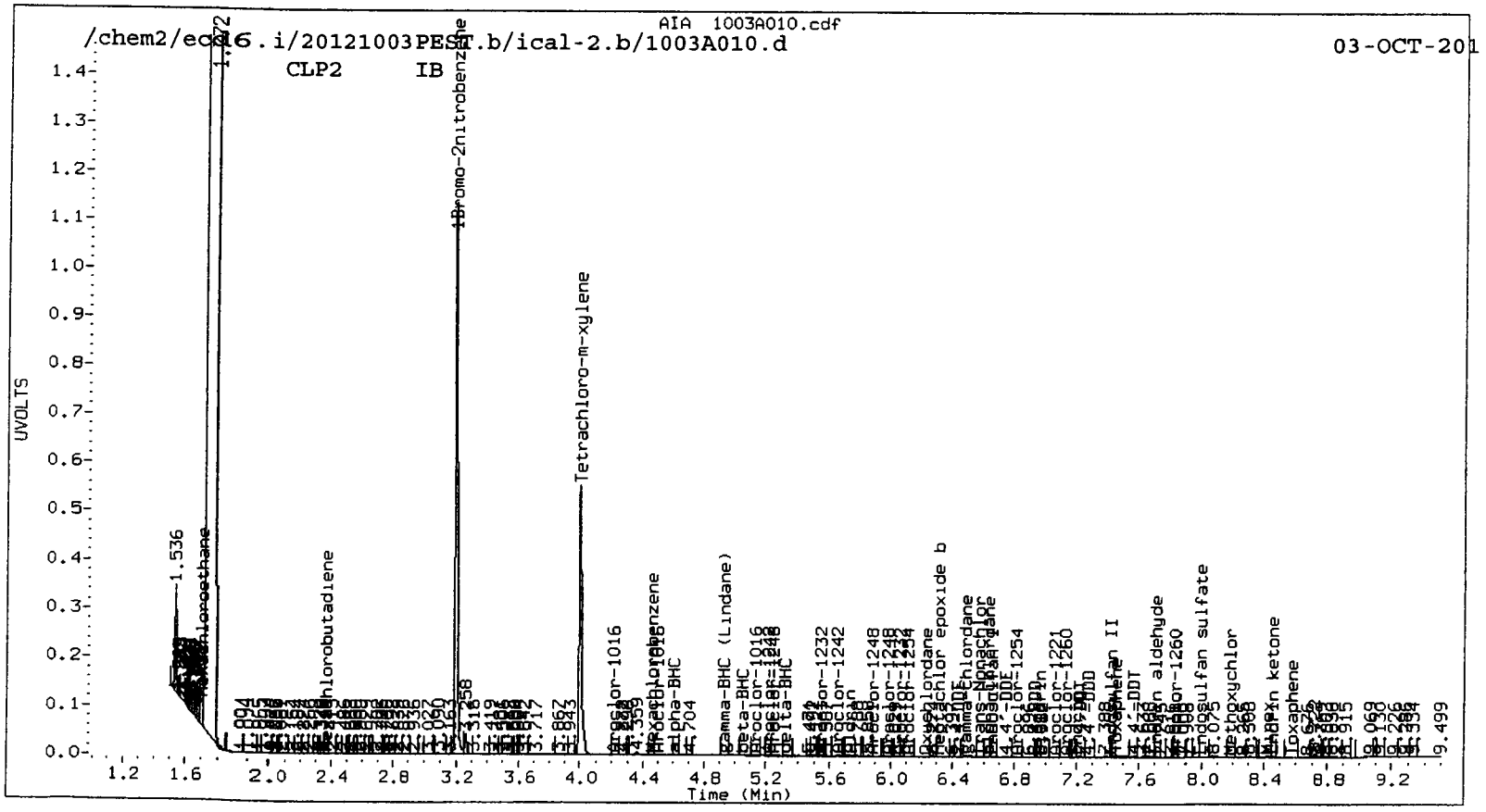
STX-CLP IB
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Aroclor-1242
Heptachlor
Aroclor-1242
Gamma-Chlordane
Trans-Nonachlor
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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03-OCT-201
CLP2 IB
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1221
Aroclor-1260
Heptachlor
Aldrin
Heptachlor epoxide b
Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDD
Endrin aldehyde
Endosulfan sulfate
4,4'-DDT
Methoxychlor
Endrin ketone
Toxaphene

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A011.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A011.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 03-OCT-2012 15:45
Report Date: 10/04/2012 10:59
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.015	0.001	4243841	3.195	0.000	21862472	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.147	0.000	1535379	4.585	-0.001	9334218	19.4134	19.5713	0.8	alpha-BHC
4.497	0.000	596591	5.006	-0.001	3588059	17.8451	18.5881	4.1	beta-BHC
4.663	0.000	1239100	5.314	0.000	7494896	19.4365	19.8100	1.9	delta-BHC
4.424	0.000	1386207	4.936	0.000	8315328	19.0776	19.2863	1.1	gamma-BHC (Lindane)
4.862	0.000	1226891	5.396	-0.001	7484260	18.6231	18.9596	1.8	Heptachlor
5.148	0.000	1262811	5.735	0.000	7333340	18.7699	18.8925	0.7	Aldrin
5.723	0.000	1184994	6.293	0.000	6529772	18.2719	18.6610	2.1	Heptachlor epoxide b
6.100	0.000	1099475	6.680	-0.001	5919132	18.3195	18.8375	2.8	Endosulfan I
6.322	0.000	2324426	6.938	-0.001	12283565	37.4681	36.9536	1.4	Dieldrin
6.027	0.000	2169789	6.744	-0.001	11760541	37.8807	37.1061	2.1	4,4'-DDE
6.540	0.000	2029056	7.227	-0.001	9904255	37.9835	37.1704	2.2	Endrin
6.746	0.000	1884435	7.416	-0.001	9816223	36.5308	36.8560	0.9	Endosulfan II
6.583	-0.001	1762343	7.282	-0.001	9472208	37.7821	37.6409	0.4	4,4'-DDD
7.514	0.000	1614928	7.959	-0.001	8479989	37.1938	37.8644	1.8	Endosulfan sulfate
6.842	-0.001	1782695	7.570	-0.001	8981049	38.0103	37.5030	1.3	4,4'-DDT
7.271	0.000	4047645	8.156	-0.003	16738737	176.5215	163.8318	7.5	Methoxychlor
7.767	0.000	1835612	8.447	-0.001	8111794	36.1518	36.2597	0.3	Endrin ketone
7.124	0.000	1530357	7.715	0.000	7757642	36.7869	36.9986	0.6	Endrin aldehyde
5.843	0.000	1188786	6.475	-0.001	6799397	18.4345	18.6266	1.0	gamma-Chlordane
5.967	0.000	1137815	6.614	-0.001	6371726	18.2823	18.7211	2.4	alpha-Chlordane
2.210	0.000	1744880	2.376	-0.001	8172185	18.2043	17.2169	5.6	Hexachlorobutadiene
4.002	0.000	1221989	4.458	0.000	7455036	17.6689	18.1647	2.8	Hexachlorobenzene
8.750	0.000	3909614	10.105	0.000	15444423	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	2292564	4.007	-0.001	13637228	36.4578	35.8881	1.6	Tetrachloro-m-xylen
8.610	0.000	1795027	9.565	-0.001	8328108	34.3548	35.0673	2.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	91.1	89.7	89.7~	115- 0
Decachlorobiphenyl	85.9	87.7	85.9~	115- 0

~ Indicates recovery outside QC Limits

VP3A:01813

INTERNAL STANDARD SUMMARY

Column 1

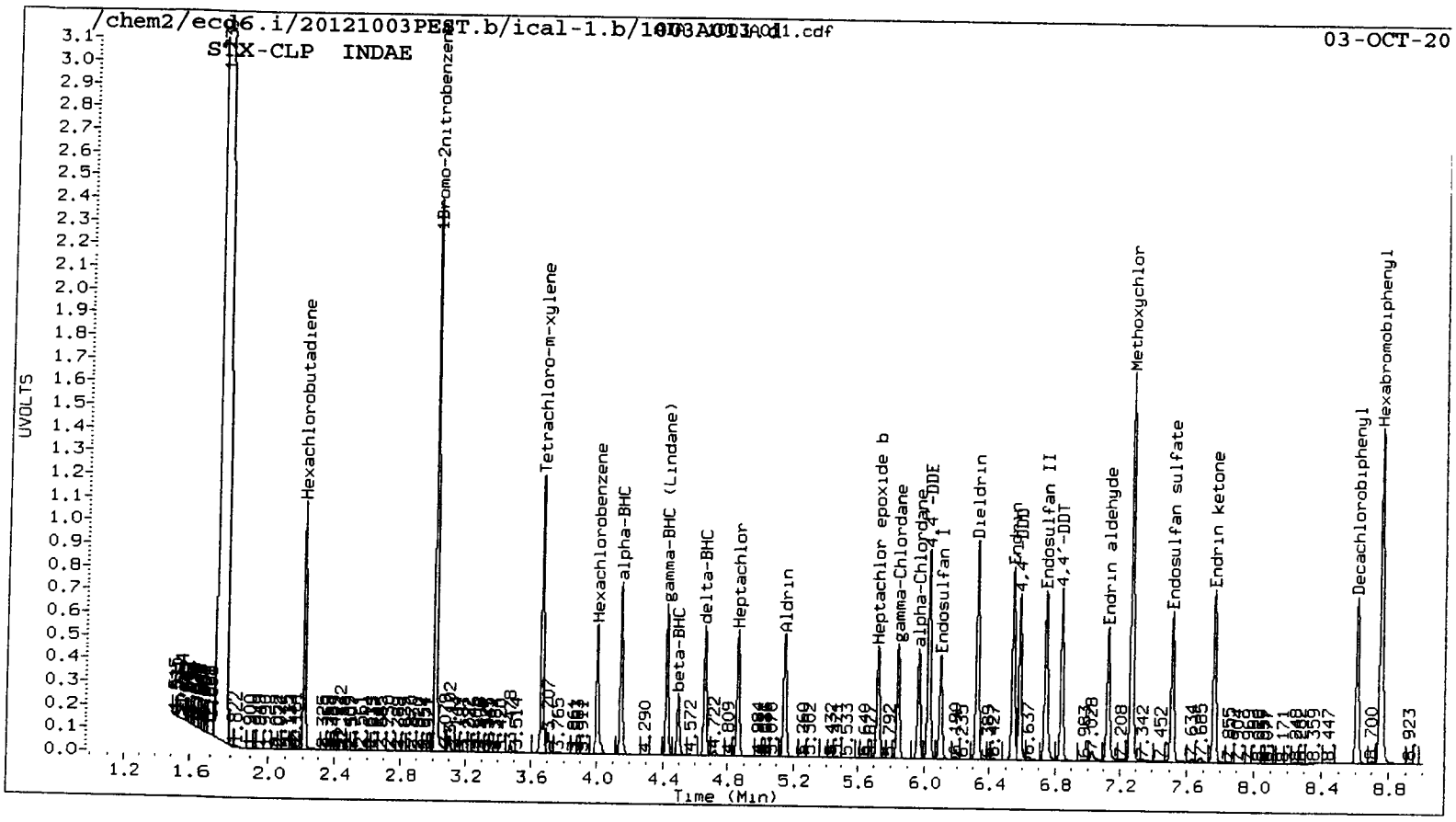
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4243841	4.5
Hexabromobiphenyl	3748709	3909614	4.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21862472	3.9
Hexabromobiphenyl	14864285	15444423	3.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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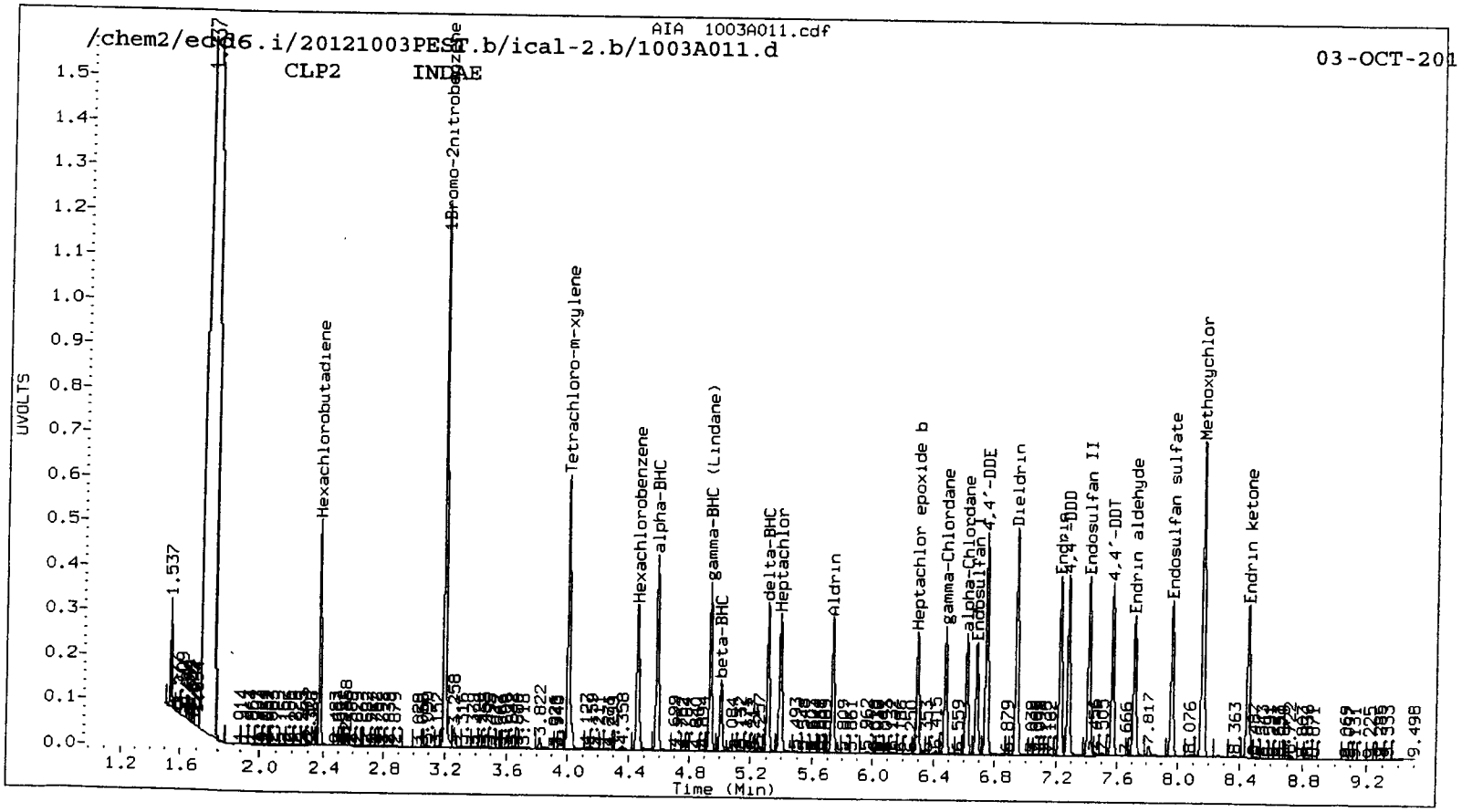
1003A011.cdf
03-OCT-20
SIX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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03-OCT-201
CLP2 INDAE
UVOLTS
Time (Min)
1.537
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A012.d ARI ID: WNDE
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A012.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 16:03
Compound Sublist: WND Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
----			1.735	0.007	79644381	0.0000	0.0000	---	Hexachloroethane
3.015	0.000	3953778	3.195	0.000	20286067	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.628	0.000	1783657	6.203	0.000	10156774	39.2013	39.2626	0.2	Oxychlordane
5.704	0.001	1320612	6.454	0.000	7104051	39.4894	37.9736	3.9	2,4-DDE
5.951	0.000	2146506	6.560	-0.001	11964879	39.6099	39.4503	0.4	trans-Nonachlor
6.191	0.001	1168742	6.939	0.001	6346802	39.0122	38.8494	0.4	2,4-DDD
6.430	0.001	1318802	7.227	0.000	6909377	38.8886	38.7669	0.3	2,4-DDT
6.567	0.001	2299347	7.286	0.000	12452499	40.0572	39.2683	2.0	cis-Nonachlor
7.438	0.001	1439082	8.434	0.001	6440095	37.6639	36.7312	2.5	Mirex
8.751	0.001	3659278	10.106	0.001	14586432	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	1919385	4.007	-0.001	11829871	32.7625	33.5510	2.4	Tetrachloro-m-xylen
8.610	0.000	1534597	9.566	0.000	7180154	31.3797	32.0120	2.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	81.9	83.9	81.9~	150- 0
Decachlorobiphenyl	78.4	80.0	78.4~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

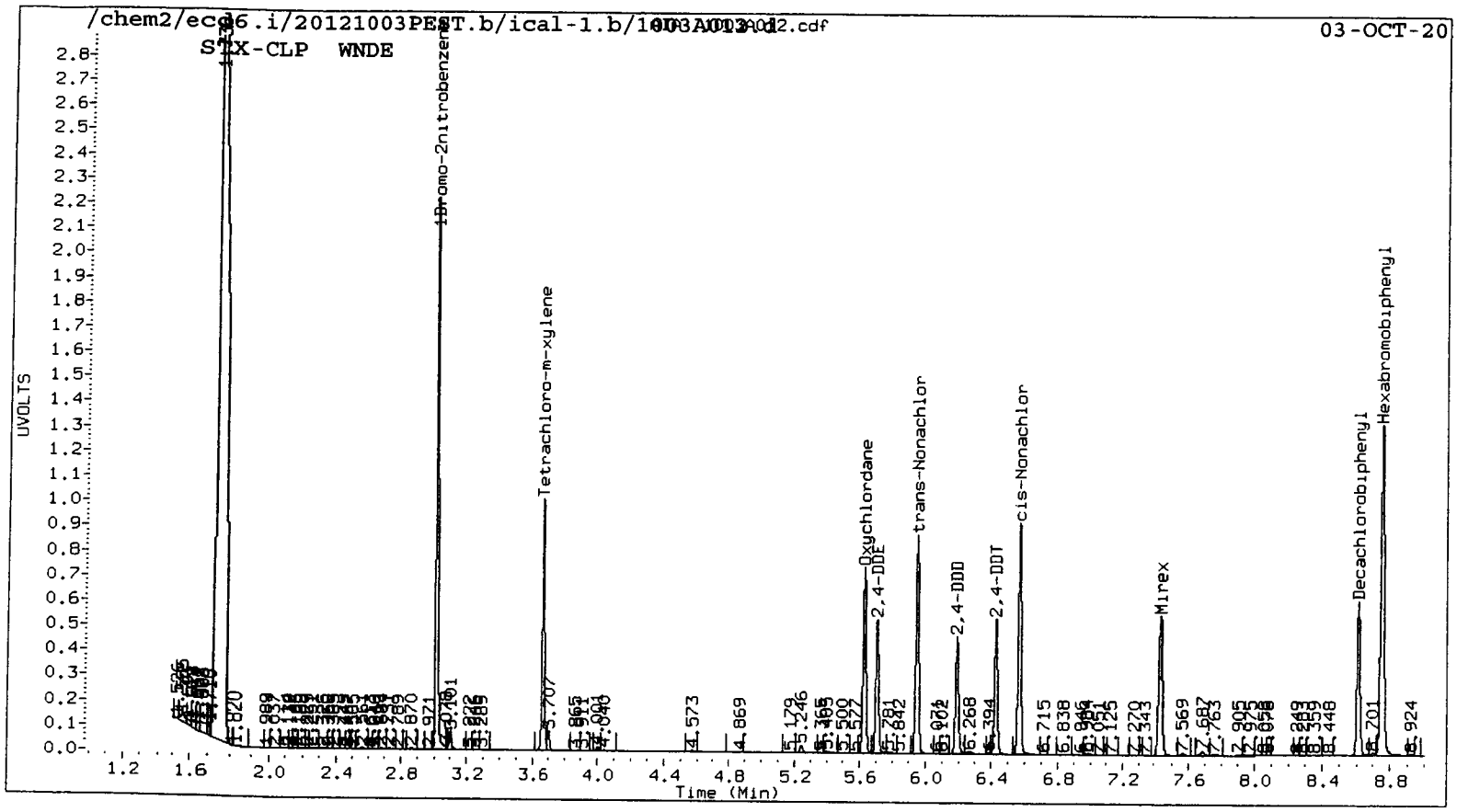
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	3953778	-2.6
Hexabromobiphenyl	3748709	3659278	-2.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	20286067	-3.6
Hexabromobiphenyl	14864285	14586432	-1.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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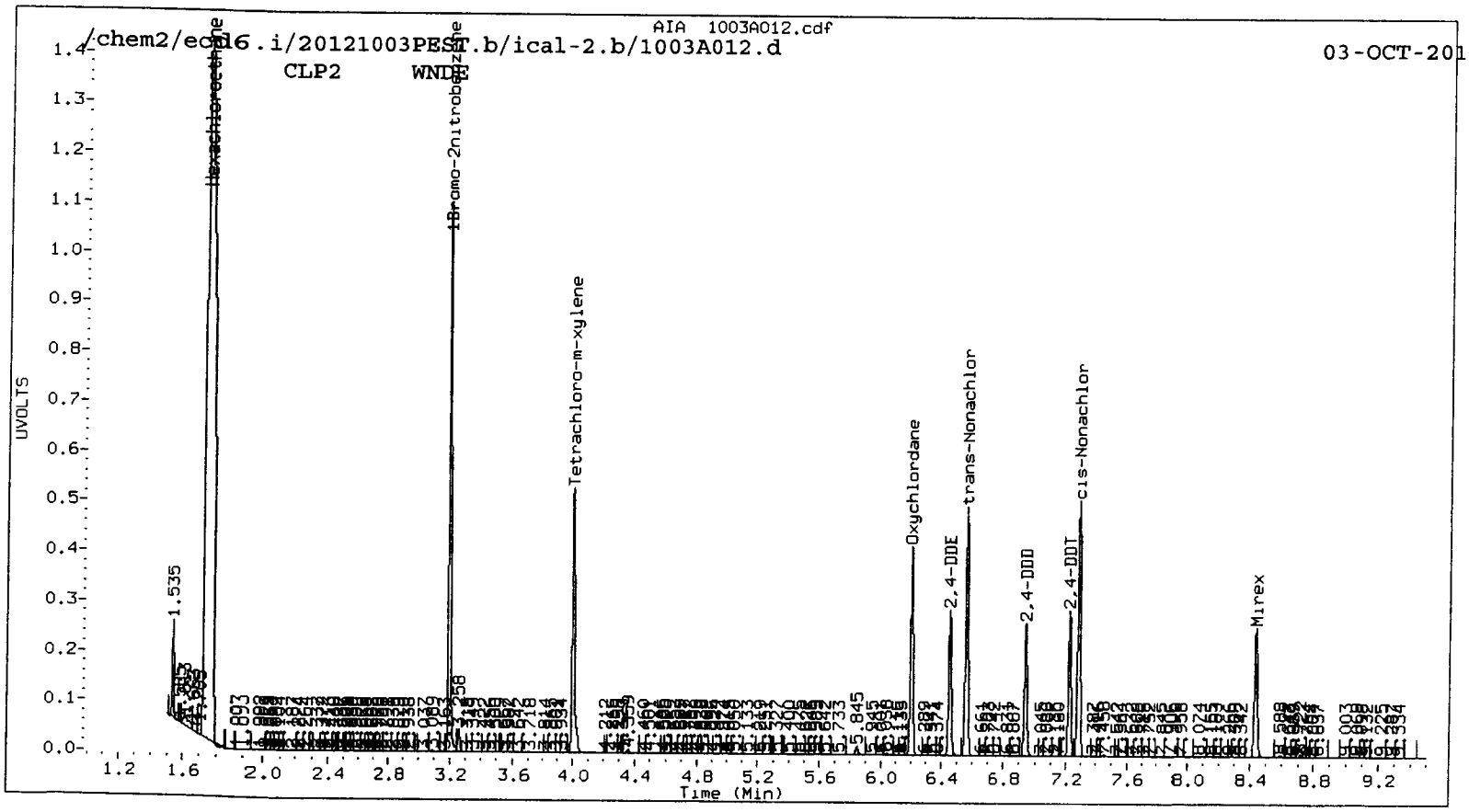
03-OCT-20
STX-CLP WNDE
UVOLTS
Time (Min)
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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03-OCT-201
CLP2 WNDE
UVOLTS
Time (Min)
Hexachloroethane
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A014.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A014.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 16:39
Compound Sublist: INDA Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.015	0.000	4060064	3.195	0.000	21032891	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.147	0.000	1520984	4.584	-0.001	9260940	20.1019	20.1835	0.4	alpha-BHC
4.497	0.000	592449	5.007	0.000	3547307	18.5233	19.1018	3.1	beta-BHC
4.663	0.000	1226976	5.314	-0.001	7429371	20.1175	20.4114	1.5	delta-BHC
4.424	0.000	1375521	4.936	0.000	8261538	19.7874	19.9173	0.7	gamma-BHC (Lindane)
4.862	0.000	1222118	5.397	0.000	7442945	19.3904	19.5986	1.1	Heptachlor
5.148	0.000	1255499	5.735	0.000	7405273	19.5059	19.8303	1.6	Aldrin
5.723	0.000	1188428	6.293	0.000	6511616	19.1544	19.3431	1.0	Heptachlor epoxide b
6.099	0.000	1093516	6.680	-0.001	5876753	19.0450	19.4404	2.1	Endosulfan I
6.322	0.000	2314732	6.938	-0.001	12264975	39.0008	38.3530	1.7	Dieldrin
6.027	0.000	2157945	6.744	-0.001	11722458	39.3792	38.4447	2.4	4,4'-DDE
6.540	0.000	2016318	7.228	0.000	9872960	39.3652	38.4991	2.2	Endrin
6.745	-0.001	1906317	7.416	-0.001	9793607	38.5412	38.2062	0.9	Endosulfan II
6.584	0.000	1753499	7.282	-0.001	9447717	39.2061	39.0088	0.5	4,4'-DDD
7.513	0.000	1604029	7.960	0.000	8413226	38.5285	39.0325	1.3	Endosulfan sulfate
6.841	-0.001	1774418	7.571	0.000	9013742	39.4578	39.1085	0.9	4,4'-DDT
7.271	0.000	4037595	8.156	-0.003	16702852	183.6412	169.8610	7.8	Methoxychlor
7.766	0.000	1813756	8.448	-0.001	8119226	37.2546	37.7094	1.2	Endrin ketone
7.123	0.000	1512891	7.715	0.000	7706684	37.9281	38.1901	0.7	Endrin aldehyde
5.843	0.000	1178085	6.475	-0.001	6818550	19.0955	19.4158	1.7	gamma-Chlordane
5.967	0.000	1131738	6.614	-0.001	6335027	19.0077	19.3474	1.8	alpha-Chlordane
2.210	0.000	1729192	2.376	-0.001	8724669	18.8572	19.1059	1.3	Hexachlorobutadiene
4.002	-0.001	1214867	4.458	0.000	7404274	18.3610	18.7525	2.1	Hexachlorobenzene
8.750	0.000	3748709	10.105	0.000	14864285	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	2291209	4.007	-0.001	13613609	38.0855	37.2389	2.2	Tetrachloro-m-xylen
8.610	0.000	1786536	9.565	-0.001	8314170	35.6599	36.3750	2.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	95.2	93.1	93.1~	115- 0
Decachlorobiphenyl	89.1	90.9	89.1~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

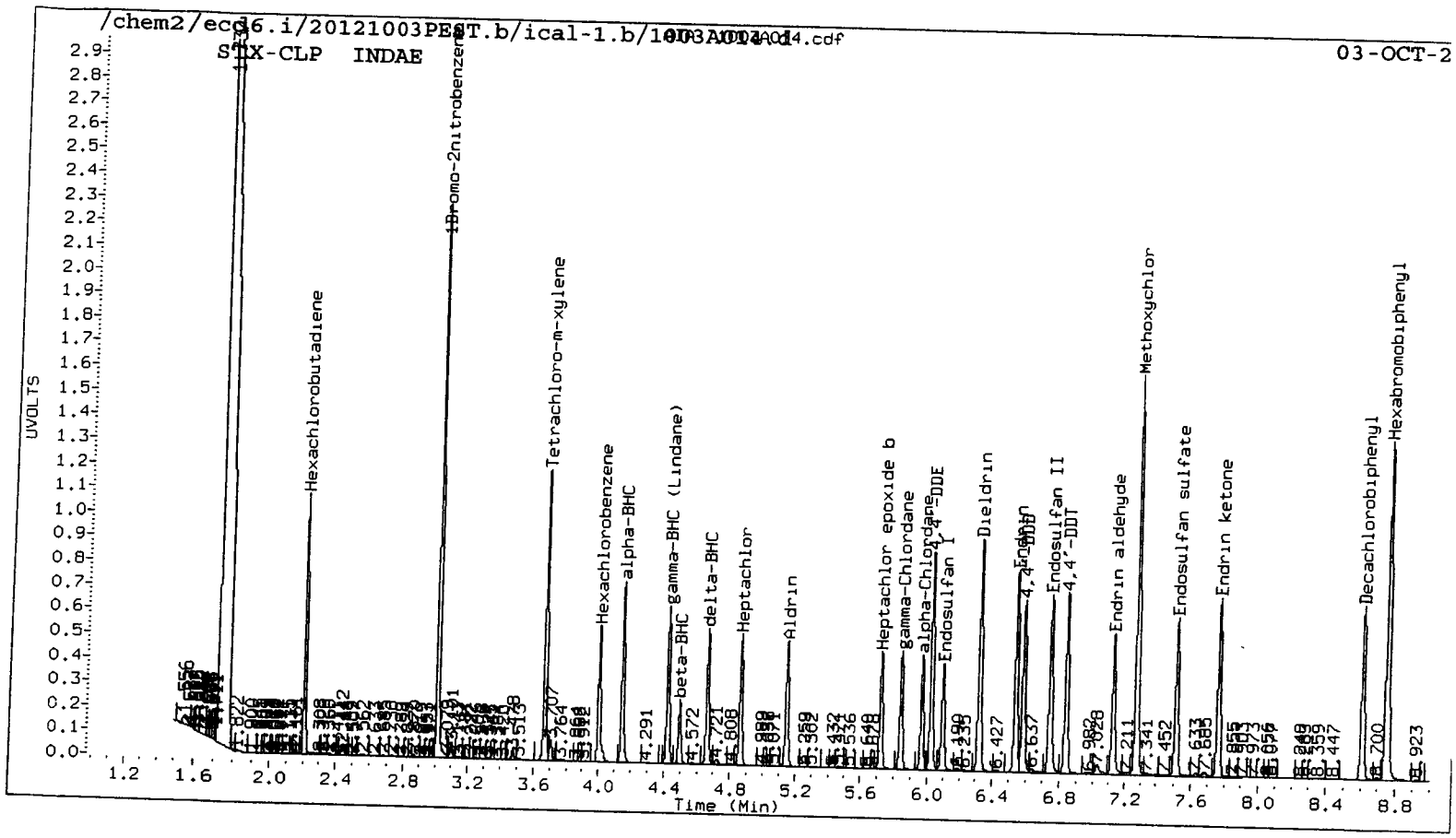
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4060064	0.0
Hexabromobiphenyl	3748709	3748709	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21032891	0.0
Hexabromobiphenyl	14864285	14864285	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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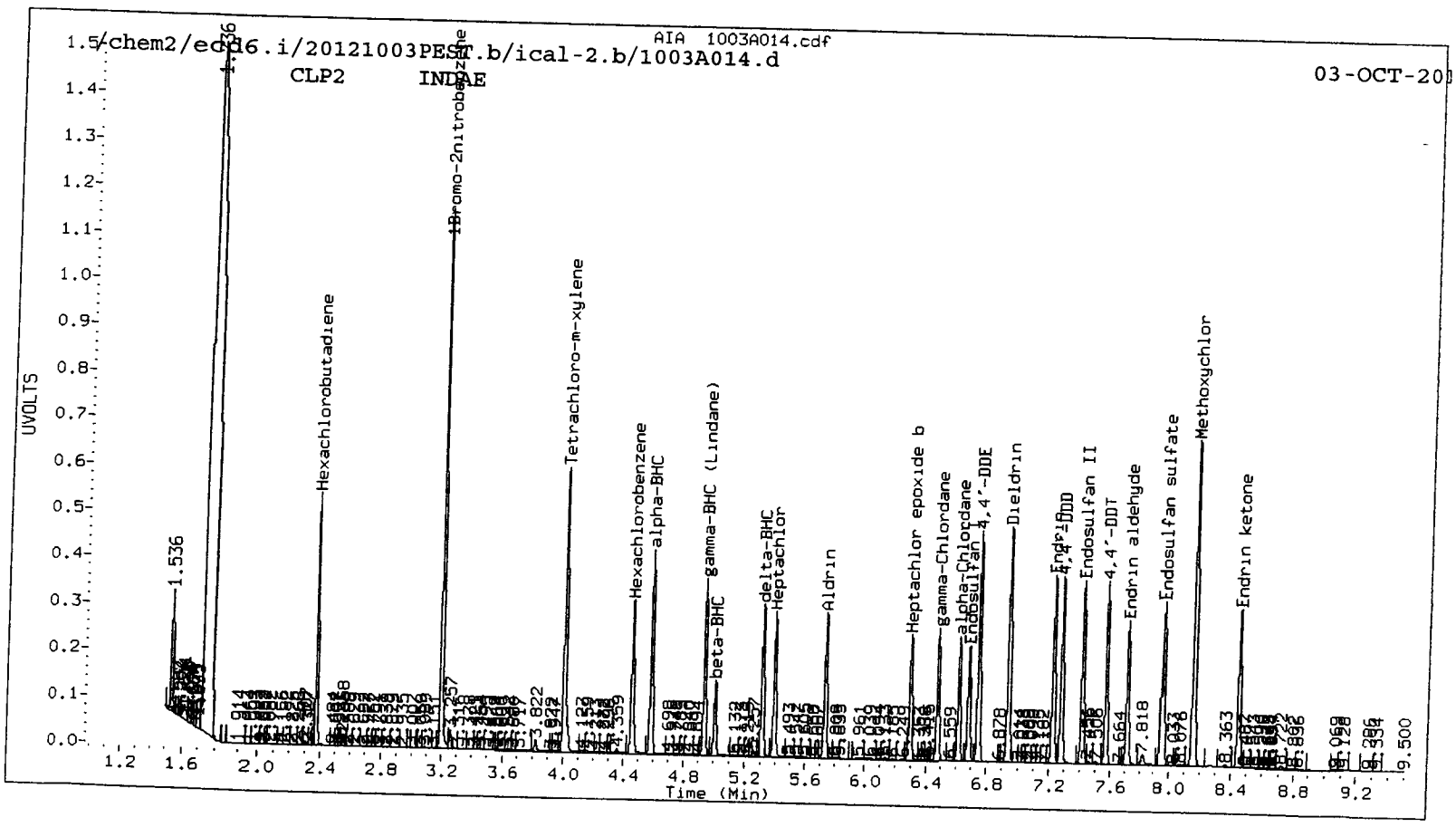
AIA 1003A014.cdf
STX-CLP INDAE
03-OCT-2
UVOLTS
Hexachlorobutadiene
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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CLP2 INDAE
03-OCT-20
UVOLTS
1.536
Hexachlorobutadiene
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A015.d ARI ID: INDAA
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A015.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 16:56
Compound Sublist: INDA Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.015	0.000	4049993	3.195	0.000	21107593	80.0000	80.0000	0.0	1Bromo-2nitrobenzei
4.146	-0.001	93884	4.584	-0.002	562924	1.2439	1.2225	1.7	alpha-BHC
4.497	0.000	47557	5.006	0.000	260073	1.4906	1.3955	6.6	beta-BHC
4.663	0.000	76106	5.314	-0.001	440464	1.2509	1.2058	3.7	delta-BHC
4.424	0.000	89876	4.936	-0.001	530805	1.2961	1.2752	1.6	gamma-BHC (Lindane)
4.861	-0.001	86756	5.396	-0.001	522957	1.3799	1.3722	0.6	Heptachlor
5.148	-0.001	87853	5.734	-0.002	499986	1.3683	1.3342	2.5	Aldrin
5.723	-0.001	89298	6.292	-0.001	477430	1.4428	1.4132	2.1	Heptachlor epoxide I
6.099	0.000	82306	6.679	-0.001	418782	1.4370	1.3804	4.0	Endosulfan I
6.322	0.000	160686	6.938	-0.001	896482	2.7141	2.7934	2.9	Dieldrin
6.026	-0.001	145661	6.744	-0.002	857369	2.6647	2.8019	5.0	4,4'-DDE
6.541	0.000	138350	7.227	-0.001	729719	2.7114	2.8817	6.1	Endrin
6.746	0.000	138657	7.416	0.000	727966	2.8140	2.8760	2.2	Endosulfan II
6.583	-0.001	120429	7.282	-0.001	657884	2.7029	2.7509	1.8	4,4'-DDD
7.514	0.000	115041	7.959	-0.001	586419	2.7738	2.7553	0.7	Endosulfan sulfate
6.842	0.000	118090	7.571	0.000	617572	2.6360	2.7136	2.9	4,4'-DDT
7.271	0.000	325509	8.156	-0.003	1511810	14.8616	15.5702	4.7	Methoxychlor
7.767	0.000	142891	8.447	-0.001	617171	2.9462	2.9029	1.5	Endrin ketone
7.124	0.001	114936	7.715	0.000	577314	2.8924	2.8973	0.2	Endrin aldehyde
5.842	0.000	87280	6.475	-0.001	493222	1.4182	1.3995	1.3	gamma-Chlordane
5.966	-0.001	84983	6.613	-0.002	453148	1.4309	1.3790	3.7	alpha-Chlordane
2.209	-0.001	131702	2.376	-0.002	647910	1.4398	1.4138	1.8	Hexachlorobutadiene
4.002	-0.001	100639	4.457	-0.001	586197	1.5248	1.4794	3.0	Hexachlorobenzene
8.750	0.000	3734455	10.106	0.000	14677423	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	-0.001	170349	4.006	-0.001	1089161	2.8387	2.9688	4.5	Tetrachloro-m-xylene
8.610	0.000	162102	9.565	-0.001	707591	3.2480	3.1352	3.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	7.1	7.4	7.1~	115- 0
Decachlorobiphenyl	8.1	7.8	7.8~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

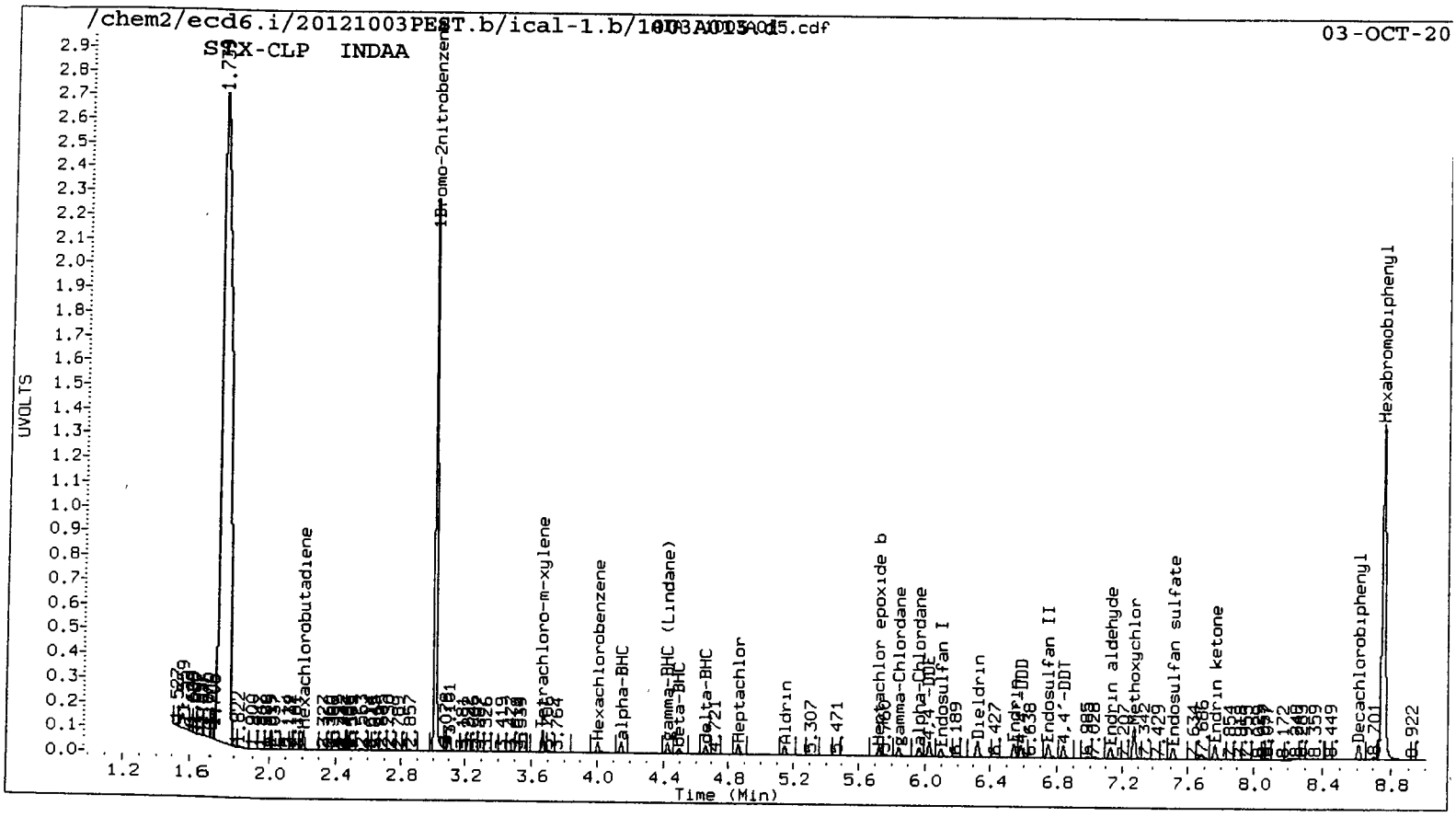
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4049993	-0.2
Hexabromobiphenyl	3748709	3734455	-0.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21107593	0.4
Hexabromobiphenyl	14864285	14677423	-1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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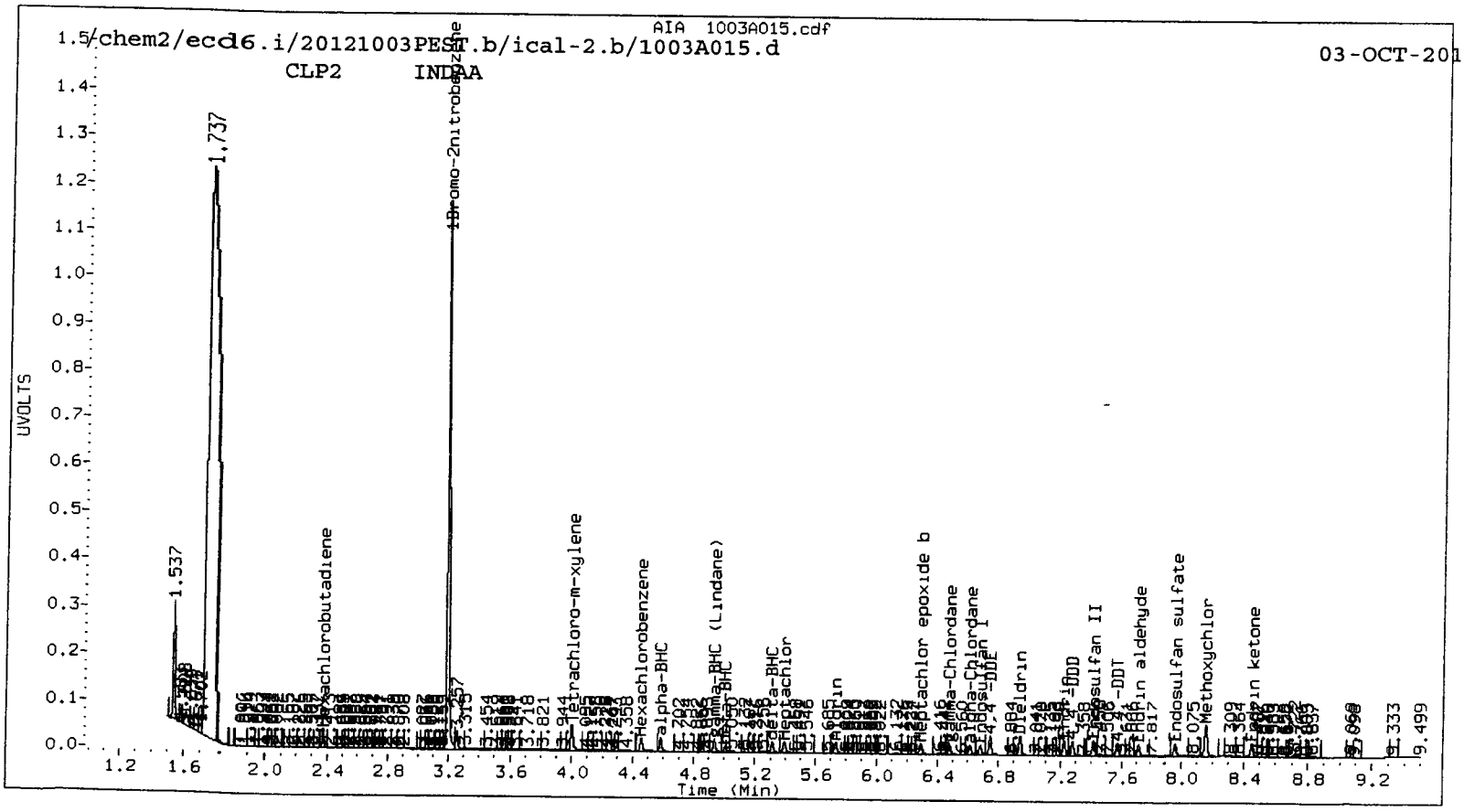
1003A015.cdf
03-OCT-20
SIX-CLP INDAA
1,737
1,537
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)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03-OCT-201
CLP2 INDAA
1,737
1,537
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A016.d ARI ID: INDAB
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A016.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Injection Date: 03-OCT-2012 17:14
Compound Sublist: INDA
Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul
Matrix: NONE
Operator: ar
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.015	0.000	4090558	3.195	0.000	21416427	80.0000	80.0000	0.0	1Bromo-2nitrobenzer
4.147	0.000	186830	4.584	-0.001	1159721	2.4508	2.4823	1.3	alpha-BHC
4.497	0.000	88560	5.006	0.000	502406	2.7482	2.6569	3.4	beta-BHC
4.662	0.000	149622	5.313	-0.001	914469	2.4349	2.4674	1.3	delta-BHC
4.424	0.000	175589	4.936	-0.001	1073758	2.5071	2.5423	1.4	gamma-BHC (Lindane)
4.861	-0.001	165386	5.396	-0.002	1036329	2.6045	2.6800	2.9	Heptachlor
5.148	-0.001	167386	5.734	-0.001	1002480	2.5812	2.6364	2.1	Aldrin
5.722	-0.001	167624	6.292	-0.001	937162	2.6815	2.7340	1.9	Heptachlor epoxide b
6.099	0.000	155015	6.679	-0.001	832530	2.6797	2.7047	0.9	Endosulfan I
6.322	0.000	311998	6.937	-0.002	1791502	5.2176	5.5018	5.3	Dieldrin
6.026	-0.001	283514	6.744	-0.002	1712186	5.1351	5.5147	7.1	4,4'-DDE
6.540	0.000	268106	7.227	-0.001	1445065	5.2022	5.5693	6.8	Endrin
6.746	0.000	265666	7.415	-0.001	1431354	5.3382	5.5188	3.3	Endosulfan II
6.583	-0.001	233750	7.281	-0.002	1323868	5.1943	5.4024	3.9	4,4'-DDD
7.513	0.000	220973	7.959	-0.001	1168728	5.2752	5.3590	1.6	Endosulfan sulfate
6.841	-0.001	231047	7.570	-0.001	1231411	5.1063	5.2805	3.4	4,4'-DDT
7.270	0.000	617347	8.155	-0.003	2839505	27.9065	28.5399	2.2	Methoxychlor
7.767	0.000	262984	8.447	-0.002	1192839	5.3686	5.4755	2.0	Endrin ketone
7.123	0.000	217465	7.714	-0.001	1123507	5.4184	5.5026	1.5	Endrin aldehyde
5.842	0.000	163766	6.475	-0.001	958063	2.6347	2.6792	1.7	gamma-Chlordane
5.967	0.000	159239	6.613	-0.001	892745	2.6545	2.6777	0.9	alpha-Chlordane
2.210	0.000	248019	2.376	-0.001	1264510	2.6845	2.7195	1.3	Hexachlorobutadiene
4.001	-0.001	185775	4.458	0.000	1113449	2.7868	2.7695	0.6	Hexachlorobenzene
8.750	0.000	3771845	10.106	0.001	15039648	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	327208	4.007	-0.001	2119369	5.3984	5.6935	5.3	Tetrachloro-m-xylene
8.610	0.000	288613	9.565	-0.001	1317447	5.7255	5.6967	0.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	13.5	14.2	13.5~	115- 0
Decachlorobiphenyl	14.3	14.2	14.2~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

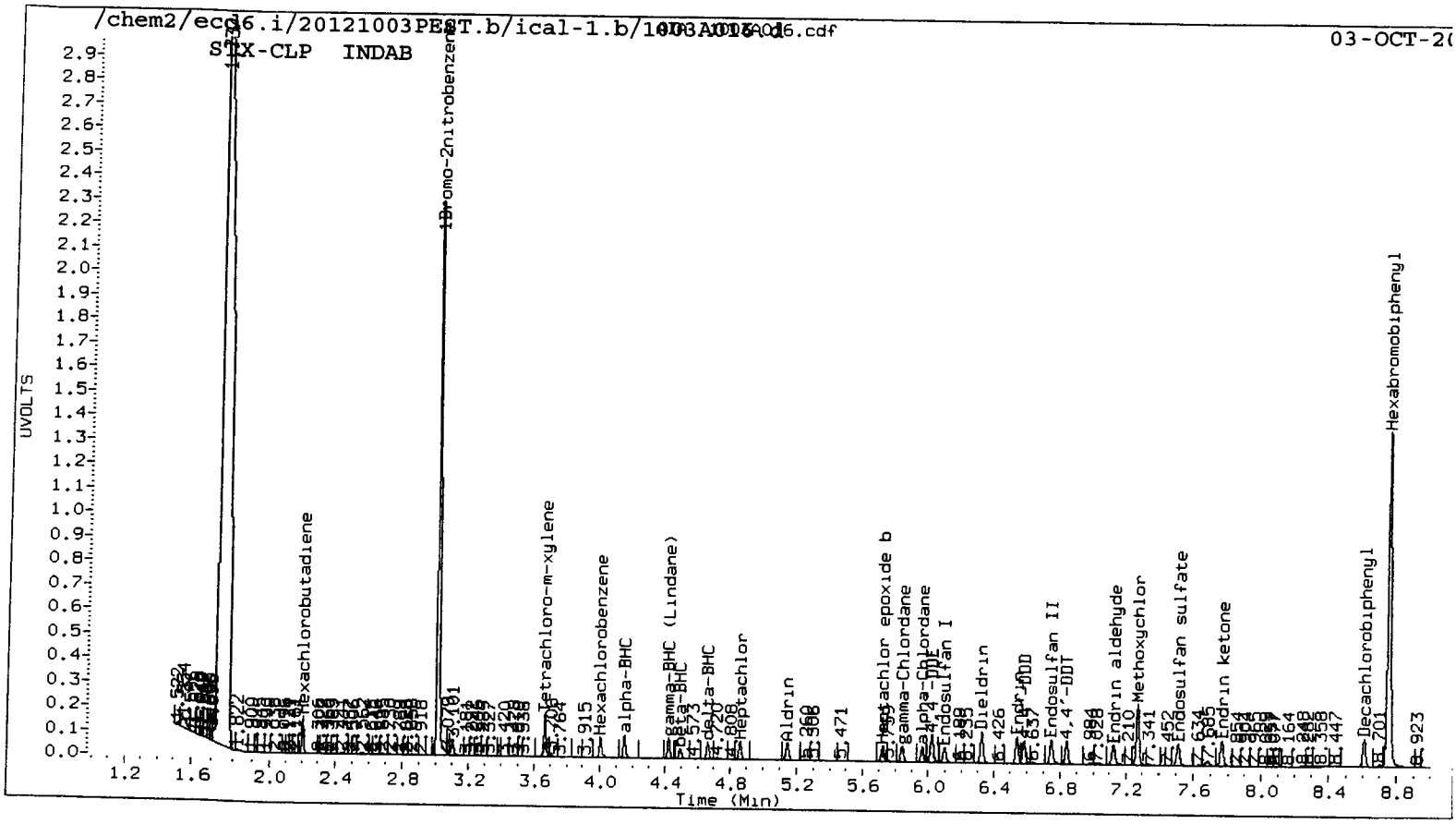
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4090558	0.8
Hexabromobiphenyl	3748709	3771845	0.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21416427	1.8
Hexabromobiphenyl	14864285	15039648	1.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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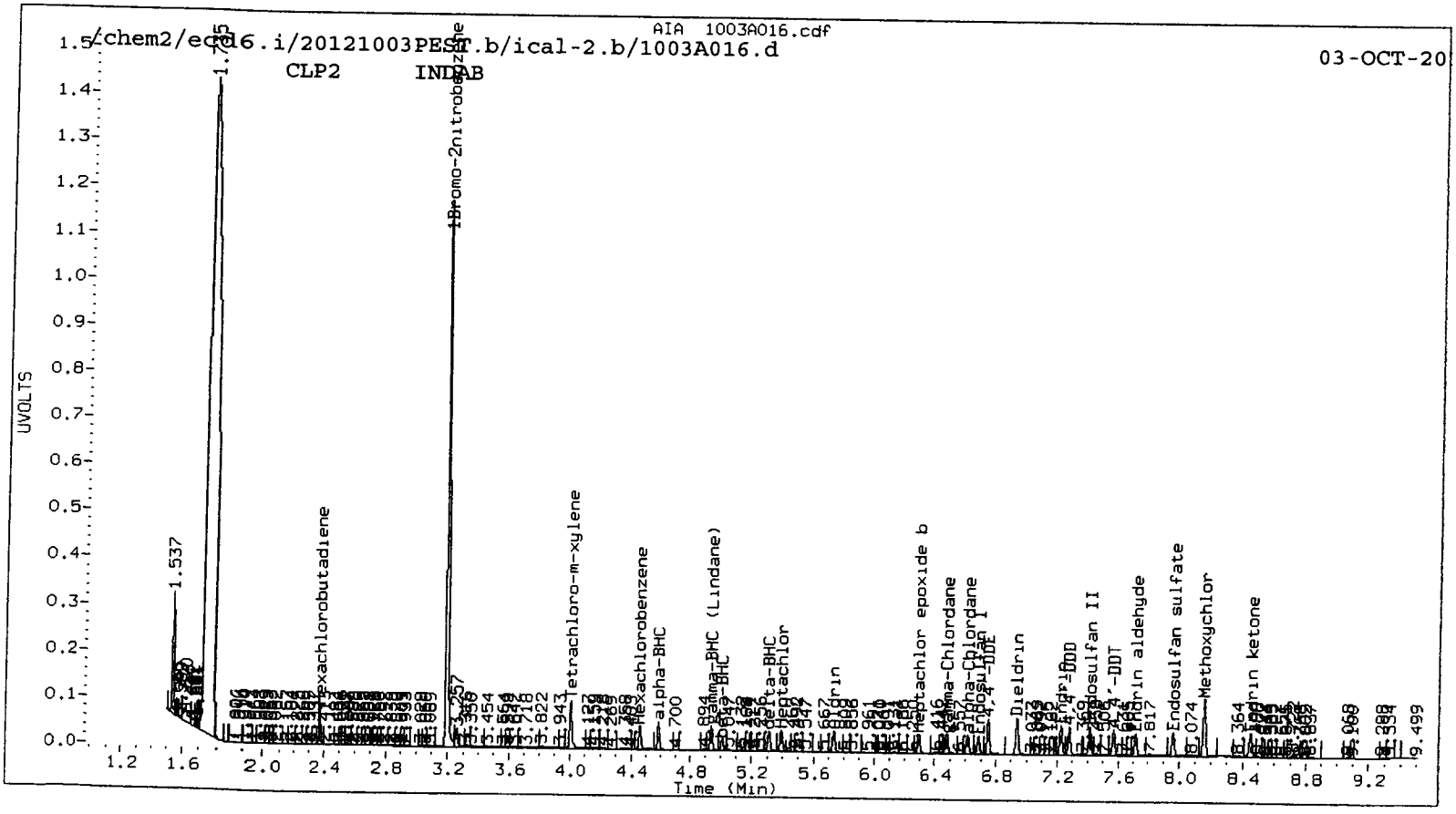
STX-CLP INDAB
UVOLTS
Time (Min)
1.537
1.735
1.822
1.943
2.257
2.454
2.700
2.784
2.915
3.573
3.720
3.808
4.471
5.426
6.634
6.685
7.341
7.452
9.923
Hexachlorobutadiene
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 INDAB
UVOLTS
Time (Min)
1.537
1.735
1.822
1.943
2.257
2.454
2.700
2.784
2.915
3.573
3.720
3.808
4.471
5.426
6.634
6.685
7.341
7.452
9.499
Hexachlorobutadiene
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A017.d ARI ID: INDAC
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A017.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 03-OCT-2012 17:32
Report Date: 10/04/2012 10:59
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.015	0.000	4021073	3.195	0.000	21029129	80.0000	80.0000	0.0	1Bromo-2nitrobenzei
4.146	-0.001	375418	4.584	-0.002	2371492	5.0098	5.1694	3.1	alpha-BHC
4.497	0.000	165087	5.006	-0.001	985656	5.2116	5.3086	1.8	beta-BHC
4.662	0.000	296217	5.313	-0.001	1853943	4.9039	5.0944	3.8	delta-BHC
4.424	0.000	345955	4.936	-0.001	2152238	5.0250	5.1896	3.2	gamma-BHC (Lindane)
4.861	-0.001	317990	5.396	-0.001	2038451	5.0942	5.3686	5.2	Heptachlor
5.147	-0.001	324084	5.734	-0.002	1987702	5.0839	5.3237	4.6	Aldrin
5.722	-0.001	317055	6.292	-0.001	1812761	5.1596	5.3859	4.3	Heptachlor epoxide I
6.098	-0.001	293283	6.679	-0.001	1621321	5.1574	5.3643	3.9	Endosulfan I
6.322	-0.001	610639	6.937	-0.002	3499950	10.3884	10.9464	5.2	Dieldrin
6.026	-0.001	557488	6.744	-0.002	3357060	10.2720	11.0117	7.0	4,4'-DDE
6.539	-0.001	522854	7.227	-0.001	2803750	10.2748	10.8226	5.2	Endrin
6.745	-0.001	510105	7.415	-0.001	2788388	10.3807	10.7679	3.7	Endosulfan II
6.583	-0.001	453913	7.281	-0.002	2613050	10.2155	10.6800	4.4	4,4'-DDD
7.513	0.000	422893	7.959	-0.001	2284803	10.2244	10.4930	2.6	Endosulfan sulfate
6.841	-0.002	452523	7.570	-0.001	2440748	10.1287	10.4828	3.4	4,4'-DDT
7.270	-0.001	1146231	8.155	-0.003	5186781	52.4757	52.2142	0.5	Methoxychlor
7.766	-0.001	493774	8.447	-0.001	2276202	10.2086	10.4649	2.5	Endrin ketone
7.123	0.000	410006	7.714	-0.001	2163872	10.3462	10.6146	2.6	Endrin aldehyde
5.842	-0.001	310794	6.474	-0.002	1853134	5.0865	5.2777	3.7	gamma-Chlordane
5.966	-0.001	301572	6.613	-0.002	1736249	5.1141	5.3035	3.6	alpha-Chlordane
2.209	-0.001	472580	2.376	-0.001	2441459	5.2036	5.3474	2.7	Hexachlorobutadiene
4.001	-0.001	344216	4.457	0.000	2117430	5.2528	5.3637	2.1	Hexachlorobenzene
8.750	0.000	3724289	10.106	0.001	15016060	80.0000	80.0000	0.0	Hexabromobiphenyl
3.669	-0.001	626204	4.006	-0.001	4036246	10.5100	11.0428	4.9	Tetrachloro-m-xylene
8.610	-0.001	523224	9.566	0.000	2426746	10.5122	10.5098	0.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	26.3	27.6	26.3~	115- 0
Decachlorobiphenyl	26.3	26.3	26.3~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

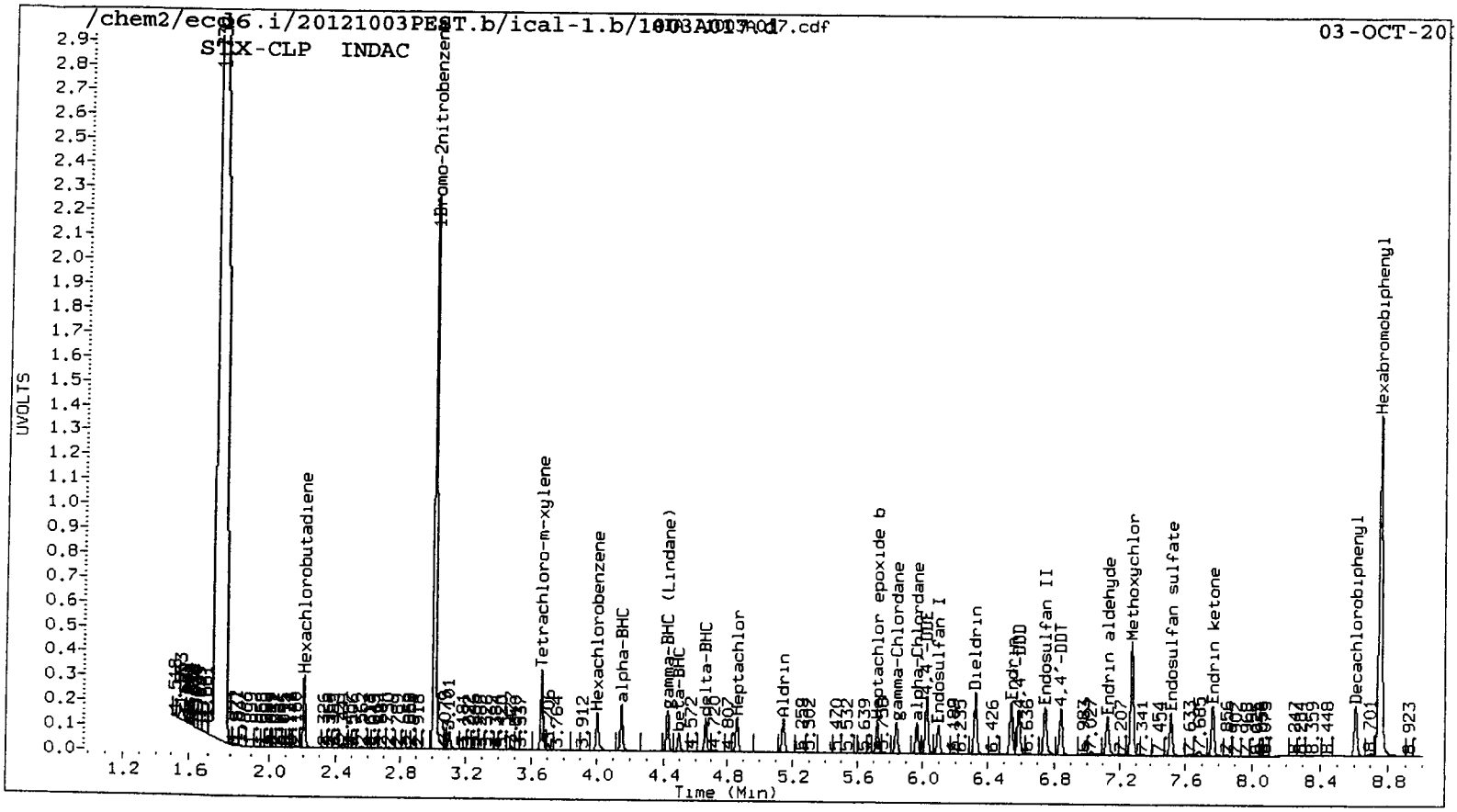
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4021073	-1.0
Hexabromobiphenyl	3748709	3724289	-0.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21029129	0.0
Hexabromobiphenyl	14864285	15016060	1.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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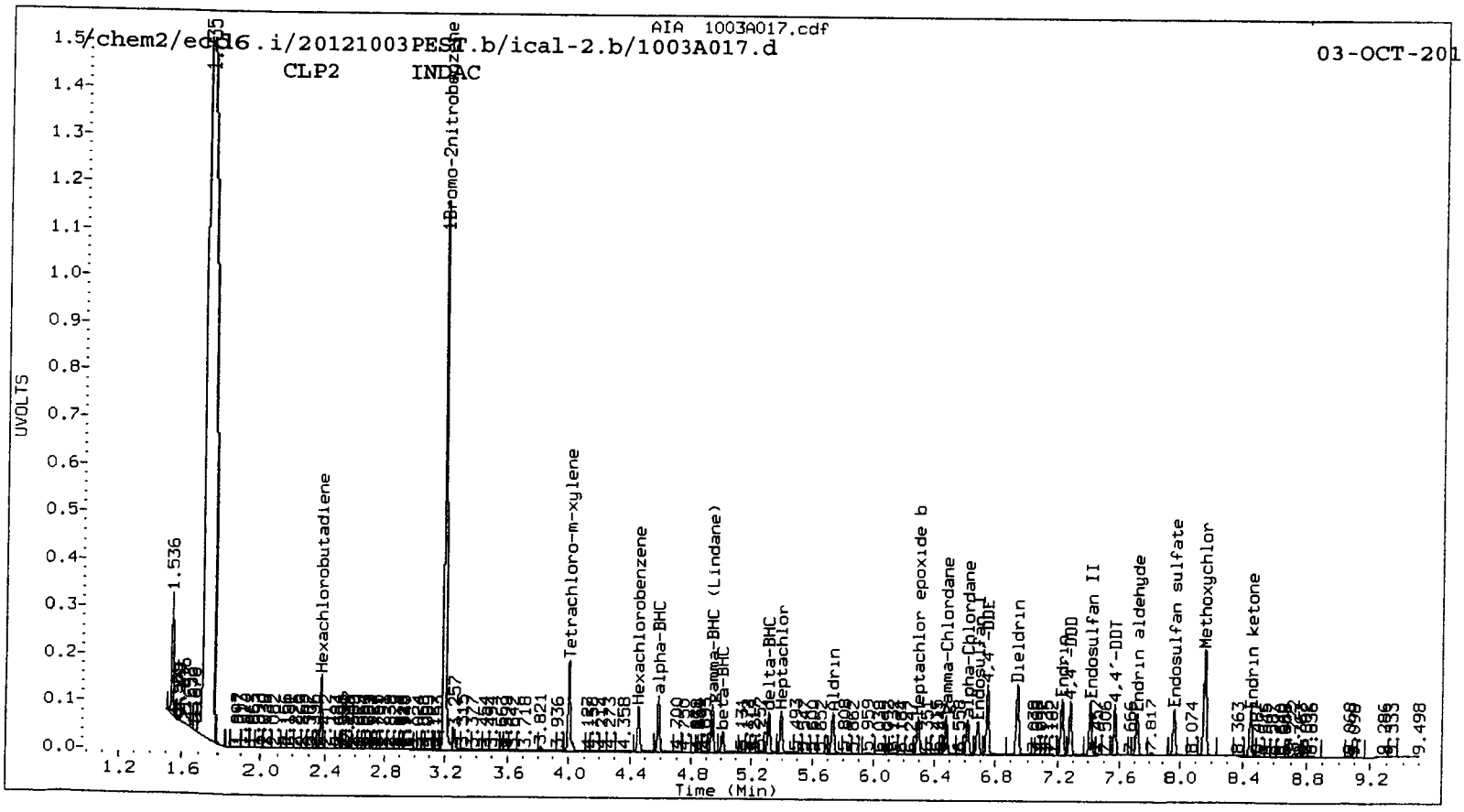
03-OCT-20
STX-CLP INDAC
UVOLTS
Time (Min)
1.536
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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03-OCT-201
CLP2 INDAC
UVOLTS
Time (Min)
1.536
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A018.d ARI ID: INDAD
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A018.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 03-OCT-2012 17:50
Report Date: 10/04/2012 10:59
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.015	0.000	4048036	3.195	0.000	21297295	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.147	-0.001	753043	4.585	-0.001	4731242	9.9821	10.1834	2.0	alpha-BHC
4.497	-0.001	307333	5.007	0.000	1865344	9.6375	9.9199	2.9	beta-BHC
4.663	0.000	601026	5.314	-0.001	3683804	9.8837	9.9952	1.1	delta-BHC
4.424	0.000	686414	4.936	0.000	4256403	9.9037	10.1341	2.3	gamma-BHC (Lindane)
4.861	-0.001	619072	5.397	0.000	3945231	9.8515	10.2595	4.1	Heptachlor
5.148	-0.001	632975	5.735	-0.001	3894113	9.8634	10.2984	4.3	Aldrin
5.722	-0.001	606961	6.293	0.000	3472997	9.8117	10.1886	3.8	Heptachlor epoxide b
6.099	0.000	562379	6.679	-0.001	3122784	9.8237	10.2019	3.8	Endosulfan I
6.322	0.000	1186002	6.938	-0.001	6677897	20.0422	20.6228	2.9	Dieldrin
6.027	-0.001	1096331	6.744	-0.001	6393429	20.0658	20.7074	3.1	4,4'-DDE
6.540	0.000	1028622	7.228	0.000	5354567	19.9045	20.4200	2.6	Endrin
6.745	-0.001	985564	7.416	0.000	5310240	19.7496	20.2597	2.6	Endosulfan II
6.583	-0.001	895847	7.282	-0.001	5068029	19.8529	20.4646	3.0	4,4'-DDD
7.514	0.000	830963	7.959	-0.001	4475850	19.7831	20.3080	2.6	Endosulfan sulfate
6.841	-0.001	898651	7.571	0.000	4783044	19.8066	20.2954	2.4	4,4'-DDT
7.271	0.000	2153053	8.156	-0.003	9446850	97.0609	93.9546	3.3	Methoxychlor
7.767	0.000	953680	8.448	-0.001	4379362	19.4154	19.8918	2.4	Endrin ketone
7.124	0.000	789175	7.715	0.000	4155941	19.6096	20.1410	2.7	Endrin aldehyde
5.842	0.000	600154	6.475	-0.001	3566810	9.7568	10.0304	2.8	gamma-Chlordane
5.966	-0.001	579953	6.614	-0.001	3344571	9.7694	10.0876	3.2	alpha-Chlordane
2.210	0.000	892276	2.376	-0.001	4593851	9.7594	9.9350	1.8	Hexachlorobutadiene
4.001	-0.001	639325	4.458	0.000	3975246	9.6912	9.9430	2.6	Hexachlorobenzene
8.750	0.000	3782157	10.107	0.001	15199043	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	-0.001	1187501	4.007	-0.001	7484963	19.7978	20.2203	2.1	Tetrachloro-m-xylene
8.611	0.000	964936	9.566	0.000	4522605	19.0901	19.3509	1.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower Limits	
Tetrachloro-m-xylene	49.5	50.6	49.5~	115- 0
Decachlorobiphenyl	47.7	48.4	47.7~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

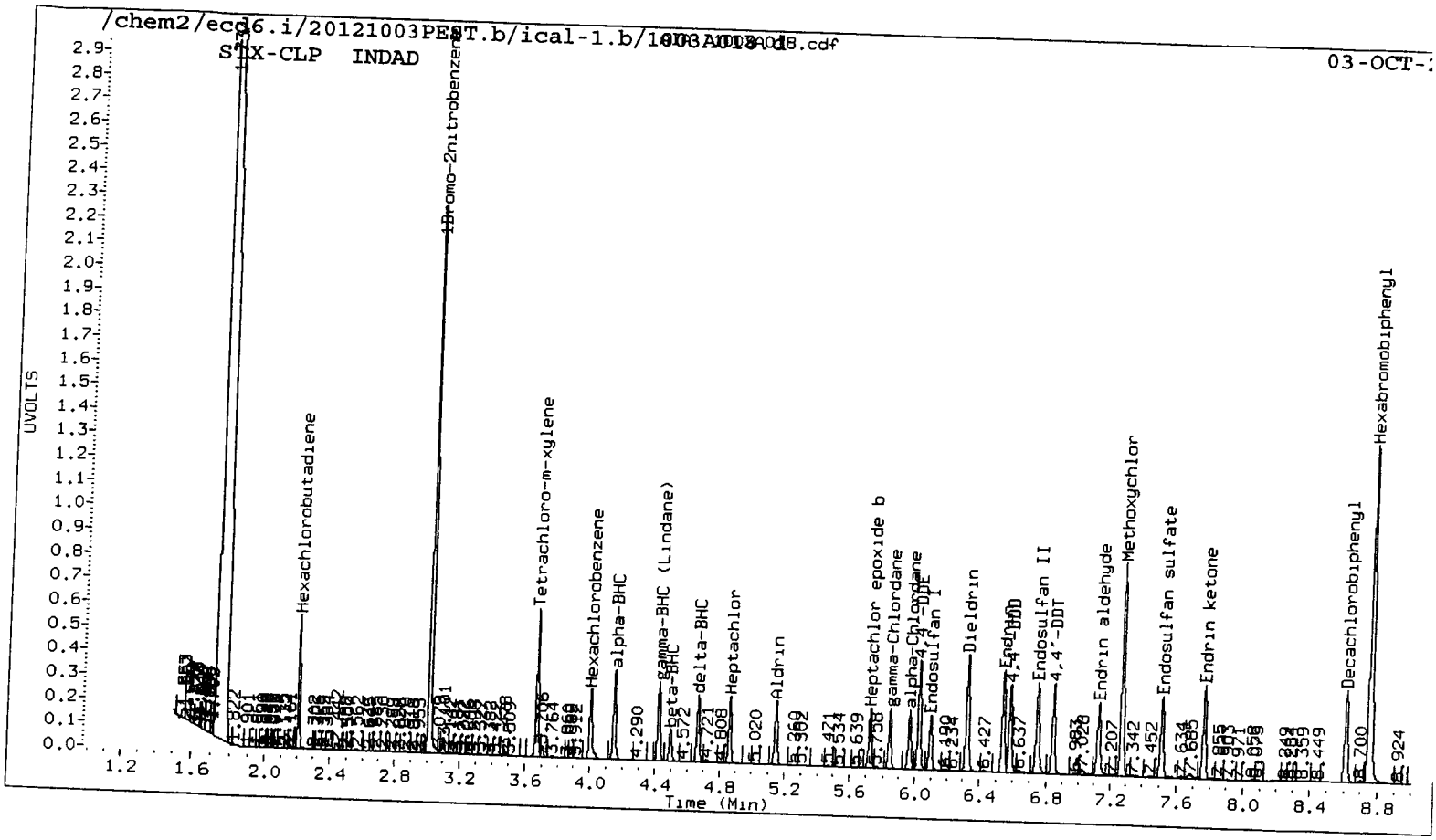
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4048036	-0.3
Hexabromobiphenyl	3748709	3782157	0.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21297295	1.3
Hexabromobiphenyl	14864285	15199043	2.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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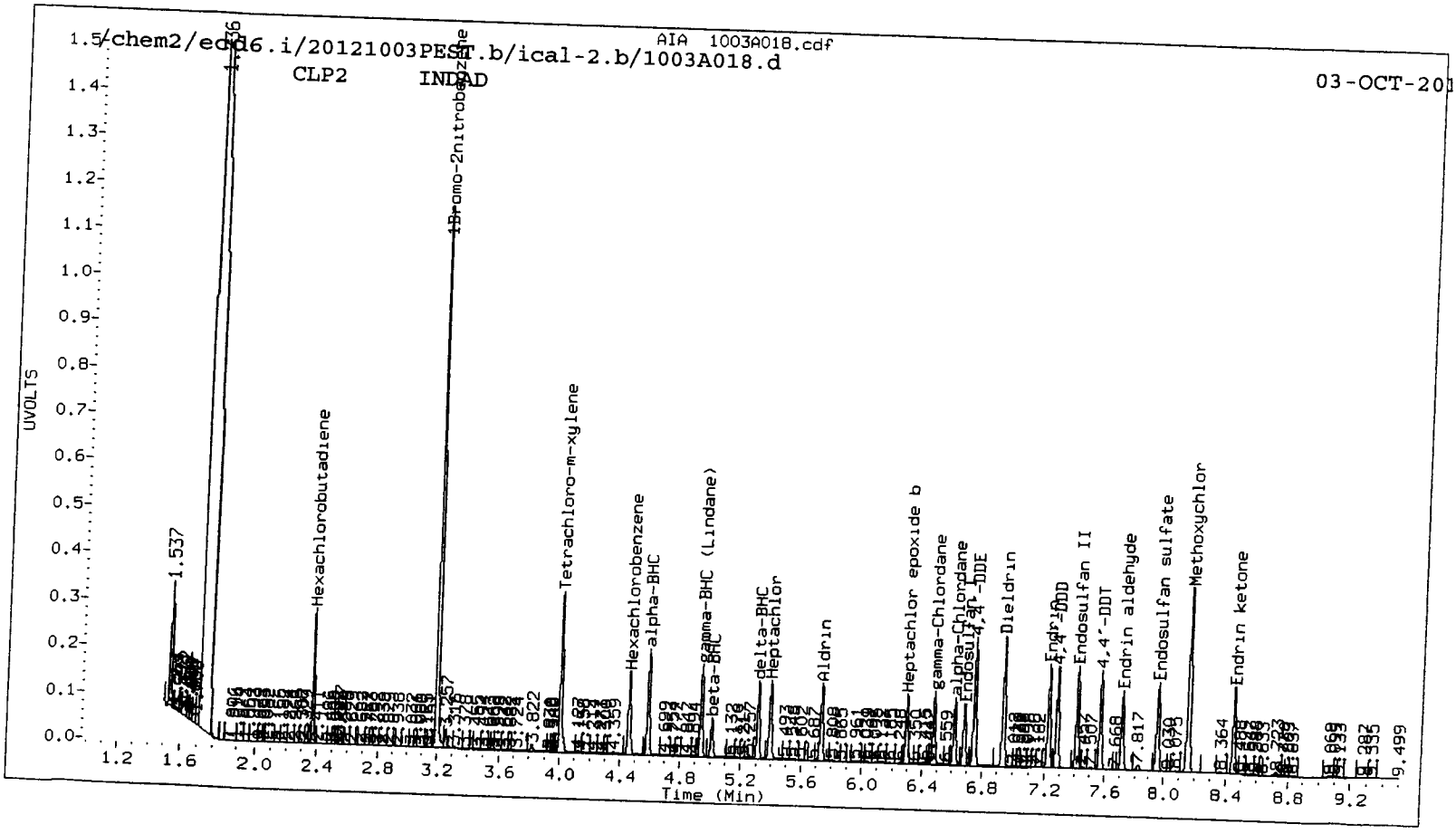
03-OCT-
UVOLTS
Time (Min)
1-Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 INDAD
03-OCT-20
UVOLTS
Time (Min)
1.537
1-Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A019.d ARI ID: INDAF
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A019.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 03-OCT-2012 18:08
Report Date: 10/04/2012 10:59
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.015	0.000	4083237	3.195	0.000	21266311	80.0000	80.0000	0.0	1Bromo-2nitrobenzer
4.147	-0.001	3043309	4.584	-0.001	18332619	39.9932	39.5161	1.2	alpha-BHC
4.497	-0.001	1148351	5.006	-0.001	6937835	35.7002	36.9493	3.4	beta-BHC
4.662	0.000	2482953	5.314	-0.001	14827162	40.4795	40.2888	0.5	delta-BHC
4.424	0.000	2742105	4.936	0.000	16284513	39.2225	38.8286	1.0	gamma-BHC (Lindane)
4.861	-0.001	2392248	5.396	-0.001	13998475	37.7405	36.4559	3.5	Heptachlor
5.148	-0.001	2459585	5.735	0.000	14079333	37.9963	37.2886	1.9	Aldrin
5.722	-0.001	2276278	6.292	-0.001	12162441	36.4794	35.7326	2.1	Heptachlor epoxide
6.098	-0.001	2112972	6.679	-0.001	11126423	36.5913	36.4023	0.5	Endosulfan I
6.322	-0.001	4466945	6.937	-0.002	22775652	74.8361	70.4386	6.1	Dieldrin
6.026	-0.001	4195148	6.744	-0.002	21607101	76.1207	70.0844	8.3	4,4'-DDE
6.539	-0.001	3902111	7.227	-0.001	18268145	74.6489	68.7251	8.3	Endrin
6.745	-0.001	3685750	7.416	-0.001	18535218	73.0175	69.7600	4.6	Endosulfan II
6.583	-0.001	3437840	7.282	-0.001	18004957	75.3189	71.7209	4.9	4,4'-DDD
7.513	-0.001	3161471	7.959	-0.001	16231153	74.4097	72.6492	2.4	Endosulfan sulfate
6.841	-0.001	3535041	7.570	-0.001	17615590	77.0267	73.7363	4.4	4,4'-DDT
7.270	-0.001	7835237	8.156	-0.003	31786309	349.1966	311.8609	11.3	Methoxychlor
7.766	0.000	3602102	8.447	-0.002	15829007	72.4983	70.9261	2.2	Endrin ketone
7.123	-0.001	2930013	7.714	-0.001	14712763	71.9769	70.3388	2.3	Endrin aldehyde
5.842	-0.001	2311547	6.475	-0.001	13020726	37.2551	36.6695	1.6	gamma-Chlordane
5.966	-0.001	2215001	6.613	-0.002	12197419	36.9902	36.8425	0.4	alpha-Chlordane
2.210	0.000	3353279	2.377	0.000	16533462	36.3607	35.8087	1.5	Hexachlorobutadiene
4.001	-0.001	2311938	4.457	0.000	14013718	34.7434	35.1025	1.0	Hexachlorobenzene
8.750	0.000	3825703	10.106	0.000	15407292	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	4370852	4.007	-0.001	24864526	72.2419	67.2684	7.1	Tetrachloro-m-xyler
8.610	-0.001	3423358	9.565	-0.001	16108381	66.9562	67.9913	1.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	180.6	168.2	168.2~	115- 0
Decachlorobiphenyl	167.4	170.0	167.4~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

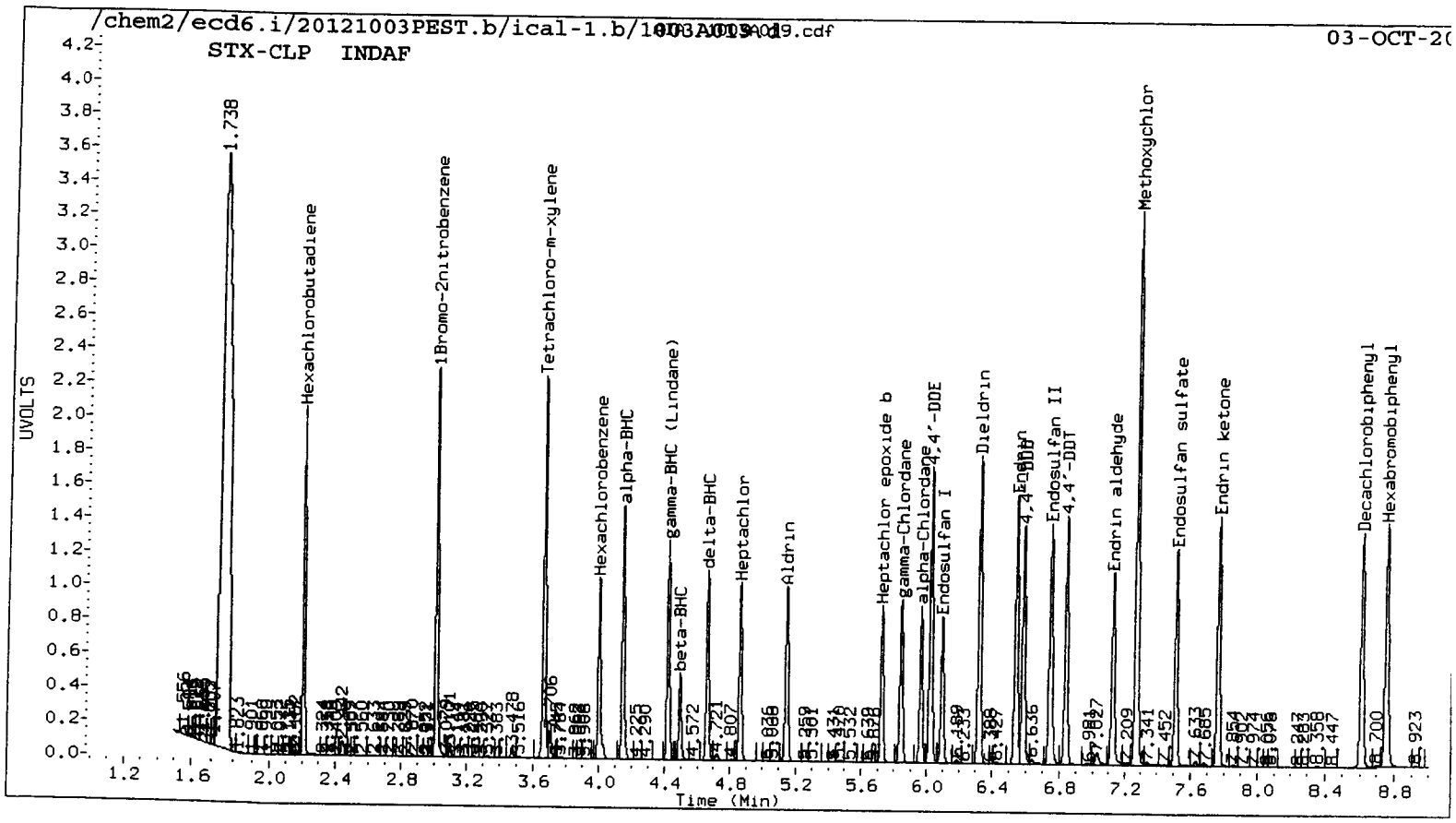
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4083237	0.6
Hexabromobiphenyl	3748709	3825703	2.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21266311	1.1
Hexabromobiphenyl	14864285	15407292	3.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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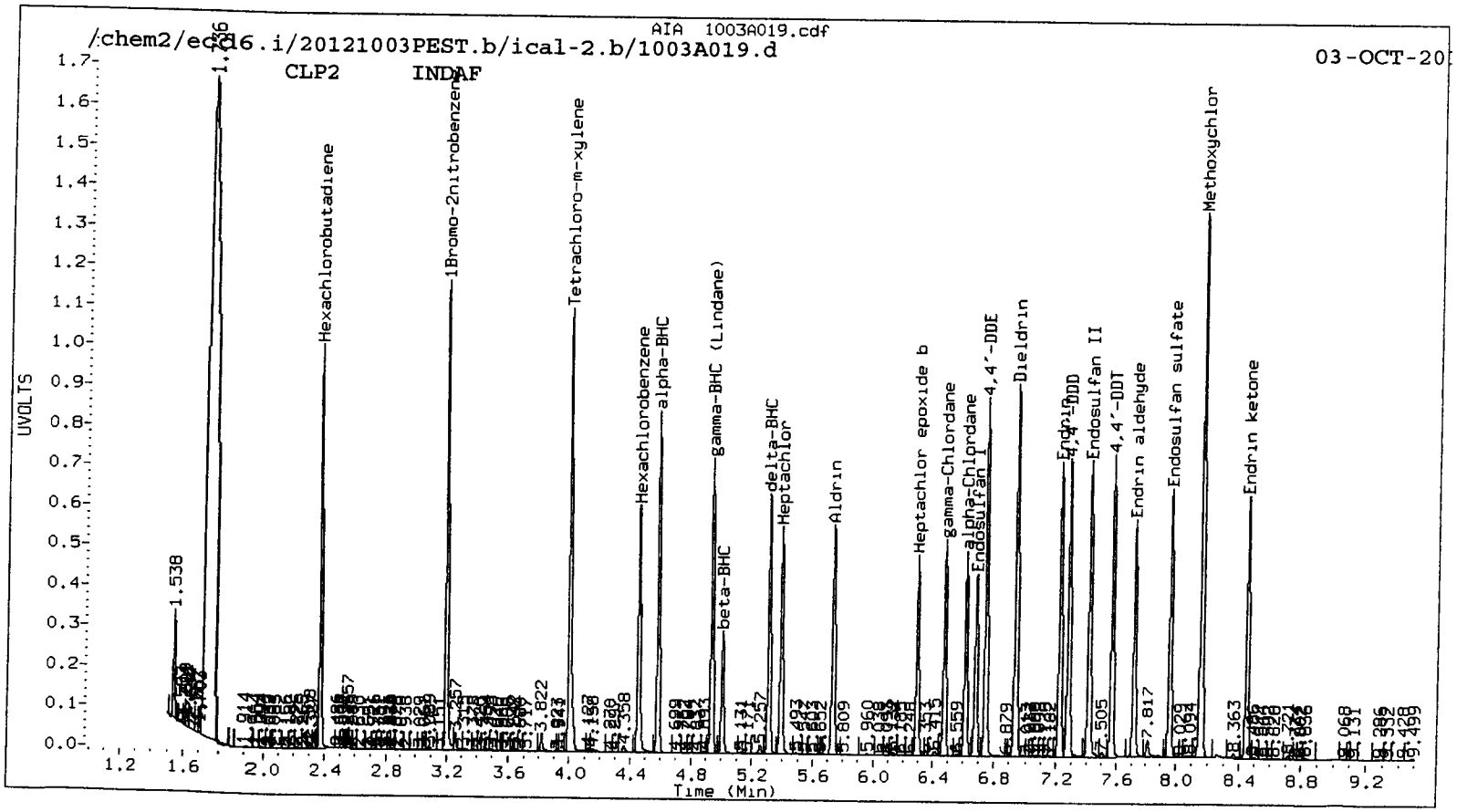
1003A019.cdf
03-OCT-20
STX-CLP INDAF
UVOLTS
Time (Min)
1.738
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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03-OCT-20
CLP2 INDAF
UVOLTS
Time (Min)
1.538
1.736
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A020.d ARI ID: INDAG
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A020.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 18:26
Compound Sublist: INDA Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.015	0.000	4094375	3.195	0.000	21395806	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.147	0.000	6223208	4.585	0.000	36585525	81.5589	78.3830	4.0	alpha-BHC
4.497	0.000	2279688	5.007	0.000	13424435	70.6786	71.0627	0.5	beta-BHC
4.663	0.000	5108787	5.314	0.000	29685366	83.0618	80.1738	3.5	delta-BHC
4.424	0.000	5579992	4.937	0.000	31900211	79.5978	75.6021	5.1	gamma-BHC (Lindane)
4.862	0.000	4765732	5.397	0.000	25938815	74.9804	67.1430	11.0	Heptachlor
5.149	0.000	4904752	5.736	0.000	26129016	75.5637	68.7830	9.4	Aldrin
5.723	0.000	4456552	6.293	0.000	22445619	71.2260	65.5449	8.3	Heptachlor epoxide
6.099	0.000	4158031	6.680	0.000	20631522	71.8106	67.0916	6.8	Endosulfan I
6.322	0.000	8804565	6.939	0.000	42534449	147.1044	130.7507	11.8	Dieldrin
6.027	0.000	8316867	6.745	0.000	39831881	150.4984	128.4161	15.8	4,4'-DDE
6.540	0.000	7740338	7.228	0.000	34059169	149.6120	129.3858	14.5	Endrin
6.746	0.000	7233710	7.416	0.000	34895917	144.7922	132.6219	8.8	Endosulfan II
6.584	0.000	6824279	7.283	0.000	34056690	151.0629	136.9897	9.8	4,4'-DDD
7.514	0.000	6260618	7.960	0.000	31062282	148.8814	140.3934	5.9	Endosulfan sulfate
6.842	0.000	7063105	7.571	0.000	33916089	155.4983	143.3578	8.1	4,4'-DDT
7.271	0.000	15696181	8.158	0.000	57718760	706.7971	571.8336	21.1	Methoxychlor
7.766	0.000	7227390	8.449	0.000	30883210	146.9726	139.7356	5.0	Endrin ketone
7.123	0.000	5778071	7.715	0.000	27776354	143.4133	134.0935	6.7	Endrin aldehyde
5.842	0.000	4640873	6.476	0.000	24653279	74.5932	69.0094	7.8	gamma-Chlordane
5.967	0.000	4412614	6.615	0.000	23124370	73.4896	69.4248	5.7	alpha-Chlordane
2.210	0.000	6701087	2.377	0.000	32243507	72.4645	69.4113	4.3	Hexachlorobutadiene
4.002	0.000	4586041	4.458	0.000	26556350	68.7307	66.1175	3.9	Hexachlorobenzene
8.750	0.000	3786416	10.107	0.001	15257890	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	8627475	4.008	0.000	46807054	142.2079	125.8652	12.2	Tetrachloro-m-xyle
8.610	0.000	6651608	9.566	0.000	31112739	131.4463	132.6085	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	355.5	314.7	314.7~	115- 0
Decachlorobiphenyl	328.6	331.5	328.6~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

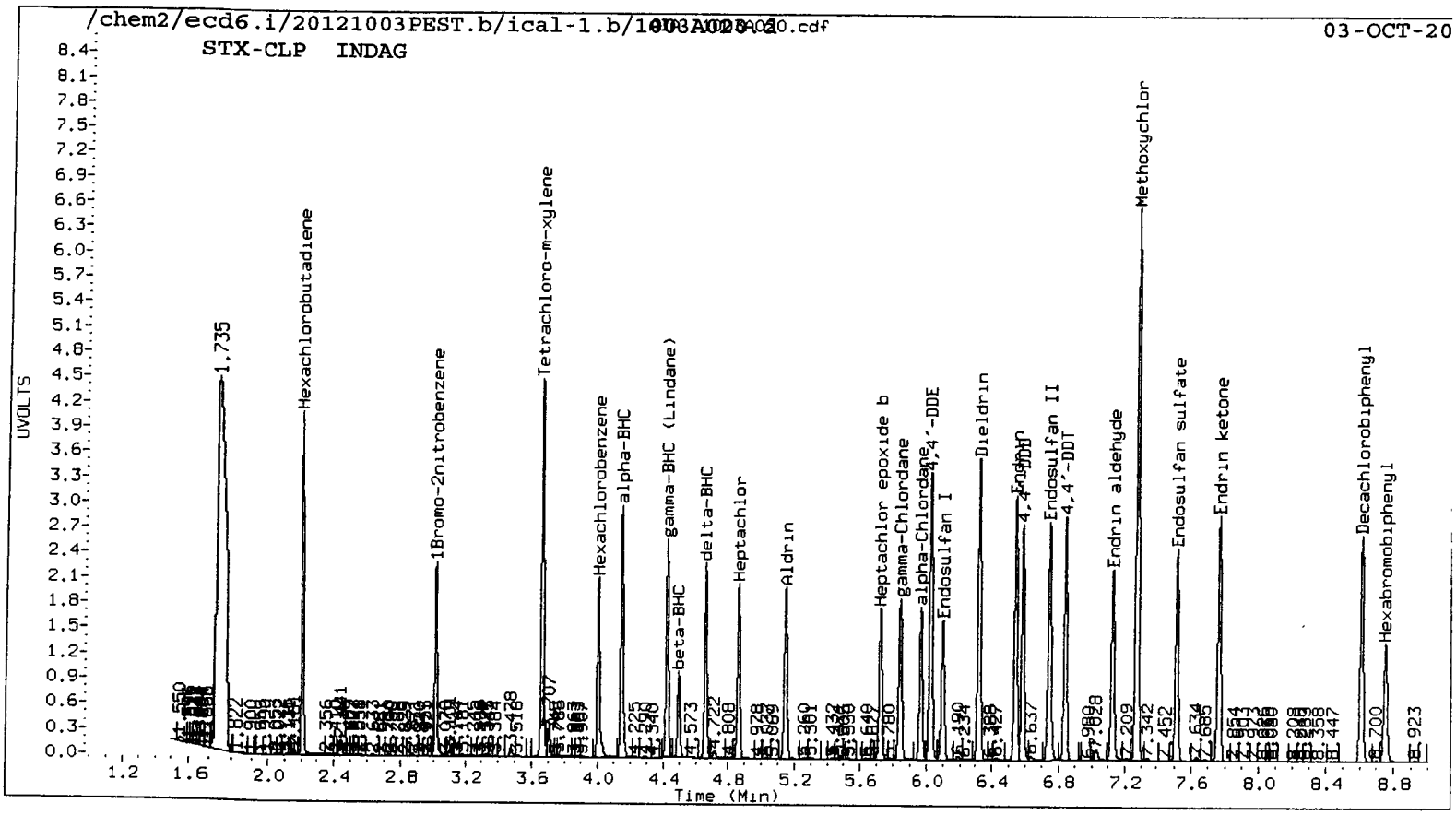
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4094375	0.8
Hexabromobiphenyl	3748709	3786416	1.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21395806	1.7
Hexabromobiphenyl	14864285	15257890	2.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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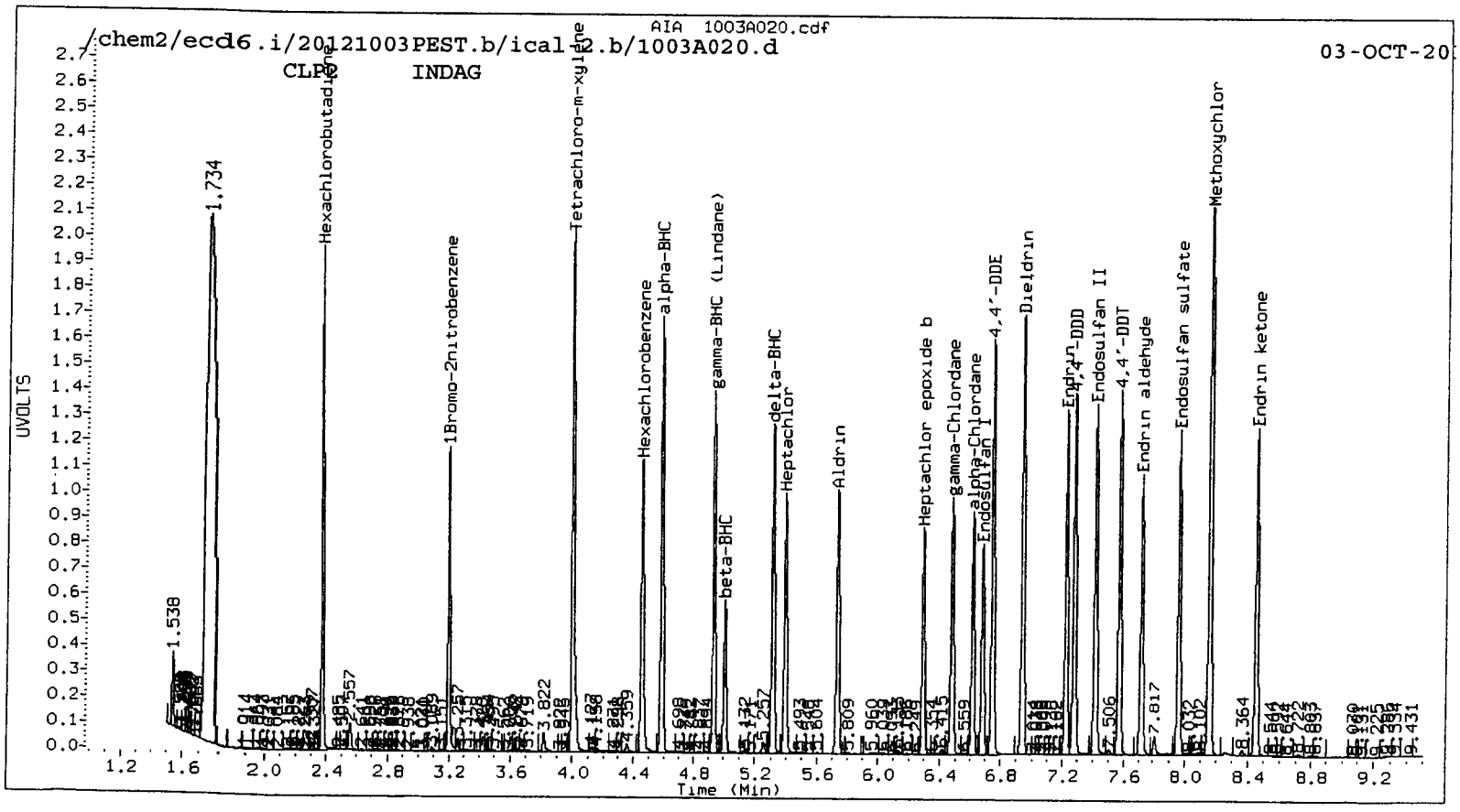
03-OCT-20
STX-CLP INDAG
UVOLTS
Time (Min)
1.735
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 1003A020.cdf
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03-OCT-20
CLP INDAG
UVOLTS
Time (Min)
1.538
1.734
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A023.d ARI ID: WNDE
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A023.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 19:19
Compound Sublist: WND Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.0000	0.0000	---	Hexachloroethane
3.015	0.000	4208844	3.195	0.000	22225166	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.627	0.000	1875340	6.203	0.001	10778662	38.1904	38.0313	0.4	Oxychlordane
5.704	0.000	1391551	6.454	0.000	7514802	38.5558	36.6646	5.0	2,4-DDE
5.951	0.000	2248854	6.560	0.000	12647727	38.4519	38.1173	0.9	trans-Nonachlor
6.191	0.001	1224989	6.939	0.000	6735117	37.8878	37.6828	0.5	2,4-DDD
6.429	0.000	1389976	7.227	0.000	7359721	37.9783	37.7443	0.6	2,4-DDT
6.567	0.000	2407444	7.286	0.000	13148364	38.8613	37.8988	2.5	cis-Nonachlor
7.437	0.000	1505103	8.433	0.000	6870727	36.4998	35.8190	1.9	Mirex
8.750	0.000	3949210	10.105	0.000	15958085	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	2032471	4.007	-0.001	12490067	32.5904	32.3328	0.8	Tetrachloro-m-xylen
8.610	-0.001	1622558	9.565	-0.001	7671404	30.7426	31.2624	1.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	81.5	80.8	80.8~	150- 0
Decachlorobiphenyl	76.9	78.2	76.9~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

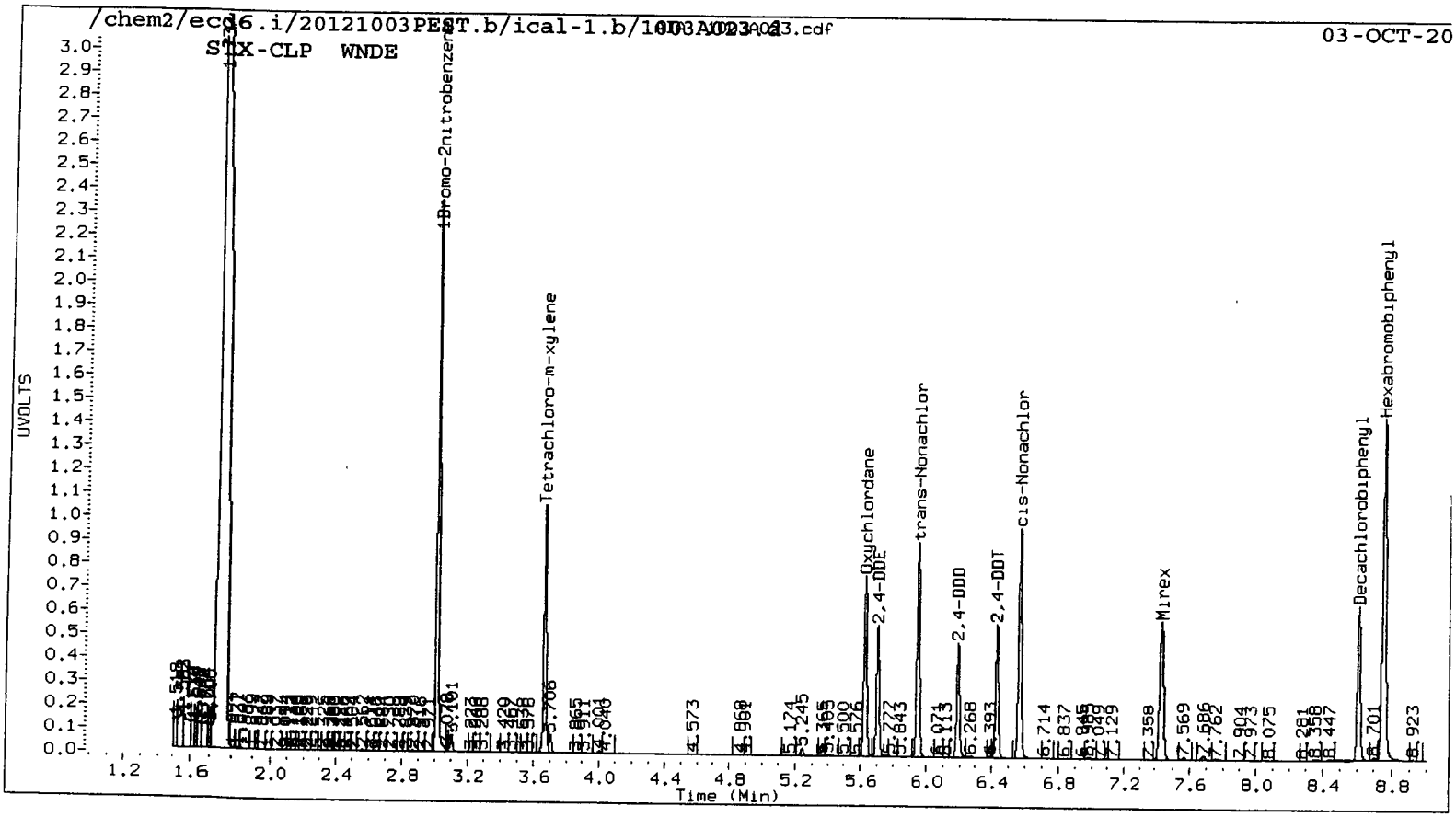
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4208844	3.7
Hexabromobiphenyl	3748709	3949210	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	22225166	5.7
Hexabromobiphenyl	14864285	15958085	7.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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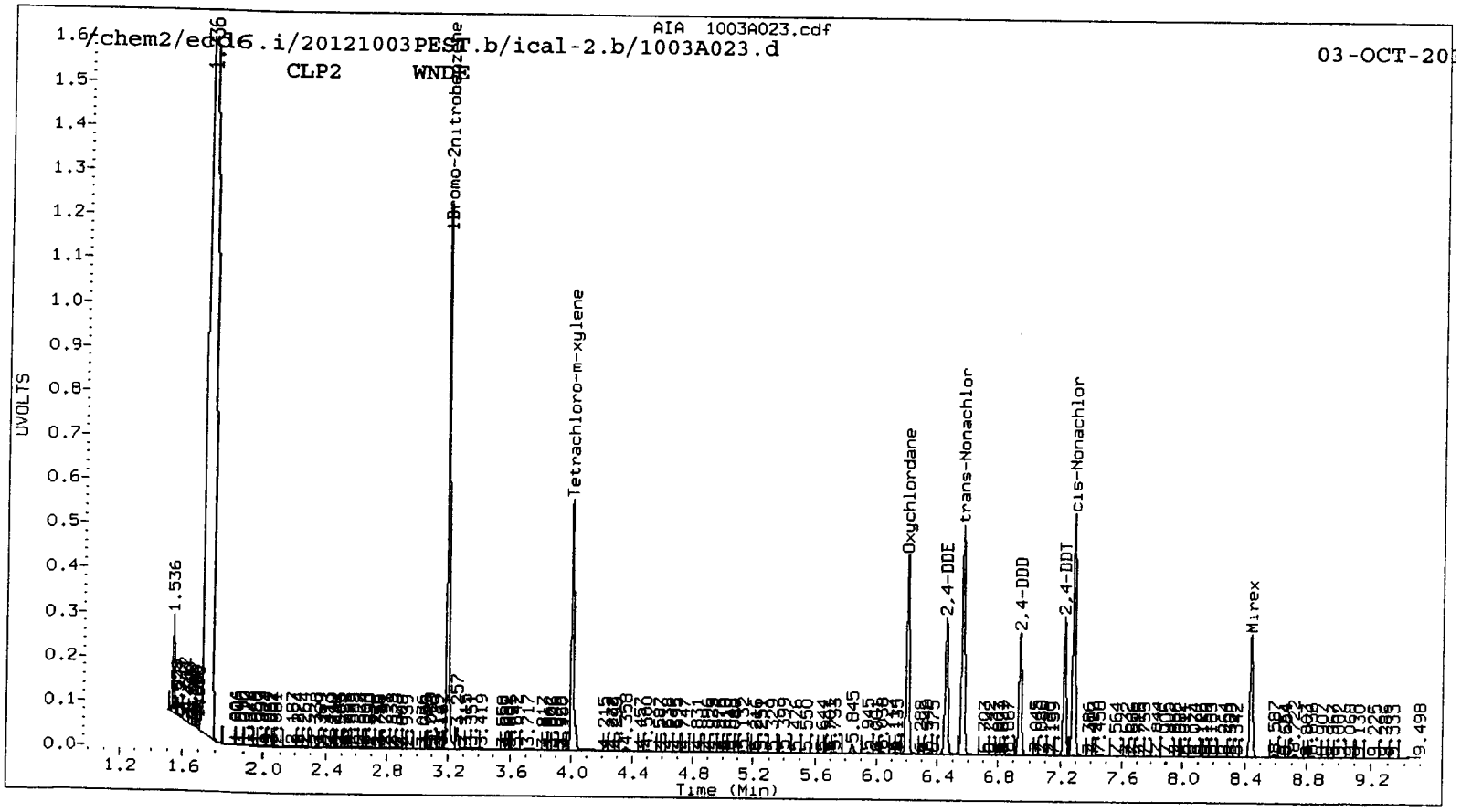
STX-CLP WNDE
03-OCT-20
UVOLTS
Time (Min)
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 WNDE
03-OCT-20
UVOLTS
Time (Min)
1.536
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A024.d ARI ID: WNDA
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A024.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 19:37
Compound Sublist: WND Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.0000	0.0000	---	Hexachloroethane
3.015	0.000	3929689	3.195	0.000	20878006	80.0000	80.0000	0.0	1Bromo-2nitrobenzei
5.627	0.000	138855	6.202	0.000	800932	3.0348	3.0083	0.9	Oxychlordane
5.704	0.000	101301	6.453	-0.001	639055	3.0123	3.3191	9.7	2,4-DDE
5.951	0.000	160701	6.560	-0.001	927576	2.9490	3.0133	2.2	trans-Nonachlor
6.191	0.001	92191	6.939	0.000	525330	3.0602	3.1682	3.5	2,4-DDD
6.429	0.000	102796	7.227	0.000	560760	3.0144	3.0999	2.8	2,4-DDT
6.567	0.000	166656	7.286	0.000	970320	2.8872	3.0147	4.3	cis-Nonachlor
7.437	0.000	125697	8.433	0.000	589624	3.2715	3.3134	1.3	Mirex
8.750	0.000	3679733	10.106	0.000	14804646	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	147970	4.007	-0.001	963502	2.5412	2.6551	4.4	Tetrachloro-m-xylene
8.610	0.000	147100	9.565	-0.001	634421	2.9912	2.7868	7.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	6.4	6.6	6.4~	150- 0
Decachlorobiphenyl	7.5	7.0	7.0~	150- 0

~ Indicates recovery outside QC Limits

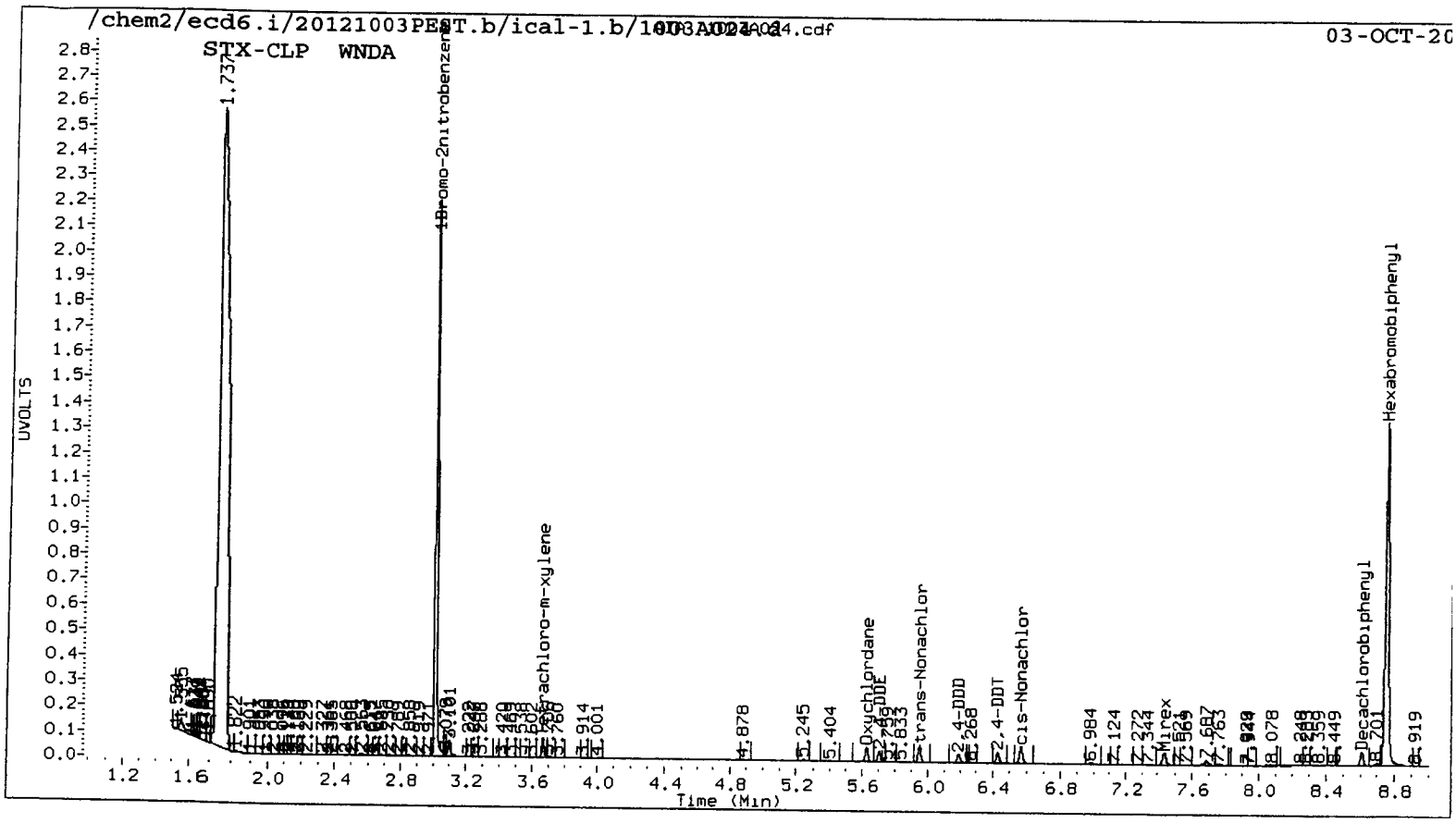
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	4060064	3929689	-3.2
Hexabromobiphenyl	3748709	3679733	-1.8

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	21032891	20878006	-0.7
Hexabromobiphenyl	14864285	14804646	-0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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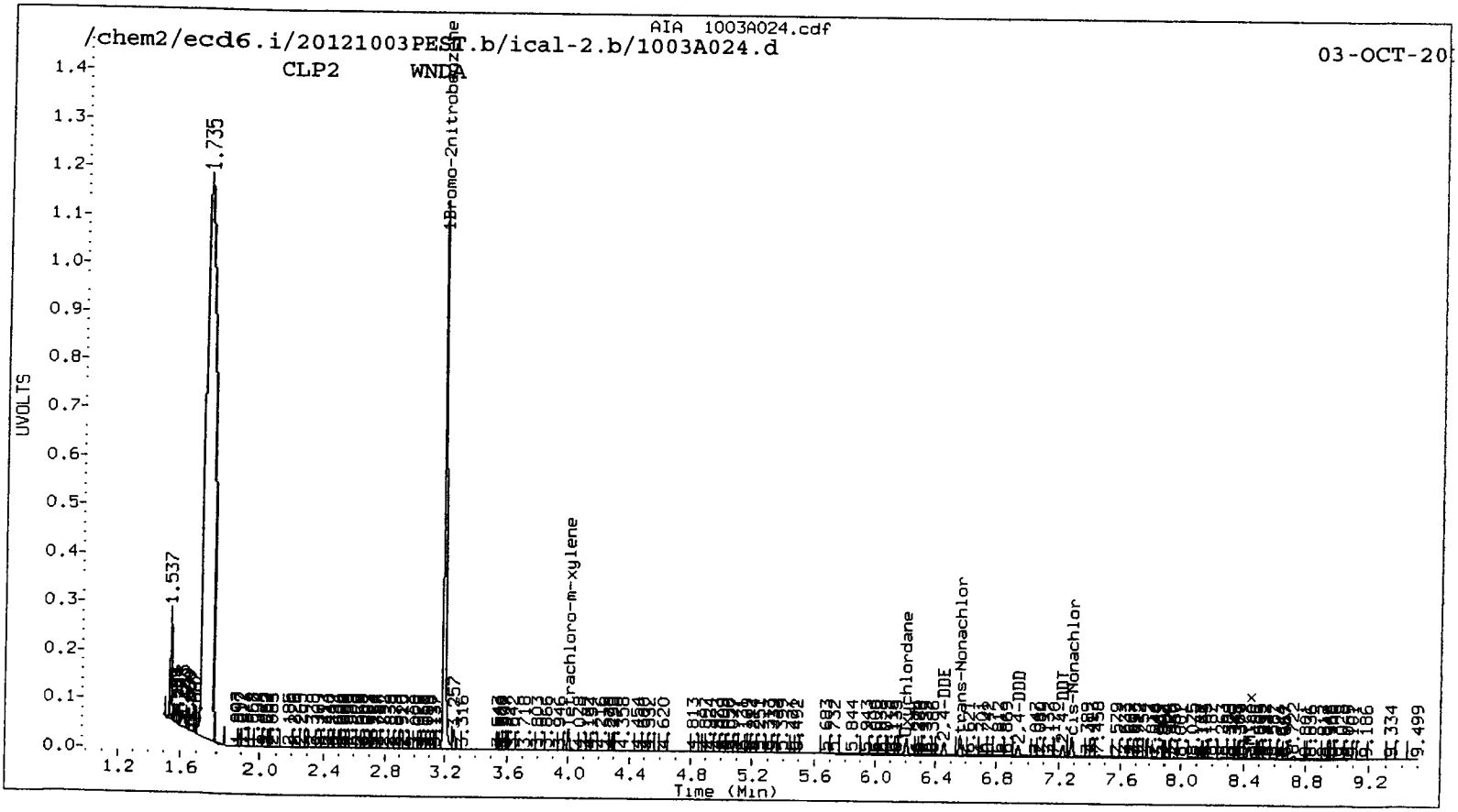
STX-CLP WNDA
03-OCT-20
1.737
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)


AIA 1003A024.cdf
/chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A024.d
CLP2 WNDA
03-OCT-20
1.735
1.537
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A025.d ARI ID: WNDB
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A025.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 19:55
Compound Sublist: WND Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.0000	0.0000	---	Hexachloroethane
3.015	0.000	4316718	3.195	0.000	22757667	80.0000	80.0000	0.0	1Bromo-2nitrobenzer
5.627	0.000	260671	6.203	0.000	1557587	5.2224	5.3672	2.7	Oxychlordane
5.704	0.001	190617	6.453	0.000	1187579	5.1958	5.6586	8.5	2,4-DDE
5.951	0.000	306991	6.560	-0.001	1806081	5.1640	5.3223	3.0	trans-Nonachlor
6.191	0.001	173722	6.939	0.001	999286	5.2860	5.4669	3.4	2,4-DDD
6.429	0.000	195046	7.227	0.000	1074427	5.2429	5.3879	2.7	2,4-DDT
6.567	0.000	319064	7.286	0.000	1880730	5.0669	5.3007	4.5	cis-Nonachlor
7.437	0.000	226889	8.433	0.000	1079584	5.4130	5.5032	1.7	Mirex
8.750	0.000	4014283	10.106	0.000	16320408	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	-0.001	278019	4.007	-0.001	1859583	4.3466	4.7012	7.8	Tetrachloro-m-xylene
8.610	0.000	254923	9.565	-0.001	1167913	4.7517	4.6538	2.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	10.9	11.8	10.9~	150- 0
Decachlorobiphenyl	11.9	11.6	11.6~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

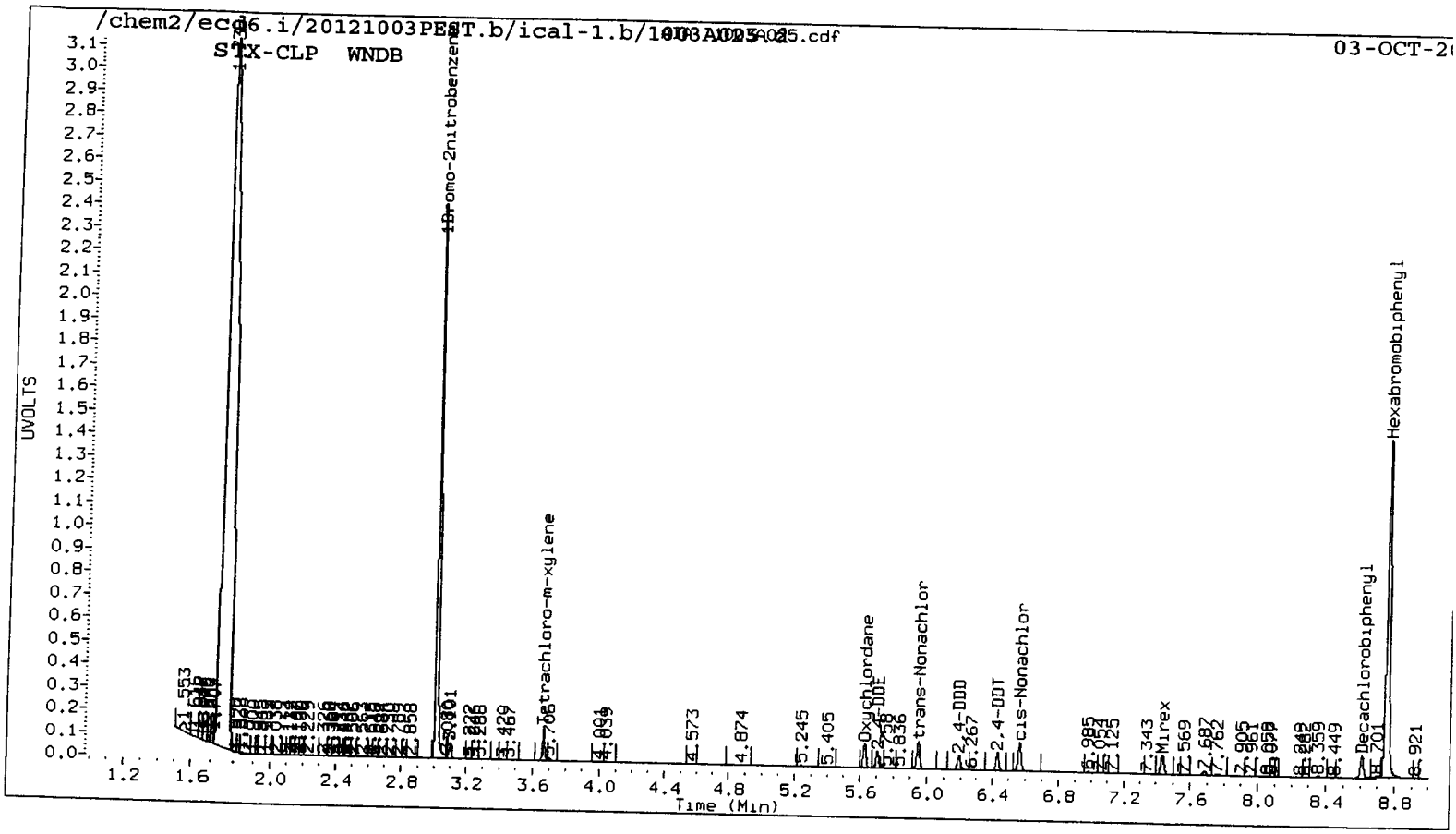
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4316718	6.3
Hexabromobiphenyl	3748709	4014283	7.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	22757667	8.2
Hexabromobiphenyl	14864285	16320408	9.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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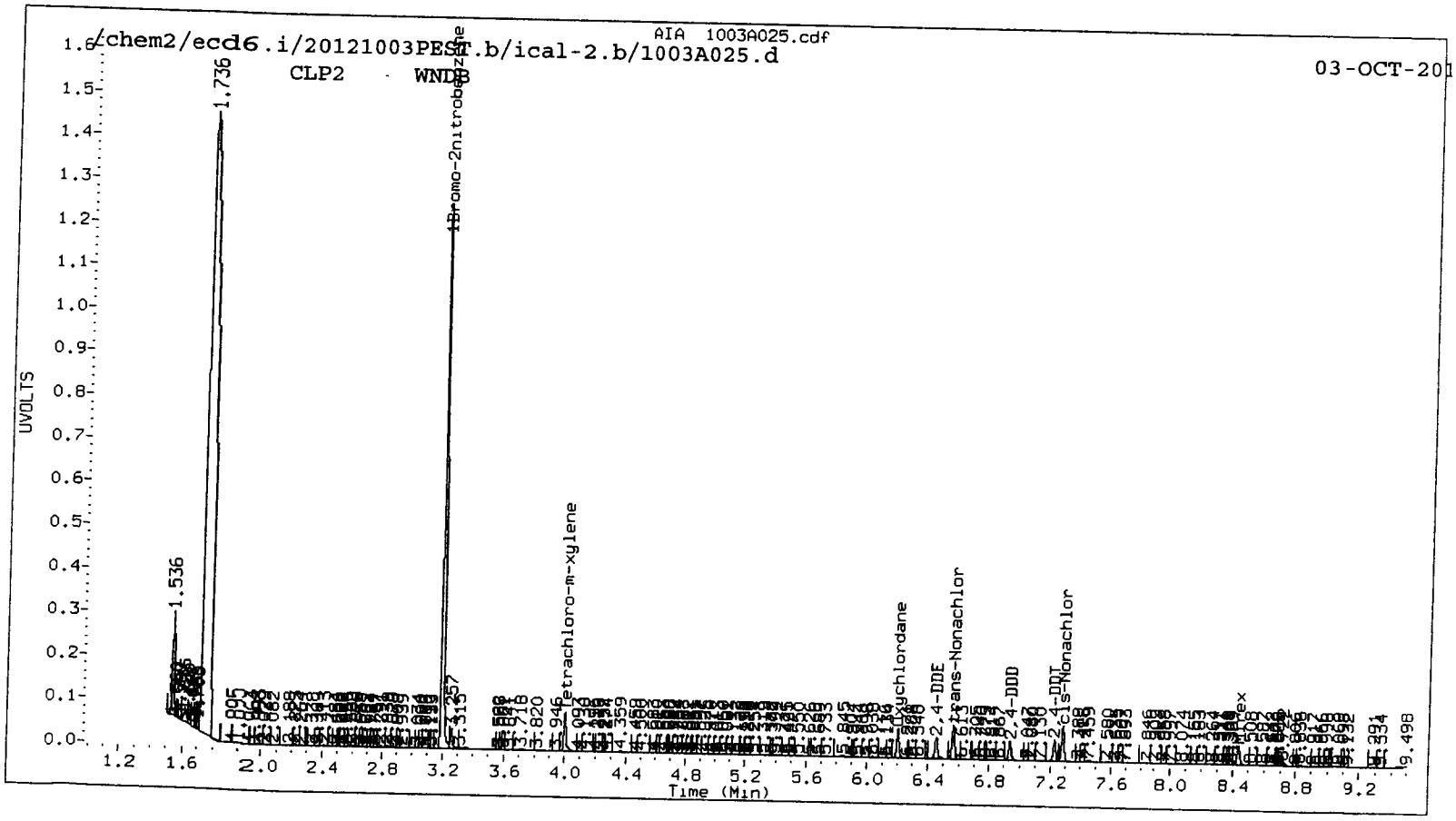
STX-CLP WNDB
03-OCT-2
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 1003A025.cdf
CLP2 WNDB
03-OCT-201
UVOLTS
Time (Min)
1.536
1.736
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A026.d ARI ID: WNDC
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A026.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 20:12
Compound Sublist: WND Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.738	0.000	312812	----			0.0000	0.0000	---	Hexachloroethane
3.015	0.000	4166737	3.195	0.000	22095258	80.0000	80.0000	0.0	1Bromo-2nitrobenze
5.627	0.000	496713	6.202	0.000	2997096	10.1605	10.6371	4.6	Oxychlordane
5.703	0.000	364148	6.453	0.000	2209166	10.1346	10.8418	6.7	2,4-DDE
5.951	0.000	587539	6.560	-0.001	3520113	10.0909	10.5597	4.5	trans-Nonachlor
6.191	0.001	326012	6.939	0.000	1893386	10.1283	10.5444	4.0	2,4-DDD
6.429	0.000	368308	7.227	0.000	2065543	10.1083	10.5441	4.2	2,4-DDT
6.566	0.000	618933	7.285	0.000	3641716	10.0356	10.4483	4.0	cis-Nonachlor
7.437	0.000	419909	8.433	0.000	2006865	10.2286	10.4139	1.8	Mirex
8.750	0.000	3931640	10.106	0.000	16032237	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	534193	4.007	-0.001	3549008	8.6523	9.2413	6.6	Tetrachloro-m-xylen
8.610	-0.001	464604	9.565	-0.001	2180729	8.8422	8.8458	0.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	21.6	23.1	21.6~	150- 0
Decachlorobiphenyl	22.1	22.1	22.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

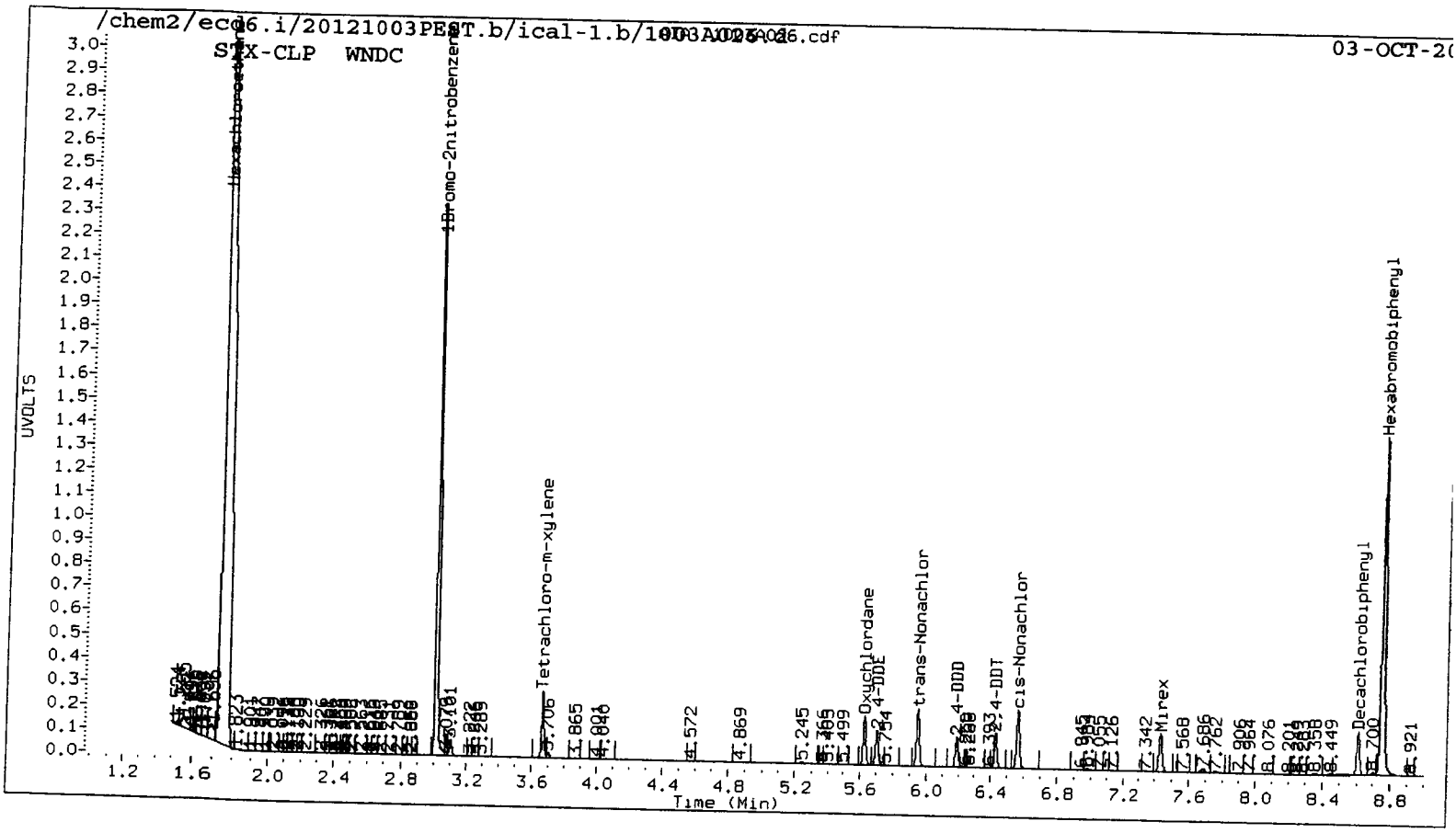
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4166737	2.6
Hexabromobiphenyl	3748709	3931640	4.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	22095258	5.1
Hexabromobiphenyl	14864285	16032237	7.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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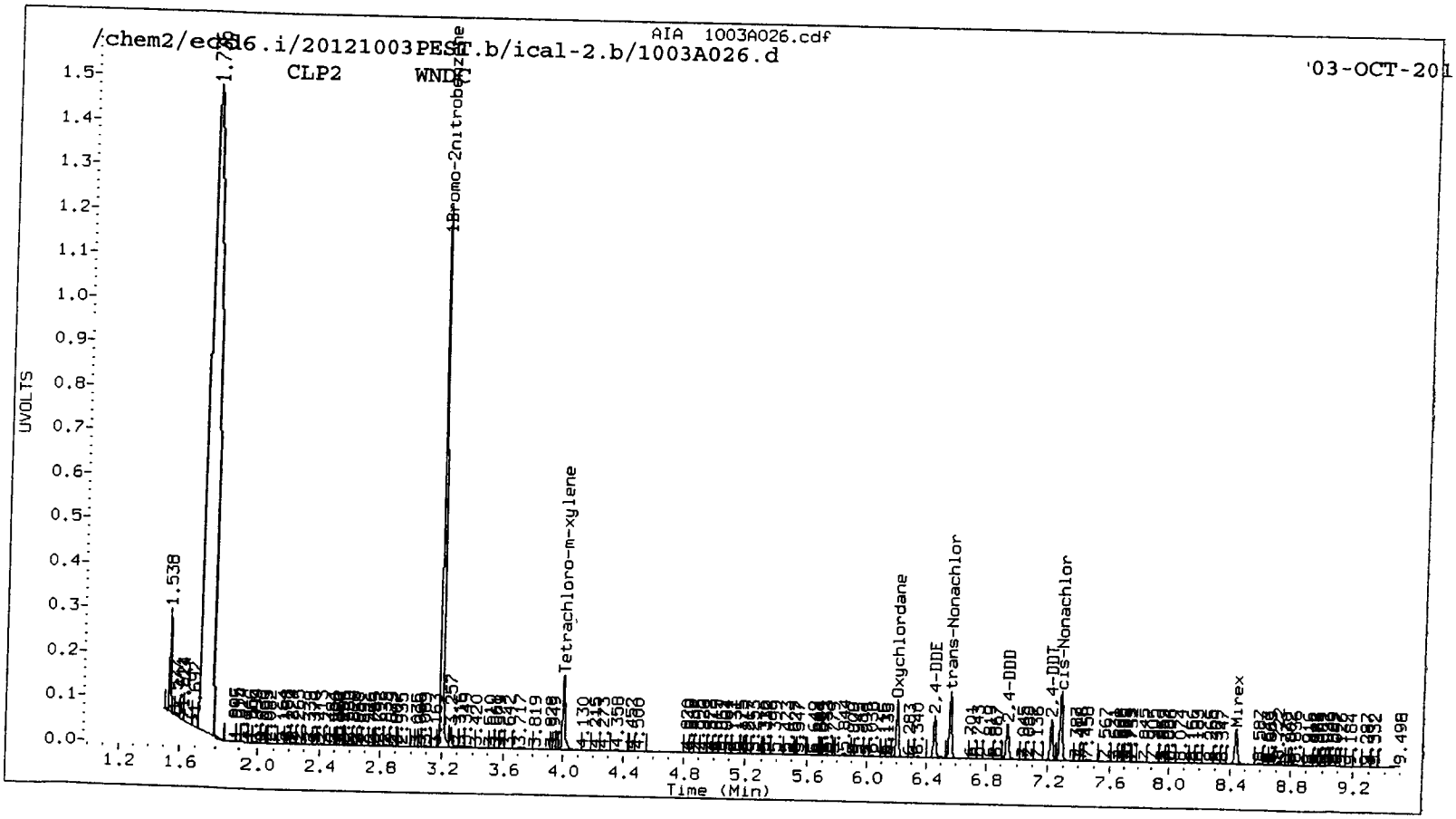
1003A026.cdf
STX-CLP WNDC
03-OCT-20
UVOLTS
Time (Min)
Hexachlorobenzene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
4,4-DDE
trans-Nonachlor
2,4-DDD
4,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 1003A026.cdf
CLP2 WNDC
03-OCT-201
UVOLTS
Time (Min)
1.538
1.7
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A027.d ARI ID: WNDD
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A027.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 20:30
Compound Sublist: WND Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
----			----			0.0000	0.0000	---	Hexachloroethane
3.015	0.000	4291231	3.195	0.000	22892989	80.0000	80.0000	0.0	1Bromo-2nitrobenzer
5.627	0.000	972585	6.203	0.000	5839339	19.4854	20.0024	2.6	Oxychlordane
5.703	0.000	732301	6.453	-0.001	4205191	19.9612	19.9185	0.2	2,4-DDE
5.950	0.000	1162501	6.560	-0.001	6856105	19.5550	20.2541	3.5	trans-Nonachlor
6.191	0.001	638188	6.939	0.000	3660949	19.4189	20.0779	3.3	2,4-DDD
6.429	0.000	725071	7.227	0.000	4005489	19.4902	20.1360	3.3	2,4-DDT
6.567	0.001	1232021	7.286	0.000	7118628	19.5653	20.1130	2.8	cis-Nonachlor
7.437	0.000	798012	8.434	0.001	3764042	19.0389	19.2350	1.0	Mirex
8.750	0.000	4014232	10.106	0.001	16280005	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	1053390	4.007	-0.001	6858299	16.5667	17.2360	4.0	Tetrachloro-m-xylene
8.610	-0.001	864083	9.566	-0.001	4117495	16.1066	16.4477	2.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	41.4	43.1	41.4~	150- 0
Decachlorobiphenyl	40.3	41.1	40.3~	150- 0

~ Indicates recovery outside QC Limits

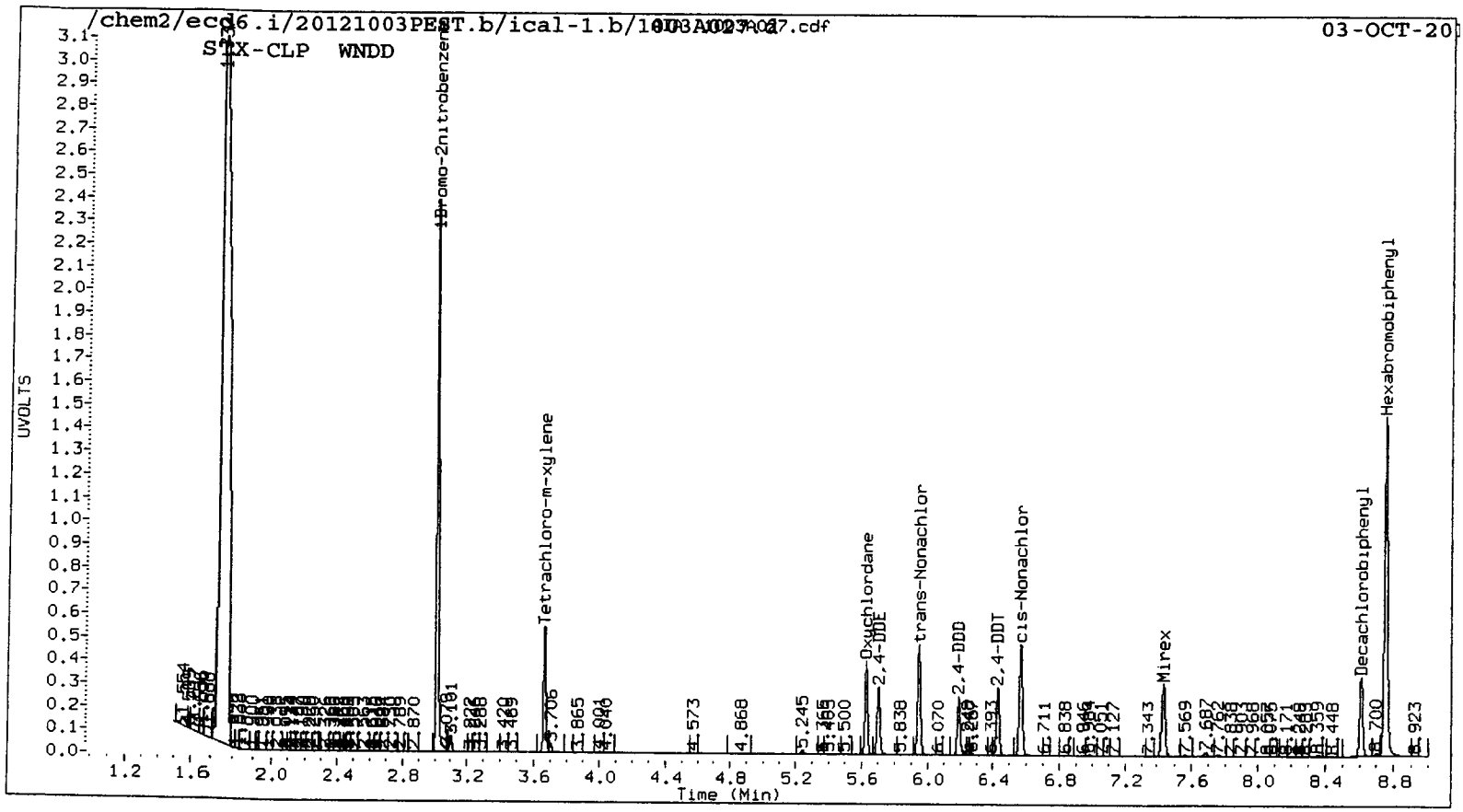
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	4060064	4291231	5.7
Hexabromobiphenyl	3748709	4014232	7.1

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	21032891	22892989	8.8
Hexabromobiphenyl	14864285	16280005	9.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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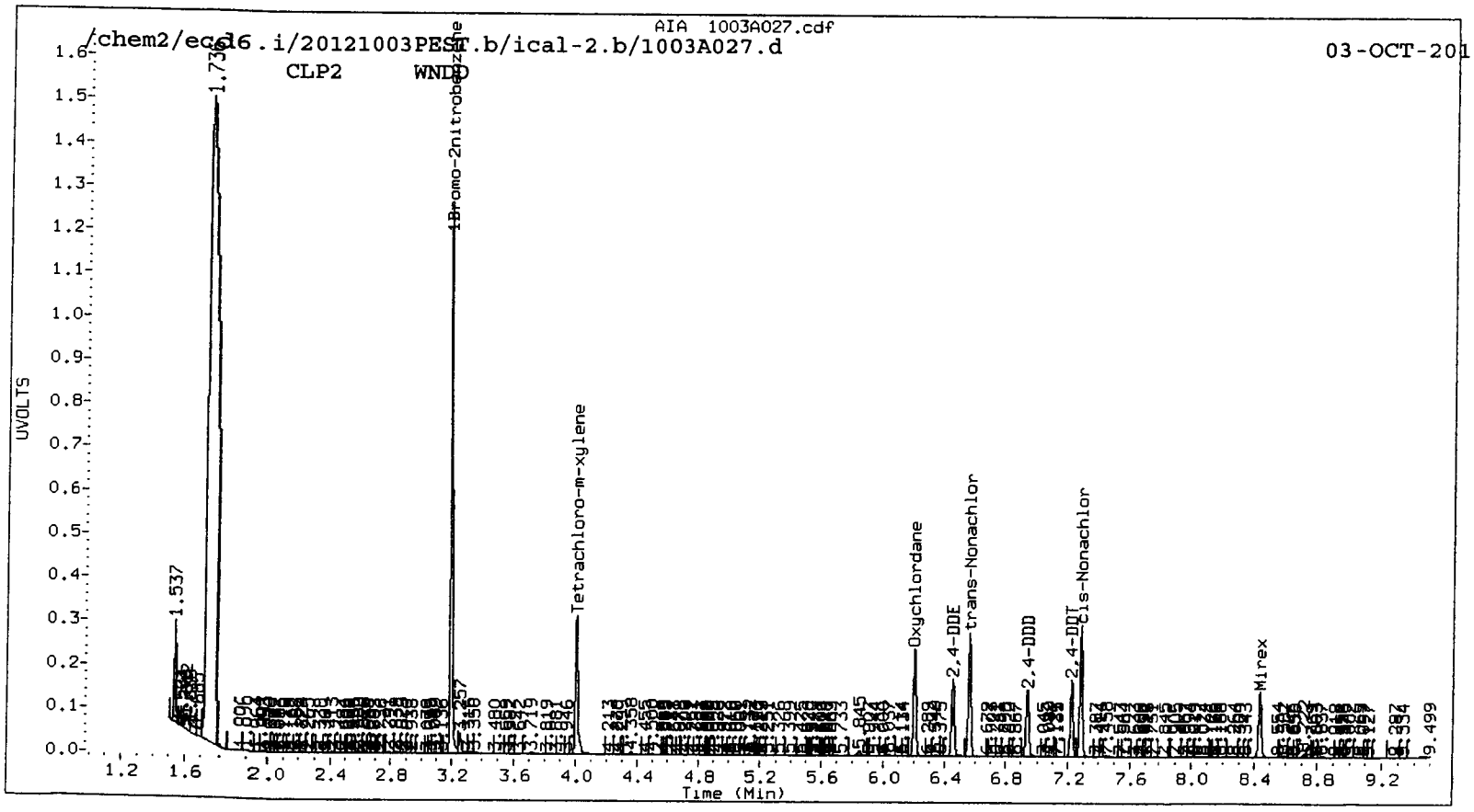
03-OCT-20
SIX-CLP WNDD
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 1003A027.cdf
/chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A027.d
03-OCT-201
CLP2 WNDD
UVOLTS
Time (Min)
1.537
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
9.499

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A028.d ARI ID: WNDF
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A028.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 20:48
Compound Sublist: WND Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.0000	0.0000	---	Hexachloroethane
3.015	0.000	4252342	3.195	0.000	22617896	80.0000	80.0000	0.0	1Bromo-2nitrobenze:
5.627	0.000	3629742	6.203	0.000	20439310	73.9199	70.8655	4.2	Oxychlordane
5.704	0.000	2663149	6.454	0.000	13690989	73.7899	65.6382	11.7	2,4-DDE
5.951	0.000	4403117	6.561	0.000	24239783	75.2884	71.4744	5.2	trans-Nonachlor
6.190	0.000	2372915	6.939	0.000	12674971	73.3940	69.3836	5.6	2,4-DDD
6.429	0.000	2734214	7.227	0.000	14151386	74.7088	71.0070	5.1	2,4-DDT
6.566	0.000	4752551	7.286	0.000	25544471	76.7184	72.0381	6.3	cis-Nonachlor
7.437	0.000	2912958	8.434	0.001	13503834	70.6431	68.8779	2.5	Mirex
8.750	0.000	3949109	10.106	0.000	16310554	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	3955027	4.007	-0.001	23250554	62.7695	59.1431	5.9	Tetrachloro-m-xyle:
8.610	0.000	3084459	9.566	0.000	14901486	58.4426	59.4140	1.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	156.9	147.9	147.9~	150- 0
Decachlorobiphenyl	146.1	148.5	146.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4252342	4.7
Hexabromobiphenyl	3748709	3949109	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	22617896	7.5
Hexabromobiphenyl	14864285	16310554	9.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount

/chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A028.cdf
03-OCT-2(
STX-CLP WNDF
UVOLTS
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
DE
trans-Nonachlor
DDT
cis-Nonachlor
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A028.d ARI ID: WNDF
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A028.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 20:48
Compound Sublist: WND Report Date: 10/04/2012 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

RT	STX-CLP Col Shift	Response	RT	CLP2 Col Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.015	0.000	4252342	3.195	0.000	22617896	0.0000	0.0000	---	Hexachloroethane
5.627	0.000	3629742	6.203	0.000	20439310	80.0000	80.0000	0.0	1Bromo-2nitrobenzer
5.704	0.000	2663149	6.454	0.000	13690989	73.9199	70.8655	4.2	Oxychlordane
5.951	0.000	4403117	6.561	0.000	24239783	73.7899	65.6382	11.7	2,4-DDE
6.190	0.000	2372915	6.939	0.000	12674971	75.2884	71.4744	5.2	trans-Nonachlor
6.429	0.000	2734214	7.227	0.000	14151386	73.3940	69.3836	5.6	2,4-DDD
6.566	0.000	4752551	7.286	0.000	25544471	74.7088	71.0070	5.1	2,4-DDT
7.437	0.000	2912958	8.434	0.001	13503834	76.7184	72.0381	6.3	cis-Nonachlor
8.750	0.000	3949109	10.106	0.000	16310554	70.6431	68.8779	2.5	Mirex
3.670	0.000	3955027	4.007	-0.001	23250554	80.0000	80.0000	0.0	Hexabromobiphenyl
8.610	0.000	3084459	9.566	0.000	14901486	62.7695	59.1431	5.9	Tetrachloro-m-xylen
						58.4426	59.4140	1.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	156.9	147.9	147.9~	150- 0
Decachlorobiphenyl	146.1	148.5	146.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

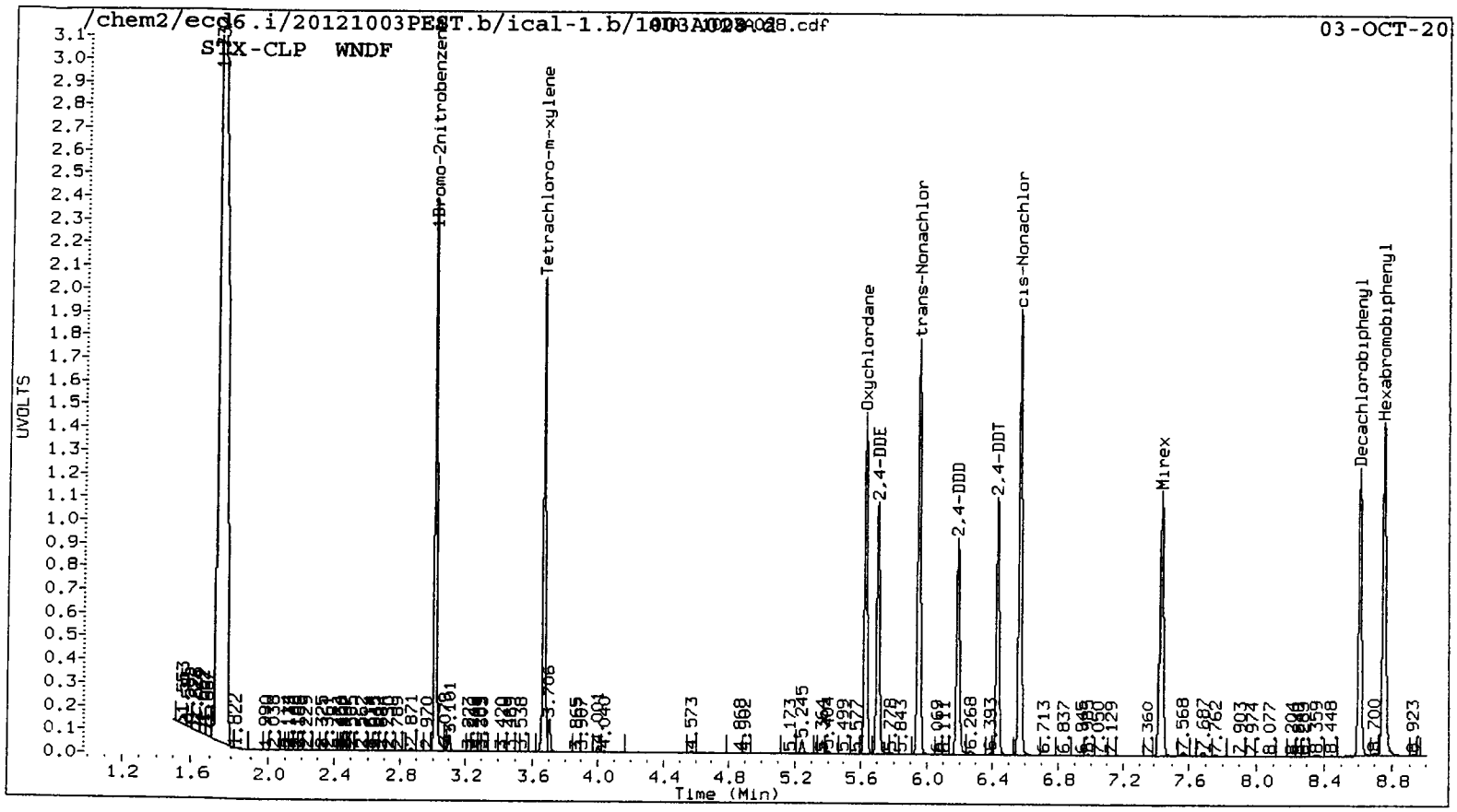
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4252342	4.7
Hexabromobiphenyl	3748709	3949109	5.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	22617896	7.5
Hexabromobiphenyl	14864285	16310554	9.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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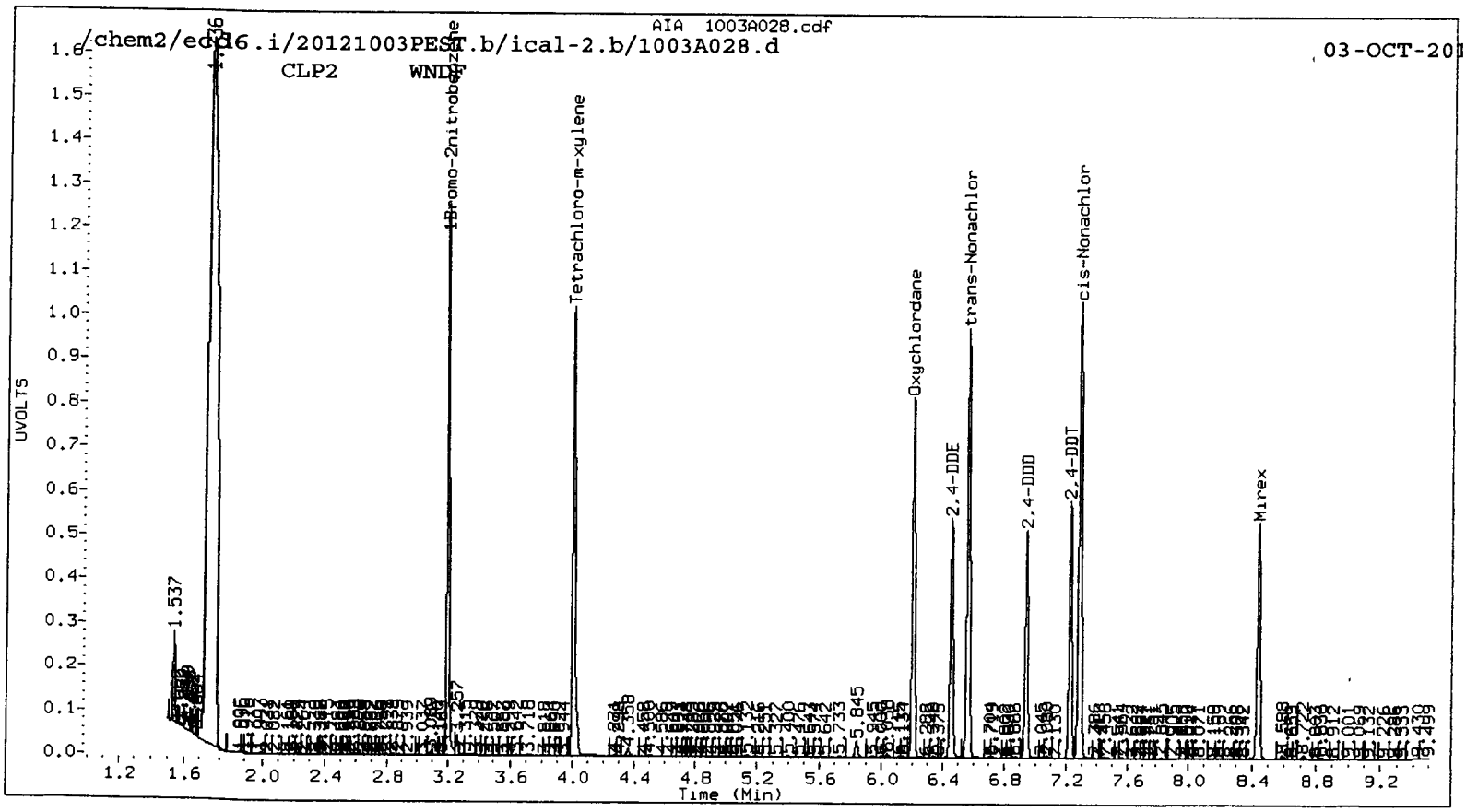
03-OCT-20
SIX-CLP WNDF
UVOLTS
Time (Min)
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
2,4-DDE
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 1003A028.cdf
/chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A028.d
03-OCT-20
CLP2 WNDF
UVOLTS
Time (Min)
1.537
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
2,4-DDE
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A029.d ARI ID: WNDG
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A029.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 03-OCT-2012 21:06
Compound Sublist: WND Report Date: 10/04/2012 11:00
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.0000	0.0000	---	Hexachloroethane
3.015	0.000	4304026	3.195	0.000	22734029	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.627	0.000	7041455	6.203	0.000	38165297	139.6029	131.6477	5.9	Oxychlordane
5.703	0.000	5090109	6.453	0.000	24267144	137.3013	115.7487	17.0	2,4-DDE
5.951	0.000	8634989	6.561	0.000	45482509	143.7395	130.4290	9.7	trans-Nonachlor
6.190	0.000	4624679	6.939	0.000	23191118	139.2535	123.4636	12.0	2,4-DDD
6.429	0.000	5275270	7.227	0.000	25903884	140.3235	126.4081	10.4	2,4-DDT
6.566	0.000	9360729	7.286	0.000	48743350	147.1053	133.6868	9.6	cis-Nonachlor
7.437	0.000	5682283	8.434	0.000	26268749	134.1544	130.3075	2.9	Mirex
8.750	0.000	4056513	10.106	0.000	16771085	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	7659739	4.008	0.000	43193350	120.1065	109.3109	9.4	Tetrachloro-m-xyle
8.610	-0.001	6024511	9.565	-0.001	28926907	111.1268	112.1679	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	300.3	273.3	273.3~	150- 0
Decachlorobiphenyl	277.8	280.4	277.8~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

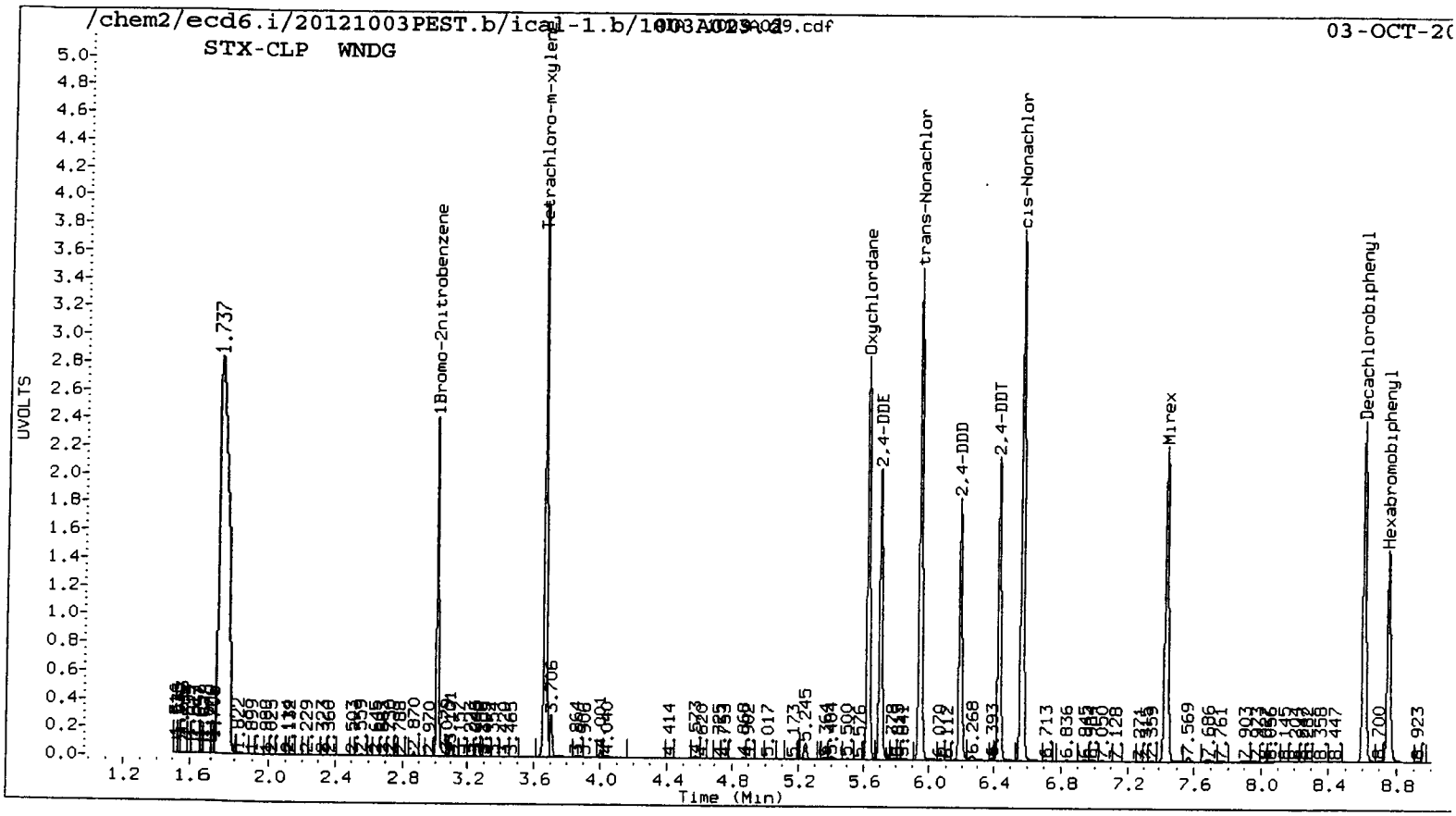
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4304026	6.0
Hexabromobiphenyl	3748709	4056513	8.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	22734029	8.1
Hexabromobiphenyl	14864285	16771085	12.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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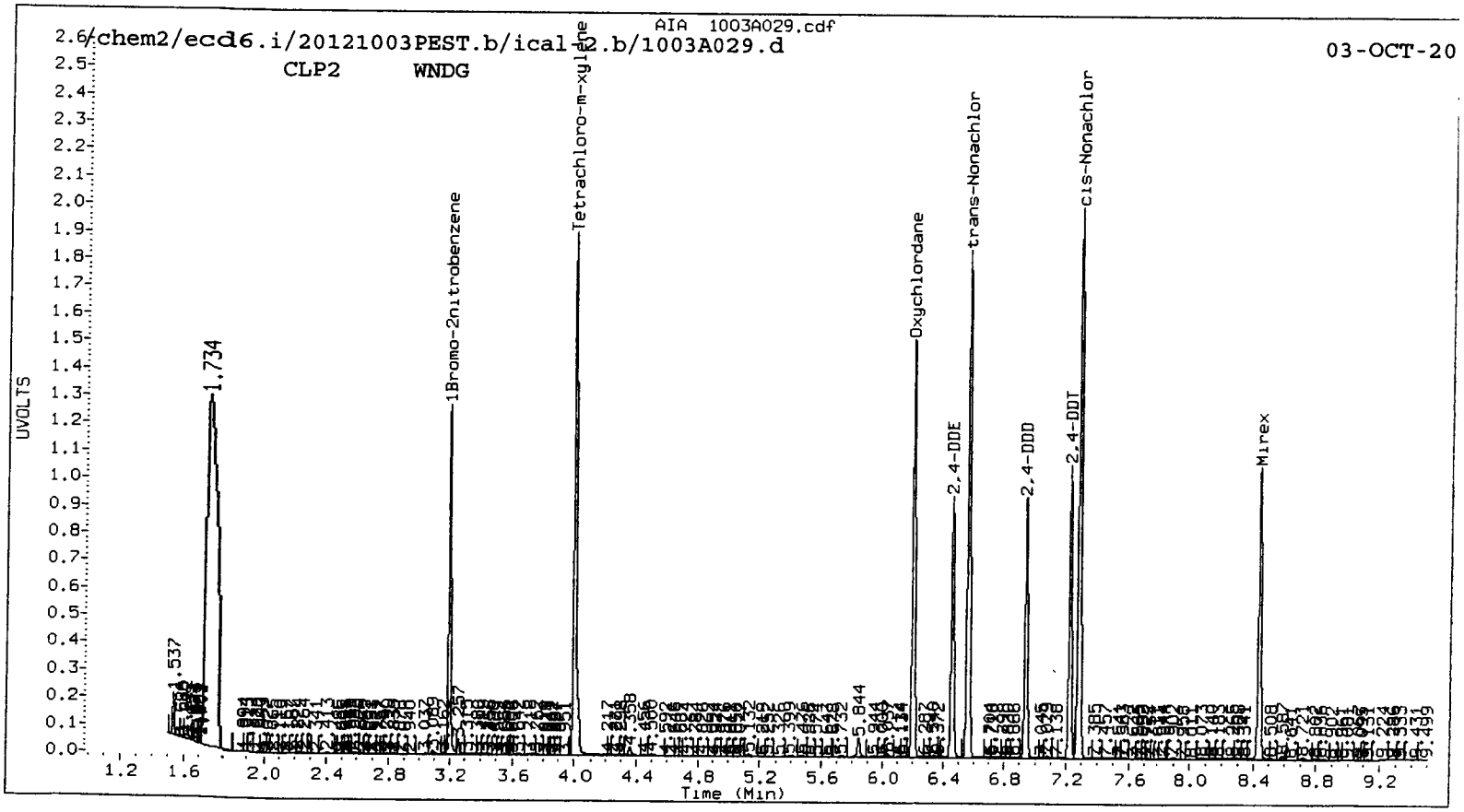
STX-CLP WNDG
03-OCT-20
UVOLTS
Time (Min)
1.737
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 1003A029.cdf
/chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A029.d
CLP2 WNDG
03-OCT-20
UVOLTS
Time (Min)
1.537
1.734
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A031.d ARI ID: TECHLOR 200
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A031.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Compound Sublist: wpest
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 04-OCT-2012 08:36
Report Date: 10/04/2012 11:00
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.024	0.010	3448624	3.204	0.009	23792648	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.136	-0.011	1617	4.559	-0.027	404237	0.0252	0.7788	187.5*	alpha-BHC
4.497	0.000	13042	5.027	0.021	56550	0.4801	0.2692	56.3*	beta-BHC
4.708	0.046	12613	5.333	0.018	56186	0.2435	0.1365	56.3*	delta-BHC
4.419	-0.005	19605	4.970	0.033	220612	0.3320	0.4702	34.4	gamma-BHC (Lindane)
4.883	0.021	446809	5.413	0.015	3870545	8.3461	9.0097	7.6	Heptachlor
5.185	0.037	4629	5.748	0.012	119583	0.0847	0.2831	107.9*	Aldrin
5.747	0.024	128873	6.330	0.037	334622	2.4454	0.8787	94.3*	Heptachlor epoxide b
6.135	0.036	28170	6.687	0.007	228537	0.5776	0.6683	14.6	Endosulfan I
6.356	0.034	39153	6.953	0.014	1095591	0.7766	3.0286	118.4*	Dieldrin
6.026	-0.002	16581	6.753	0.007	273520	0.3562	0.7930	76.0*	4,4'-DDE
6.529	-0.011	15914	----			0.3685	0.0000	---	Endrin
6.761	0.015	22133	7.411	-0.006	465373	0.5308	1.5877	99.8*	Endosulfan II
----			7.267	-0.016	118481	0.0000	0.4278	---	4,4'-DDD
7.532	0.018	12372	7.964	0.004	17402	0.3525	0.0706	133.3*	Endosulfan sulfate
6.854	0.012	8836	7.568	-0.002	188084	0.2331	0.7137	101.5*	4,4'-DDT
7.291	0.020	5011	8.135	-0.023	54825	0.2704	0.4876	57.3*	Methoxychlor
7.775	0.009	9195	8.457	0.008	71514	0.2240	0.2905	25.8	Endrin ketone
7.166	0.043	5424	7.730	0.015	86779	0.1613	0.3761	79.9*	Endrin aldehyde
5.862	0.020	1224025	6.488	0.012	8926279	23.3578	22.4693	3.9	gamma-Chlordane
5.984	0.016	1876835	6.627	0.012	7155992	37.1106	19.3197	63.1*	alpha-Chlordane
2.231	0.021	8444	2.368	-0.009	5727	0.1084	0.0111	162.9*	Hexachlorobutadiene
4.019	0.017	23403	4.472	0.014	49799	0.4164	0.1115	115.5*	Hexachlorobenzene
5.639	0.012	7086	6.193	-0.010	164574	0.1803	0.5424	100.2*	Oxychlordane
5.680	-0.023	210668	6.411	-0.043	751696	7.2941	3.4259	72.2*	2,4-DDE
----			6.573	0.013	7048336	0.0000	19.9435	---	trans-Nonachlor
6.213	0.023	29847	6.929	-0.010	189136	1.1536	0.9935	14.9	2,4-DDD
6.414	-0.015	103725	7.208	-0.019	675609	3.5416	3.2531	8.5	2,4-DDT
6.584	0.018	232235	7.297	0.012	1615553	4.6846	4.3720	6.9	cis-Nonachlor
7.402	-0.035	1920	8.430	-0.003	32494	0.0582	0.1590	92.9*	Mirex
8.764	0.014	3160274	10.118	0.012	16997105	80.0000	80.0000	0.0	Hexabromobiphenyl
1.736	-0.001	135102	1.735	0.007	43351241	0.0000	0.0000	---	Hexachloroethane
3.686	0.016	1699027	4.022	0.014	13977002	33.2493	33.7983	1.6	Tetrachloro-m-xylen
8.623	0.012	1353174	9.576	0.010	8595161	32.0390	32.8857	2.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	83.1	84.5	83.1~	130- 0
Decachlorobiphenyl	80.1	82.2	80.1~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	3448624	-15.1
Hexabromobiphenyl	3748709	3160274	-15.7

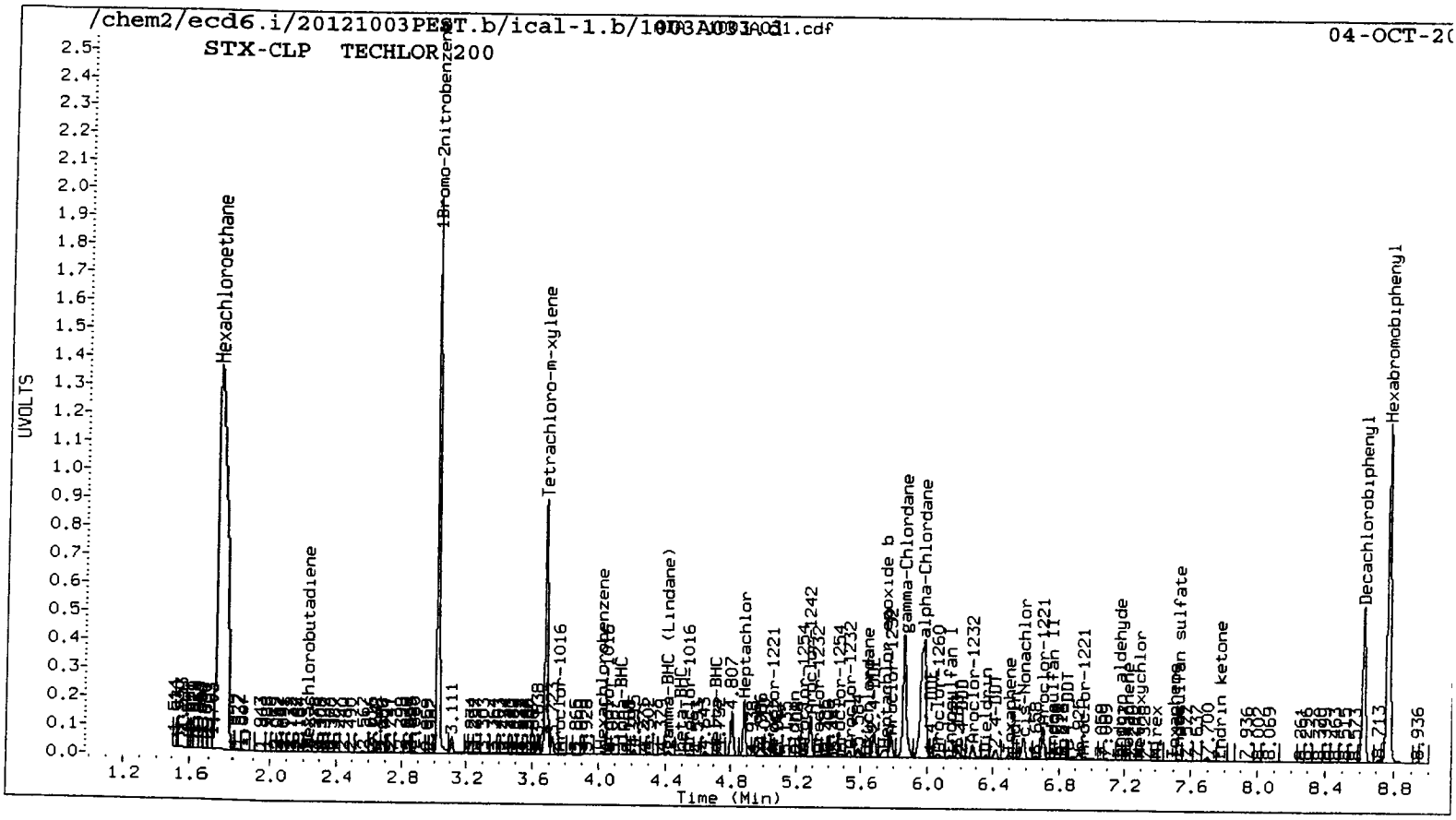
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	23792648	13.1
Hexabromobiphenyl	14864285	16997105	14.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	STX-CLP Col RT	Shift	Height	Amount	Peak#	CLP2 Col RT	Shift	Height	Amount
Toxaphene	1	6.498	0.002	51727	52.498	1	7.159	-0.004	187027	18.319
Toxaphene	2	6.854	0.005	8836	6.583	2	7.473	-0.015	2253758	149.256
Toxaphene	3	7.220	0.002	5437	4.802	3	7.730	0.011	86779	5.127
Toxaphene	4	7.501	0.030	9982	6.887	4	8.207	0.022	23733	1.882
Toxaphene	5	7.775	0.026	9195	7.447	5	8.569	0.036	96833	16.365
Toxaphene	6	---			0.000	NS	---			----
Total		STX-CLPAve (5 peaks): 15.644				Total	CLP2Ave (5 peaks): 38.190			RPD = 84*
		Corrected Ave (4 peaks): 6.430					Corrected Ave (4 peaks): 10.423			RPD = 47*
Aroclor-1016	1	---			0.000	1	---			0.000
Aroclor-1016	2	---			0.000	2	---			0.000
Aroclor-1016	3	---			0.000	3	---			0.000
Aroclor-1016	4	---			0.000	4	---			0.000
Aroclor-1016	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.000	1	---			0.000
Aroclor-1221	2	---			0.000	2	---			0.000
Aroclor-1221	3	---			0.000	3	---			0.000
Aroclor-1221	4	---			0.000	4	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.000	1	---			0.000
Aroclor-1232	2	---			0.000	2	---			0.000
Aroclor-1232	3	---			0.000	3	---			0.000
Aroclor-1232	4	---			0.000	4	---			0.000
Aroclor-1232	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.000	1	---			0.000
Aroclor-1242	2	---			0.000	2	---			0.000
Aroclor-1242	3	---			0.000	3	---			0.000
Aroclor-1242	4	---			0.000	4	---			0.000
Aroclor-1242	5	---			0.000	5	---			0.000

Aroclor-1242 6	---	0.000	NS	---	----
STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks		
Aroclor-1248 1	---	0.000	1	---	0.000
Aroclor-1248 2	---	0.000	2	---	0.000
Aroclor-1248 3	---	0.000	3	---	0.000
Aroclor-1248 4	---	0.000	4	---	0.000
Aroclor-1248 5	---	0.000	5	---	0.000
STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks		
Aroclor-1254 1	---	0.000	1	---	0.000
Aroclor-1254 2	---	0.000	2	---	0.000
Aroclor-1254 3	---	0.000	3	---	0.000
Aroclor-1254 4	---	0.000	4	---	0.000
Aroclor-1254 5	---	0.000	5	---	0.000
STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks		
Aroclor-1260 1	---	0.000	1	---	0.000
Aroclor-1260 2	---	0.000	2	---	0.000
Aroclor-1260 3	---	0.000	3	---	0.000
Aroclor-1260 4	---	0.000	4	---	0.000
Aroclor-1260 5	---	0.000	5	---	0.000
STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks		
Aroclor-1262 1	---	0.000	1	---	0.000
Aroclor-1262 2	---	0.000	2	---	0.000
Aroclor-1262 3	---	0.000	3	---	0.000
Aroclor-1262 4	---	0.000	4	---	0.000
Aroclor-1262 5	---	0.000	5	---	0.000
STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks		
Aroclor-1268 1	---	0.000	1	---	0.000
Aroclor-1268 2	---	0.000	2	---	0.000
Aroclor-1268 3	---	0.000	3	---	0.000
Aroclor-1268 4	---	0.000	4	---	0.000
Aroclor-1268 5	---	0.000	5	---	0.000
STX-CLPAve: <3 Quant Peaks			CLP2Ave: <3 Quant Peaks		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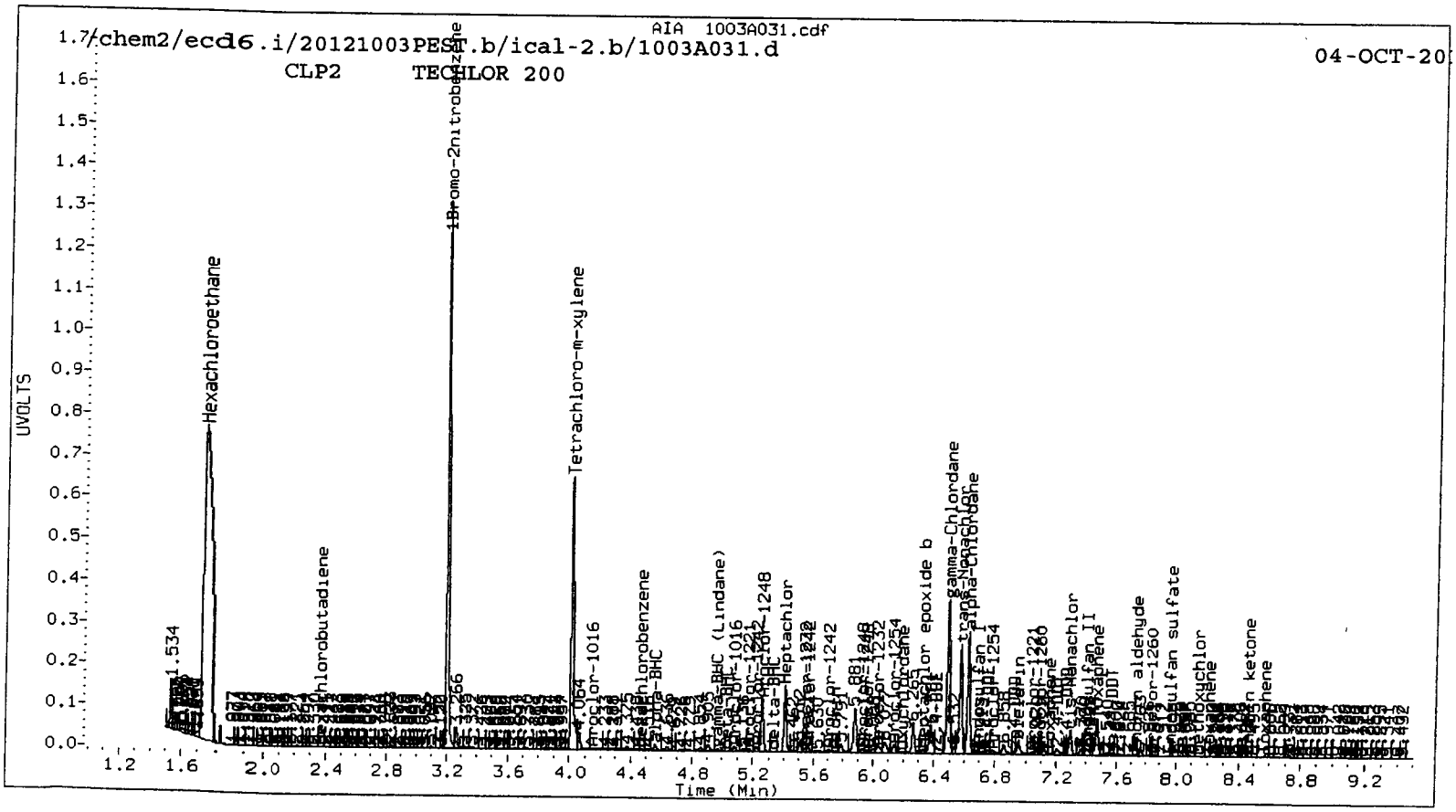
STX-CLP TECHLOR 200
04-OCT-20
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Pentachlorobenzene
gamma-BHC (Lindane)
Heptachlor
gamma-Chlordane
alpha-Chlordane
Decachlorobiphenyl
Hexabromobiphenyl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AIA 1003A031.cdf
CLP2 TECHLOR 200
04-OCT-20
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Pentachlorobenzene
gamma-BHC (Lindane)
Heptachlor
gamma-Chlordane
alpha-Chlordane

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report AR 10/4/2012

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A021.d ARI ID: INDA ICV
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A021.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 03-OCT-2012 18:43
Report Date: 10/04/2012 10:59
Matrix: NONE
Dilution Factor: 1.000

140 ppb

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.015	0.000	4057143	3.195	0.000	21138967	80.0000	80.0000	0.0	1Bromo-2nitrobenze
4.147	-0.001	3074429	4.584	-0.001	18378917	40.6620	39.8545	2.0	alpha-BHC
4.497	0.000	1181624	5.006	-0.001	7143929	36.9708	38.2761	3.5	beta-BHC
4.662	0.000	2598439	5.313	-0.001	15223038	42.6347	41.6137	2.4	delta-BHC
4.424	0.000	2763631	4.936	-0.001	16461350	39.7846	39.4867	0.8	gamma-BHC (Lindane
4.861	0.000	2411687	5.396	-0.001	14146924	38.2918	37.0644	3.3	Heptachlor
5.148	-0.001	2504153	5.735	-0.001	14254020	38.9336	37.9787	2.5	Aldrin
5.723	-0.001	2279591	6.293	0.000	12345356	36.7675	36.4885	0.8	Heptachlor epoxide
6.099	-0.001	2102230	6.680	0.000	11120271	36.6394	36.6014	0.1	Endosulfan I
6.322	0.000	2297277	6.938	-0.001	12314179	38.7345	38.3137	1.1	Dieldrin
6.027	-0.001	2146388	6.744	-0.001	11909930	39.1965	38.8636	0.9	4,4'-DDE
6.540	-0.001	1978483	7.227	-0.001	9856102	38.3376	37.3808	2.5	Endrin
6.746	-0.001	1842501	7.416	-0.001	9864604	36.9724	37.4293	1.2	Endosulfan II
6.583	-0.001	1790520	7.282	-0.001	9641482	39.7344	38.7187	2.6	4,4'-DDD
7.514	0.000	1598781	7.959	-0.001	8601713	38.1152	38.8141	1.8	Endosulfan sulfate
6.841	-0.001	1739237	7.570	-0.001	9110601	38.3862	38.4462 ✓	0.2	4,4'-DDT
7.271	0.000	880087	8.155	-0.003	4022159	39.7294	39.7835	0.1	Methoxychlor
7.766	0.000	1760424	8.448	-0.001	8124724	35.8888	36.7015	2.2	Endrin ketone
7.123	0.000	1474731	7.714	-0.001	7615275	36.6949	36.7037	0.0	Endrin aldehyde
5.842	0.000	2349214	6.475	-0.001	13162359	38.1057	37.2917	2.2	gamma-Chlordane
5.967	0.000	2273043	6.614	-0.001	12506328	38.2037	38.0032	0.5	alpha-Chlordane
2.193	-0.017	1807	2.362	-0.015	12546	~~0.0197~~	~~0.0273~~ NS	~~32.4~~	~~Hexachlorobutadiene~~
4.001	-0.001	27205	4.461	0.003	8832	~~0.4115~~	~~0.0223~~	~~179.5*~~	~~Hexachlorobenzene~~
8.750	0.000	3776958	10.107	0.001	15282817	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	2032190	4.007	-0.001	12372043	33.8043	33.6729 ✓	0.4	Tetrachloro-m-xylen
8.610	0.000	1603716	9.566	0.000	7614502	31.7713	32.4016	2.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	84.5	84.2 ✓	84.2~	115- 0
Decachlorobiphenyl	79.4	81.0	79.4~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

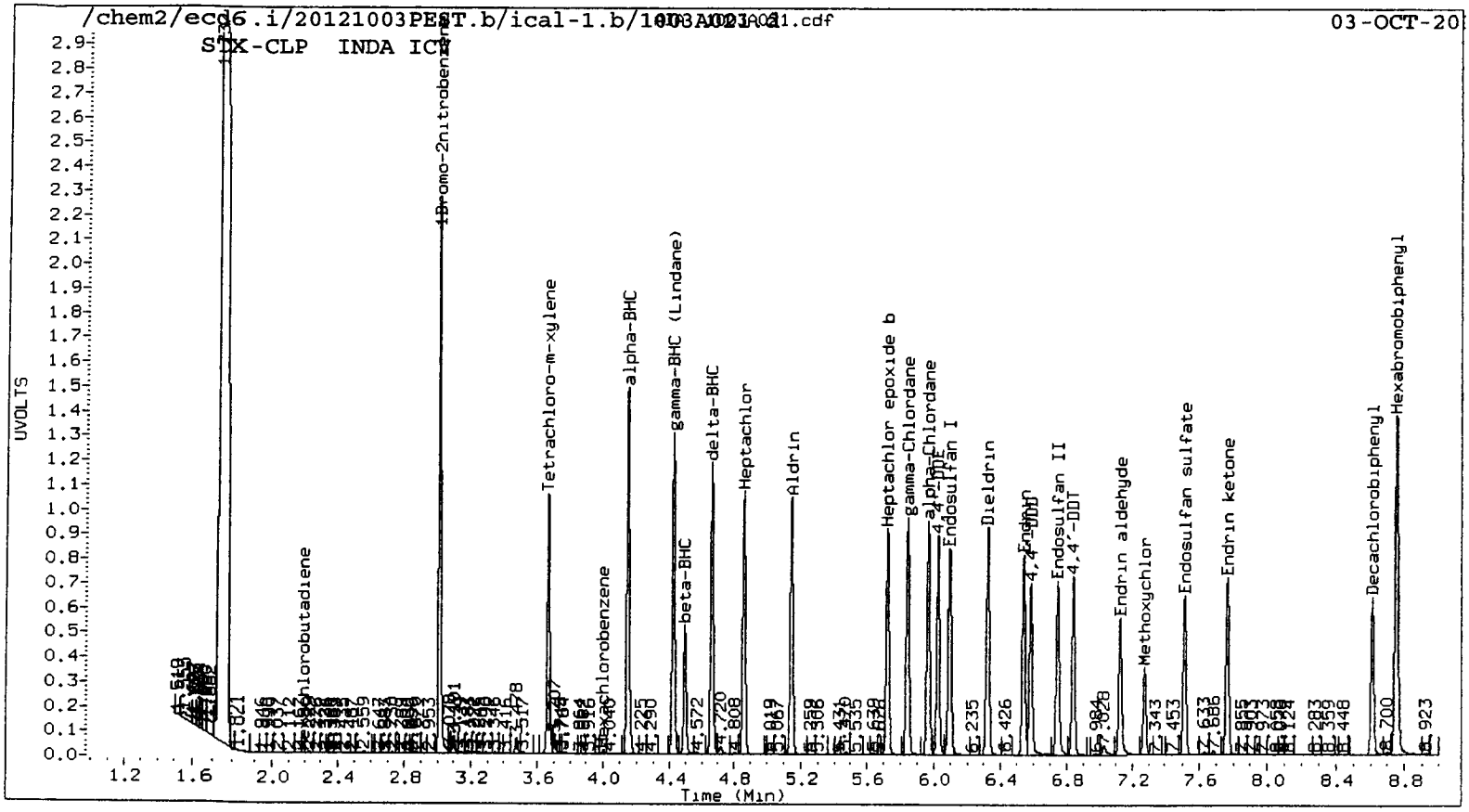
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4057143	-0.1
Hexabromobiphenyl	3748709	3776958	0.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21138967	0.5
Hexabromobiphenyl	14864285	15282817	2.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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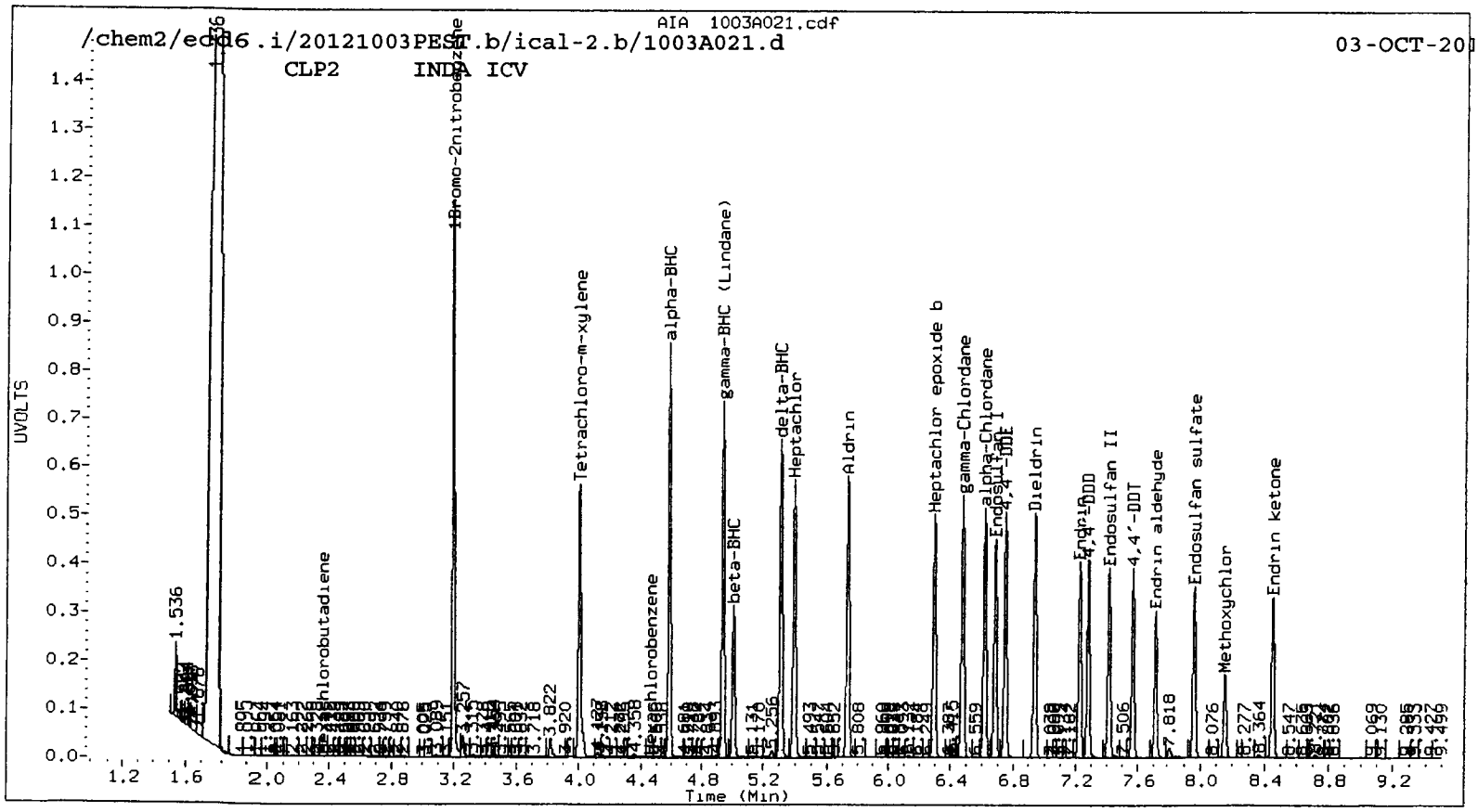
1003A021.cdf
03-OCT-20
STX-CLP INDA ICV
UVOLTS
Time (Min)
1.536
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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03-OCT-20
CLP2 INDA ICV
UVOLTS
Time (Min)
1.536
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report AR 10/4/2012

Data file 1: /chem2/ecd6.i/20121003PEST.b/ical-1.b/1003A022.d ARI ID: HCB/HCBD ICV
Data file 2: /chem2/ecd6.i/20121003PEST.b/ical-2.b/1003A022.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 03-OCT-2012 19:01
Report Date: 10/04/2012 10:59
Matrix: NONE
Dilution Factor: 1.000

HCB 40.8
HCBD 46.8

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.015	0.000	4108826	3.195	0.000	21570699	80.0000	80.0000	0.0	1Bromo-2nitrobenze
4.132	-0.016	9833	----			~~0.1284~~	~~0.0000~~	---	alpha-BHC
4.490	-0.007	1200	5.011	0.004	13461	0.0371	0.0707	~~62.4*~~	beta-BHC
4.658	-0.005	2560	5.328	0.014	31315	0.0415	0.0839	67.7*	delta-BHC
4.424	0.000	1900	4.923	-0.014	21577	0.0270	0.0507	61.0*	gamma-BHC (Lindane)
4.874	0.013	1770	5.380	-0.017	31575	0.0277	0.0811	98.0*	Heptachlor
5.165	0.017	3506	5.731	-0.005	120740	0.0538	0.3153	141.7*	Aldrin
5.713	-0.010	3276	6.268	-0.025	19629	0.0522	0.0569	8.6	Heptachlor epoxide
6.099	-0.001	1520	6.678	-0.002	16574	0.0262	0.0535	68.6*	Endosulfan I
6.305	-0.018	1350	6.935	-0.004	16280	0.0225	0.0496	75.3*	Dieldrin
6.024	-0.003	5681	6.743	-0.003	35432	0.1024	0.1133	10.1	4,4'-DDE
----			7.245	0.017	19495	0.0000	0.0730	---	Endrin
6.747	0.001	1486	7.416	-0.001	11073	0.0292	0.0415	34.7	Endosulfan II
6.579	-0.005	4901	7.281	-0.002	25853	0.1066	0.1025	3.9	4,4'-DDD
----			7.957	-0.003	10971	0.0000	0.0489	---	Endosulfan sulfate
6.839	-0.003	1785	7.574	0.003	35374	0.0386	0.1473	117.0*	4,4'-DDT
7.268	-0.003	1244	8.151	-0.008	8904	0.0550	0.0869	44.9*	Methoxychlor
7.761	-0.005	14192	8.450	0.002	12561	0.2835	0.0560	134.0*	Endrin ketone
7.122	-0.001	2341	7.714	-0.001	18760	0.0571	0.0892	44.0*	Endrin aldehyde
5.820	-0.022	15975	6.480	0.004	160896	0.2559	0.4467	54.3*	gamma-Chlordane
5.962	-0.005	5682	6.629	0.014	15054	~~0.0943~~	~~0.0448~~	~~71.1*~~	alpha-Chlordane
2.210	0.000	3888916	2.377	-0.001	19016015	41.9062	40.6043	3.2	Hexachlorobutadiene
4.001	-0.001	2344205	4.457	0.000	13237431	35.0089	32.6901	6.9	Hexachlorobenzene
8.750	0.000	3854595	10.106	0.000	15483729	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	-0.001	2238016	4.007	-0.001	13288246	36.7598	35.4427	3.6	Tetrachloro-m-xylen
8.610	-0.001	1843167	9.565	-0.001	8743377	35.7796	36.7224	2.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	91.9	88.6	88.6~	115- 0
Decachlorobiphenyl	89.4	91.8	89.4~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

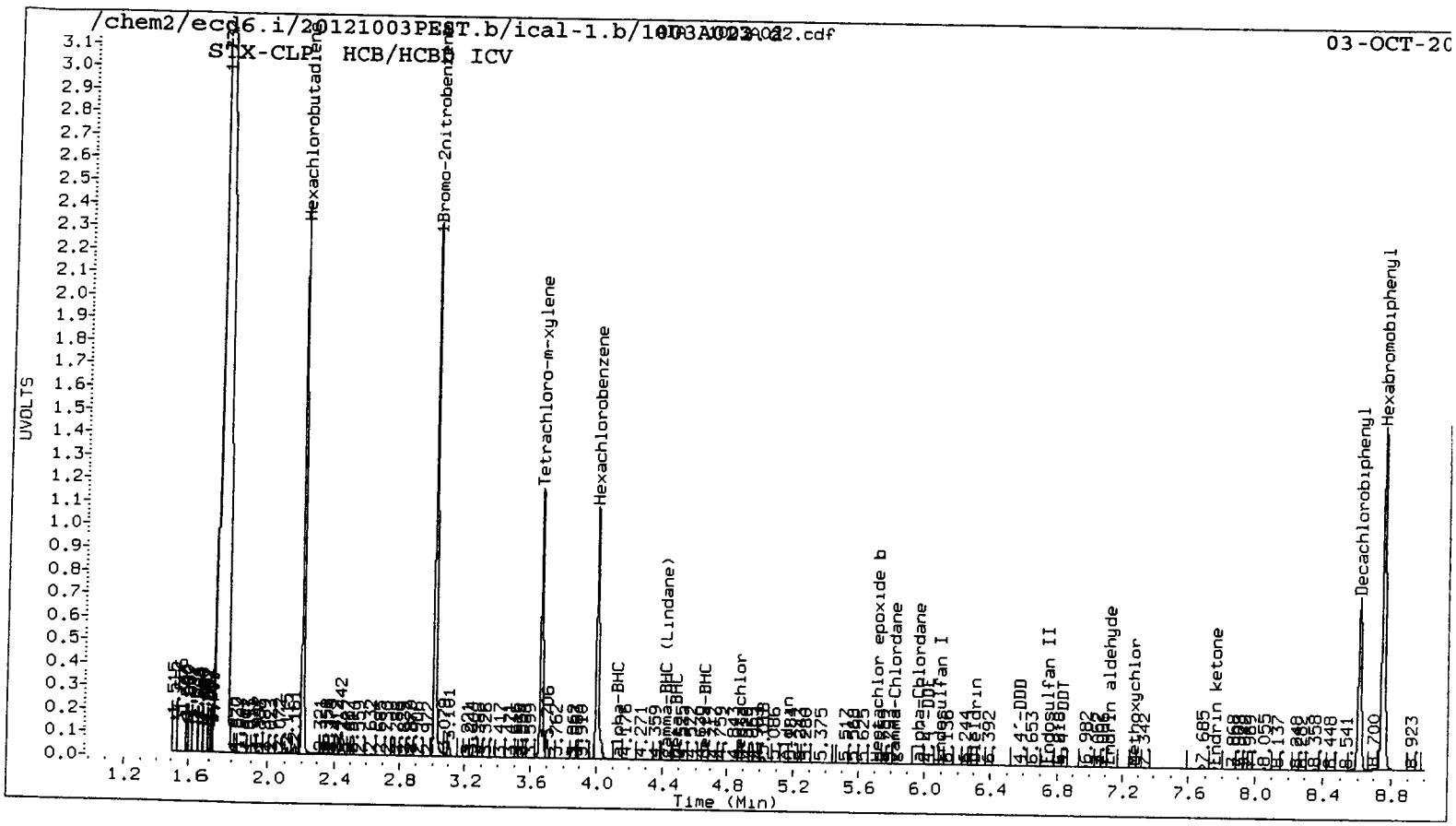
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4108826	1.2
Hexabromobiphenyl	3748709	3854595	2.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21570699	2.6
Hexabromobiphenyl	14864285	15483729	4.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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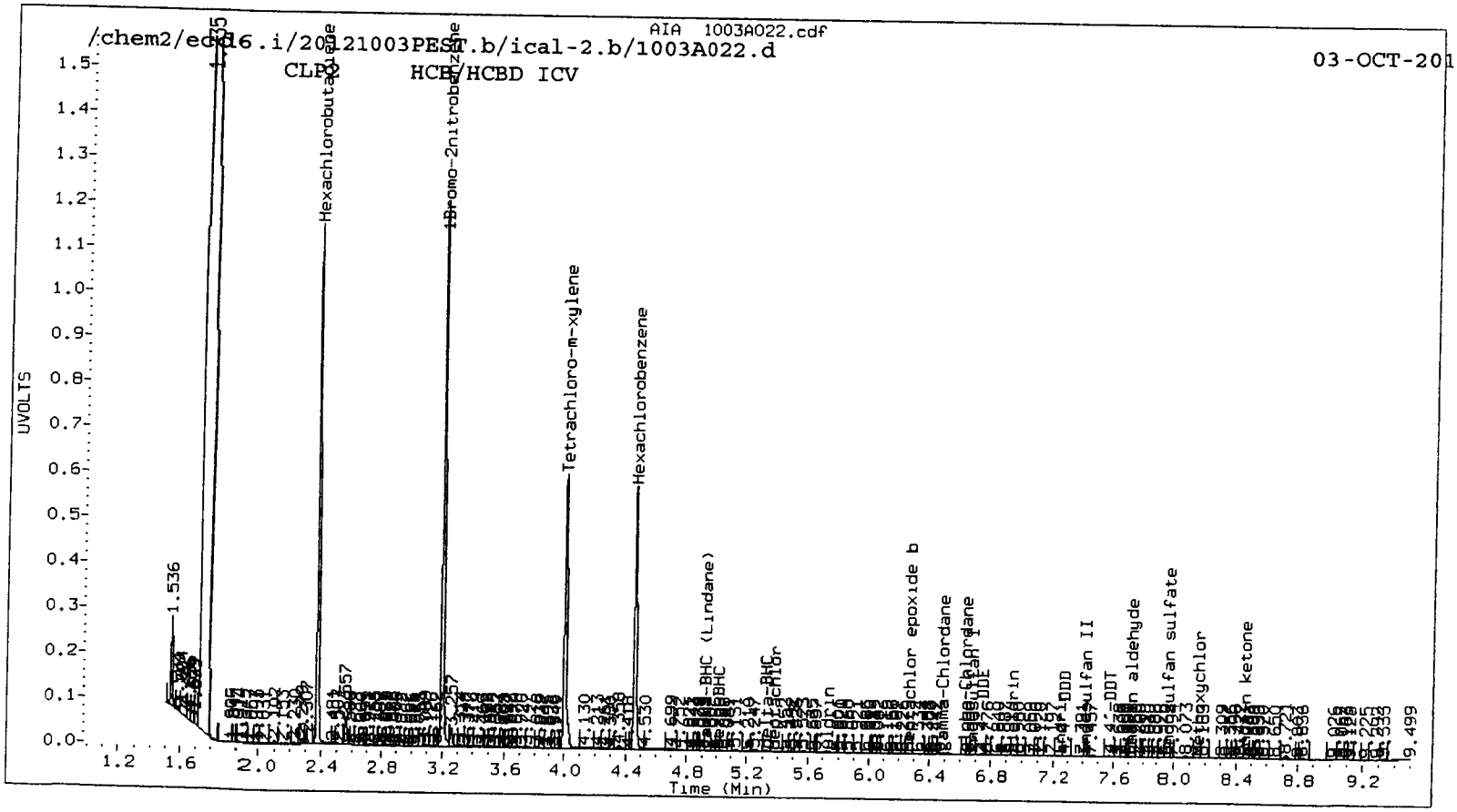
1003A022.cdf
03-OCT-20
SIX-CLP HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
alpha-Chlordane
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 1003A022.cdf
03-OCT-201
CLP HCB/HCBD ICV
UVOLTS
Time (Min)
1.536
Hexachlorobutadiene
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Heptachlor epoxide b
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
9.499

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 10/4/2012

Data file 1: /chem2/ecd6.i/20121003PEST.b/1004-1.b/1004A005.d ARI ID: WND ICV
Data file 2: /chem2/ecd6.i/20121003PEST.b/1004-2.b/1004A005.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 04-OCT-2012 10:37
Compound Sublist: WND Report Date: 10/04/2012 11:22
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

50ppb

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.736	-0.002	365401	1.735	0.007	101180093	0.0000	0.0000	---	Hexachloroethane
3.015	0.000	3999972	3.195	0.001	21702262	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.627	0.000	2271967	6.203	0.000	13502749	48.5760	48.7908	0.4	Oxychlordane
5.703	0.000	1639088	6.453	0.000	9289814	47.6801	46.4169	2.7	2,4-DDE
5.951	0.000	2637069	6.560	-0.001	15419993	47.3395	46.6591	1.4	trans-Nonachlor
6.191	0.000	1478651	6.939	0.001	8326433	48.0151	46.7734 ✓	2.6	2,4-DDD
6.429	0.000	1715418	7.227	0.001	9477142	49.2089	48.7989	0.8	2,4-DDT
6.566	0.000	2798568	7.286	0.000	15975934	47.4288	46.2341	2.6	cis-Nonachlor
7.437	0.000	1794119	8.433	0.000	8682821	45.6794	45.4479	0.5	Mirex
8.750	0.000	3761538	10.106	0.000	15894190	80.0000	80.0000	0.0	Hexabromobiphenyl
3.670	0.000	1999464	4.007	0.000	12936536	33.7353	34.2954	1.6	Tetrachloro-m-xylen
8.610	0.000	1604074	9.565	-0.001	7956634	31.9087	32.5551	2.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	84.3	85.7	84.3~	150- 0
Decachlorobiphenyl	79.8	81.4	79.8~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

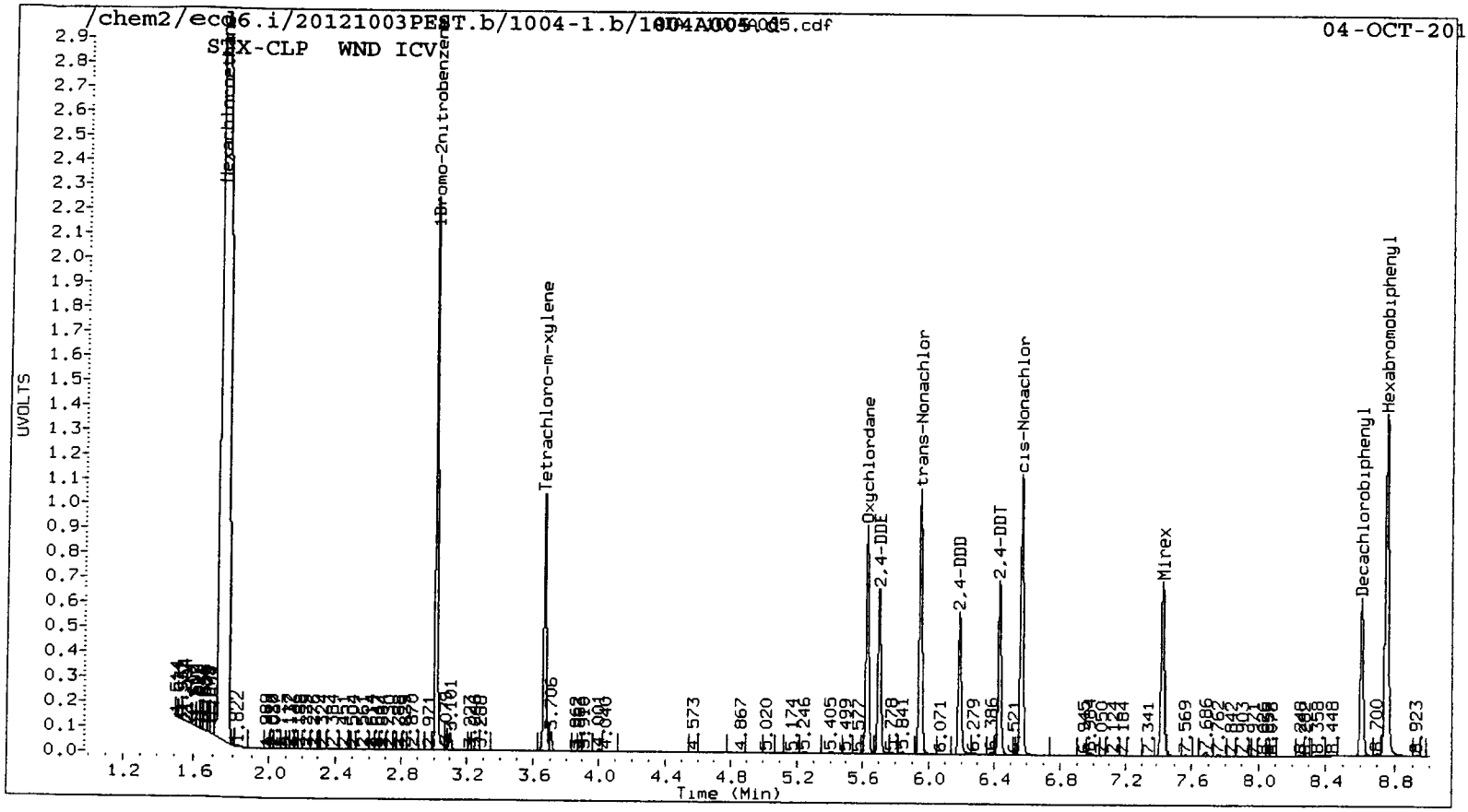
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	3999972	-1.5
Hexabromobiphenyl	3748709	3761538	0.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21702262	3.2
Hexabromobiphenyl	14864285	15894190	6.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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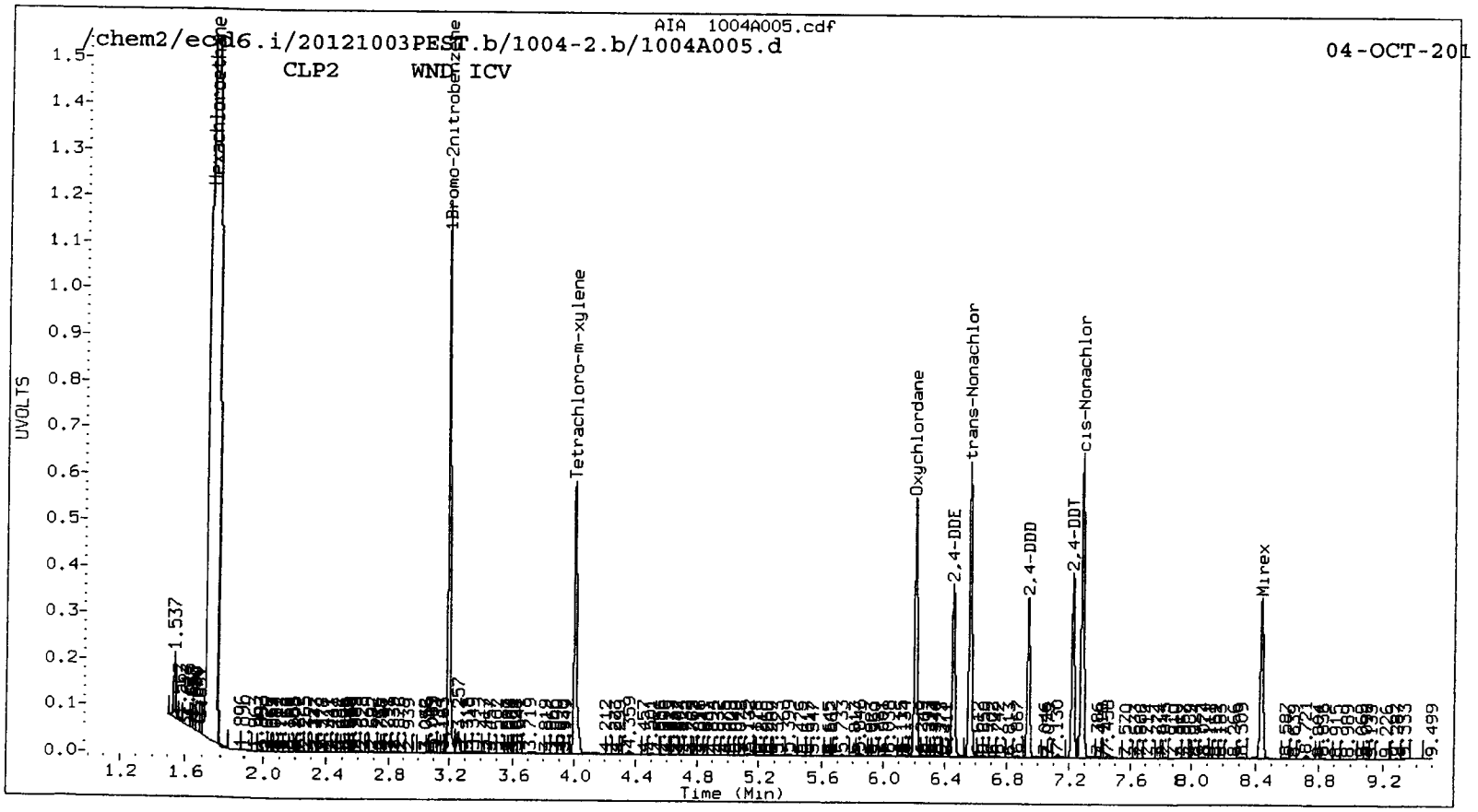
1004A005.cdf
04-OCT-201
STX-CLP WND ICV
UVOLTS
Time (Min)
Hexachloroethane
1.822
Bromo-2nitrobenzene
3.101
Tetrachloro-m-xylene
3.706
4.573
4.867
5.020
5.174
5.246
5.405
5.499
5.577
Oxychlordane
5.728
2,4-DDE
5.841
trans-Nonachlor
6.071
2,4-DDD
6.279
6.396
2,4-DDT
6.521
cis-Nonachlor
Mirex
7.341
7.569
Decachlorobiphenyl
8.700
Hexabromobiphenyl
8.923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04-OCT-201
CLP2 WND ICV
UVOLTS
Time (Min)
Hexachloroethane
1.537
Bromo-2nitrobenzene
3.157
Tetrachloro-m-xylene
4.000
Oxychlordane
5.728
2,4-DDE
6.396
trans-Nonachlor
6.521
2,4-DDD
6.867
2,4-DDT
7.130
cis-Nonachlor
Mirex
9.499

AR 10/4/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report INDA ICV

Data file 1: /chem2/ecd6.i/20121003PEST.b/1004-1.b/1004A015.d ARI ID: 2023-1 ASSAY
Data file 2: /chem2/ecd6.i/20121003PEST.b/1004-2.b/1004A015.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 04-OCT-2012 13:35
Compound Sublist: INDA Report Date: 10/04/2012 15:44
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

40 ppb

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.014	0.000	4336099	3.195	0.000	21737033	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.146	-0.001	3389959	4.584	-0.001	19607978	41.9508	41.3498	1.4	alpha-BHC
4.496	-0.001	1354216	5.006	-0.001	7868358	39.6451	40.9976	3.4	beta-BHC
4.662	-0.001	3173342	5.313	-0.001	18048951	48.7180	47.9811	1.5	delta-BHC
4.423	-0.001	3082889	4.936	-0.001	17527645	41.5254	40.8876	1.5	gamma-BHC (Lindane)
4.861	-0.001	2626366	5.396	-0.001	14723586	39.0177	37.5139	3.9	Heptachlor
5.147	-0.002	2765436	5.734	-0.001	15097733	40.2298	39.1199	2.8	Aldrin
5.722	-0.001	2511875	6.292	-0.001	12972153	37.9076	37.2862	1.7	Heptachlor epoxide
6.098	-0.001	2296090	6.679	-0.001	11388982	37.4436	36.4544	2.7	Endosulfan I
6.321	-0.001	2517394	6.937	-0.002	12624368	39.7153	38.1981	3.9	Dieldrin
6.026	-0.001	2318442	6.743	-0.002	12039917	39.6147	38.2068	3.6	4,4'-DDE
6.539	-0.001	2147321	7.226	-0.002	9854111	39.0054	39.0490	0.1	Endrin
6.745	-0.001	2094741	7.415	-0.001	10265980	39.4035	40.6987	3.2	Endosulfan II
6.583	-0.001	1943198	7.282	-0.001	9732622	40.4240	40.8371	1.0	4,4'-DDD
7.513	-0.001	1774757	7.959	-0.001	8684657	39.6628	40.9454	3.2	Endosulfan sulfate
6.840	-0.002	1852136	7.570	-0.001	8863356	38.3198	39.0799	2.0	4,4'-DDT
7.270	-0.001	1037293	8.155	-0.004	3896702	43.8958	40.2707	8.6	Methoxychlor
7.766	0.000	2013651	8.447	-0.002	8217450	38.4822	38.7848	0.8	Endrin ketone
7.123	0.000	1679565	7.714	-0.001	7942323	39.1764	39.9963	2.1	Endrin aldehyde
5.842	-0.001	2581745	6.474	-0.002	13702530	39.1833	37.7540	3.7	gamma-Chlordane
5.966	-0.001	2480664	6.613	-0.002	12856138	39.0109	37.9913	2.6	alpha-Chlordane
2.192	-0.019	2569	2.362	-0.015	6076	~~0.0262~~	~~0.0129~~	~~68.3*~~	Hexachlorobutadiene
4.000	-0.002	28731	4.458	0.000	5427	~~0.4066~~	~~0.0133~~ N	~~187.3*~~	Hexachlorobenzene
8.750	0.000	4029095	10.105	0.000	14626985	80.0000	80.0000	0.0	Hexabromobiphenyl
3.669	-0.001	2185035	4.006	-0.001	13004752	34.0084	34.4211	1.2	Tetrachloro-m-xylen
8.610	-0.001	1722941	9.565	-0.002	7427466	31.9973	33.0228	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower Limits
Tetrachloro-m-xylene	85.0	86.1	85.0~ 115- 0
Decachlorobiphenyl	80.0	82.6	80.0~ 115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

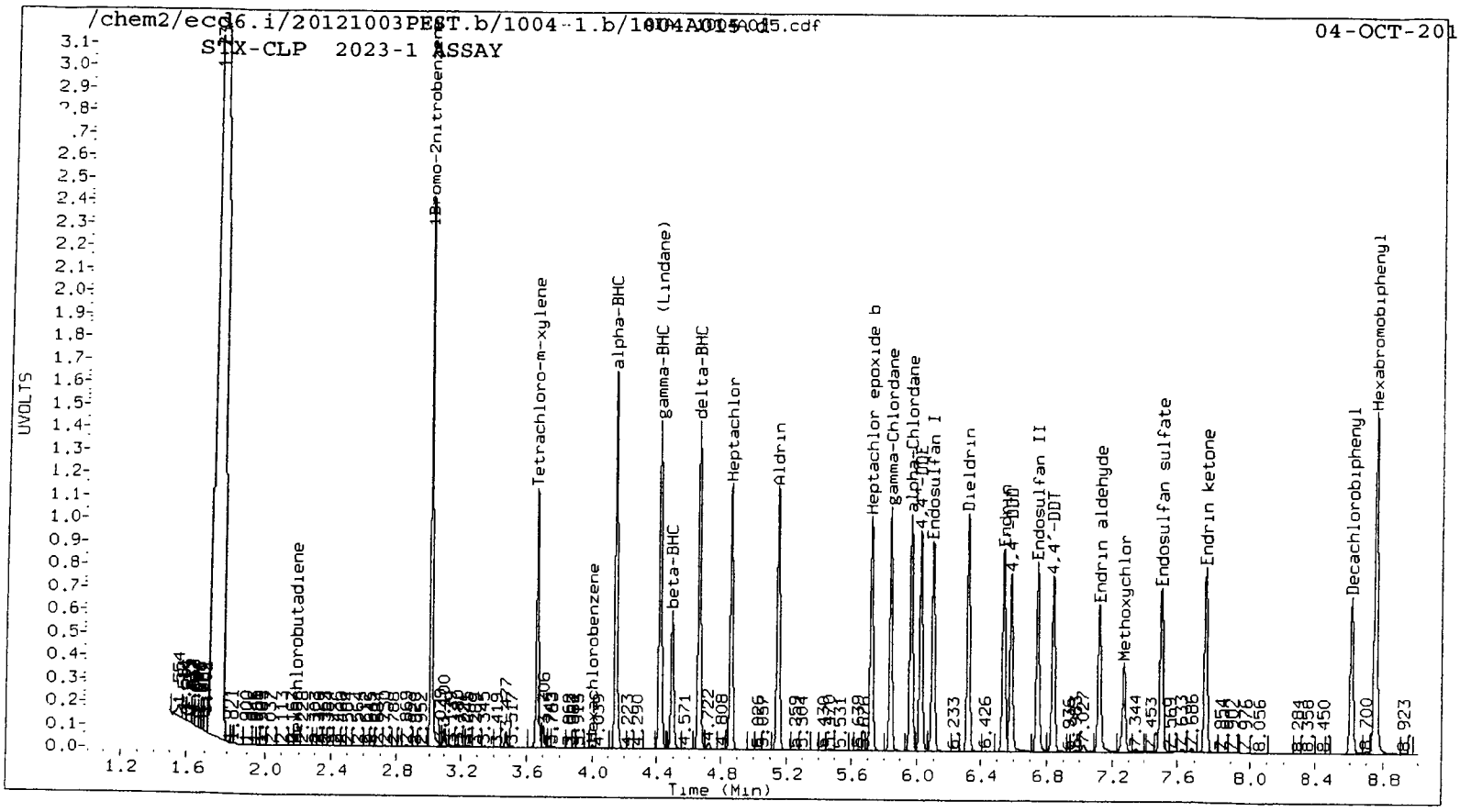
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4336099	6.8
Hexabromobiphenyl	3748709	4029095	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21737033	3.3
Hexabromobiphenyl	14864285	14626985	-1.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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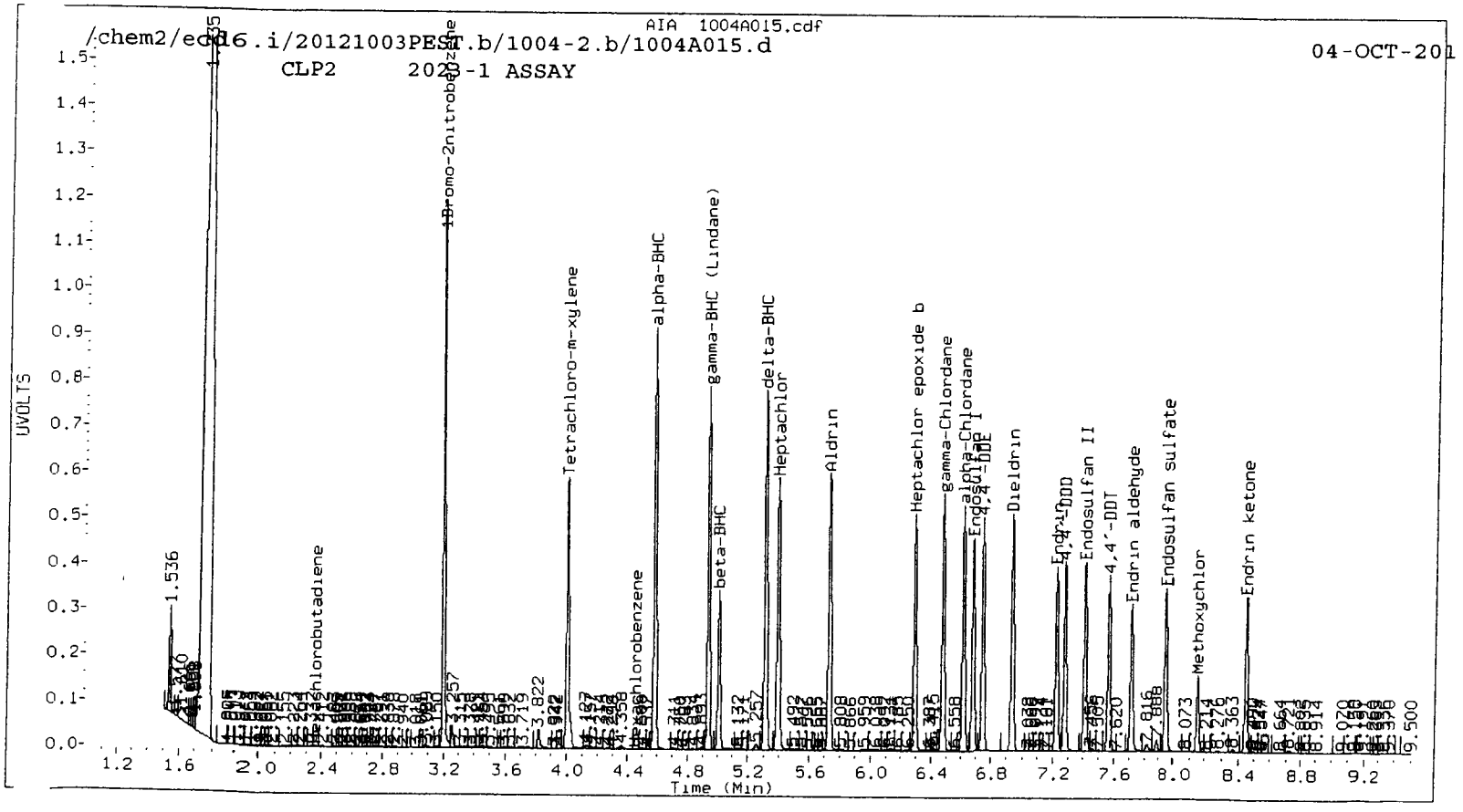
1004A015.cdf
04-OCT-201
SOX-CLP 2023-1 ASSAY
UVOLTS
Time (Min)
1.536
Hexachlorobutadiene
4-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl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04-OCT-201
CLP2 2023-1 ASSAY
UVOLTS
Time (Min)
1.536
Hexachlorobutadiene
4-Bromo-2nitrobenzene
Tetrachloro-m-xylene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 10/19/12

Data file 1: /chem2/ecd6.i/20121003PEST.b/1012-1.b/1012A006.d ARI ID: TOXAPH
Data file 2: /chem2/ecd6.i/20121003PEST.b/1012-2.b/1012A006.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 12-OCT-2012 12:41
Compound Sublist: TOXAPH Report Date: 10/17/2012 14:45
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.009	0.000	5080195	3.190	0.000	25258671	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.746	0.000	4970606	10.098	-0.002	15955179	80.0000	80.0000	0.0	Hexabromobiphenyl
3.666	-0.004	1976212	4.003	-0.005	11619834	26.2531	26.4675	0.8	Tetrachloro-m-xylen
8.606	-0.005	1739918	9.559	-0.008	7008012	26.1920	28.5641	8.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	65.6	66.2	65.6~	150- 0
Decachlorobiphenyl	65.5	71.4	65.5~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	5080195	25.1
Hexabromobiphenyl	3748709	4970606	32.6

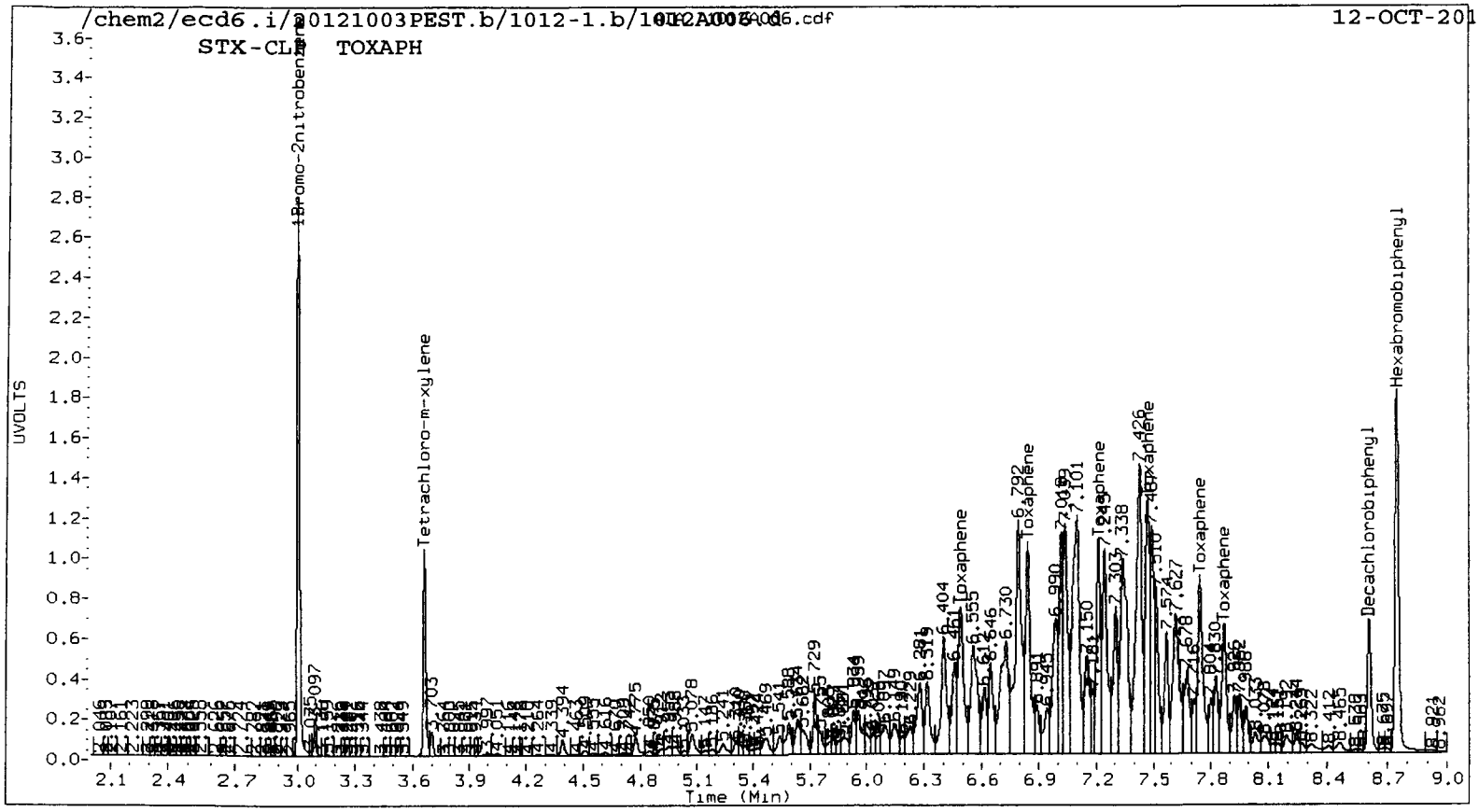
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	25258671	20.1
Hexabromobiphenyl	14864285	15955179	7.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Aroclor	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.490	0.000	2836464	2500.000	1	7.158	0.000	19673196	2500.000
Toxaphene	2	6.843	0.000	3787438	2500.000	2	7.483	0.000	28530140	2500.000
Toxaphene	3	7.212	0.000	3066487	2500.000	3	7.713	0.000	30831903	2500.000
Toxaphene	4	7.466	0.000	3757792	2500.000	4	8.180	0.000	21297174	2500.000
Toxaphene	5	7.745	0.000	3214489	2500.000	5	8.527	0.000	9514481	2500.000
Toxaphene	6	7.874	0.000	2200771	2500.000	NS	---			----

Total STX-CLPAve (6 peaks): 2500.000 Total CLP2Ave (5 peaks): 2500.000 RPD = 0
Corrected Ave (6 peaks): 2500.000 Corrected Ave (5 peaks): 2500.000 RPD = 0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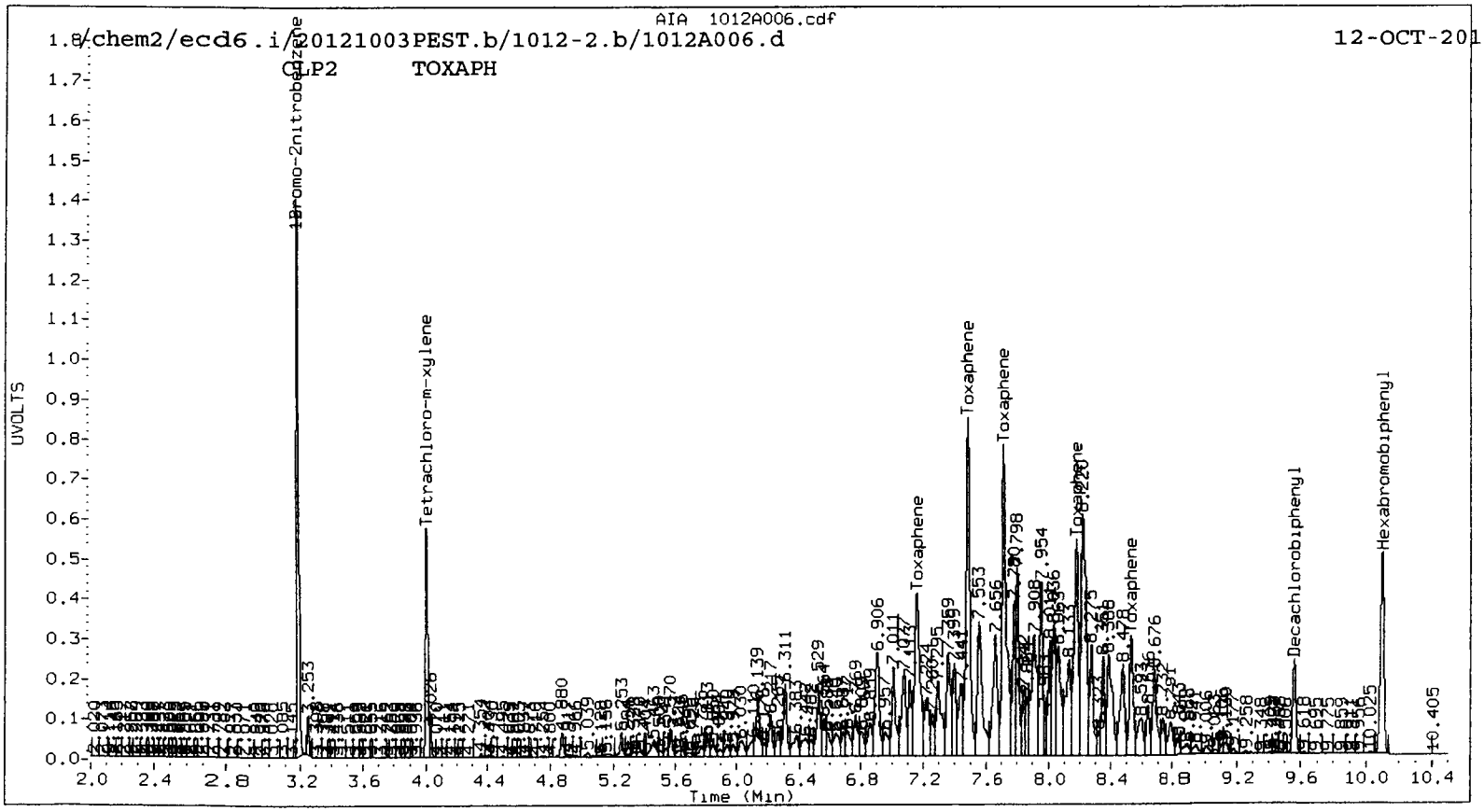
12-OCT-201
STX-CLP2 TOXAPH
UVOLTS
Time (Min)
4-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl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12-OCT-201
CLP2 TOXAPH
UVOLTS
Time (Min)
4-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl

Pesticide Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: VR38

Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: VR38/VR58 Client ID: Anchor QEA

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): Pest

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 10/03/12 Analysis Start: 11/20/12

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	LCS/LCSD Recovery In Control?	YES / NO
CCal Meets RF & %RSD Criteria?	YES / NO	Surrogate Recovery In Control?	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Special Analysis Criteria Met?	YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary): Matrix Difficult

- Samples were run @ (5x) dilution due to very dark color of the extracts
- CCAL's HBB & DCBP were high on CC#2 column in opening CCAL, CC#, values reported
- Samples were run twice, on 11/20/12 and 11/21/12 Both times closing CCAL's and DDT breakdown failed due to matrix (effect) interference.
  DDT breakdown = 69%.
  First run reported due to better opening CCAL's.
- Sample E: HBB IS failed low on CC#2 column, CC#, values reported.

Additional Details on Reverse: Yes / No

Analyst: YZ Date: 11/27/12

Reviewer: [signature] Date: 11/27/12

Analytical Resources Inc.: Organics Instrument Log

ECD6 Serial No.: US00007128

Date: 11/20/12 Analysis: ~~TB~~ Pest Analyst: YZ

Column 1 Serial No.: 1025684 Column Type: STX CCP

Column 2 Serial No.: 1094709 Column Type: STX CCP2

GC Method: Pest ICal Date: 10/03/12

IS	Ical/Ccal	ICV
2000-1	1985-3	
	1982-1,2,3	
	1984-3	

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20121003PEST.b/1120-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	20-NOV-2012 11:58	1120A002.d	1	DS	
2	20-NOV-2012 12:16	1120A003.d	1	INDAE	
3	20-NOV-2012 12:34	1120A004.d	1	WNDE	
4	20-NOV-2012 12:52	1120A005.d	1	TOXAPH	
5	20-NOV-2012 13:10	1120A006.d	1	DS	
6	20-NOV-2012 13:27	1120A007.d	1	INDAE	
7	20-NOV-2012 13:45	1120A008.d	1	VR88MBW1	
8	20-NOV-2012 14:03	1120A009.d	1	VR88LCSW1	
9	20-NOV-2012 14:21	1120A010.d	1	VR88LCSDW1	
10	20-NOV-2012 14:39	1120A011.d	1	VR88A	
11	20-NOV-2012 14:56	1120A012.d	1	VR88B	
12	20-NOV-2012 15:14	1120A013.d	1	VR88C	
13	20-NOV-2012 15:32	1120A014.d	1	VR88D	
14	20-NOV-2012 15:50	1120A015.d	1	VR88E	
15	20-NOV-2012 16:08	1120A016.d	1	VS14A	
16	20-NOV-2012 16:25	1120A017.d	1	VS14B	
17	20-NOV-2012 16:43	1120A018.d	1	VS14C	
18	20-NOV-2012 17:01	1120A019.d	1	VS14D	
19	20-NOV-2012 17:19	1120A020.d	1	VS14E	
20	20-NOV-2012 17:37	1120A021.d	1	DS	
21	20-NOV-2012 17:54	1120A022.d	1	INDAE	
22	20-NOV-2012 18:12	1120A023.d	1	VR80MBW1	
23	20-NOV-2012 18:30	1120A024.d	1	VR80LCSW1	
24	20-NOV-2012 18:48	1120A025.d	1	VR80LCSDW1	
25	20-NOV-2012 19:06	1120A026.d	1	VR80A	
26	20-NOV-2012 19:23	1120A027.d	1	VR80B	
27	20-NOV-2012 19:41	1120A028.d	1	VR80C	
28	20-NOV-2012 19:59	1120A029.d	1	VR80D	
29	20-NOV-2012 20:17	1120A030.d	1	DS	
30	20-NOV-2012 20:34	1120A031.d	1	INDAE	
31	20-NOV-2012 20:52	1120A032.d	1	TOXAPH	
32	20-NOV-2012 21:10	1120A033.d	1	VS45MBW1	
33	20-NOV-2012 21:28	1120A034.d	1	VS45LCSW1	
34	20-NOV-2012 21:46	1120A035.d	1	VS45LCSDW1	
35	20-NOV-2012 22:03	1120A036.d	1	VS45A	
36	20-NOV-2012 22:21	1120A037.d	1	VS45B	
37	20-NOV-2012 22:39	1120A038.d	1	VS45C	
38	20-NOV-2012 22:57	1120A039.d	1	VS45D	
39	20-NOV-2012 23:15	1120A040.d	1	VS45E	
40	20-NOV-2012 23:32	1120A041.d	1	VS45F	
41	20-NOV-2012 23:50	1120A042.d	1	VS49A	
42	21-NOV-2012 00:08	1120A043.d	1	VS49B	
43	21-NOV-2012 00:26	1120A044.d	1	VS61A	
44	21-NOV-2012 00:44	1120A045.d	1	VS61B	
45	21-NOV-2012 01:02	1120A046.d	1	VS61C	
46	21-NOV-2012 01:19	1120A047.d	1	DS	
47	21-NOV-2012 01:37	1120A048.d	1	INDAE	
48	21-NOV-2012 01:55	1120A049.d	1	TOXAPH	
49	21-NOV-2012 02:13	1120A050.d	1	WNDE	
50	21-NOV-2012 02:31	1120A051.d	1	VR10MBS1	
51	21-NOV-2012 02:48	1120A052.d	1	VR10A	
52	21-NOV-2012 03:06	1120A053.d	1	VR38MBS1	
53	21-NOV-2012 03:24	1120A054.d	1	VR38LCSS1	
54	21-NOV-2012 03:42	1120A055.d	1	VR38J	5
55	21-NOV-2012 04:00	1120A056.d	1	VR38K	5
56	21-NOV-2012 04:17	1120A057.d	1	VR58A	5
57	21-NOV-2012 04:35	1120A058.d	1	VR58B	5
58	21-NOV-2012 04:53	1120A059.d	1	VR58C	5
59	21-NOV-2012 05:11	1120A060.d	1	VR58D	5
60	21-NOV-2012 05:29	1120A061.d	1	VR58E	5
61	21-NOV-2012 05:46	1120A062.d	1	VR58F	5
62	21-NOV-2012 06:04	1120A063.d	1	VR58G	
63	21-NOV-2012 06:22	1120A064.d	1	VR58GMS	
64	21-NOV-2012 06:40	1120A065.d	1	VR58GMSD	
65	21-NOV-2012 06:58	1120A066.d	1	DS	
66	21-NOV-2012 07:16	1120A067.d	1	INDAE	
67	21-NOV-2012 07:33	1120A068.d	1	WNDE	

StarLIMS

YZ 11/21/12

egible.
ks In StarLIMS

Revision 001
2/10/11

VD38 : 01886

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A048.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A048.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 21-NOV-2012 01:37
Compound Sublist: INDA Report Date: 11/27/2012 12:33
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.003	-0.007	4398580	3.185	-0.006	24031979	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.135	-0.013	1784919	4.573	-0.012	10650290	21.7746	20.3148	6.9	alpha-BHC
4.499	0.002	702533	5.003	-0.004	3983059	20.2747	18.7716	7.7	beta-BHC
4.663	0.000	1421148	5.308	-0.007	8203457	21.5079	19.7254	8.6	delta-BHC
4.412	-0.012	1557348	4.924	-0.013	9316163	20.6790	19.6570	5.1	gamma-BHC (Lindane)
4.846	-0.016	1392326	5.382	-0.016	8302703	20.3908	19.1342	6.4	Heptachlor
5.131	-0.017	1470288	5.720	-0.016	8480694	21.0850	19.8760	5.9	Aldrin
5.704	-0.019	1364917	6.277	-0.016	7338876	20.3059	19.0799	6.2	Heptachlor epoxide b
6.081	-0.019	1368768	6.664	-0.016	6554967	22.0042	18.9778	14.8	Endosulfan I
6.303	-0.020	2696838	6.922	-0.017	13557633	41.9419	37.1045	12.2	Dieldrin
6.016	-0.011	2397787	6.733	-0.013	13148474	40.3885	37.7401	6.8	4,4'-DDE
6.520	-0.020	2088764	7.211	-0.017	9678393	37.1442	40.2347	8.0	Endrin
6.729	-0.017	2216822	7.402	-0.015	10629095	40.8234	44.2061	8.0	Endosulfan II
6.572	-0.012	2059188	7.272	-0.011	10266476	41.9365	45.1910	7.5	4,4'-DDD
7.494	-0.020	1824947	7.945	-0.015	8525189	39.9272	42.1660	5.5	Endosulfan sulfate
6.827	-0.015	1884258	7.558	-0.013	8472914	38.1650	39.1916	2.7	4,4'-DDT
7.257	-0.013	4325241	8.143	-0.016	16621519	179.1867	180.2056	0.6	Methoxychlor
7.747	-0.020	2548198	8.432	-0.017	10200616	47.6741	50.5075	5.8	Endrin ketone
7.104	-0.019	1753817	7.700	-0.015	8195097	40.0484	43.2944	7.8	Endrin aldehyde
5.827	-0.015	1375378	6.461	-0.015	7342248	20.5777	18.2979	11.7	gamma-Chlordane
5.950	-0.017	1297869	6.599	-0.016	6805245	20.1204	18.1898	10.1	alpha-Chlordane
2.199	-0.011	2214288	2.367	-0.010	10170983	22.2889	19.4935	13.4	Hexachlorobutadiene
3.998	-0.004	1521000	4.452	-0.006	11385117	21.2186	25.2362	17.3	Hexachlorobenzene
8.741	-0.005	4115604	10.087	-0.011	13942788	80.0000	80.0000	0.0	Hexabromobiphenyl
3.662	-0.008	2413275	3.999	-0.008	16851553	37.0273	40.3435	8.6	Tetrachloro-m-xylen
8.593	-0.017	2174248	9.546	-0.020	10421241	39.5299	48.6069	20.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	92.6	100.9	92.6~	115- 0
Decachlorobiphenyl	98.8	121.5	98.8~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

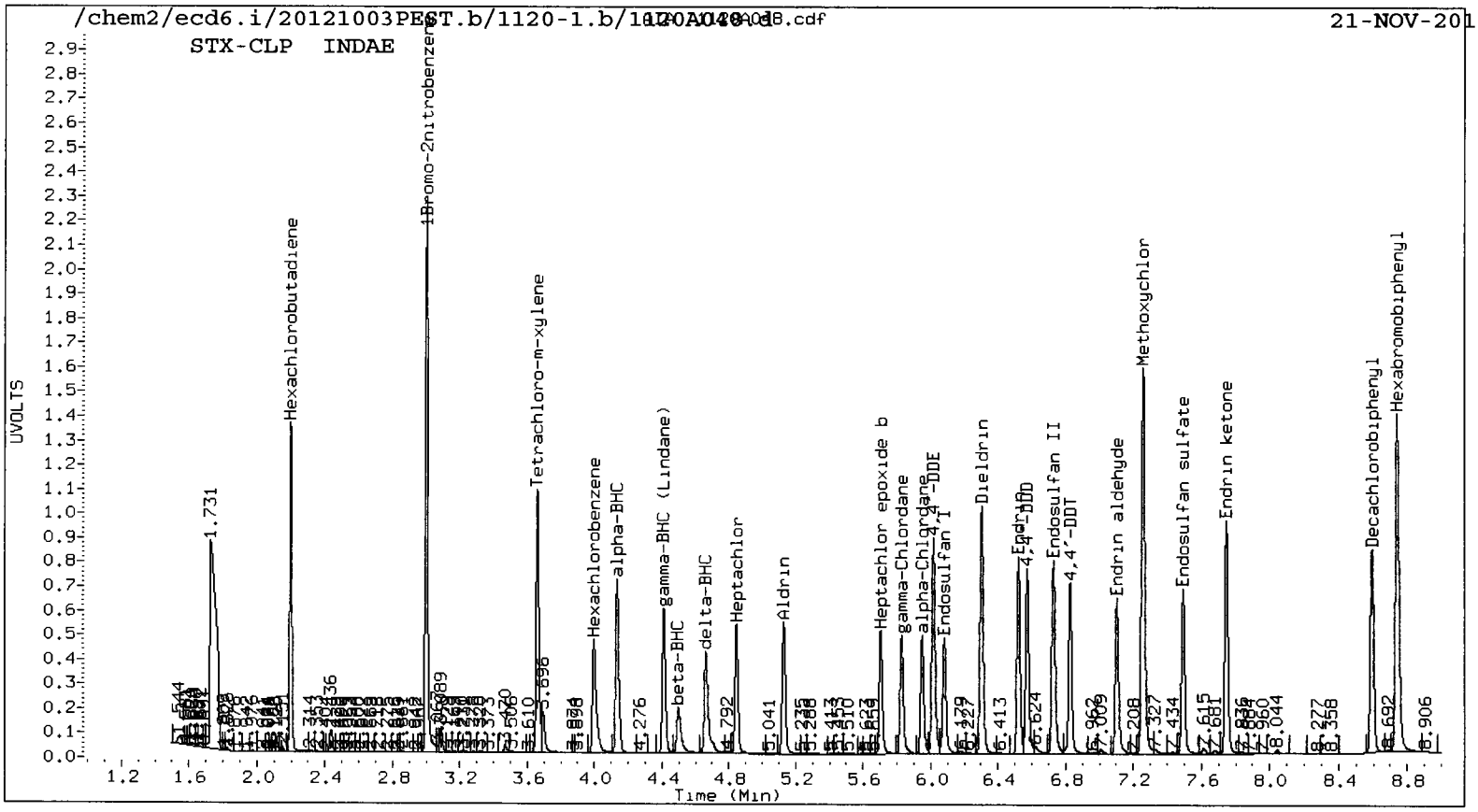
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4398580	8.3
Hexabromobiphenyl	3748709	4115604	9.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	24031979	14.3
Hexabromobiphenyl	14864285	13942788	-6.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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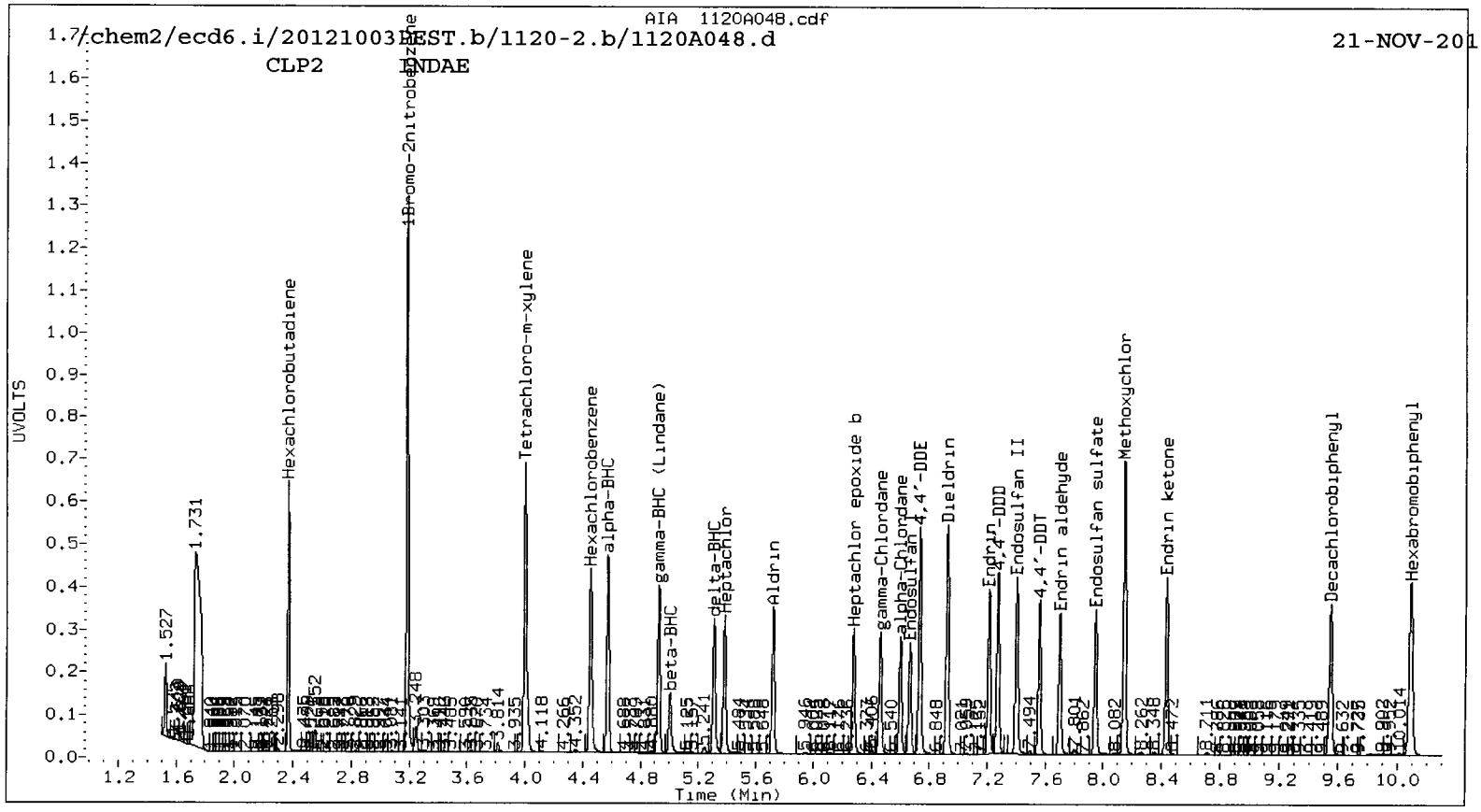
21-NOV-201
STX-CLP INDAE
UVOLTS
Time (Min)
1.731
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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/chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A048.d
21-NOV-201
CLP2 INDAE
UVOLTS
Time (Min)
1.527
1.731
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A050.d ARI ID: WNDE
Data file 2: /chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A050.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 21-NOV-2012 02:13
Compound Sublist: WND Report Date: 11/27/2012 12:33
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.731	-0.007	58109	1.730	0.002	21340427	0.0000	0.0000	---	Hexachloroethane
3.003	-0.007	4307713	3.185	-0.006	23669772	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.610	-0.017	1893804	6.188	-0.015	10743765	37.5728	35.5945	5.4	Oxychlordane
5.694	-0.009	1567901	6.442	-0.011	8087468	42.3226	37.0504	13.3	2,4-DDE
5.935	-0.016	2404615	6.546	-0.014	12210529	40.0559	41.7183	4.1	trans-Nonachlor
6.182	-0.008	1335664	6.929	-0.010	7153947	40.2465	45.3759	12.0	2,4-DDD
6.417	-0.012	1330541	7.215	-0.012	6375999	35.4177	37.0698	4.6	2,4-DDT
6.551	-0.015	2565278	7.272	-0.014	12175142	40.3422	39.7841	1.4	cis-Nonachlor
7.419	-0.017	1608777	8.418	-0.016	6215810	38.0088	36.7358	3.4	Mirex
8.741	-0.005	4053655	10.087	-0.011	14076646	80.0000	80.0000	0.0	Hexabromobiphenyl
3.663	-0.007	1918716	4.000	-0.008	13894209	30.0602	33.7725	11.6	Tetrachloro-m-xylen
8.594	-0.017	1774201	9.546	-0.020	8666199	32.7496	40.0366	20.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	75.2	84.4	75.2~	150- 0
Decachlorobiphenyl	81.9	100.1	81.9~	150- 0

~ Indicates recovery outside QC Limits

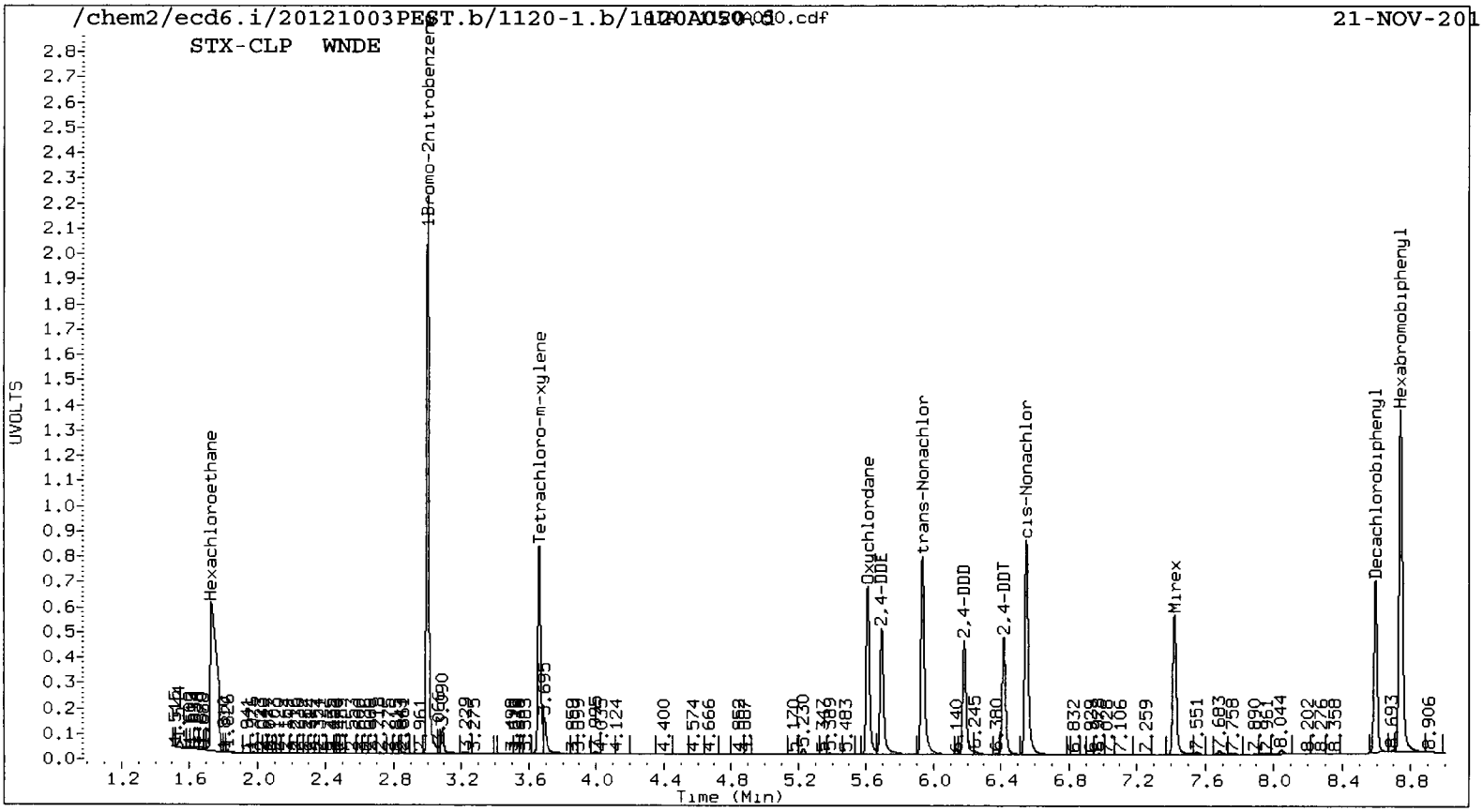
INTERNAL STANDARD SUMMARY

	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4307713	6.1
Hexabromobiphenyl	3748709	4053655	8.1

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	23669772	12.5
Hexabromobiphenyl	14864285	14076646	-5.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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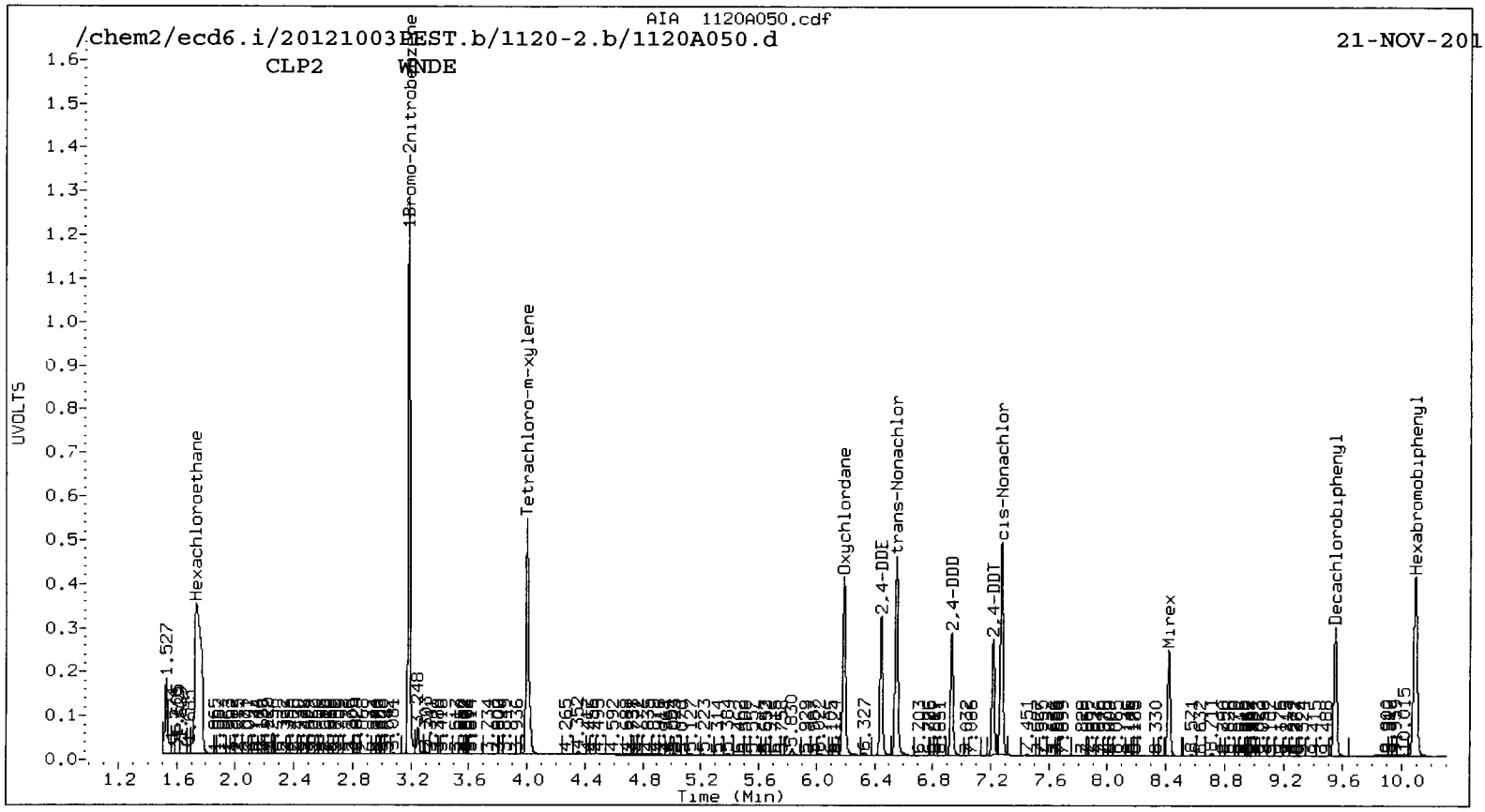
1120A050.cdf
21-NOV-201
STX-CLP WNDE
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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21-NOV-201
CLP2 WNDE
UVOLTS
Time (Min)
1.527
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 11/27/12

Data file 1: /chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A053.d ARI ID: VR38MBS1
Data file 2: /chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A053.d Client ID: VR38MBS1
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 21-NOV-2012 03:06
Compound Sublist: wpest Report Date: 11/27/2012 11:47
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.001	-0.009	4041180	3.183	-0.007	18893460	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.117	-0.030	8485	4.577	-0.008	51082	~~0.1127~~	~~0.1239~~	9.5	alpha-BHC
4.497	0.000	17527	5.032	0.026	94862	0.5506	0.5687	3.2	beta-BHC
4.644	-0.019	2003	5.315	0.001	48691	0.0330	0.1489	127.5*	delta-BHC
4.403	-0.021	7746	4.903	-0.033	163183	0.1120	0.4380	118.6*	gamma-BHC (Lindane)
4.866	0.005	2735	----			0.0436	0.0000	---	Heptachlor
5.153	0.005	3801	5.704	-0.032	785430	0.0593	2.3414	190.1*	Aldrin
5.722	-0.001	3453	6.244	-0.050	106916	0.0559	0.3536	145.4*	Heptachlor epoxide b
6.071	-0.029	3249	6.659	-0.021	65609	0.0568	0.2416	123.8*	Endosulfan I
6.281	-0.041	5935	6.910	-0.029	73281	0.1005	0.2551	87.0*	Dieldrin
6.009	-0.018	3533	6.753	0.008	64035	0.0648	0.2338	113.2*	4,4'-DDE
6.539	-0.002	8003	7.232	0.004	135652	0.1468	0.6422	125.6*	Endrin
----			7.376	-0.040	115158	0.0000	0.5454	---	Endosulfan II
6.585	0.001	7807	----			0.1640	0.0000	---	4,4'-DDD
7.502	-0.012	2673	7.941	-0.019	46152	0.0603	0.2600	124.7*	Endosulfan sulfate
6.841	-0.001	4413	7.563	-0.008	139836	0.0922	0.7366	155.5*	4,4'-DDT
7.235	-0.036	11099	8.170	0.012	79973	0.4742	0.9874	70.2*	Methoxychlor
7.745	-0.021	20559	8.443	-0.006	194526	0.3967	1.0969	93.8*	Endrin ketone
7.099	-0.024	2880	7.720	0.005	82713	0.0678	0.4976	152.0*	Endrin aldehyde
5.825	-0.018	27505	6.467	-0.009	130410	0.4479	0.4134	8.0	gamma-Chlordane
5.946	-0.021	3665	6.576	-0.039	48794	0.0618	0.1659	91.4*	alpha-Chlordane
2.211	0.001	49009	2.338	-0.039	1328340	0.5370	3.2383	143.1*	Hexachlorobutadiene
3.989	-0.013	59335	4.444	-0.013	91271	0.9010	0.2573	111.1*	Hexachlorobenzene
5.604	-0.023	7847	6.215	0.012	28636	0.1581	0.1189	28.4	Oxychlordane
----			6.425	-0.029	57059	0.0000	0.3275	---	2,4-DDE
5.977	0.026	3586	6.554	-0.007	45028	0.0607	0.1769	97.8*	trans-Nonachlor
6.153	-0.037	3302	6.930	-0.009	62299	0.1011	0.4543	127.2*	2,4-DDD
6.430	0.001	2170	----			0.0587	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.428	-0.009	2485	8.407	-0.027	532995	~~0.0596~~	~~3.6219~~	193.5*	Mirex
8.732	-0.014	3990867	10.083	-0.015	12242758	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
----			1.691	-0.037	19681744	~~0.0000~~	~~0.0000~~	---	Hexachloroethane
----			7.315	-0.021	53097	0.0000	3.1878	---	Kepone
3.658	-0.012	1595670	3.996	-0.012	9021135	26.6479	27.4709	3.0	Tetrachloro-m-xylene
8.590	-0.021	1820710	9.543	-0.023	8139707	34.1369	43.2372	23.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	66.6	68.7	66.6	42-112
Decachlorobiphenyl	85.3	108.1	85.3	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

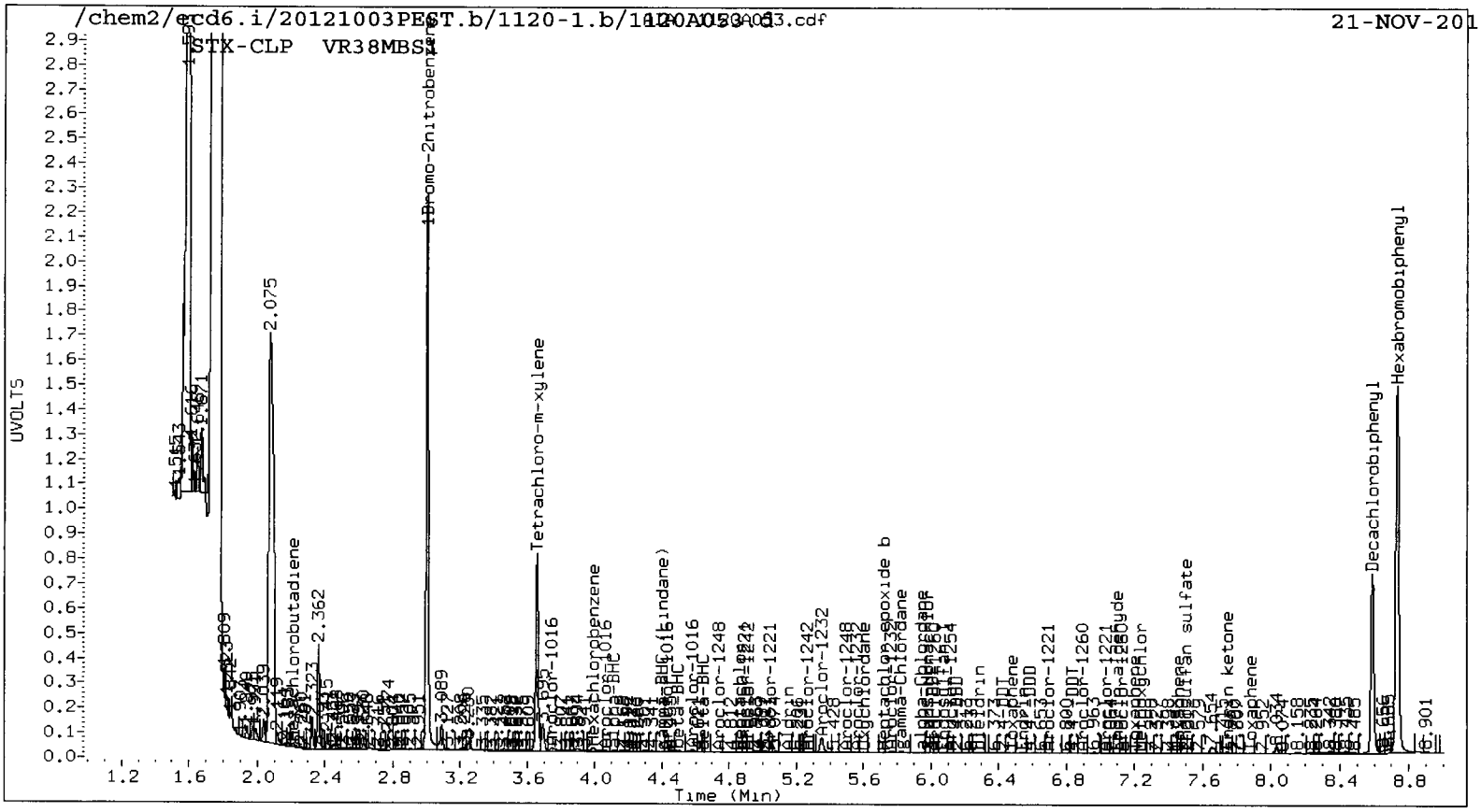
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4041180	-0.5
Hexabromobiphenyl	3748709	3990867	6.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	18893460	-10.2
Hexabromobiphenyl	14864285	12242758	-17.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.476	-0.015	4312	4.7	1	7.174	0.015	66924	11.1
Toxaphene	2	6.841	-0.002	4413	3.6	2	7.494	0.011	64999	7.4
Toxaphene	3	7.198	-0.014	3137	3.2	3	7.720	0.007	82713	8.7
Toxaphene	4	7.458	-0.008	1036	0.9	4	8.170	-0.009	79973	12.2
Toxaphene	5	7.745	0.000	20559	19.9	5	8.532	0.005	246706	84.5
Toxaphene	6	7.884	0.010	9375	13.3	NS	---			----
Total STX-CLPAve (6 peaks): 7.597						Total CLP2Ave (5 peaks): 24.792				RPD = 106*
Corrected Ave (4 peaks): 3.101						Corrected Ave (4 peaks): 9.870				RPD = 104*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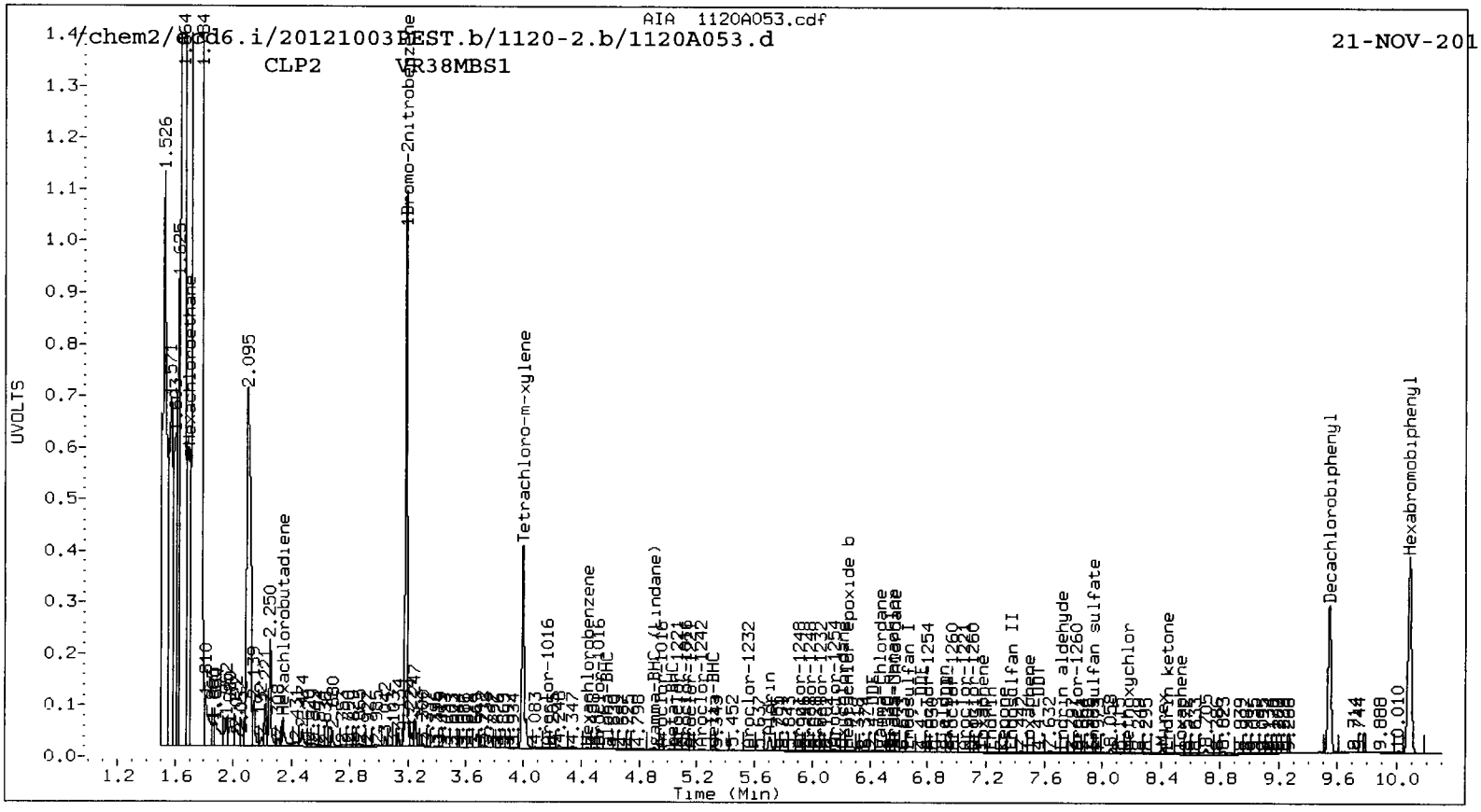
21-NOV-201
STX-CLP VR38MBS1
UVOLTS
Time (Min)
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl
Hexachloroethane
Hexachlorobutadiene
Hexachlorobenzene
gamma-BHC (Lindane)
Aroclor-1016
Aroclor-1248
Aroclor-1221
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1260
Heptachlor
Aldrin
Heptachlor epoxide b
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin aldehyde
Endosulfan ketone
Methoxychlor
Toxaphene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21-NOV-201
CLP2 VR38MBS1
UVOLTS
Time (Min)
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl
Hexachloroethane
Hexachlorobutadiene
Hexachlorobenzene
gamma-BHC (Lindane)
Aroclor-1016
Aroclor-1248
Aroclor-1221
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1260
Heptachlor
Aldrin
Heptachlor epoxide b
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin aldehyde
Endosulfan ketone
Methoxychlor
Toxaphene

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 11/27/12

Data file 1: /chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A054.d ARI ID: VR38LCSS1
Data file 2: /chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A054.d Client ID: VR38LCSS1
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 21-NOV-2012 03:24
Compound Sublist: wpest Report Date: 11/27/2012 11:47
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.001	-0.009	4278361	3.183	-0.007	20484734	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.131	-0.016	1190998	4.570	-0.015	6638320	14.9375	14.8549	0.6	alpha-BHC
4.487	-0.010	552400	4.996	-0.011	2976878	16.3899	16.4591	0.4	beta-BHC
4.651	-0.011	455127	5.301	-0.013	2666978	7.0815	7.5233	6.0	delta-BHC
4.407	-0.017	1179768	4.921	-0.015	6437098	16.1055	15.9341	1.1	gamma-BHC (Lindane)
4.843	-0.019	1062971	5.379	-0.018	5891730	16.0048	15.9291	0.5	Heptachlor
5.129	-0.020	1110073	5.718	-0.017	5841449	16.3666	16.0612	1.9	Aldrin
5.701	-0.022	1203860	6.276	-0.018	6086416	18.4131	18.5638	0.8	Heptachlor epoxide b
6.077	-0.022	1118739	6.662	-0.018	5416180	18.4901	18.3962	0.5	Endosulfan I
6.300	-0.022	2366024	6.920	-0.019	11207407	37.8309	35.9838	5.0	Dieldrin
6.009	-0.018	2191100	6.729	-0.017	10985399	37.9441	36.9916	2.5	4,4'-DDE
6.517	-0.023	1989266	7.210	-0.018	8775129	34.5308	38.7078	11.4	Endrin N
6.724	-0.022	2020528	7.399	-0.017	9308737	36.3209	41.0794	12.3	Endosulfan II
6.565	-0.019	1826557	7.267	-0.016	8968436	36.3113	41.8885	14.3	4,4'-DDD M
7.490	-0.023	1294337	7.942	-0.018	6058413	27.6426	31.7954	14.0	Endosulfan sulfate
6.822	-0.020	1673289	7.555	-0.016	7398244	33.0833	36.3109	9.3	4,4'-DDT
7.251	-0.020	4158185	8.140	-0.018	14387848	168.1560	165.5163	1.6	Methoxychlor
7.743	-0.024	2336594	8.430	-0.019	9200931	42.6723	48.3402	12.5	Endrin ketone
7.100	-0.023	1054552	7.697	-0.018	5013599	23.5062	28.1044	17.8	Endrin aldehyde
5.823	-0.020	1171024	6.459	-0.017	6035042	18.0126	17.6446	2.1	gamma-Chlordane
5.946	-0.021	1113575	6.597	-0.018	5529619	17.7484	17.3396	2.3	alpha-Chlordane
2.197	-0.013	1212563	2.365	-0.012	5101133	12.5486	11.4697	9.0	Hexachlorobutadiene
3.991	-0.012	895295	4.447	-0.011	7236778	12.8407	18.8188	37.8	Hexachlorobenzene
5.614	-0.013	10179	6.213	0.010	37036	0.1942	0.1418	31.2	Oxychlordane
----			----			0.0000	0.0000	---	2,4-DDE
----			6.528	-0.033	168396	0.0000	0.6163	---	trans-Nonachlor
6.171	-0.019	30092	----			0.8718	0.0000	---	2,4-DDD
6.407	-0.022	12757	7.210	-0.017	8775129	0.3265	54.6541	197.6*	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.430	-0.006	16645	8.471	0.037	237774	0.3781	1.5054	119.7*	Mirex
8.731	-0.015	4216194	10.082	-0.016	13140209	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.701	-0.037	3000	1.696	-0.032	532869	0.0000	0.0000	---	Hexachloroethane
6.565	-0.016	1826557	----			316.2185	0.0000	---	Kepone
3.658	-0.012	1549308	3.996	-0.012	8002925	24.4393	22.4772	8.4	Tetrachloro-m-xylene
8.589	-0.021	1776157	9.544	-0.023	8365360	31.5218	41.4009	27.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	61.1	56.2	56.2	42-112
Decachlorobiphenyl	78.8	103.5	78.8	59-123
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	1381233.4	967694.8	967694.8~	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	1323331.5	907771.5	907771.5~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

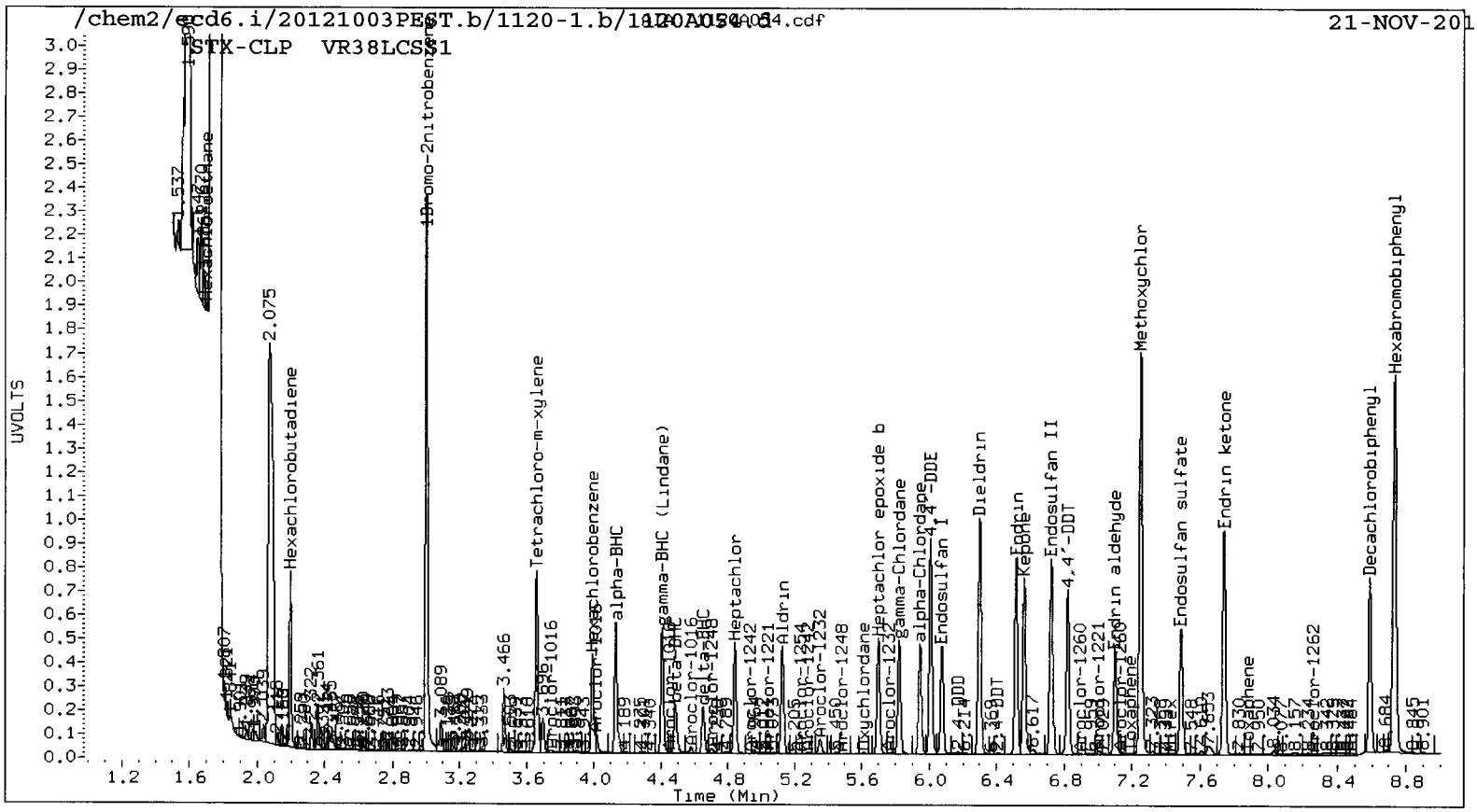
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4278361	5.4
Hexabromobiphenyl	3748709	4216194	12.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	20484734	-2.6
Hexabromobiphenyl	14864285	13140209	-11.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.517	0.027	1989266	2067.0	1	7.145	-0.013	103697	16.0	
Toxaphene	2	6.822	-0.022	1673289	1302.1	2	7.490	0.007	313027	33.3	
Toxaphene	3	7.188	-0.024	21093	20.3	3	7.697	-0.016	5013599	493.6	
Toxaphene	4	7.490	0.025	1294337	1015.2	4	8.202	0.023	81517	11.6	
Toxaphene	5	7.743	-0.002	2336594	2142.4	5	8.529	0.003	191694	61.2	
Toxaphene	6	7.883	0.009	6251	8.4	NS	---			----	
Total STX-CLPAve (6 peaks): 1092.562						Total CLP2Ave (5 peaks): 123.140				RPD = 159*	
Corrected Ave (4 peaks): 586.489						Corrected Ave (4 peaks): 30.521				RPD = 180*	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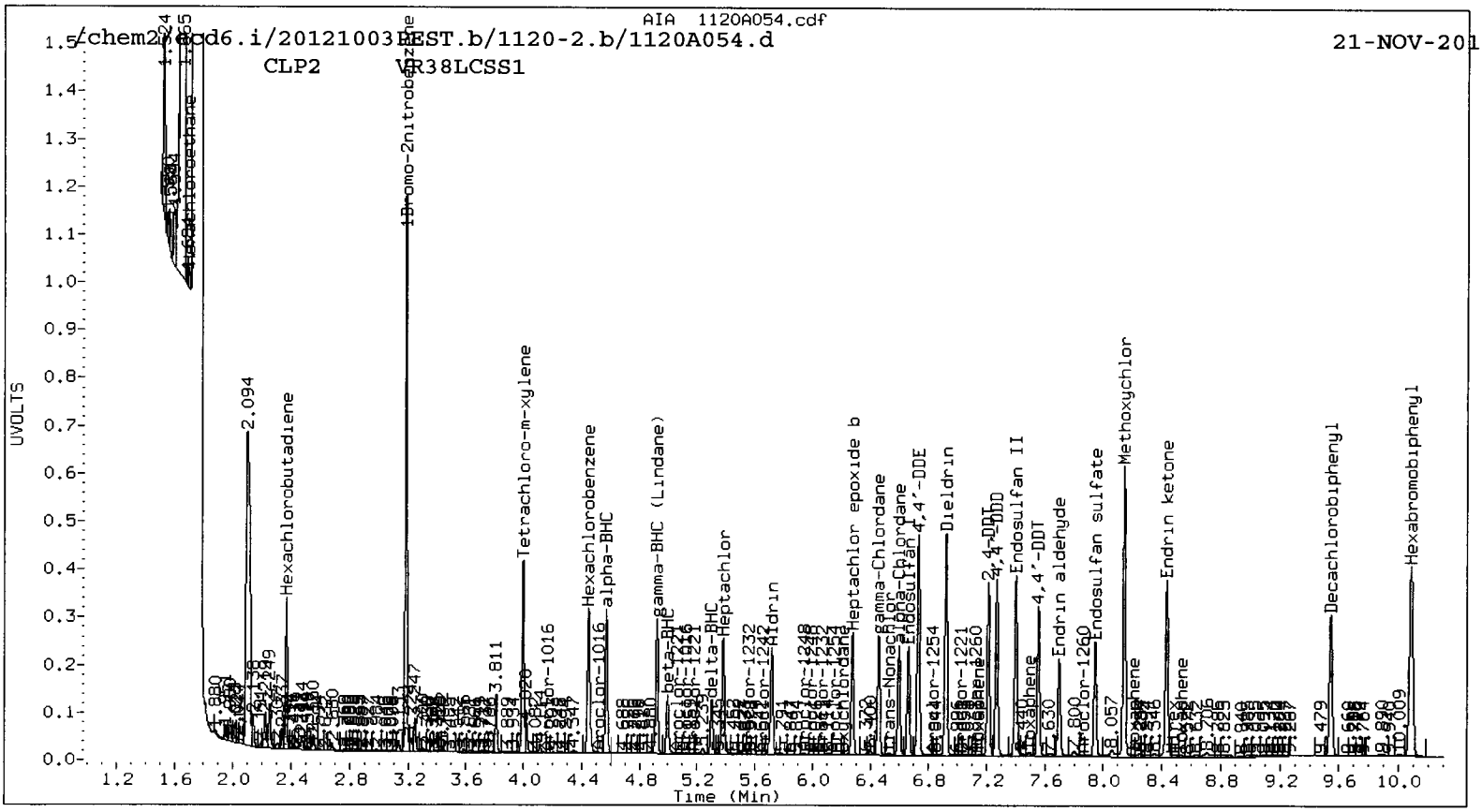
21-NOV-201
STX-CLP VR38LCSS1
UVOLTS
Time (Min)
1,2,4,5-Tetrachlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Hexachloroethane
Nitrobenzene
Hexachlorobutadiene
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aroclor-1016
Aroclor-1221
Aldrin
Aroclor-1232
Aroclor-1242
Aroclor-1248
Heptachlor epoxide b
trans-Nonachlor
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
2,4'-DDT
4,4'-DDT
Endosulfan II
Endrin aldehyde
Aroclor-1260
Endosulfan sulfate
Methoxychlor
Endrin ketone
Aroclor-1254
Aroclor-1262
Decachlorobiphenyl
Hexabromobiphenyl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AIA 1120A054.cdf
21-NOV-201
CLP2 VR38LCSS1
UVOLTS
Time (Min)
1,2,4,5-Tetrachlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Hexachloroethane
Nitrobenzene
Hexachlorobutadiene
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aroclor-1016
Aroclor-1221
Aldrin
Aroclor-1232
Aroclor-1242
Aroclor-1248
Heptachlor epoxide b
trans-Nonachlor
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
2,4'-DDT
4,4'-DDT
Endosulfan II
Endrin aldehyde
Aroclor-1260
Endosulfan sulfate
Methoxychlor
Endrin ketone
Aroclor-1254
Aroclor-1262
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A055.d ARI ID: VR38J
Data file 2: /chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A055.d Client ID: HT-06-S-E-121106
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 21-NOV-2012 03:42
Compound Sublist: wpest Report Date: 11/27/2012 12:10
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.002	-0.008	4395292	3.184	-0.007	22828780	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.151	0.003	17954	4.572	-0.013	62204	~~0.2192~~	~~0.1249~~	54.8*	alpha-BHC
4.511	0.014	28805	5.006	-0.001	35051	0.8319	0.1739	130.8*	beta-BHC
4.643	-0.020	2579	5.313	-0.002	575770	0.0391	1.4574	189.6*	delta-BHC
4.410	-0.014	7330	4.911	-0.025	138520	0.0974	0.3077	103.8*	gamma-BHC (Lindane)
4.888	0.026	11234	5.382	-0.015	54978	0.1646	0.1334	21.0	Heptachlor
5.147	-0.002	4034	5.703	-0.032	277221	0.0579	0.6840	168.8*	Aldrin
5.723	0.000	20688	6.296	0.002	158449	0.3080	0.4337	33.9	Heptachlor epoxide b
6.092	-0.008	2479	6.690	0.009	41824	0.0399	0.1275	104.7*	Endosulfan I
6.298	-0.025	23455	6.920	-0.019	134915	0.3651	0.3887	6.3	Dieldrin
6.008	-0.020	38078	6.728	-0.017	215606	0.6419	0.6515	1.5	4,4'-DDE
----			7.230	0.002	93370	0.0000	0.4500	---	Endrin
6.741	-0.005	4159	7.401	-0.016	76355	0.0786	0.3681	129.6*	Endosulfan II
6.632	0.048	9372	7.267	-0.016	126258	0.1958	0.6443	106.8*	4,4'-DDD
7.492	-0.022	3992	7.964	0.004	77000	0.0896	0.4415	132.5*	Endosulfan sulfate
6.821	-0.021	58484	7.555	-0.016	282273	1.2154	1.5136	21.9	4,4'-DDT
7.288	0.017	14761	8.113	-0.046	45838	0.6274	0.5761	8.5	Methoxychlor
7.742	-0.025	9401	8.439	-0.010	81493	0.1805	0.4678	88.6*	Endrin ketone
7.163	0.040	100467	7.715	0.000	51324	2.3538	0.3143	152.9*	Endrin aldehyde
5.822	-0.021	27778	6.459	-0.017	99191	0.4159	0.2602	46.1*	gamma-Chlordane
----			6.596	-0.019	194473	0.0000	0.5472	---	alpha-Chlordane
2.213	0.003	8514	2.353	-0.024	152809	0.0858	0.3083	112.9*	Hexachlorobutadiene
3.992	-0.011	46895	4.446	-0.012	71412	0.6547	0.1666	118.8*	Hexachlorobenzene
5.639	0.012	3494	6.170	-0.033	514381	0.0701	1.7669	184.7*	Oxychlordane
5.694	-0.009	10648	6.429	-0.025	71700	0.2905	0.3406	15.9	2,4-DDE
5.924	-0.026	76026	6.542	-0.018	355183	1.2798	1.4203	10.4	trans-Nonachlor
6.207	0.017	37967	6.966	0.028	50316	1.1561	0.3735	102.3*	2,4-DDD
6.418	-0.011	8583	7.182	-0.045	52074	0.2309	0.3543	42.2*	2,4-DDT
6.562	-0.004	48334	----			0.7681	0.0000	---	cis-Nonachlor
7.436	-0.001	11991	8.407	-0.027	294014	~~0.2863~~	~~2.0337~~	150.6*	Mirex
8.731	-0.015	4011332	10.082	-0.016	12027139	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.731	-0.006	1690576	1.685	-0.043	8802328	0.0000	0.0000	---	Hexachloroethane
----			7.310	-0.026	38373	~~0.0000~~	2.3451	---	Kepone
3.659	-0.011	409581	3.996	-0.011	2420563	6.2890	6.1004	3.0	Tetrachloro-m-xylene
8.589	-0.021	378608	9.544	-0.022	1631723	7.0624	8.8229	22.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	15.7	15.3	15.3~	42-112
Decachlorobiphenyl	17.7	22.1	17.7~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

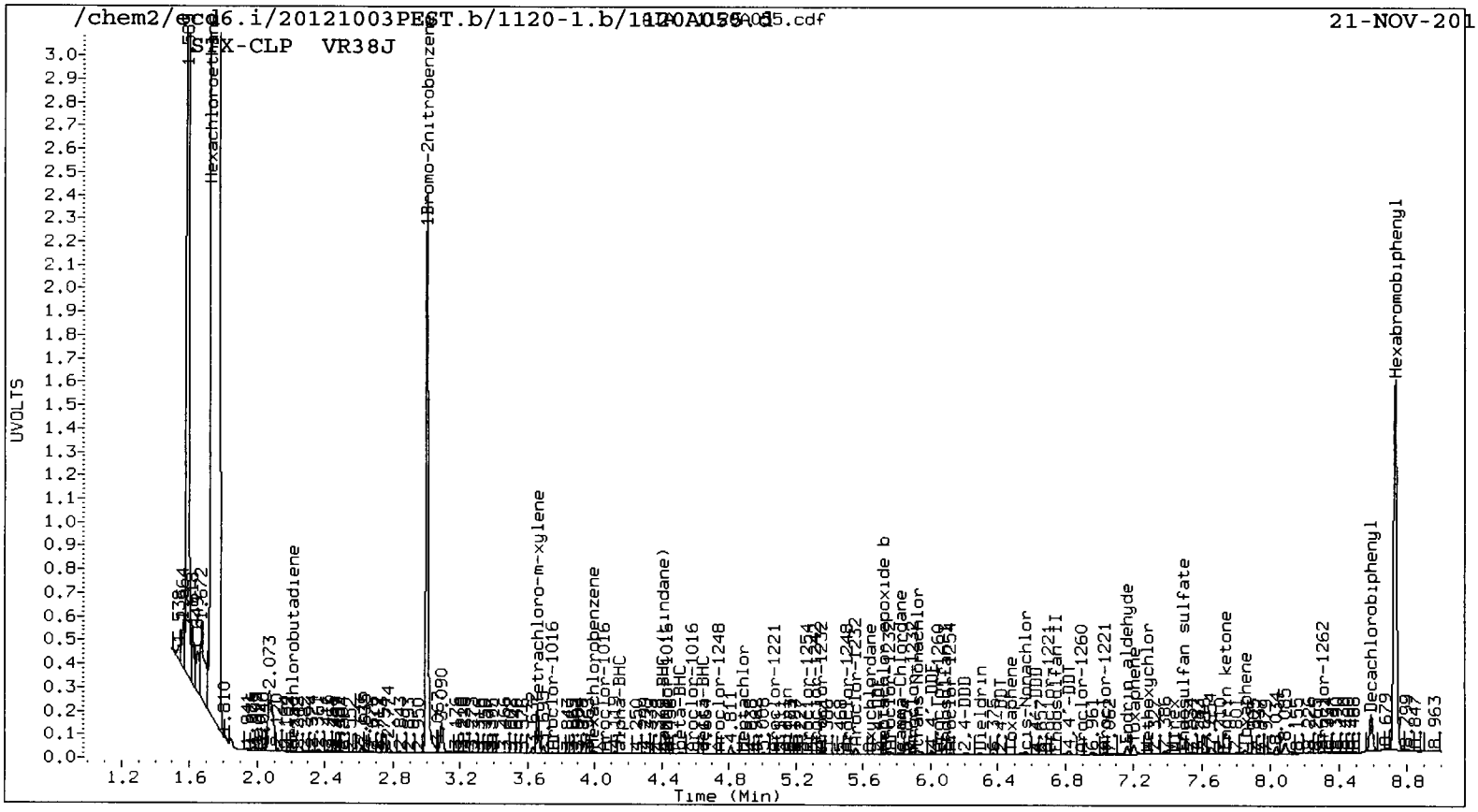
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4395292	8.3
Hexabromobiphenyl	3748709	4011332	7.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	22828780	8.5
Hexabromobiphenyl	14864285	12027139	-19.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.479	-0.011	4391	4.8	1	7.145	-0.014	26218	4.4
Toxaphene	2	6.821	-0.022	58484	47.8	2	7.491	0.008	57339	6.7
Toxaphene	3	7.202	-0.010	130174	131.5	3	7.715	0.002	51324	5.5
Toxaphene	4	7.492	0.026	3992	3.3	4	8.191	0.012	140379	21.9
Toxaphene	5	7.742	-0.003	9401	9.1	5	8.508	-0.018	59545	20.8
Toxaphene	6	7.852	-0.022	48990	69.0	NS	---			----
Total STX-CLPAve (6 peaks): 44.241						Total CLP2Ave (5 peaks): 11.844				RPD = 116*
Corrected Ave (5 peaks): 26.788						Corrected Ave (3 peaks): 5.535				RPD = 132*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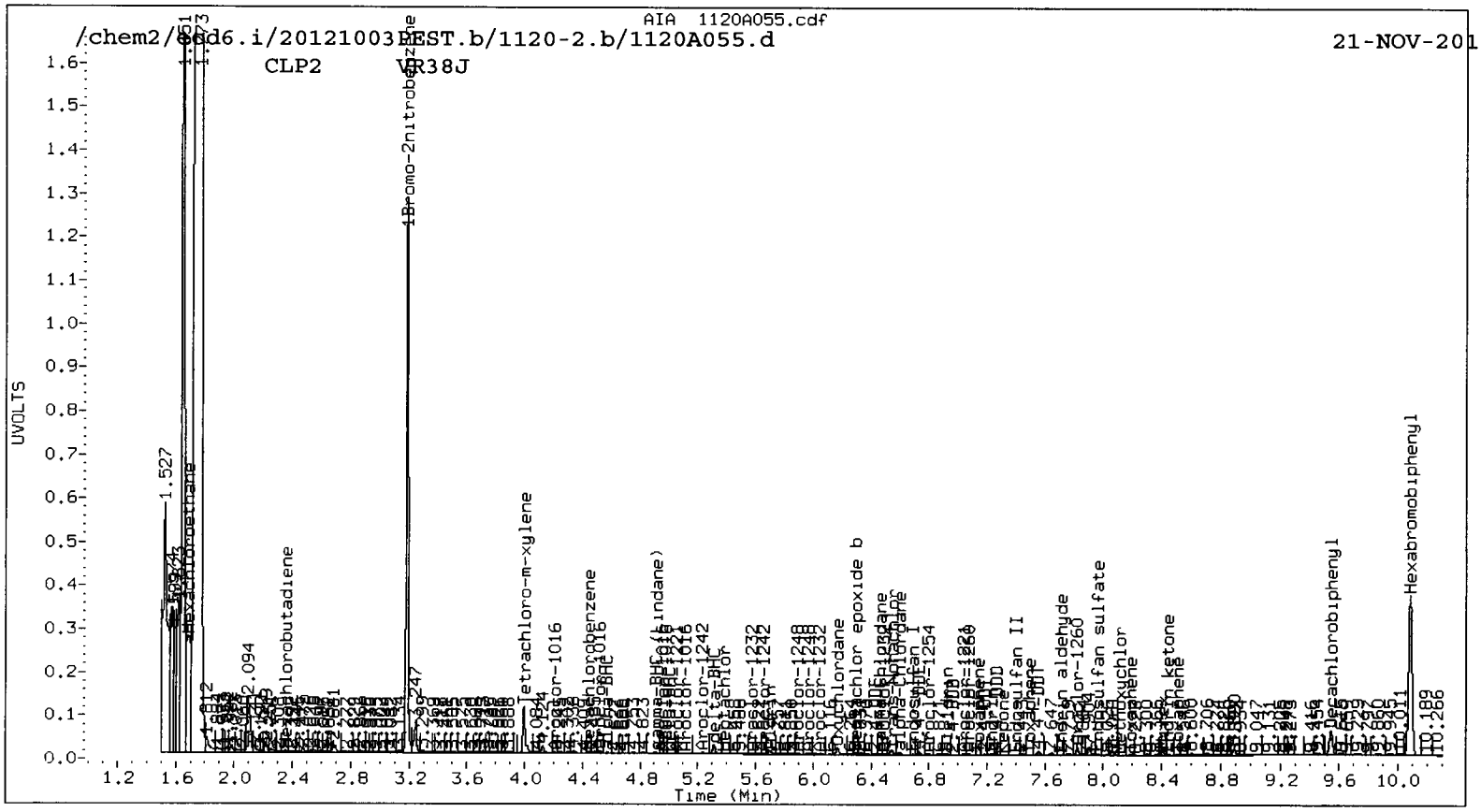
21-NOV-201
SMX-CLP VR38J
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
Decachlorobiphenyl
Hexabromobiphenyl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21-NOV-201
CLP2 VR38J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A056.d ARI ID: VR38K
Data file 2: /chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A056.d Client ID: HT-07-S-E-121106
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 21-NOV-2012 04:00
Compound Sublist: wpest Report Date: 11/27/2012 12:10
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.001	-0.009	4329370	3.184	-0.007	21197856	80.0000	80.0000	0.0	1Bromo-2nitrobenzen IS
4.119	-0.029	21757	4.574	-0.012	41091	0.2697	0.0889	100.9*	alpha-BHC
4.508	0.011	13425	5.007	0.000	44605	0.3936	0.2383	49.2*	beta-BHC
4.664	0.002	6157	5.312	-0.003	4344914	0.0947	11.8443	196.8*	delta-BHC
4.409	-0.015	10411	4.913	-0.024	38351	0.1405	0.0917	42.0*	gamma-BHC (Lindane)
----			----			0.0000	0.0000	---	Heptachlor
5.149	0.000	2767	5.705	-0.031	302728	0.0403	0.8044	180.9*	Aldrin
5.721	-0.003	45450	6.295	0.002	1007042	0.6870	2.9682	124.8*	Heptachlor epoxide b
6.089	-0.010	1549	6.635	-0.045	66362	0.0253	0.2178	158.4*	Endosulfan I
6.299	-0.024	22117	6.920	-0.019	147521	0.3495	0.4577	26.8	Dieldrin
6.008	-0.020	42388	6.728	-0.018	289623	0.7254	0.9424	26.0	4,4'-DDE
----			7.240	0.012	39930	0.0000	0.2074	---	Endrin
6.739	-0.007	3190	7.389	-0.027	47599	0.0628	0.2474	119.0*	Endosulfan II
6.625	0.041	7890	7.267	-0.016	116326	0.1718	0.6398	115.3*	4,4'-DDD
7.488	-0.025	4165	7.942	-0.018	31754	0.0974	0.1962	67.3*	Endosulfan sulfate
6.821	-0.021	64342	7.554	-0.017	249069	1.3936	1.4395	3.2	4,4'-DDT
7.289	0.018	14900	8.116	-0.042	28161	0.6601	0.3815	53.5*	Methoxychlor
7.742	-0.025	7243	8.439	-0.009	66399	0.1449	0.4108	95.7*	Endrin ketone
7.120	-0.004	2798	7.717	0.002	26793	0.0683	0.1769	88.5*	Endrin aldehyde
5.819	-0.023	46770	6.486	0.010	72553	0.7109	0.2050	110.5*	gamma-Chlordane
----			6.596	-0.019	160263	0.0000	0.4856	---	alpha-Chlordane
2.213	0.003	11760	2.354	-0.024	154356	0.1203	0.3354	94.4*	Hexachlorobutadiene
3.991	-0.012	49917	4.445	-0.013	71105	0.7075	0.1787	119.3*	Hexachlorobenzene
5.604	-0.023	5145	6.170	-0.032	302988	0.1075	1.1209	165.0*	Oxychlordane
5.752	0.049	191125	6.443	-0.011	263903	5.4339	1.3500	120.4*	2,4-DDE
5.918	-0.033	199802	6.546	-0.015	539996	3.5056	2.3274	40.4*	trans-Nonachlor
6.171	-0.019	2428	6.966	0.027	65539	0.0771	0.5244	148.8*	2,4-DDD
6.417	-0.011	16995	7.210	-0.017	38700	0.4765	0.2838	50.7*	2,4-DDT
6.562	-0.004	36901	----			0.6112	0.0000	---	cis-Nonachlor
7.436	0.000	15314	8.407	-0.027	202794	~~0.3811~~	~~1.5119~~	119.5*	Mirex
8.731	-0.015	3848662	10.082	-0.016	11158606	80.0000	80.0000	0.0	Hexabromobiphenyl IS
----			1.698	-0.030	4668438	~~0.0000~~	~~0.0000~~	---	Hexachloroethane
----			7.312	-0.024	23140	~~0.0000~~	1.5243	---	Kepone
3.659	-0.012	414629	3.997	-0.011	2382967	6.4634	6.4677	0.1	Tetrachloro-m-xylene
8.590	-0.021	378325	9.544	-0.022	1503108	7.3554	8.7601	17.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	16.2	16.2	16.2~	42-112
Decachlorobiphenyl	18.4	21.9	18.4~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

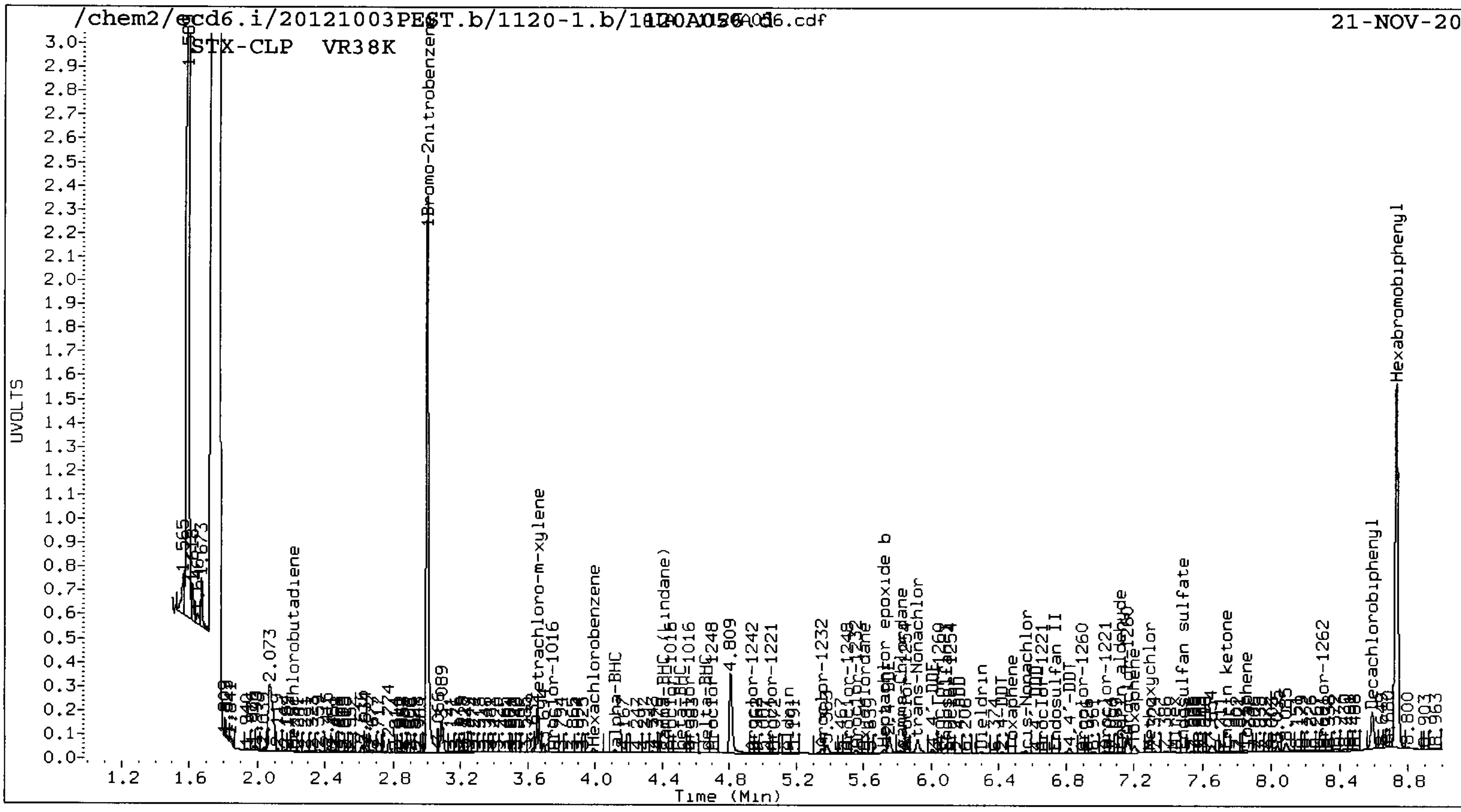
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4329370	6.6
Hexabromobiphenyl	3748709	3848662	2.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	21197856	0.8
Hexabromobiphenyl	14864285	11158606	-24.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.480	-0.010	1371	1.6	1	7.144	-0.014	15478	2.8
Toxaphene	2	6.821	-0.023	64342	54.9	2	7.495	0.012	28783	3.6
Toxaphene	3	7.202	-0.010	93055	98.0	3	7.717	0.004	26793	3.1
Toxaphene	4	7.488	0.023	4165	3.6	4	8.190	0.010	82573	13.9
Toxaphene	5	7.742	-0.003	7243	7.3	5	8.507	-0.019	28428	10.7
Toxaphene	6	7.852	-0.022	28900	42.4	NS	---			----
Total STX-CLPAve (6 peaks): 34.608						Total CLP2Ave (5 peaks): 6.813				RPD = 134*
Corrected Ave (5 peaks): 21.933						Corrected Ave (4 peaks): 5.051				RPD = 125*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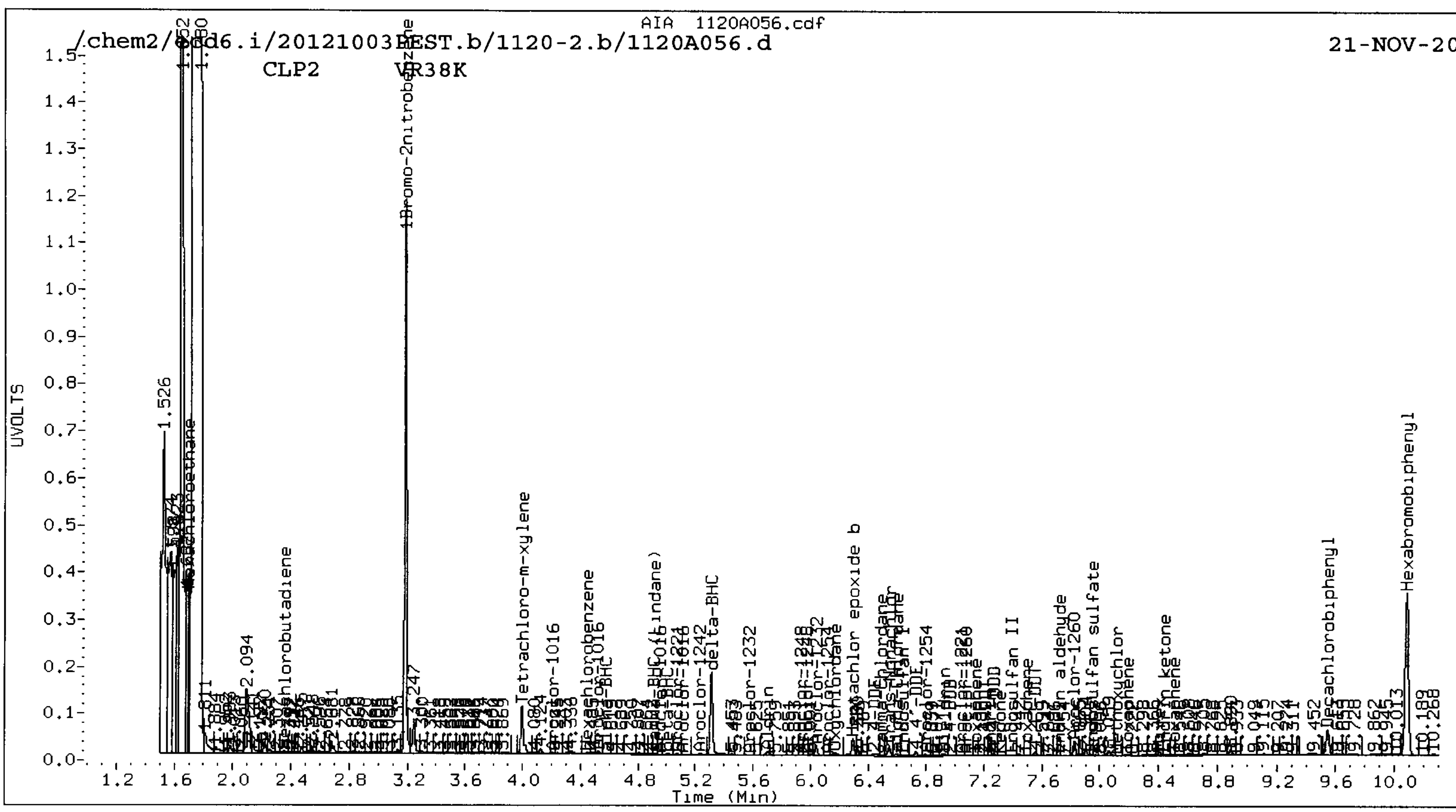
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl
Tetrachloro-m-xylene
Hexachlorobutadiene
Hexachlorobenzene
alpha-BHC
delta-BHC
Heptachlor epoxide b
trans-Nonachlor
cis-Nonachlor
Dieldrin
Endosulfan II
Endosulfan sulfate
Endrin aldehyde
Endrin ketone
Methoxychlor
2.073
4.809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21-NOV-201
CLP2 VR38K
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl
Tetrachloro-m-xylene
Hexachlorobutadiene
Hexachloroethane
Hexachlorobenzene
delta-BHC
Heptachlor epoxide b
Endosulfan II
Endosulfan sulfate
Endrin aldehyde
Endrin ketone
Methoxychlor
1.526
2.094

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

yz 11/27/12

Data file 1: /chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A067.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A067.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 21-NOV-2012 07:16
Compound Sublist: INDA Report Date: 11/27/2012 12:33
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.003	-0.007	4411805	3.185	-0.005	23839242	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.134	-0.014	1762633	4.572	-0.013	10183459	21.4383	19.5814	9.1	alpha-BHC
4.491	-0.006	586842	4.999	-0.008	3330104	16.8852	15.8212	6.5	beta-BHC
4.656	-0.007	1302721	5.304	-0.010	7678217	19.6565	18.6117	5.5	delta-BHC
4.410	-0.014	1357378	4.923	-0.013	7543759	17.9697	16.0459	11.3	gamma-BHC (Lindane)
4.844	-0.018	1006742	5.381	-0.017	5628064	14.6997	13.0751	11.7	Heptachlor
5.130	-0.019	1461973	5.719	-0.016	7802820	20.9029	18.4351	12.5	Aldrin
5.702	-0.021	1321813	6.276	-0.017	6406403	19.6056	16.7903	15.5	Heptachlor epoxide b
6.078	-0.021	1317355	6.663	-0.017	5699730	21.1142	16.6352	23.7	Endosulfan I
6.301	-0.021	2708503	6.921	-0.018	11767440	41.9970	32.4655	25.6	Dieldrin
6.011	-0.016	2449826	6.731	-0.015	11424500	41.1414	33.0569	21.8	4,4'-DDE
6.518	-0.022	1812296	7.210	-0.018	6816412	33.1280	33.3711	0.7	Endrin
6.725	-0.021	2081616	7.400	-0.016	10284132	39.4044	50.3698	24.4	Endosulfan II
6.567	-0.017	2537269	7.269	-0.014	10241583	53.1162	53.0902	0.0	4,4'-DDD
7.491	-0.022	1685014	7.943	-0.017	6497143	37.8954	37.8440	0.1	Endosulfan sulfate
6.823	-0.019	526854	7.556	-0.015	1841298	10.9693	10.0300	8.9	4,4'-DDT
7.253	-0.018	1428420	8.141	-0.018	4738266	60.8298	60.4970	0.5	Methoxychlor
7.744	-0.022	1331128	8.431	-0.018	4393130	25.5997	25.6165	0.1	Endrin ketone
7.101	-0.022	1662167	7.698	-0.017	6670223	39.0158	41.4987	6.2	Endrin aldehyde
5.824	-0.019	1303433	6.460	-0.016	6320269	19.4428	15.8783	20.2	gamma-Chlordane
5.948	-0.020	1254635	6.598	-0.017	5763124	19.3918	15.5288	22.1	alpha-Chlordane
2.199	-0.011	2203819	2.367	-0.010	9738272	22.1170	18.8151	16.1	Hexachlorobutadiene
3.994	-0.008	1524395	4.450	-0.008	11016245	21.2022	24.6160	14.9	Hexachlorobenzene
8.733	-0.012	4003766	10.084	-0.014	11839489	80.0000	80.0000	0.0	Hexabromobiphenyl
3.661	-0.009	2410654	3.998	-0.009	16519901	36.8762	39.8693	7.8	Tetrachloro-m-xylen
8.591	-0.020	2048176	9.545	-0.021	8565662	38.2779	47.0496	20.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	92.2	99.7	92.2~	115- 0
Decachlorobiphenyl	95.7	117.6	95.7~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

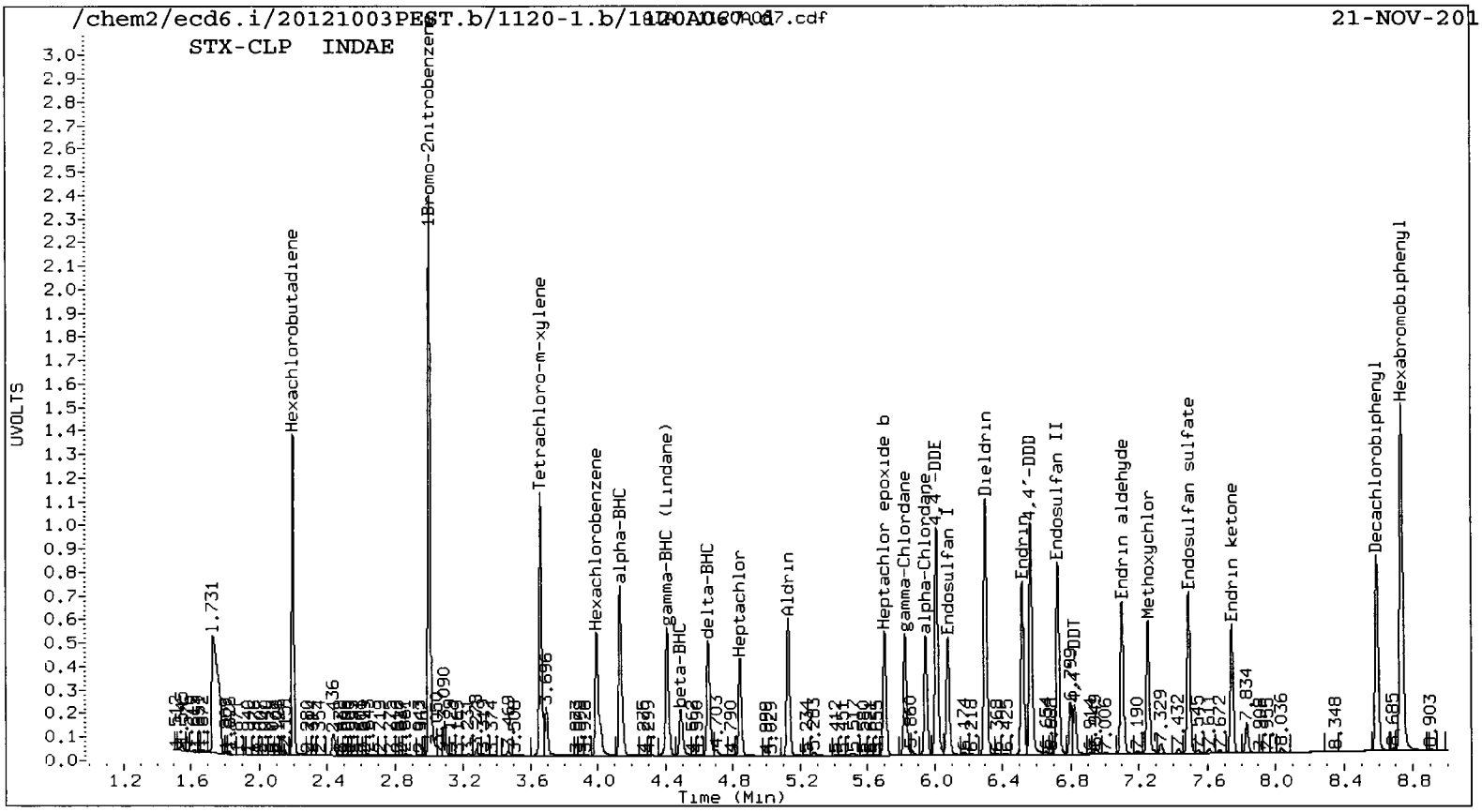
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4411805	8.7
Hexabromobiphenyl	3748709	4003766	6.8

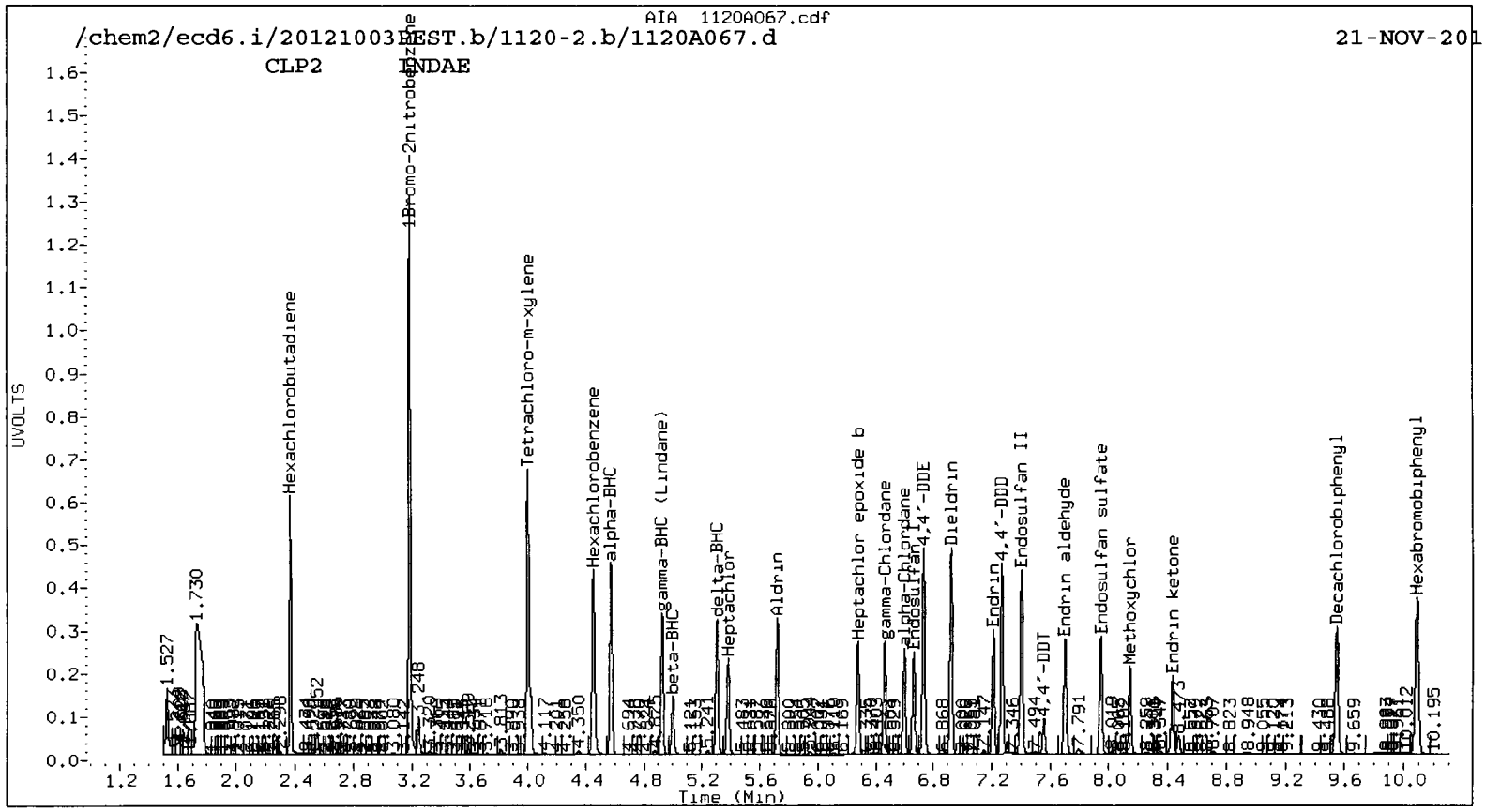
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	23839242	13.3
Hexabromobiphenyl	14864285	11839489	-20.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount


/chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A067.d
1120A067.cdf
21-NOV-201
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1.731
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 1120A067.cdf
/chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A067.d
21-NOV-201
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1.730
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A068.d ARI ID: WNDE
Data file 2: /chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A068.d Client ID:
Method: /chem2/ecd6.i/20121003PEST.b/PEST1003.m Injection Date: 21-NOV-2012 07:33
Compound Sublist: WND Report Date: 11/27/2012 12:33
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.731	-0.006	39577	1.731	0.003	16150338	0.0000	0.0000	---	Hexachloroethane
3.003	-0.007	4363763	3.185	-0.005	23688082	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.608	-0.019	1805172	6.186	-0.016	9476045	36.7585	31.3703	15.8	Oxychlordane
5.688	-0.015	1488581	6.439	-0.014	7516962	41.2409	34.4101	18.1	2,4-DDE
5.933	-0.018	2260815	6.545	-0.016	10389543	38.6534	41.0020	5.9	trans-Nonachlor
6.175	-0.015	1581440	6.925	-0.014	7440104	48.9086	54.5099	10.8	2,4-DDD
6.412	-0.017	540216	7.212	-0.015	2225268	14.7591	14.9442	1.2	2,4-DDT
6.547	-0.019	2445676	7.270	-0.015	10214730	39.4753	38.5549	2.4	cis-Nonachlor
7.417	-0.020	1208237	8.417	-0.017	4013595	29.2983	27.3995	6.7	Mirex
8.734	-0.012	3949527	10.084	-0.014	12186581	80.0000	80.0000	0.0	Hexabromobiphenyl
3.661	-0.009	1951684	3.999	-0.009	13511878	30.1839	32.8178	8.4	Tetrachloro-m-xylen
8.591	-0.020	1673722	9.545	-0.021	7267570	31.7094	38.7824	20.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower Limits	
Tetrachloro-m-xylene	75.5	82.0	75.5~	150- 0
Decachlorobiphenyl	79.3	97.0	79.3~	150- 0

~ Indicates recovery outside QC Limits

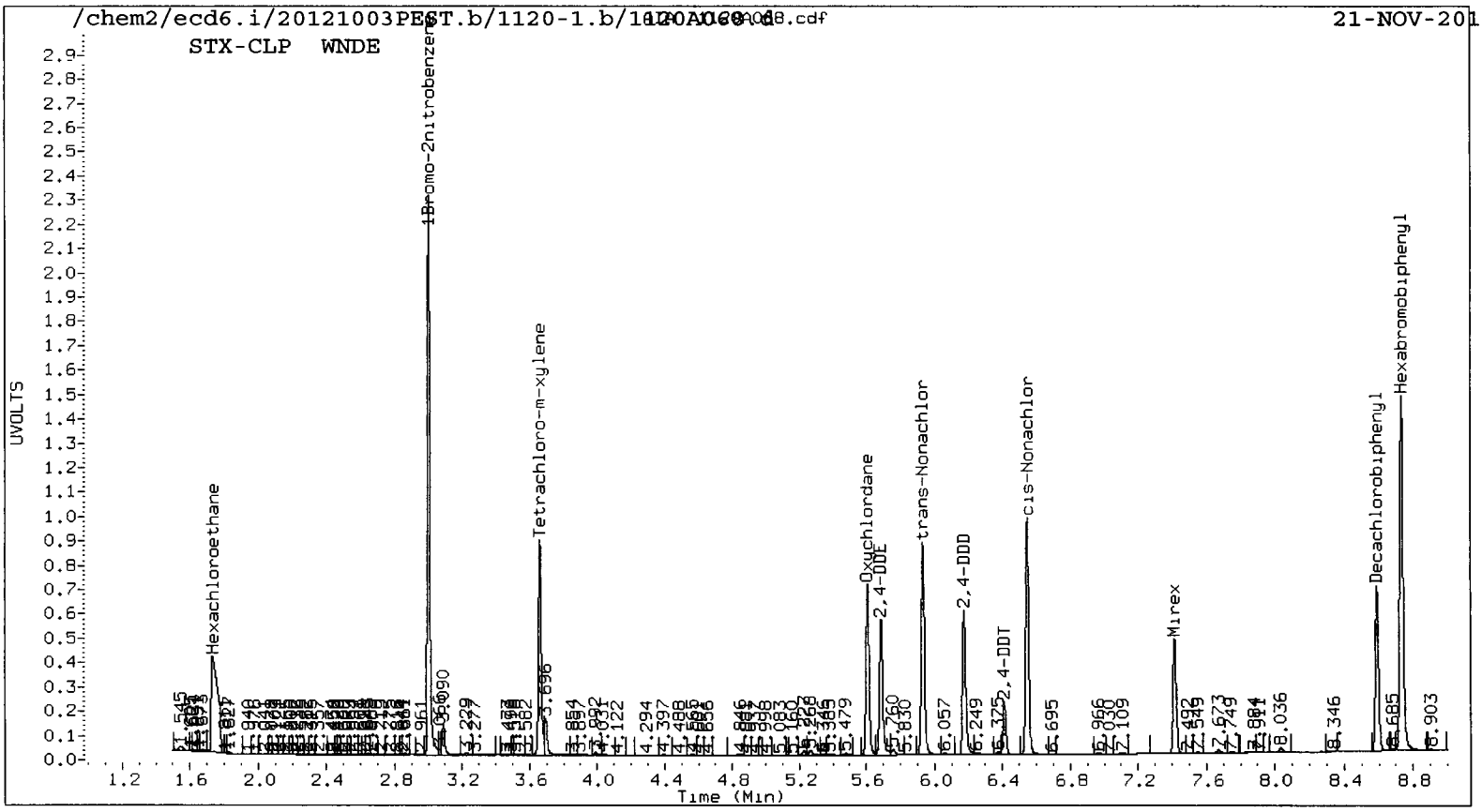
INTERNAL STANDARD SUMMARY

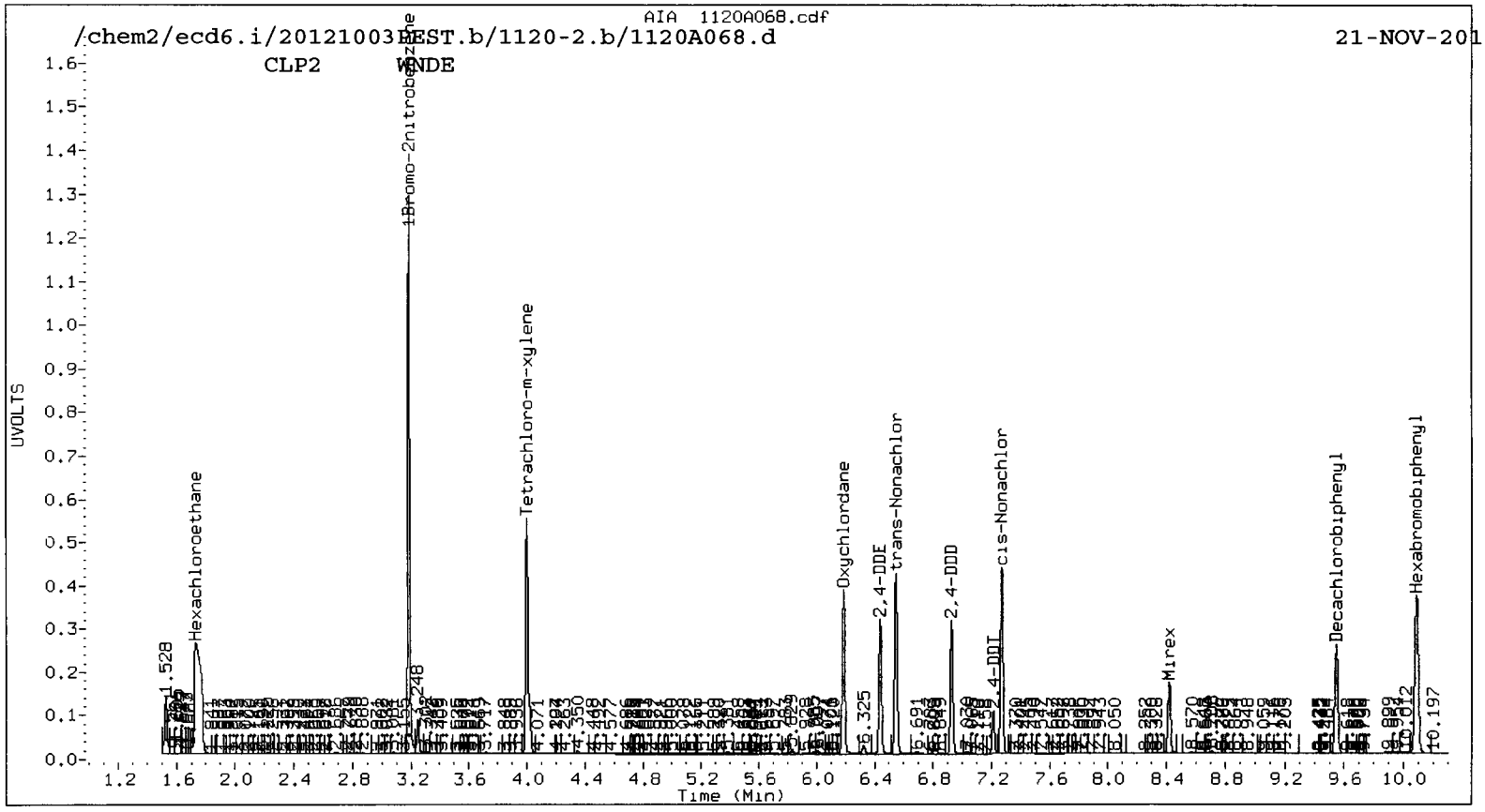
	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4060064	4363763	7.5
Hexabromobiphenyl	3748709	3949527	5.4

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21032891	23688082	12.6
Hexabromobiphenyl	14864285	12186581	-18.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-OCT-2012
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount


/chem2/ecd6.i/20121003PEST.b/1120-1.b/1120A068.d
21-NOV-201
STX-CLP WNDE
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 1120A068.cdf
/chem2/ecd6.i/20121003PEST.b/1120-2.b/1120A068.d
21-NOV-201
CLP2 WNDE
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

PCB Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

PCB – Soil / ~~Sediment~~
Microwave (3546) (~~SOP # 3304S~~)

Preparation Test PCB PSDDA # 5 (PCBSDMP20)

ARI Job No(s) VR 38 Page 1 of 2 PSDDA (20ppb) Batch set up by: SP

Bottle #	ARI Sample I.D.	Weight Extracted (eq. to 5.0g dry wt)	(REQ) Acid Clean (5mL)	(REQ) Sulfur Clean (5mL) 1 2 3	(Opt) Silica Gel Clean (1:5) Y / (N)	Extraction Final Volume	Volume to Lab	Comments	Verify Client ID
	MBS VR38	5.00g	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		M 11/16/12 Analyst/Date
	SBS ↓	5.00g	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		Microwave M 11/16/12 Analyst/Date
	~~SBSDup~~	~~5.00g~~	~~5.0mL~~	~~5.0mL~~	~~1mL Y / N~~	~~5.0mL~~	1mL		
PSR VN08	~~QLS~~ SRM	5.00g	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		KD 100°C Exchange to Hexane (2 X 20mL) YL 11/17/12 Analyst/Date
4	VR38 A	7.14	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	B	6.18	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	BMS	6.18	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	BMSD	6.18	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	C	7.22	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		TurboVap 1 2 3 Pre-Cleanups CJZ 11/19/12 Analyst/Date
4	D	9.26	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	E	7.16	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	F	7.09	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	G	7.11	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	H	6.26	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		
4	I ↓	6.09	5.0mL	5.0mL	1mL Y / (N)	5.0mL	1mL		TurboVap 1 2 3 Post Cleanups 11/19/12 Analyst/Date
Analyst/Date		M 11/16/12	CJZ 11/19/12	CJZ 11/19/12		CJZ 11/19/12	CJZ 11/19/12		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N(2035-2)	2µg/mL	100µL	5/16/13	M	SP
Spike	1 (2012-2)	20µg/mL	125µL	8/28/13	M	SP
~~QLS Spike~~	~~5 ( )~~	~~2µg/mL~~	~~50µL~~			
Extraction Time: 0820			Balance ID: B1461426/4			

SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3" inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in cold water 15 minutes. 7. Decant 1:1 Hex/Ace into E. flask with sodium sulfate in bottom+ funnel with neutral glasswool plug. 8. Rinse with Hexane. 9. Add 8:2 Hexane/Acetone to the vessel 3"inches above the soil layer after homogenization. Microwave a 2nd time. 10. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (~~Small or Large~~ Drying Column) on 100° bath. (Blanks=only 5g Sodium Sulfate). 12. Exchange (2 X with 20mL) Hexane. 13. TurboVap. 14. Clean-ups. 15. TurboVap (if Silica Clean). 16. Vial with Hexane.

A. Need Total Solids Y / (N) ~~B. Archive~~/Freeze (Y) / N

VR38 : 01945 11/16/2012

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

PCB – Soil / Sediment
Microwave (3546) (SOP # 3304S)

Preparation Test PCB PSDDA # 5 (PCBSDMP20)

ARI Job No(s) VR38 Page 2 of 2 PSDDA (20ppb) Batch set up by: SP

Bottle #	ARI Sample I.D.	Weight Extracted (eq. to 5.0g dry wt)	(REQ) Acid Clean (5mL)	(REQ) Sulfur Clean (5mL) 1 2 3	(Opt) Silica Gel Clean (1:5) Y / N	Extraction Final Volume	Volume to Lab	Comments	Verify Client ID
									M 11/16/12 Analyst/Date
	~~MBS~~	~~5.00g~~	~~5.0mL~~	~~5.0mL~~	~~1mL Y / N~~	5.0mL	1mL		Microwave
	~~SBS~~	~~5.00g~~	~~5.0mL~~	~~5.0mL~~	~~1mL Y / N~~	~~5.0mL~~	~~1mL~~		M 11/16/12
	~~SBSDup~~	~~5.00g~~	~~5.0mL~~	~~5.0mL~~	~~1mL Y / N~~	~~5.0mL~~	~~1mL~~		Analyst/Date
	~~QLS~~	~~5.00g~~	~~5.0mL~~	~~5.0mL~~	~~1mL Y / N~~	~~5.0mL~~	~~1mL~~		KD 100°C Exchange to Hexane (2 X 20mL)
5	VR385	7.25	5.0mL	5.0mL	1mL Y (N)	5.0mL	1mL		
5	1K	6.05	5.0mL	5.0mL	1mL Y (N)	5.0mL	1mL		YL 11/17/12 Analyst/Date
			5.0mL	5.0mL	1mL Y / N	5.0mL	1mL		
			5.0mL	5.0mL	1mL Y / N	5.0mL	1mL		TurboVap 1 2 3 Pre-Cleanups
			5.0mL	5.0mL	1mL Y / N	5.0mL	1mL		
			5.0mL	5.0mL	1mL Y / N	5.0mL	1mL		CSZ 11/19/12 Analyst/Date
			5.0mL	5.0mL	1mL Y / N	5.0mL	1mL		
			5.0mL	5.0mL	1mL Y / N	5.0mL	1mL		TurboVap 1 2 3 Post Cleanups
			5.0mL	5.0mL	1mL Y / N	5.0mL	1mL	CSZ 11/19/12	
			5.0mL	5.0mL	1mL Y / N	5.0mL	1mL		CSZ 11/19/12
Analyst/Date		M 11/16/12	CSZ 11/19/12	CSZ 11/19/12		CSZ 11/19/12	CSZ 11/19/12		Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N(2035-2)	2µg/mL	100µL	5/14/13	M	SP
~~Spike~~	~~1 ( )~~	~~20µg/mL~~	~~125µL~~			
~~QLS Spike~~	~~5 ( )~~	2µg/mL	~~50µL~~			
Extraction Time:	0820		Balance ID:	B1464614		

SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3" inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in cold water 15 minutes. 7. Decant 1:1 Hex/Ace into E. flask with sodium sulfate in bottom+ funnel with neutral glasswool plug. 8. Rinse with Hexane. 9. Add 8:2 Hexane/Acetone to the vessel 3"inches above the soil layer after homogenization. Microwave a 2nd time. 10. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (Small or Large Drying Column) on 100° bath. (Blanks=only 5g Sodium Sulfate). 12. Exchange (2 X with 20mL) Hexane. 13. TurboVap. 14. Clean-ups. 15. TurboVap (if Silica Clean). 16. Vial with Hexane.

A. Need Total Solids Y / N **B. Archive/Freeze Y / N**

VR38 : 01 9 12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory
Analyst Notes

ARI Job No: VR38 Client ID: Anchor QEA, LLC

Parameter: 8270D PCB Client Project: City of Kenmore Sediment

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[X] No Anomalies (standard soil/wet sediment/sand/gravel)= A, B, C, D, E, F, G, H, I, J, K	YL 11/07/12
[X] Standing Water Decanted (Not shared)= A, B, C, D, E, F, G, H, I, J, K.	YL 11/07/12
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[X] Rocks (%+size)? E, 15% small rocks, 2% small rocks F, G, H, I, J, K.	YL 11/07/12
[X] Organics (Leaves/sticks/grass)= C.	YL 11/07/12
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
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)	

PCB Raw Data
Initial Calibration

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 11/02/12 Internal Standard ID 2006-1 Expiration 07/26/13

Endrin/DDT Breakdown <15%? YES / NO / NA		ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES /NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
AR1660	1980-1	05/16/13	AR1660	2009-2	05/16/13
AR1242	1980-6		AR1242	2009-5	
AR1248	1980-3		AR1248	2009-6	
AR2162	1980-2		AR1254	2009-7	
A3268	1980-4		AR3268	2009-4	
DDT	1991-2	01/21/13	AR2162	2009-3	
BD	1991-1	01/14/13			
IB	1982-2	05/16/13			
AR1254	1980-5	05/16/13			

Detail problems, corrective actions and/or other pertinent information below:

I

Analyst: _____ **Date:** 11/07/12

Reviewer: _____ **Date:** 11/7

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20121102.B/PCB1.m
Batch File: /chem2/ecd5.i/20121102.B/ical-1.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	1102A012	1102A013	1102A014	1102A015	1102A016	1102A017
INJ.DATE:	02-NOV-2012	02-NOV-2012	02-NOV-2012	02-NOV-2012	02-NOV-2012	02-NOV-2012
INJ.TIME:	20:37	20:58	21:18	21:38	21:58	22:18

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	2.274	2.277	2.275	2.275	2.274	2.273	2.274	2.174-2.374	2.275	0.001
$ 1 Tetrachloro-m-xylene	4.444	4.444	4.444	4.445	4.443	4.444	4.444	4.344-4.544	4.444	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.817	4.717-4.917	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.093	5.993-6.193	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.094	5.994-6.194	+++++	+++++
7 Aroclor-1016	6.093	6.093	6.093	6.092	6.092	6.092	6.093	5.993-6.193	6.093	0.000
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.494	6.394-6.594	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.222	8.122-8.322	+++++	+++++
9 Aroclor-1260	9.995	9.996	9.995	9.995	9.995	9.995	9.995	9.895-10.095	9.995	0.000
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	9.996	9.896-10.096	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.203	11.103-11.303	+++++	+++++
$ 13 Decachlorobiphenyl	12.855	12.855	12.854	12.855	12.854	12.855	12.855	12.755-12.955	12.854	0.001
* 12 IS-HBBP	13.214	13.214	13.214	13.214	13.214	13.214	13.214	13.114-13.314	13.214	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.188	8.138-8.238	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	8.737	8.687-8.787	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.261	9.211-9.311	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.620	8.520-8.720	+++++	+++++

Reviewer 1 _____ Date: 11/06/12
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20121102.B/PCB1.m
Batch File: /chem2/ecd5.i/20121102.B/ical-1.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.242	9.142-9.342	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.704	9.604-9.804	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20121102.B/PCB2.m
Batch File: /chem2/ecd5.i/20121102.B/ical-2.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	1102A012	1102A013	1102A014	1102A015	1102A016	1102A017
INJ.DATE:	02-NOV-2012	02-NOV-2012	02-NOV-2012	02-NOV-2012	02-NOV-2012	02-NOV-2012
INJ.TIME:	20:37	20:58	21:18	21:38	21:58	22:18

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	40 IS-BNB	2.761	2.763	2.761	2.761	2.763	2.761	2.765	2.665-2.865	2.762	0.001
$	2 Tetrachloro-m-xylene	4.454	4.454	4.453	4.454	4.455	4.454	4.456	4.356-4.556	4.454	0.001
	1 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	5.141	5.041-5.241	+++++	+++++
	4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.210	6.110-6.310	+++++	+++++
	3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.208	6.108-6.308	+++++	+++++
	6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.837	6.737-6.937	+++++	+++++
	7 Aroclor-1016	6.208	6.209	6.208	6.208	6.209	6.209	6.209	6.109-6.309	6.209	0.000
	8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.341	8.241-8.441	+++++	+++++
	10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.302	10.202-10.402	+++++	+++++
	9 Aroclor-1260	10.302	10.301	10.301	10.301	10.302	10.302	10.302	10.202-10.402	10.301	0.001
	11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.547	11.447-11.647	+++++	+++++
$	13 Decachlorobiphenyl	13.248	13.247	13.247	13.247	13.248	13.247	13.248	13.148-13.348	13.247	0.000
*	12 IS-HBBP	14.115	14.116	14.115	14.115	14.115	14.114	14.117	14.017-14.217	14.115	0.000
	41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.604	8.554-8.654	+++++	+++++
	42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.290	9.240-9.340	+++++	+++++
	44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.992	8.892-9.092	+++++	+++++
	45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.753	9.653-9.853	+++++	+++++

Reviewer 1 _____ Date: 11/06/12
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20121102.B/PCB2.m
Batch File: /chem2/ecd5.i/20121102.B/ical-2.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.192	10.092-10.292	+++++	+++++

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20121102.B/ical-2.b

ARI Job No.: IB Method: PCB2.m Instrument: ecd5.i Date: 02-NOV-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2017	1102A011.d	IB		1	NO MANUAL INTEGRATION
2037	1102A012.d	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2058	1102A013.d	0.02PPMAR1660		1	NO MANUAL INTEGRATION
2118	1102A014.d	0.05PPMAR1660		1	NO MANUAL INTEGRATION
2138	1102A015.d	1PPMAR1660		1	NO MANUAL INTEGRATION
2158	1102A016.d	0.1PPMAR1660		1	NO MANUAL INTEGRATION
2218	1102A017.d	0.5PPMAR1660		1	NO MANUAL INTEGRATION
2238	1102A018.d	AR1242		1	NO MANUAL INTEGRATION
2259	1102A019.d	AR1248		1	NO MANUAL INTEGRATION
2319	1102A020.d	AR1254		1	NO MANUAL INTEGRATION
2340	1102A021.d	AR2162		1	NO MANUAL INTEGRATION
0000	1102A022.d	AR3268		1	NO MANUAL INTEGRATION
0020	1102A023.d	AR1660ICV		1	NO MANUAL INTEGRATION
0041	1102A024.d	AR1242ICV		1	NO MANUAL INTEGRATION
0101	1102A025.d	AR1248ICV		1	NO MANUAL INTEGRATION
0121	1102A026.d	AR1254ICV		1	NO MANUAL INTEGRATION
0142	1102A027.d	AR2162ICV		1	NO MANUAL INTEGRATION
0202	1102A028.d	AR3268ICV		1	NO MANUAL INTEGRATION
2017	1102A011.d	IB		1	NO MANUAL INTEGRATION
2037	1102A012.d	0.25PPMAR1660		1	NO MANUAL INTEGRATION

2058 1102A013.d 0.02PPMAR1660 1 NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20121102.B/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2118	1102A014.d	0.05PPMAR1660		1	NO MANUAL INTEGRATION
2138	1102A015.d	1PPMAR1660		1	NO MANUAL INTEGRATION
2158	1102A016.d	0.1PPMAR1660		1	NO MANUAL INTEGRATION
2218	1102A017.d	0.5PPMAR1660		1	NO MANUAL INTEGRATION
2238	1102A018.d	AR1242		1	NO MANUAL INTEGRATION
2259	1102A019.d	AR1248		1	NO MANUAL INTEGRATION
2319	1102A020.d	AR1254		1	NO MANUAL INTEGRATION
2340	1102A021.d	AR2162		1	NO MANUAL INTEGRATION
0000	1102A022.d	AR3268		1	NO MANUAL INTEGRATION
0020	1102A023.d	AR1660ICV		1	NO MANUAL INTEGRATION
0041	1102A024.d	AR1242ICV		1	NO MANUAL INTEGRATION
0101	1102A025.d	AR1248ICV		1	NO MANUAL INTEGRATION
0121	1102A026.d	AR1254ICV		1	NO MANUAL INTEGRATION
0142	1102A027.d	AR2162ICV		1	NO MANUAL INTEGRATION
0202	1102A028.d	AR3268ICV		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
End Cal Date : 03-NOV-2012 02:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB2.m
Cal Date : 07-Nov-2012 07:35 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20121102.B/ical-2.b/1102A013.d
Level 2: /chem2/ecd5.i/20121102.B/ical-2.b/1102A014.d
Level 3: /chem2/ecd5.i/20121102.B/ical-2.b/1102A016.d
Level 4: /chem2/ecd5.i/20121102.B/ical-2.b/1102A012.d
Level 5: /chem2/ecd5.i/20121102.B/ical-2.b/1102A017.d
Level 6: /chem2/ecd5.i/20121102.B/ical-2.b/1102A015.d
Level 7: /chem2/ecd5.i/20121102.B/ical-2.b/1102A022.d
Level 8: /chem2/ecd5.i/20121102.B/ddt-2.b/1102A029.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
1 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01355	+++++					0.01355	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00798	+++++					0.00798	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02510	+++++					0.02510	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00433	+++++					0.00433	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01985	+++++					0.01985	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03912	+++++					0.03912	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
End Cal Date : 03-NOV-2012 02:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB2.m
Cal Date : 07-Nov-2012 07:35 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01635	+++++	0.01635	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01389	+++++	0.01389	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03416	+++++	0.03416	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07272	+++++	0.07272	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03022	+++++	0.03022	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02545	+++++	0.02545	0.000
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.04749	+++++	0.04749	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03939	+++++	0.03939	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04070	+++++	0.04070	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB2.m
Cal Date : 07-Nov-2012 07:35 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05034	+++++	0.05034	0.000
7 Aroclor-1016(1)	0.05414	0.04961	0.04814	0.04282	0.03901	0.03516	+++++	+++++	0.04481	15.835
(2)	0.11185	0.10248	0.10098	0.09159	0.08474	0.07727	+++++	+++++	0.09482	13.397
(3)	0.02767	0.02640	0.02633	0.02415	0.02257	0.02085	+++++	+++++	0.02466	10.572
(4)	0.03250	0.03030	0.02963	0.02678	0.02467	0.02255	+++++	+++++	0.02774	13.491
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03474	+++++	0.03474	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04387	+++++	0.04387	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03370	+++++	0.03370	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.07393	+++++	0.07393	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB2.m
Cal Date : 07-Nov-2012 07:35 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04454	+++++					0.04454	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06977	+++++					0.06977	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06199	+++++					0.06199	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13603	+++++					0.13603	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05505	+++++					0.05505	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05291	+++++					0.05291	0.000
9 Aroclor-1260(1)	0.05095	0.04631	0.04553	0.04102	0.03791	0.03452		
	+++++	+++++					0.04271	14.120
(2)	0.06048	0.05750	0.05613	0.05086	0.04681	0.04271		
	+++++	+++++					0.05241	13.017
(3)	0.11796	0.11377	0.11113	0.10159	0.09448	0.08678		
	+++++	+++++					0.10428	11.617

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
End Cal Date : 03-NOV-2012 02:22
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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB2.m
Cal Date : 07-Nov-2012 07:35 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(4)	0.03951	0.03322	0.03270	0.02987	0.02786	0.02539		
	+++++	+++++					0.03143	15.703
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13895	+++++					0.13895	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13513	+++++					0.13513	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.11296	+++++					0.11296	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.33487	+++++					0.33487	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	698					698	0.000
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	651					651	0.000
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1118					1118	0.000
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	844					844	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
End Cal Date : 03-NOV-2012 02:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB2.m
Cal Date : 07-Nov-2012 07:35 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1043					1043	0.000
$ 2 Tetrachloro-m-xylene	1.19470	1.15056	1.18893	1.15884	1.10662	1.04277		
	+++++	+++++					1.14040	5.025
$ 13 Decachlorobiphenyl	1.28874	1.18422	1.14387	1.04322	0.96994	0.89234		
	+++++	+++++					1.08706	13.451

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
End Cal Date : 03-NOV-2012 02:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB1.m
Cal Date : 07-Nov-2012 07:38 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20121102.B/ical-1.b/1102A013.d/1102A013.cdf
Level 2: /chem2/ecd5.i/20121102.B/ical-1.b/1102A014.d/1102A014.cdf
Level 3: /chem2/ecd5.i/20121102.B/ical-1.b/1102A016.d
Level 4: /chem2/ecd5.i/20121102.B/ical-1.b/1102A012.d
Level 5: /chem2/ecd5.i/20121102.B/ical-1.b/1102A017.d
Level 6: /chem2/ecd5.i/20121102.B/ical-1.b/1102A015.d
Level 7: /chem2/ecd5.i/20121102.B/ical-1.b/1102A022.d
Level 8: /chem2/ecd5.i/20121102.B/ddt-1.b/1102A029.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01953	+++++					0.01953	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01337	+++++					0.01337	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04356	+++++					0.04356	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03480	+++++					0.03480	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.10781	+++++					0.10781	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04681	+++++					0.04681	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
End Cal Date : 03-NOV-2012 02:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB1.m
Cal Date : 07-Nov-2012 07:38 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05490	+++++	0.05490	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01822	+++++	0.01822	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05697	+++++	0.05697	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02485	+++++	0.02485	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03114	+++++	0.03114	0.000
7 Aroclor-1016(1)	0.05261	0.04924	0.04799	0.04313	0.03985	0.03555	+++++	+++++	0.04473	14.270
(2)	0.16770	0.15454	0.15129	0.13340	0.12204	0.10734	+++++	+++++	0.13939	16.159
(3)	0.07176	0.06700	0.06517	0.05778	0.05274	0.04639	+++++	+++++	0.06014	15.892
(4)	0.05053	0.04712	0.04624	0.04170	0.03848	0.03405	+++++	+++++	0.04302	14.194

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
End Cal Date : 03-NOV-2012 02:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB1.m
Cal Date : 07-Nov-2012 07:38 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.07048	+++++	0.07048	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07420	+++++	0.07420	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.09369	+++++	0.09369	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.07222	+++++	0.07222	0.000
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.09552	+++++	0.09552	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06279	+++++	0.06279	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.12204	+++++	0.12204	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.13358	+++++	0.13358	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.08400	+++++	0.08400	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB1.m
Cal Date : 07-Nov-2012 07:38 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
9 Aroclor-1260(1)	0.05365	0.04934	0.04789	0.04279	0.03879	+++++		
	+++++	+++++					0.04649	12.461
(2)	0.05323	0.04942	0.04830	0.04331	0.03943	+++++		
	+++++	+++++					0.04674	11.572
(3)	0.12980	0.11729	0.11408	0.10108	0.09182	+++++		
	+++++	+++++					0.11081	13.300
(4)	0.07539	0.06654	0.06475	0.05812	0.05271	+++++		
	+++++	+++++					0.06350	13.586
(5)	0.03455	0.03192	0.03171	0.02923	0.02687	+++++		
	+++++	+++++					0.03086	9.459
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06957	+++++					0.06957	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05282	+++++					0.05282	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.13695	+++++					0.13695	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05159	+++++					0.05159	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB1.m
Cal Date : 07-Nov-2012 07:38 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05664	+++++	0.05664	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.13880	+++++	0.13880	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.13349	+++++	0.13349	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.11731	+++++	0.11731	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.33525	+++++	0.33525	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1061	1061	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	991	991	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1666	1666	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2012 20:37
End Cal Date : 03-NOV-2012 02:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20121102.B/PCB1.m
Cal Date : 07-Nov-2012 07:38 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1112					1112	0.000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1436					1436	0.000
$ 1 Tetrachloro-m-xylene	1.74629	1.73665	1.79189	1.68846	1.59898	1.46176		
	+++++	+++++					1.67067	7.275
$ 13 Decachlorobiphenyl	1.44190	1.35420	1.32554	1.15683	1.03719	0.91644		
	+++++	+++++					1.20535	16.867

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A011.d
Data file 2: 20121102.B/ical-2.b/1102A011.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 02-NOV-2012 20:17
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.445	0.001	25150401	4.455	0.000	8210320	37.1	39.1	5.4	Tetrachloro-m-xylene
12.854	0.000	33469883	13.248	0.000	7776577	35.3	35.6	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	92.7	97.9
Decachlorobiphenyl	88.2	88.9

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32121330	2.8
Hexabromobiphenyl	64198300	65627042	2.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14713535	1.2
Hexabromobiphenyl	15789428	16088294	1.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

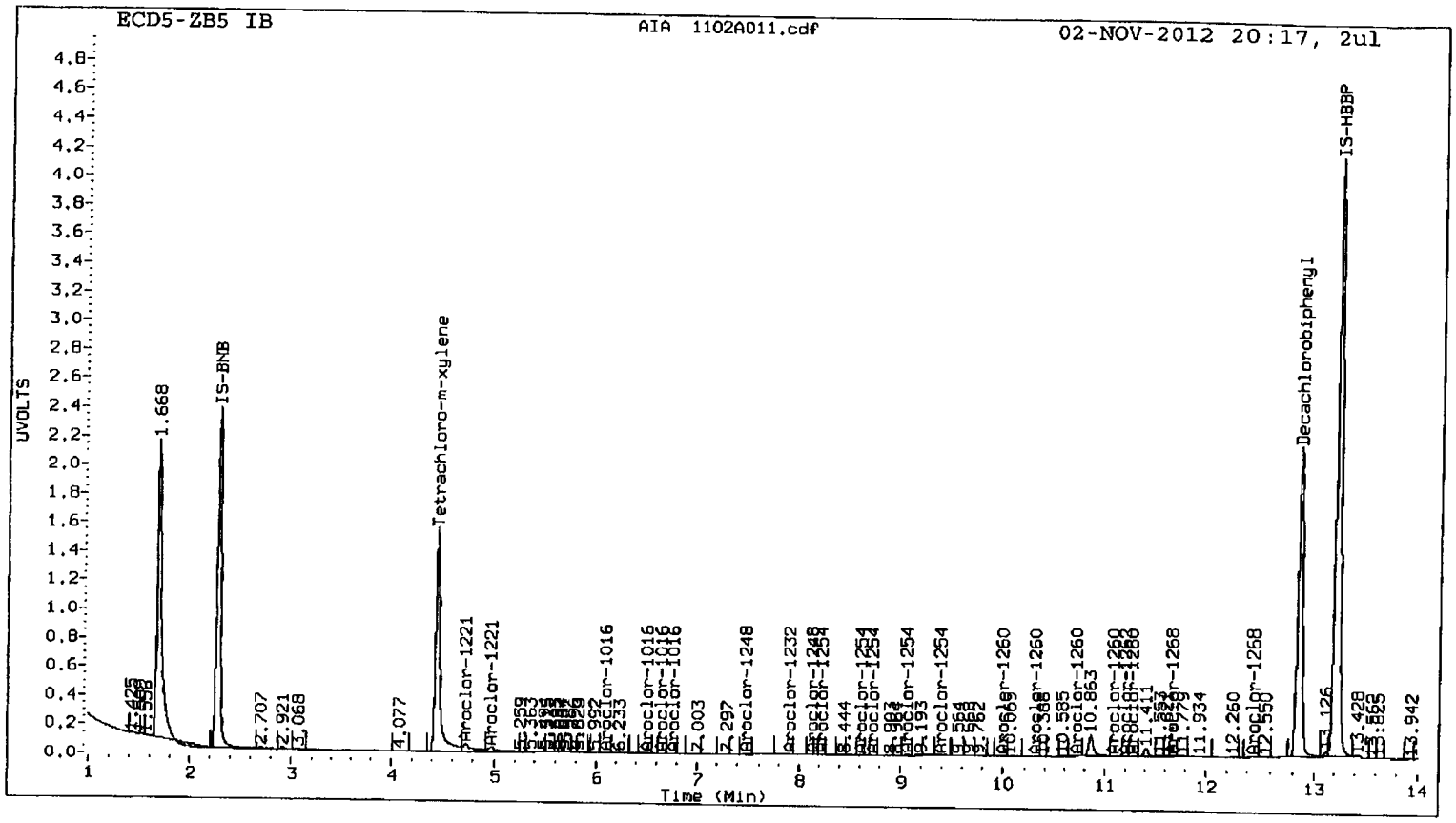
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.096	0.002	27540	1.6	1	---			0.0
Aroclor-1016	2	6.501	0.003	27993	0.5	2	---			0.0
Aroclor-1016	3	6.649	0.002	10551	0.5	3	---			0.0
Aroclor-1016	4	6.760	0.002	11272	0.7	4	---			0.0
Total Col1Ave (4 peaks):					0.8	Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	5.157	0.016	104535	41.9
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	5.509	0.003	19616	4.2
Aroclor-1221	NS	---			----	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	9.996	0.000	29293	0.8	1	---			0.0
Aroclor-1260	2	10.315	0.004	28175	0.8	2	10.811	0.060	323645	30.7
Aroclor-1260	3	10.722	0.037	122110	1.5	3	11.025	-0.001	19440	0.9
Aroclor-1260	4	11.080	-0.004	113820	2.4	4	11.497	-0.051	21348	3.4
Aroclor-1260	5	11.273	-0.002	20829	0.9	NS	---			----
Total Col1Ave (5 peaks):					1.3	Total Col2Ave (3 peaks):				11.7 RPD = 161*
Corrected Ave (4 peaks):					1.0	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	10.811	0.059	323645	26.0
Aroclor-1262	3	---			0.0	3	11.025	0.000	19440	0.7
Aroclor-1262	4	---			0.0	4	11.497	-0.050	21348	1.9
Aroclor-1262	5	---			0.0	5	12.387	0.040	28688	2.7
Col1Ave: <3 Quant Peaks						Col2Ave: 7.8				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (4.544 - 12.755) = 8256578 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 1026615 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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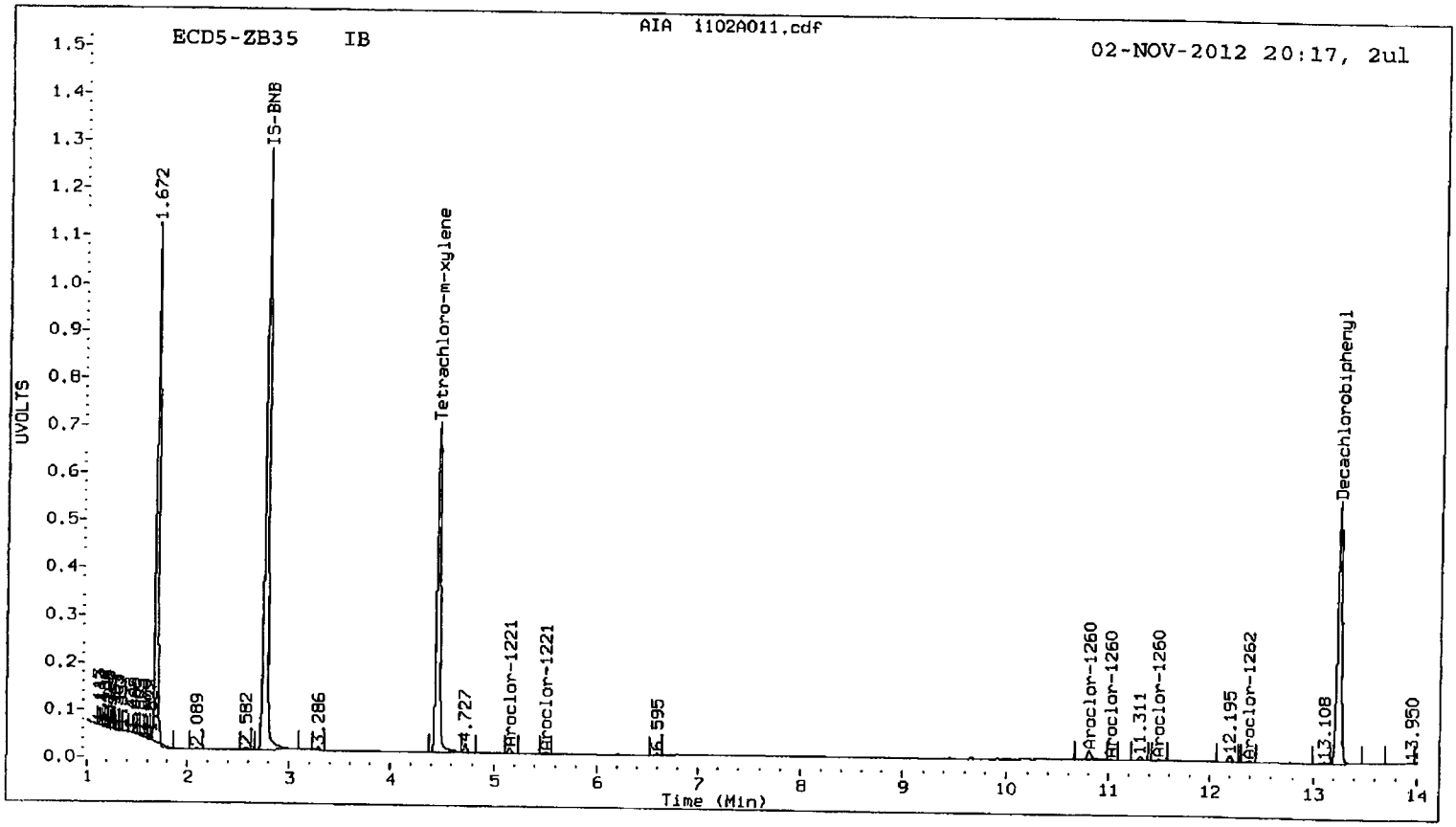
02-NOV-2012 20:17, 2ul
UVOLTS
Time (Min)
1.668
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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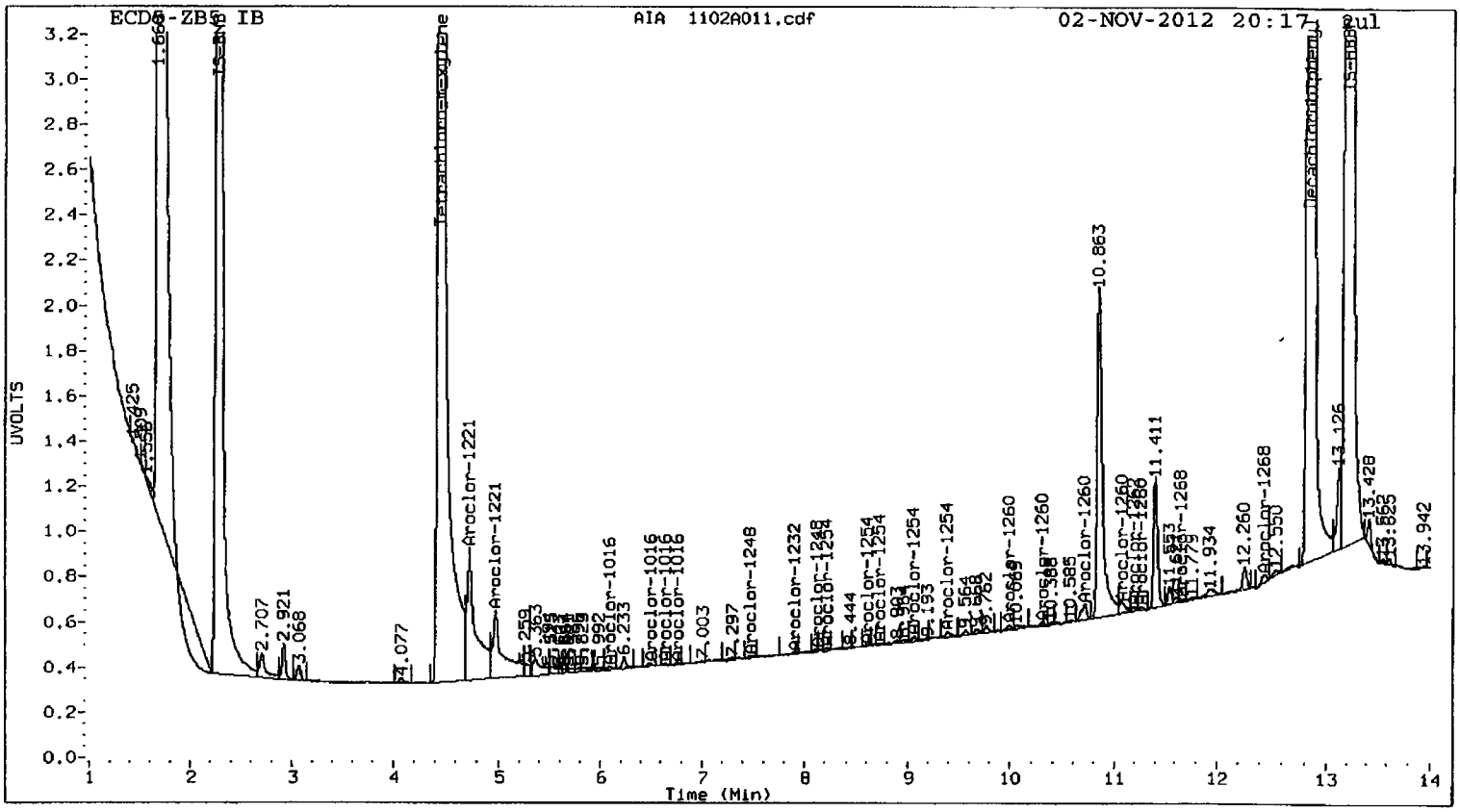
AIA 1102A011.cdf
02-NOV-2012 20:17, 2ul
UVOLTS
Time (Min)
1.672
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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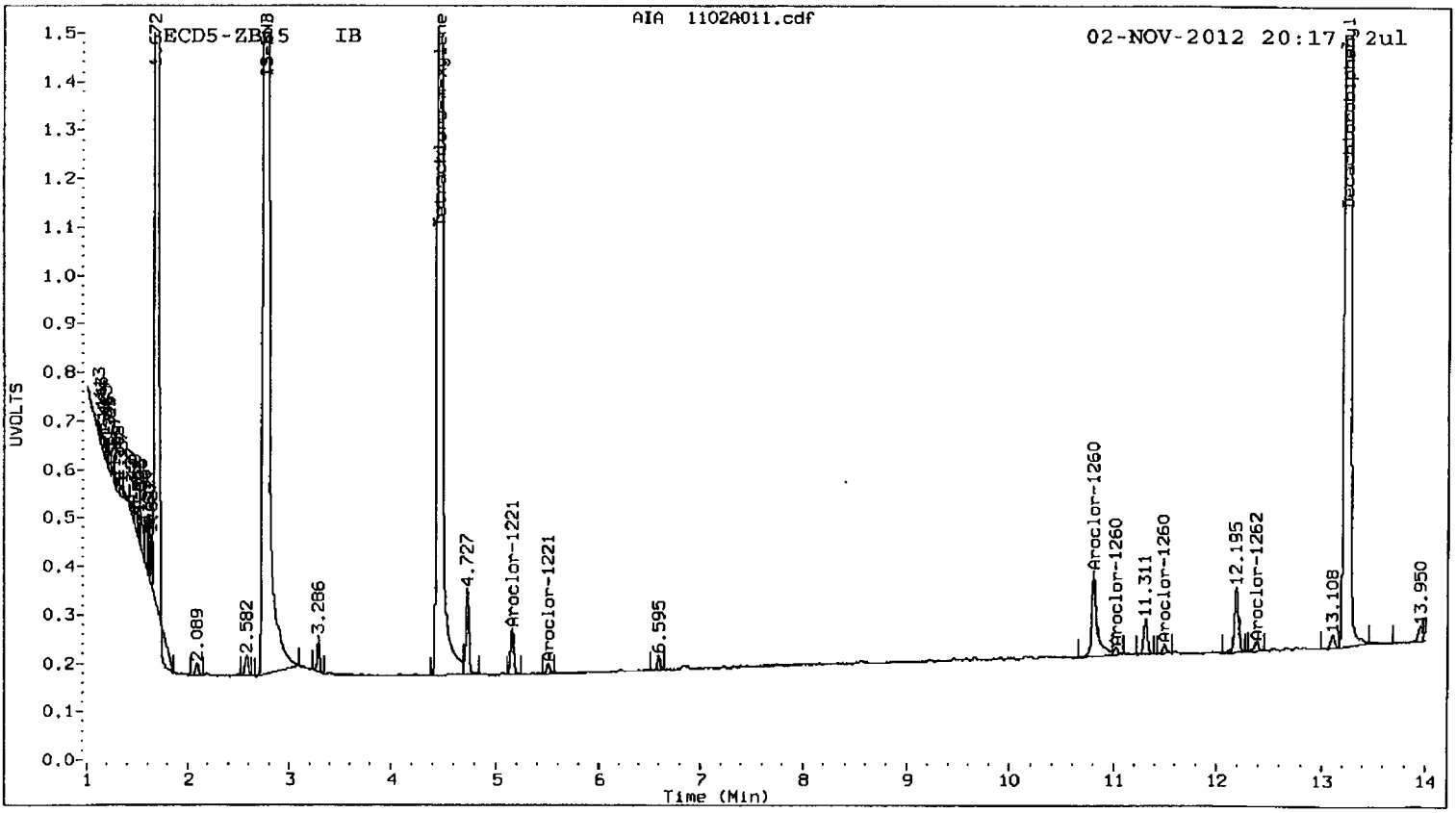
02-NOV-2012 20:17 2ul
UVOLTS
Time (Min)
Aroclor-1221
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Aroclor-1016
10.863
11.411
13.126
13.428
13.942


ECD5-ZB5 IB
AIA 1102A011.cdf
02-NOV-2012 20:17 2ul
UVOLTS
Time (Min)
Aroclor-1221
Aroclor-1260
Aroclor-1262
4.727
6.595
11.311
12.195
13.108
13.950

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A012.d
Data file 2: 20121102.B/ical-2.b/1102A012.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 02-NOV-2012 20:37
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	0.000	13188927	4.454	-0.002	4211382	20.0	20.3	1.6	Tetrachloro-m-xylene
12.855	0.000	18566640	13.248	-0.001	4117975	20.0	19.2	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.0	50.8
Decachlorobiphenyl	50.0	48.0

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	31244918	0.0
Hexabromobiphenyl	64198300	64198300	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14536489	0.0
Hexabromobiphenyl	15789428	15789428	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

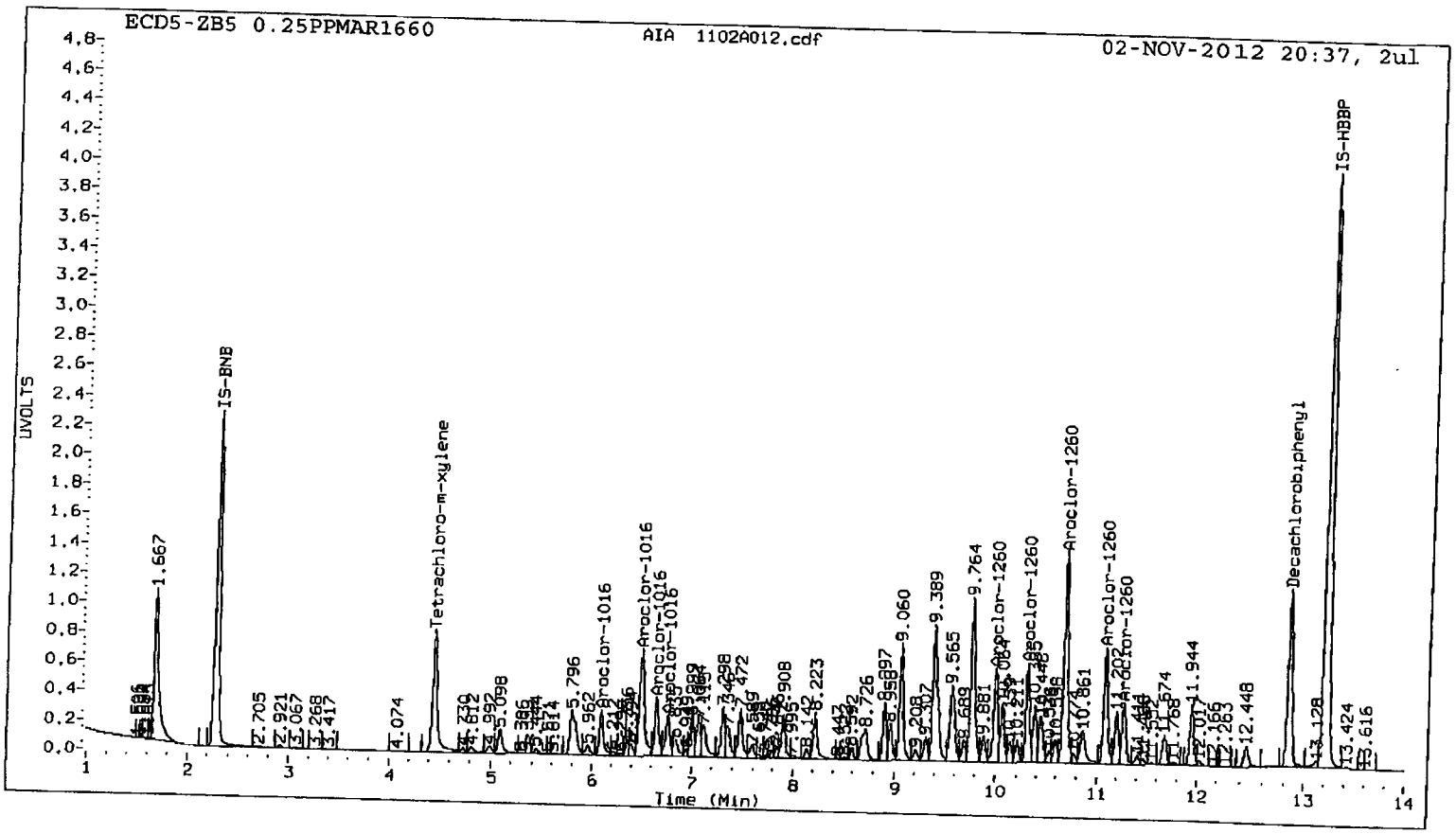
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.093	0.000	4211212	250.0	1	6.208	0.000	1945115	238.9
Aroclor-1016	2	6.497	-0.001	13025166	250.0	2	6.840	-0.001	4160448	241.5
Aroclor-1016	3	6.647	0.000	5641539	250.0	3	7.226	0.001	1097271	244.8
Aroclor-1016	4	6.758	0.000	4071261	250.0	4	7.334	0.000	1216560	241.4
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				241.6 RPD = 3
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				240.6 RPD = 4
Aroclor-1260	1	9.995	0.000	8584650	250.0	1	10.302	0.001	2023892	240.1
Aroclor-1260	2	10.312	0.001	8689092	250.0	2	10.751	-0.001	2509338	242.6
Aroclor-1260	3	10.686	0.000	20277766	250.0	3	11.026	0.000	5012746	243.5
Aroclor-1260	4	11.085	0.001	11660581	250.0	4	11.547	0.000	1473650	237.6
Aroclor-1260	5	11.275	0.000	5863610	250.0	NS	---			----
Total Col1Ave (5 peaks):					250.0	Total Col2Ave (4 peaks):				241.0 RPD = 4
Corrected Ave (4 peaks):					250.0	Corrected Ave (3 peaks):				240.1 RPD = 4

Total PCB Area Col1 (4.544 - 12.755) = 252981101 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 63430307 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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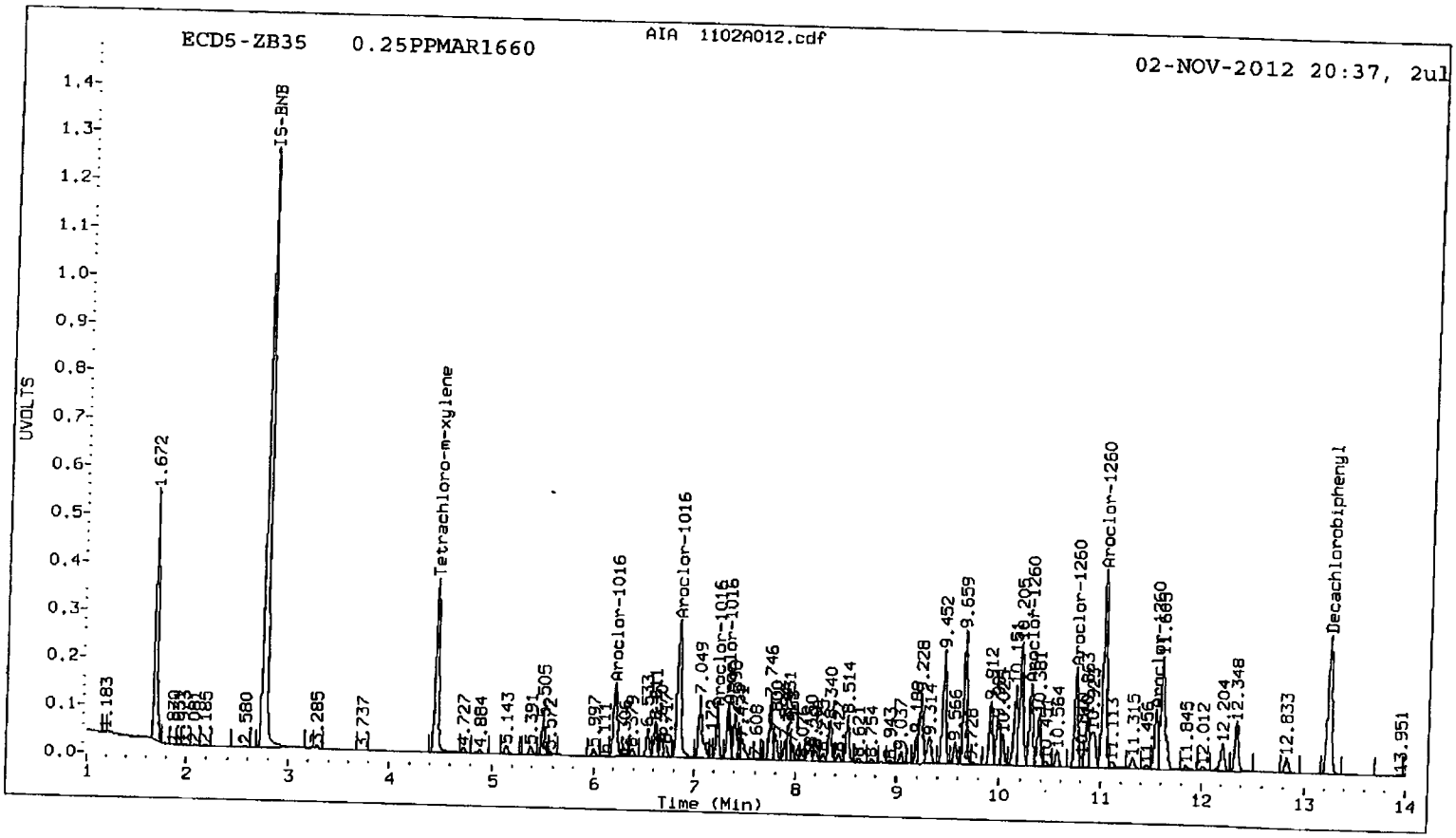
02-NOV-2012 20:37, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)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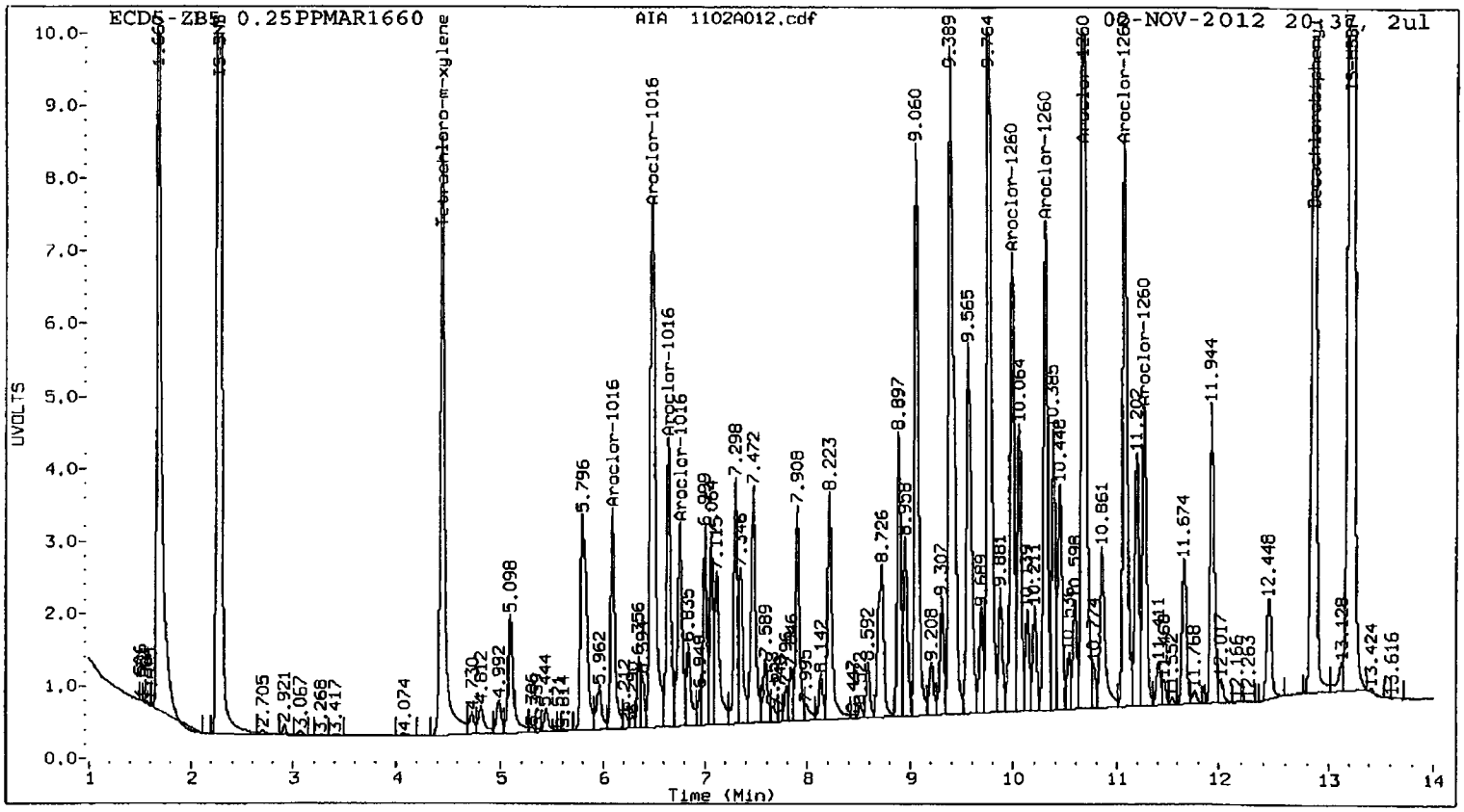
02-NOV-2012 20:37, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 0.25PPMAR1660
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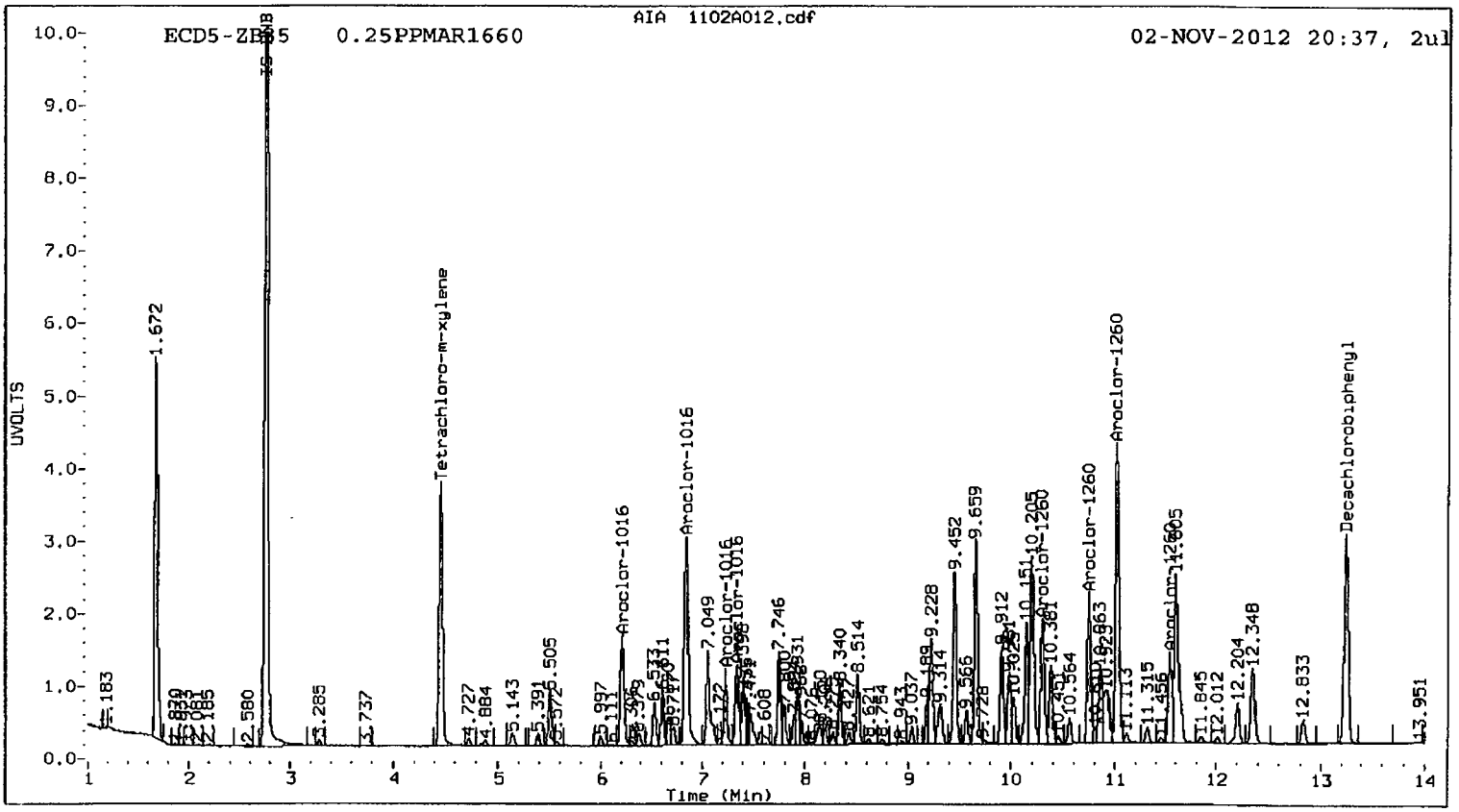
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


AIA 1102A012.cdf
ECD5-ZB5 0.25PPMAR1660
02-NOV-2012 20:37, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A013.d
Data file 2: 20121102.B/ical-2.b/1102A013.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.:. ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 02-NOV-2012 20:58
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	0.000	1108412	4.454	-0.002	350346	1.7	1.7	0.2	Tetrachloro-m-xylene
12.855	0.000	1903673	13.247	-0.001	417446	1.9	1.9	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	4.2	4.2
Decachlorobiphenyl	4.8	4.7

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	31736267	1.6
Hexabromobiphenyl	64198300	66012881	2.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14662512	0.9
Hexabromobiphenyl	15789428	16195930	2.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

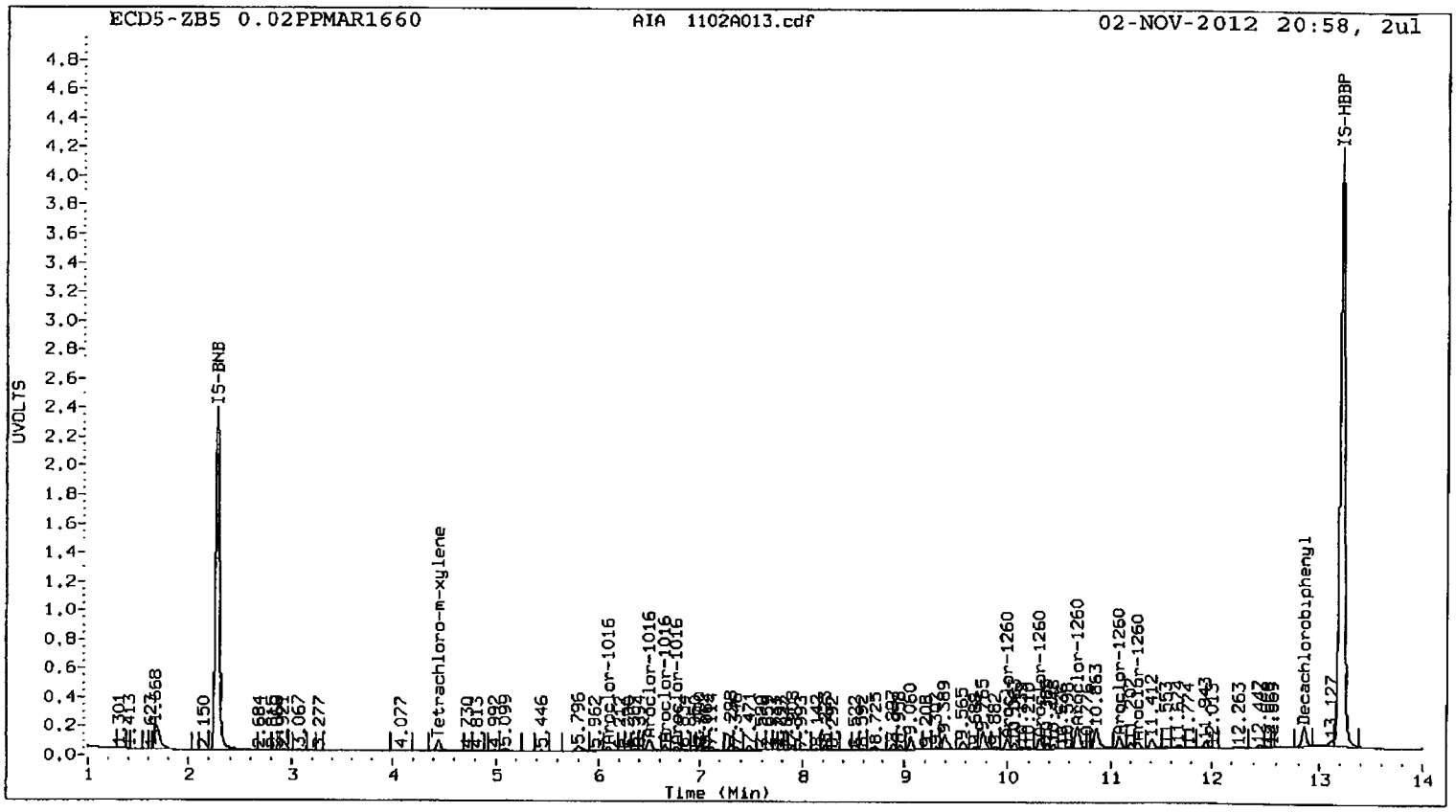
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.093	0.000	417384	23.5	1	6.209	0.000	198448	24.2
Aroclor-1016	2	6.498	0.000	1330508	24.1	2	6.840	0.000	410009	23.6
Aroclor-1016	3	6.647	0.000	569344	23.9	3	7.226	0.001	101420	22.4
Aroclor-1016	4	6.758	0.000	400893	23.5	4	7.334	0.000	119148	23.4
Total Col1Ave (4 peaks):					23.7	Total Col2Ave (4 peaks):			23.4	RPD = 1
Corrected Ave (3 peaks):					23.6	Corrected Ave (3 peaks):			23.2	RPD = 2
Aroclor-1260	1	9.996	0.000	885381	23.1	1	10.301	-0.001	206311	23.9
Aroclor-1260	2	10.311	0.000	878506	22.8	2	10.752	0.000	244878	23.1
Aroclor-1260	3	10.685	0.000	2142145	23.4	3	11.025	-0.001	477633	22.6
Aroclor-1260	4	11.085	0.000	1244258	23.7	4	11.547	-0.001	159986	25.1
Aroclor-1260	5	11.275	0.000	570228	22.4	NS	---			----
Total Col1Ave (5 peaks):					23.1	Total Col2Ave (4 peaks):			23.7	RPD = 3
Corrected Ave (4 peaks):					22.9	Corrected Ave (3 peaks):			23.2	RPD = 1

Total PCB Area Col1 (4.544 - 12.755) = 28512374 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 6518944 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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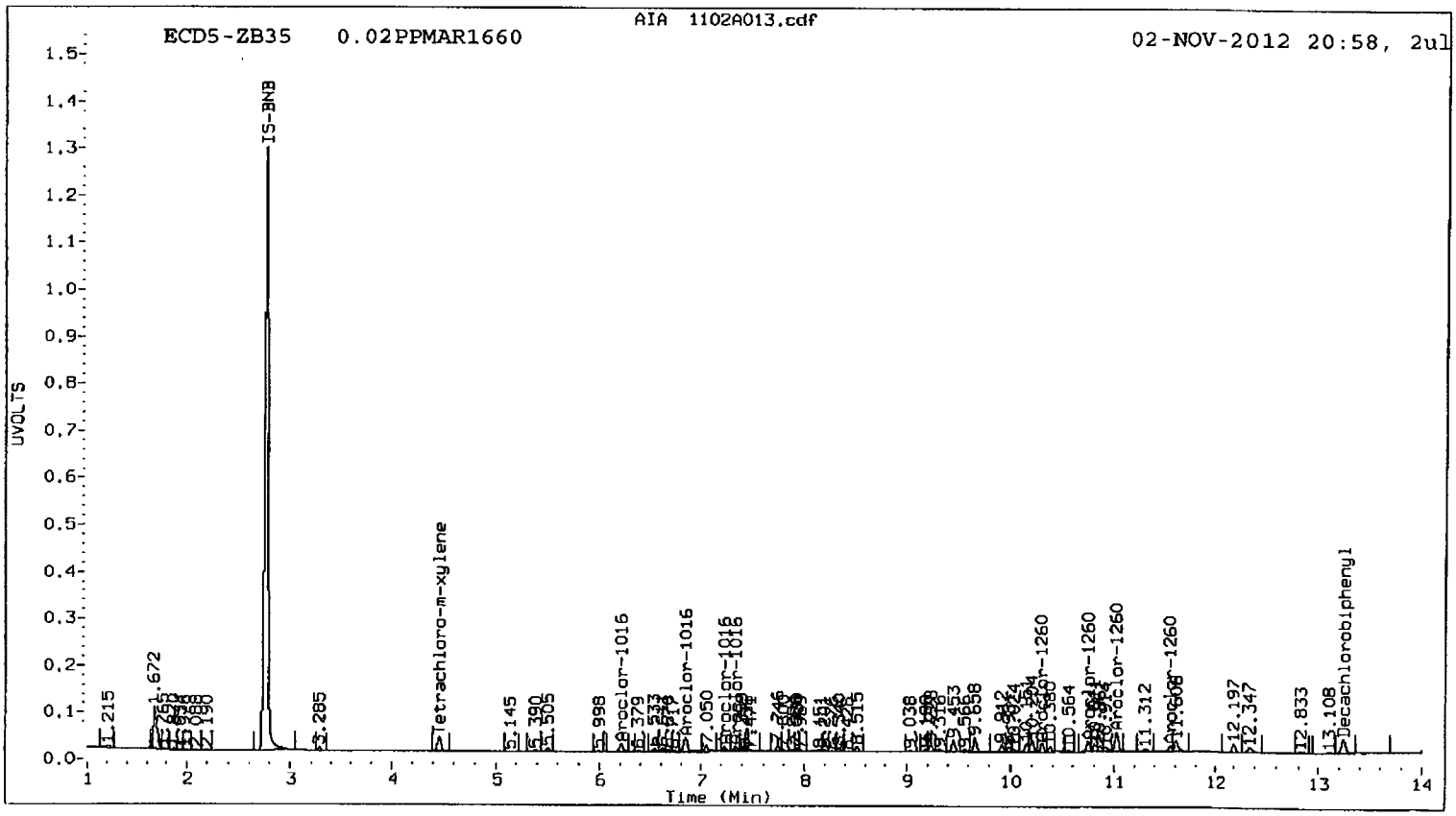
AIA 1102A013.cdf
02-NOV-2012 20:58, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)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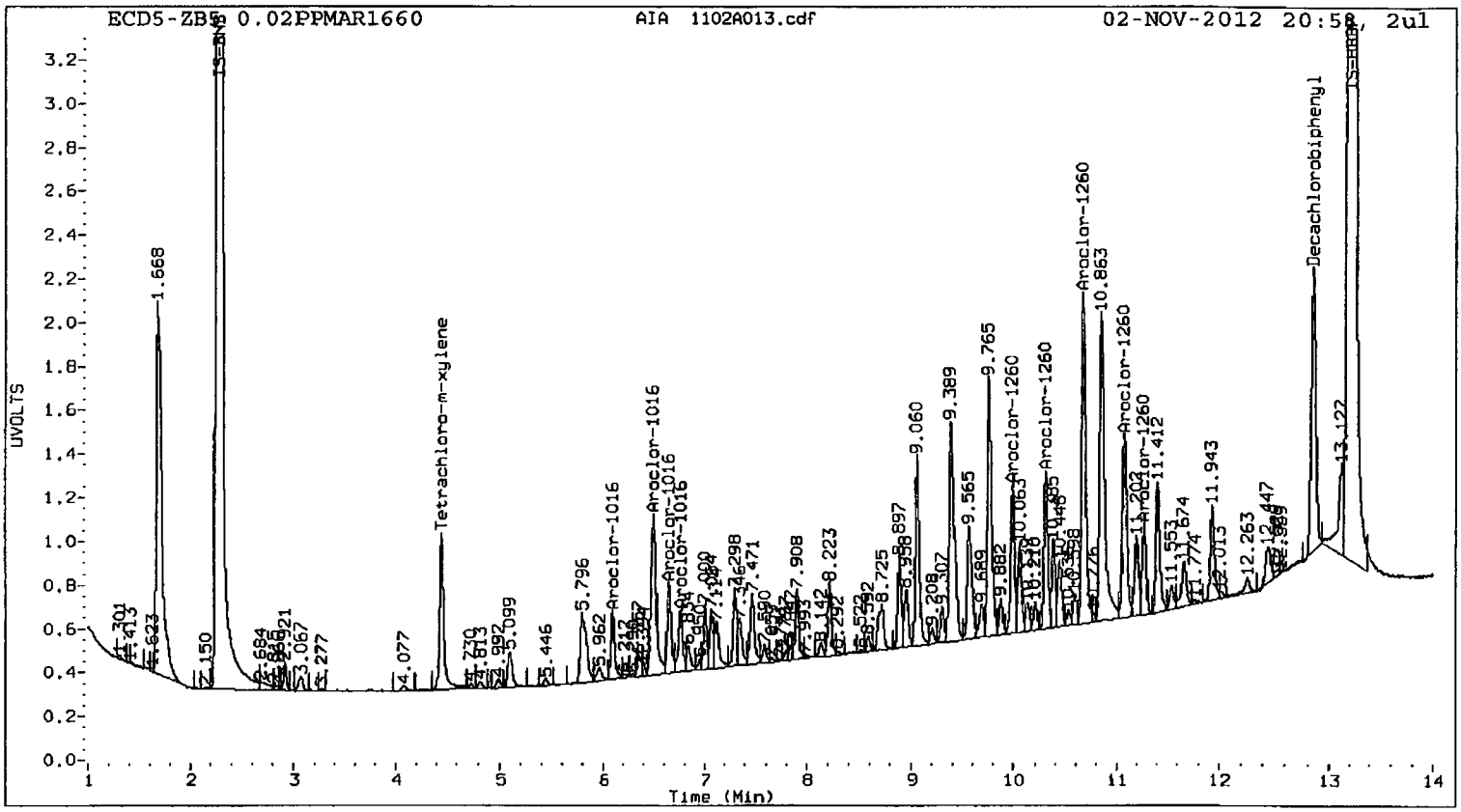
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)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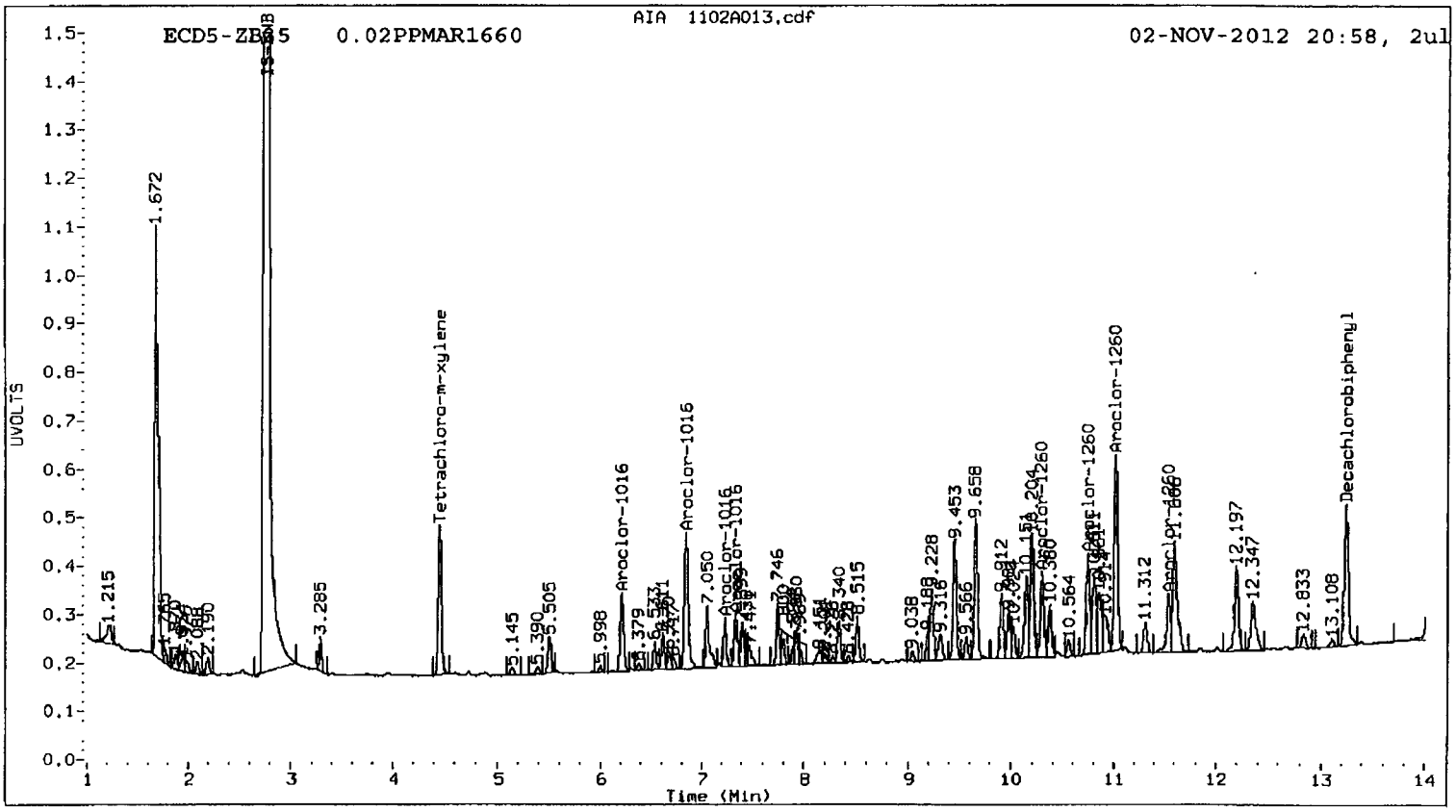
02-NOV-2012 20:58, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


AIA 1102A013.cdf
ECD5-ZB5 0.02PPMAR1660
02-NOV-2012 20:58, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A014.d
Data file 2: 20121102.B/ical-2.b/1102A014.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 02-NOV-2012 21:18
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	-0.001	2698672	4.453	-0.002	829889	4.2	4.0	3.0	Tetrachloro-m-xylene
12.854	-0.001	4379836	13.247	-0.001	935814	4.5	4.4	3.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	10.4	10.1
Decachlorobiphenyl	11.2	10.9

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	31079093	-0.5
Hexabromobiphenyl	64198300	64685135	0.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14425871	-0.8
Hexabromobiphenyl	15789428	15804667	0.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

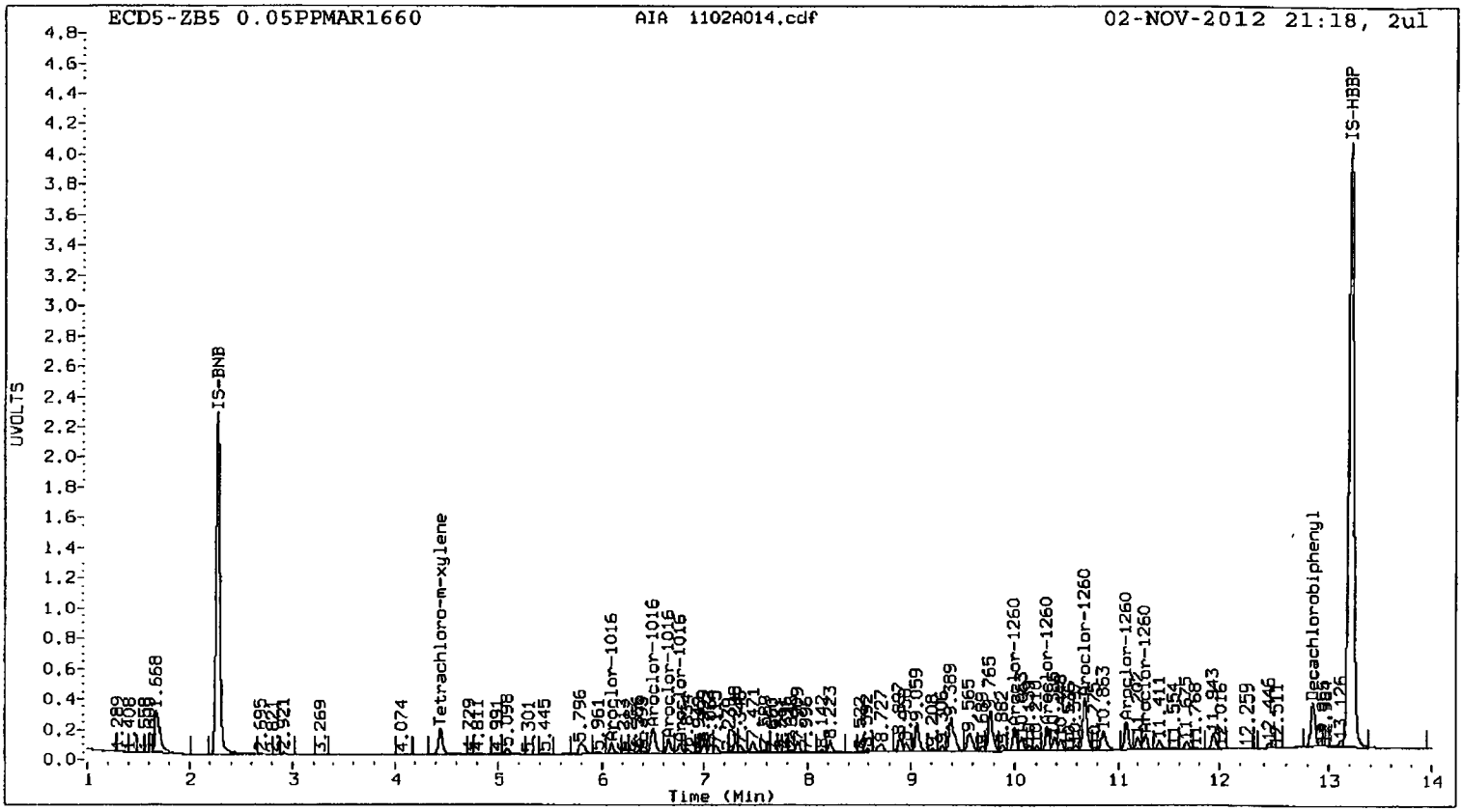
Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.093	-0.001	956493	55.0	1	6.208	0.000	447300	55.4
Aroclor-1016	2	6.497	-0.001	3001931	55.4	2	6.840	-0.001	924001	54.0
Aroclor-1016	3	6.647	0.000	1301472	55.7	3	7.225	0.000	238070	53.5
Aroclor-1016	4	6.757	-0.001	915266	54.8	4	7.334	0.000	273158	54.6
	Total Col1Ave (4 peaks):				55.2	Total Col2Ave (4 peaks):				54.4 RPD = 2
	Corrected Ave (3 peaks):				55.1	Corrected Ave (3 peaks):				54.1 RPD = 2
Aroclor-1260	1	9.995	-0.001	1994646	53.1	1	10.301	-0.001	457444	54.2
Aroclor-1260	2	10.311	0.000	1997918	52.9	2	10.751	-0.001	567951	54.8
Aroclor-1260	3	10.685	0.000	4742000	52.9	3	11.025	0.000	1123794	54.5
Aroclor-1260	4	11.085	0.000	2690276	52.4	4	11.547	0.000	328134	52.9
Aroclor-1260	5	11.275	-0.001	1290626	51.7	NS	---			----
	Total Col1Ave (5 peaks):				52.6	Total Col2Ave (4 peaks):				54.1 RPD = 3
	Corrected Ave (4 peaks):				52.5	Corrected Ave (3 peaks):				53.9 RPD = 3

Total PCB Area Col1 (4.544 - 12.755) = 59007535 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 14341578 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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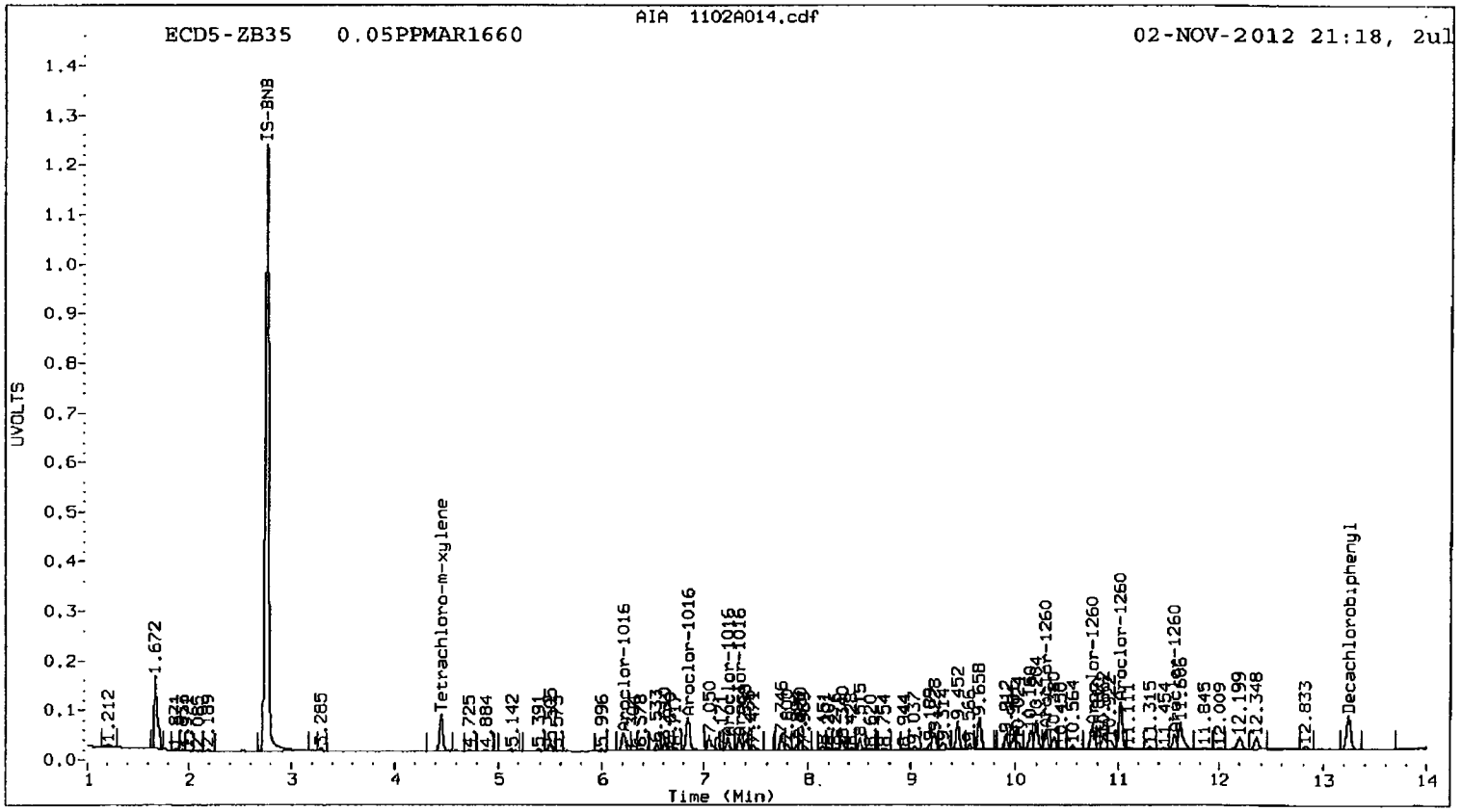
02-NOV-2012 21:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
IS-HBBP
Decachlorobiphenyl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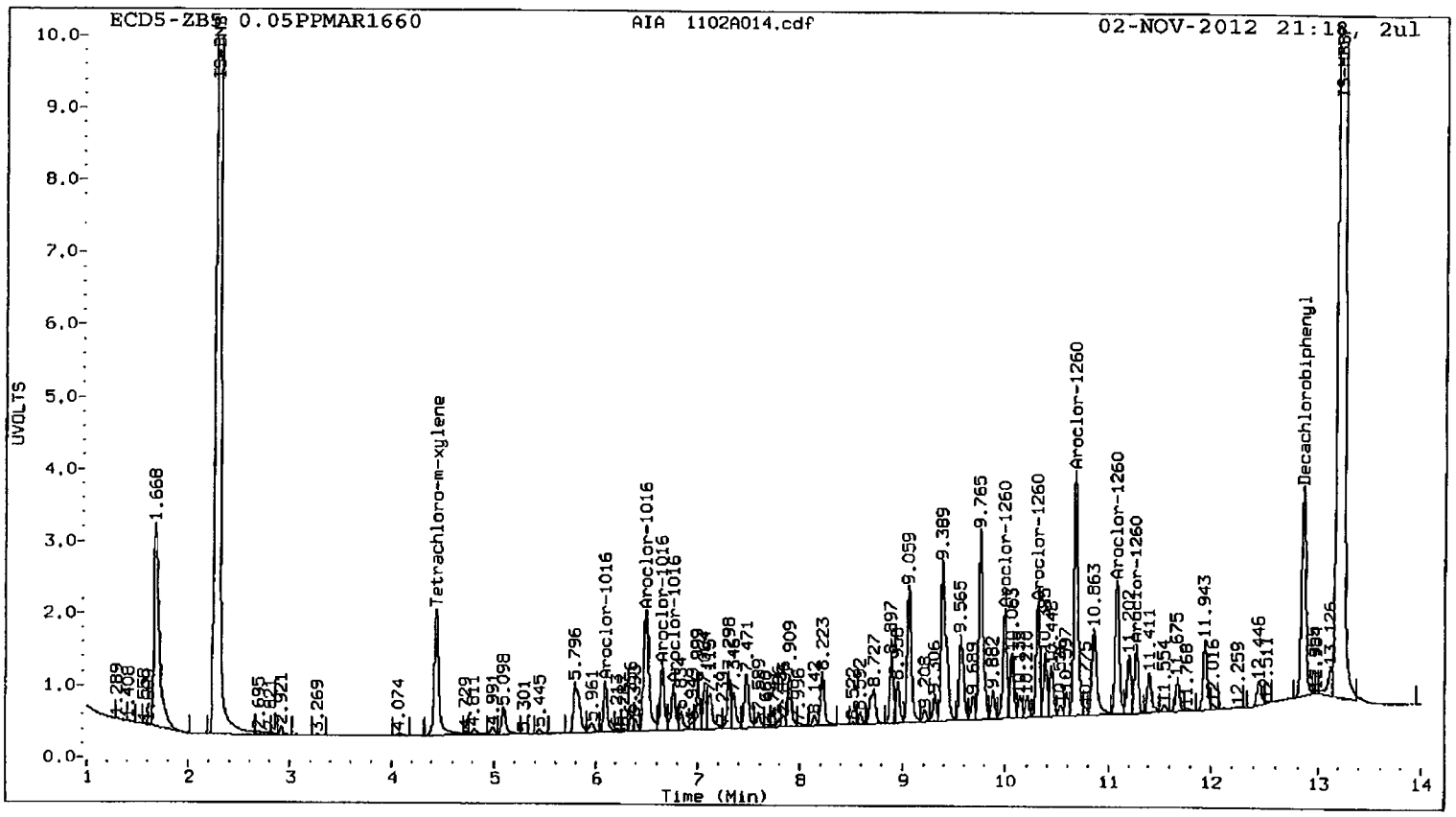
02-NOV-2012 21:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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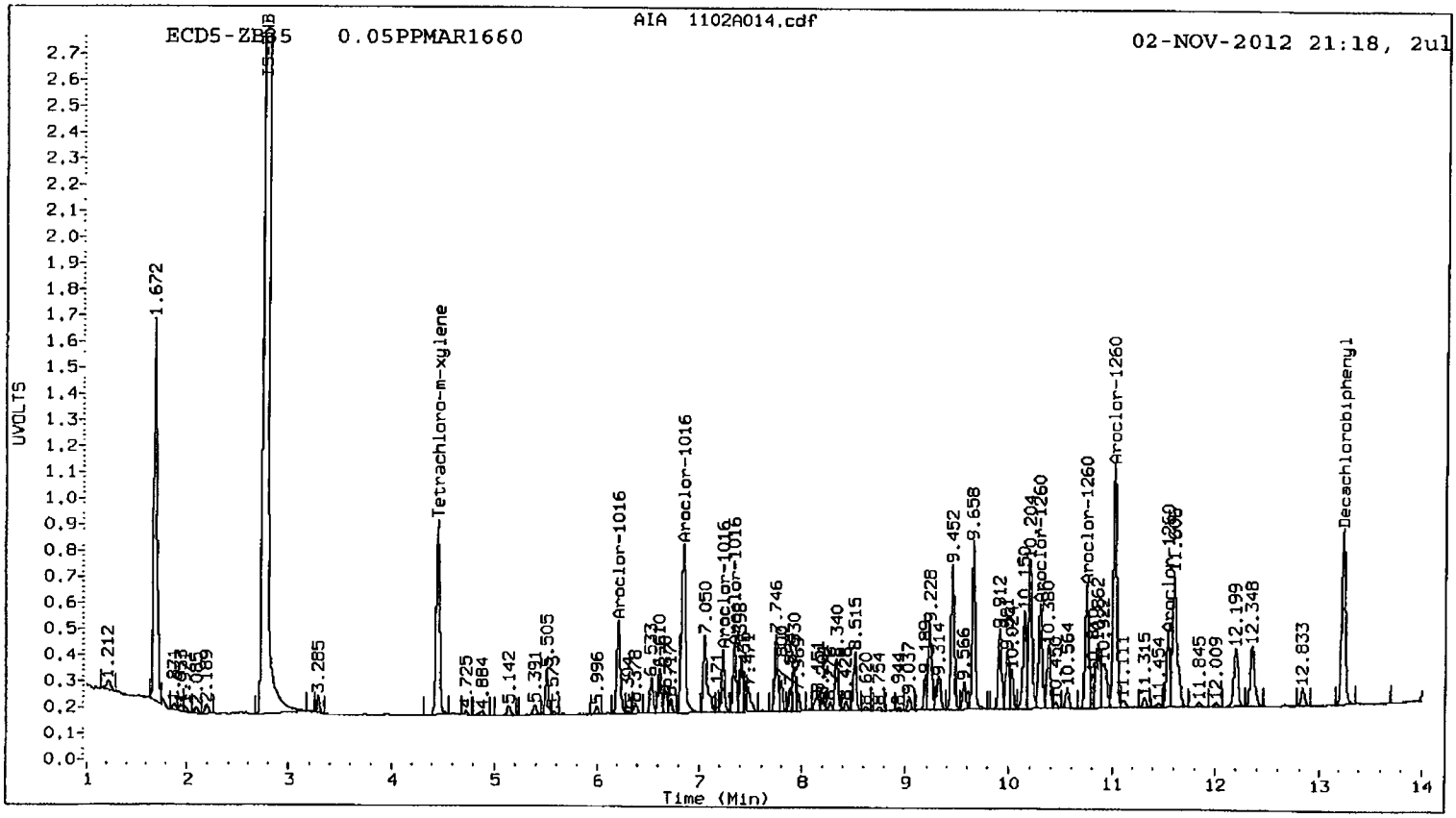
02-NOV-2012 21:18, 2ul
UVOLTS
Time (Min)
1.668
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 0.05PPMAR1660
AIA 1102A014.cdf
02-NOV-2012 21:18, 2ul
UVOLTS
Time (Min)
1.672
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A015.d
Data file 2: 20121102.B/ical-2.b/1102A015.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 1PPMAR1660
Client ID:
Injection Date: 02-NOV-2012 21:38
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.445	0.000	47595978	4.454	-0.002	15296268	70.5	73.2	3.7	Tetrachloro-m-xylene
12.855	0.001	61828474	13.247	-0.001	14509436	57.8	65.7	12.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	176.3	182.9
Decachlorobiphenyl	144.6	164.2

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32560778	4.2
Hexabromobiphenyl	64198300	67466235	5.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14668819	0.9
Hexabromobiphenyl	15789428	16259905	3.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

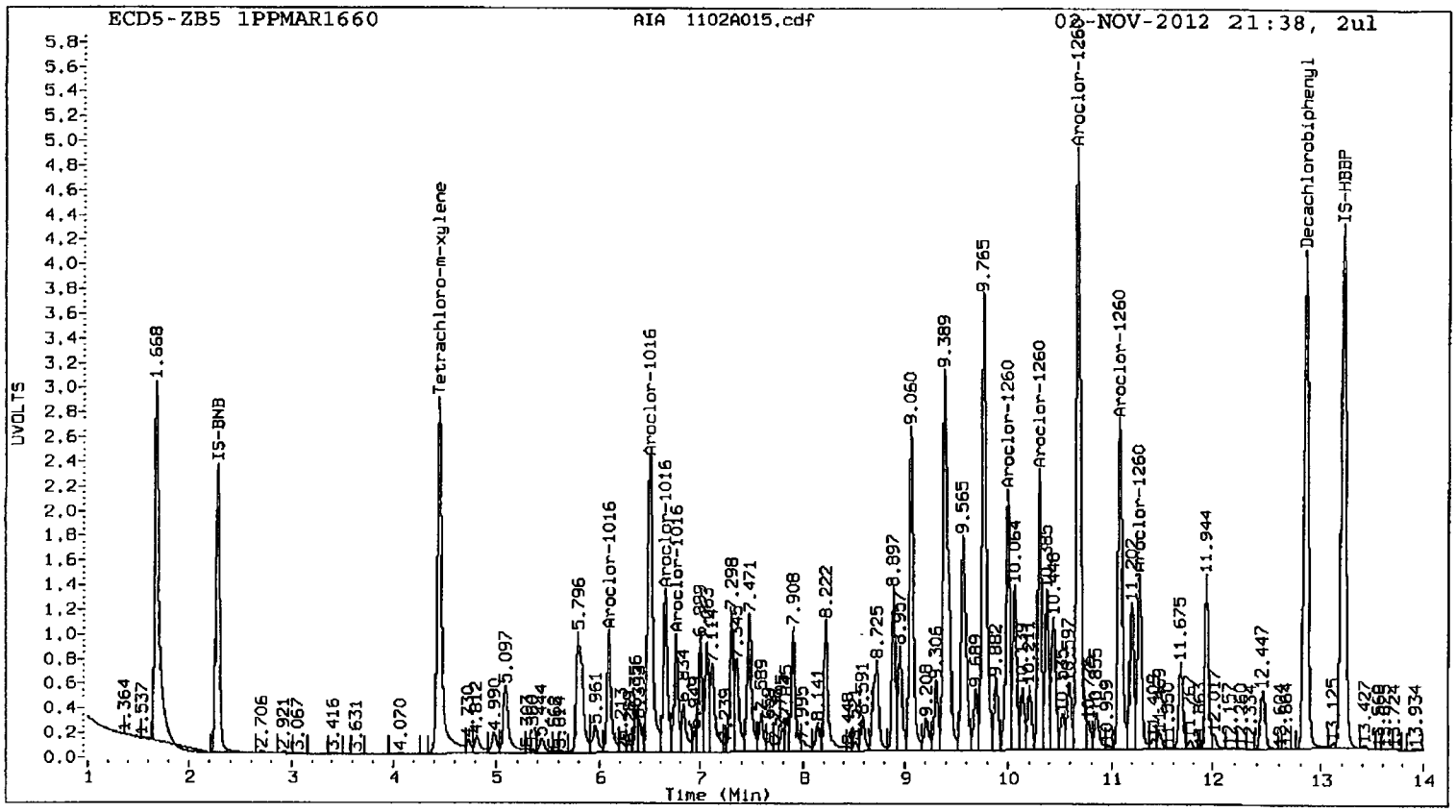
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.092	-0.001	14468062	787.6	1	6.208	0.000	6447286	784.6
Aroclor-1016	2	6.497	-0.001	43689731	762.7	2	6.840	-0.001	14167692	814.9
Aroclor-1016	3	6.646	-0.001	18882070	763.9	3	7.225	0.000	3823581	845.4
Aroclor-1016	4	6.757	-0.001	13858164	785.5	4	7.334	0.000	4135428	813.0
	Total Col1Ave (4 peaks):				774.9	Total Col2Ave (4 peaks):			814.5	RPD = 5
	Corrected Ave (3 peaks):				770.7	Corrected Ave (3 peaks):			804.2	RPD = 4
Aroclor-1260	1	9.995	0.000	29097548	708.2	1	10.301	0.000	7017005	808.4
Aroclor-1260	2	10.312	0.001	29615112	719.9	2	10.751	-0.001	8680312	814.8
Aroclor-1260	3	10.686	0.000	69214613	705.3	3	11.025	-0.001	17637268	832.1
Aroclor-1260	4	11.085	0.000	39737436	704.7	4	11.546	-0.001	5161043	808.0
Aroclor-1260	5	11.275	-0.001	20556577	762.1	NS	---			----
	Total Col1Ave (5 peaks):				720.0	Total Col2Ave (4 peaks):			815.8	RPD = 12
	Corrected Ave (4 peaks):				709.5	Corrected Ave (3 peaks):			810.4	RPD = 13

Total PCB Area Col1 (4.544 - 12.755) = 866088203 Col1 Total PCB = 1.6 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 219154507 Col2 Total PCB = 1.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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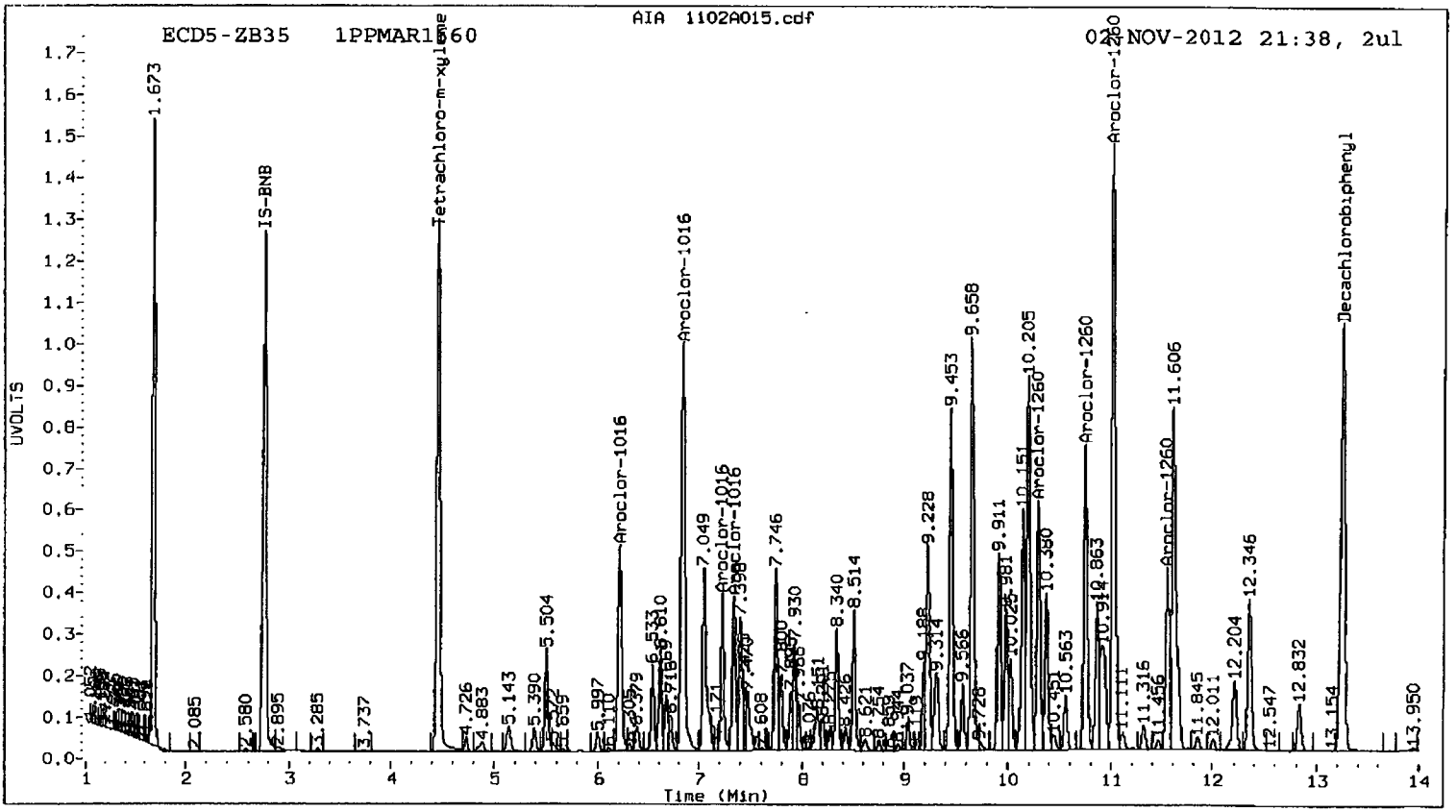
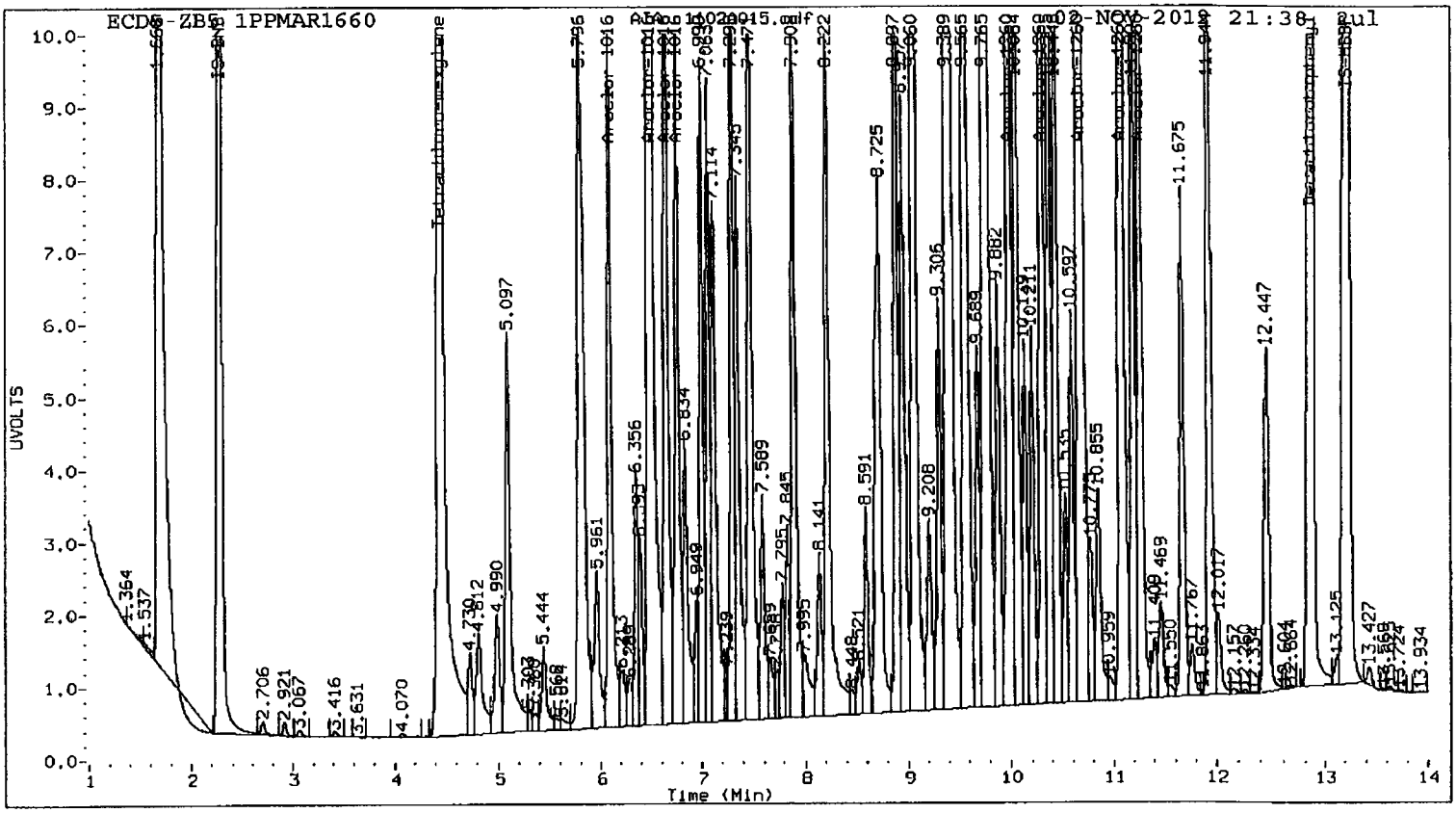
02-NOV-2012 21:38, 2ul
UVOLTS
Time (Min)
1.668
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 1PPMAR1660
AIA 1102A015.cdf
02-NOV-2012 21:38, 2ul
UVOLTS
Time (Min)
1.673
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD6-ZB5 1PPMAR1660
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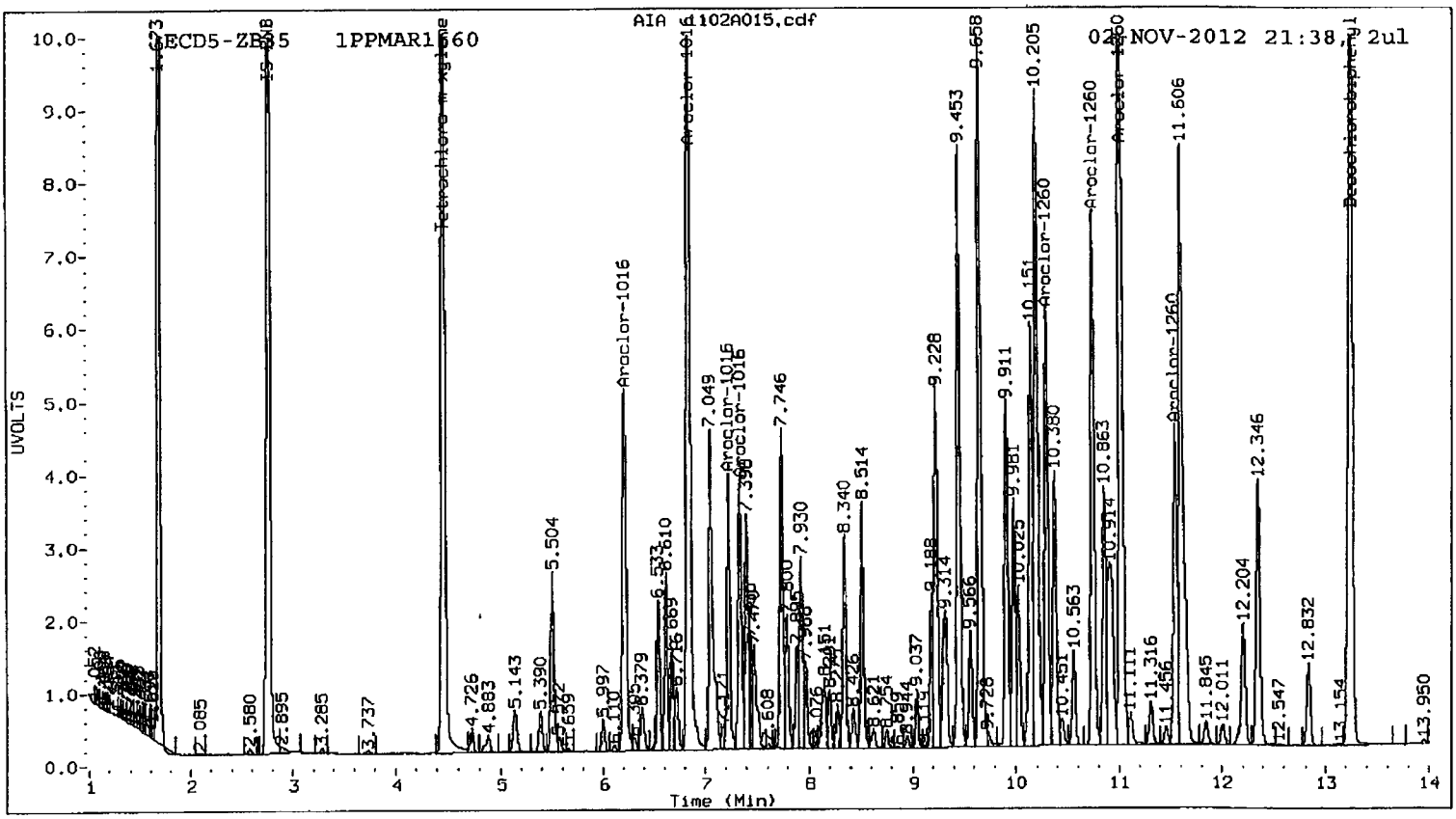
02-NOV-2012 21:38 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB5 1PPMAR1660
AIA 1102A015.cdf
02-NOV-2012 21:38 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A016.d
Data file 2: 20121102.B/ical-2.b/1102A016.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 02-NOV-2012 21:58
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.443	-0.002	5655629	4.455	0.000	1730158	8.5	8.3	2.0	Tetrachloro-m-xylene
12.854	-0.001	8756996	13.248	0.000	1827328	8.3	8.4	1.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	21.3	20.9
Decachlorobiphenyl	20.7	20.0

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	31562437	1.0
Hexabromobiphenyl	64198300	66063497	2.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14552241	0.1
Hexabromobiphenyl	15789428	15974909	1.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

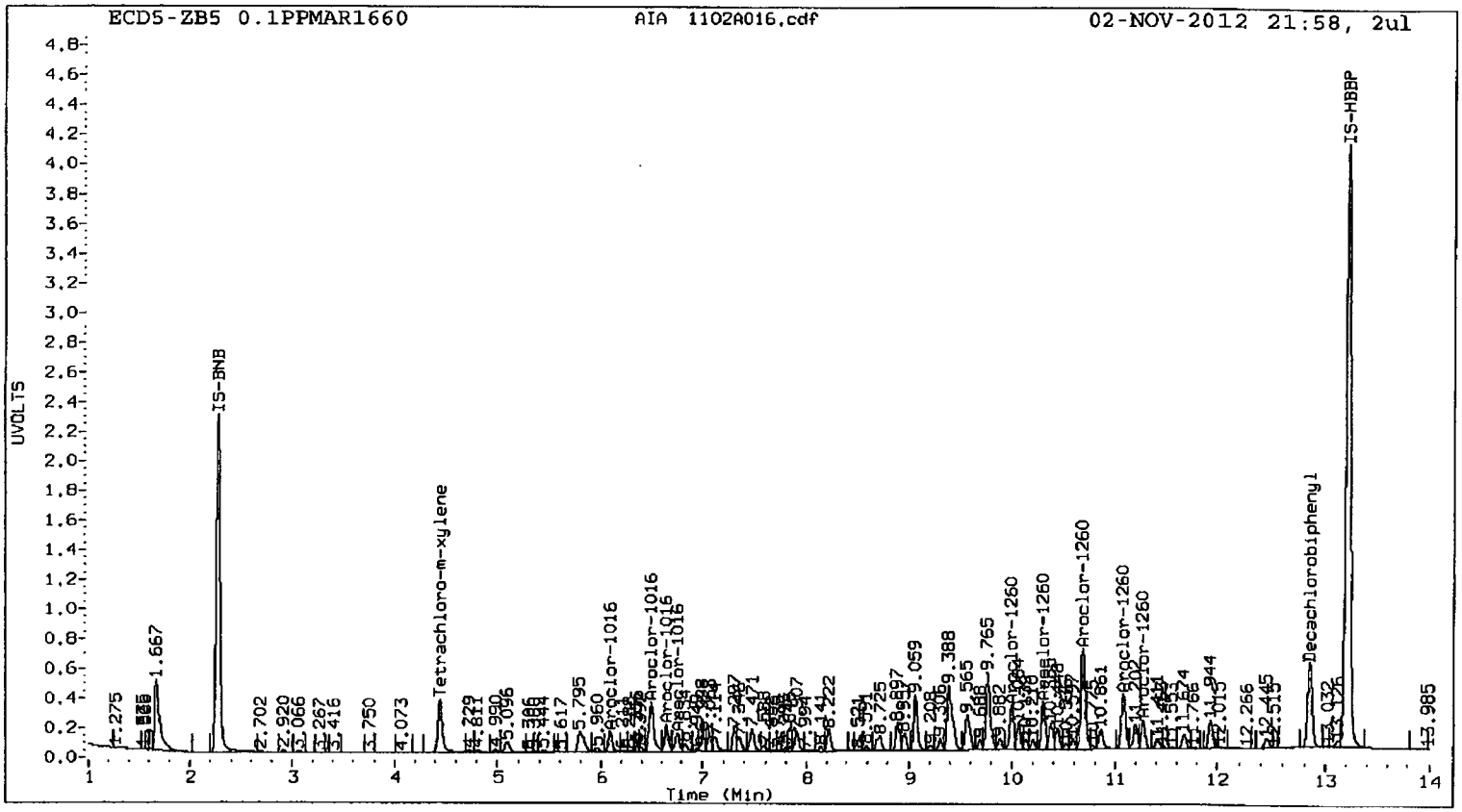
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.092	-0.001	1893217	105.0	1	6.209	0.000	875642	107.4
Aroclor-1016	2	6.496	-0.001	5969040	105.9	2	6.842	0.001	1836774	106.5
Aroclor-1016	3	6.646	-0.001	2571001	105.8	3	7.226	0.002	479038	106.8
Aroclor-1016	4	6.756	-0.001	1824304	105.3	4	7.335	0.001	539029	106.8
Total Col1Ave (4 peaks):					105.5	Total Col2Ave (4 peaks):			106.9	RPD = 1
Corrected Ave (3 peaks):					105.3	Corrected Ave (3 peaks):			106.7	RPD = 1
Aroclor-1260	1	9.995	-0.001	3954611	98.7	1	10.302	0.000	909167	106.6
Aroclor-1260	2	10.311	0.000	3988453	99.3	2	10.752	0.000	1120883	107.1
Aroclor-1260	3	10.685	0.000	9420553	98.5	3	11.025	0.000	2219033	106.6
Aroclor-1260	4	11.084	0.000	5347196	97.6	4	11.546	-0.001	652983	104.1
Aroclor-1260	5	11.274	-0.001	2618756	99.4	NS	---			----
Total Col1Ave (5 peaks):					98.7	Total Col2Ave (4 peaks):			106.1	RPD = 7
Corrected Ave (4 peaks):					98.5	Corrected Ave (3 peaks):			105.7	RPD = 7

Total PCB Area Col1 (4.544 - 12.755) = 115293780 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 28372185 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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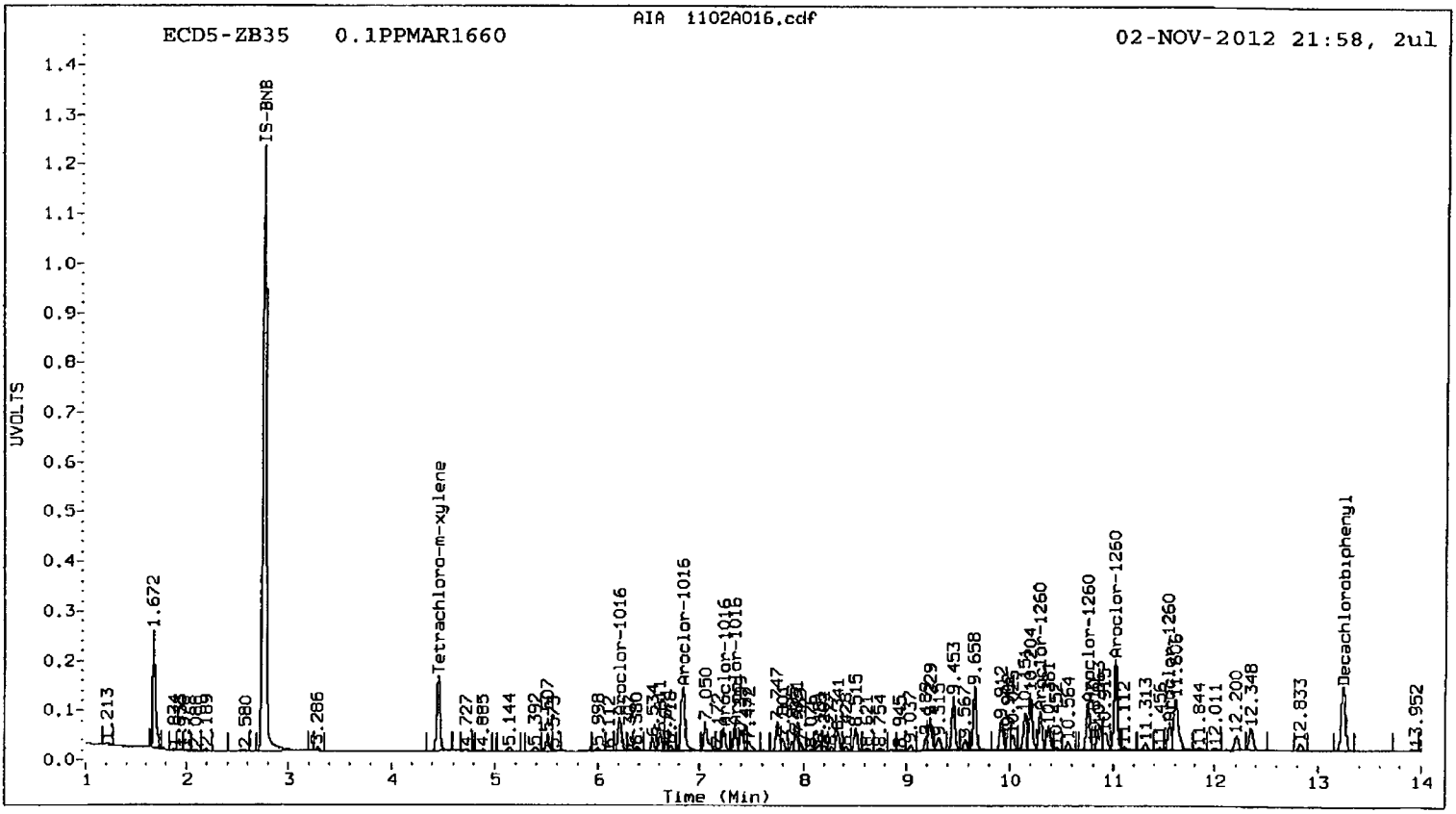
AIA 1102A016.cdf
02-NOV-2012 21:58, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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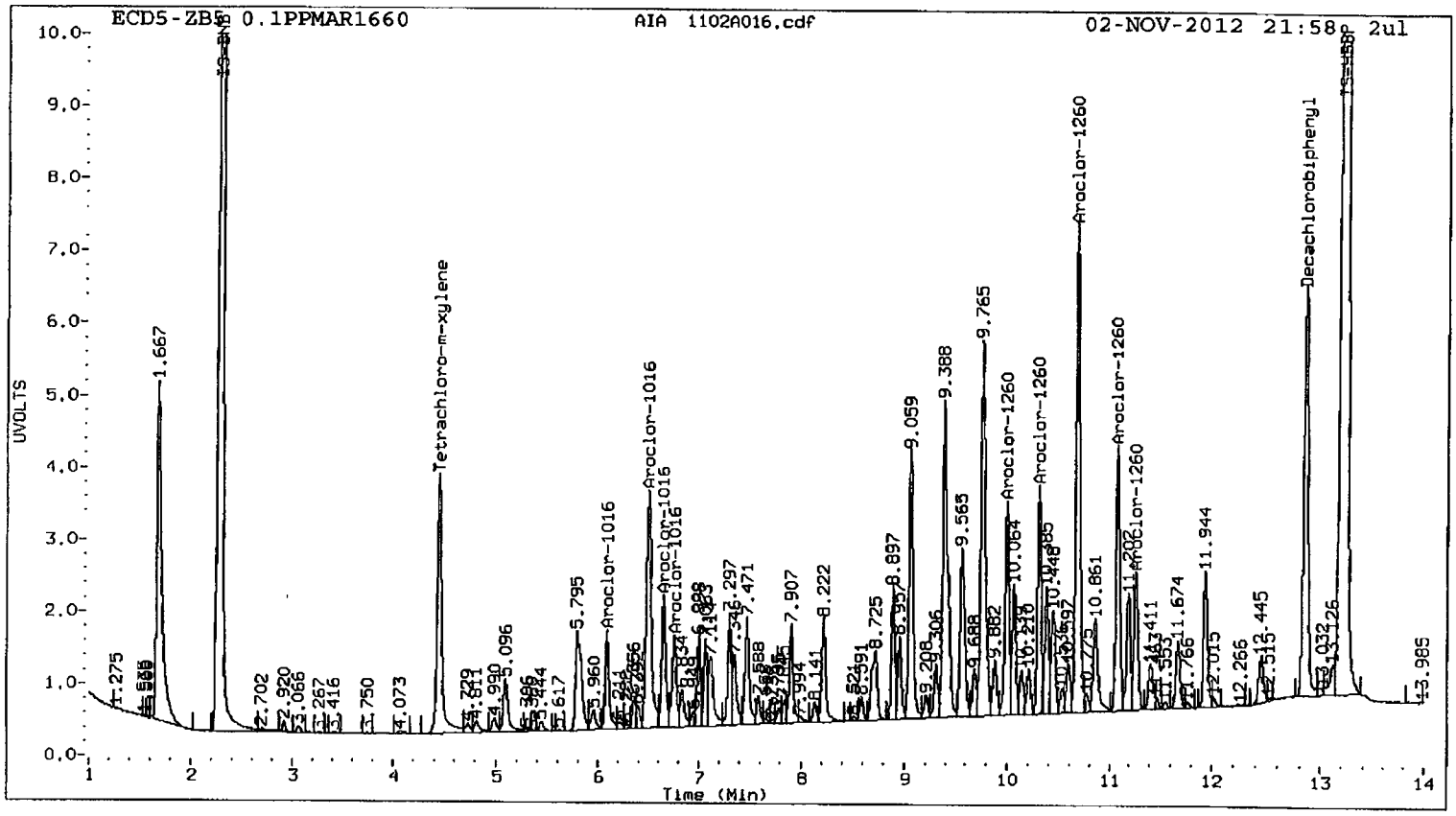
02-NOV-2012 21:58, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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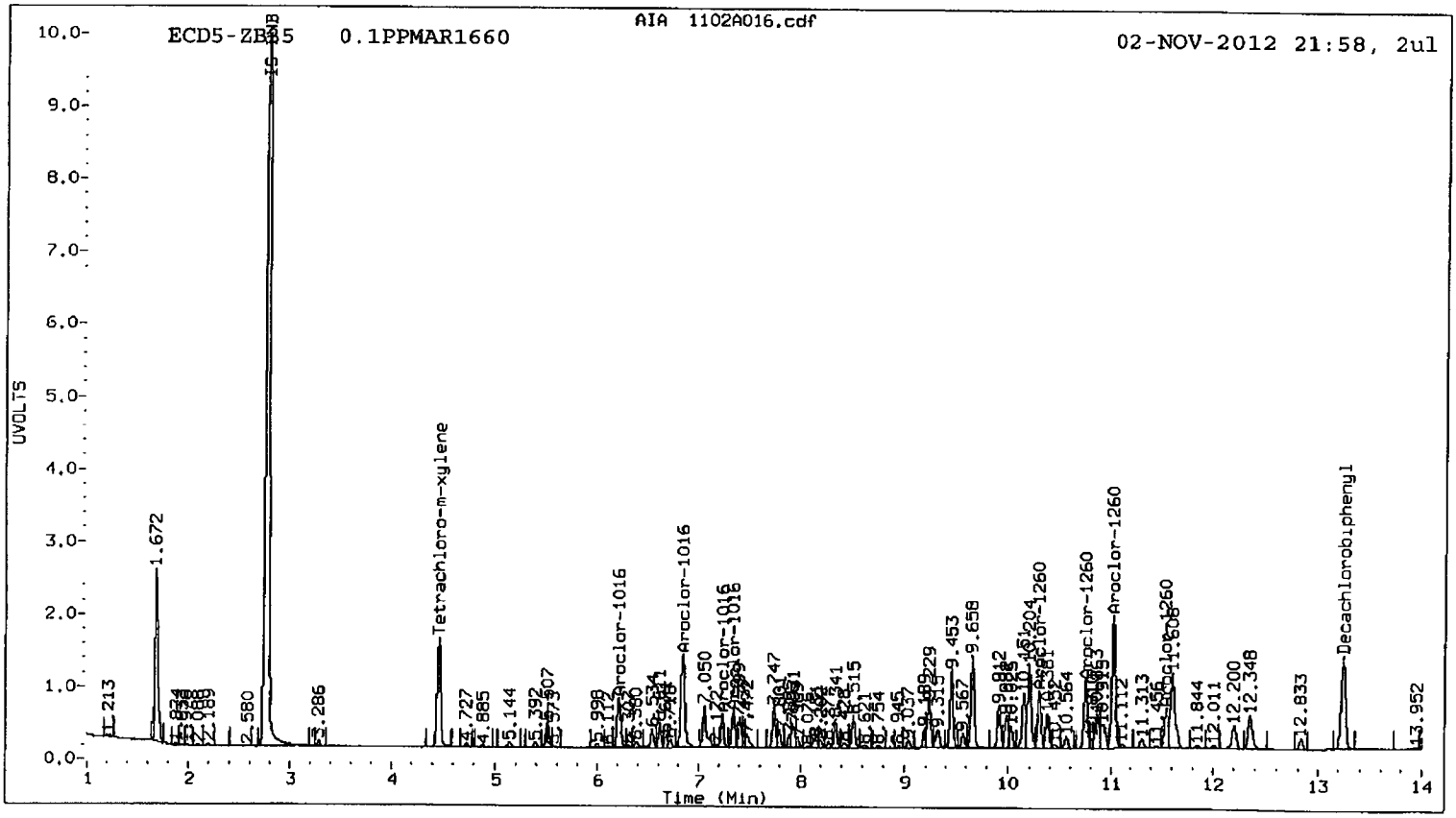
AIA 1102A016.cdf
02-NOV-2012 21:58 2ul
UVOLTS
Time (Min)
1.667
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


AIA 1102A016.cdf
ECD5-ZB5 0.1PPMAR1660
02-NOV-2012 21:58, 2ul
UVOLTS
Time (Min)
1.672
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A017.d
Data file 2: 20121102.B/ical-2.b/1102A017.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 02-NOV-2012 22:18
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	-0.001	25958998	4.454	-0.002	8195360	38.3	38.8	1.4	Tetrachloro-m-xylene
12.855	0.000	34947124	13.247	-0.001	7841701	33.5	35.7	6.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	95.7	97.0
Decachlorobiphenyl	83.7	89.2

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32469455	3.9
Hexabromobiphenyl	64198300	67388285	5.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14811515	1.9
Hexabromobiphenyl	15789428	16169446	2.4

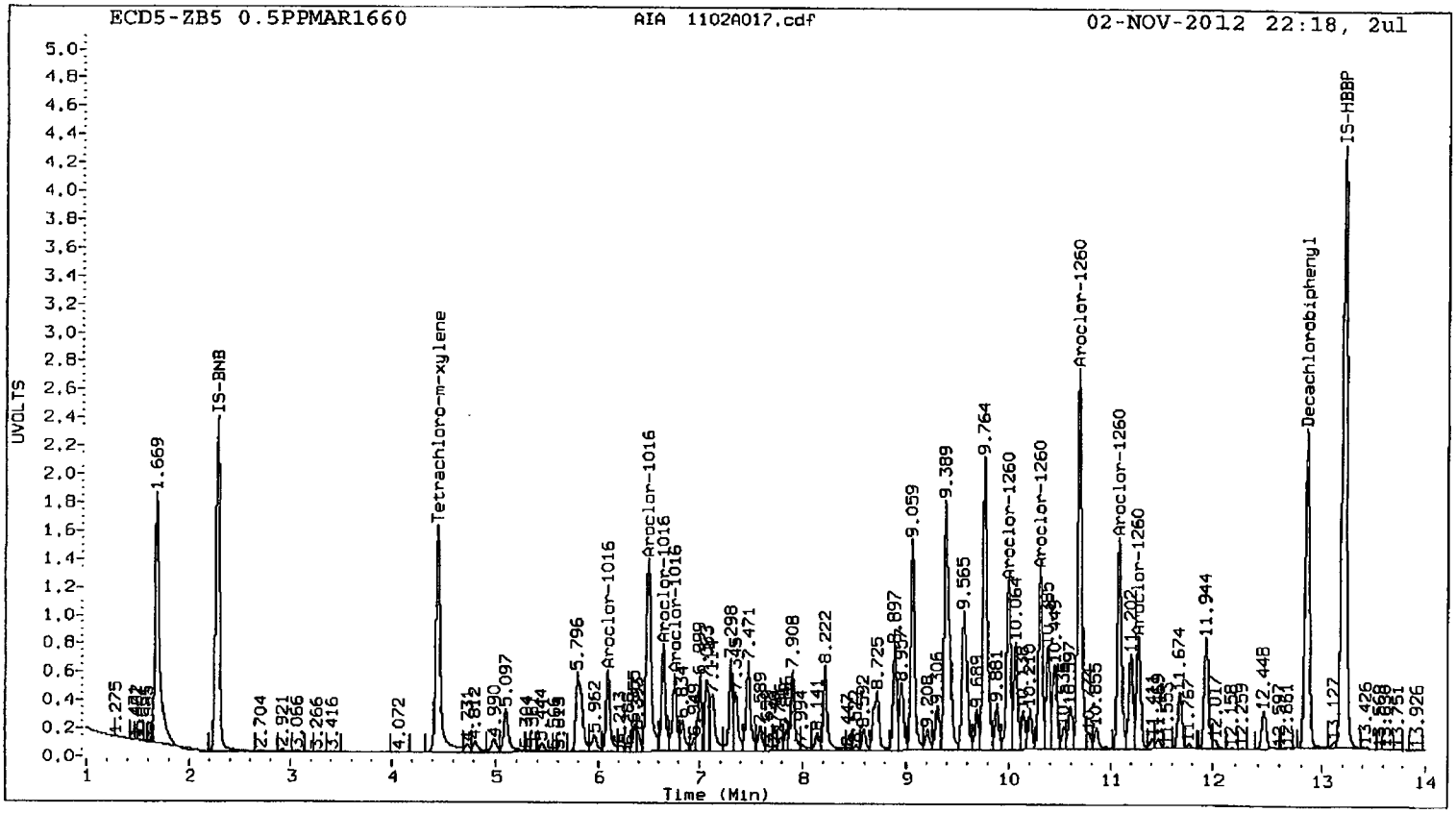
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

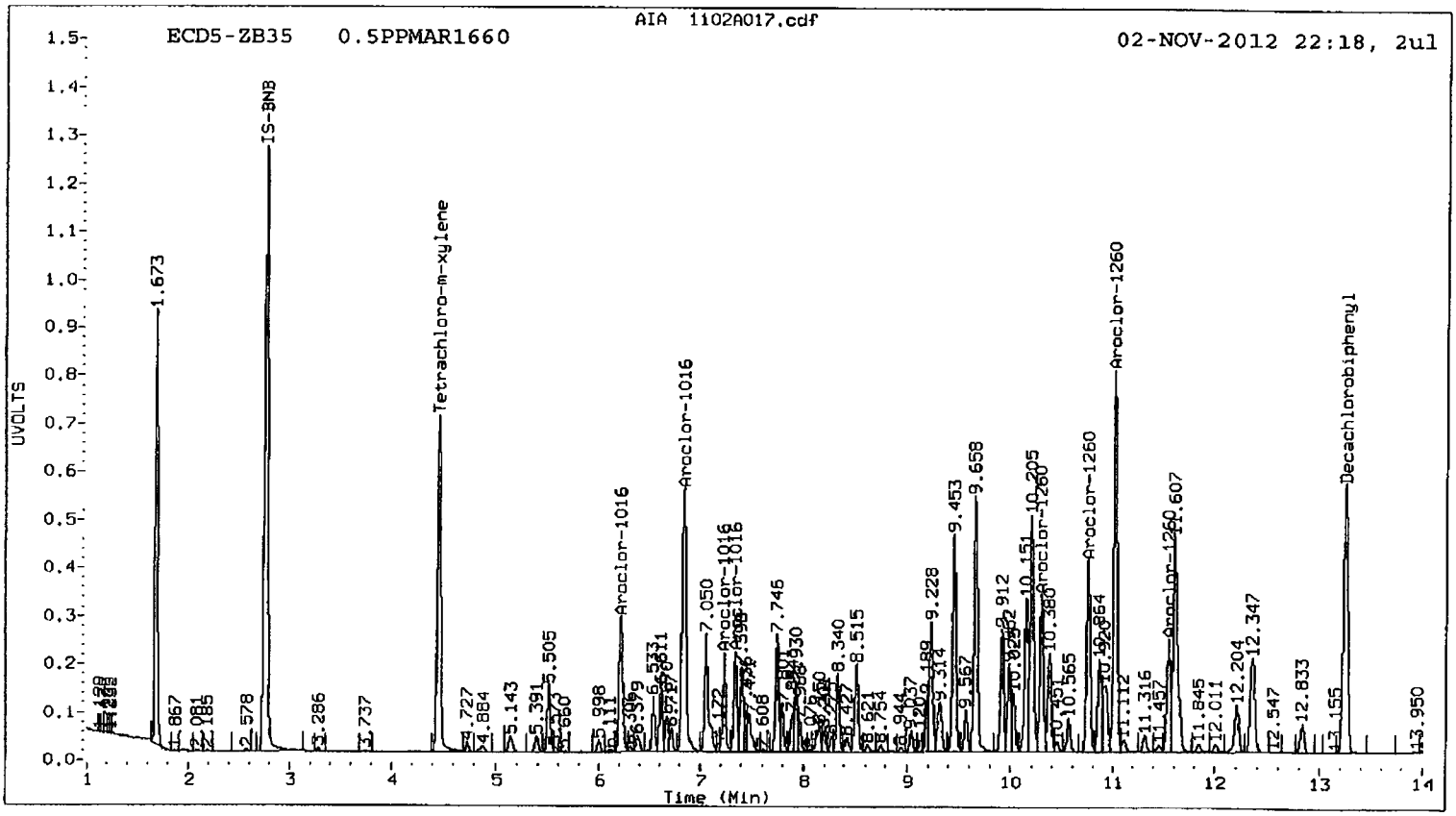
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.092	-0.001	8087231	445.5	1	6.209	0.000	3611465	435.3
Aroclor-1016	2	6.497	-0.001	24766570	437.8	2	6.840	0.000	7844846	446.9
Aroclor-1016	3	6.646	-0.001	10702771	438.5	3	7.225	0.000	2089747	457.6
Aroclor-1016	4	6.757	-0.001	7808473	447.2	4	7.334	0.000	2284137	444.7
	Total Col1Ave (4 peaks):			442.2		Total Col2Ave (4 peaks):			446.1	RPD = 1
	Corrected Ave (3 peaks):			440.6		Corrected Ave (3 peaks):			442.3	RPD = 0
Aroclor-1260	1	9.995	0.000	16338550	416.5	1	10.302	0.000	3830719	443.8
Aroclor-1260	2	10.312	0.000	16605271	421.1	2	10.752	0.000	4730699	446.6
Aroclor-1260	3	10.686	0.000	38671574	413.6	3	11.025	0.000	9547787	453.0
Aroclor-1260	4	11.086	0.001	22198886	414.3	4	11.547	0.000	2815861	443.3
Aroclor-1260	5	11.276	0.000	11317084	434.7	NS	---			----
	Total Col1Ave (5 peaks):			420.0		Total Col2Ave (4 peaks):			446.7	RPD = 6
	Corrected Ave (4 peaks):			416.4		Corrected Ave (3 peaks):			444.6	RPD = 7

Total PCB Area Col1 (4.544 - 12.755) = 481213514 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 119882466 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 0.5PPMAR1660
AIA 1102A017.cdf
02-NOV-2012 22:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 0.5PPMAR1660
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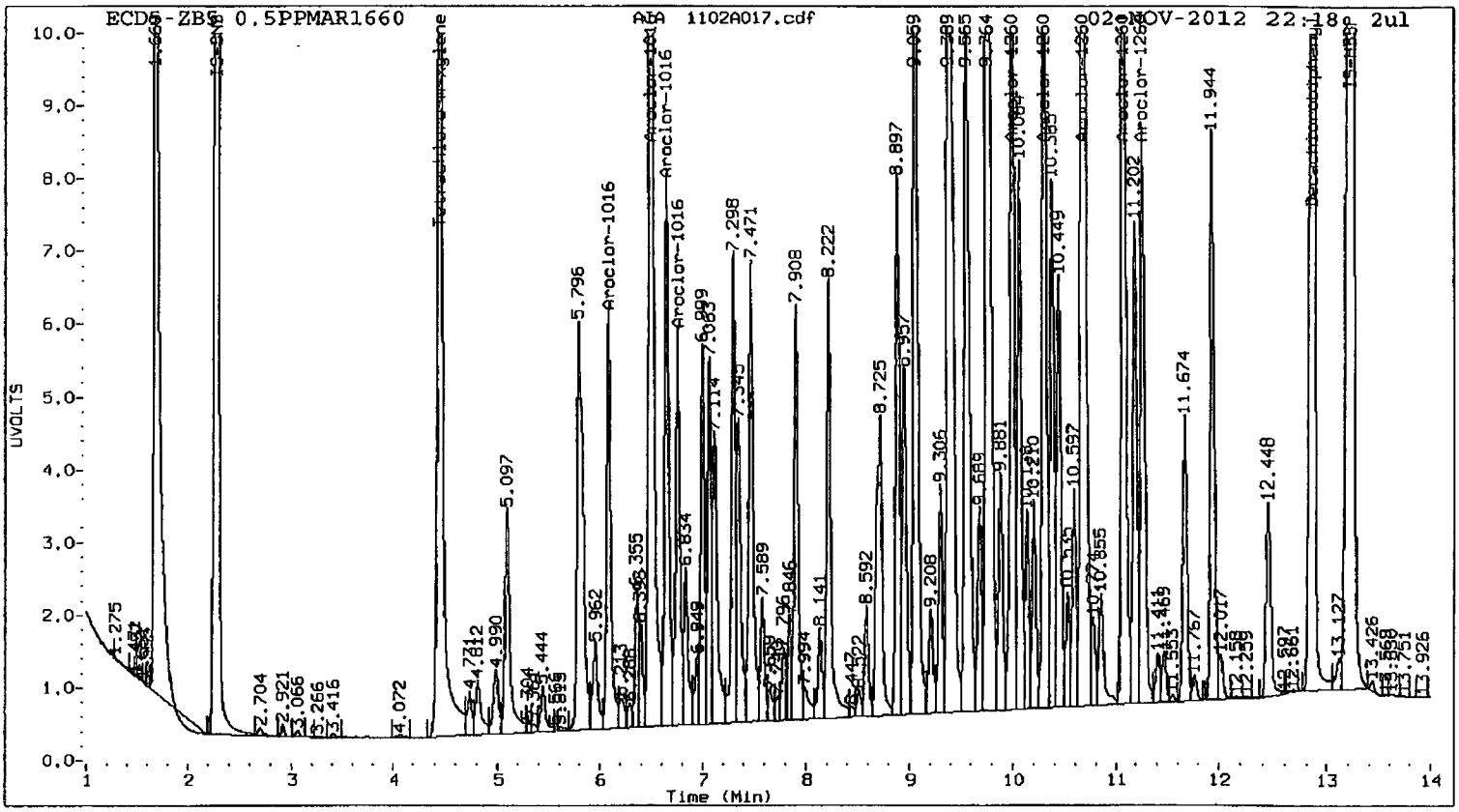
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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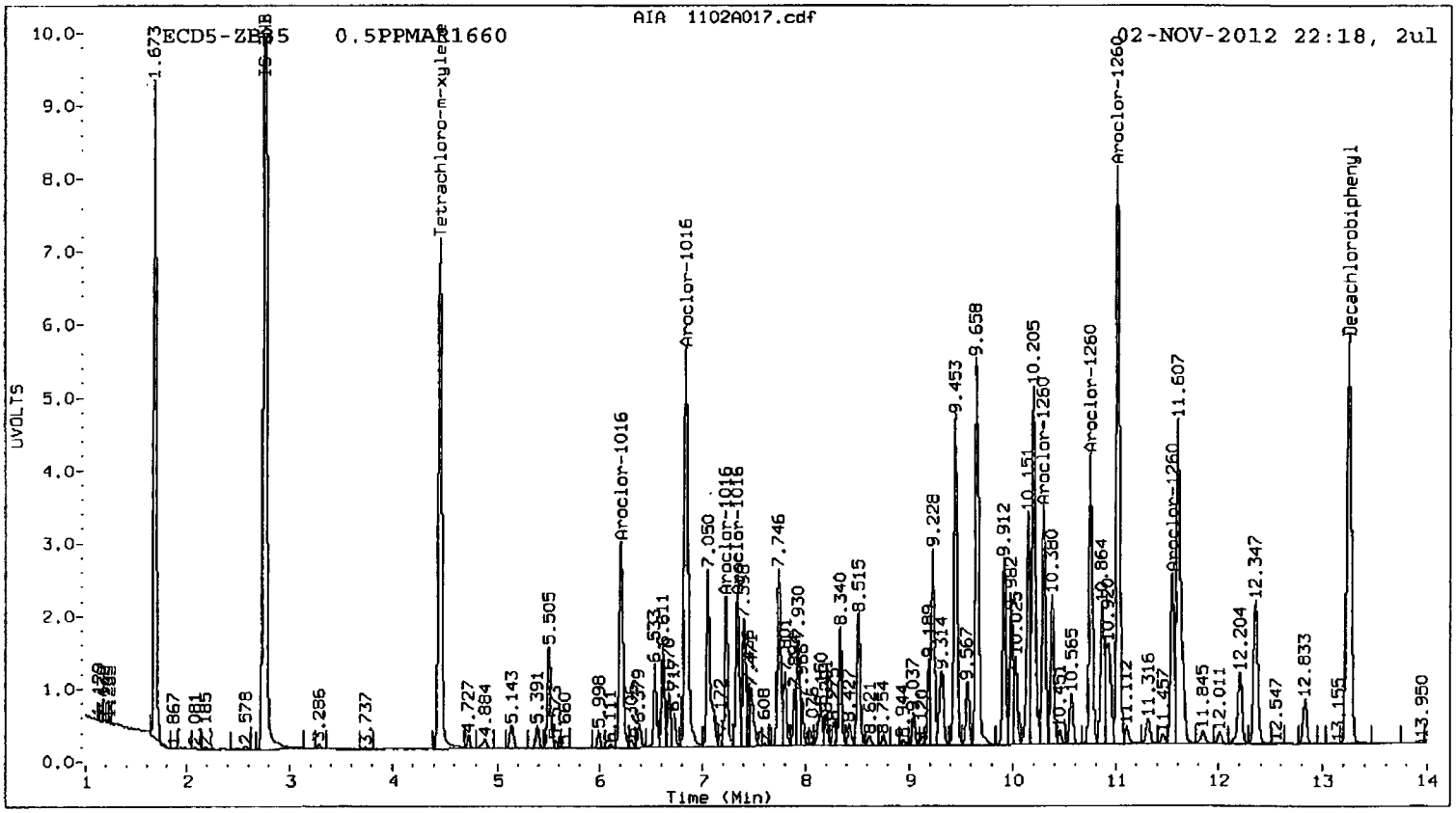
AIA 1102A017.cdf
02-NOV-2012 22:18 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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ECD5-ZB5 0.5PPMAR1660
02-NOV-2012 22:18, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A018.d
Data file 2: 20121102.B/ical-2.b/1102A018.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 02-NOV-2012 22:38
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	-0.001	13817189	4.454	-0.002	4260289	20.2	20.1	0.5	Tetrachloro-m-xylene
12.854	0.000	19265336	13.247	-0.001	4189078	18.3	19.1	4.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.5	50.2
Decachlorobiphenyl	45.9	47.7

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32779971	4.9
Hexabromobiphenyl	64198300	67800793	5.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14876946	2.3
Hexabromobiphenyl	15789428	16149950	2.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

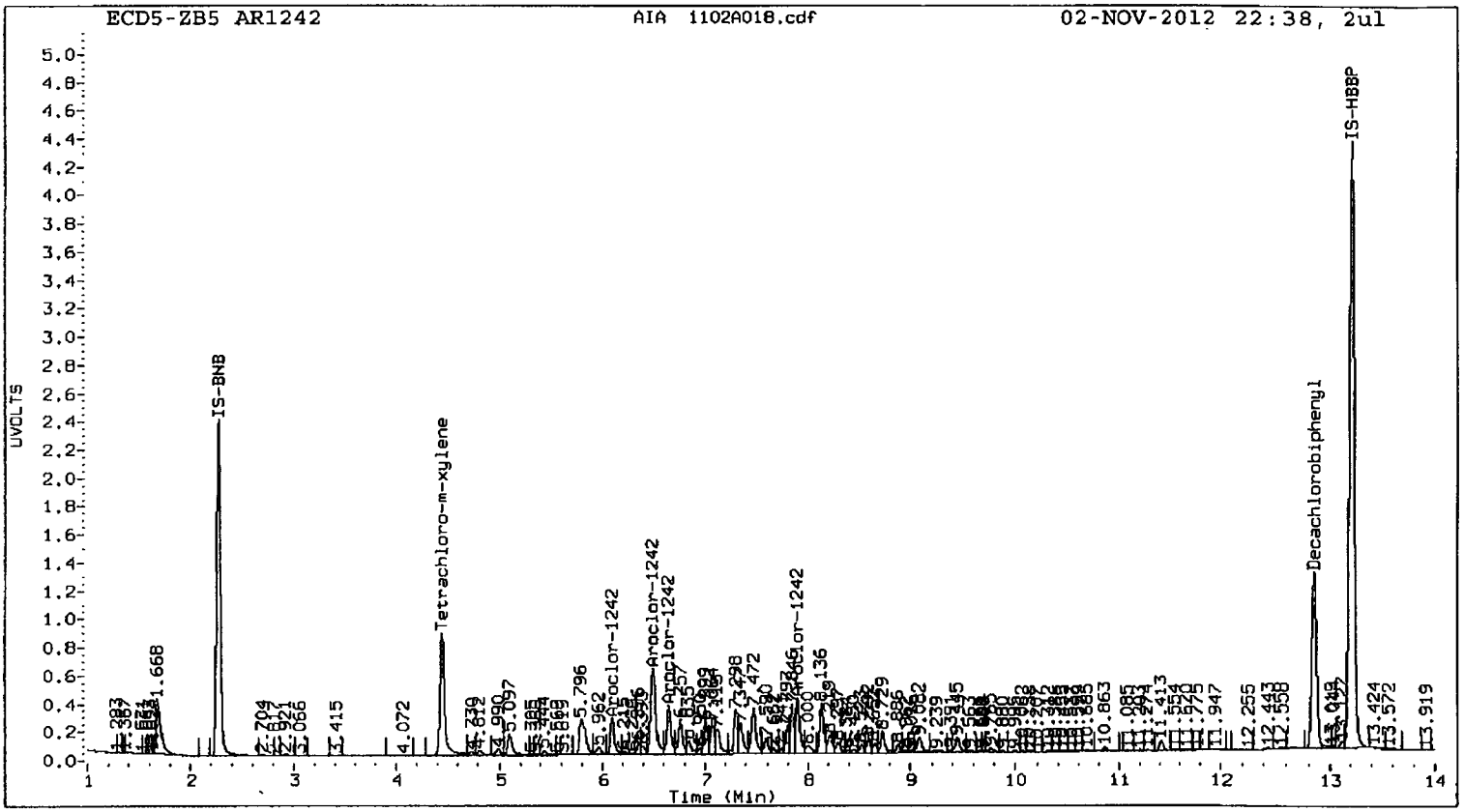
	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.093	0.000	3565021	250.0	1	6.208	0.000	1588183	250.0
Aroclor-1242	2	6.497	0.000	11043842	250.0	2	6.840	0.000	3380637	250.0
Aroclor-1242	3	6.647	0.000	4795570	250.0	3	7.051	0.000	1404821	250.0
Aroclor-1242	4	7.899	0.000	5623530	250.0	4	8.276	0.000	1183327	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

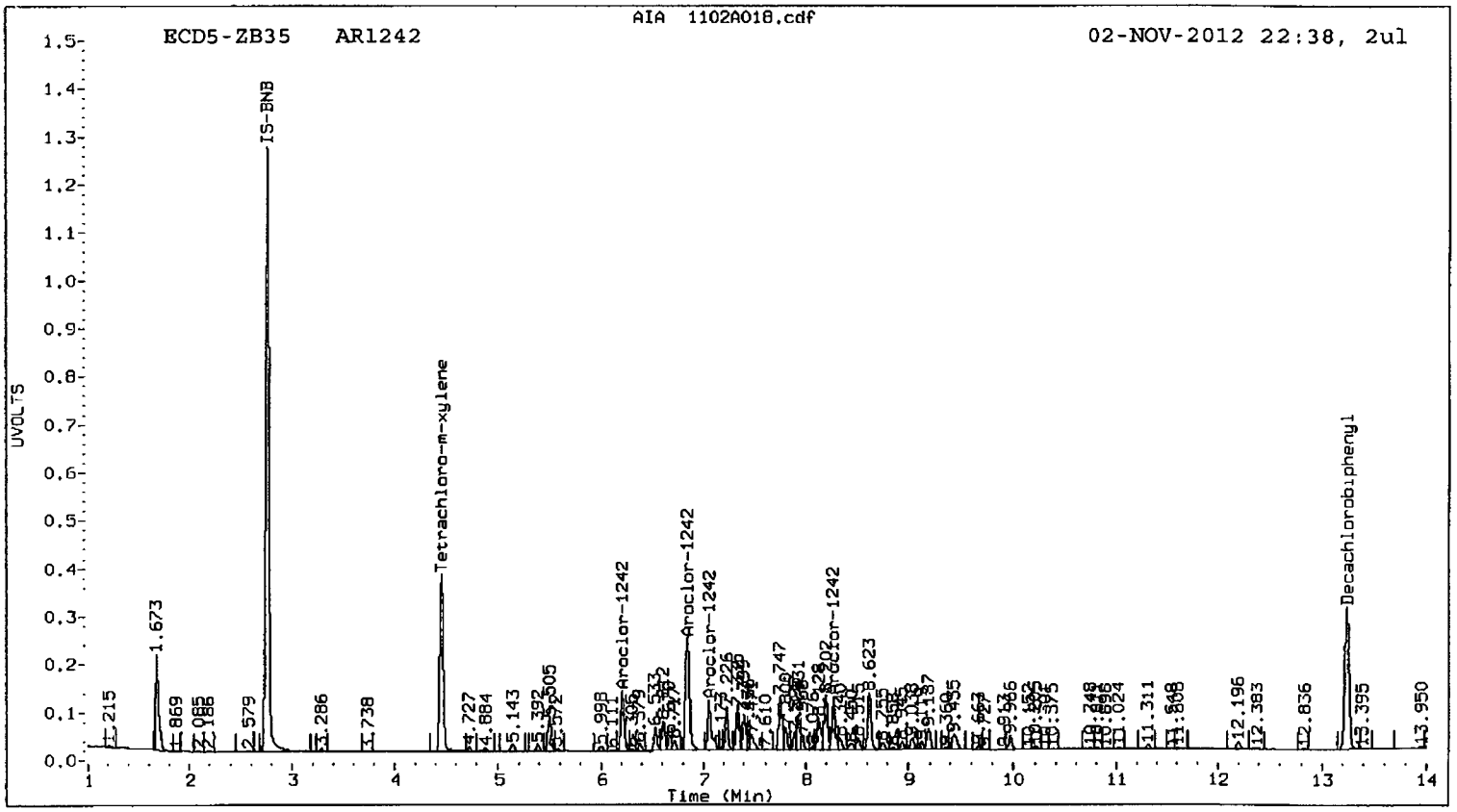
Total PCB Area Col1 (4.544 - 12.755) = 96069806 Col1 Total PCB = 0.2 ppm*

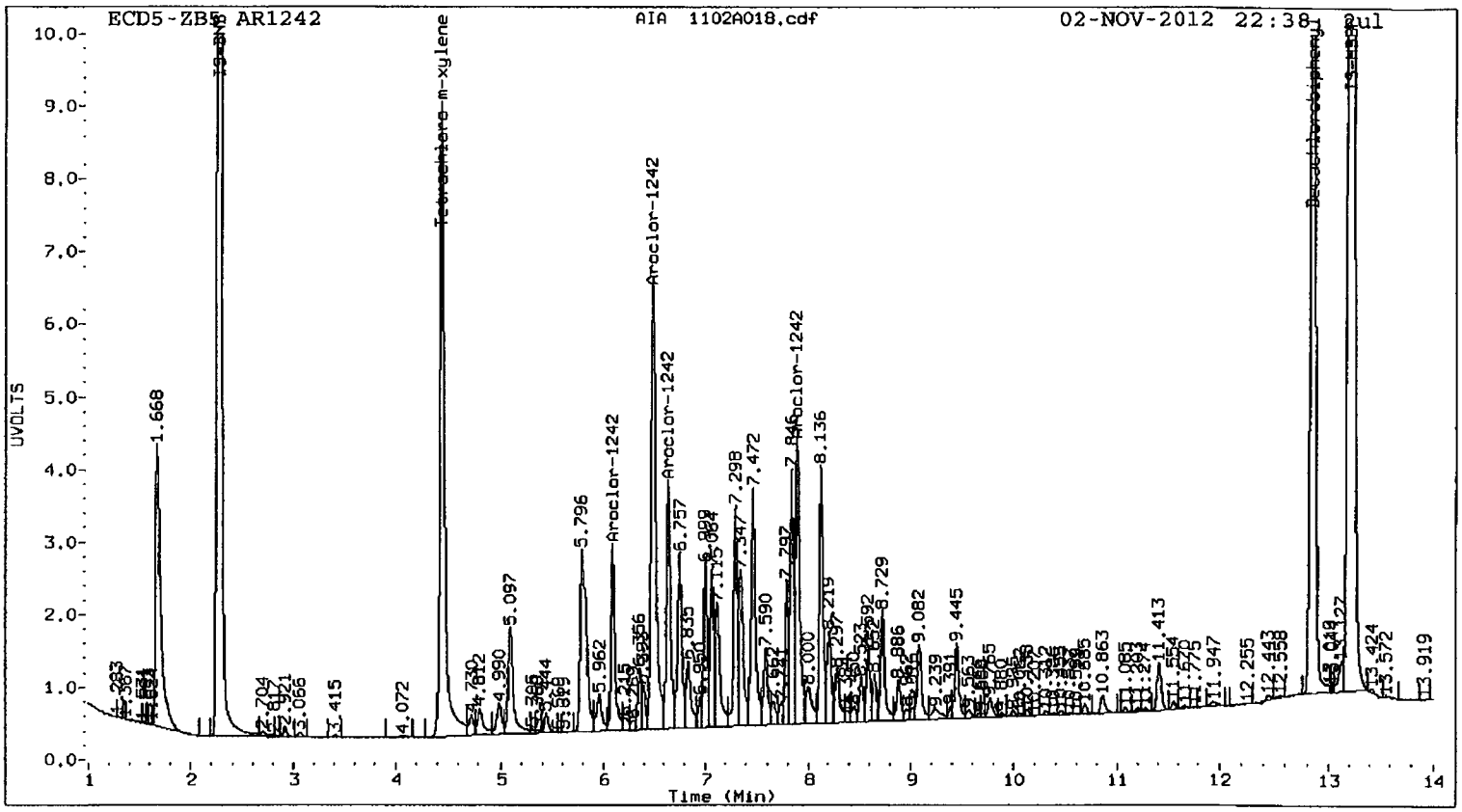
Total PCB Area Col2 (4.556 - 13.148) = 24764849 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 AR1242
AIA 1102A018.cdf
02-NOV-2012 22:38, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP


AIA 1102A018.cdf
ECD5-ZB35 AR1242
02-NOV-2012 22:38, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl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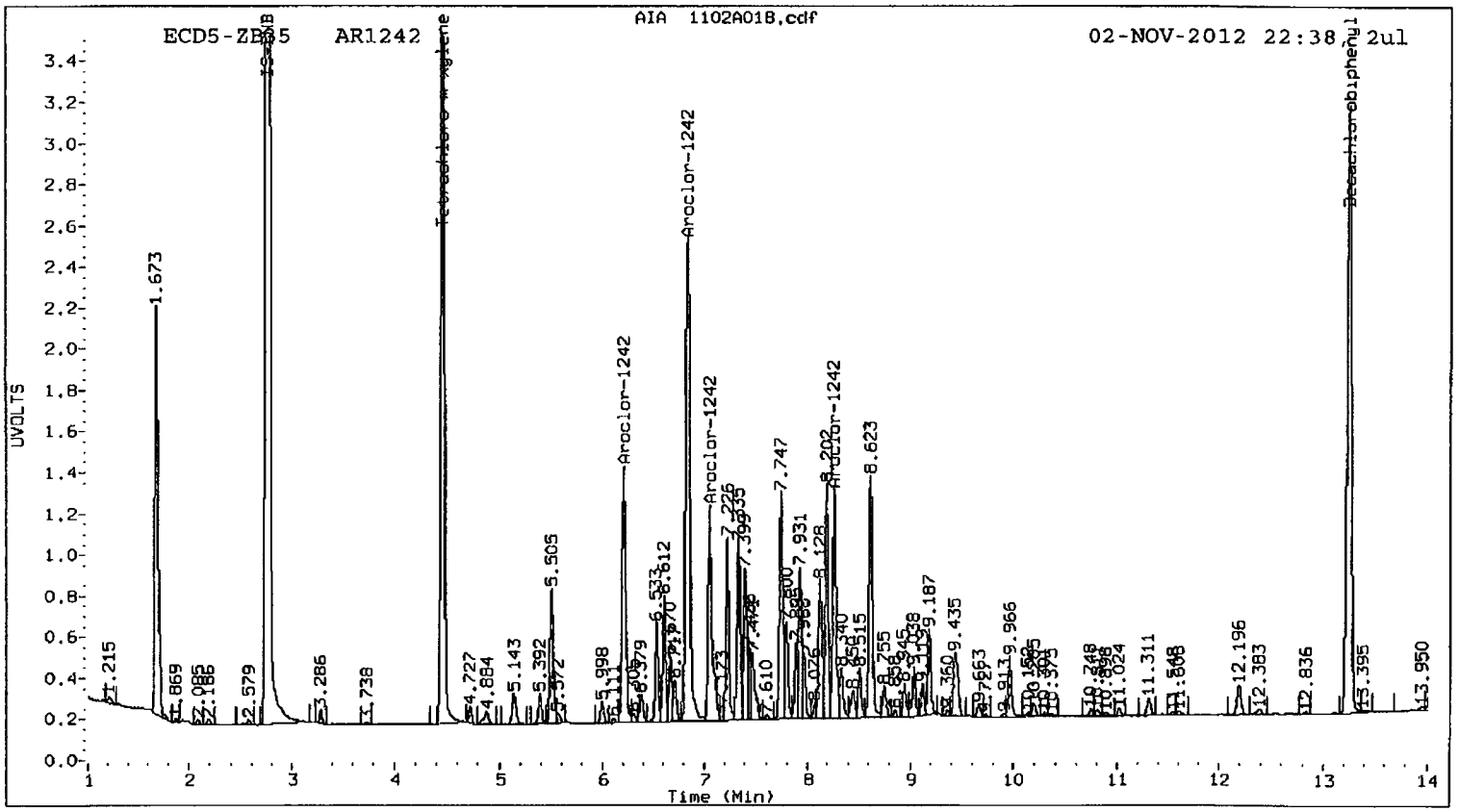
AIA 1102A018.cdf
02-NOV-2012 22:38 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl


ECD5-ZB35 AR1242
AIA 1102A018.cdf
02-NOV-2012 22:38 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A019.d
Data file 2: 20121102.B/ical-2.b/1102A019.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 02-NOV-2012 22:59
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.447	0.002	13966170	4.456	0.000	4380779	20.0	20.3	1.6	Tetrachloro-m-xylene
12.855	0.000	19830475	13.248	0.000	4286593	18.6	19.3	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.9	50.8
Decachlorobiphenyl	46.5	48.2

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33486089	7.2
Hexabromobiphenyl	64198300	68805737	7.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	15137931	4.1
Hexabromobiphenyl	15789428	16358718	3.6

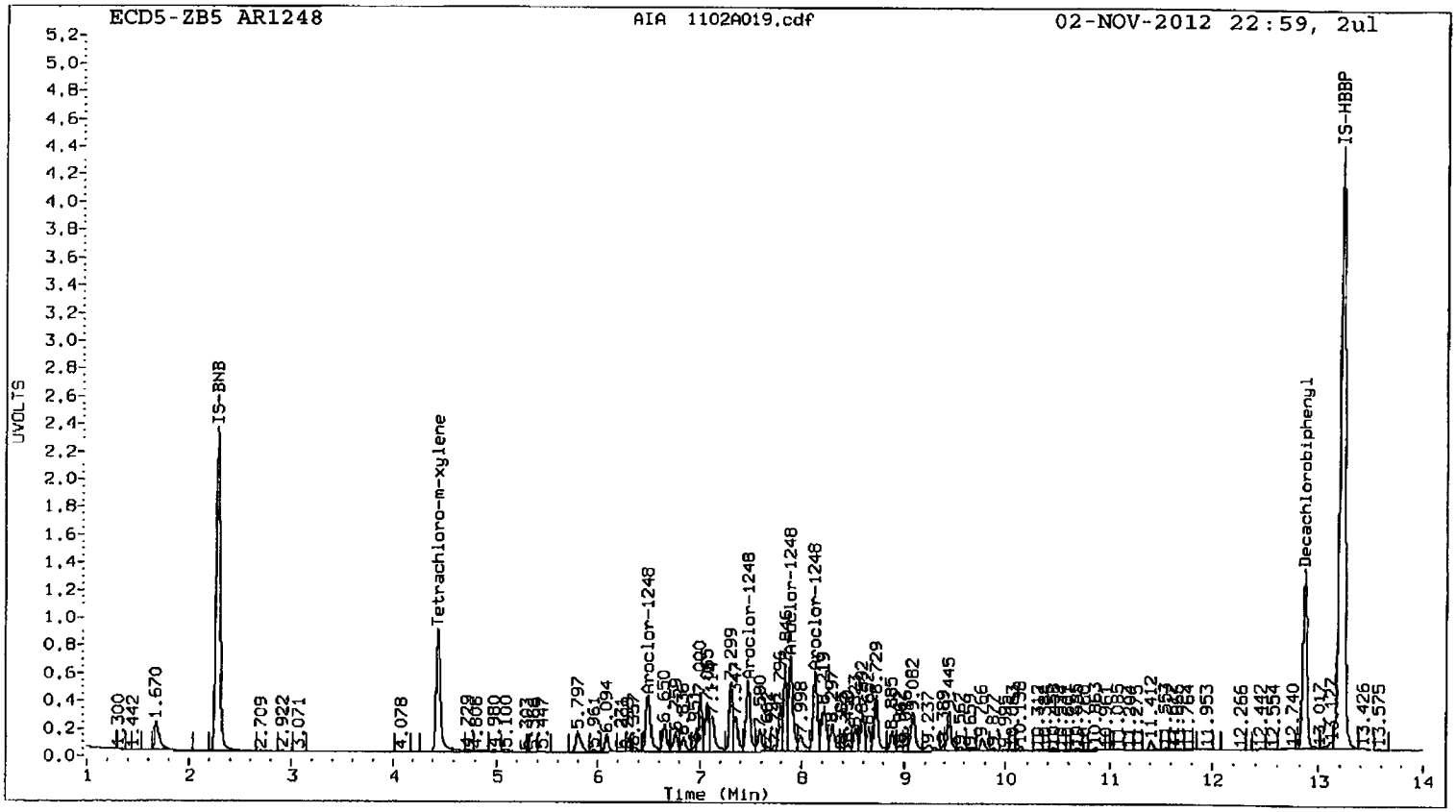
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.494	0.000	7375044	250.0	1	6.837	0.000	2246391	250.0
Aroclor-1248	2	7.472	0.000	7764360	250.0	2	7.746	0.000	1863320	250.0
Aroclor-1248	3	7.901	0.000	9804548	250.0	3	8.275	0.000	1925133	250.0
Aroclor-1248	4	8.136	0.000	7557882	250.0	4	8.622	0.000	2381436	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (4.544 - 12.755) = 127025734 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 31448043 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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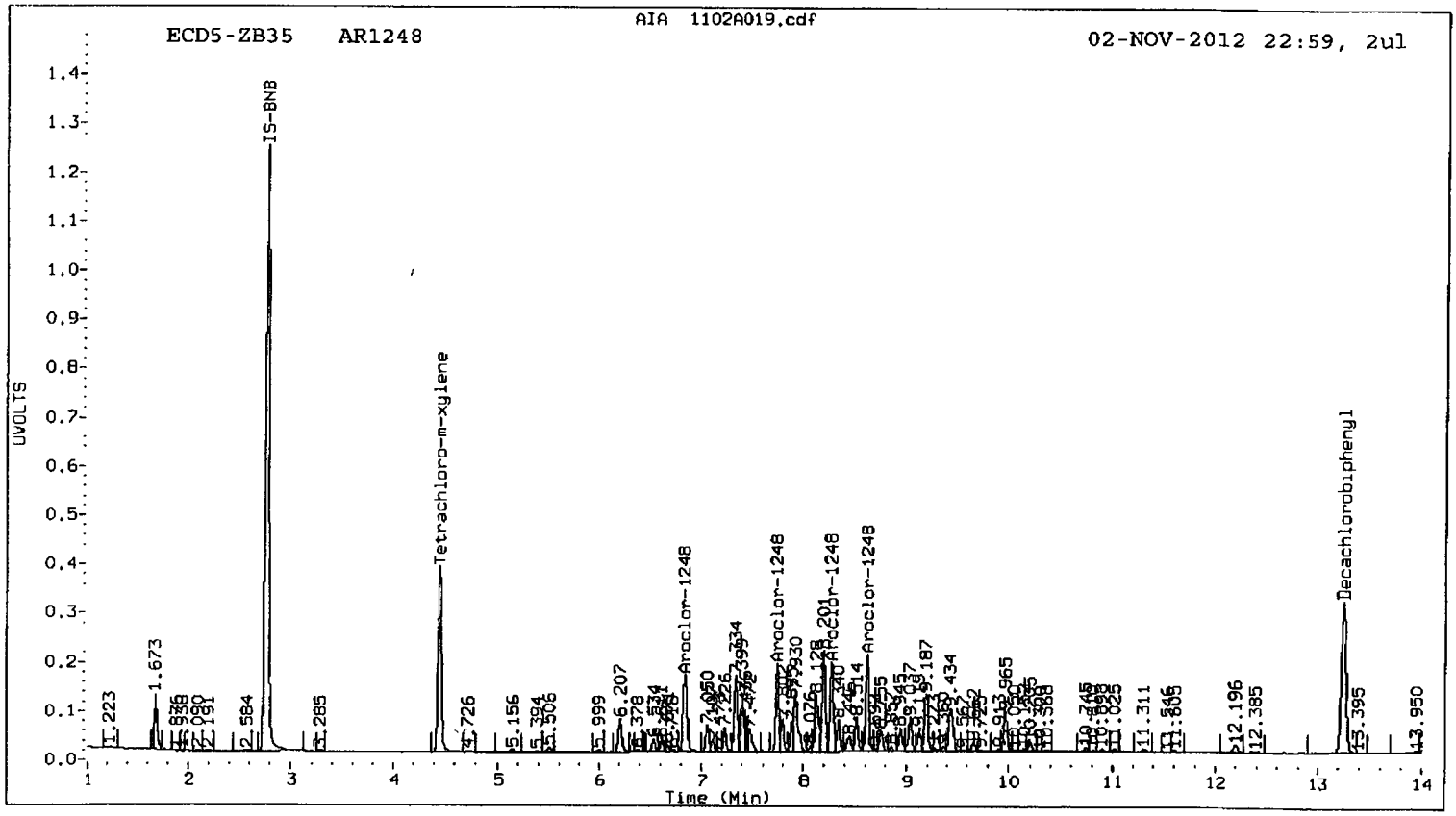
AIA 1102A019.cdf
02-NOV-2012 22:59, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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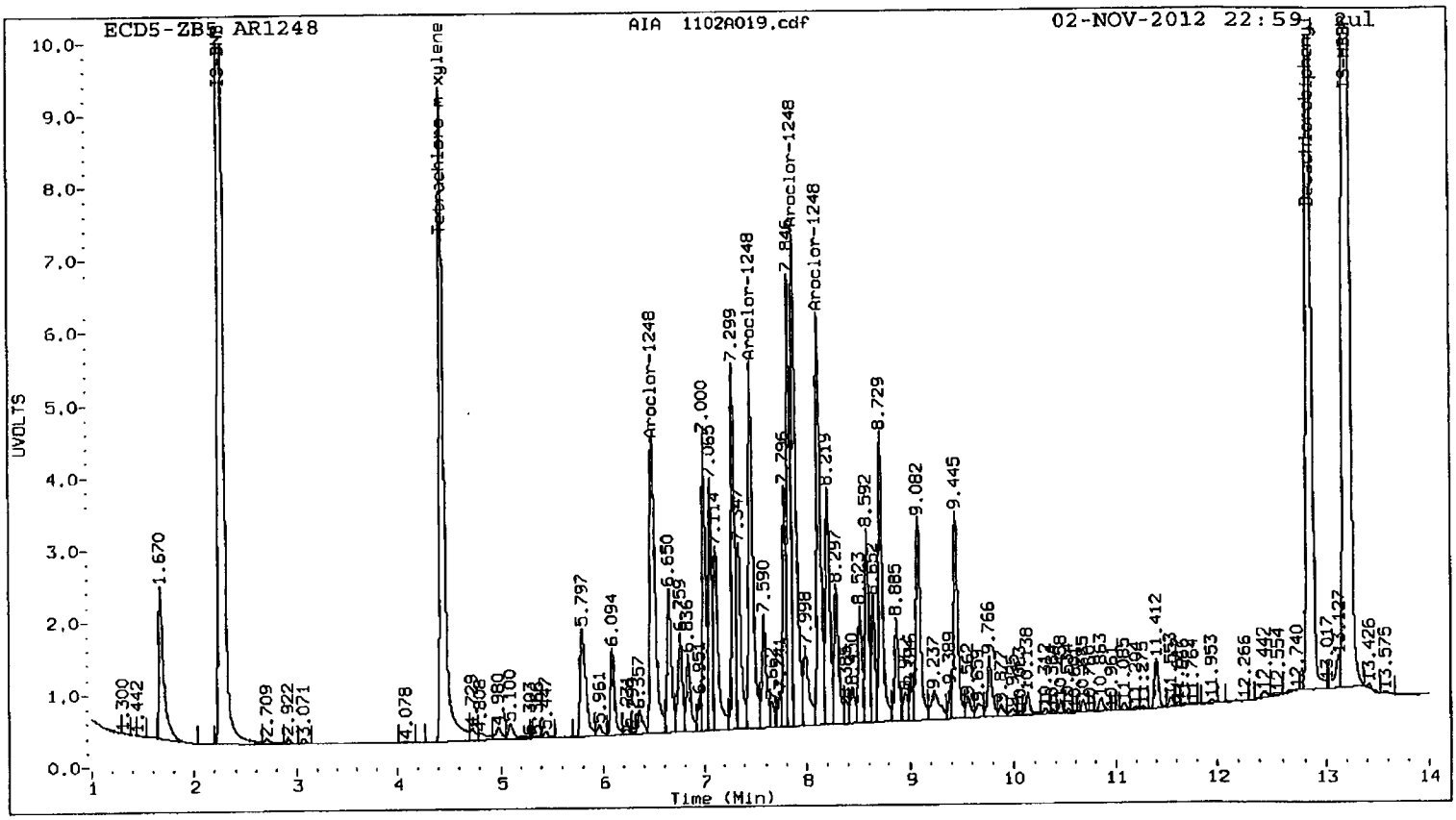
AIA 1102A019.cdf
02-NOV-2012 22:59, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl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AIA 1102A019.cdf
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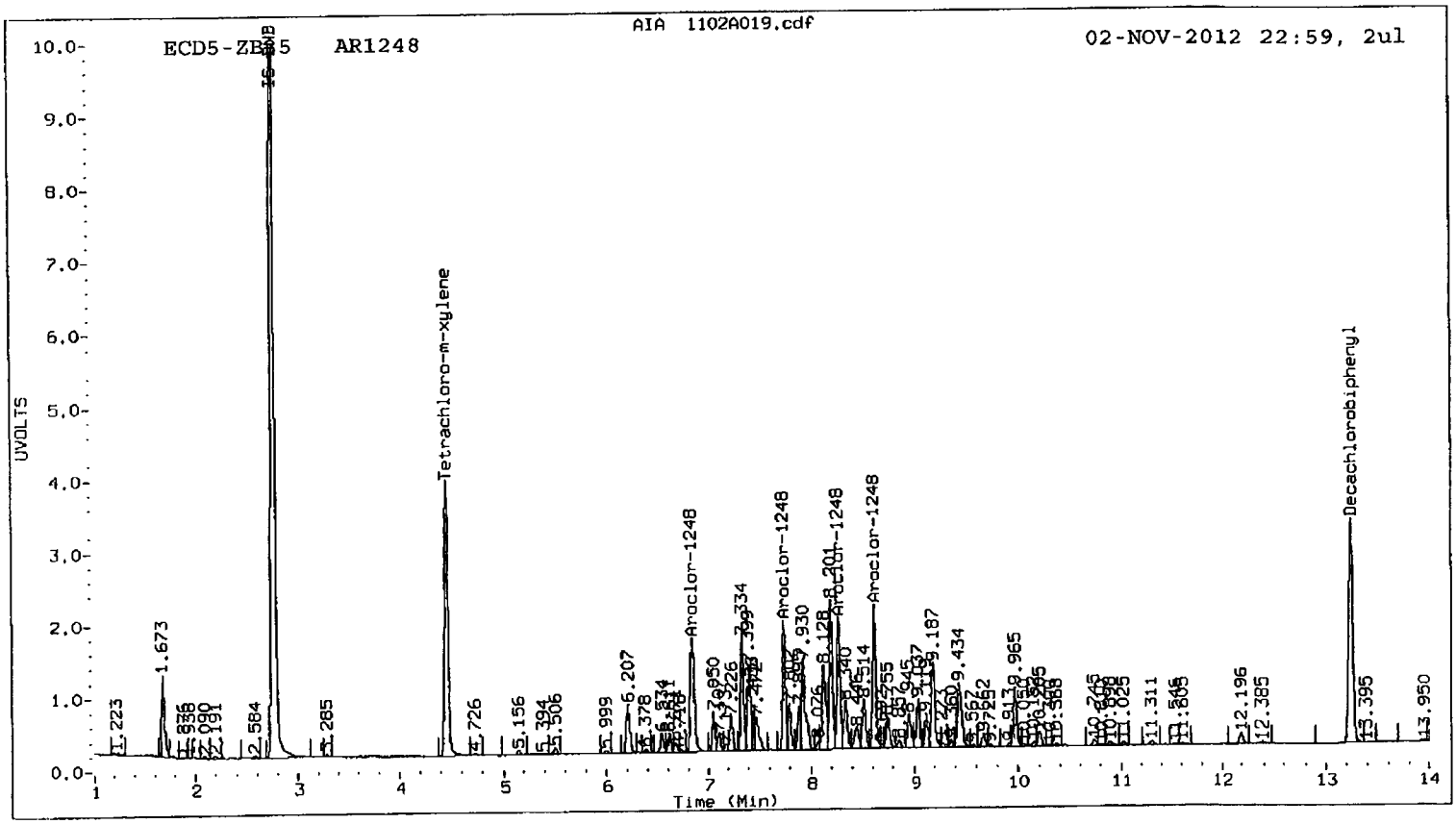
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl


ECD5-ZB5 AR1248
AIA 1102A019.cdf
02-NOV-2012 22:59, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A020.d
Data file 2: 20121102.B/ical-2.b/1102A020.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 02-NOV-2012 23:19
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.445	0.001	13706465	4.455	-0.001	4318007	20.0	20.6	2.9	Tetrachloro-m-xylene
12.856	0.001	19363201	13.247	-0.001	4156330	18.4	19.2	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.9	51.4
Decachlorobiphenyl	46.1	47.9

J 11/26/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32866846	5.2
Hexabromobiphenyl	64198300	67839772	5.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14737446	1.4
Hexabromobiphenyl	15789428	15955858	1.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.222	0.000	9810274	250.0	1	8.341	0.000	1599790	250.0
Aroclor-1254	2	8.593	0.000	6449287	250.0	2	8.515	0.000	2020577	250.0
Aroclor-1254	3	8.729	0.000	12534963	250.0	3	9.037	0.000	1552259	250.0
Aroclor-1254	4	9.078	0.000	13720020	250.0	4	9.187	0.000	3404941	250.0
Aroclor-1254	5	9.439	0.000	8627992	250.0	5	9.972	0.000	2051286	250.0

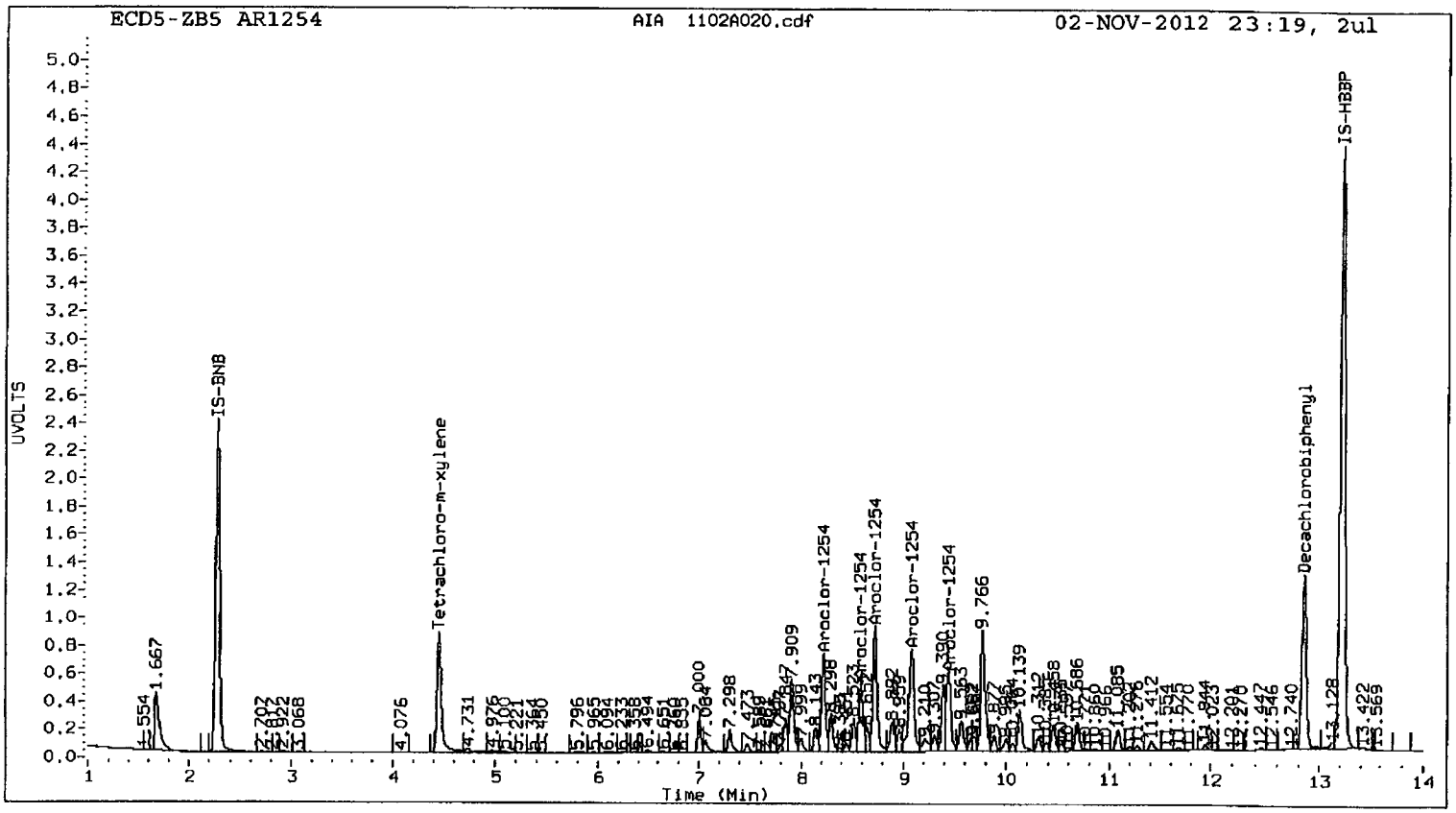
Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.544 - 12.755) = 139587028 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 32975674 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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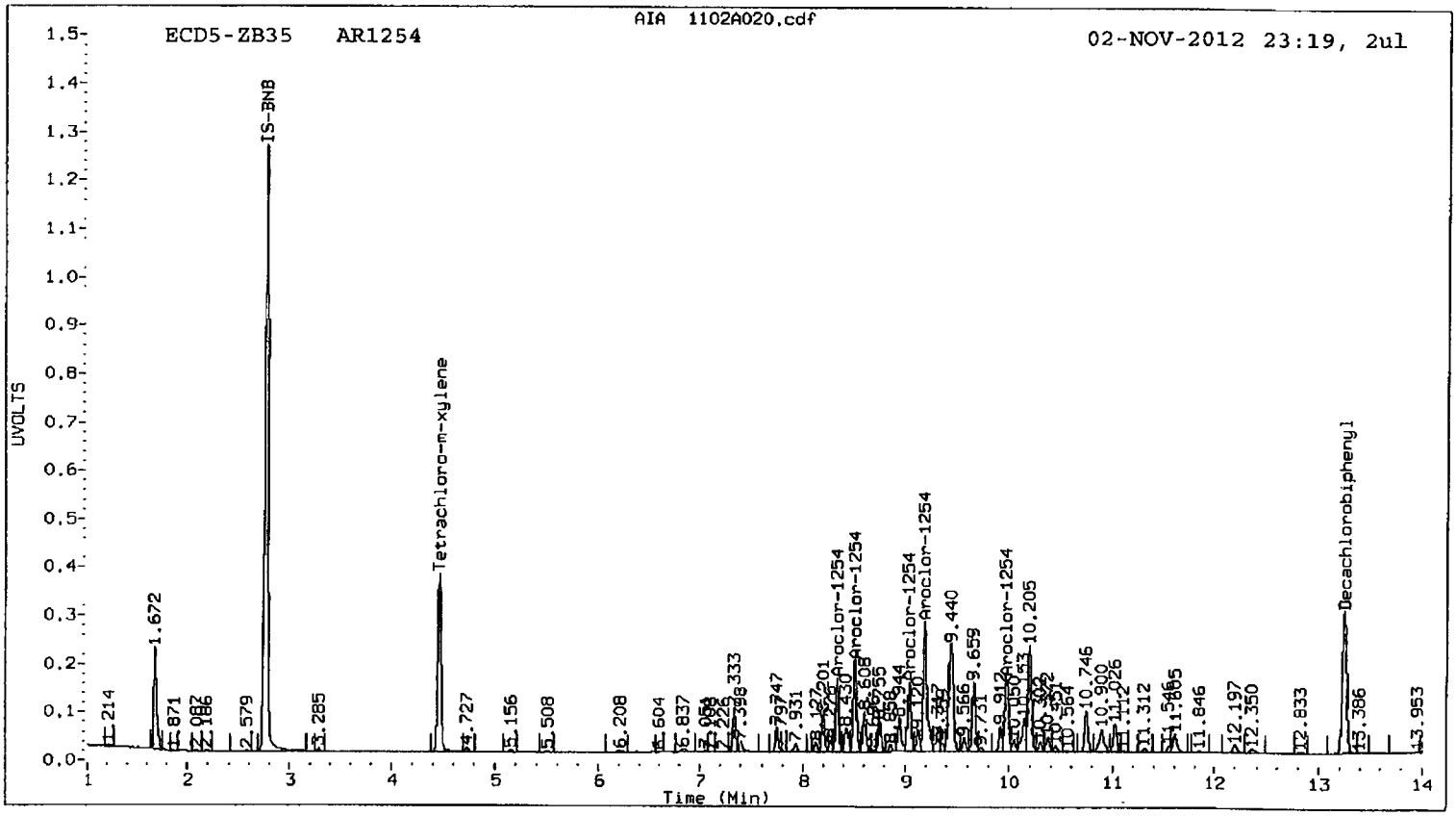
AIA 1102A020.cdf
02-NOV-2012 23:19, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP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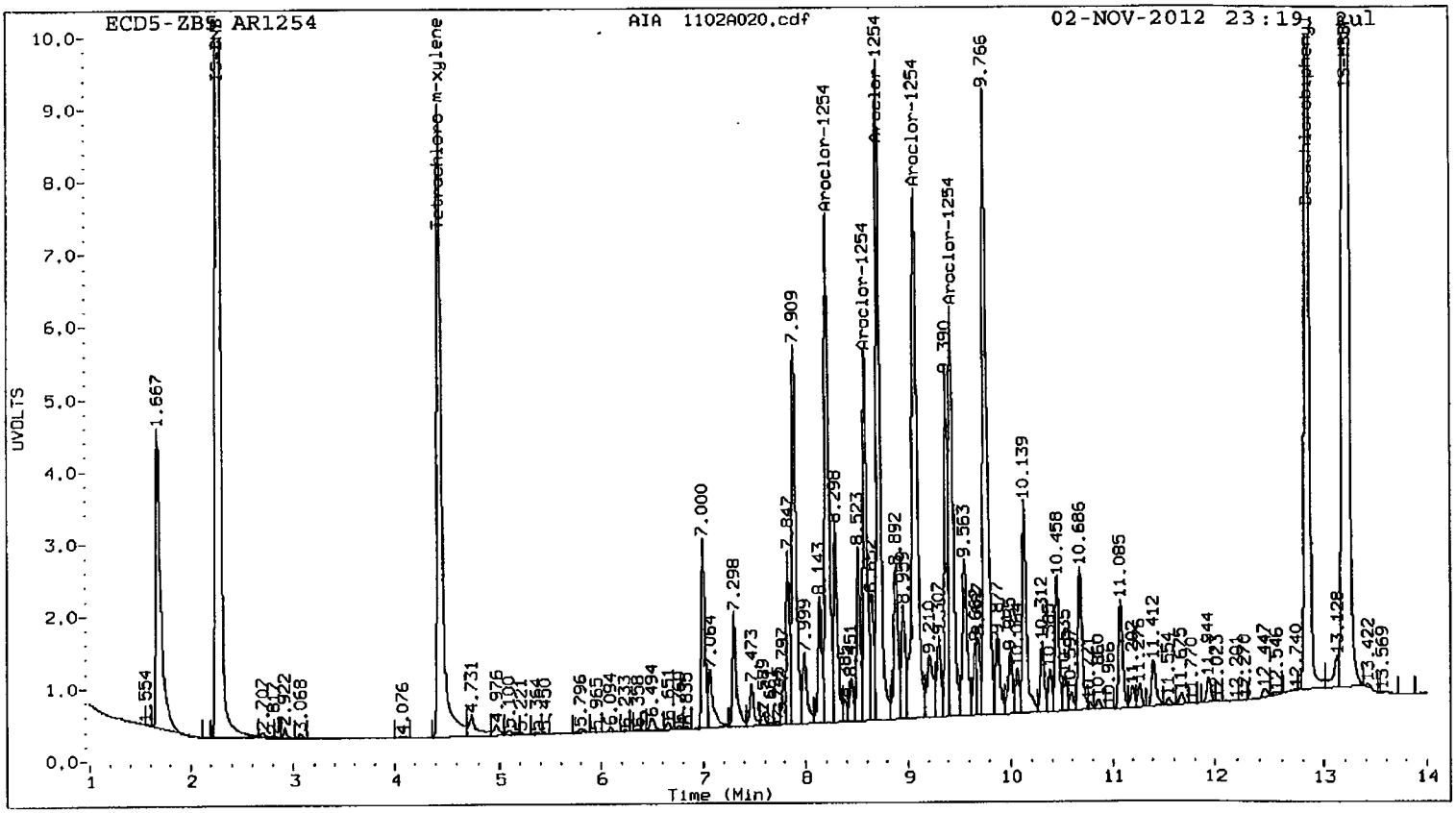
ECD5-ZB35 AR1254
02-NOV-2012 23:19, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl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AIA 1102A020.cdf
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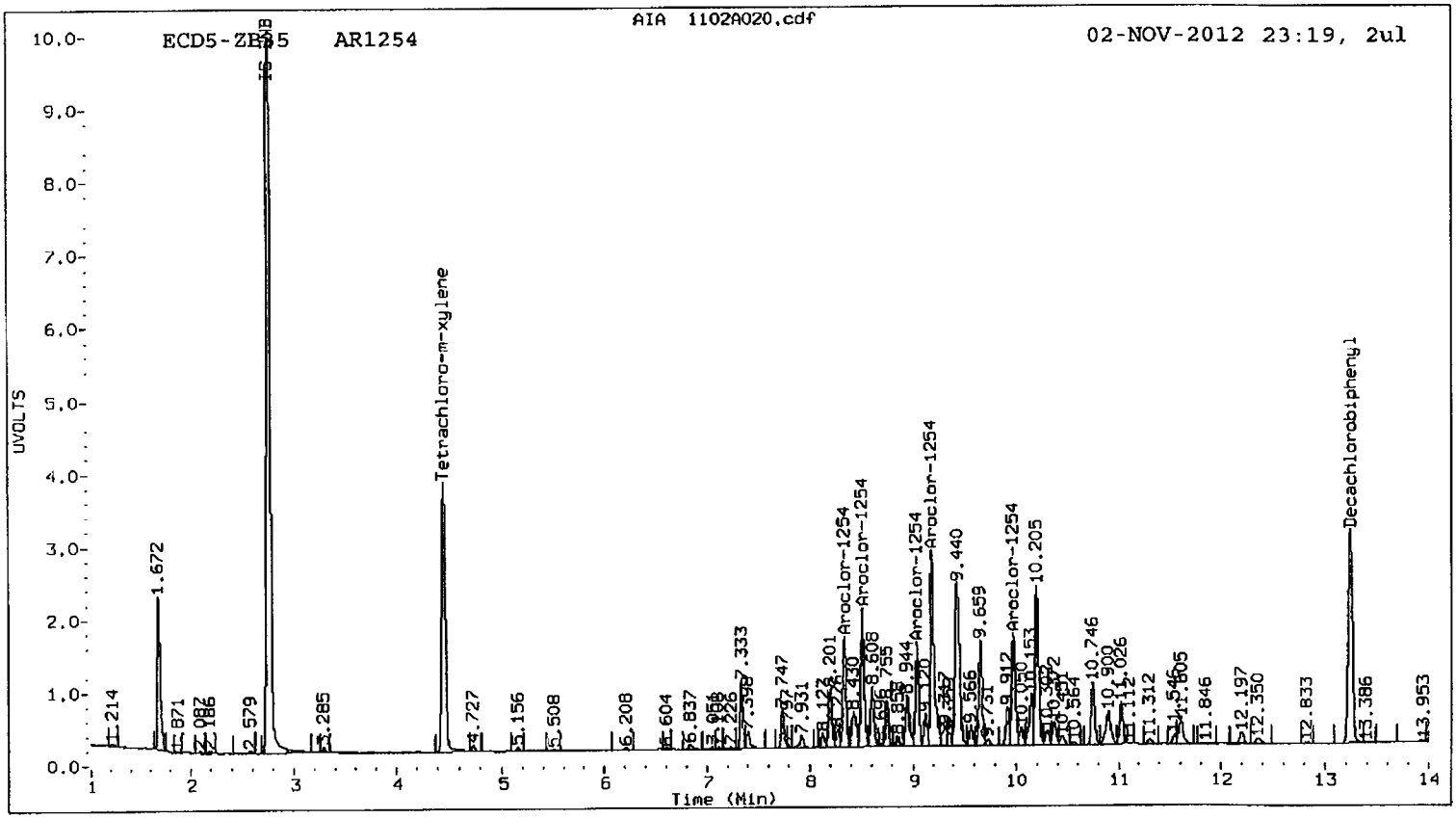
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl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AIA 1102A020.cdf
02-NOV-2012 23:19, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A021.d
Data file 2: 20121102.B/ical-2.b/1102A021.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 02-NOV-2012 23:40
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.447	0.003	13991914	4.457	0.002	4297388	20.9	21.3	1.7	Tetrachloro-m-xylene
12.855	0.001	19678714	13.247	-0.001	4215388	19.1	19.8	3.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	52.3	53.2
Decachlorobiphenyl	47.7	49.5

11/04/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32037907	2.5
Hexabromobiphenyl	64198300	66658077	3.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14169986	-2.5
Hexabromobiphenyl	15789428	15683025	-0.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

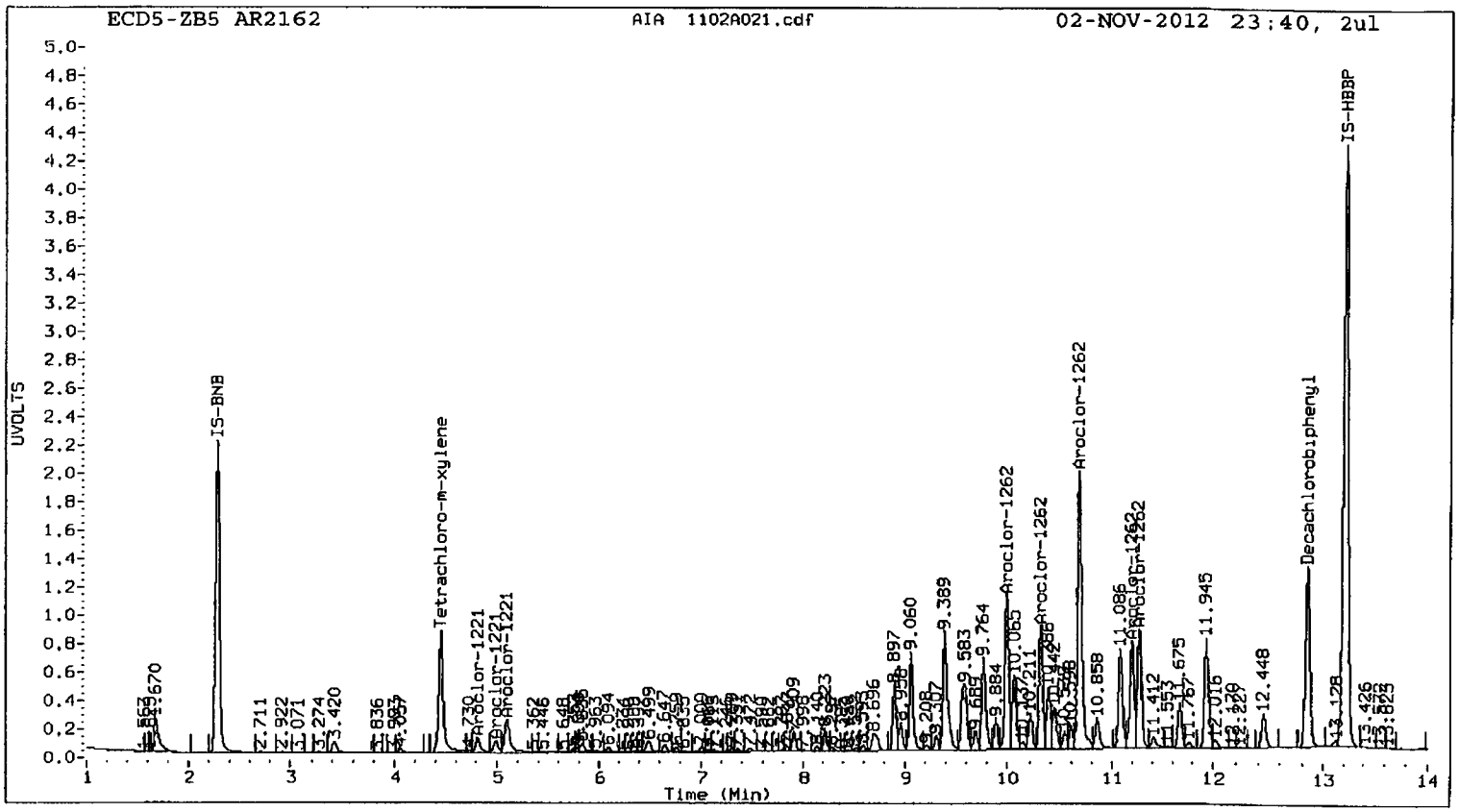
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1221	1	4.817	0.000	1955059	250.0	1	5.141	0.000	600189	250.0
Aroclor-1221	2	4.995	0.000	1338848	250.0	2	5.393	0.000	353488	250.0
Aroclor-1221	3	5.101	0.000	4360682	250.0	3	5.507	0.000	1111277	250.0
Aroclor-1221	NS	---			----	4	5.576	0.000	191816	250.0
	Total Col1Ave (3 peaks):			250.0		Total Col2Ave (4 peaks):			250.0	RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			250.0	
Aroclor-1262	1	9.996	0.000	14491157	250.0	1	10.302	0.000	3419212	250.0
Aroclor-1262	2	10.312	0.000	11002550	250.0	2	10.752	0.000	3037869	250.0
Aroclor-1262	3	10.687	0.000	28527516	250.0	3	11.025	0.000	6666677	250.0
Aroclor-1262	4	11.202	0.000	10746741	250.0	4	11.547	0.000	2698127	250.0
Aroclor-1262	5	11.275	0.000	11799249	250.0	5	12.347	0.000	2593001	250.0
	Total Col1Ave (5 peaks):			250.0		Total Col2Ave (5 peaks):			250.0	RPD = 0
	Corrected Ave (4 peaks):			250.0		Corrected Ave (4 peaks):			250.0	RPD = 0

Total PCB Area Col1 (4.544 - 12.755) = 214801420 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 50408807 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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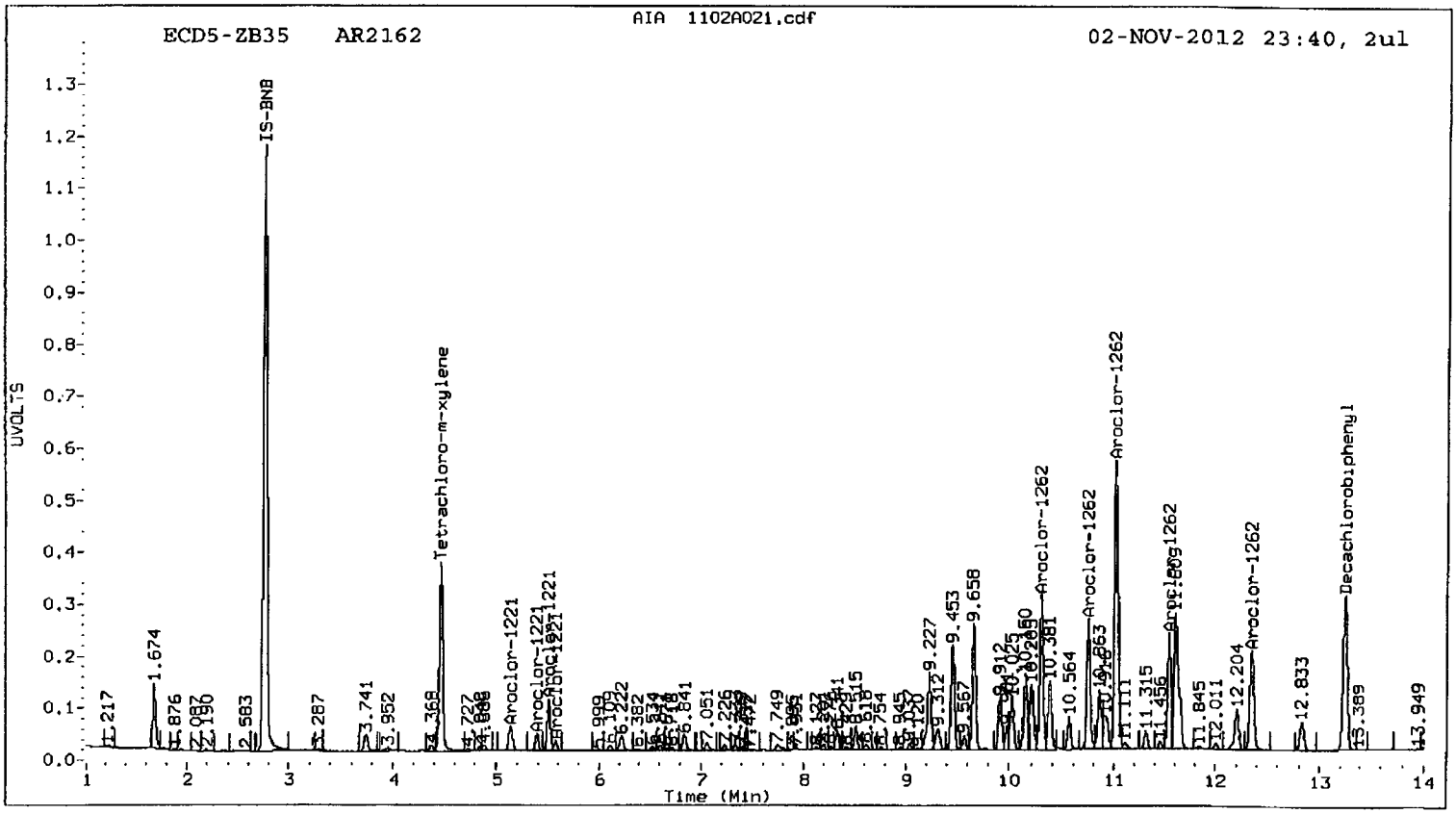
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP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Time (Min)
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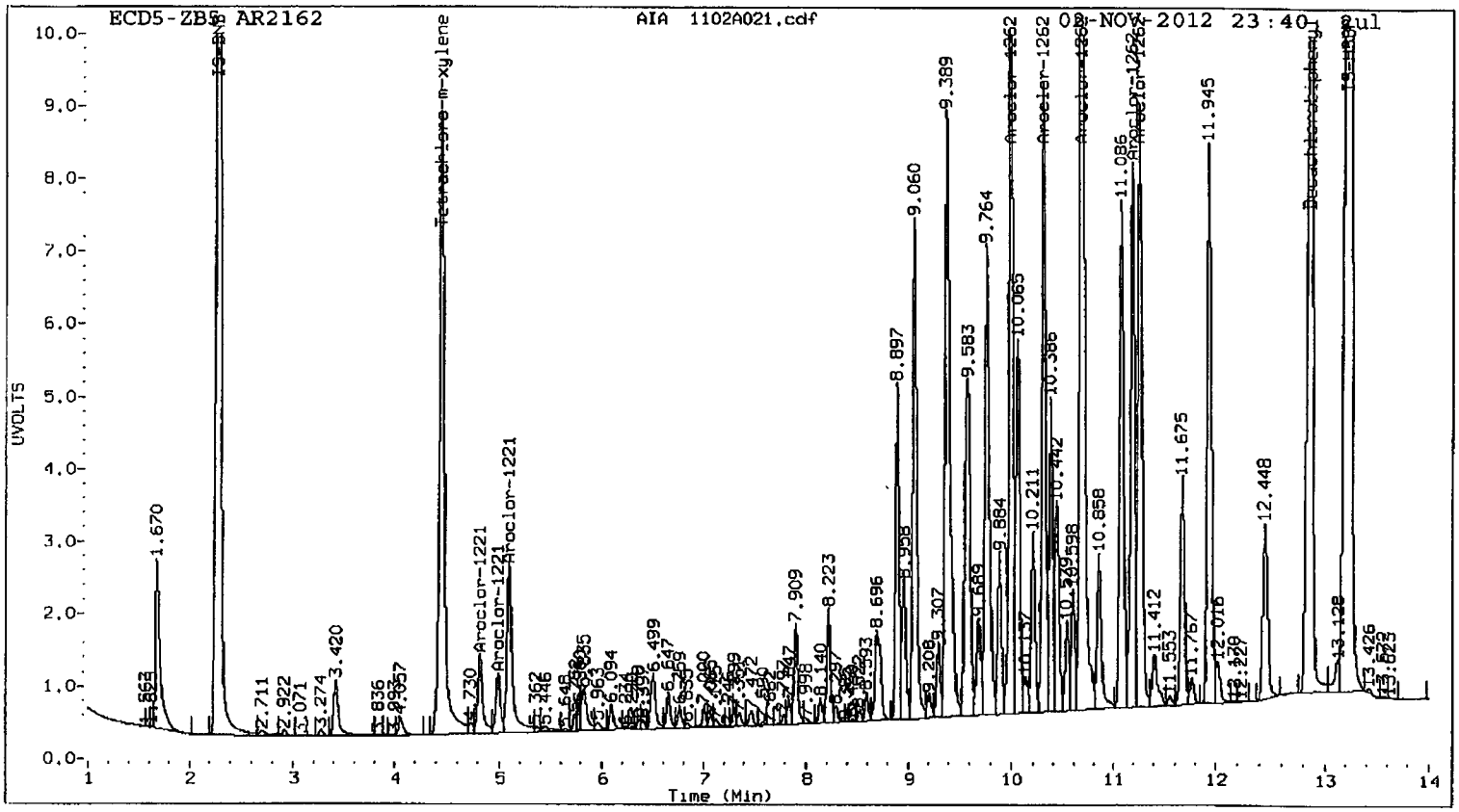
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl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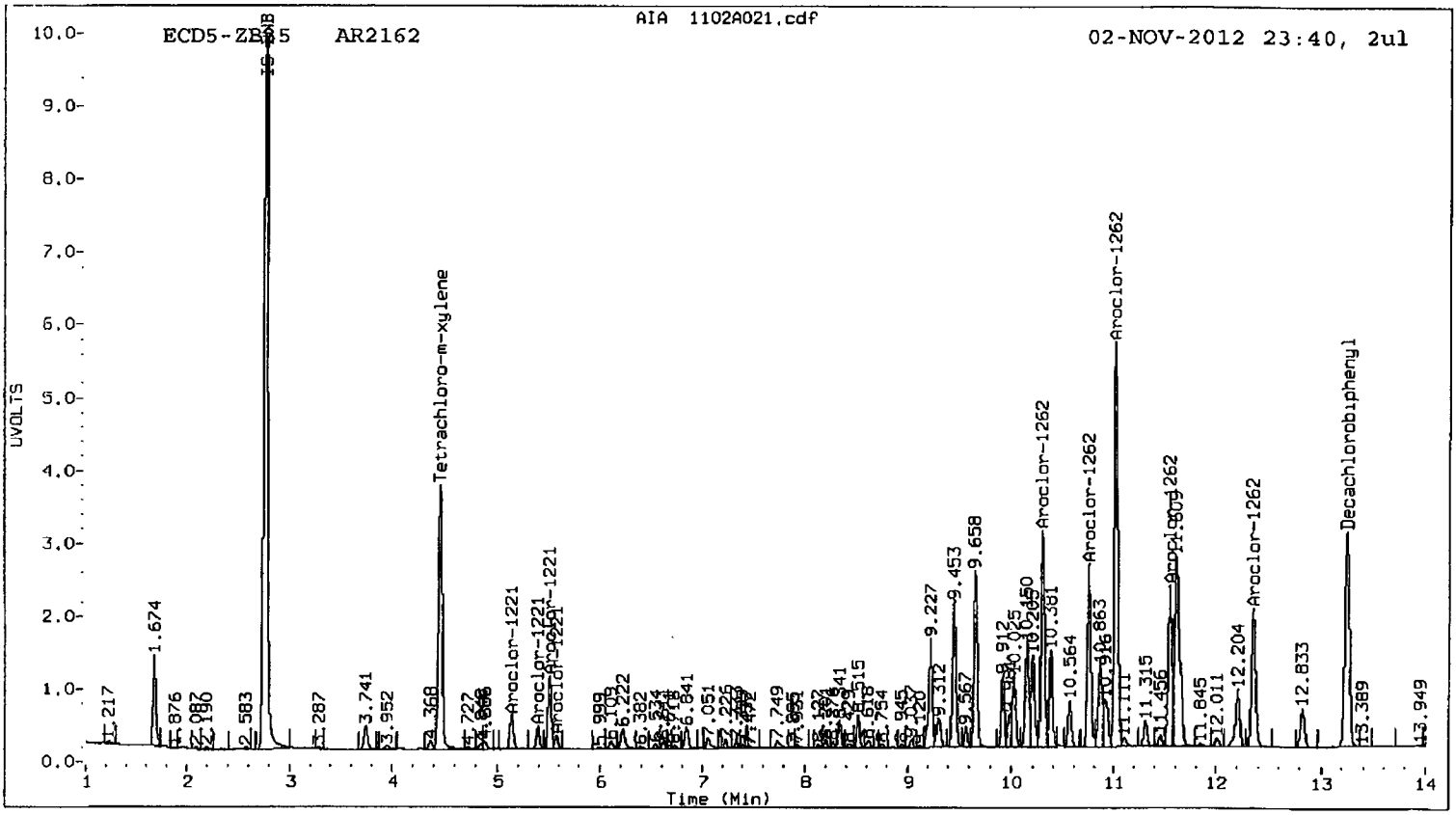
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl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02-NOV-2012 23:40, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A022.d
Data file 2: 20121102.B/ical-2.b/1102A022.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 03-NOV-2012 00:00
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.447	0.002	13985500	4.456	0.000	4278938	20.1	20.4	1.5	Tetrachloro-m-xylene
12.855	0.001	34063776	13.248	0.000	7494445	31.8	34.0	6.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.3	51.0
Decachlorobiphenyl	79.5	85.0

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33288564	6.5
Hexabromobiphenyl	64198300	69153536	7.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14704019	1.2
Hexabromobiphenyl	15789428	16219252	2.7

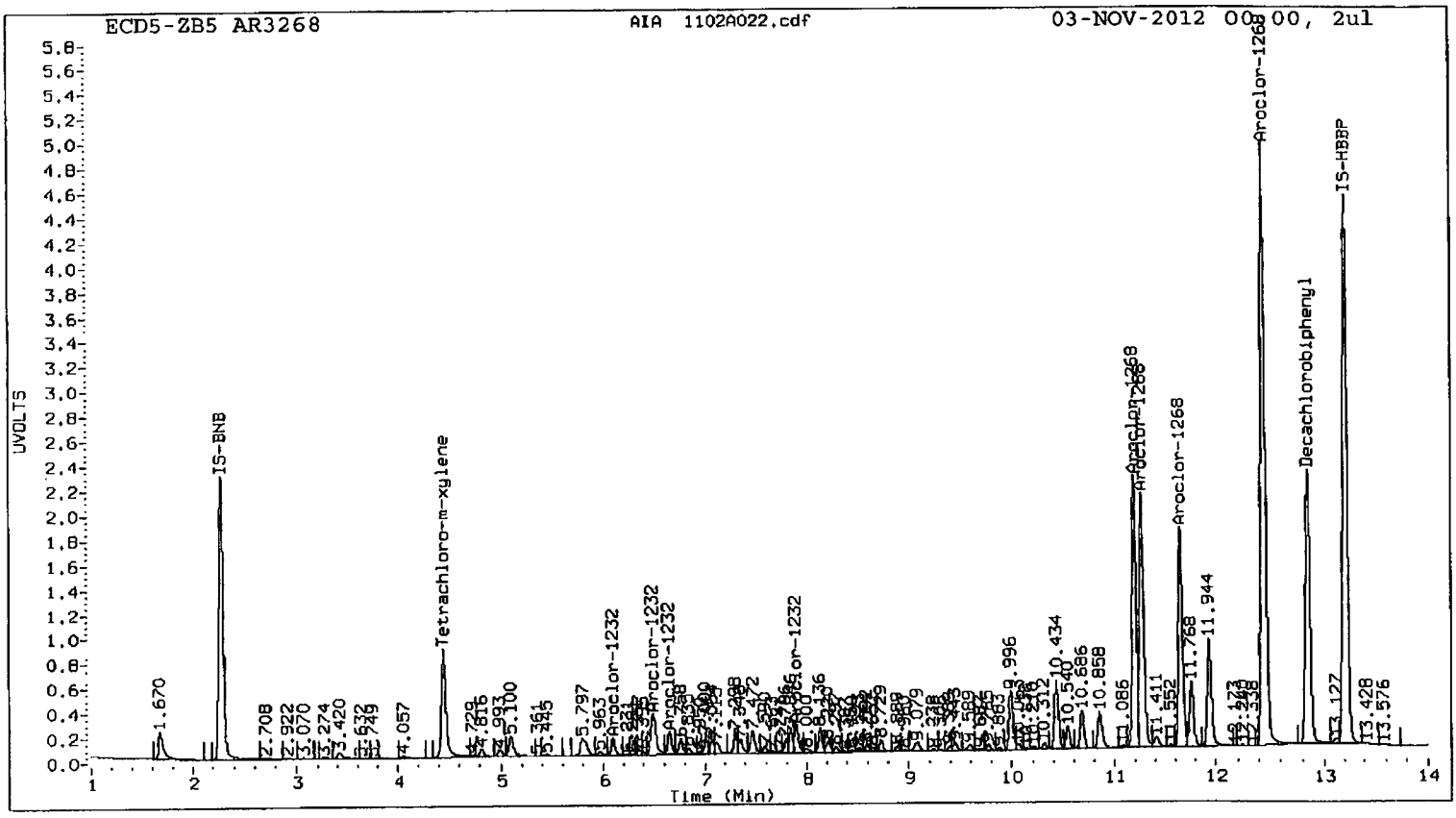
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1232	1	6.094	0.000	1895483	250.0	1	6.210	0.000	912267	250.0
Aroclor-1232	2	6.497	0.000	5926512	250.0	2	6.841	0.000	1797558	250.0
Aroclor-1232	3	6.647	0.000	2584617	250.0	3	7.050	0.000	751459	250.0
Aroclor-1232	4	7.901	0.000	3238914	250.0	4	8.276	0.000	638021	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	11.203	0.000	29995015	250.0	1	11.547	0.000	7042487	250.0
Aroclor-1268	2	11.275	0.000	28848730	250.0	2	11.613	0.000	6848989	250.0
Aroclor-1268	3	11.661	0.000	25351576	250.0	3	12.011	0.000	5725345	250.0
Aroclor-1268	4	12.449	0.000	72450022	250.0	4	12.834	0.000	16973079	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (4.544 - 12.755) = 261786385 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 62286369 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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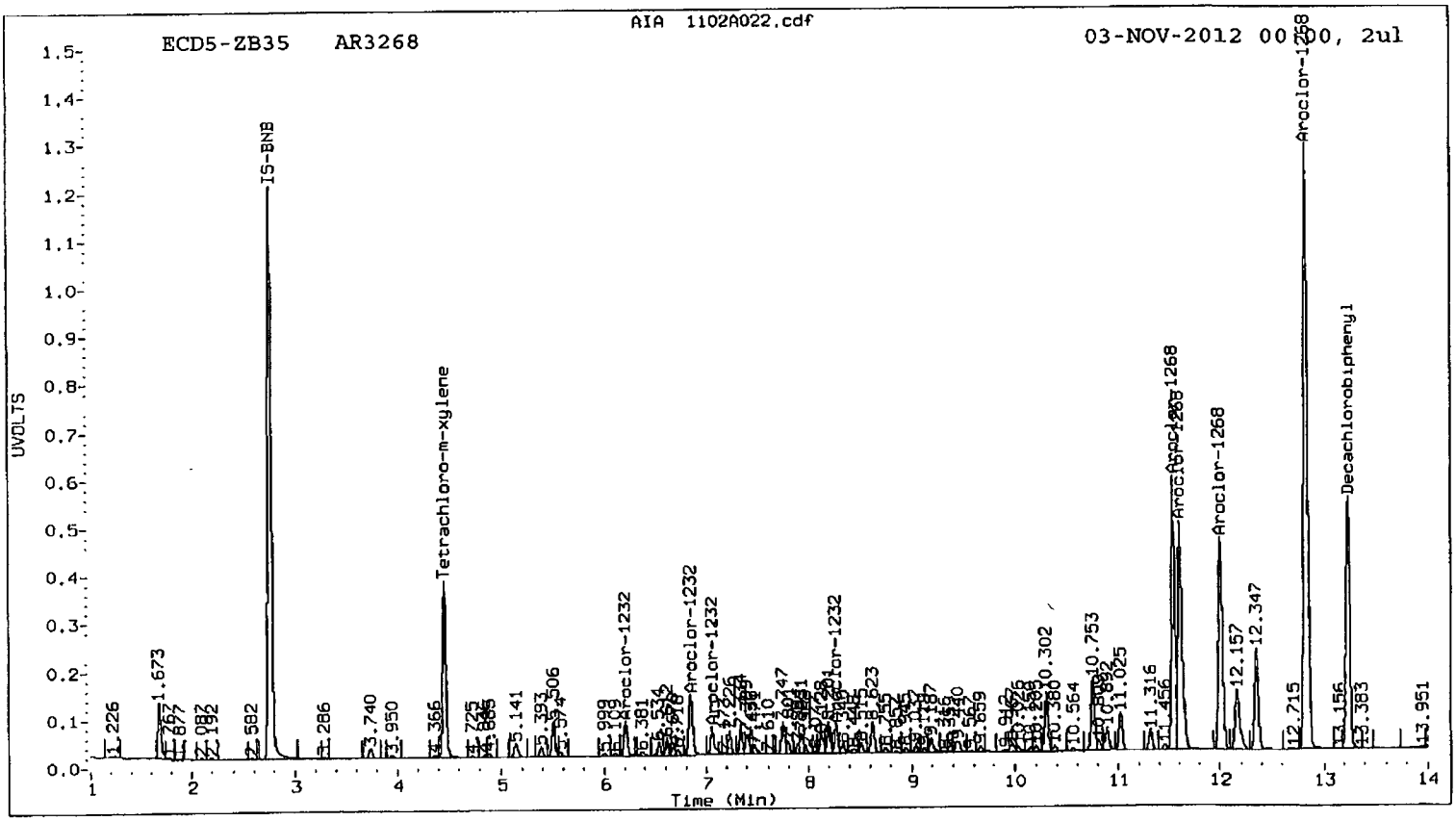
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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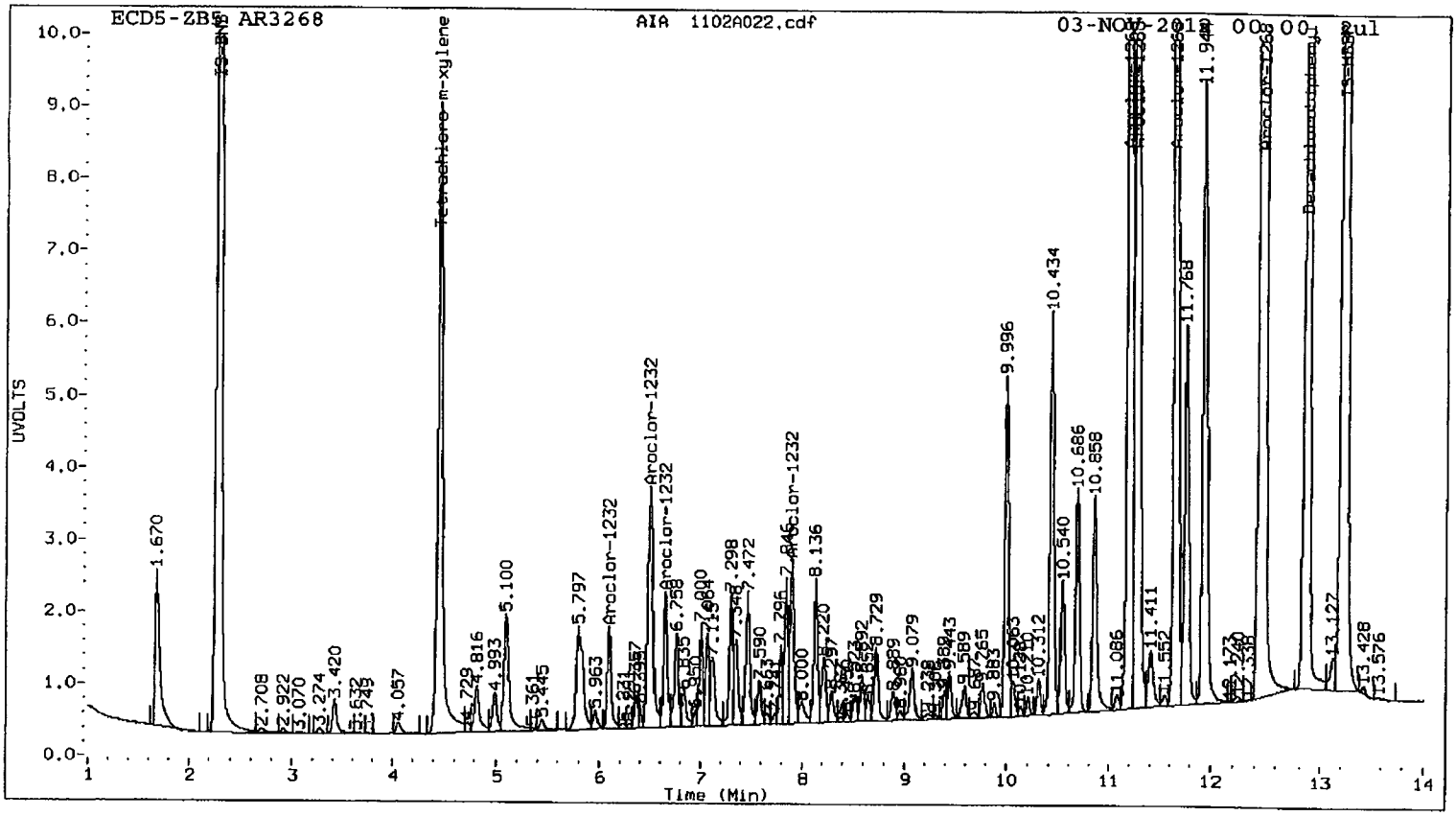
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl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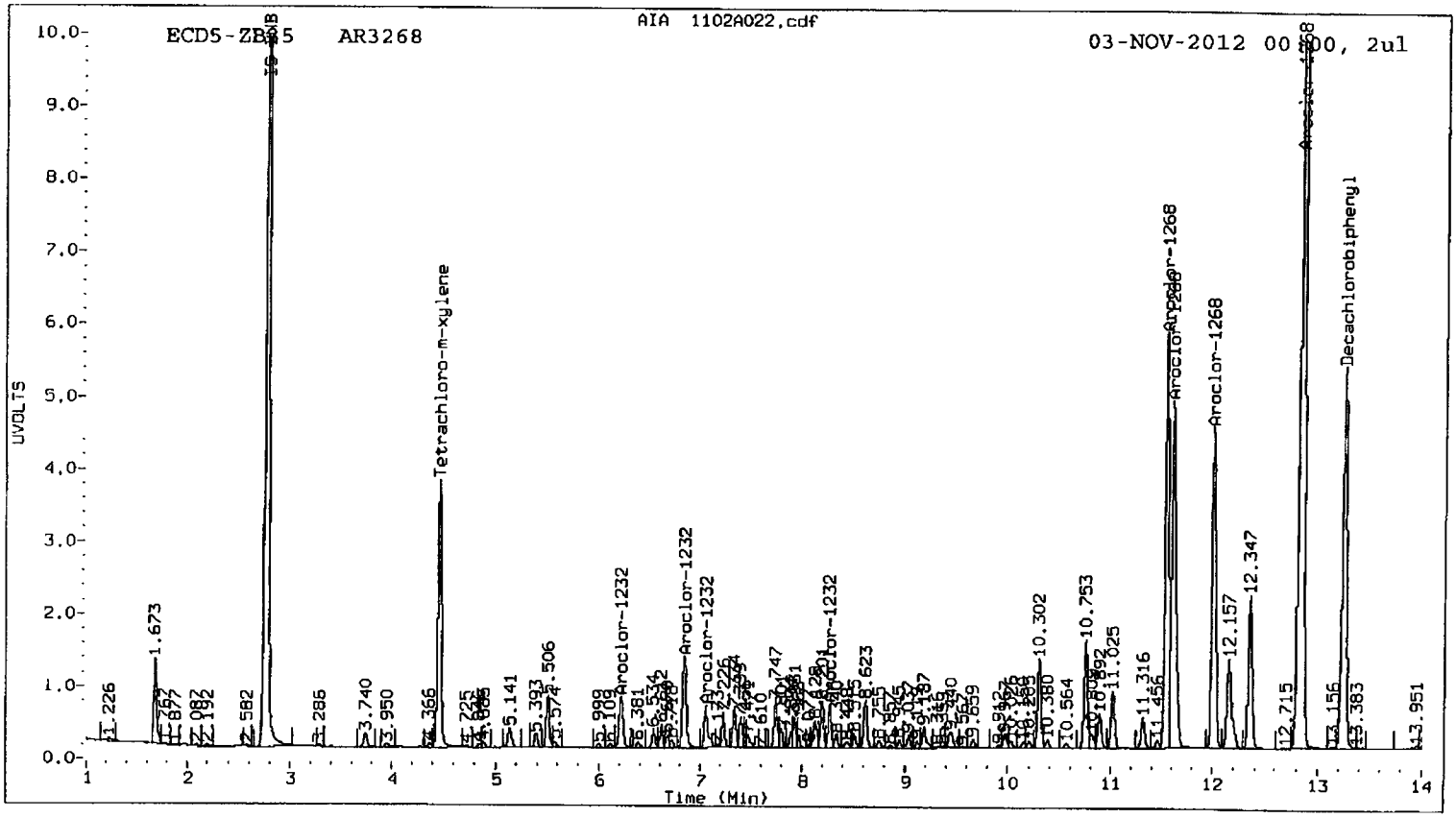
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl


ECD5-ZB5 AR3268
AIA 1102A022.cdf
03-NOV-2012 00:00, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A023.d
Data file 2: 20121102.B/ical-2.b/1102A023.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV
Client ID:
Injection Date: 03-NOV-2012 00:20
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.445	0.001	13940705	4.455	-0.001	4345658	20.7	21.1	1.9	Tetrachloro-m-xylene
12.856	0.002	19831335	13.249	0.001	4223731	18.6	19.6	5.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.7	52.7
Decachlorobiphenyl	46.4	49.1

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32275358	3.3
Hexabromobiphenyl	64198300	69016020	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14465214	-0.5
Hexabromobiphenyl	15789428	15841317	0.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1016	1	6.093	0.000	4280543	237.2	1	6.208	0.000	1932648	238.5
Aroclor-1016	2	6.497	0.000	13430249	238.8	2	6.841	0.001	3973964	231.8
Aroclor-1016	3	6.647	0.000	5787080	238.5	3	7.225	0.001	1079387	242.0
Aroclor-1016	4	6.757	0.000	4231785	243.8	4	7.334	0.000	1173971	234.1
	Total Col1Ave (4 peaks):				239.6		Total Col2Ave (4 peaks):			236.6 RPD = 1
	Corrected Ave (3 peaks):				238.2		Corrected Ave (3 peaks):			234.8 RPD = 1
Aroclor-1221	1	4.813	-0.004	790817	100.4	1	5.143	0.002	235889	96.3
Aroclor-1221	2	4.992	-0.003	770925	142.9	2	5.392	-0.001	191998	133.0
Aroclor-1221	3	5.099	-0.002	3024672	172.1	3	5.505	-0.001	868293	191.4
Aroclor-1221	NS	---			----	4	5.573	-0.002	62612	79.9
	Total Col1Ave (3 peaks):				138.5		Total Col2Ave (4 peaks):			125.1 RPD = 10
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			103.1
Aroclor-1232	1	6.093	0.000	4280543	582.3	1	6.208	-0.002	1932648	538.4
Aroclor-1232	2	6.497	0.000	13430249	584.3	2	6.841	0.001	3973964	561.8
Aroclor-1232	3	6.647	0.000	5787080	577.3	3	7.050	0.000	1691899	572.2
Aroclor-1232	4	7.909	0.008	3815684	303.8	4	8.276	-0.001	185332	73.8
	Total Col1Ave (4 peaks):				511.9		Total Col2Ave (4 peaks):			436.5 RPD = 16
	Corrected Ave (3 peaks):				487.8		Corrected Ave (3 peaks):			391.3 RPD = 22
Aroclor-1242	1	6.093	0.001	4280543	304.9	1	6.208	0.000	1932648	312.9
Aroclor-1242	2	6.497	0.001	13430249	308.8	2	6.841	0.001	3973964	302.2
Aroclor-1242	3	6.647	0.000	5787080	306.4	3	7.050	-0.001	1691899	309.7
Aroclor-1242	4	7.909	0.009	3815684	172.3	4	8.276	0.000	185332	40.3
	Total Col1Ave (4 peaks):				273.1		Total Col2Ave (4 peaks):			241.3 RPD = 12
	Corrected Ave (3 peaks):				261.2		Corrected Ave (3 peaks):			217.4 RPD = 18
Aroclor-1248	1	6.497	0.003	13430249	472.3	1	6.841	0.005	3973964	462.8
Aroclor-1248	2	7.472	0.000	5898726	197.1	2	7.747	0.000	1434191	201.4
Aroclor-1248	3	7.909	0.008	3815684	100.9	3	8.276	0.000	185332	25.2
Aroclor-1248	4	8.142	0.006	690422	23.7	4	8.622	0.000	68725	7.6
	Total Col1Ave (4 peaks):				198.5		Total Col2Ave (4 peaks):			174.2 RPD = 13
	Corrected Ave (3 peaks):				107.2		Corrected Ave (3 peaks):			78.0 RPD = 32
Aroclor-1254	1	8.223	0.001	3604030	93.5	1	8.341	0.000	786695	125.3
Aroclor-1254	2	8.593	0.001	525149	20.7	2	8.515	0.000	823123	103.8
Aroclor-1254	3	8.724	-0.004	1870068	38.0	3	9.037	0.000	135015	22.2
Aroclor-1254	4	9.060	-0.019	11067395	205.4	4	9.228	0.041	2129113	159.3
Aroclor-1254	5	9.390	-0.049	16407464	484.1	5	9.982	0.010	935419	116.1
	Total Col1Ave (5 peaks):				168.3		Total Col2Ave (5 peaks):			105.3 RPD = 46*
	Corrected Ave (4 peaks):				89.4		Corrected Ave (4 peaks):			91.8 RPD = 3
Aroclor-1260	1	9.996	0.001	10639114	264.8	1	10.301	0.000	2419901	286.2
Aroclor-1260	2	10.312	0.001	10541403	261.0	2	10.752	0.000	2796120	269.4
Aroclor-1260	3	10.686	0.001	24556924	256.4	3	11.025	-0.001	5805269	281.1
Aroclor-1260	4	11.086	0.001	13134466	239.3	4	11.547	0.000	1761624	283.1
Aroclor-1260	5	11.276	0.000	7656367	287.1	NS	---			----
	Total Col1Ave (5 peaks):				261.8		Total Col2Ave (4 peaks):			279.9 RPD = 7
	Corrected Ave (4 peaks):				255.4		Corrected Ave (3 peaks):			277.9 RPD = 8
Aroclor-1262	1	9.996	0.000	10639114	177.3	1	10.301	0.000	2419901	175.2
Aroclor-1262	2	10.312	0.000	10541403	231.3	2	10.752	0.000	2796120	227.8
Aroclor-1262	3	10.686	0.000	24556924	207.9	3	11.025	0.000	5805269	215.5
Aroclor-1262	4	11.203	0.000	6344559	142.6	4	11.547	0.000	1761624	161.6
Aroclor-1262	5	11.276	0.001	7656367	156.7	5	12.348	0.002	1694015	161.7
	Total Col1Ave (5 peaks):				183.1		Total Col2Ave (5 peaks):			188.4 RPD = 3
	Corrected Ave (4 peaks):				171.1		Corrected Ave (4 peaks):			178.5 RPD = 4
Aroclor-1268	1	11.203	0.000	6344559	53.0	1	11.547	0.000	1761624	64.0
Aroclor-1268	2	11.276	0.001	7656367	66.5	2	11.607	-0.006	4060621	151.8

Aroclor-1268	3	11.677	0.016	3579548	35.4	3	12.013	0.001	64775	2.9
Aroclor-1268	4	12.449	0.000	1938966	6.7	4	12.835	0.001	356034	5.4

Total Col1Ave (4 peaks): 40.4 Total Col2Ave (4 peaks): 56.0 RPD = 32

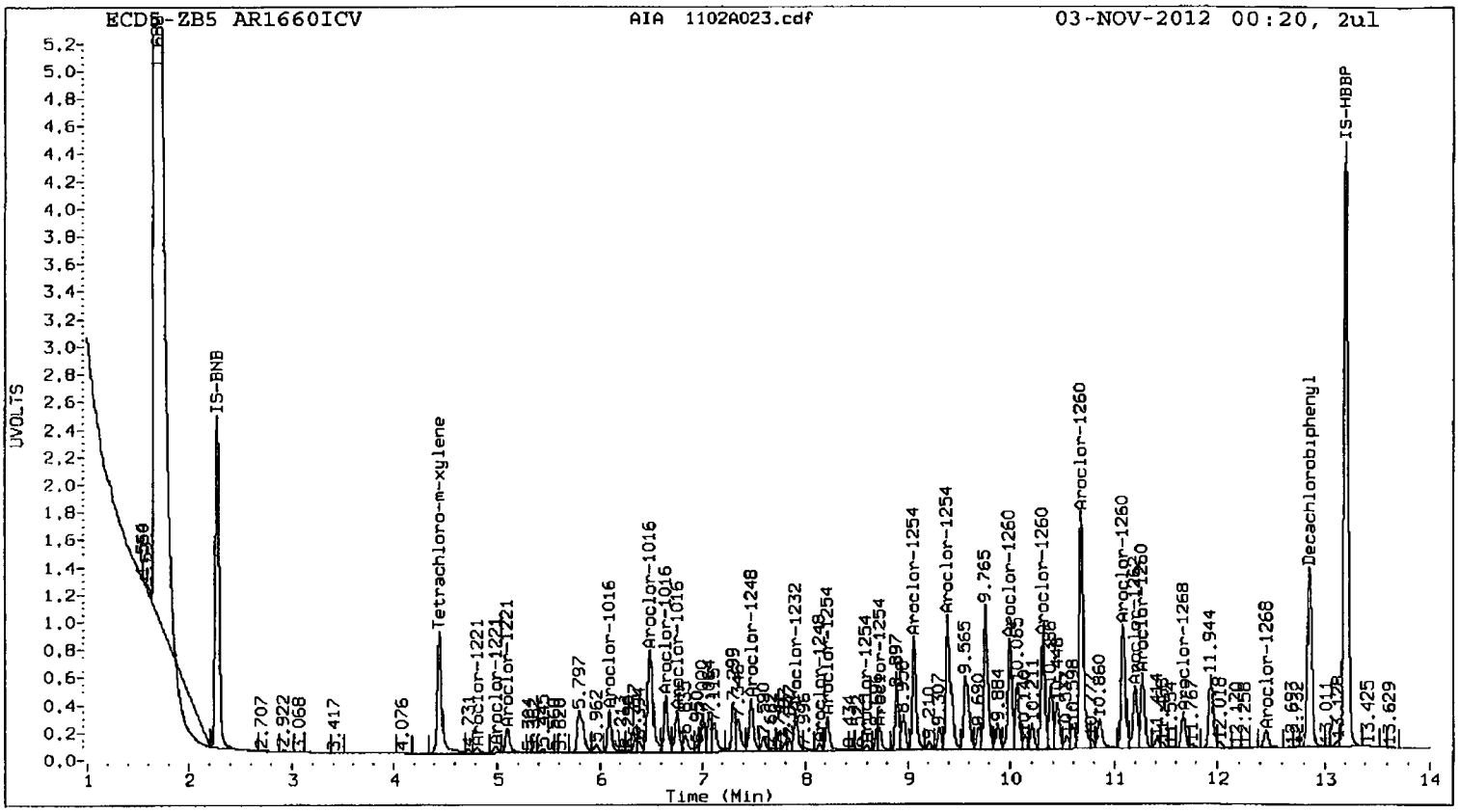
Corrected Ave (3 peaks): 31.7 Corrected Ave (3 peaks): 24.1 RPD = 27

Total PCB Area Col1 (4.544 - 12.755) = 272520507 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 65457959 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
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Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
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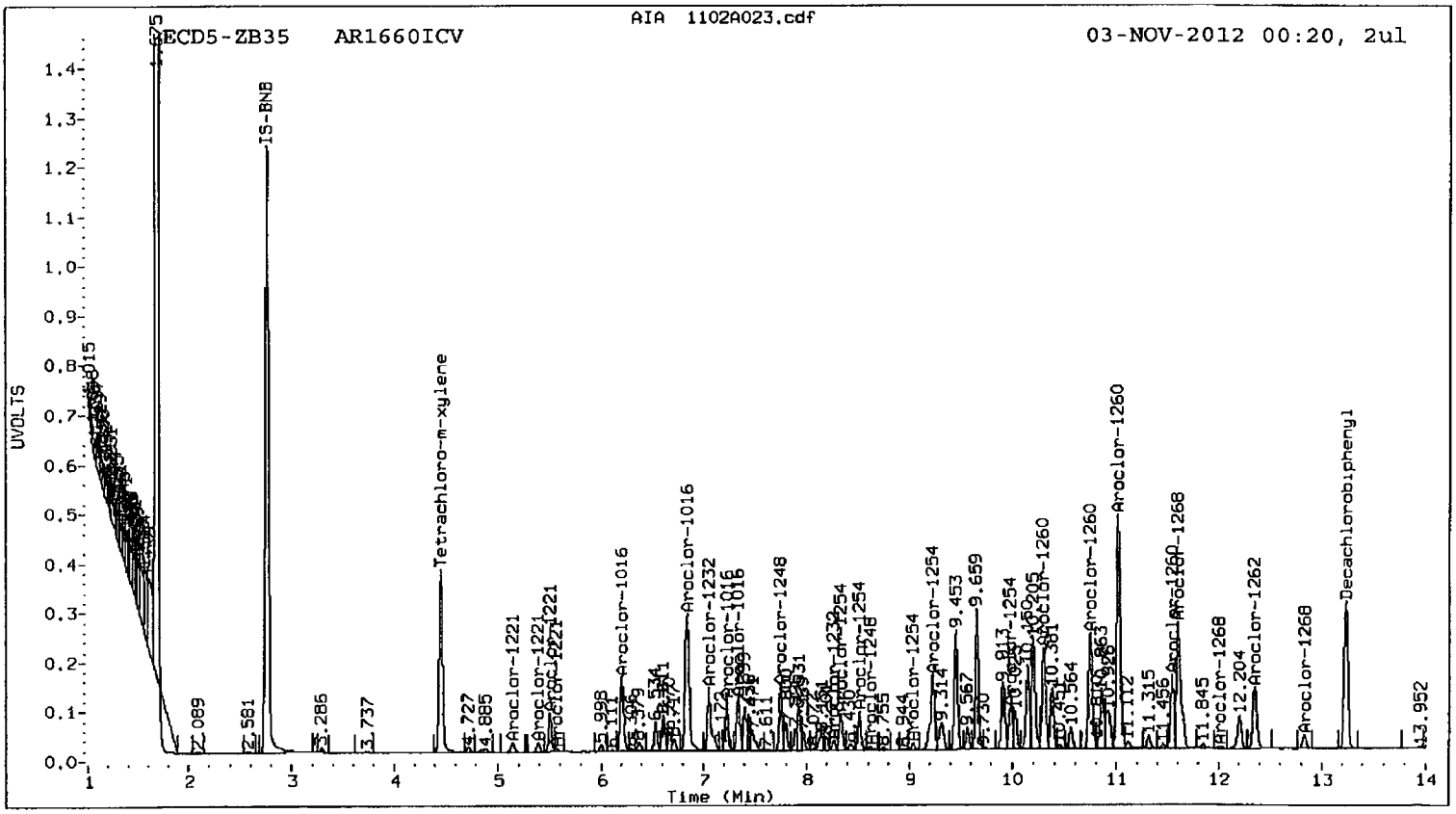
Aroclor-1262
Aroclor-1268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Time (Min)
IS-BNB
Tetrachloro-m-xylene
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Aroclor-1221
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Aroclor-1262
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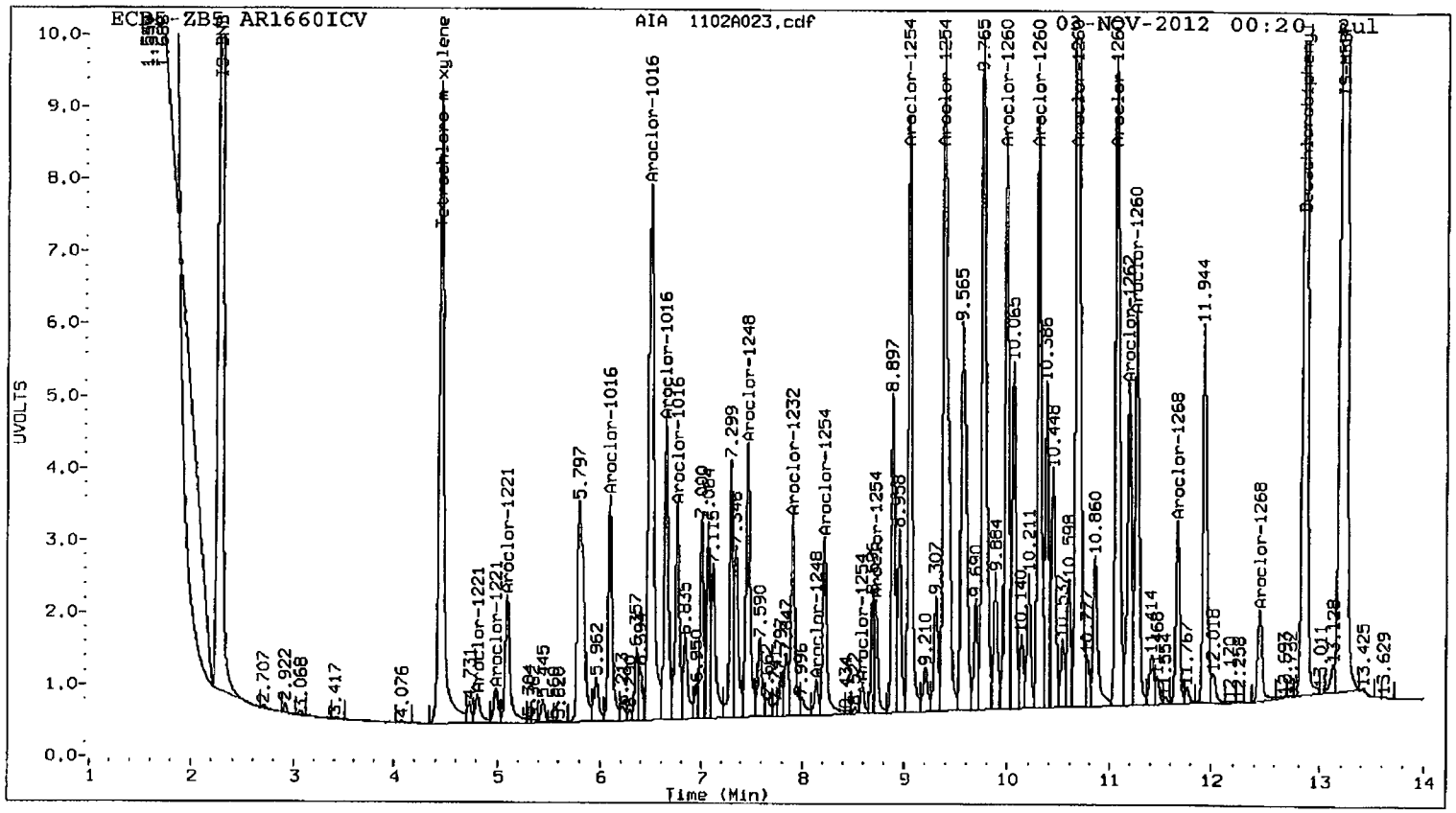
Decachlorobiphenyl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UVOLTS
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Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
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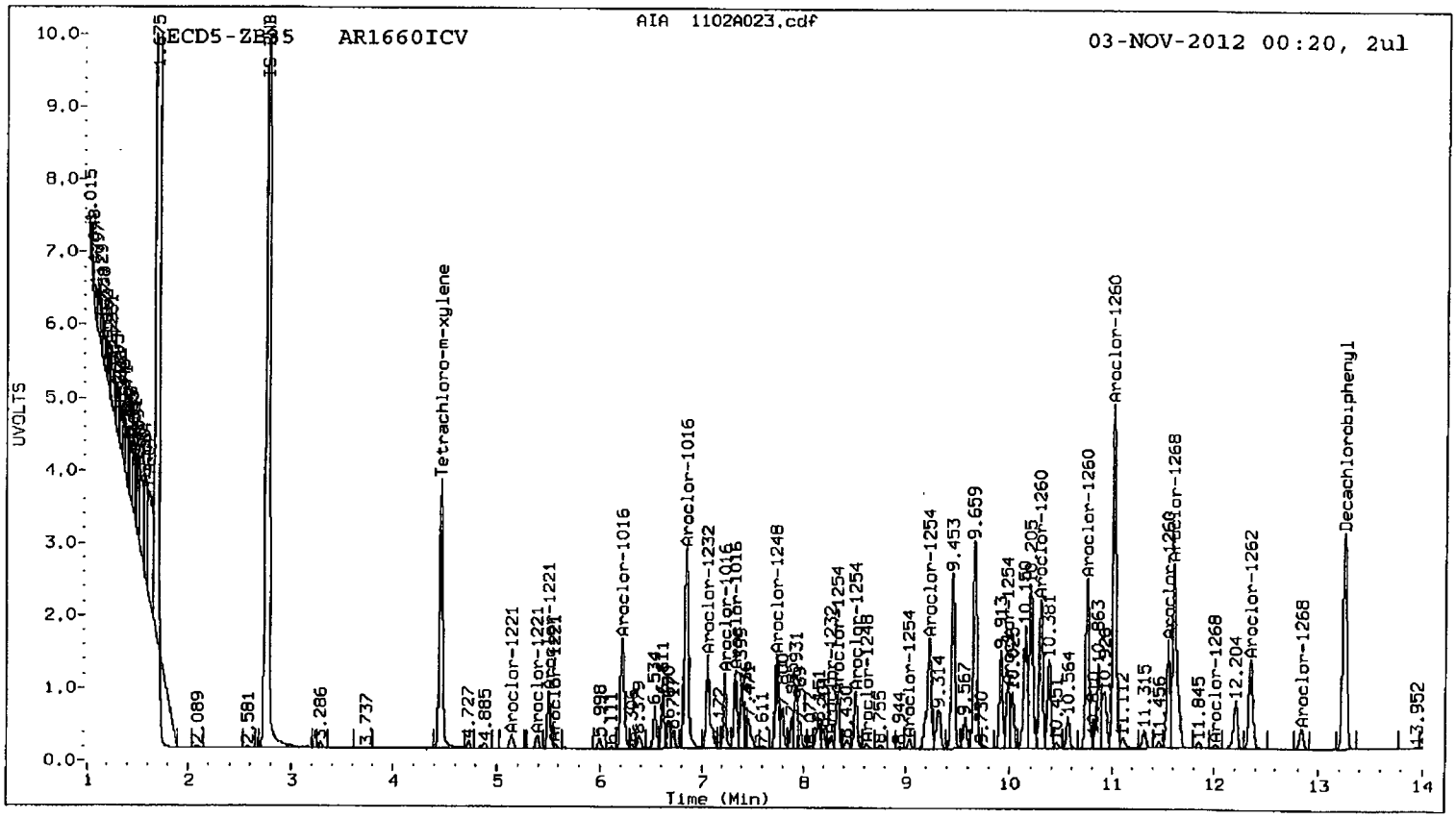
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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Tetrachloro-m-xylene
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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A024.d
Data file 2: 20121102.B/ical-2.b/1102A024.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242ICV
Client ID:
Injection Date: 03-NOV-2012 00:41
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.447	0.002	14470649	4.456	0.000	4419887	19.8	20.7	4.3	Tetrachloro-m-xylene
12.856	0.001	20367318	13.248	0.000	4343511	18.5	19.7	6.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.5	51.7
Decachlorobiphenyl	46.3	49.3

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	34992364	12.0
Hexabromobiphenyl	64198300	71027100	10.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	15000485	3.2
Hexabromobiphenyl	15789428	16204591	2.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount	
Aroclor-1016	1	6.094	0.001	3559162	181.9	1	6.210	0.001	1574075	187.3	
Aroclor-1016	2	6.498	0.000	10979379	180.1	2	6.841	0.001	3271536	184.0	
Aroclor-1016	3	6.648	0.001	4799602	182.5	3	7.226	0.001	868645	187.8	
Aroclor-1016	4	6.759	0.001	3458469	183.8	4	7.335	0.000	993474	191.0	
Total Col1Ave (4 peaks):					182.1	Total Col2Ave (4 peaks):				187.5	RPD = 3
Corrected Ave (3 peaks):					181.5	Corrected Ave (3 peaks):				186.4	RPD = 3
Aroclor-1221	1	4.815	-0.002	749650	87.8	1	5.145	0.004	200259	78.8	
Aroclor-1221	2	4.993	-0.002	733931	125.5	2	5.392	0.000	153470	102.5	
Aroclor-1221	3	5.100	-0.001	2551914	133.9	3	5.506	0.000	702850	149.4	
Aroclor-1221	NS	---			----	4	5.574	-0.001	49121	60.5	
Total Col1Ave (3 peaks):					115.7	Total Col2Ave (4 peaks):				97.8	RPD = 17
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				80.6	
Aroclor-1232	1	6.094	0.000	3559162	446.6	1	6.210	0.000	1574075	422.8	
Aroclor-1232	2	6.498	0.000	10979379	440.6	2	6.841	0.001	3271536	446.0	
Aroclor-1232	3	6.648	0.000	4799602	441.6	3	7.051	0.000	1369598	446.6	
Aroclor-1232	4	7.901	0.000	5648735	414.8	4	8.276	0.000	1083675	416.2	
Total Col1Ave (4 peaks):					435.9	Total Col2Ave (4 peaks):				432.9	RPD = 1
Corrected Ave (3 peaks):					432.3	Corrected Ave (3 peaks):				428.4	RPD = 1
Aroclor-1242	1	6.094	0.002	3559162	233.8	1	6.210	0.001	1574075	245.7	
Aroclor-1242	2	6.498	0.001	10979379	232.8	2	6.841	0.001	3271536	239.9	
Aroclor-1242	3	6.648	0.001	4799602	234.4	3	7.051	0.000	1369598	241.7	
Aroclor-1242	4	7.901	0.002	5648735	235.2	4	8.276	0.000	1083675	227.1	
Total Col1Ave (4 peaks):					234.1	Total Col2Ave (4 peaks):				238.6	RPD = 2
Corrected Ave (3 peaks):					233.7	Corrected Ave (3 peaks):				236.2	RPD = 1
Aroclor-1248	1	6.498	0.003	10979379	356.2	1	6.841	0.005	3271536	367.4	
Aroclor-1248	2	7.473	0.000	5112547	157.5	2	7.747	0.001	1268707	171.8	
Aroclor-1248	3	7.901	0.000	5648735	137.8	3	8.276	0.001	1083675	142.0	
Aroclor-1248	4	8.137	0.001	4569738	144.7	4	8.623	0.001	1343107	142.3	
Total Col1Ave (4 peaks):					199.0	Total Col2Ave (4 peaks):				205.9	RPD = 3
Corrected Ave (3 peaks):					146.7	Corrected Ave (3 peaks):				152.0	RPD = 4
Aroclor-1254	1	8.221	-0.001	2582031	61.8	1	8.341	0.000	364106	55.9	
Aroclor-1254	2	8.593	0.000	1658279	60.4	2	8.515	-0.001	388226	47.2	
Aroclor-1254	3	8.729	0.001	2804595	52.5	3	9.037	0.000	373411	59.1	
Aroclor-1254	4	9.082	0.004	2388367	40.9	4	9.187	0.000	650516	46.9	
Aroclor-1254	5	9.444	0.005	1884135	51.3	5	9.968	-0.005	427656	51.2	
Total Col1Ave (5 peaks):					53.4	Total Col2Ave (5 peaks):				52.1	RPD = 2
Corrected Ave (4 peaks):					51.3	Corrected Ave (4 peaks):				50.3	RPD = 2
Aroclor-1260	1	9.995	-0.001	118205	2.9	1	10.301	-0.001	16952	2.0	
Aroclor-1260	2	10.313	0.002	88814	2.1	2	10.747	-0.005	90847	8.6	
Aroclor-1260	3	10.686	0.001	211099	2.1	3	11.025	0.000	54689	2.6	
Aroclor-1260	4	11.085	0.000	194214	3.4	4	11.547	0.000	19981	3.1	
Aroclor-1260	5	11.276	0.001	47651	1.7	NS	---			----	
Total Col1Ave (5 peaks):					2.5	Total Col2Ave (4 peaks):				4.1	RPD = 49*
Corrected Ave (4 peaks):					2.2	Corrected Ave (3 peaks):				2.6	RPD = 14
Aroclor-1262	1	9.995	-0.002	118205	1.9	1	10.301	-0.001	16952	1.2	
Aroclor-1262	2	10.313	0.001	88814	1.9	2	10.747	-0.006	90847	7.2	
Aroclor-1262	3	10.686	-0.001	211099	1.7	3	11.025	0.000	54689	2.0	
Aroclor-1262	4	11.202	0.000	56174	1.2	4	11.547	0.001	19981	1.8	
Aroclor-1262	5	11.276	0.001	47651	0.9	5	12.385	0.039	37016	3.5	
Total Col1Ave (5 peaks):					1.5	Total Col2Ave (5 peaks):				3.1	RPD = 68*
Corrected Ave (4 peaks):					1.5	Corrected Ave (4 peaks):				2.1	RPD = 37
Aroclor-1268	1	11.202	0.000	56174	0.5	1	11.547	0.000	19981	0.7	
Aroclor-1268	2	11.276	0.001	47651	0.4	2	11.606	-0.007	37684	1.4	

Aroclor-1268 3	11.664	0.003	58198	0.6	3	---			0.0
Aroclor-1268 4	12.446	-0.003	116207	0.4	4	12.832	-0.002	12333	0.2

Total Col1Ave (4 peaks): 0.5 Total Col2Ave (3 peaks): 0.8 RPD = 50*

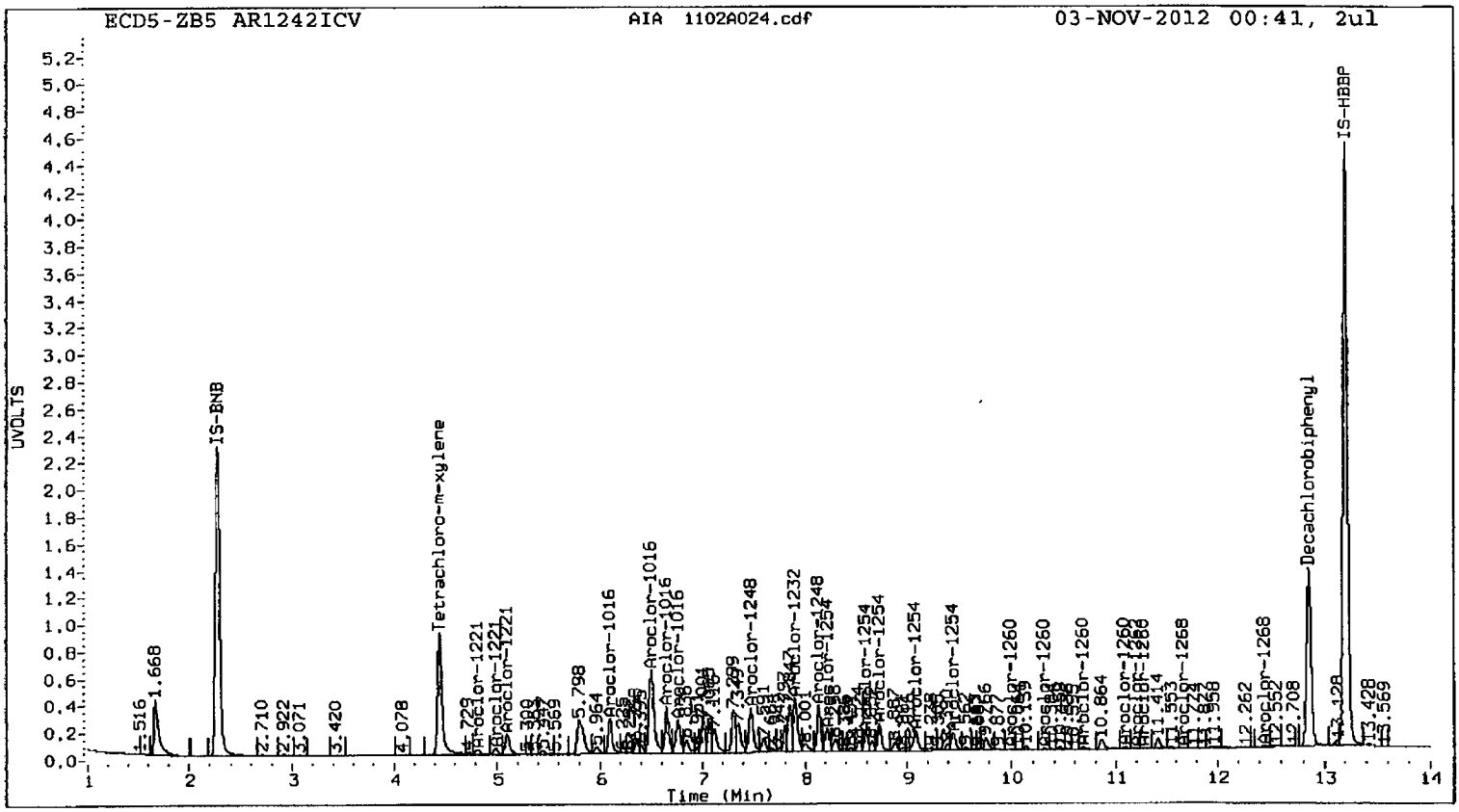
Corrected Ave (3 peaks): 0.4 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.544 - 12.755) = 102808218 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 25713682 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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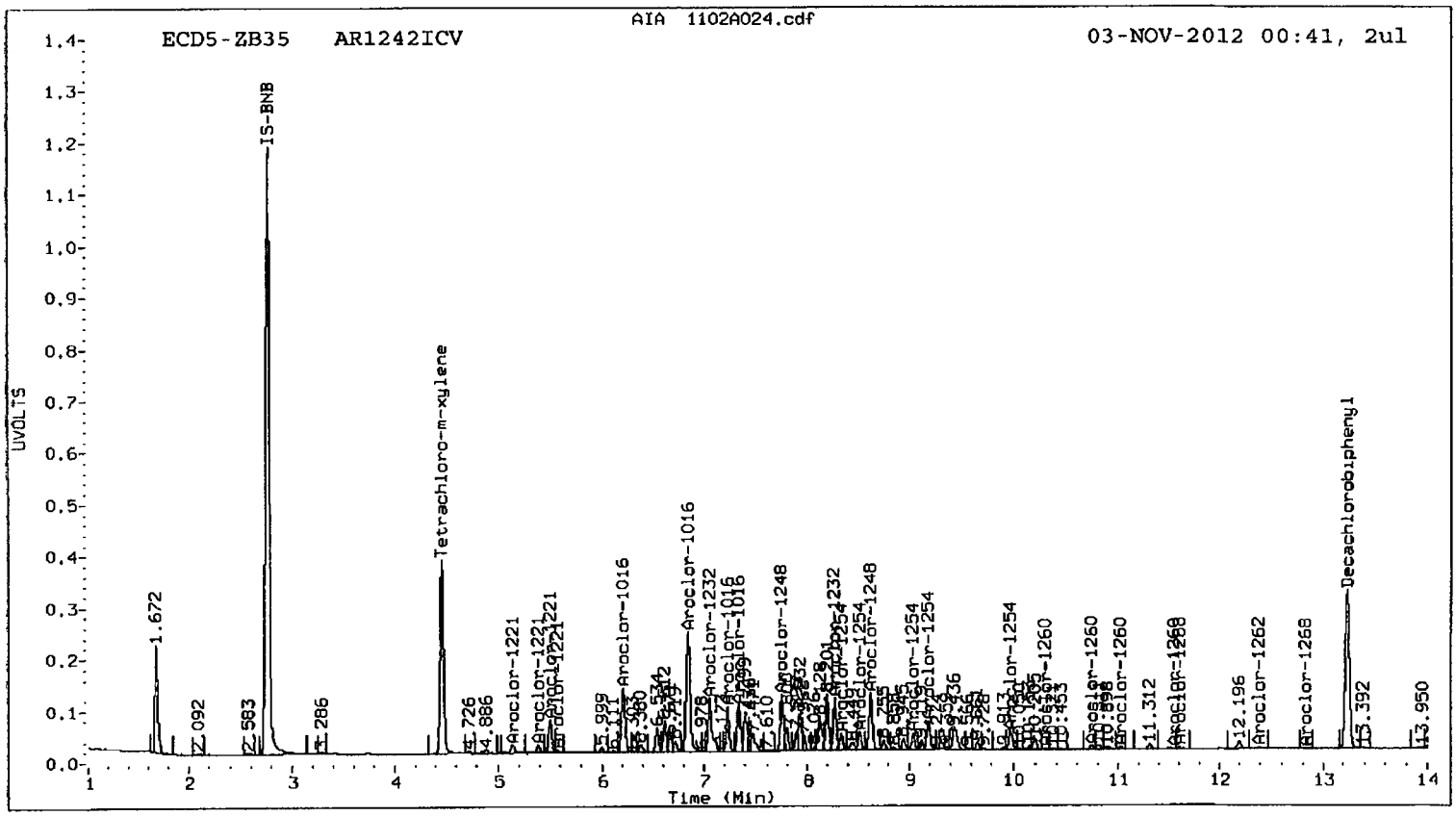
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl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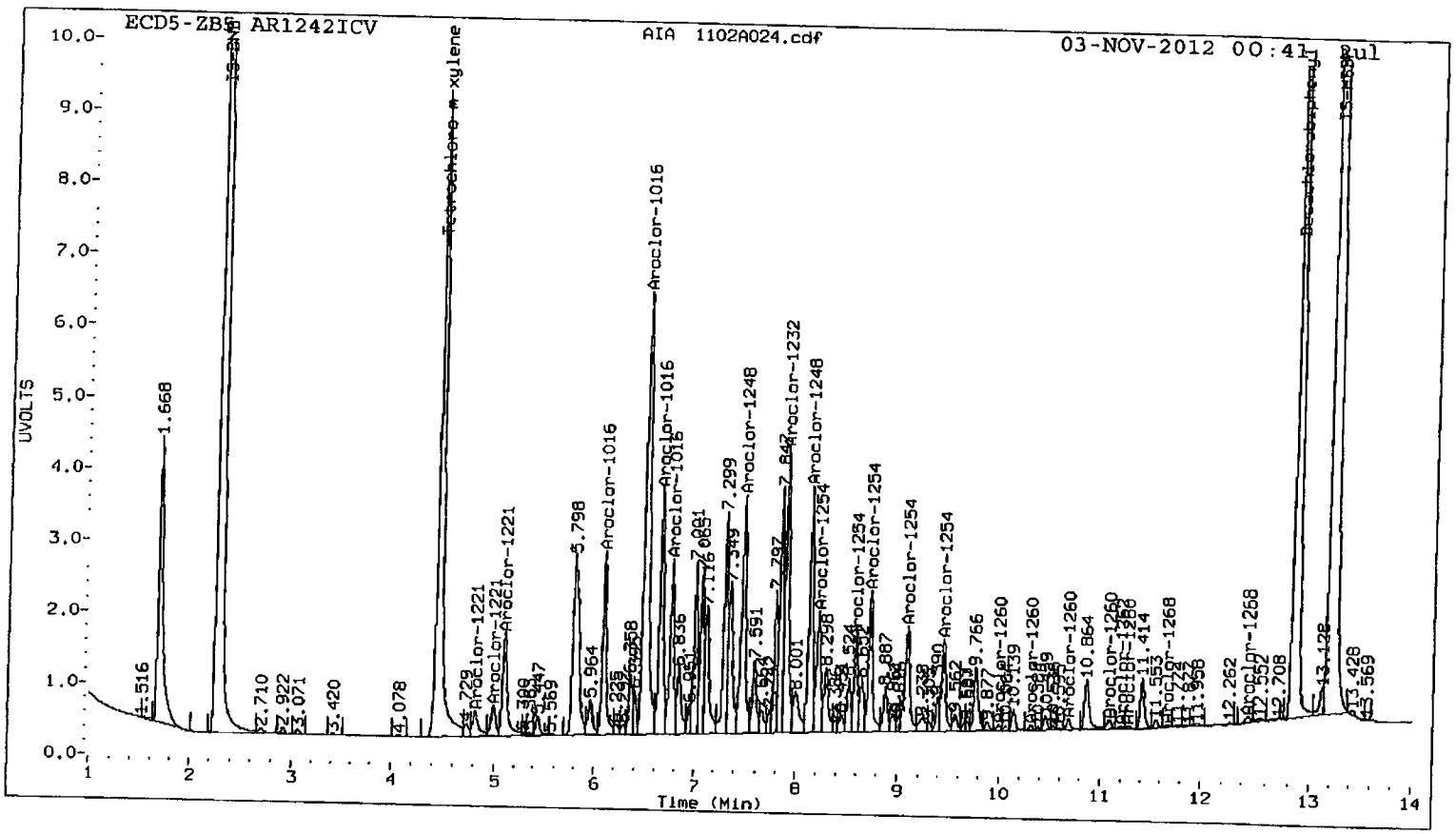
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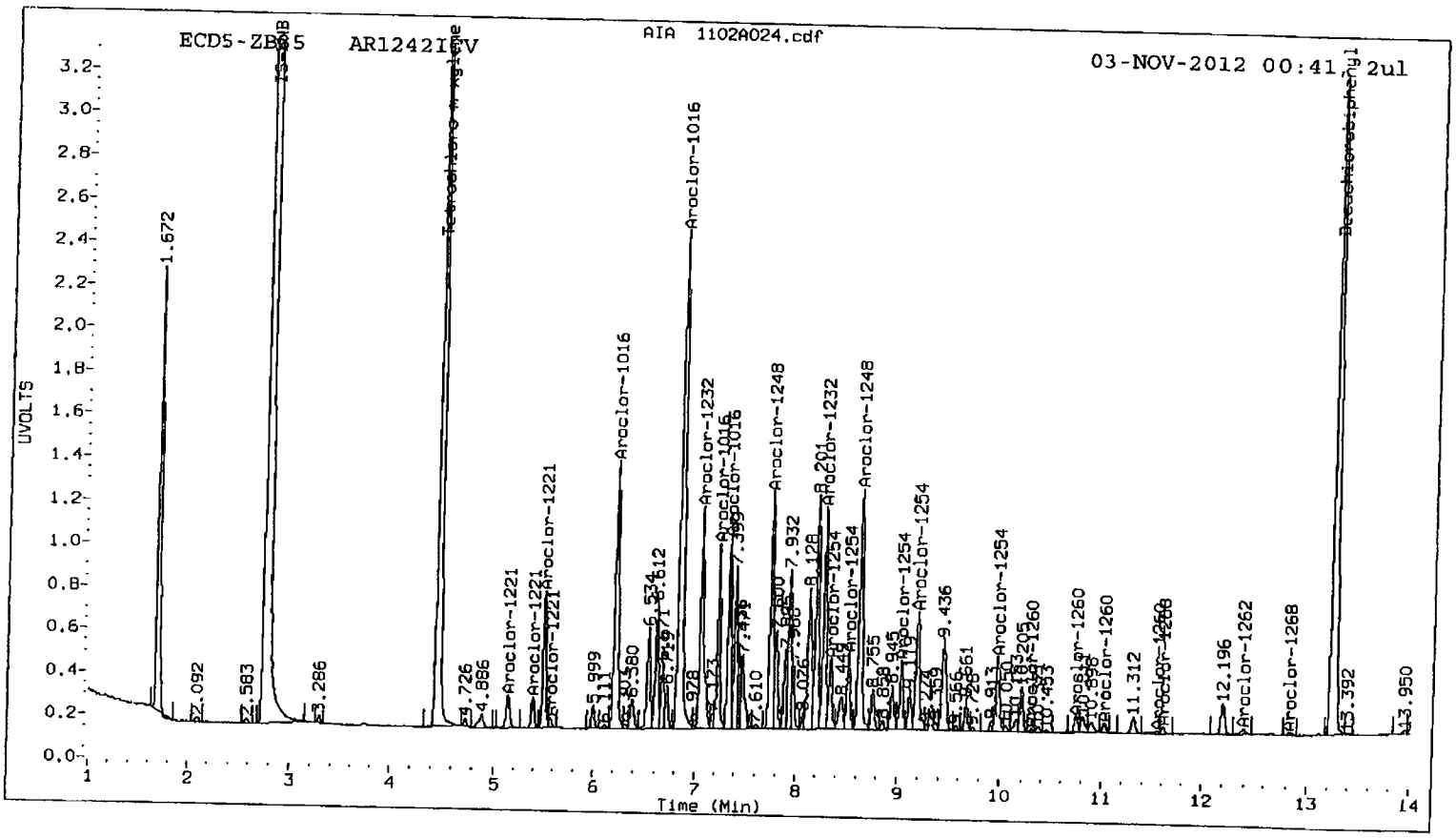
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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Decachlorobiphenyl
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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A025.d
Data file 2: 20121102.B/ical-2.b/1102A025.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248ICV
Client ID:
Injection Date: 03-NOV-2012 01:01
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.446	0.001	14009082	4.455	-0.001	4264845	19.9	21.0	5.2	Tetrachloro-m-xylene
12.855	0.000	19906077	13.248	0.000	4209767	18.6	19.8	6.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.7	52.4
Decachlorobiphenyl	46.5	49.4

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33719935	7.9
Hexabromobiphenyl	64198300	69100267	7.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14278309	-1.8
Hexabromobiphenyl	15789428	15675954	-0.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	6.094	0.001	1753905	93.0	1	6.207	-0.001	829143	103.7
Aroclor-1016	2	6.495	-0.002	7350284	125.1	2	6.837	-0.003	2183705	129.0
Aroclor-1016	3	6.650	0.003	2872827	113.3	3	7.226	0.001	478562	108.7
Aroclor-1016	4	6.758	0.000	2110055	116.4	4	7.334	0.000	1512423	305.5
Total Col1Ave (4 peaks):					112.0	Total Col2Ave (4 peaks):				161.7 RPD = 36
Corrected Ave (3 peaks):					107.6	Corrected Ave (3 peaks):				113.8 RPD = 6
Aroclor-1221	1	4.812	-0.004	357677	43.5	1	5.153	0.011	77900	32.2
Aroclor-1221	2	4.981	-0.013	372195	66.0	2	5.393	0.000	30242	21.2
Aroclor-1221	3	5.099	-0.002	676136	36.8	3	5.506	0.000	160480	35.8
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):					48.8	Total Col2Ave (3 peaks):				29.8 RPD = 48*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.094	0.000	1753905	228.4	1	6.207	-0.003	829143	234.0
Aroclor-1232	2	6.495	-0.002	7350284	306.1	2	6.837	-0.003	2183705	312.8
Aroclor-1232	3	6.650	0.003	2872827	274.3	3	7.050	0.000	562917	192.9
Aroclor-1232	4	7.902	0.001	9041242	688.9	4	8.276	-0.001	1694183	683.6
Total Col1Ave (4 peaks):					374.4	Total Col2Ave (4 peaks):				355.8 RPD = 5
Corrected Ave (3 peaks):					269.6	Corrected Ave (3 peaks):				246.5 RPD = 9
Aroclor-1242	1	6.094	0.001	1753905	119.6	1	6.207	-0.001	829143	136.0
Aroclor-1242	2	6.495	-0.001	7350284	161.8	2	6.837	-0.003	2183705	168.3
Aroclor-1242	3	6.650	0.003	2872827	145.6	3	7.050	0.000	562917	104.4
Aroclor-1242	4	7.902	0.003	9041242	390.7	4	8.276	0.000	1694183	372.9
Total Col1Ave (4 peaks):					204.4	Total Col2Ave (4 peaks):				195.4 RPD = 5
Corrected Ave (3 peaks):					142.3	Corrected Ave (3 peaks):				136.2 RPD = 4
Aroclor-1248	1	6.495	0.001	7350284	247.4	1	6.837	0.001	2183705	257.7
Aroclor-1248	2	7.473	0.000	7164021	229.1	2	7.747	0.000	1715400	244.0
Aroclor-1248	3	7.902	0.001	9041242	228.9	3	8.276	0.000	1694183	233.3
Aroclor-1248	4	8.137	0.001	6887223	226.2	4	8.623	0.000	2108996	234.7
Total Col1Ave (4 peaks):					232.9	Total Col2Ave (4 peaks):				242.4 RPD = 4
Corrected Ave (3 peaks):					228.1	Corrected Ave (3 peaks):				237.3 RPD = 4
Aroclor-1254	1	8.220	-0.002	4701389	116.8	1	8.341	0.000	678148	109.4
Aroclor-1254	2	8.593	0.001	3121411	117.9	2	8.516	0.001	697164	89.0
Aroclor-1254	3	8.729	0.001	5220225	101.5	3	9.038	0.000	714380	118.8
Aroclor-1254	4	9.083	0.005	4034514	71.7	4	9.188	0.001	1199452	90.9
Aroclor-1254	5	9.445	0.007	3606329	101.9	5	9.967	-0.005	826446	104.0
Total Col1Ave (5 peaks):					101.9	Total Col2Ave (5 peaks):				102.4 RPD = 0
Corrected Ave (4 peaks):					97.9	Corrected Ave (4 peaks):				98.3 RPD = 0
Aroclor-1260	1	9.995	0.000	251090	6.2	1	10.303	0.001	38657	4.6
Aroclor-1260	2	10.313	0.002	171073	4.2	2	10.748	-0.004	105599	10.3
Aroclor-1260	3	10.686	0.001	368199	3.8	3	11.025	0.000	86914	4.3
Aroclor-1260	4	11.085	0.001	179624	3.3	4	11.548	0.000	39361	6.4
Aroclor-1260	5	11.275	0.000	144632	5.4	NS	---			----
Total Col1Ave (5 peaks):					4.6	Total Col2Ave (4 peaks):				6.4 RPD = 33
Corrected Ave (4 peaks):					4.2	Corrected Ave (3 peaks):				5.1 RPD = 19
Aroclor-1262	1	9.995	-0.001	251090	4.2	1	10.303	0.001	38657	2.8
Aroclor-1262	2	10.313	0.000	171073	3.7	2	10.748	-0.005	105599	8.7
Aroclor-1262	3	10.686	-0.001	368199	3.1	3	11.025	0.001	86914	3.3
Aroclor-1262	4	11.203	0.001	145388	3.3	4	11.548	0.001	39361	3.6
Aroclor-1262	5	11.275	0.000	144632	3.0	5	12.381	0.035	54712	5.3
Total Col1Ave (5 peaks):					3.5	Total Col2Ave (5 peaks):				4.7 RPD = 31
Corrected Ave (4 peaks):					3.3	Corrected Ave (4 peaks):				3.8 RPD = 14
Aroclor-1268	1	11.203	0.000	145388	1.2	1	11.548	0.000	39361	1.4
Aroclor-1268	2	11.275	0.000	144632	1.3	2	11.608	-0.005	56919	2.1

Aroclor-1268 3	11.674	0.013	92708	0.9	3	---			0.0
Aroclor-1268 4	12.446	-0.003	125978	0.4	4	12.832	-0.002	14621	0.2

Total Col1Ave (4 peaks): 1.0 Total Col2Ave (3 peaks): 1.3 RPD = 29

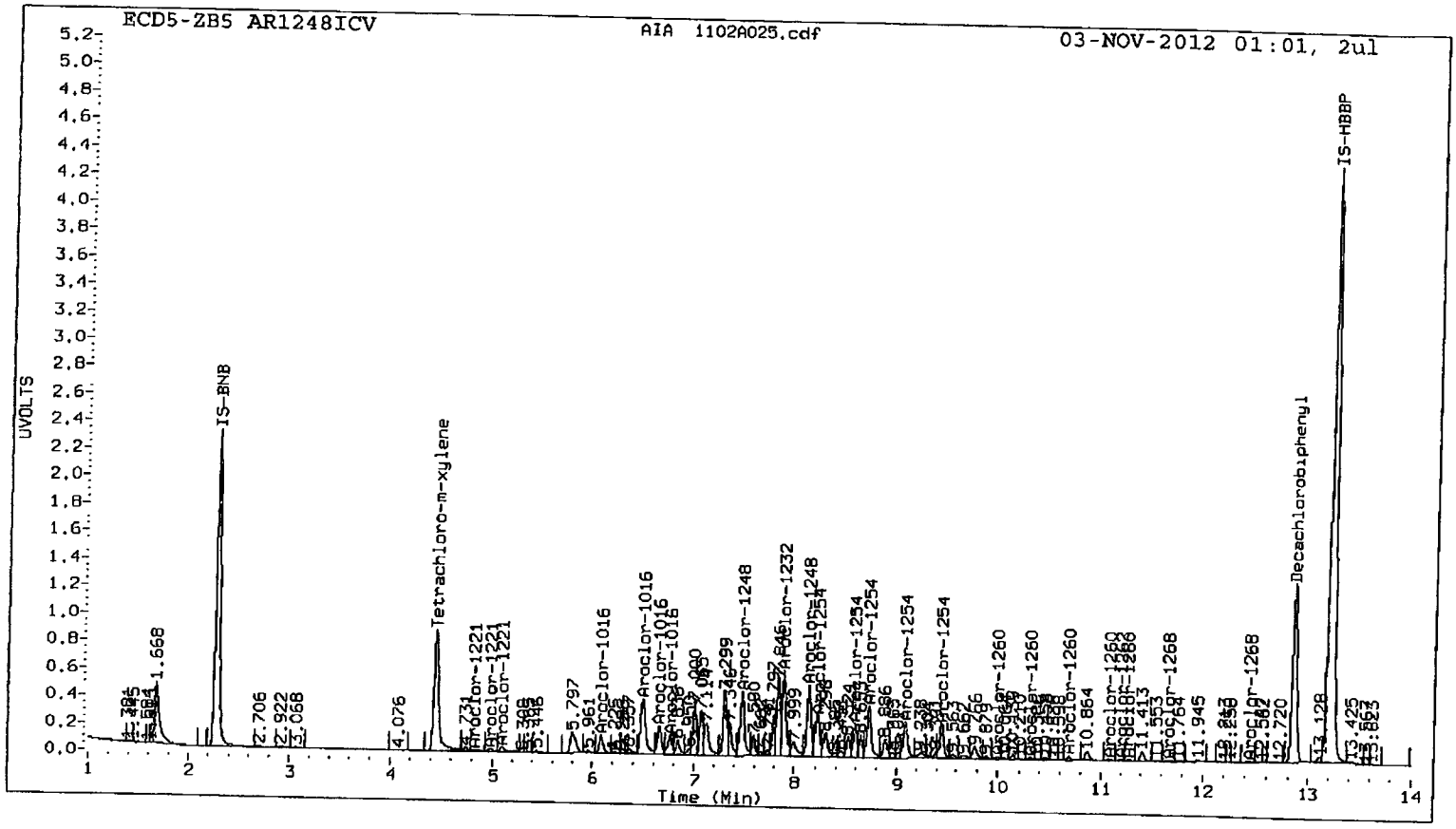
Corrected Ave (3 peaks): 0.9 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.544 - 12.755) = 120967349 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 29384732 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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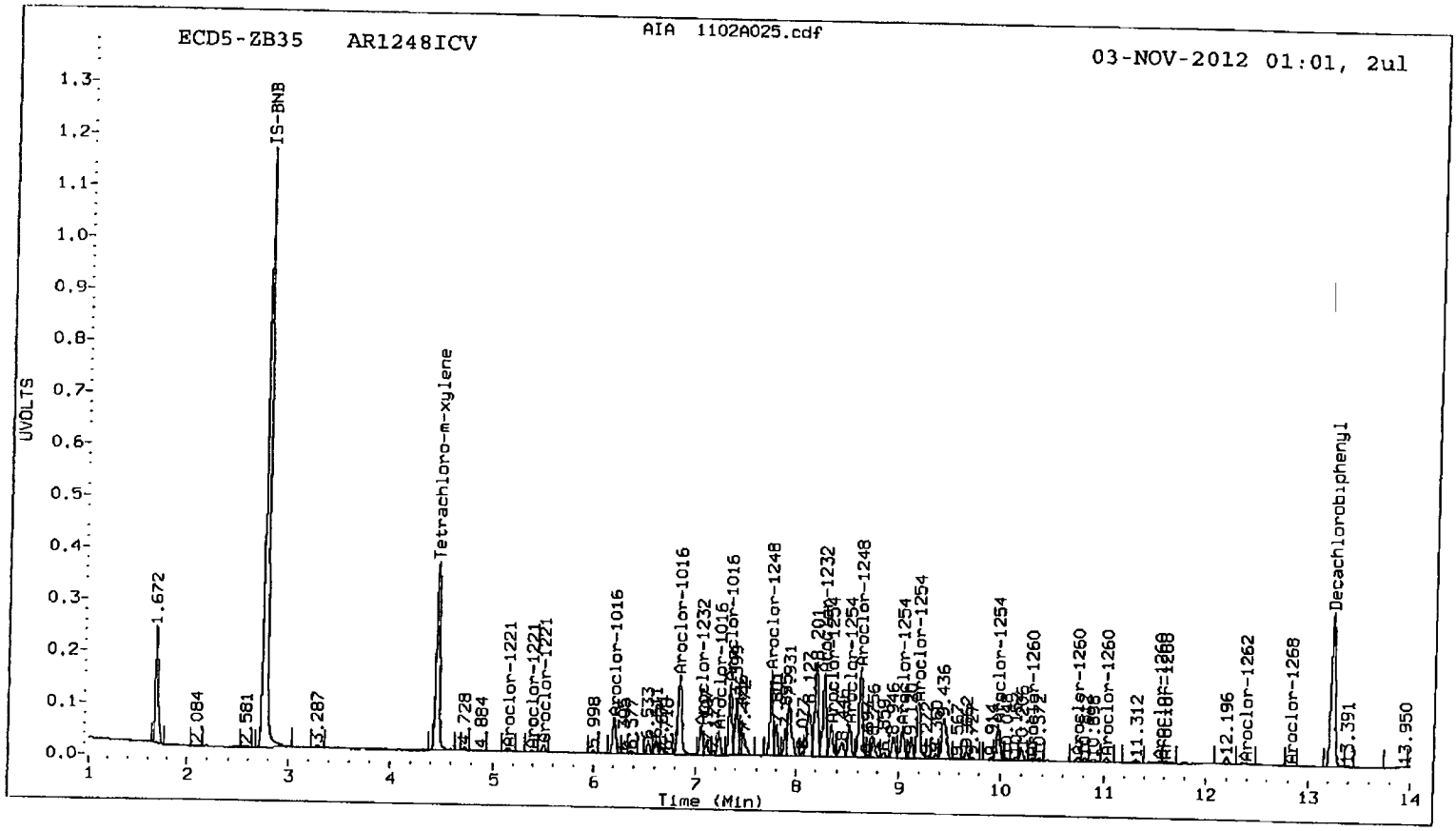
Decachlorobiphenyl
IS-HBBP
Time (Min)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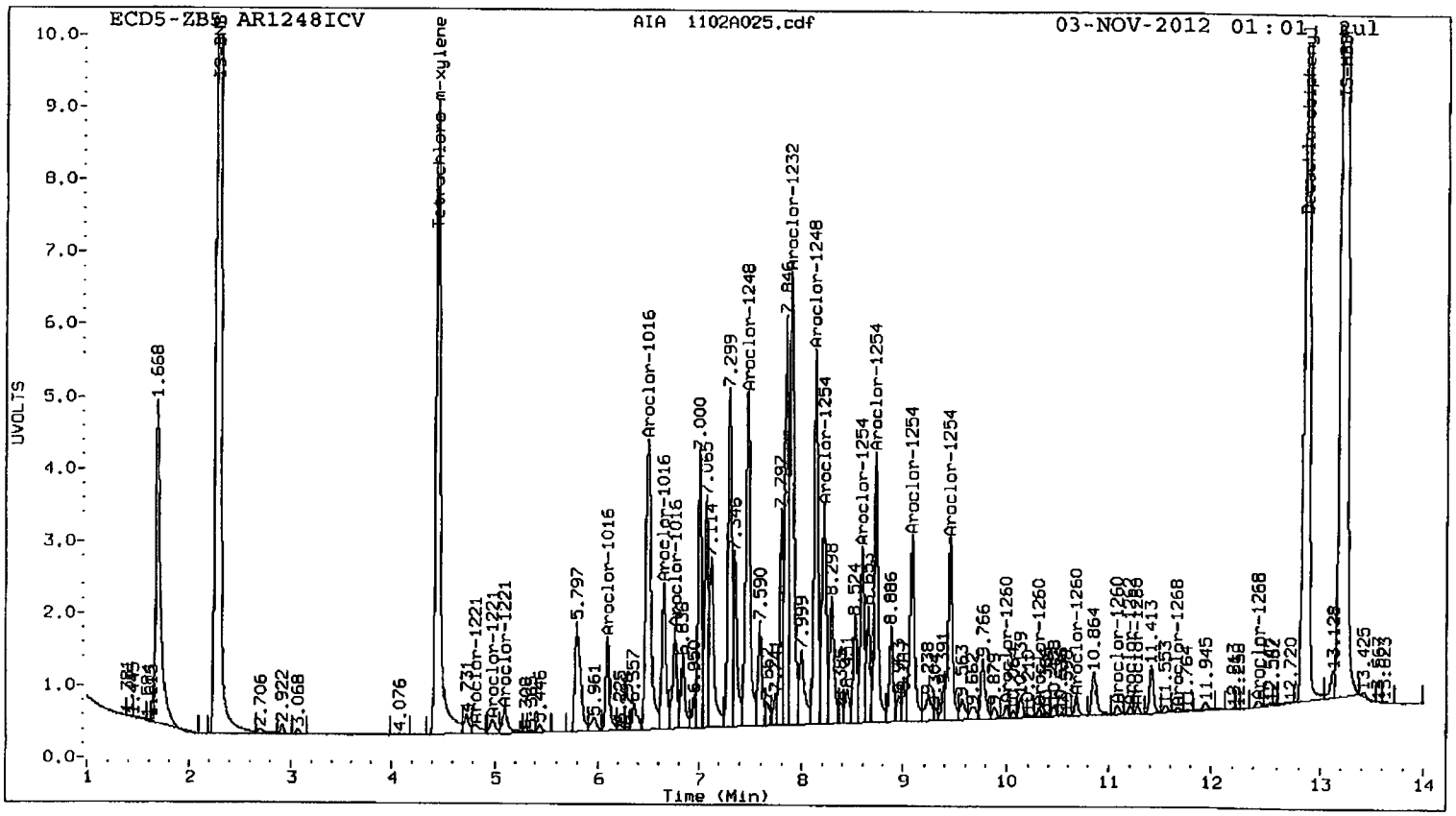
Time (Min)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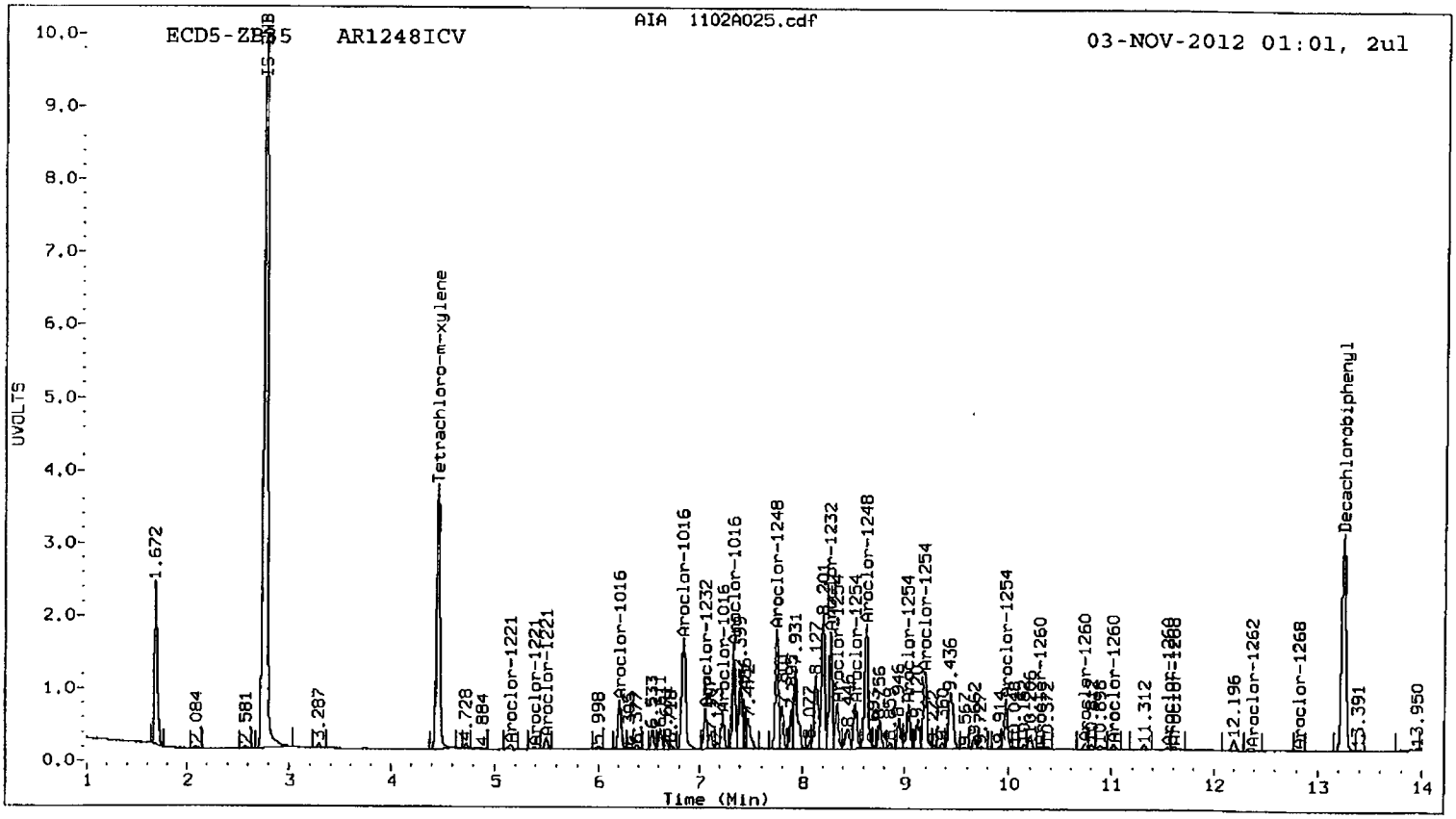
Aroclor-1262
Aroclor-1268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Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20121102.B/ical-2.b/1102A026.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV
Client ID:
Injection Date: 03-NOV-2012 01:21
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.446	0.002	14015902	4.456	0.000	4327461	19.6	20.8	6.0	Tetrachloro-m-xylene
12.855	0.000	20342130	13.248	0.000	4314093	18.7	19.9	6.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.0	52.0
Decachlorobiphenyl	46.7	49.9

JK 11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	34274216	9.7
Hexabromobiphenyl	64198300	70290566	9.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14593306	0.4
Hexabromobiphenyl	15789428	15921593	0.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

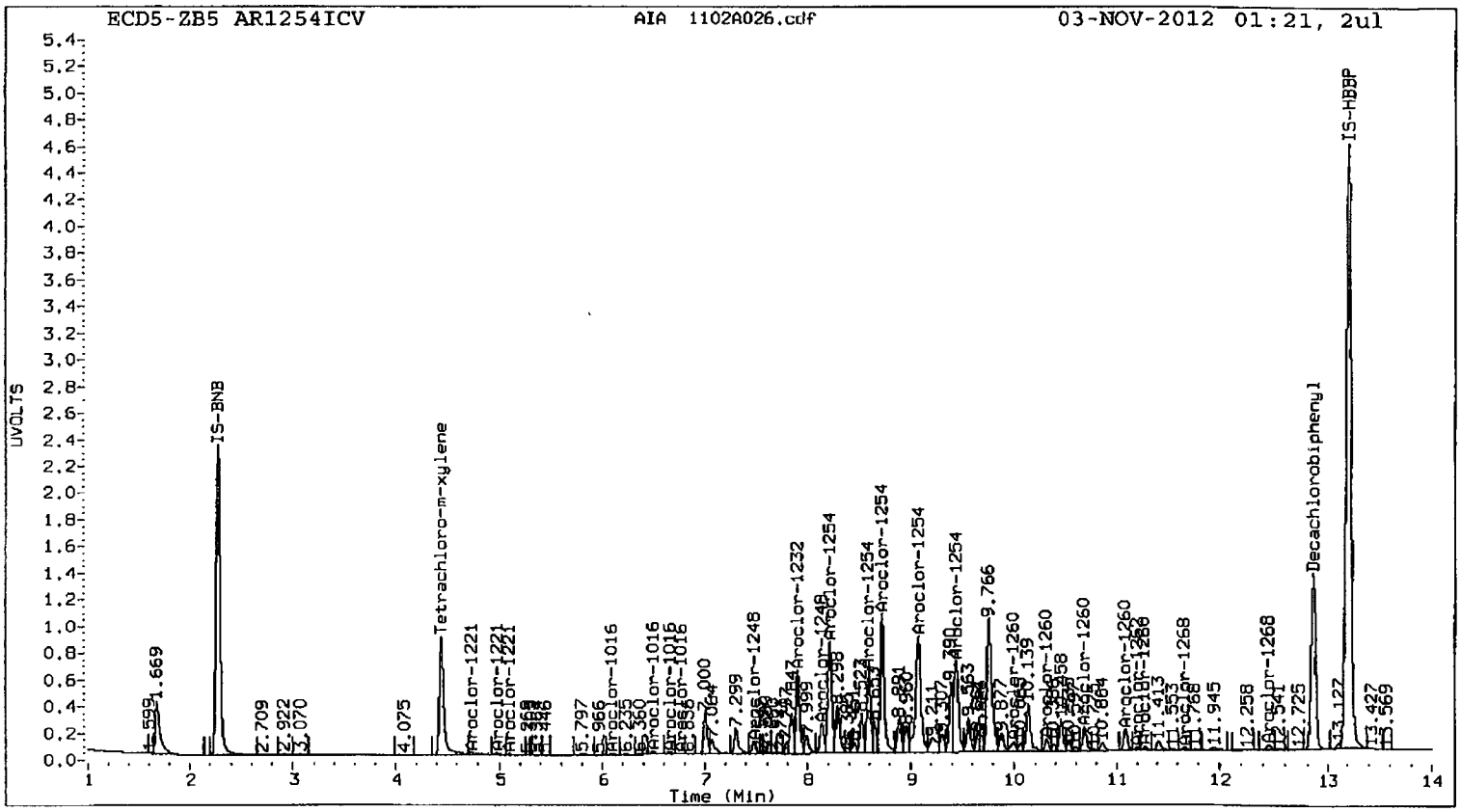
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.094	0.001	68143	3.6	1	6.210	0.001	32190	3.9
Aroclor-1016	2	6.492	-0.006	312233	5.2	2	6.835	-0.005	96451	5.6
Aroclor-1016	3	6.654	0.008	168555	6.5	3	7.227	0.002	17081	3.8
Aroclor-1016	4	6.758	0.001	73666	4.0	4	7.333	-0.001	1035217	204.6
	Total Col1Ave (4 peaks):				4.8	Total Col2Ave (4 peaks):				54.5 RPD = 167*
	Corrected Ave (3 peaks):				4.3	Corrected Ave (3 peaks):				4.4 RPD = 4
Aroclor-1221	1	4.731	-0.086	668106	79.9	1	5.158	0.017	56435	22.8
Aroclor-1221	2	4.978	-0.017	316182	55.2	2	---			0.0
Aroclor-1221	3	5.100	-0.001	170791	9.2	3	5.509	0.003	20495	4.5
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				48.1	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	6.094	0.001	68143	8.7	1	6.210	0.000	32190	8.9
Aroclor-1232	2	6.492	-0.005	312233	12.8	2	6.835	-0.005	96451	13.5
Aroclor-1232	3	6.654	0.007	168555	15.8	3	7.052	0.002	22880	7.7
Aroclor-1232	4	7.910	0.009	8182055	613.4	4	8.276	0.000	347282	137.1
	Total Col1Ave (4 peaks):				162.7	Total Col2Ave (4 peaks):				41.8 RPD = 118*
	Corrected Ave (3 peaks):				12.5	Corrected Ave (3 peaks):				10.0 RPD = 22
Aroclor-1242	1	6.094	0.002	68143	4.6	1	6.210	0.002	32190	5.2
Aroclor-1242	2	6.492	-0.005	312233	6.8	2	6.835	-0.005	96451	7.3
Aroclor-1242	3	6.654	0.008	168555	8.4	3	7.052	0.001	22880	4.2
Aroclor-1242	4	7.910	0.010	8182055	347.9	4	8.276	0.000	347282	74.8
	Total Col1Ave (4 peaks):				91.9	Total Col2Ave (4 peaks):				22.8 RPD = 120*
	Corrected Ave (3 peaks):				6.6	Corrected Ave (3 peaks):				5.5 RPD = 17
Aroclor-1248	1	6.492	-0.002	312233	10.3	1	6.835	-0.001	96451	11.1
Aroclor-1248	2	7.473	0.001	1195479	37.6	2	7.748	0.002	622359	86.6
Aroclor-1248	3	7.910	0.009	8182055	203.8	3	8.276	0.001	347282	46.8
Aroclor-1248	4	8.143	0.007	2765782	89.4	4	8.609	-0.013	1207729	131.5
	Total Col1Ave (4 peaks):				85.3	Total Col2Ave (4 peaks):				69.0 RPD = 21
	Corrected Ave (3 peaks):				45.8	Corrected Ave (3 peaks):				48.2 RPD = 5
Aroclor-1254	1	8.222	0.000	11350739	277.4	1	8.341	0.000	1788794	282.3
Aroclor-1254	2	8.593	0.001	7753435	288.2	2	8.515	0.000	2302071	287.6
Aroclor-1254	3	8.729	0.001	14367869	274.8	3	9.038	0.001	1844022	299.9
Aroclor-1254	4	9.079	0.001	16236514	283.7	4	9.188	0.001	3803344	282.0
Aroclor-1254	5	9.440	0.001	10433548	289.9	5	9.973	0.000	2434983	299.7
	Total Col1Ave (5 peaks):				282.8	Total Col2Ave (5 peaks):				290.1 RPD = 3
	Corrected Ave (4 peaks):				281.0	Corrected Ave (4 peaks):				287.9 RPD = 2
Aroclor-1260	1	9.995	0.000	1243711	30.4	1	10.302	0.000	192716	22.7
Aroclor-1260	2	10.313	0.002	1181297	28.7	2	10.746	-0.006	1125472	107.9
Aroclor-1260	3	10.687	0.001	2417318	24.8	3	11.026	0.000	651482	31.4
Aroclor-1260	4	11.086	0.001	2240056	40.1	4	11.548	0.001	126059	20.2
Aroclor-1260	5	11.275	0.000	345302	12.7	NS	---			----
	Total Col1Ave (5 peaks):				27.3	Total Col2Ave (4 peaks):				45.5 RPD = 50*
	Corrected Ave (4 peaks):				24.2	Corrected Ave (3 peaks):				24.7 RPD = 2
Aroclor-1262	1	9.995	-0.001	1243711	20.3	1	10.302	0.000	192716	13.9
Aroclor-1262	2	10.313	0.001	1181297	25.5	2	10.746	-0.006	1125472	91.2
Aroclor-1262	3	10.687	0.000	2417318	20.1	3	11.026	0.001	651482	24.1
Aroclor-1262	4	11.202	0.000	346639	7.6	4	11.548	0.001	126059	11.5
Aroclor-1262	5	11.275	0.000	345302	6.9	5	12.350	0.003	77649	7.4
	Total Col1Ave (5 peaks):				16.1	Total Col2Ave (5 peaks):				29.6 RPD = 59*
	Corrected Ave (4 peaks):				13.8	Corrected Ave (4 peaks):				14.2 RPD = 3
Aroclor-1268	1	11.202	-0.001	346639	2.8	1	11.548	0.001	126059	4.6
Aroclor-1268	2	11.275	0.000	345302	2.9	2	11.606	-0.007	479959	17.8
Aroclor-1268	3	11.666	0.005	234454	2.3	3	12.012	0.001	29535	1.3

Aroclor-1268	4	12.447	-0.001	502277	1.7	4	12.833	-0.001	82112	1.2	
Total Col1Ave (4 peaks):				2.4	Total Col2Ave (4 peaks):				6.2	RPD =	87*
Corrected Ave (3 peaks):				2.3	Corrected Ave (3 peaks):				2.4	RPD =	4

Total PCB Area Col1 (4.544 - 12.755) = 164382250 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 38240804 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Aroclor-1268
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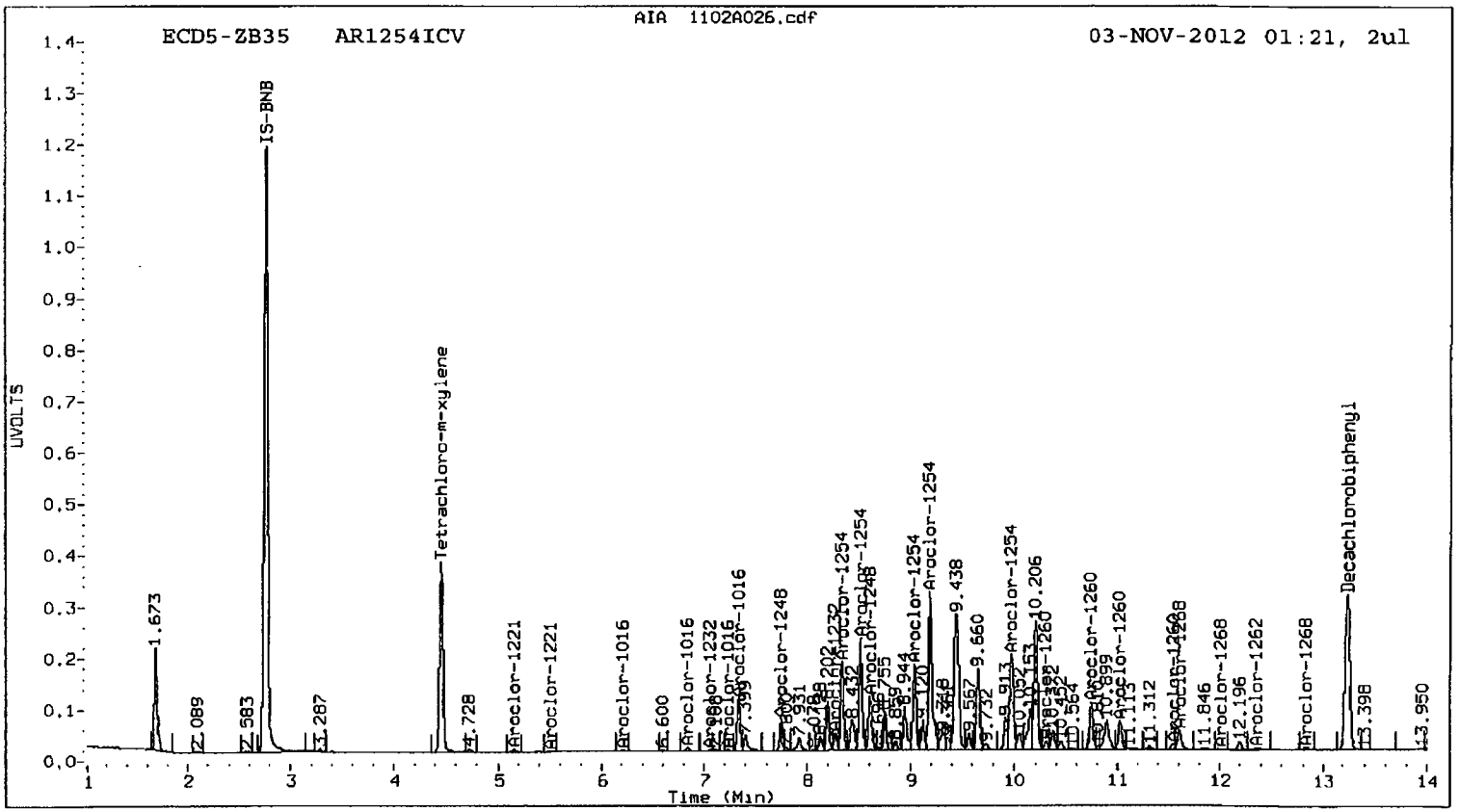
IS-HBBP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IS-BNB
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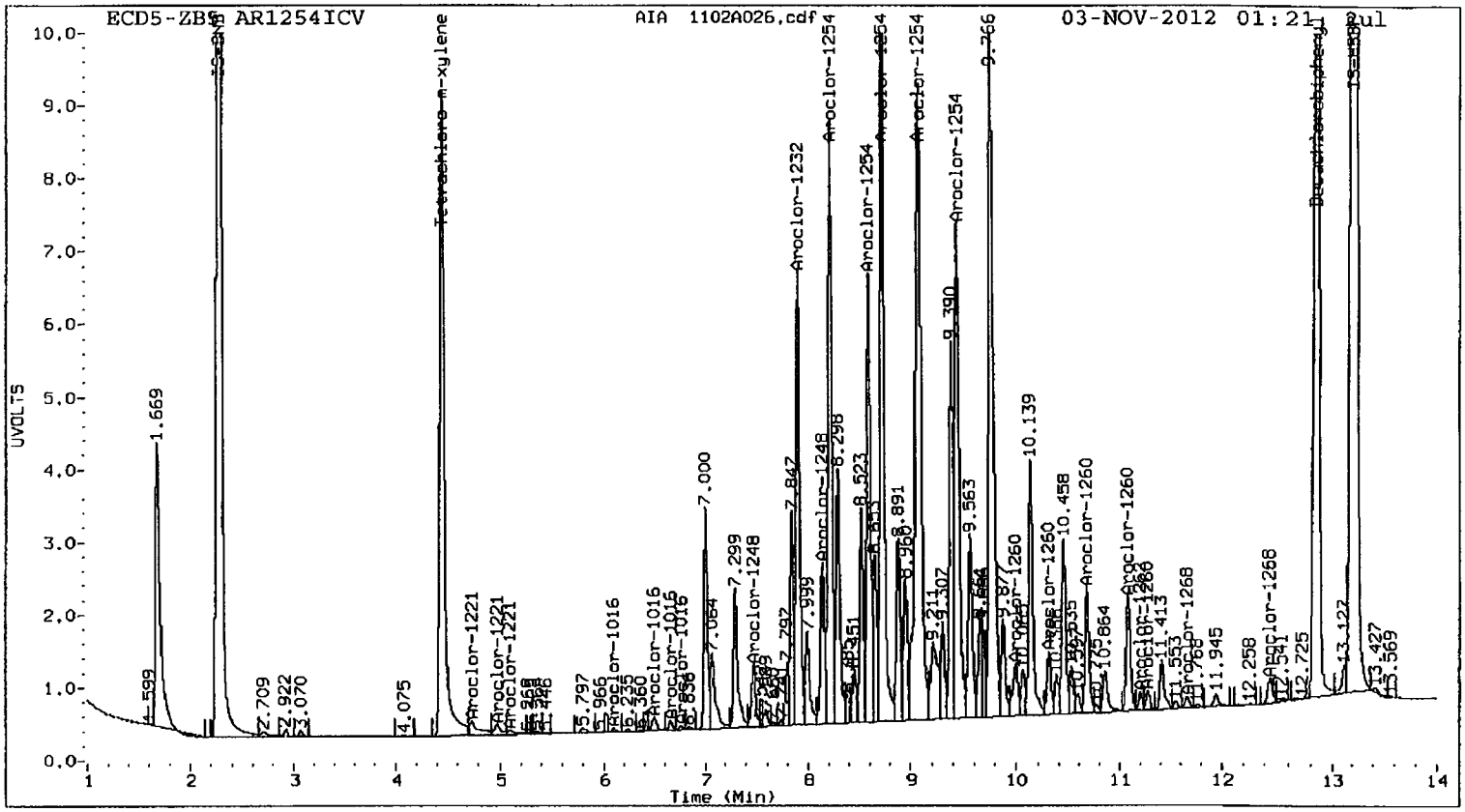
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
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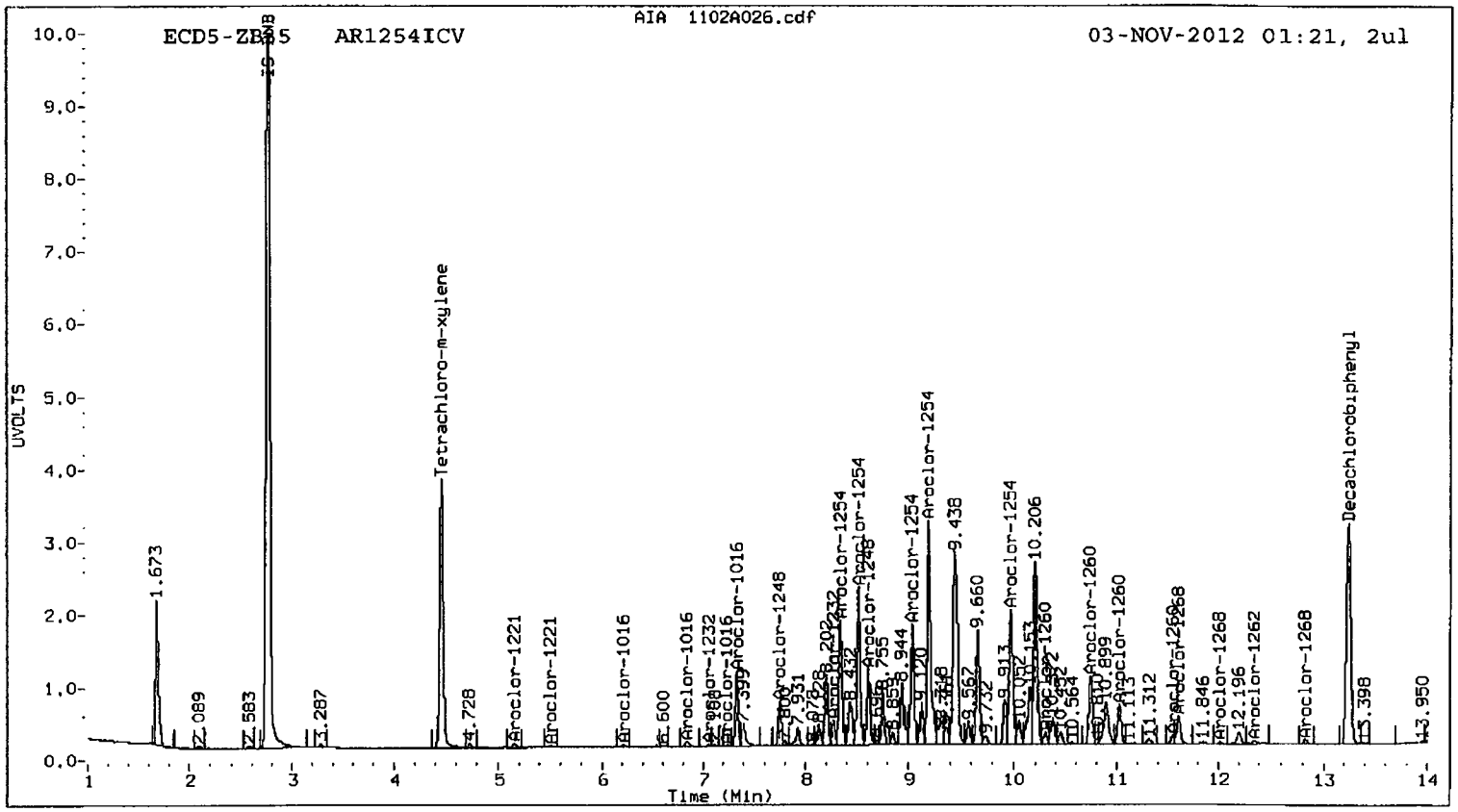
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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A027.d
Data file 2: 20121102.B/ical-2.b/1102A027.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162ICV
Client ID:
Injection Date: 03-NOV-2012 01:42
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	0.000	14265334	4.454	-0.001	4249414	20.4	21.3	4.3	Tetrachloro-m-xylene
12.855	0.000	19775640	13.248	0.000	4157722	18.4	19.6	6.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.9	53.2
Decachlorobiphenyl	46.1	48.9

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33531129	7.3
Hexabromobiphenyl	64198300	69260863	7.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14012549	-3.6
Hexabromobiphenyl	15789428	15630049	-1.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount	
Aroclor-1016	1	6.093	0.000	458282	24.4	1	6.222	0.013	358740	45.7	
Aroclor-1016	2	6.498	0.001	1122858	19.2	2	6.841	0.001	321991	19.4	
Aroclor-1016	3	6.647	0.000	531736	21.1	3	7.226	0.001	89719	20.8	
Aroclor-1016	4	6.759	0.001	354097	19.6	4	7.334	-0.001	82674	17.0	
Total Col1Ave (4 peaks):					21.1	Total Col2Ave (4 peaks):				25.7	RPD = 20
Corrected Ave (3 peaks):					20.0	Corrected Ave (3 peaks):				19.1	RPD = 5
Aroclor-1221	1	4.815	-0.002	2060583	251.8	1	5.140	-0.001	606516	255.5	
Aroclor-1221	2	4.993	-0.002	1397991	249.4	2	5.392	-0.001	356039	254.6	
Aroclor-1221	3	5.099	-0.002	4508891	247.0	3	5.505	-0.001	1099970	250.2	
Aroclor-1221	NS	---			----	4	5.574	-0.002	192231	253.4	
Total Col1Ave (3 peaks):					249.4	Total Col2Ave (4 peaks):				253.4	RPD = 2
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				252.7	
Aroclor-1232	1	6.093	-0.001	458282	60.0	1	6.222	0.012	358740	103.2	
Aroclor-1232	2	6.498	0.001	1122858	47.0	2	6.841	0.000	321991	47.0	
Aroclor-1232	3	6.647	0.000	531736	51.1	3	7.051	0.000	148471	51.8	
Aroclor-1232	4	7.909	0.008	1596139	122.3	4	8.276	-0.001	52722	21.7	
Total Col1Ave (4 peaks):					70.1	Total Col2Ave (4 peaks):				55.9	RPD = 23
Corrected Ave (3 peaks):					52.7	Corrected Ave (3 peaks):				40.2	RPD = 27
Aroclor-1242	1	6.093	0.000	458282	31.4	1	6.222	0.014	358740	60.0	
Aroclor-1242	2	6.498	0.002	1122858	24.8	2	6.841	0.001	321991	25.3	
Aroclor-1242	3	6.647	0.000	531736	27.1	3	7.051	0.000	148471	28.1	
Aroclor-1242	4	7.909	0.010	1596139	69.4	4	8.276	0.000	52722	11.8	
Total Col1Ave (4 peaks):					38.2	Total Col2Ave (4 peaks):				31.3	RPD = 20
Corrected Ave (3 peaks):					27.8	Corrected Ave (3 peaks):				21.7	RPD = 25
Aroclor-1248	1	6.498	0.004	1122858	38.0	1	6.841	0.004	321991	38.7	
Aroclor-1248	2	7.472	-0.001	239812	7.7	2	7.748	0.002	114856	16.6	
Aroclor-1248	3	7.909	0.008	1596139	40.6	3	8.276	0.000	52722	7.4	
Aroclor-1248	4	8.141	0.005	340779	11.3	4	8.618	-0.005	92544	10.5	
Total Col1Ave (4 peaks):					24.4	Total Col2Ave (4 peaks):				18.3	RPD = 29
Corrected Ave (3 peaks):					19.0	Corrected Ave (3 peaks):				11.5	RPD = 49*
Aroclor-1254	1	8.223	0.001	1769407	44.2	1	8.340	0.000	354063	58.2	
Aroclor-1254	2	8.592	0.000	336843	12.8	2	8.515	0.000	417777	54.4	
Aroclor-1254	3	8.694	-0.034	2422617	47.4	3	9.037	0.000	87584	14.8	
Aroclor-1254	4	9.059	-0.019	8913969	159.2	4	9.228	0.040	1792258	138.4	
Aroclor-1254	5	9.389	-0.050	11938346	339.1	5	9.982	0.009	439675	56.4	
Total Col1Ave (5 peaks):					120.5	Total Col2Ave (5 peaks):				64.4	RPD = 61*
Corrected Ave (4 peaks):					65.9	Corrected Ave (4 peaks):				45.9	RPD = 36
Aroclor-1260	1	9.996	0.000	14330919	355.5	1	10.302	0.000	3293314	394.7	
Aroclor-1260	2	10.312	0.001	12161194	300.1	2	10.753	0.001	3223310	314.8	
Aroclor-1260	3	10.686	0.000	26854955	279.5	3	11.025	0.000	6078545	298.3	
Aroclor-1260	4	11.087	0.002	9854236	178.9	4	11.547	0.000	2921454	475.8	
Aroclor-1260	5	11.276	0.000	12713532	475.1	NS	---			----	
Total Col1Ave (5 peaks):					317.8	Total Col2Ave (4 peaks):				370.9	RPD = 15
Corrected Ave (4 peaks):					278.5	Corrected Ave (3 peaks):				335.9	RPD = 19
Aroclor-1262	1	9.996	0.000	14330919	237.9	1	10.302	0.000	3293314	241.6	
Aroclor-1262	2	10.312	0.000	12161194	265.9	2	10.753	0.000	3223310	266.2	
Aroclor-1262	3	10.686	-0.001	26854955	226.5	3	11.025	0.000	6078545	228.7	
Aroclor-1262	4	11.203	0.001	12181237	272.7	4	11.547	0.001	2921454	271.6	
Aroclor-1262	5	11.276	0.000	12713532	259.2	5	12.348	0.001	2484368	240.3	
Total Col1Ave (5 peaks):					252.5	Total Col2Ave (5 peaks):				249.7	RPD = 1
Corrected Ave (4 peaks):					247.4	Corrected Ave (4 peaks):				244.2	RPD = 1
Aroclor-1268	1	11.203	0.000	12181237	101.4	1	11.547	0.000	2921454	107.6	
Aroclor-1268	2	11.276	0.001	12713532	110.0	2	11.609	-0.004	4412348	167.1	

Aroclor-1268 3	11.675	0.015	5371544	52.9	3	12.011	0.000	200194	9.1
Aroclor-1268 4	12.448	-0.001	4545991	15.7	4	12.834	-0.001	878866	13.4

Total Col1Ave (4 peaks): 70.0 Total Col2Ave (4 peaks): 74.3 RPD = 6

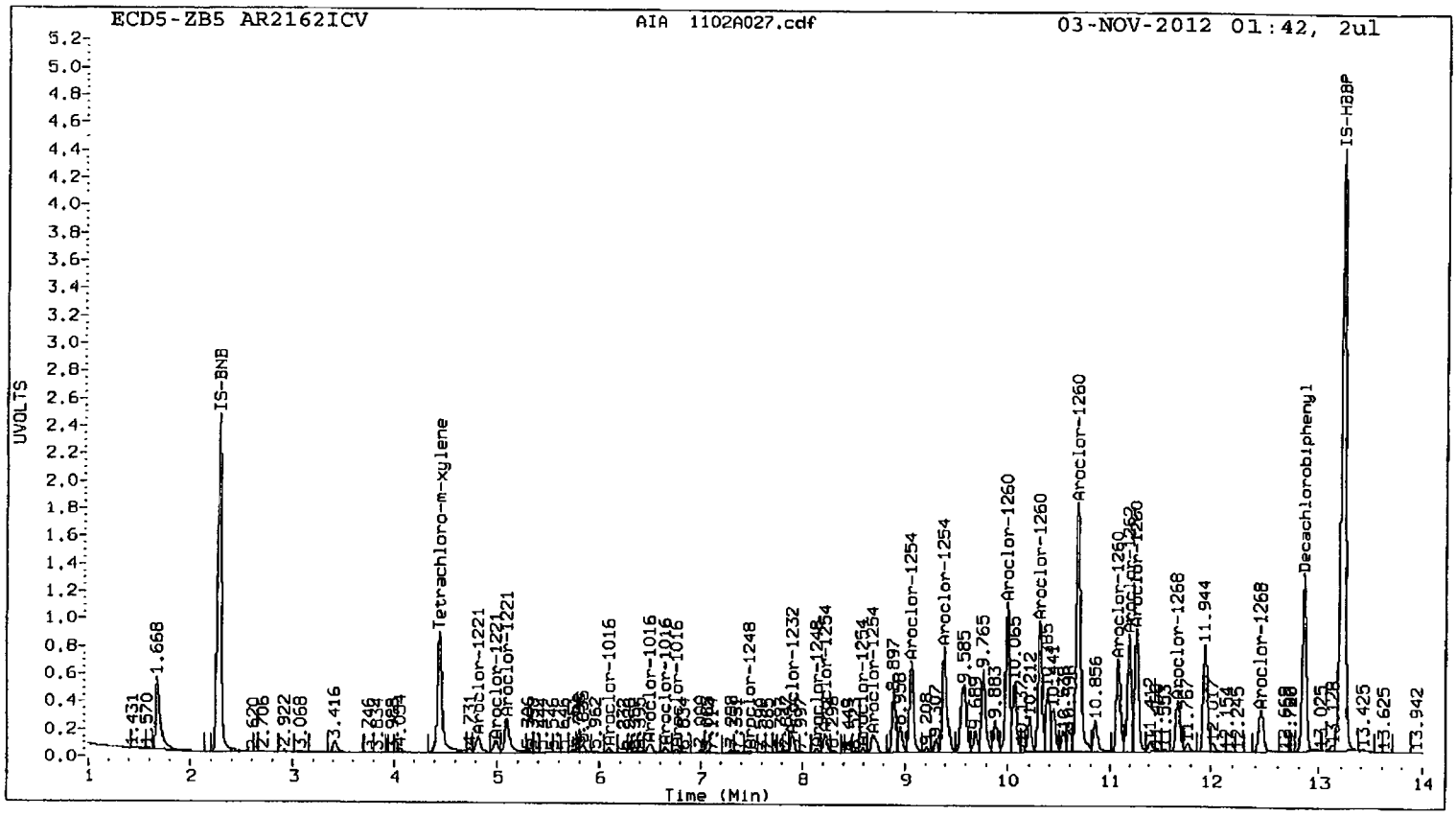
Corrected Ave (3 peaks): 56.6 Corrected Ave (3 peaks): 43.4 RPD = 27

Total PCB Area Col1 (4.544 - 12.755) = 215912408 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 48847228 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Aroclor-1016
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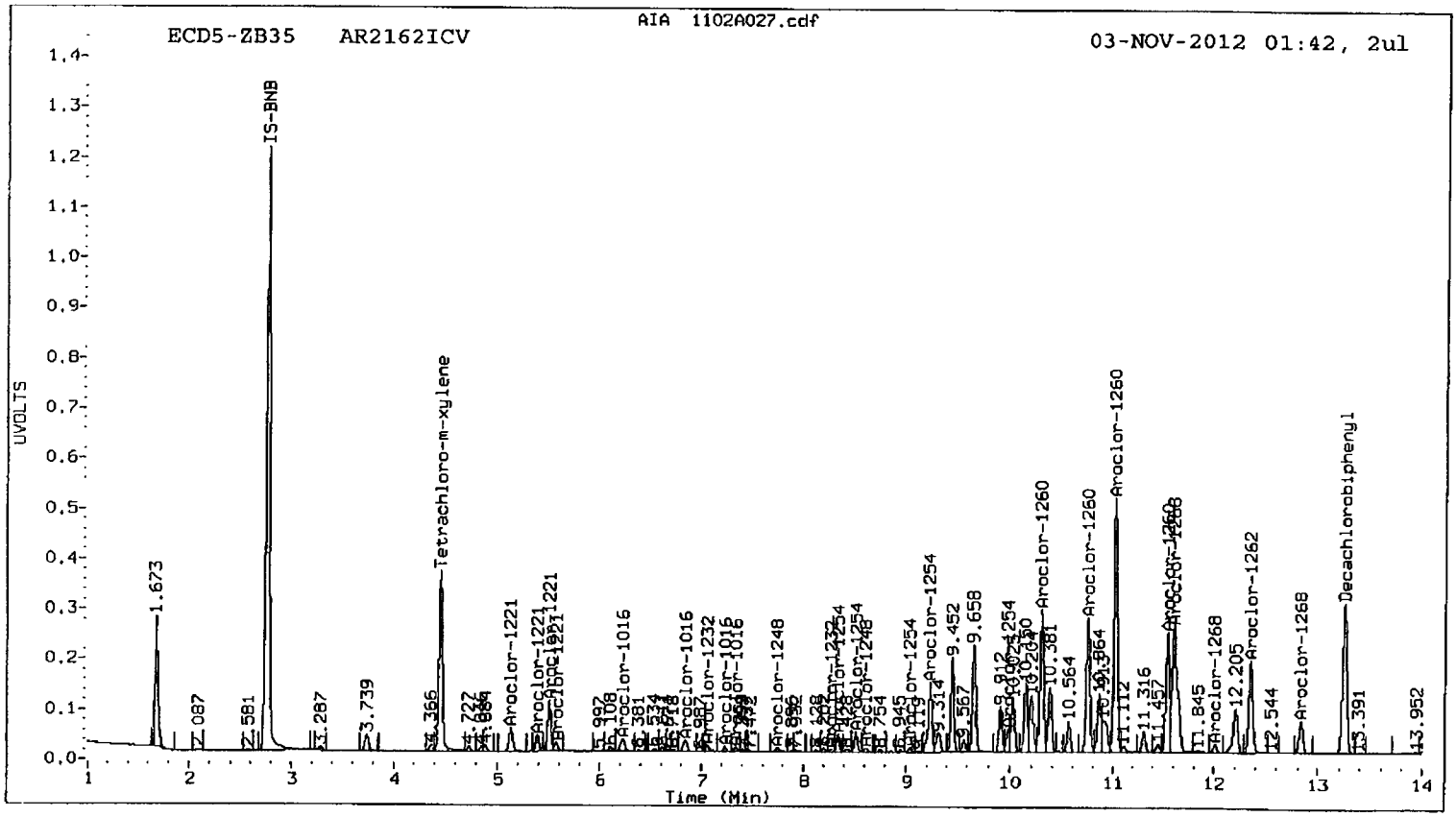
Decachlorobiphenyl
IS-HBB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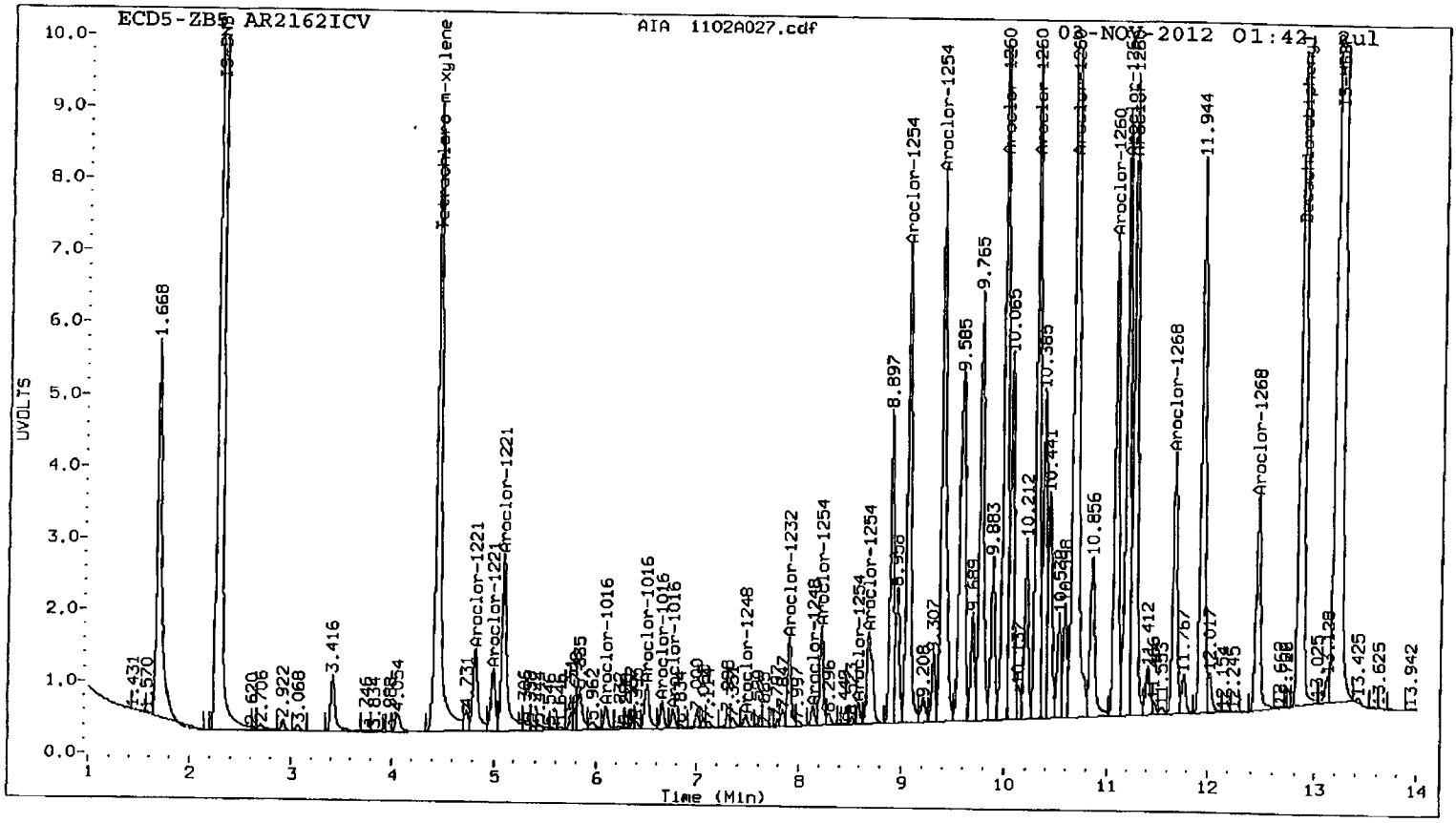
Decachlorobiphenyl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Time (Min)
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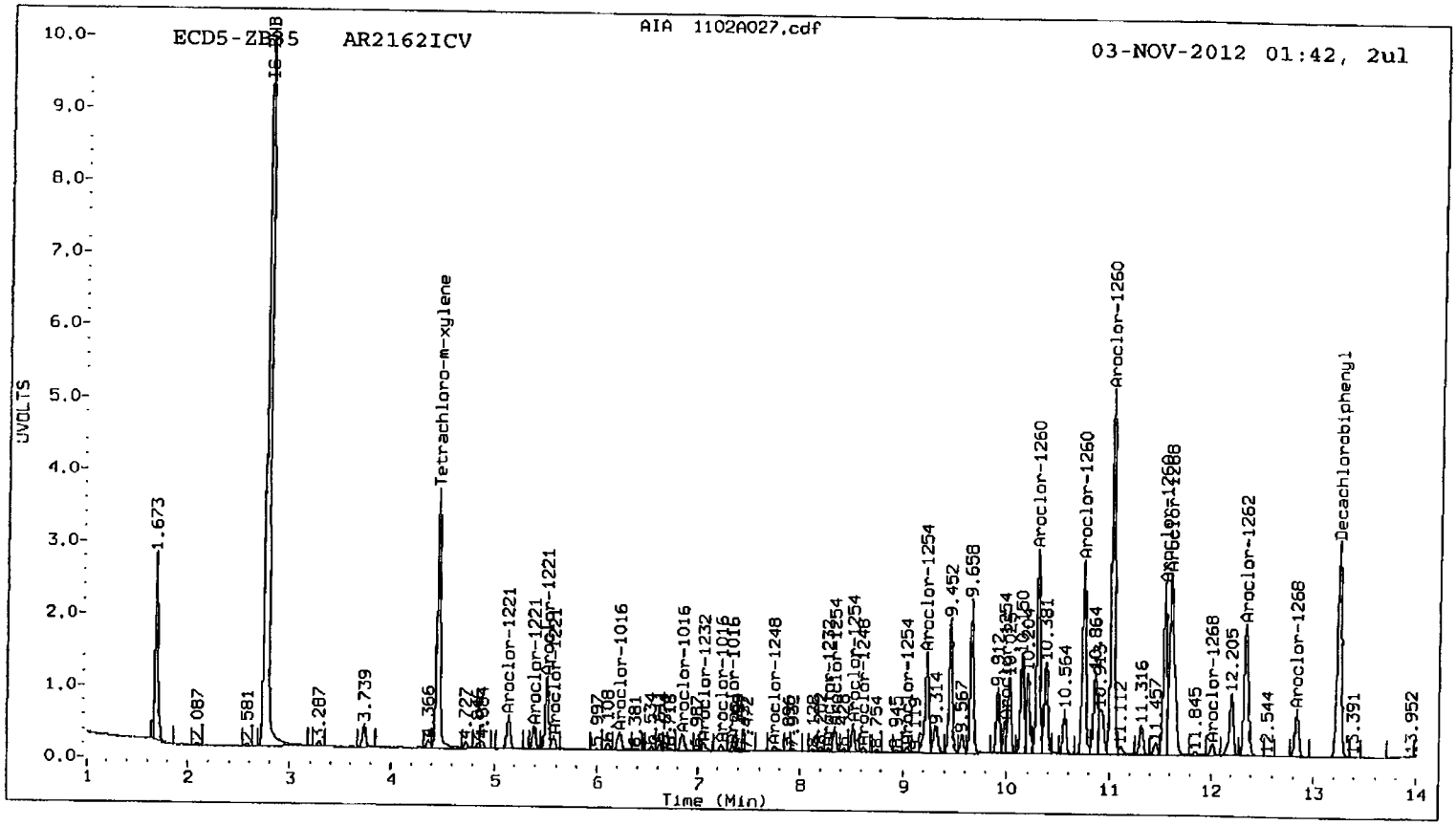
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl


ECD5-ZB5 AR2162ICV
AIA 1102A027.cdf
03-NOV-2012 01:42, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/ical-1.b/1102A028.d
Data file 2: 20121102.B/ical-2.b/1102A028.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268ICV
Client ID:
Injection Date: 03-NOV-2012 02:02
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.446	0.001	13904281	4.454	-0.001	4205751	19.9	21.2	6.0	Tetrachloro-m-xylene
12.856	0.001	30528333	13.247	-0.001	6547329	28.2	30.6	8.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.9	52.9
Decachlorobiphenyl	70.6	76.4

11/06/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33384825	6.8
Hexabromobiphenyl	64198300	69841459	8.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13930274	-4.2
Hexabromobiphenyl	15789428	15765289	-0.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.094	0.001	2054334	110.1	1	6.209	0.001	957858	122.8
Aroclor-1016	2	6.498	0.000	6321165	108.7	2	6.840	0.000	1845496	111.8
Aroclor-1016	3	6.647	0.000	2723371	108.5	3	7.226	0.002	500574	116.6
Aroclor-1016	4	6.758	0.001	1991425	110.9	4	7.335	0.001	489391	101.3
Total Col1Ave (4 peaks):					109.5	Total Col2Ave (4 peaks):				113.1 RPD = 3
Corrected Ave (3 peaks):					109.1	Corrected Ave (3 peaks):				109.9 RPD = 1
Aroclor-1221	1	4.815	-0.001	1292859	158.7	1	5.140	-0.001	371929	157.6
Aroclor-1221	2	4.993	-0.002	977058	175.1	2	5.392	0.000	231393	166.5
Aroclor-1221	3	5.099	-0.002	3344323	184.0	3	5.506	-0.001	854902	195.6
Aroclor-1221	NS	---			----	4	5.574	-0.001	108483	143.8
Total Col1Ave (3 peaks):					172.6	Total Col2Ave (4 peaks):				165.9 RPD = 4
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				156.0
Aroclor-1232	1	6.094	0.000	2054334	270.2	1	6.209	-0.001	957858	277.1
Aroclor-1232	2	6.498	0.001	6321165	265.9	2	6.840	0.000	1845496	270.9
Aroclor-1232	3	6.647	0.000	2723371	262.7	3	7.051	0.000	776617	272.7
Aroclor-1232	4	7.901	0.000	2857479	219.9	4	8.277	0.000	575763	238.1
Total Col1Ave (4 peaks):					254.7	Total Col2Ave (4 peaks):				264.7 RPD = 4
Corrected Ave (3 peaks):					249.5	Corrected Ave (3 peaks):				260.6 RPD = 4
Aroclor-1242	1	6.094	0.001	2054334	141.5	1	6.209	0.001	957858	161.0
Aroclor-1242	2	6.498	0.001	6321165	140.5	2	6.840	0.000	1845496	145.8
Aroclor-1242	3	6.647	0.000	2723371	139.4	3	7.051	0.000	776617	147.6
Aroclor-1242	4	7.901	0.002	2857479	124.7	4	8.277	0.001	575763	129.9
Total Col1Ave (4 peaks):					136.5	Total Col2Ave (4 peaks):				146.1 RPD = 7
Corrected Ave (3 peaks):					134.9	Corrected Ave (3 peaks):				141.1 RPD = 4
Aroclor-1248	1	6.498	0.004	6321165	214.9	1	6.840	0.004	1845496	223.2
Aroclor-1248	2	7.473	0.000	2615546	84.5	2	7.747	0.001	677062	98.7
Aroclor-1248	3	7.901	0.000	2857479	73.1	3	8.277	0.001	575763	81.3
Aroclor-1248	4	8.137	0.001	2383872	79.1	4	8.624	0.002	667512	76.1
Total Col1Ave (4 peaks):					112.9	Total Col2Ave (4 peaks):				119.8 RPD = 6
Corrected Ave (3 peaks):					78.9	Corrected Ave (3 peaks):				85.4 RPD = 8
Aroclor-1254	1	8.220	-0.002	960856	24.1	1	8.340	-0.001	134602	22.3
Aroclor-1254	2	8.593	0.001	542372	20.7	2	8.515	0.000	132432	17.3
Aroclor-1254	3	8.730	0.001	962901	18.9	3	9.037	0.000	120258	20.5
Aroclor-1254	4	9.080	0.002	821496	14.7	4	9.186	-0.001	256169	19.9
Aroclor-1254	5	9.444	0.005	552952	15.8	5	9.968	-0.004	121935	15.7
Total Col1Ave (5 peaks):					18.8	Total Col2Ave (5 peaks):				19.1 RPD = 2
Corrected Ave (4 peaks):					17.5	Corrected Ave (4 peaks):				18.4 RPD = 5
Aroclor-1260	1	9.997	0.001	7647756	188.1	1	10.302	0.001	1751670	208.1
Aroclor-1260	2	10.312	0.001	799540	19.6	2	10.754	0.002	2066946	200.1
Aroclor-1260	3	10.686	0.000	5412054	55.8	3	11.026	0.000	1186120	57.7
Aroclor-1260	4	11.087	0.003	203003	3.7	4	11.549	0.001	7041028	1136.9
Aroclor-1260	5	11.274	-0.001	32073531	1188.7	NS	---			----
Total Col1Ave (5 peaks):					291.2	Total Col2Ave (4 peaks):				400.7 RPD = 32
Corrected Ave (4 peaks):					66.8	Corrected Ave (3 peaks):				155.3 RPD = 80*
Aroclor-1262	1	9.997	0.000	7647756	125.9	1	10.302	0.001	1751670	127.4
Aroclor-1262	2	10.312	0.000	799540	17.3	2	10.754	0.001	2066946	169.2
Aroclor-1262	3	10.686	-0.001	5412054	45.3	3	11.026	0.001	1186120	44.2
Aroclor-1262	4	11.204	0.002	30679792	681.2	4	11.549	0.002	7041028	649.0
Aroclor-1262	5	11.274	-0.001	32073531	648.6	5	12.347	0.000	2757403	264.5
Total Col1Ave (5 peaks):					303.7	Total Col2Ave (5 peaks):				250.9 RPD = 19
Corrected Ave (4 peaks):					209.3	Corrected Ave (4 peaks):				151.3 RPD = 32
Aroclor-1268	1	11.204	0.001	30679792	253.2	1	11.549	0.001	7041028	257.1
Aroclor-1268	2	11.274	0.000	32073531	275.2	2	11.615	0.002	7521051	282.4

Aroclor-1268	3	11.660	-0.001	23560684	230.1	3	12.012	0.001	5142436	231.0
Aroclor-1268	4	12.448	0.000	63546069	217.1	4	12.834	0.000	14474338	219.3

Total Col1Ave (4 peaks): 243.9 Total Col2Ave (4 peaks): 247.5 RPD = 1

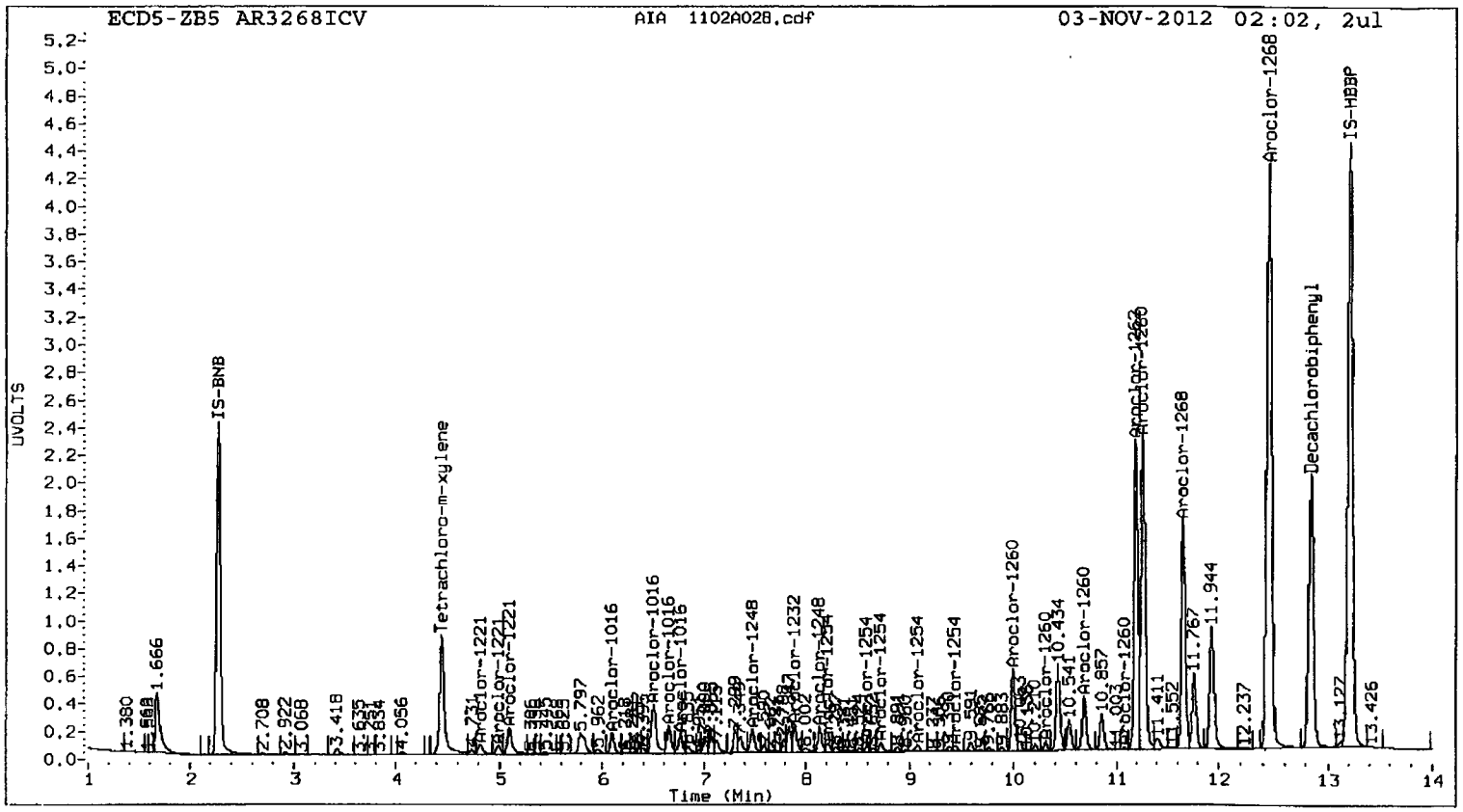
Corrected Ave (3 peaks): 233.5 Corrected Ave (3 peaks): 235.8 RPD = 1

Total PCB Area Col1 (4.544 - 12.755) = 257662349 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 59852858 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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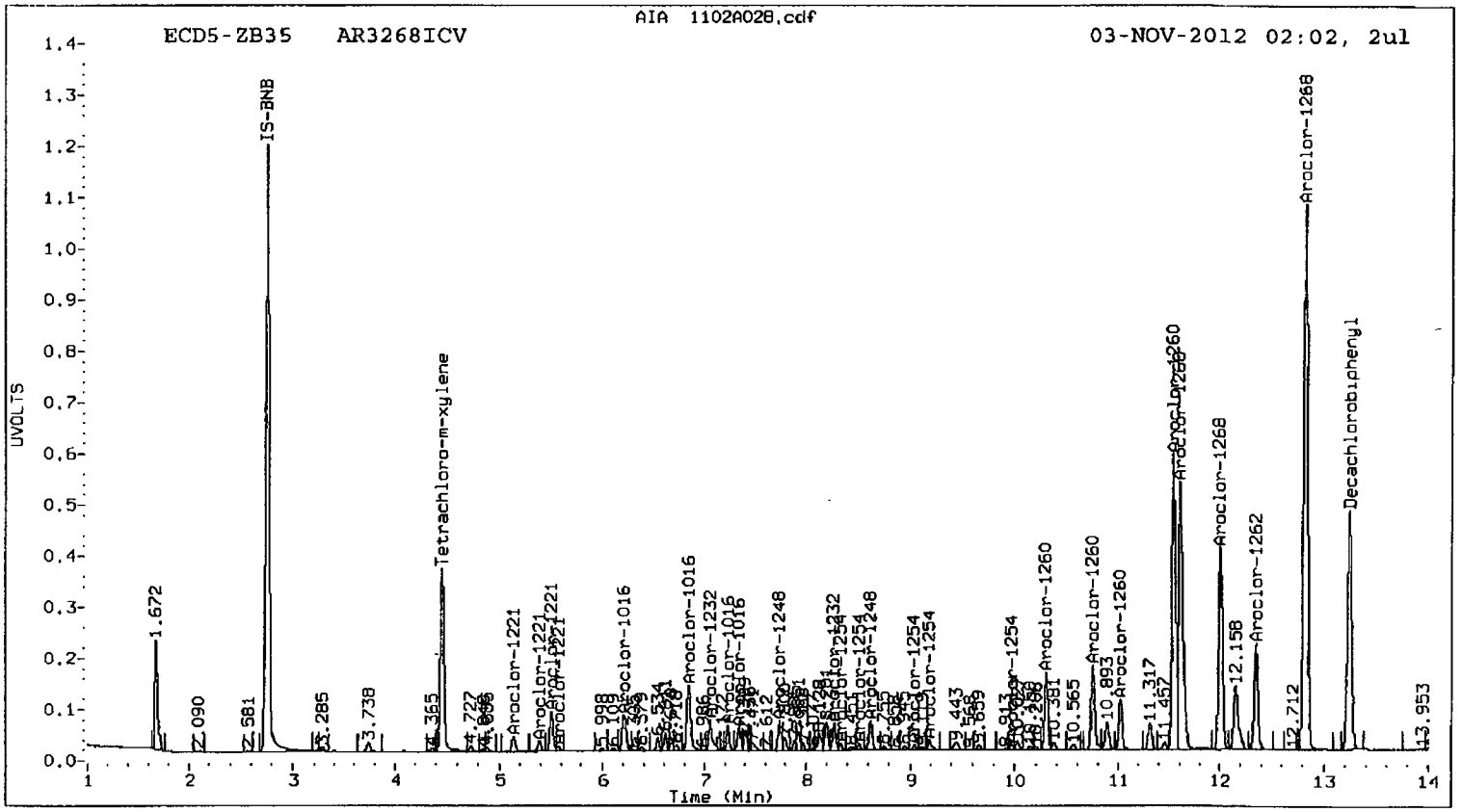
03-NOV-2012 02:02, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1268
IS-HBBP
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1254
Aroclor-1232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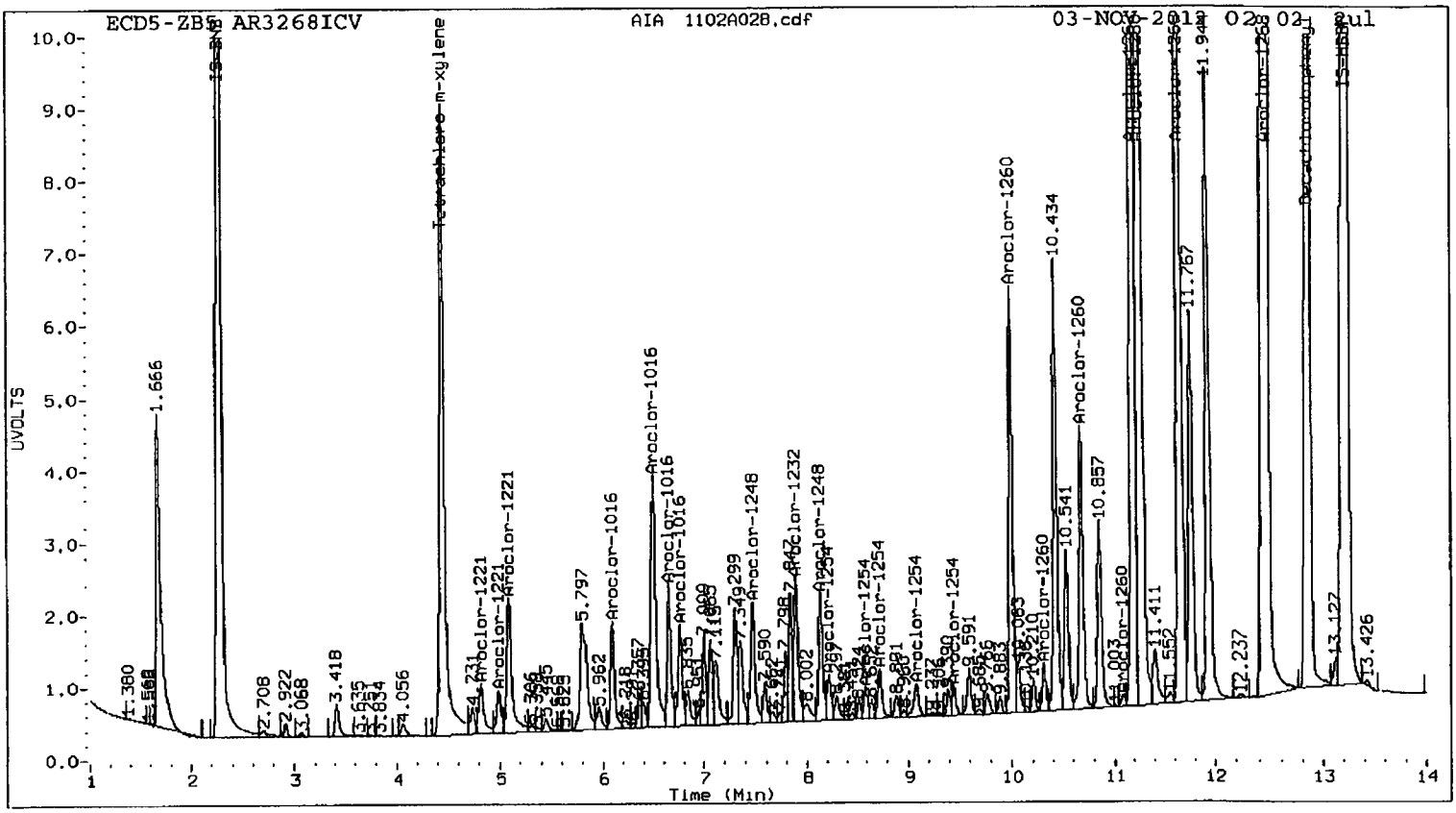
03-NOV-2012 02:02, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1268
Decachlorobiphenyl
Aroclor-1262
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1254
Aroclor-1232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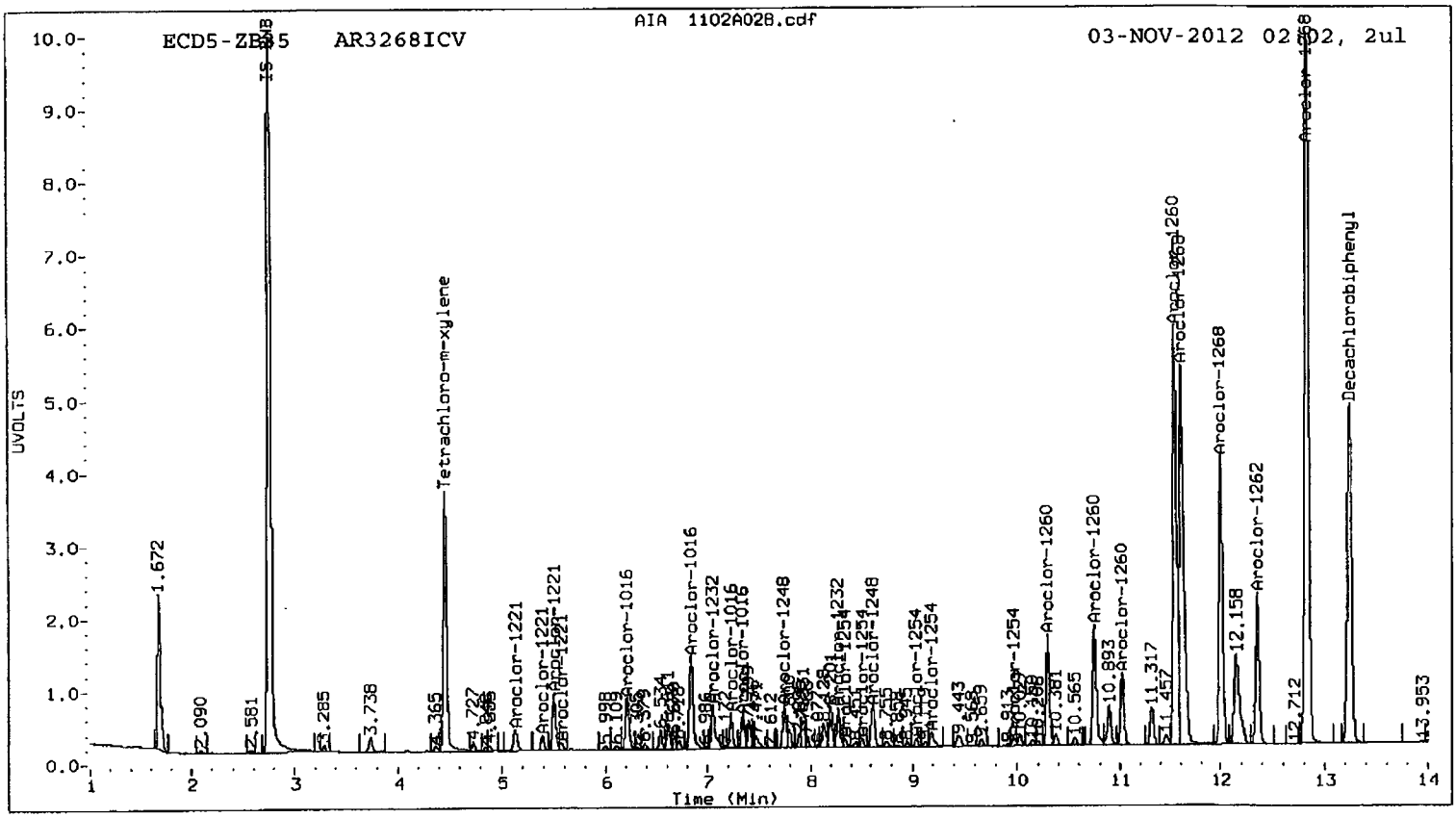
03-NOV-2012 02:02, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl


ECD5-ZB5 AR3268ICV
AIA 1102A028.cdf
03-NOV-2012 02:02, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20121102.B/ddt-1.b/1102A029.d ARI ID: DDT

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
8.188	0.000	47799168	8.604	0.000	13319692	0.100	0.100	0.0	2,4-DDE
8.737	0.000	44666420	9.290	0.000	12421033	0.100	0.100	0.0	2,4-DDD
0.000	-9.261	0	9.753	0.000	32207927	0.000	0.200#	----	2,4-DDT
8.620	0.000	75089060	8.992	0.000	21334050	0.100	0.100	0.0	4,4-DDE
9.242	0.000	50085729	9.753	0.000	32207927	0.100	0.200#	66.7*	4,4-DDD
9.704	0.000	64721324	10.192	0.000	19909045	0.100	0.100	0.0	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

11/06/12

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20121102.B/ddt-1.b/1102A030.d ARI ID: BD

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
8.187	-0.001	122278	8.604	0.000	32884	0.000	0.000	2.2	2,4-DDE
8.736	-0.001	121477	9.290	0.000	25803	0.000	0.000	25.4	2,4-DDD
0.000	-9.261	0	9.763	0.010	572430	0.000	0.004#	----	2,4-DDT
8.622	0.002	398935	8.993	0.001	85279	0.001	0.000	26.9	4,4-DDE
9.201	-0.040	2331803	9.763	0.010	572430	0.005	0.004#	25.5	4,4-DDD
9.705	0.000	62005592	10.192	0.000	18898672	0.101	0.102	0.4	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

PCB Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: VR38 Client ID: City of Kenmore

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCB's TCMX DCB

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 11/02/12 11/14/12 Analysis Start: 11/19/12

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	LCS/LCSD Recovery In Control?	YES / NO
CCal Meets RF & %RSD Criteria?	YES / NO	Surrogate Recovery In Control?	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Special Analysis Criteria Met?	YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 11/24/12

Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Organics Instrument Log

ECD-5 Serial No.: US00034118

Date: 11/17/12 Analysis: PCB's Analyst: JR

Column 1 Serial No.: 196398 Column Type: ZB5

Column 2 Serial No.: 182259 Column Type: ZB35

GC Method: PCB2 ICal Date: 11/01/12 Injection Volume: 2µL

IS	Ical/Ccal	ICV
2006-1	1980-1,2,3,4,5,6	2089-2,3,4,5,6,7

Document All Maintenance Tasks In StarLIMS

/chem2/ecd5.i/2012

	Inject Date/Time	Filename	DF	LabID
1	17-NOV-2012 13:49	1117A001.d	1	RINSE
2	17-NOV-2012 14:10	1117A002.d	1	DDT
3	17-NOV-2012 14:30	1117A003.d	1	DDTBD
4	17-NOV-2012 14:50	1117A004.d	1	AR1254
5	17-NOV-2012 15:10	1117A005.d	1	AR1660
6	17-NOV-2012 15:31	1117A006.d	10	VR89B
7	17-NOV-2012 15:51	1117A007.d	1	VR88MBW1
8	17-NOV-2012 16:11	1117A008.d	1	VR88LCSW1
9	17-NOV-2012 16:31	1117A009.d	1	VR88LCSDW1
10	17-NOV-2012 16:51	1117A010.d	1	VR88A
11	17-NOV-2012 17:10	1117A011.d	1	VR88B
12	17-NOV-2012 17:31	1117A012.d	1	VR88C
13	17-NOV-2012 17:51	1117A013.d	1	VR88D
14	17-NOV-2012 18:11	1117A014.d	1	VR88E
15	17-NOV-2012 18:31	1117A015.d	1	AR1248
16	17-NOV-2012 18:52	1117A016.d	1	AR1660
17	17-NOV-2012 19:12	1117A017.d	1	VS14A
18	17-NOV-2012 19:32	1117A018.d	1	VS14B
19	17-NOV-2012 19:53	1117A019.d	1	VS14C
20	17-NOV-2012 20:13	1117A020.d	1	VS14D
21	17-NOV-2012 20:33	1117A021.d	1	VS14E
22	17-NOV-2012 20:53	1117A022.d	1	AR1242
23	17-NOV-2012 21:14	1117A023.d	1	AR1660

11/21/12

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 StarLIMS

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A002.d
Data file 2: 20121102.B/1119-2.b/1119A002.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 19-NOV-2012 12:58
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.003	12376439	4.455	-0.001	3797438	19.7	20.5	4.1	Tetrachloro-m-xylen
12.858	0.003	19145763	13.247	0.000	3831403	19.9	19.9	0.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.2	51.3
Decachlorobiphenyl	49.7	49.8

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	30109331	-3.6
Hexabromobiphenyl	64198300	63917728	-0.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	12989496	-10.6
Hexabromobiphenyl	15789428	14161604	-10.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.224	0.002	9191950	255.7	1	8.339	-0.002	1438277	255.0
Aroclor-1254	2	8.596	0.002	5469377	231.4	2	8.513	-0.002	1799790	252.6
Aroclor-1254	3	8.731	0.002	11781503	256.5	3	9.035	-0.002	1450346	265.0
Aroclor-1254	4	9.081	0.002	13059543	259.8	4	9.186	-0.001	2967345	247.2
Aroclor-1254	5	9.440	0.001	8222415	260.1	5	9.968	-0.002	1820417	251.7

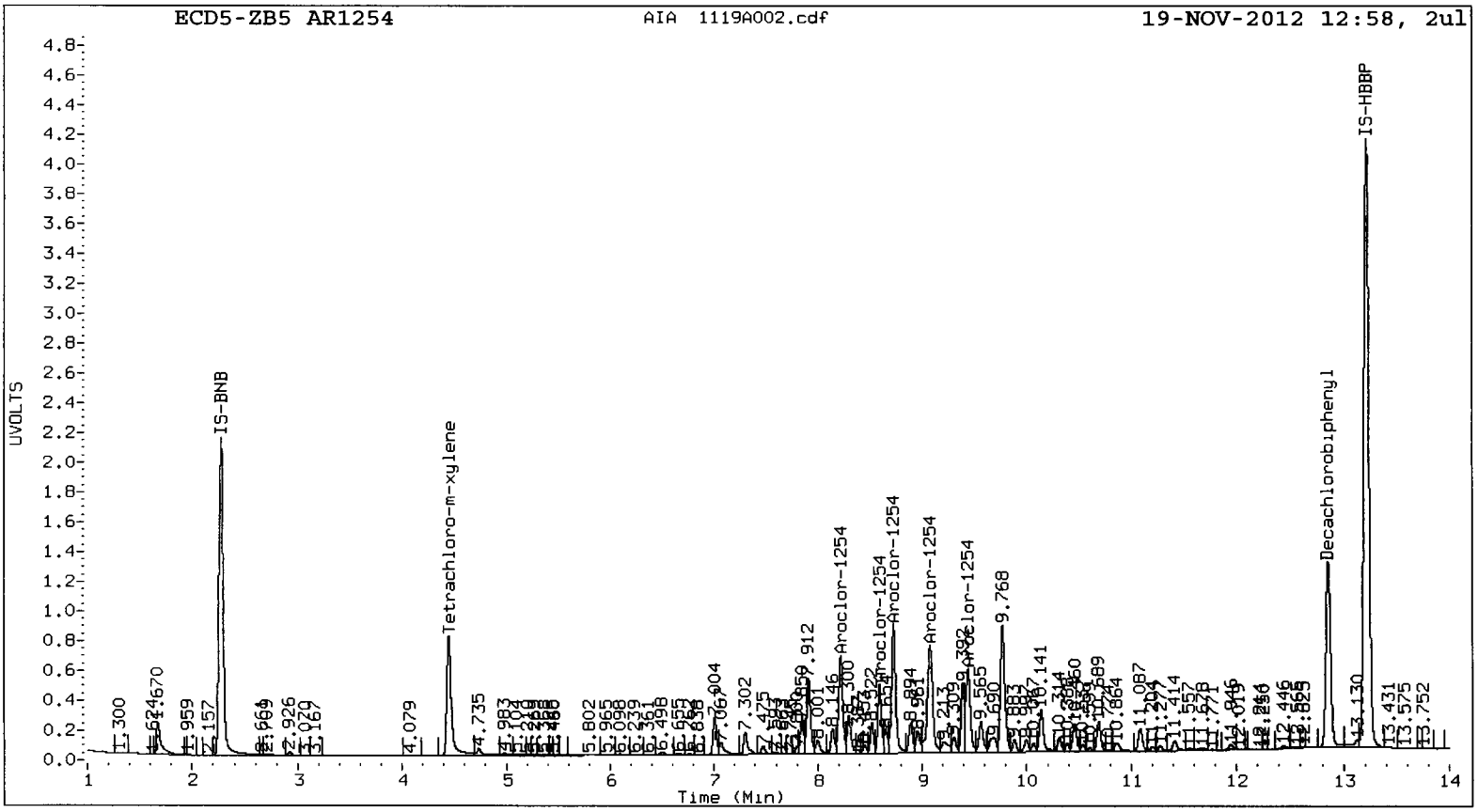
Total Col1Ave (5 peaks): 252.7 Total Col2Ave (5 peaks): 254.3 RPD = 1

Corrected Ave (4 peaks): 250.8 Corrected Ave (4 peaks): 251.6 RPD = 0

Total PCB Area Col1 (4.547 - 12.755) = 131803274 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 30003420 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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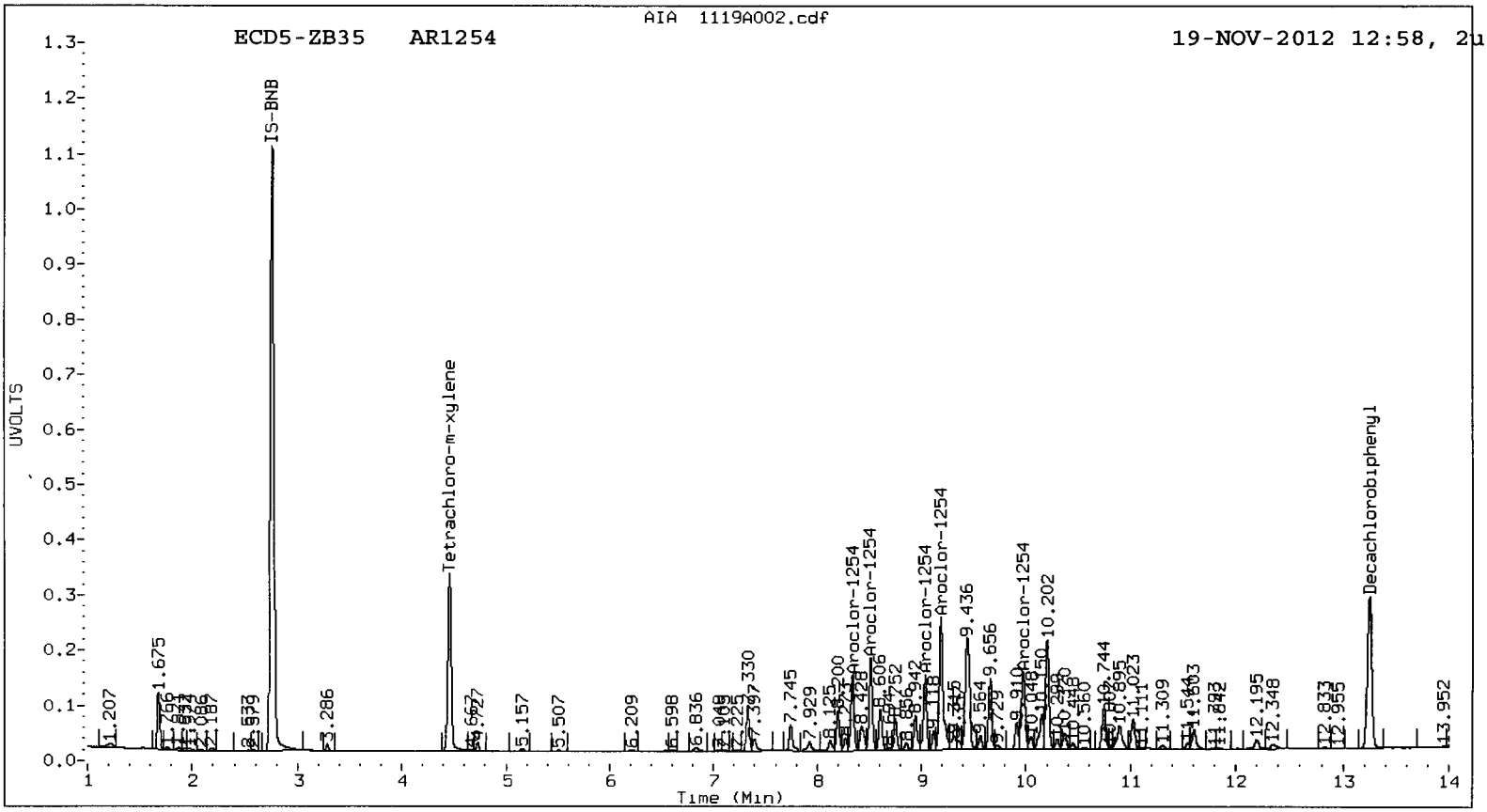
AIA 1119A002.cdf
19-NOV-2012 12:58, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 AR1254
19-NOV-2012 12:58, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A003.d
Data file 2: 20121102.B/1119-2.b/1119A003.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 19-NOV-2012 13:18
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.447	0.000	11086403	4.455	-0.001	3193735	19.7	19.4	1.2	Tetrachloro-m-xylen
12.855	0.000	17263340	13.246	-0.002	3495080	19.5	20.0	2.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.1	48.5
Decachlorobiphenyl	48.7	50.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	27014336	-13.5
Hexabromobiphenyl	64198300	58829704	-8.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	11539858	-20.6
Hexabromobiphenyl	15789428	12840515	-18.7

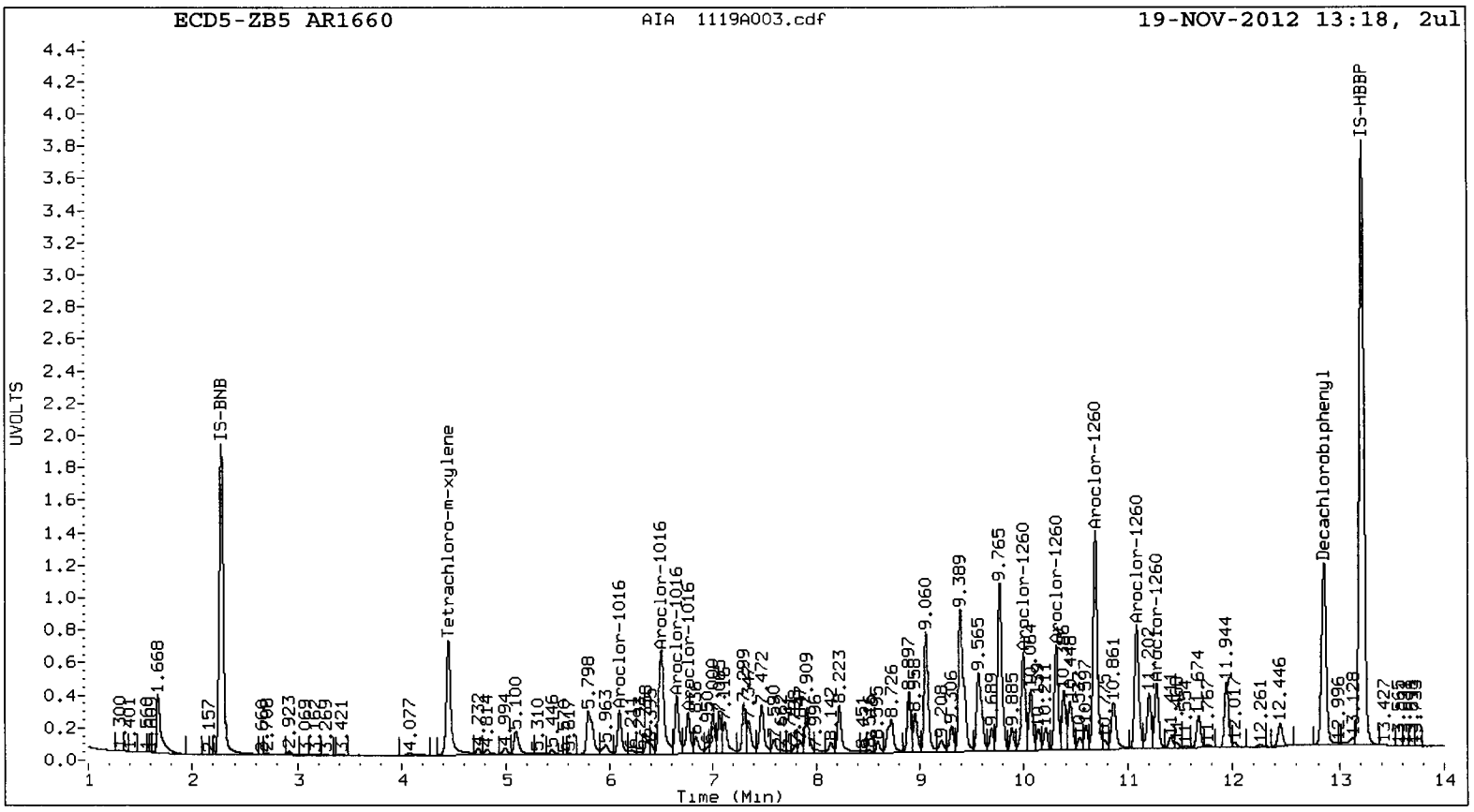
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.095	0.000	3726879	246.8	1	6.208	-0.002	1555409	240.6
Aroclor-1016	2	6.499	0.000	11660957	247.7	2	6.839	-0.002	3313614	242.3
Aroclor-1016	3	6.648	-0.001	4963639	244.4	3	7.224	-0.003	877457	246.6
Aroclor-1016	4	6.759	0.000	3634383	250.2	4	7.333	-0.002	963644	240.8
Total Col1Ave (4 peaks):				247.3		Total Col2Ave (4 peaks):			242.6	RPD = 2
Corrected Ave (3 peaks):				246.3		Corrected Ave (3 peaks):			241.2	RPD = 2
Aroclor-1260	1	9.996	0.000	8054575	235.6	1	10.299	-0.002	1671195	243.8
Aroclor-1260	2	10.312	0.000	8202051	238.6	2	10.749	-0.002	2077373	246.9
Aroclor-1260	3	10.686	0.000	19260557	236.4	3	11.023	-0.002	4143430	247.5
Aroclor-1260	4	11.084	0.000	11021303	236.0	4	11.545	-0.001	1247331	247.3
Aroclor-1260	5	11.276	0.000	5556079	244.9	NS	---			----
Total Col1Ave (5 peaks):				238.3		Total Col2Ave (4 peaks):			246.4	RPD = 3
Corrected Ave (4 peaks):				236.6		Corrected Ave (3 peaks):			246.0	RPD = 4

Total PCB Area Col1 (4.547 - 12.755) = 238438685 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 52644135 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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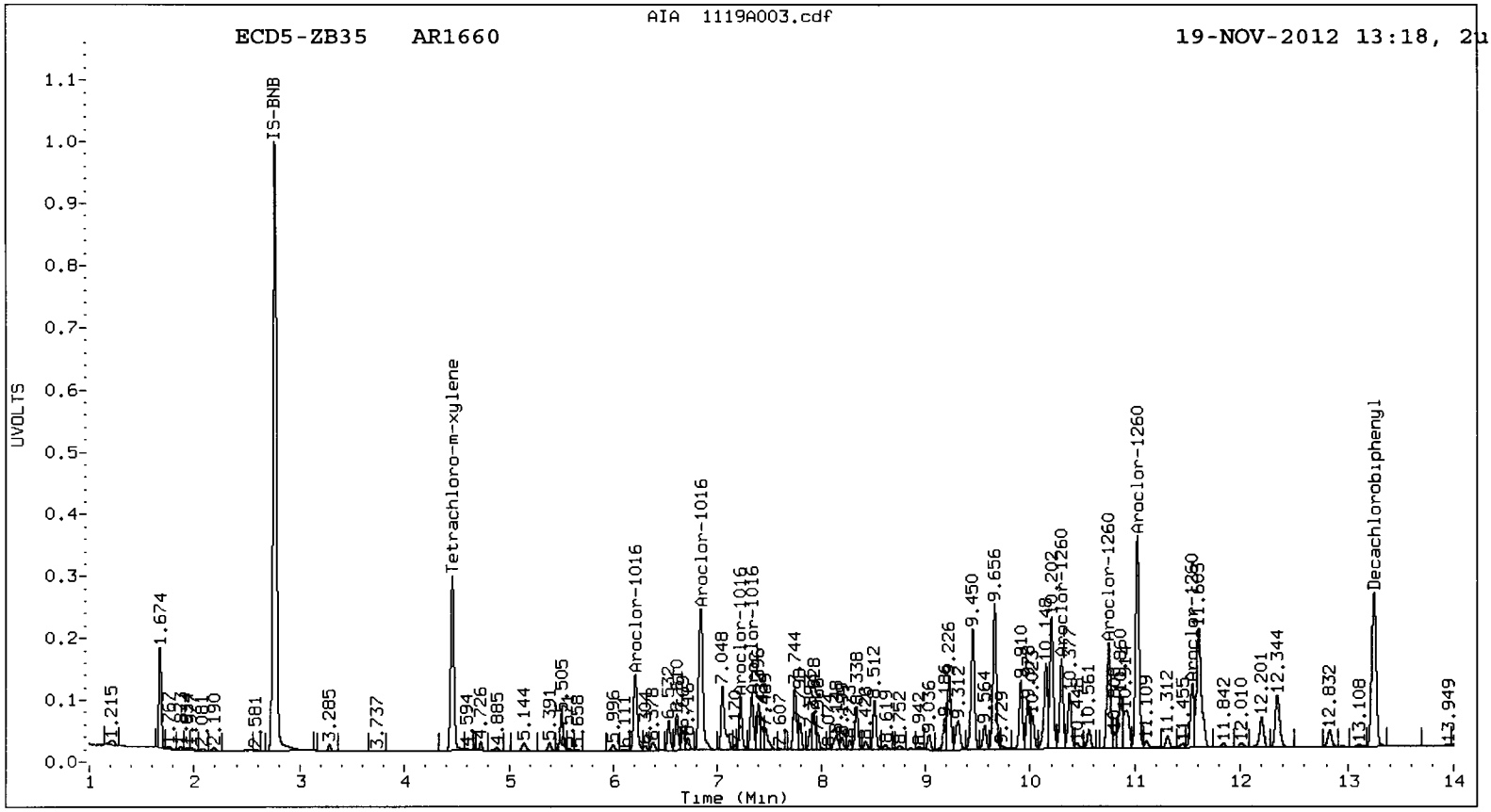
19-NOV-2012 13:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 AR1660
19-NOV-2012 13:18, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A004.d
Data file 2: 20121102.B/1119-2.b/1119A004.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38MBS1
Client ID: VR38MBS1
Injection Date: 19-NOV-2012 13:38
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.448	0.001	22070757	4.456	0.000	6796278	33.1	33.7	1.8	Tetrachloro-m-xylen
12.855	0.000	34511524	13.246	-0.001	7387227	32.5	34.5	5.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	82.8	84.3
Decachlorobiphenyl	81.3	86.2

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	31906289	2.1
Hexabromobiphenyl	64198300	70444174	9.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14139327	-2.7
Hexabromobiphenyl	15789428	15758348	-0.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

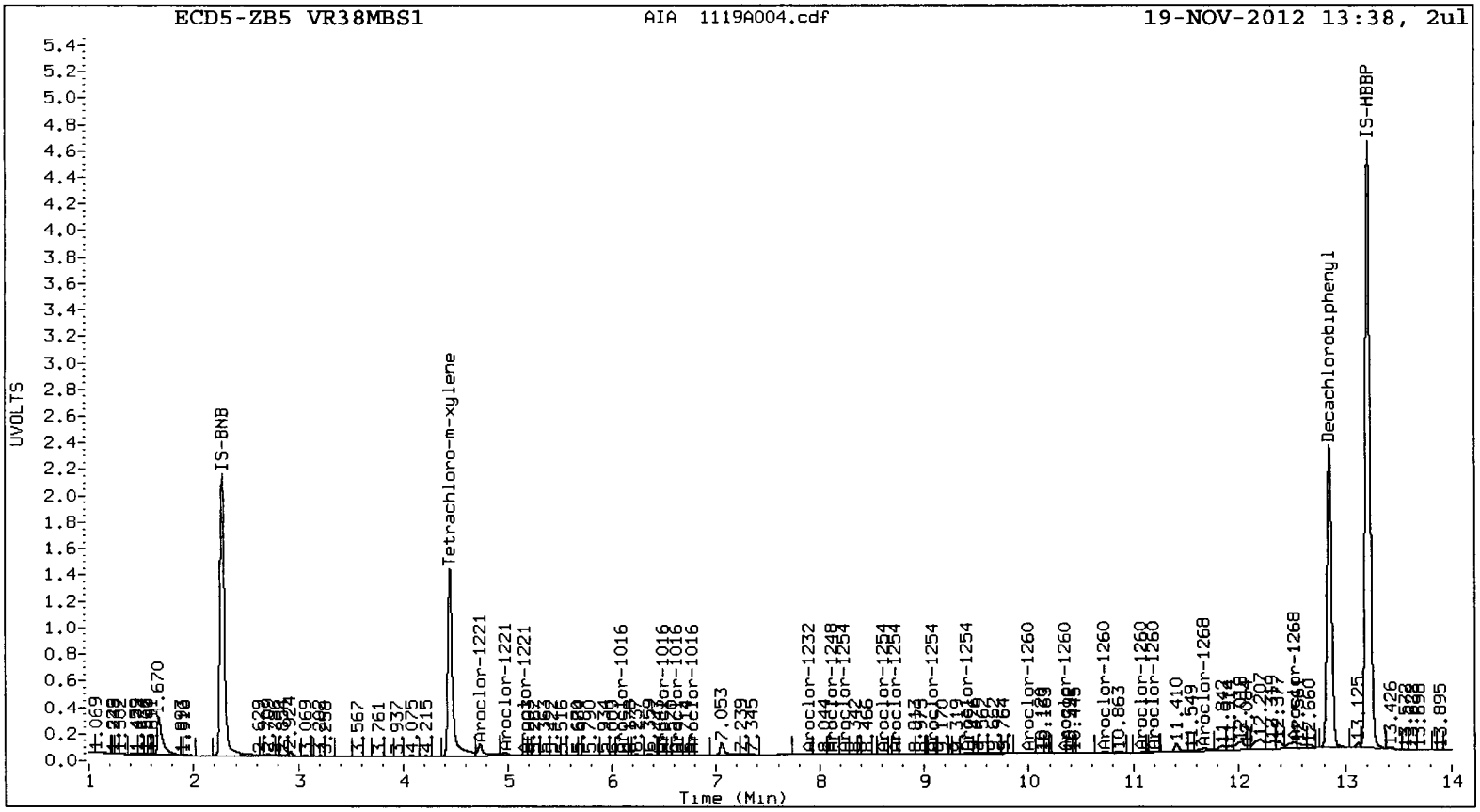
Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1016	1	6.096	0.002	49743	2.8	1	---			0.0
Aroclor-1016	2	6.488	-0.011	32339	0.6	2	---			0.0
Aroclor-1016	3	6.626	-0.023	20748	0.9	3	---			0.0
Aroclor-1016	4	6.768	0.009	16228	0.9	4	---			0.0
Total Col1Ave (4 peaks):					1.3	Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	4.733	-0.084	1828441	234.8	1	5.160	0.019	117455	49.0
Aroclor-1221	2	4.978	-0.017	669928	125.6	2	5.416	0.023	12111	8.6
Aroclor-1221	3	5.171	0.070	70323	4.0	3	5.512	0.006	24466	5.5
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):					121.5	Total Col2Ave (3 peaks):			21.0	RPD = 141*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.096	0.003	49743	6.8	1	---			0.0
Aroclor-1232	2	6.488	-0.009	32339	1.4	2	---			0.0
Aroclor-1232	3	6.626	-0.022	20748	2.1	3	---			0.0
Aroclor-1232	4	7.896	-0.004	20112	1.6	4	---			0.0
Total Col1Ave (4 peaks):					3.0	Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	6.096	0.002	49743	3.6	1	---			0.0
Aroclor-1242	2	6.488	-0.010	32339	0.8	2	---			0.0
Aroclor-1242	3	6.626	-0.022	20748	1.1	3	---			0.0
Aroclor-1242	4	7.896	-0.003	20112	0.9	4	---			0.0
Total Col1Ave (4 peaks):					1.6	Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	6.488	-0.004	32339	1.2	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	7.896	-0.002	20112	0.5	3	---			0.0
Aroclor-1248	4	8.115	-0.019	87092	3.0	4	---			0.0
Total Col1Ave (3 peaks):					1.6	Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	8.238	0.016	31180	0.8	1	---			0.0
Aroclor-1254	2	8.614	0.020	22599	0.9	2	---			0.0
Aroclor-1254	3	8.735	0.006	16924	0.3	3	---			0.0
Aroclor-1254	4	9.076	-0.002	46042	0.9	4	---			0.0
Aroclor-1254	5	9.411	-0.027	57277	1.7	5	---			0.0
Total Col1Ave (5 peaks):					0.9	Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	9.998	0.002	57220	1.4	1	---			0.0
Aroclor-1260	2	10.349	0.037	30590	0.7	2	10.808	0.058	15345	1.5
Aroclor-1260	3	10.723	0.037	144225	1.5	3	---			0.0
Aroclor-1260	4	11.076	-0.009	23084	0.4	4	11.565	0.020	16121	2.6
Aroclor-1260	5	11.188	-0.088	22496	0.8	NS	---			----
Total Col1Ave (5 peaks):					1.0	Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	9.998	0.002	57220	0.9	1	---			0.0
Aroclor-1262	2	10.349	0.036	30590	0.7	2	10.808	0.056	15345	1.3
Aroclor-1262	3	10.723	0.037	144225	1.2	3	---			0.0
Aroclor-1262	4	11.188	-0.015	22496	0.5	4	11.565	0.019	16121	1.5
Aroclor-1262	5	---			0.0	5	12.372	0.025	100520	9.6
Total Col1Ave (4 peaks):					0.8	Total Col2Ave (3 peaks):			4.1	RPD = 134*
Corrected Ave (3 peaks):					0.7	Corrected Ave: < 3 Peaks				
Aroclor-1268	1	11.188	-0.015	22496	0.2	1	11.565	0.018	16121	0.6
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.673	0.012	669746	6.5	3	12.035	0.024	128803	5.8
Aroclor-1268	4	12.519	0.070	1297468	4.4	4	---			0.0
Total Col1Ave (3 peaks):					3.7	Col2Ave: <3 Quant Peaks				

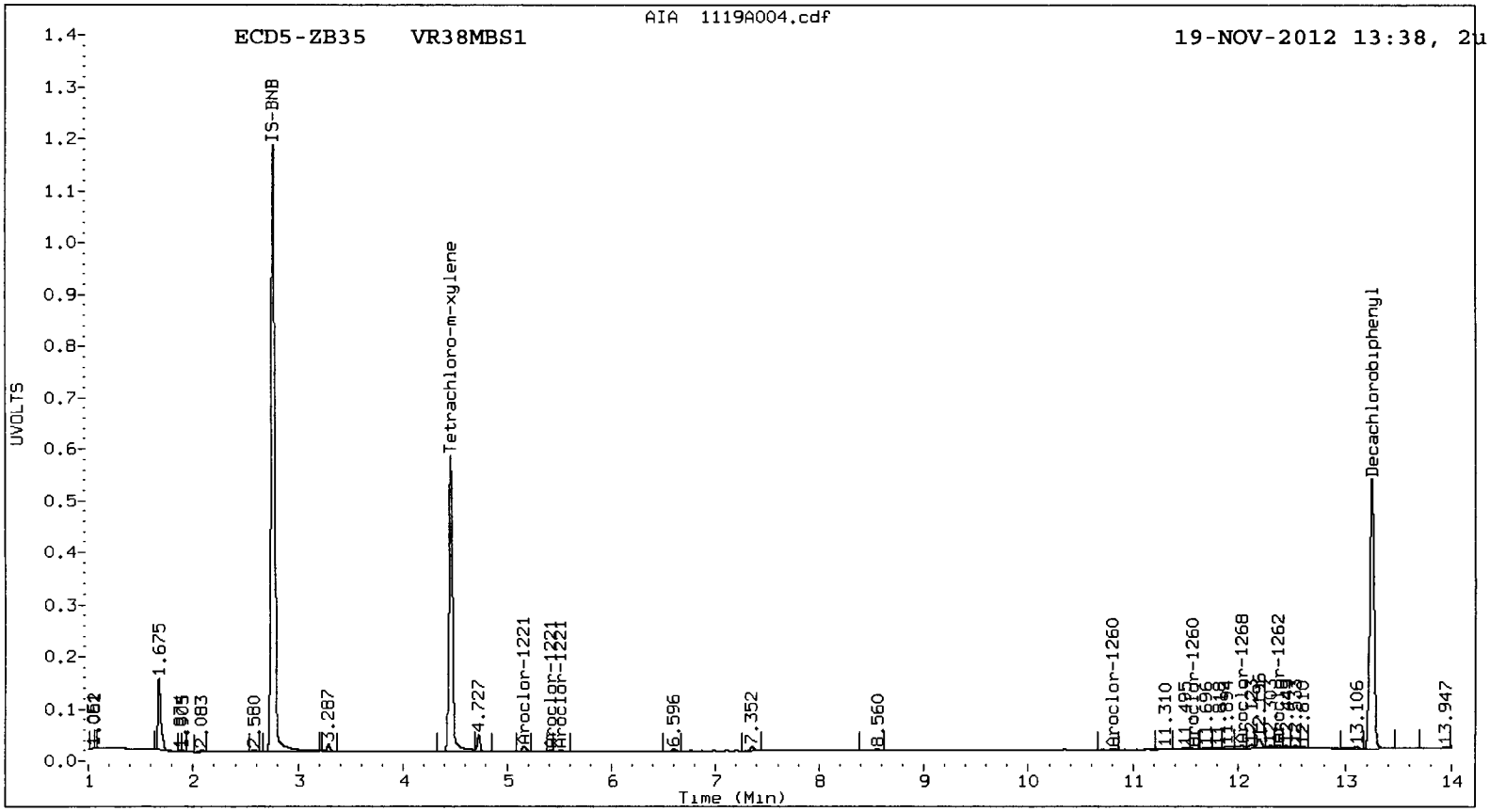
Total PCB Area Col1 (4.547 - 12.755) = 18902198 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 1901731 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 VR38MBS1
AIA 1119A004.cdf
19-NOV-2012 13:38, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 VR38MBS1
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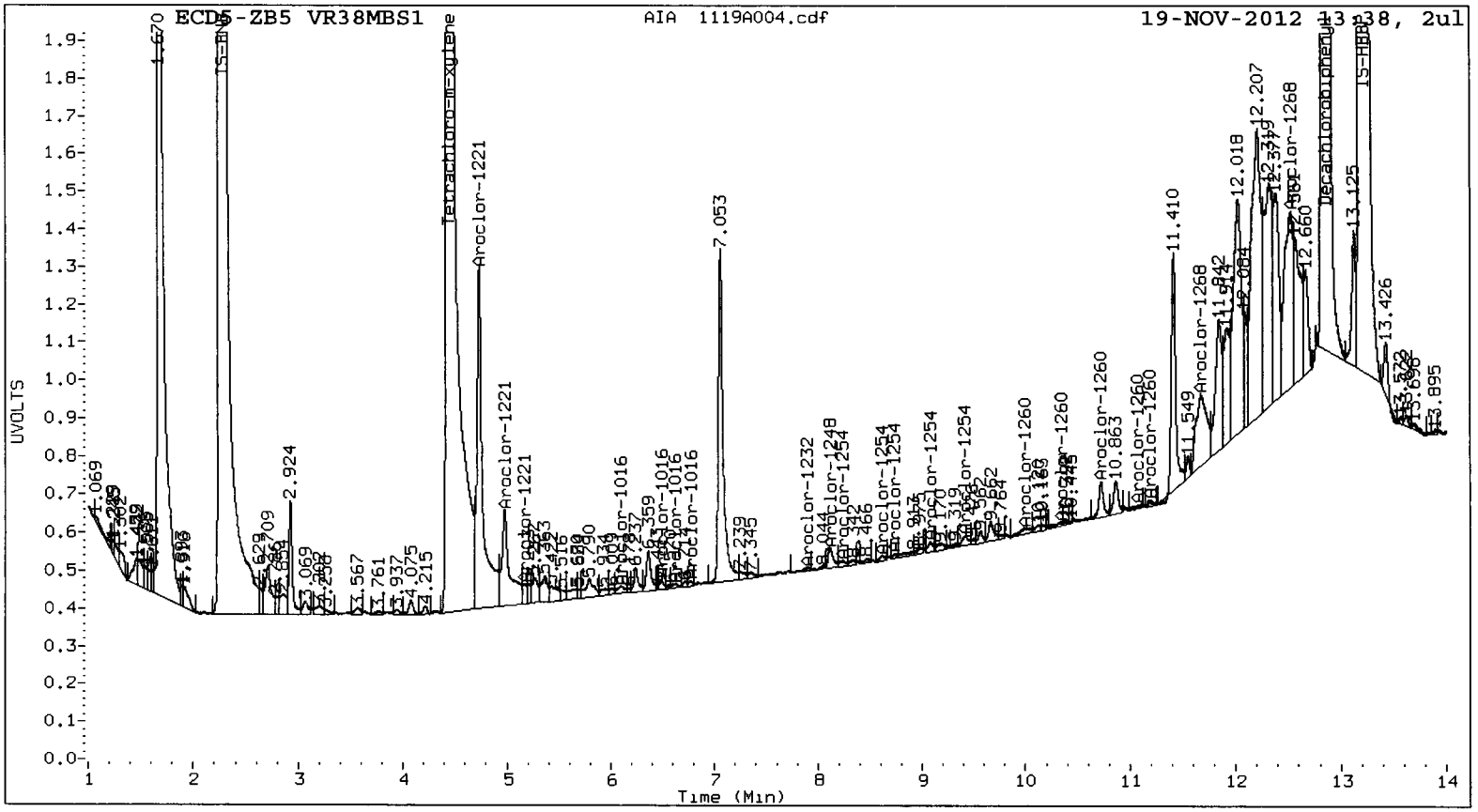
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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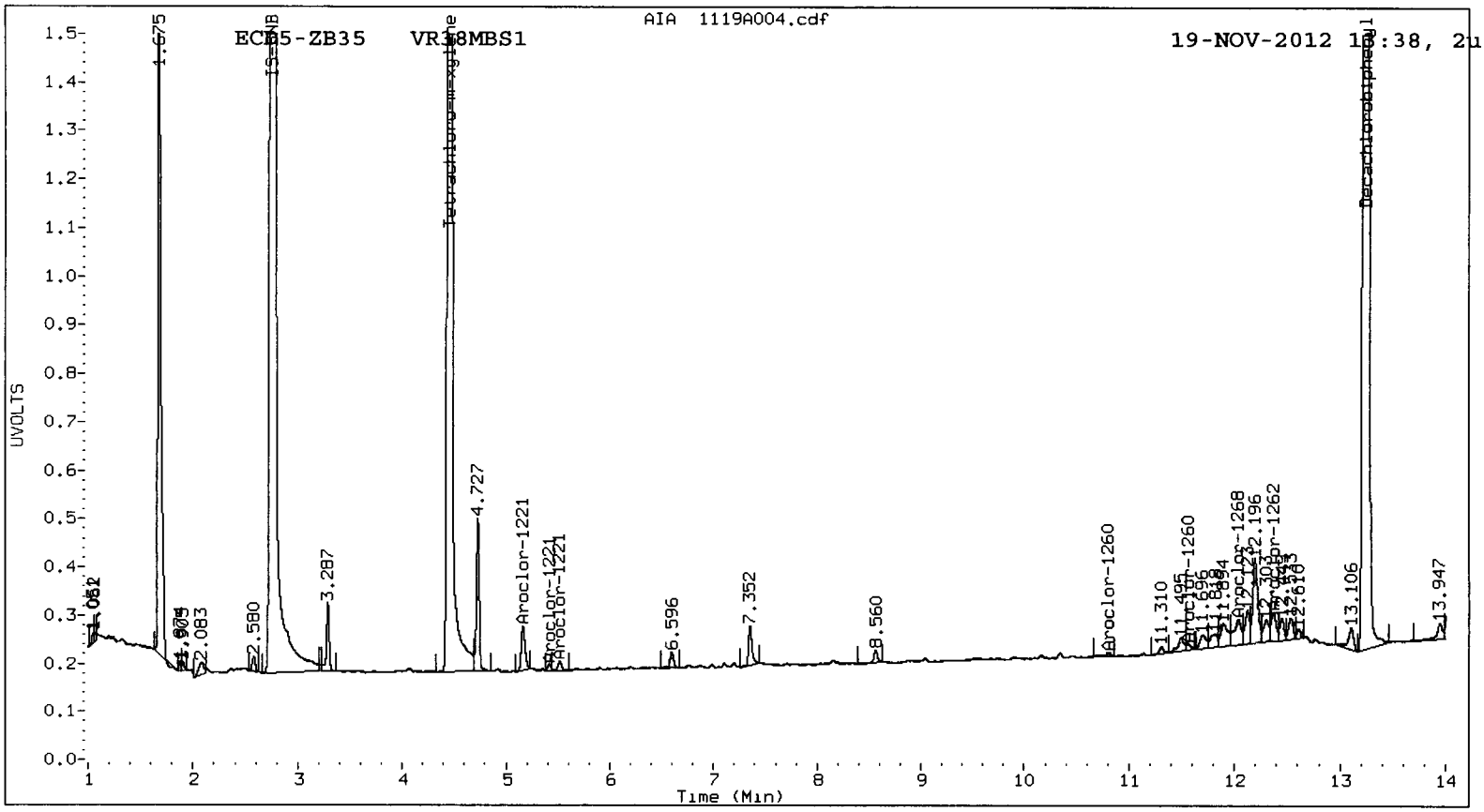
19-NOV-2012 13:38, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB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AIA 1119A004.cdf
19-NOV-2012 13:38, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A005.d
Data file 2: 20121102.B/1119-2.b/1119A005.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38LCSS1
Client ID: VR38LCSS1
Injection Date: 19-NOV-2012 13:59
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.446	-0.001	22913704	4.455	-0.001	6941332	34.0	35.2	3.2	Tetrachloro-m-xylen
12.854	-0.001	36373634	13.245	-0.002	7467108	33.9	35.5	4.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	85.1	87.9
Decachlorobiphenyl	84.7	88.8

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32232062	3.2
Hexabromobiphenyl	64198300	71232825	11.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13847287	-4.7
Hexabromobiphenyl	15789428	15466331	-2.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.093	-0.002	7564060	419.7	1	6.208	-0.001	3143541	405.3
Aroclor-1016	2	6.497	-0.002	23720153	422.4	2	6.839	-0.001	6938056	422.7
Aroclor-1016	3	6.647	-0.002	10104175	417.0	3	7.224	-0.002	1861024	435.9
Aroclor-1016	4	6.757	-0.002	7473716	431.2	4	7.333	-0.002	1929738	401.9
	Total Col1Ave (4 peaks):			422.6		Total Col2Ave (4 peaks):			416.5	RPD = 1
	Corrected Ave (3 peaks):			419.7		Corrected Ave (3 peaks):			410.0	RPD = 2
Aroclor-1221	1	4.813	-0.003	1397633	177.6	1	5.144	0.003	412999	176.0
Aroclor-1221	2	4.992	-0.003	1375327	255.3	2	5.392	-0.001	323744	234.3
Aroclor-1221	3	5.099	-0.002	5034721	286.9	3	5.506	-0.001	1347404	310.2
Aroclor-1221	NS	---			----	4	5.572	-0.004	118279	157.7
	Total Col1Ave (3 peaks):			239.9		Total Col2Ave (4 peaks):			219.6	RPD = 9
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			189.4	
Aroclor-1232	1	6.093	-0.001	7564060	1030.3	1	6.208	-0.002	3143541	914.8
Aroclor-1232	2	6.497	0.000	23720153	1033.4	2	6.839	-0.001	6938056	1024.6
Aroclor-1232	3	6.647	-0.001	10104175	1009.4	3	7.048	-0.002	2868972	1013.5
Aroclor-1232	4	7.908	0.007	7666313	611.1	4	8.273	-0.003	294173	122.4
	Total Col1Ave (4 peaks):			921.1		Total Col2Ave (4 peaks):			768.8	RPD = 18
	Corrected Ave (3 peaks):			883.6		Corrected Ave (3 peaks):			683.6	RPD = 26
Aroclor-1242	1	6.093	-0.001	7564060	539.5	1	6.208	0.000	3143541	531.6
Aroclor-1242	2	6.497	-0.002	23720153	546.1	2	6.839	-0.003	6938056	551.2
Aroclor-1242	3	6.647	-0.001	10104175	535.7	3	7.048	-0.002	2868972	548.5
Aroclor-1242	4	7.908	0.008	7666313	346.6	4	8.273	-0.001	294173	66.8
	Total Col1Ave (4 peaks):			492.0		Total Col2Ave (4 peaks):			424.5	RPD = 15
	Corrected Ave (3 peaks):			473.9		Corrected Ave (3 peaks):			382.3	RPD = 21
Aroclor-1248	1	6.497	0.005	23720153	835.4	1	6.839	0.001	6938056	844.1
Aroclor-1248	2	7.472	0.002	9602255	321.2	2	7.745	0.000	2365803	347.0
Aroclor-1248	3	7.908	0.009	7666313	203.1	3	8.273	0.000	294173	41.8
Aroclor-1248	4	8.141	0.008	1696123	58.3	4	8.620	0.000	160169	18.4
	Total Col1Ave (4 peaks):			354.5		Total Col2Ave (4 peaks):			312.8	RPD = 12
	Corrected Ave (3 peaks):			194.2		Corrected Ave (3 peaks):			135.7	RPD = 35
Aroclor-1254	1	8.222	0.000	8647408	224.7	1	8.338	-0.003	1562620	259.9
Aroclor-1254	2	8.591	-0.003	1911763	75.6	2	8.513	-0.002	1797538	236.7
Aroclor-1254	3	8.725	-0.003	8400283	170.8	3	9.035	-0.002	424613	72.8
Aroclor-1254	4	9.059	-0.019	20635847	383.4	4	9.186	-0.001	905223	70.7
Aroclor-1254	5	9.388	-0.051	30949389	914.4	5	9.979	0.009	1927534	250.0
	Total Col1Ave (5 peaks):			353.8		Total Col2Ave (5 peaks):			178.0	RPD = 66*
	Corrected Ave (4 peaks):			213.6		Corrected Ave (4 peaks):			157.6	RPD = 30
Aroclor-1260	1	9.995	-0.001	16746353	404.5	1	10.299	-0.002	3594341	435.3
Aroclor-1260	2	10.311	-0.001	17150954	412.1	2	10.749	-0.002	4463024	440.4
Aroclor-1260	3	10.685	-0.002	40271668	408.1	3	11.023	-0.002	9076615	450.2
Aroclor-1260	4	11.084	0.000	23288466	411.9	4	11.545	-0.001	2712399	446.4
Aroclor-1260	5	11.275	-0.001	11917483	433.7	NS	---			----
	Total Col1Ave (5 peaks):			414.1		Total Col2Ave (4 peaks):			443.1	RPD = 7
	Corrected Ave (4 peaks):			409.2		Corrected Ave (3 peaks):			440.7	RPD = 7
Aroclor-1262	1	9.995	-0.002	16746353	270.4	1	10.299	-0.003	3594341	266.5
Aroclor-1262	2	10.311	-0.001	17150954	364.7	2	10.749	-0.003	4463024	372.4
Aroclor-1262	3	10.685	-0.002	40271668	330.3	3	11.023	-0.002	9076615	345.1
Aroclor-1262	4	11.201	-0.001	10067961	219.2	4	11.545	-0.002	2712399	254.8
Aroclor-1262	5	11.275	0.000	11917483	236.3	5	12.345	-0.002	2656892	259.7
	Total Col1Ave (5 peaks):			284.1		Total Col2Ave (5 peaks):			299.7	RPD = 5
	Corrected Ave (4 peaks):			264.0		Corrected Ave (4 peaks):			281.6	RPD = 6
Aroclor-1268	1	11.201	-0.002	10067961	81.5	1	11.545	-0.002	2712399	101.0

Aroclor-1268	2	11.275	0.000	11917483	100.3	2	11.604	-0.009	6560506	251.1
Aroclor-1268	3	11.673	0.013	6296942	60.3	3	12.010	-0.002	236071	10.8
Aroclor-1268	4	12.448	-0.001	5591718	18.7	4	12.832	-0.003	782683	12.1

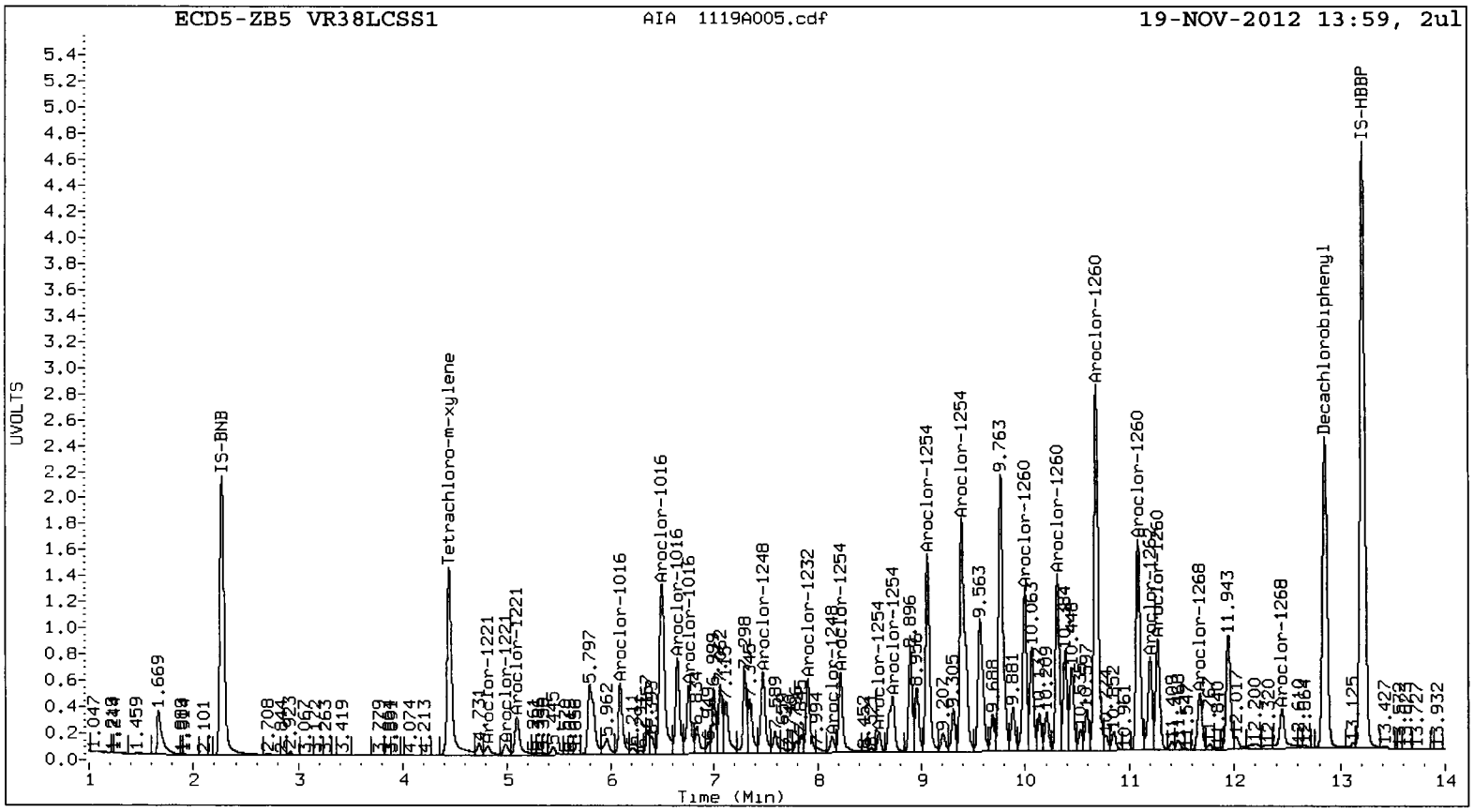
Total Col1Ave (4 peaks): 65.2 Total Col2Ave (4 peaks): 93.8 RPD = 36

Corrected Ave (3 peaks): 53.5 Corrected Ave (3 peaks): 41.3 RPD = 26

Total PCB Area Col1 (4.547 - 12.755) = 486732452 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 110914586 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical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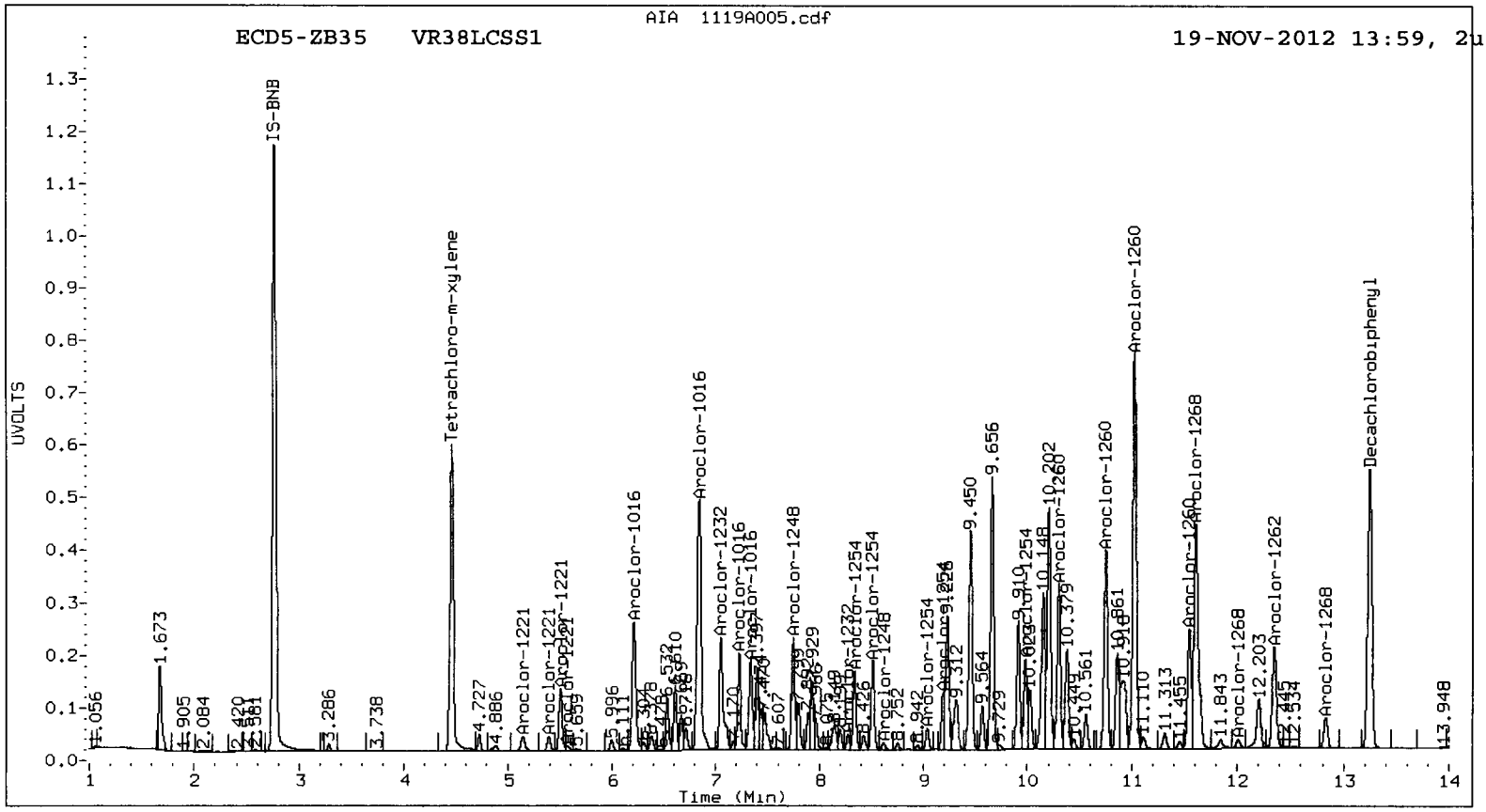
19-NOV-2012 13:59, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268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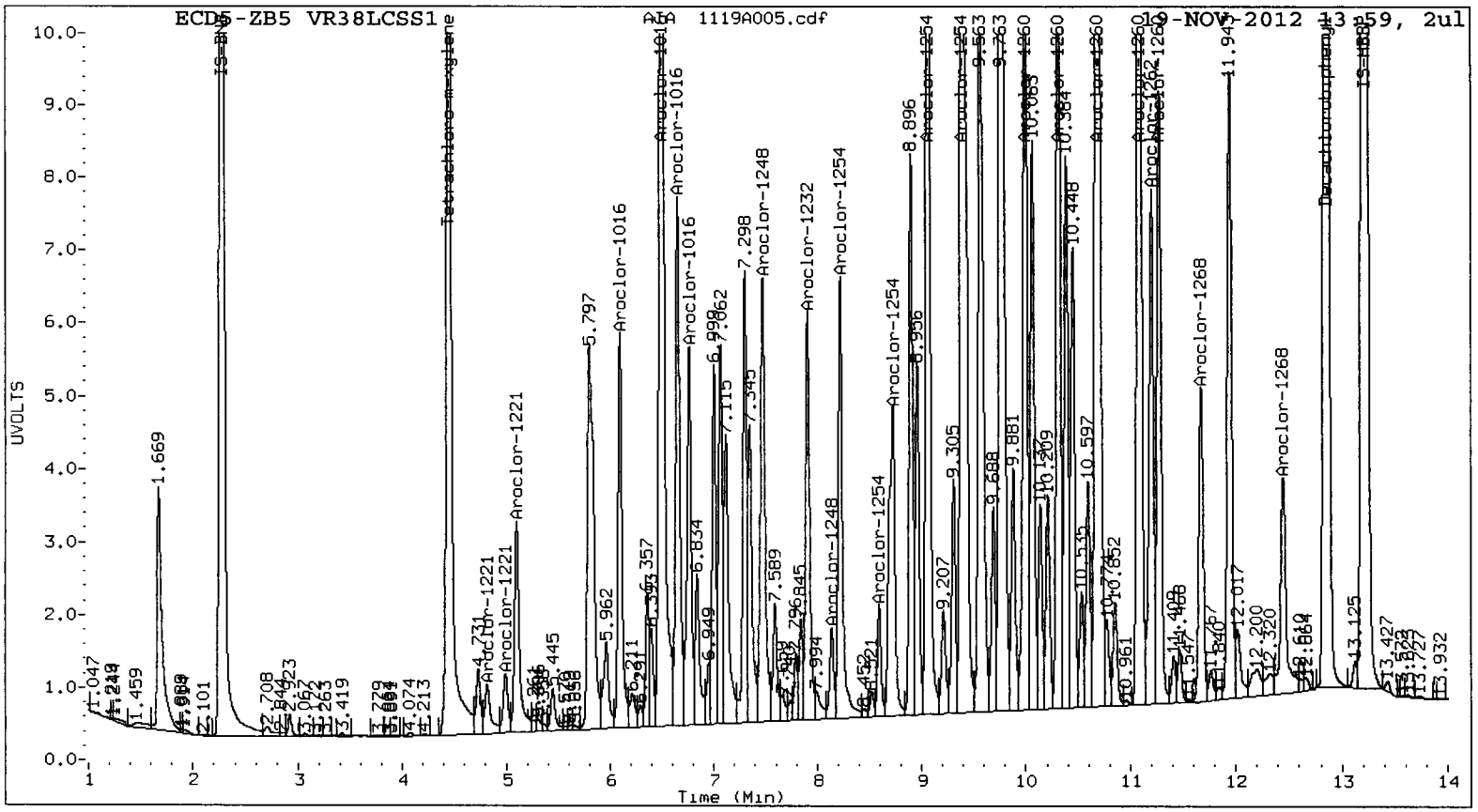
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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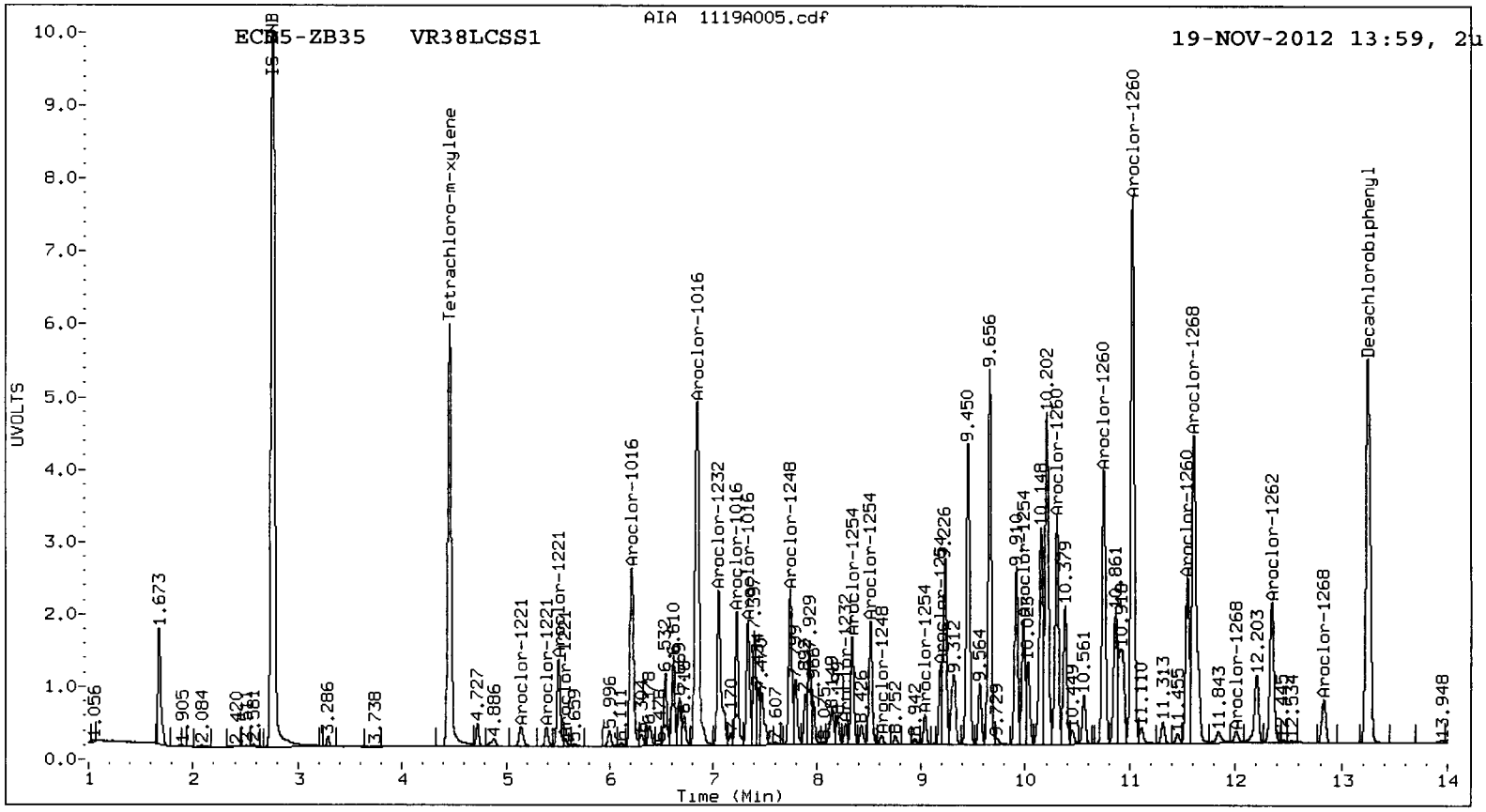
19-NOV-2012 13:59, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl


ECD5-ZB35 VR38LCSS1
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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A006.d
Data file 2: 20121102.B/1119-2.b/1119A006.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38SRM1
Client ID: Not Requested
Injection Date: 19-NOV-2012 14:19
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	-0.003	21117224	4.453	-0.003	6275108	31.7	32.9	3.8	Tetrachloro-m-xylen
12.854	-0.001	32714127	13.246	-0.002	7055149	32.1	34.2	6.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	79.3	82.4
Decachlorobiphenyl	80.3	85.4

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	31897811	2.1
Hexabromobiphenyl	64198300	67558304	5.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13363596	-8.1
Hexabromobiphenyl	15789428	15197965	-3.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

VD38:020UU

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.090	-0.005	190721	10.7	1	6.204	-0.005	92892	12.4
Aroclor-1016	2	6.496	-0.003	824011	14.8	2	6.840	-0.001	240610	15.2
Aroclor-1016	3	6.648	-0.001	259487	10.8	3	7.221	-0.006	74350	18.0
Aroclor-1016	4	6.758	-0.002	300761	17.5	4	7.334	-0.001	377193	81.4
Total Col1Ave (4 peaks):				13.5		Total Col2Ave (4 peaks):			31.8	RPD = 81*
Corrected Ave (3 peaks):				12.1		Corrected Ave (3 peaks):			15.2	RPD = 23
Aroclor-1221	1	4.729	-0.088	1626052	208.8	1	5.158	0.016	126640	55.9
Aroclor-1221	2	4.975	-0.019	481184	90.2	2	5.412	0.019	142063	106.5
Aroclor-1221	3	5.099	-0.003	240099	13.8	3	5.510	0.003	52346	12.5
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				104.3		Total Col2Ave (3 peaks):			58.3	RPD = 57*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.090	-0.004	190721	26.3	1	6.204	-0.006	92892	28.0
Aroclor-1232	2	6.496	-0.001	824011	36.3	2	6.840	-0.001	240610	36.8
Aroclor-1232	3	6.648	0.000	259487	26.2	3	7.049	-0.002	62423	22.9
Aroclor-1232	4	7.906	0.005	3021214	243.4	4	8.272	-0.004	197984	85.4
Total Col1Ave (4 peaks):				83.0		Total Col2Ave (4 peaks):			43.3	RPD = 63*
Corrected Ave (3 peaks):				29.6		Corrected Ave (3 peaks):			29.2	RPD = 1
Aroclor-1242	1	6.090	-0.004	190721	13.7	1	6.204	-0.005	92892	16.3
Aroclor-1242	2	6.496	-0.002	824011	19.2	2	6.840	-0.003	240610	19.8
Aroclor-1242	3	6.648	0.000	259487	13.9	3	7.049	-0.001	62423	12.4
Aroclor-1242	4	7.906	0.007	3021214	138.0	4	8.272	-0.002	197984	46.6
Total Col1Ave (4 peaks):				46.2		Total Col2Ave (4 peaks):			23.8	RPD = 64*
Corrected Ave (3 peaks):				15.6		Corrected Ave (3 peaks):			16.2	RPD = 3
Aroclor-1248	1	6.496	0.004	824011	29.3	1	6.840	0.001	240610	30.3
Aroclor-1248	2	7.469	0.000	594926	20.1	2	7.744	-0.001	195703	29.7
Aroclor-1248	3	7.906	0.007	3021214	80.9	3	8.272	-0.001	197984	29.1
Aroclor-1248	4	8.136	0.003	1209114	42.0	4	8.607	-0.013	417260	49.6
Total Col1Ave (4 peaks):				43.1		Total Col2Ave (4 peaks):			34.7	RPD = 22
Corrected Ave (3 peaks):				30.5		Corrected Ave (3 peaks):			29.7	RPD = 2
Aroclor-1254	1	8.219	-0.003	3497912	91.8	1	8.338	-0.003	588500	101.4
Aroclor-1254	2	8.593	-0.001	2546859	101.7	2	8.512	-0.003	776908	106.0
Aroclor-1254	3	8.725	-0.003	4717391	96.9	3	9.034	-0.003	349483	62.1
Aroclor-1254	4	9.059	-0.019	7980104	149.8	4	9.184	-0.003	792381	64.2
Aroclor-1254	5	9.387	-0.052	11053681	330.0	5	9.976	0.006	853950	114.8
Total Col1Ave (5 peaks):				154.1		Total Col2Ave (5 peaks):			89.7	RPD = 53*
Corrected Ave (4 peaks):				110.1		Corrected Ave (4 peaks):			82.4	RPD = 28
Aroclor-1260	1	9.993	-0.003	5296600	134.9	1	10.299	-0.002	1158456	142.8
Aroclor-1260	2	10.308	-0.003	4950428	125.4	2	10.748	-0.003	1495916	150.2
Aroclor-1260	3	10.684	-0.002	14555845	155.5	3	11.023	-0.002	2959047	149.4
Aroclor-1260	4	11.083	-0.002	7578839	141.3	4	11.545	-0.001	895230	150.0
Aroclor-1260	5	11.274	-0.002	3716007	142.6	NS	---			----
Total Col1Ave (5 peaks):				140.0		Total Col2Ave (4 peaks):			148.1	RPD = 6
Corrected Ave (4 peaks):				136.1		Corrected Ave (3 peaks):			147.4	RPD = 8
Aroclor-1262	1	9.993	-0.003	5296600	90.2	1	10.299	-0.003	1158456	87.4
Aroclor-1262	2	10.308	-0.004	4950428	111.0	2	10.748	-0.004	1495916	127.0
Aroclor-1262	3	10.684	-0.003	14555845	125.9	3	11.023	-0.002	2959047	114.5
Aroclor-1262	4	11.200	-0.002	3147572	72.2	4	11.545	-0.002	895230	85.6
Aroclor-1262	5	11.274	-0.001	3716007	77.7	5	12.345	-0.001	918597	91.4
Total Col1Ave (5 peaks):				95.4		Total Col2Ave (5 peaks):			101.2	RPD = 6
Corrected Ave (4 peaks):				87.8		Corrected Ave (4 peaks):			94.7	RPD = 8
Aroclor-1268	1	11.200	-0.003	3147572	26.9	1	11.545	-0.003	895230	33.9

Aroclor-1268	2	11.274	-0.001	3716007	33.0	2	11.605	-0.009	2184465	85.1
Aroclor-1268	3	11.673	0.013	1842186	18.6	3	12.014	0.002	49225	2.3
Aroclor-1268	4	12.448	-0.001	1005127	3.6	4	12.832	-0.002	85314	1.3

Total Col1Ave (4 peaks): 20.5 Total Col2Ave (4 peaks): 30.7 RPD = 40

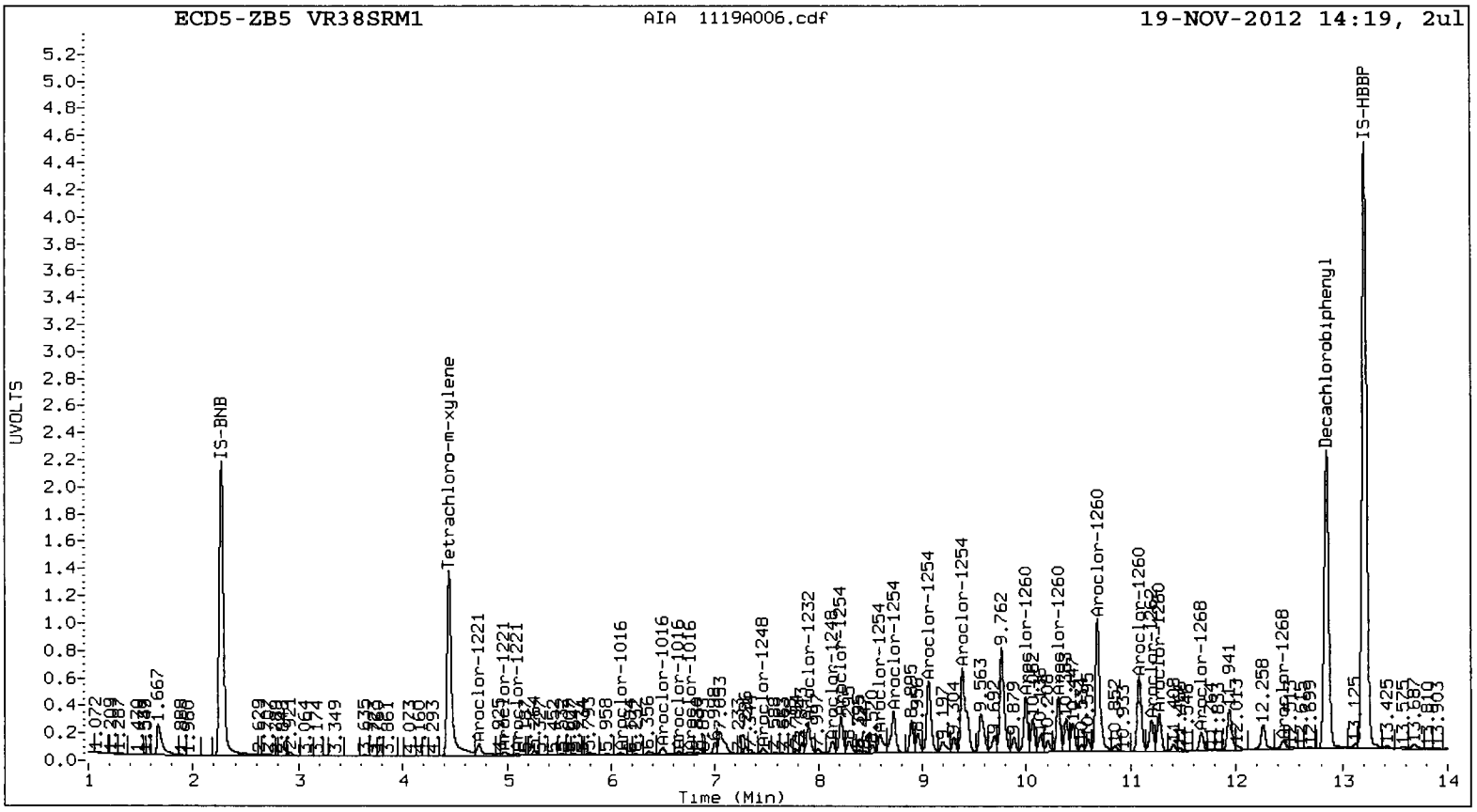
Corrected Ave (3 peaks): 16.3 Corrected Ave (3 peaks): 12.5 RPD = 26

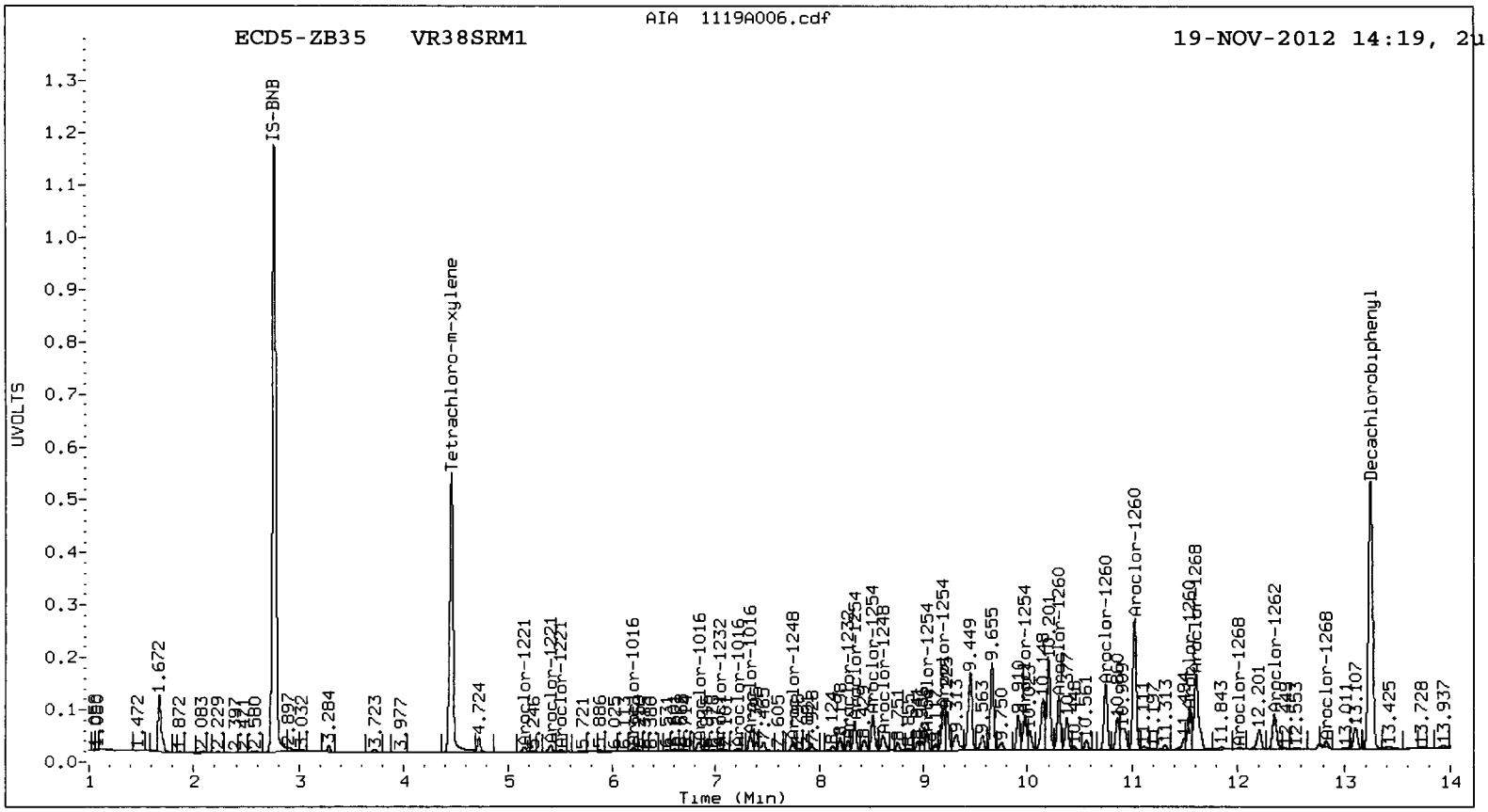
Total PCB Area Col1 (4.547 - 12.755) = 142954931 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 32219009 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 VR38SRM1
AIA 1119A006.cdf
19-NOV-2012 14:19, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Time (Min)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ECD5-ZB35 VR38SRM1
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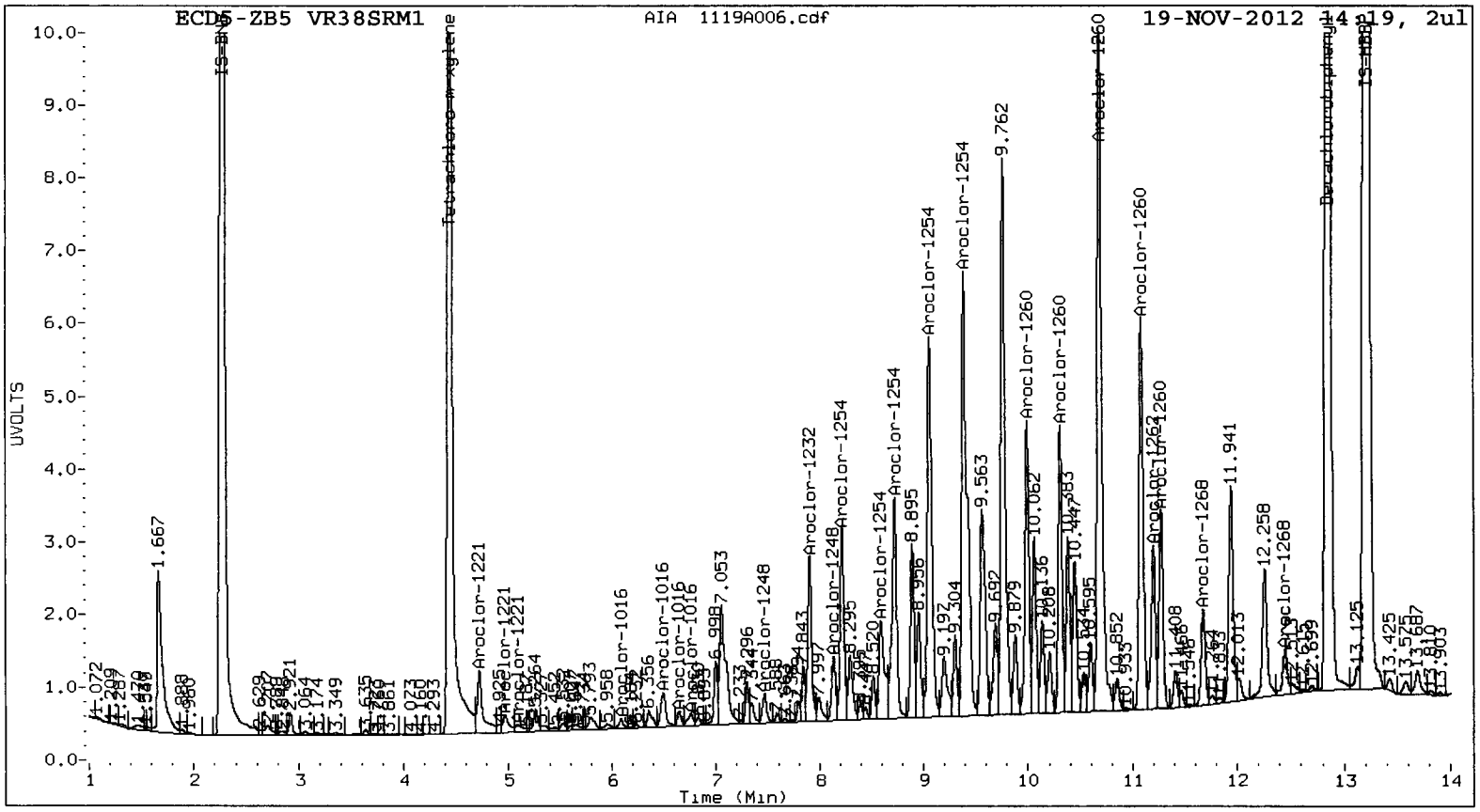
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Time (Min)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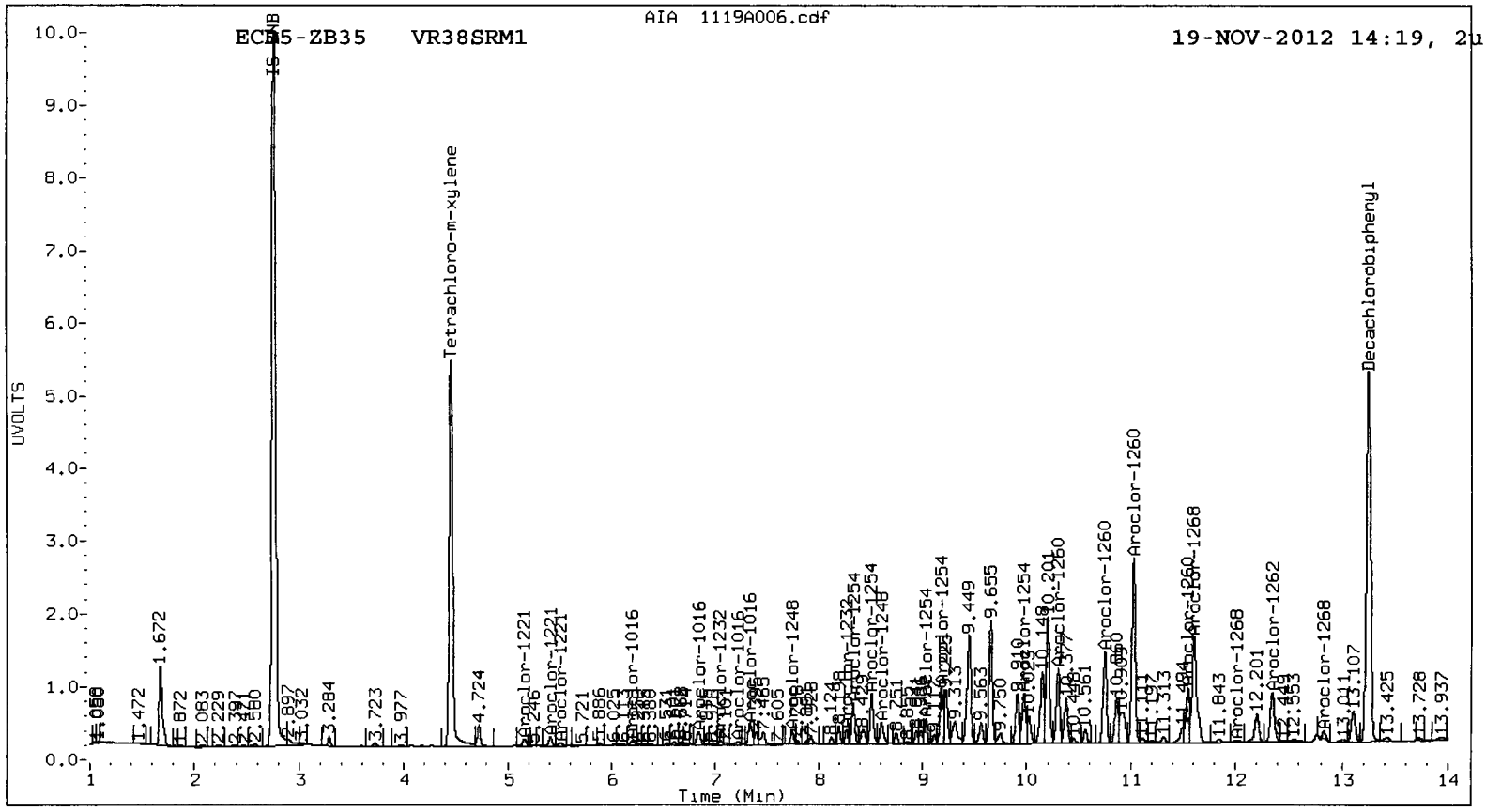
19-NOV-2012 14:19, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A007.d
Data file 2: 20121102.B/1119-2.b/1119A007.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR3A
Client ID:
Injection Date: 19-NOV-2012 14:39
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.443	-0.004	22707004	4.455	-0.002	6305345	33.0	31.9	3.4	Tetrachloro-m-xylen
12.854	-0.001	34491277	13.247	-0.001	7137150	31.1	33.5	7.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	82.6	79.8
Decachlorobiphenyl	77.9	83.7

11/14/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32921568	5.4
Hexabromobiphenyl	64198300	73501703	14.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13859762	-4.7
Hexabromobiphenyl	15789428	15684625	-0.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.063	-0.032	546271	29.7	1	6.254	0.044	124248	16.0
Aroclor-1016	2	6.482	-0.017	216469	3.8	2	6.905	0.064	88483	5.4
Aroclor-1016	3	6.659	0.011	492771	19.9	3	---			0.0
Aroclor-1016	4	6.760	0.001	285868	16.1	4	7.350	0.015	139059	28.9
Total Col1Ave (4 peaks):				17.4		Total Col2Ave (3 peaks):			16.8	RPD = 4
Corrected Ave (3 peaks):				13.3		Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.728	-0.089	1903514	236.9	1	5.158	0.016	118282	50.4
Aroclor-1221	2	4.973	-0.021	568008	103.2	2	5.394	0.001	275822	199.4
Aroclor-1221	3	5.112	0.010	106159	5.9	3	5.512	0.005	65641	15.1
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):				115.3		Total Col2Ave (3 peaks):			88.3	RPD = 27
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.063	-0.031	546271	72.9	1	6.254	0.044	124248	36.1
Aroclor-1232	2	6.482	-0.015	216469	9.2	2	6.905	0.065	88483	13.1
Aroclor-1232	3	6.659	0.012	492771	48.2	3	7.108	0.058	26587	9.4
Aroclor-1232	4	7.902	0.001	62346	4.9	4	---			0.0
Total Col1Ave (4 peaks):				33.8		Total Col2Ave (3 peaks):			19.5	RPD = 54*
Corrected Ave (3 peaks):				20.8		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	6.063	-0.031	546271	38.1	1	6.254	0.045	124248	21.0
Aroclor-1242	2	6.482	-0.016	216469	4.9	2	6.905	0.063	88483	7.0
Aroclor-1242	3	6.659	0.012	492771	25.6	3	7.108	0.058	26587	5.1
Aroclor-1242	4	7.902	0.003	62346	2.8	4	---			0.0
Total Col1Ave (4 peaks):				17.8		Total Col2Ave (3 peaks):			11.0	RPD = 47*
Corrected Ave (3 peaks):				11.1		Corrected Ave: < 3 Peaks				
Aroclor-1248	1	6.482	-0.010	216469	7.5	1	6.905	0.067	88483	10.8
Aroclor-1248	2	7.450	-0.020	218707	7.2	2	---			0.0
Aroclor-1248	3	7.902	0.004	62346	1.6	3	---			0.0
Aroclor-1248	4	8.118	-0.016	247746	8.3	4	8.647	0.027	29928	3.4
Total Col1Ave (4 peaks):				6.1		Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	8.204	-0.018	112067	2.9	1	8.433	0.092	42221	7.0
Aroclor-1254	2	8.612	0.018	126993	4.9	2	8.534	0.019	62085	8.2
Aroclor-1254	3	8.729	0.001	80648	1.6	3	8.987	-0.050	13279	2.3
Aroclor-1254	4	9.068	-0.010	86260	1.6	4	---			0.0
Aroclor-1254	5	9.381	-0.057	79415	2.3	5	---			0.0
Total Col1Ave (5 peaks):				2.6		Total Col2Ave (3 peaks):			5.8	RPD = 75*
Corrected Ave (4 peaks):				2.1		Corrected Ave: < 3 Peaks				
Aroclor-1260	1	9.991	-0.004	49950	1.2	1	---			0.0
Aroclor-1260	2	10.311	-0.001	70640	1.6	2	---			0.0
Aroclor-1260	3	10.716	0.030	367896	3.6	3	---			0.0
Aroclor-1260	4	11.078	-0.006	55829	1.0	4	---			0.0
Aroclor-1260	5	11.209	-0.066	28511	1.0	NS	---			----
Total Col1Ave (5 peaks):				1.7		Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	9.991	-0.005	49950	0.8	1	---			0.0
Aroclor-1262	2	10.311	-0.002	70640	1.5	2	---			0.0
Aroclor-1262	3	10.716	0.030	367896	2.9	3	---			0.0
Aroclor-1262	4	11.209	0.007	28511	0.6	4	---			0.0
Aroclor-1262	5	---			0.0	5	---			0.0
Total Col1Ave (4 peaks):				1.4		Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	11.209	0.006	28511	0.2	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.676	0.015	78216	0.7	3	12.029	0.018	10362	0.5
Aroclor-1268	4	12.385	-0.064	68938	0.2	4	12.836	0.002	11692	0.2

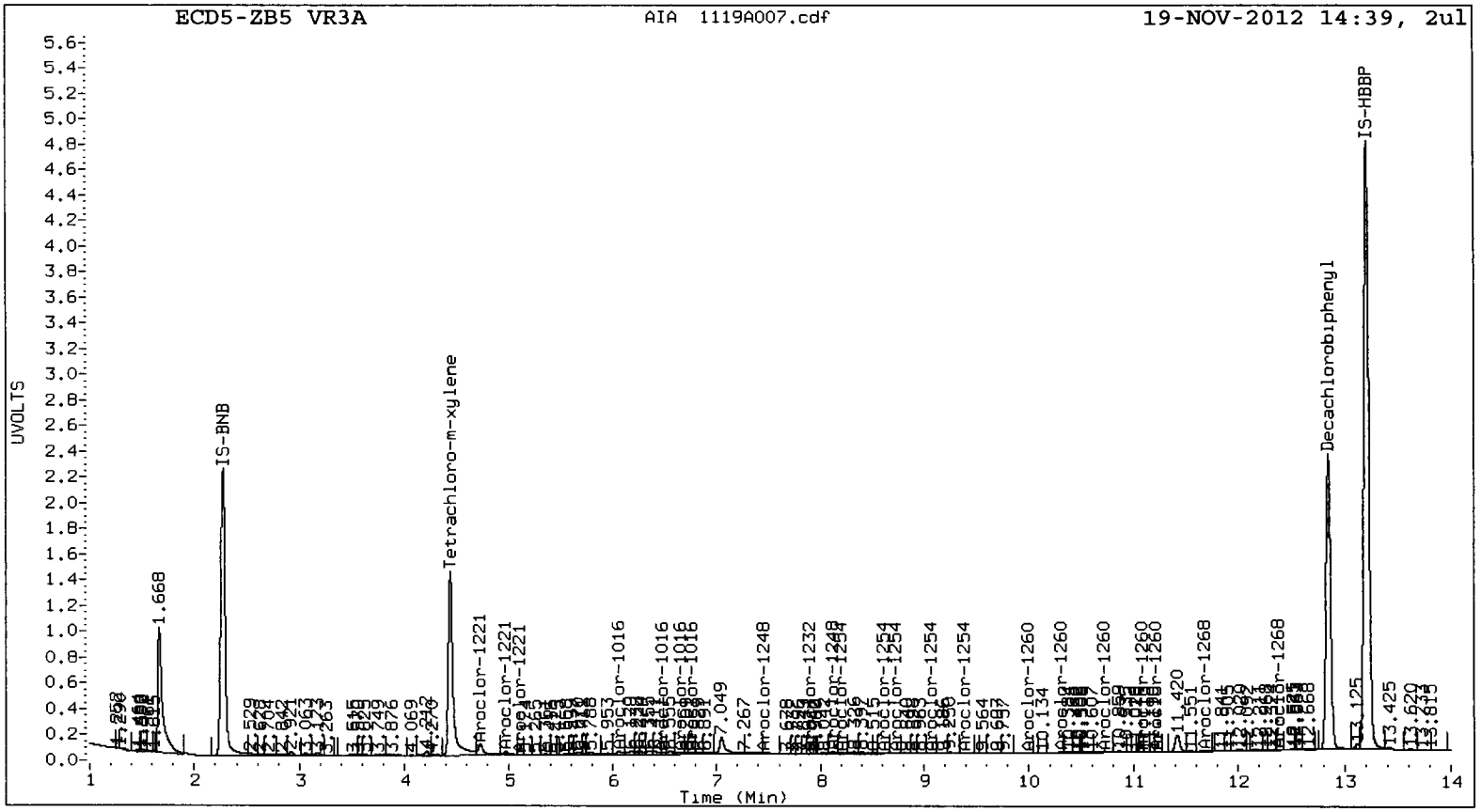
Total Col1Ave (3 peaks): 0.4 Col2Ave: <3 Quant Peaks

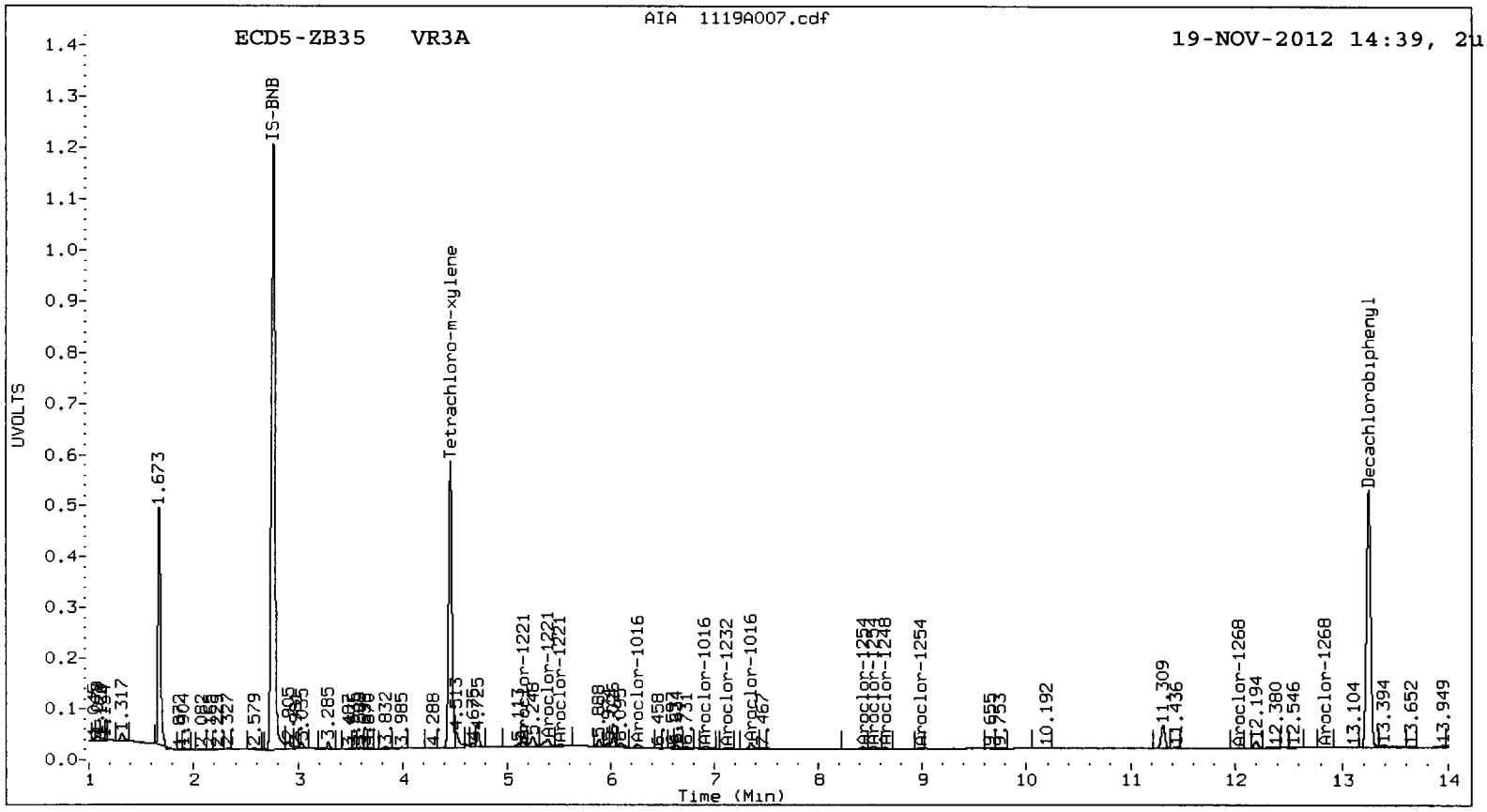
Total PCB Area Col1 (4.547 - 12.755) = 19793557 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 3387430 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 VR3A
AIA 1119A007.cdf
19-NOV-2012 14:39, 2ul
UVOLTS
IS-BNB
1.668
Tetrachloro-m-xylene
Aroclor-1221
Decachlorobiphenyl
IS-HBBP
13.125
Time (Min)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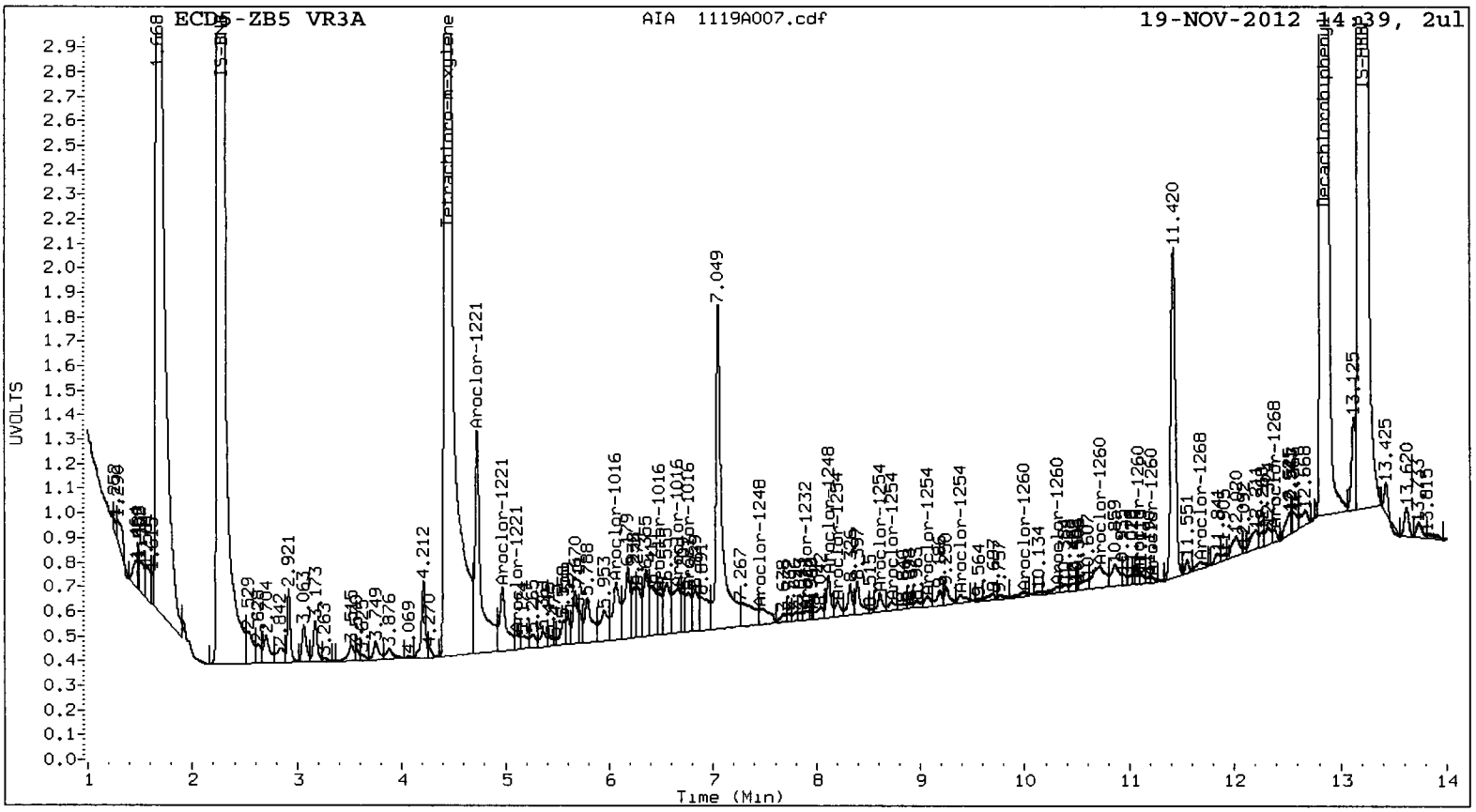
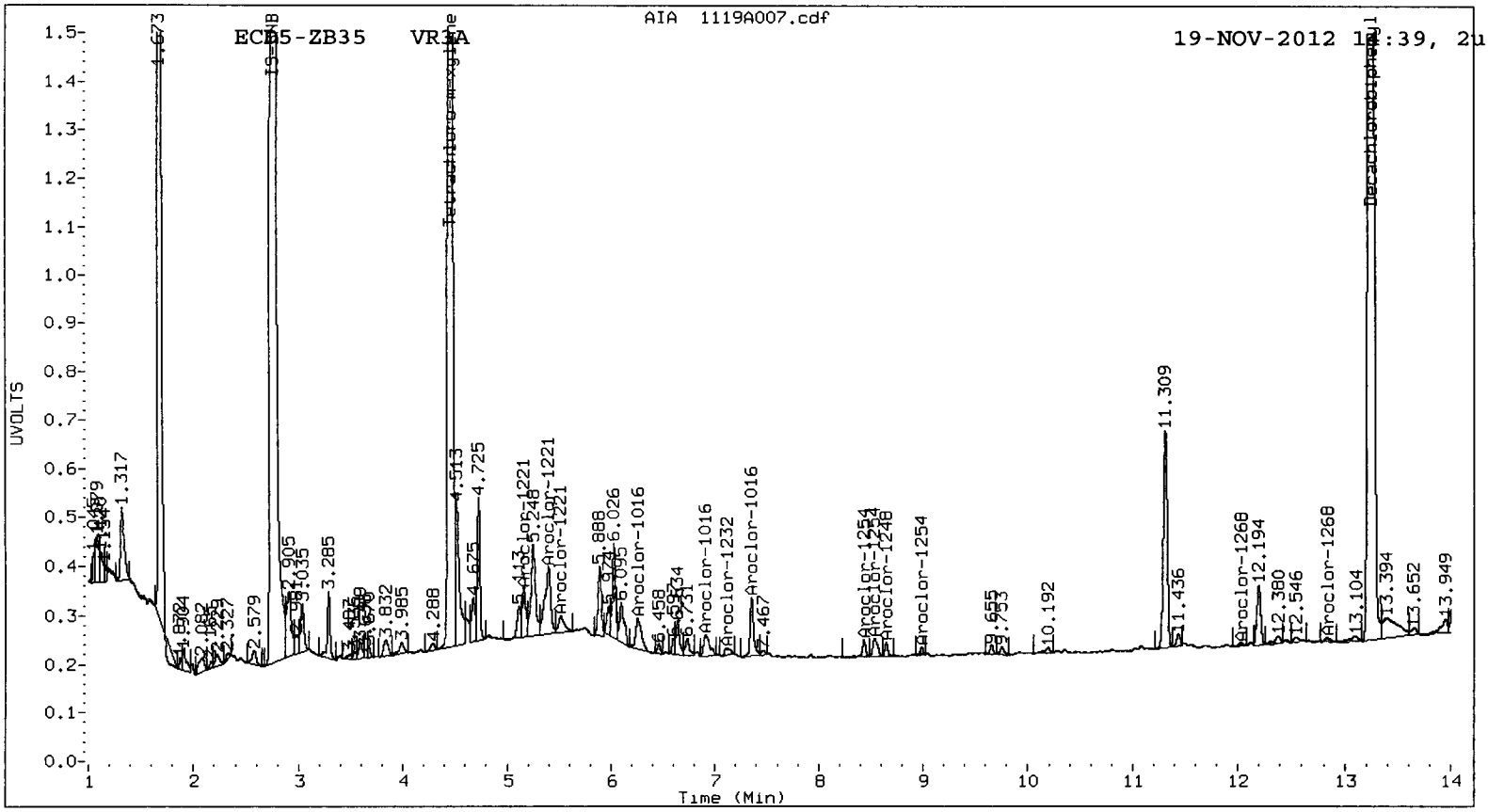
19-NOV-2012 14:39, 2u
UVOLTS
IS-BNB
1.673
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 VR3A
AIA 1119A007.cdf
19-NOV-2012 14:39, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268


AIA 1119A007.cdf
ECD5-ZB35 VR3A
19-NOV-2012 14:39, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A008.d
Data file 2: 20121102.B/1119-2.b/1119A008.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38B
Client ID: HT-02-S-C-121106
Injection Date: 19-NOV-2012 14:58
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	-0.004	23052457	4.454	-0.002	6425022	32.7	32.4	0.8	Tetrachloro-m-xylen
12.853	-0.002	32543830	13.246	-0.002	6810992	29.6	32.1	8.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	81.8	81.1
Decachlorobiphenyl	73.9	80.3

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33752660	8.0
Hexabromobiphenyl	64198300	73053260	13.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13899116	-4.4
Hexabromobiphenyl	15789428	15595798	-1.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.069	-0.026	363758	19.3	1	6.253	0.043	43680	5.6
Aroclor-1016	2	6.477	-0.022	407061	6.9	2	6.829	-0.012	10965	0.7
Aroclor-1016	3	6.614	-0.035	373241	14.7	3	---			0.0
Aroclor-1016	4	6.760	0.000	251530	13.9	4	7.351	0.016	99783	20.7
	Total Col1Ave (4 peaks):				13.7	Total Col2Ave (3 peaks):			9.0	RPD = 41*
	Corrected Ave (3 peaks):				11.8	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.893	0.076	48090	5.8	1	5.159	0.017	164869	70.0
Aroclor-1221	2	4.973	-0.022	821379	145.6	2	5.402	0.009	115107	83.0
Aroclor-1221	3	---			0.0	3	5.510	0.003	53681	12.3
Aroclor-1221	NS	---			----	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: 55.1				
Aroclor-1232	1	6.069	-0.025	363758	47.3	1	6.253	0.043	43680	12.7
Aroclor-1232	2	6.477	-0.020	407061	16.9	2	6.829	-0.012	10965	1.6
Aroclor-1232	3	6.614	-0.033	373241	35.6	3	6.983	-0.067	17799	6.3
Aroclor-1232	4	7.906	0.005	180239	13.7	4	8.335	0.059	19463	8.1
	Total Col1Ave (4 peaks):				28.4	Total Col2Ave (4 peaks):			7.2	RPD = 120*
	Corrected Ave (3 peaks):				22.1	Corrected Ave (3 peaks):			5.3	RPD = 122*
Aroclor-1242	1	6.069	-0.025	363758	24.8	1	6.253	0.044	43680	7.4
Aroclor-1242	2	6.477	-0.021	407061	8.9	2	6.829	-0.013	10965	0.9
Aroclor-1242	3	6.614	-0.033	373241	18.9	3	6.983	-0.067	17799	3.4
Aroclor-1242	4	7.906	0.006	180239	7.8	4	8.335	0.061	19463	4.4
	Total Col1Ave (4 peaks):				15.1	Total Col2Ave (4 peaks):			4.0	RPD = 116*
	Corrected Ave (3 peaks):				11.9	Corrected Ave (3 peaks):			2.9	RPD = 122*
Aroclor-1248	1	6.477	-0.015	407061	13.7	1	6.829	-0.009	10965	1.3
Aroclor-1248	2	7.490	0.021	105055	3.4	2	---			0.0
Aroclor-1248	3	7.906	0.007	180239	4.6	3	8.335	0.062	19463	2.8
Aroclor-1248	4	8.115	-0.018	327455	10.7	4	8.648	0.028	28554	3.3
	Total Col1Ave (4 peaks):				8.1	Total Col2Ave (3 peaks):			2.4	RPD = 107*
	Corrected Ave (3 peaks):				6.2	Corrected Ave: < 3 Peaks				
Aroclor-1254	1	8.207	-0.015	228685	5.7	1	8.335	-0.005	19463	3.2
Aroclor-1254	2	8.613	0.019	436766	16.5	2	8.554	0.040	91722	12.0
Aroclor-1254	3	8.726	-0.002	417167	8.1	3	9.039	0.002	31306	5.3
Aroclor-1254	4	9.074	-0.004	356926	6.3	4	9.183	-0.004	10504	0.8
Aroclor-1254	5	9.430	-0.009	289229	8.2	5	9.962	-0.009	56448	7.3
	Total Col1Ave (5 peaks):				9.0	Total Col2Ave (5 peaks):			5.7	RPD = 44*
	Corrected Ave (4 peaks):				7.1	Corrected Ave (4 peaks):			4.2	RPD = 52*
Aroclor-1260	1	9.990	-0.006	378503	8.9	1	---			0.0
Aroclor-1260	2	10.303	-0.009	217924	5.1	2	---			0.0
Aroclor-1260	3	10.714	0.028	613524	6.1	3	---			0.0
Aroclor-1260	4	11.074	-0.011	435192	7.5	4	---			0.0
Aroclor-1260	5	11.272	-0.004	273705	9.7	NS	---			----
	Total Col1Ave (5 peaks):				7.5	Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	9.990	-0.006	378503	6.0	1	10.283	-0.018	58310	4.3
Aroclor-1262	2	10.303	-0.009	217924	4.5	2	---			0.0
Aroclor-1262	3	10.714	0.027	613524	4.9	3	---			0.0
Aroclor-1262	4	11.209	0.007	379088	8.0	4	---			0.0
Aroclor-1262	5	11.272	-0.004	273705	5.3	5	12.375	0.029	27307	2.6
	Total Col1Ave (5 peaks):				5.7	Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	11.209	0.006	379088	3.0	1	---			0.0
Aroclor-1268	2	11.272	-0.003	273705	2.2	2	---			0.0
Aroclor-1268	3	11.670	0.009	511630	4.8	3	12.029	0.017	21021	1.0
Aroclor-1268	4	12.388	-0.061	217133	0.7	4	12.834	0.000	14584	0.2

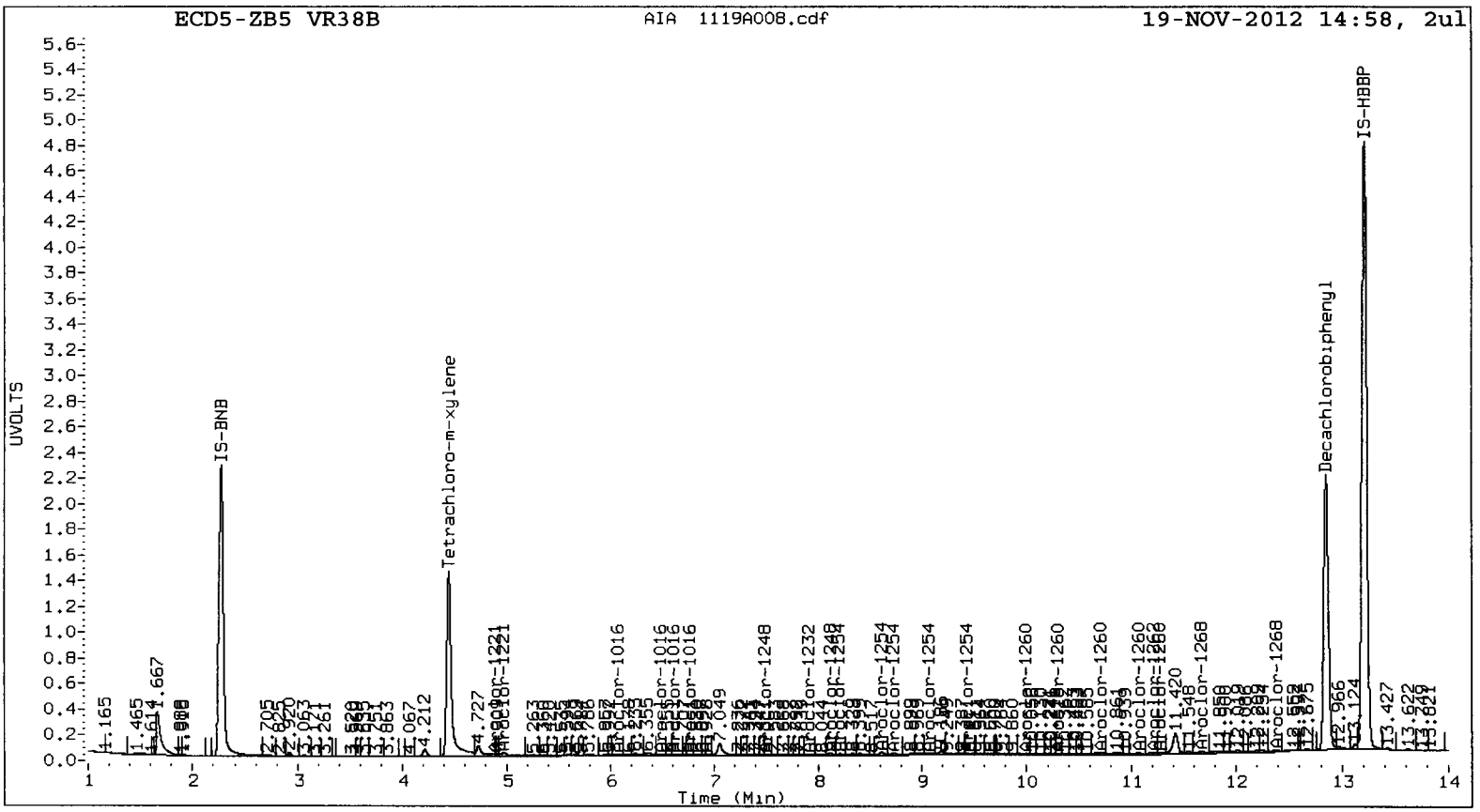
Total Col1Ave (4 peaks): 2.7 Col2Ave: <3 Quant Peaks

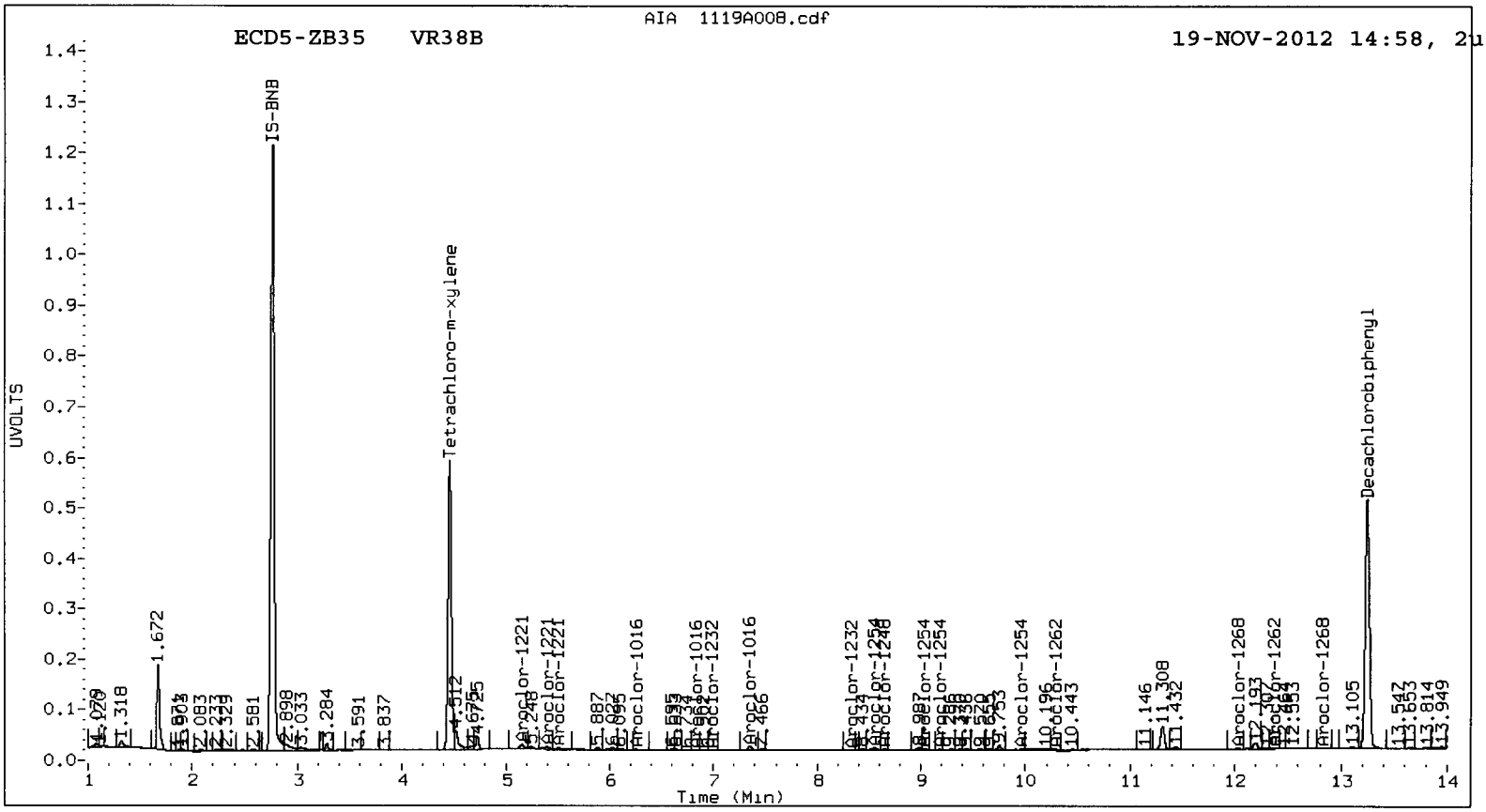
Total PCB Area Col1 (4.547 - 12.755) = 28747910 Col1 Total PCB = 0.1 ppm*

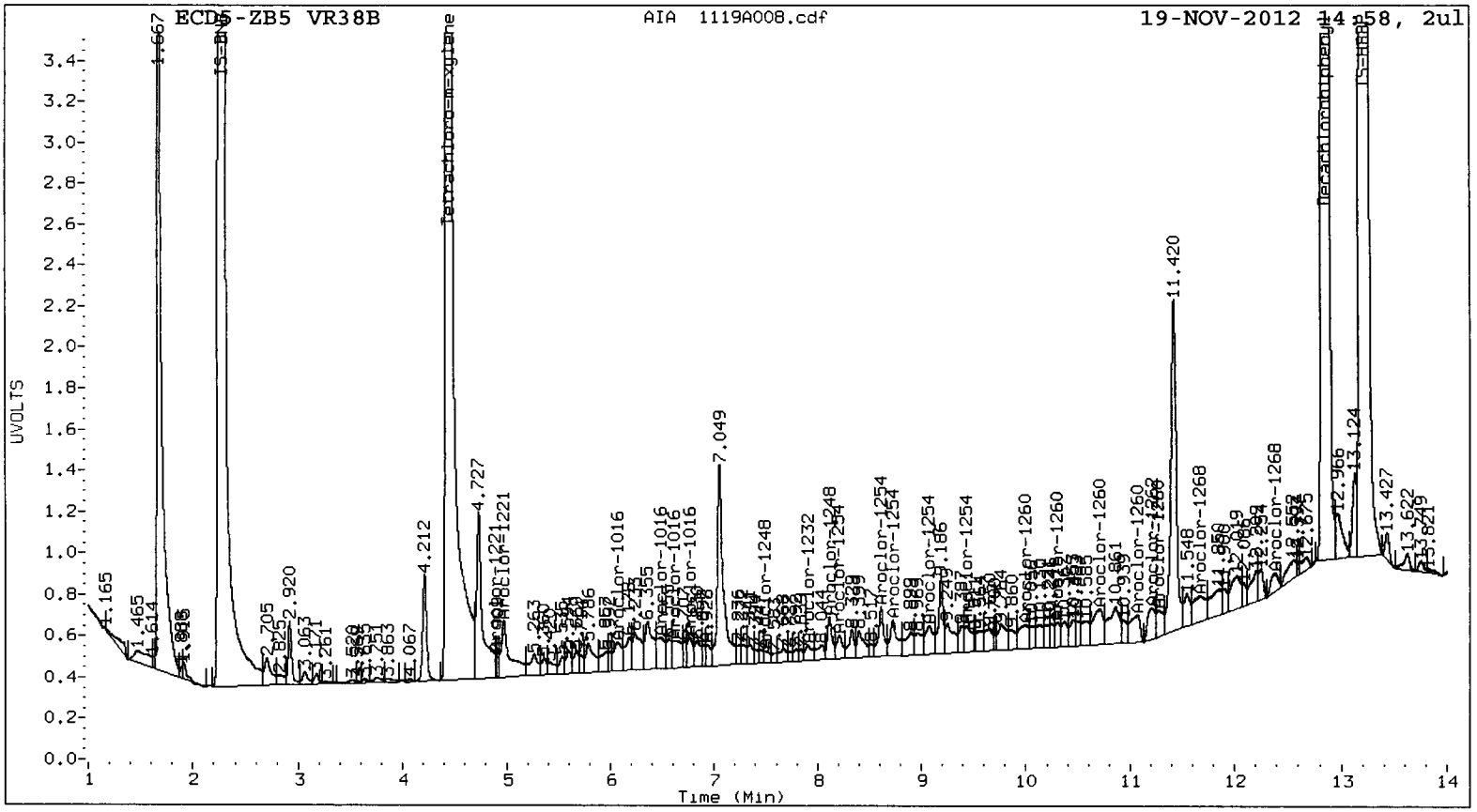
Total PCB Area Col2 (4.556 - 13.148) = 3018593 Col2 Total PCB = 0.0 ppm*

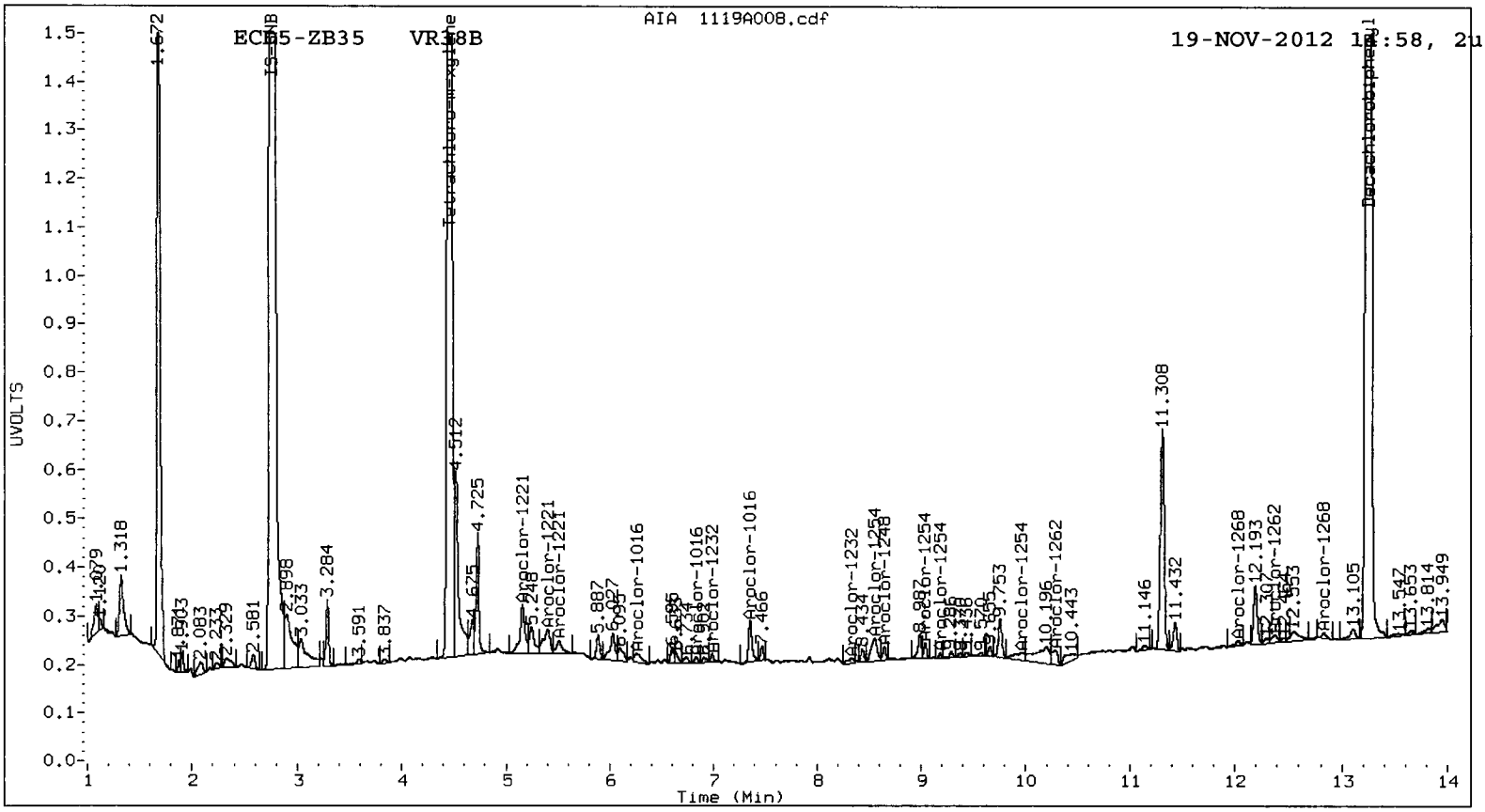
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 VR38B
AIA 1119A008.cdf
19-NOV-2012 14:58, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP


AIA 1119A008.cdf
ECD5-ZB35 VR38B
19-NOV-2012 14:58, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB5 VR38B
AIA 1119A008.cdf
19-NOV-2012 14:58, 2ul
UVOLTS
Time (Min)
1.667
IS=DNB
Tetrachloro-m-xylene
4.212
4.727
7.049
11.420
Decachlorobiphenyl
IS=DBOB
12.966
13.124
13.427
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268


AIA 1119A008.cdf
ECD5-ZB35 VR38B
19-NOV-2012 14:58, 2u
UVOLTS
Time (Min)
1.672
IS=DNB
Tetrachloro-m-xylene
4.512
4.725
11.308
Decachlorobiphenyl
1.318
3.284
11.146
11.432
13.105
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A009.d
Data file 2: 20121102.B/1119-2.b/1119A009.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38BMS
Client ID: HT-02-S-C-12110 MS
Injection Date: 19-NOV-2012 15:18
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.446	-0.001	23299925	4.455	-0.001	6409990	33.4	32.2	3.4	Tetrachloro-m-xylen
12.853	-0.002	32602330	13.245	-0.002	6819272	29.3	32.5	10.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	83.5	80.6
Decachlorobiphenyl	73.2	81.3

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33423318	7.0
Hexabromobiphenyl	64198300	73946819	15.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13943200	-4.1
Hexabromobiphenyl	15789428	15433579	-2.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.092	-0.002	7897067	422.6	1	6.208	-0.001	3061557	392.0	
Aroclor-1016	2	6.496	-0.003	24221026	415.9	2	6.838	-0.003	6611830	400.1	
Aroclor-1016	3	6.646	-0.003	10172356	404.9	3	7.223	-0.003	1762820	410.1	
Aroclor-1016	4	6.756	-0.003	7492315	416.9	4	7.332	-0.002	1862605	385.2	
	Total Col1Ave (4 peaks):				415.1		Total Col2Ave (4 peaks):			396.8	RPD = 4
	Corrected Ave (3 peaks):				412.5		Corrected Ave (3 peaks):			392.4	RPD = 5
Aroclor-1221	1	4.812	-0.004	1485476	182.1	1	5.144	0.002	392506	166.2	
Aroclor-1221	2	4.992	-0.003	1382003	247.4	2	5.391	-0.002	334232	240.2	
Aroclor-1221	3	5.098	-0.003	5079584	279.1	3	5.505	-0.002	1307407	298.9	
Aroclor-1221	NS	---			----	4	5.572	-0.003	95775	126.9	
	Total Col1Ave (3 peaks):				236.2		Total Col2Ave (4 peaks):			208.0	RPD = 13
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			177.7	
Aroclor-1232	1	6.092	-0.001	7897067	1037.4	1	6.208	-0.002	3061557	884.8	
Aroclor-1232	2	6.496	-0.001	24221026	1017.6	2	6.838	-0.002	6611830	969.7	
Aroclor-1232	3	6.646	-0.002	10172356	980.0	3	7.048	-0.002	2747803	964.0	
Aroclor-1232	4	7.907	0.006	7401493	569.0	4	8.274	-0.003	262565	108.5	
	Total Col1Ave (4 peaks):				901.0		Total Col2Ave (4 peaks):			731.8	RPD = 21
	Corrected Ave (3 peaks):				855.5		Corrected Ave (3 peaks):			652.4	RPD = 27
Aroclor-1242	1	6.092	-0.002	7897067	543.1	1	6.208	-0.001	3061557	514.2	
Aroclor-1242	2	6.496	-0.002	24221026	537.7	2	6.838	-0.004	6611830	521.7	
Aroclor-1242	3	6.646	-0.002	10172356	520.1	3	7.048	-0.002	2747803	521.7	
Aroclor-1242	4	7.907	0.008	7401493	322.7	4	8.274	0.000	262565	59.2	
	Total Col1Ave (4 peaks):				480.9		Total Col2Ave (4 peaks):			404.2	RPD = 17
	Corrected Ave (3 peaks):				460.2		Corrected Ave (3 peaks):			365.0	RPD = 23
Aroclor-1248	1	6.496	0.004	24221026	822.6	1	6.838	0.000	6611830	798.9	
Aroclor-1248	2	7.471	0.001	9549865	308.1	2	7.745	-0.001	2255973	328.6	
Aroclor-1248	3	7.907	0.009	7401493	189.1	3	8.274	0.000	262565	37.0	
Aroclor-1248	4	8.140	0.007	1827311	60.6	4	8.618	-0.002	170026	19.4	
	Total Col1Ave (4 peaks):				345.1		Total Col2Ave (4 peaks):			296.0	RPD = 15
	Corrected Ave (3 peaks):				185.9		Corrected Ave (3 peaks):			128.3	RPD = 37
Aroclor-1254	1	8.221	-0.001	8269560	207.2	1	8.338	-0.002	1471520	243.1	
Aroclor-1254	2	8.591	-0.003	2148794	81.9	2	8.512	-0.003	1683477	220.2	
Aroclor-1254	3	8.724	-0.004	8398823	164.7	3	9.035	-0.002	408121	69.5	
Aroclor-1254	4	9.058	-0.020	20029279	358.9	4	9.185	-0.001	882539	68.5	
Aroclor-1254	5	9.387	-0.052	30131882	858.5	5	9.979	0.008	1763572	227.2	
	Total Col1Ave (5 peaks):				334.3		Total Col2Ave (5 peaks):			165.7	RPD = 67*
	Corrected Ave (4 peaks):				203.2		Corrected Ave (4 peaks):			146.3	RPD = 33
Aroclor-1260	1	9.994	-0.002	15853518	368.9	1	10.298	-0.003	3100572	376.3	
Aroclor-1260	2	10.309	-0.003	16283720	376.9	2	10.749	-0.001	4020779	397.6	
Aroclor-1260	3	10.684	-0.003	38411716	375.0	3	11.022	-0.002	8307809	412.9	
Aroclor-1260	4	11.082	-0.003	19975034	340.3	4	11.544	-0.002	2258803	372.6	
Aroclor-1260	5	11.273	-0.002	10901317	382.2	NS	---			----	
	Total Col1Ave (5 peaks):				368.7		Total Col2Ave (4 peaks):			389.9	RPD = 6
	Corrected Ave (4 peaks):				365.3		Corrected Ave (3 peaks):			382.2	RPD = 5
Aroclor-1262	1	9.994	-0.003	15853518	246.5	1	10.298	-0.003	3100572	230.4	
Aroclor-1262	2	10.309	-0.003	16283720	333.5	2	10.749	-0.003	4020779	336.2	
Aroclor-1262	3	10.684	-0.003	38411716	303.4	3	11.022	-0.002	8307809	316.6	
Aroclor-1262	4	11.200	-0.002	9017306	189.1	4	11.544	-0.003	2258803	212.7	
Aroclor-1262	5	11.273	-0.002	10901317	208.2	5	12.346	-0.001	2360458	231.3	
	Total Col1Ave (5 peaks):				256.2		Total Col2Ave (5 peaks):			265.4	RPD = 4
	Corrected Ave (4 peaks):				236.8		Corrected Ave (4 peaks):			247.7	RPD = 4
Aroclor-1268	1	11.200	-0.003	9017306	70.3	1	11.544	-0.004	2258803	84.3	

Aroclor-1268	2	11.273	-0.002	10901317	88.3	2	11.603	-0.010	5711847	219.1
Aroclor-1268	3	11.673	0.012	5728295	52.8	3	12.010	-0.002	167312	7.7
Aroclor-1268	4	12.447	-0.001	4152045	13.4	4	12.831	-0.003	718766	11.1

Total Col1Ave (4 peaks): 56.2 Total Col2Ave (4 peaks): 80.5 RPD = 36

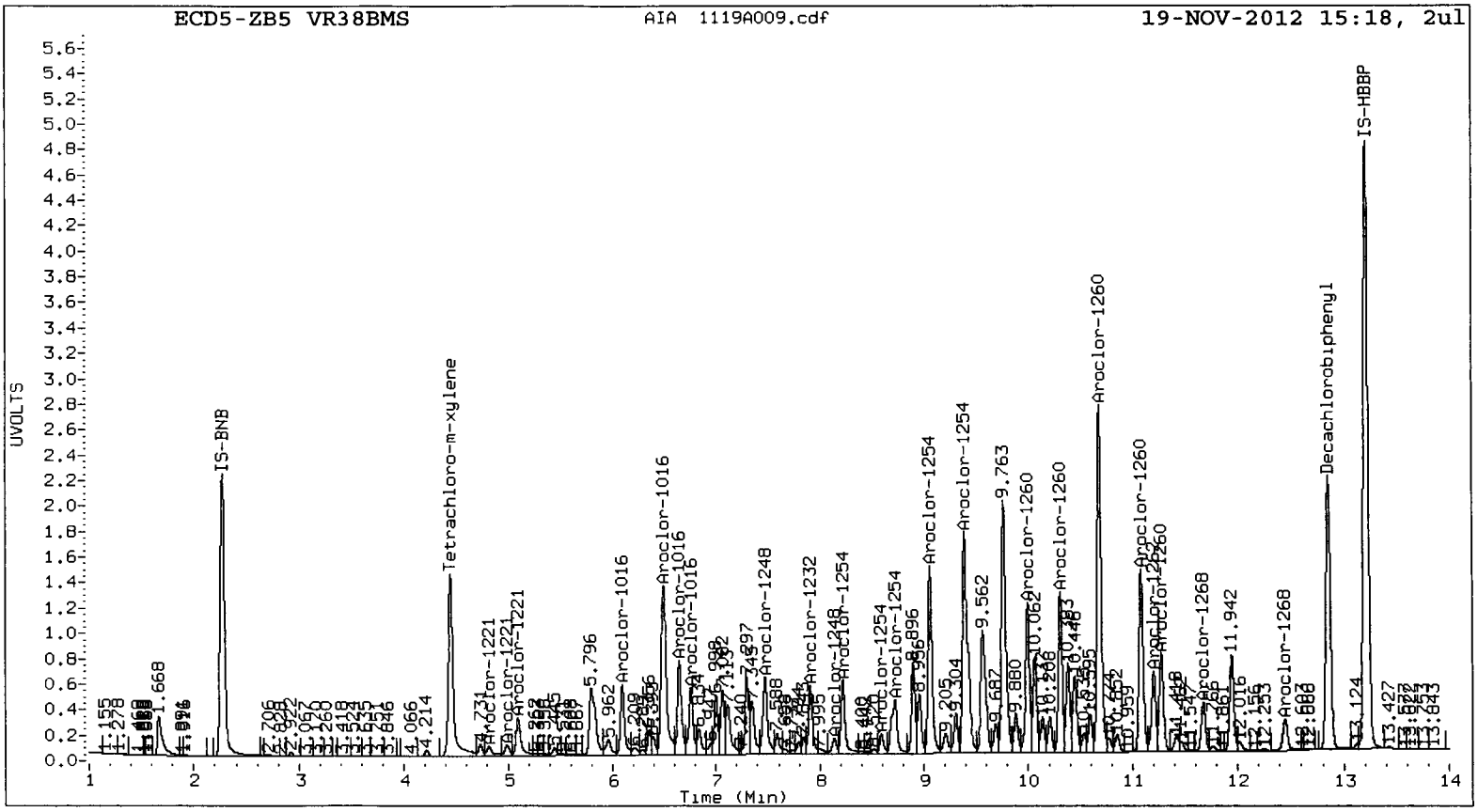
Corrected Ave (3 peaks): 45.5 Corrected Ave (3 peaks): 34.4 RPD = 28

Total PCB Area Col1 (4.547 - 12.755) = 468155401 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 102635252 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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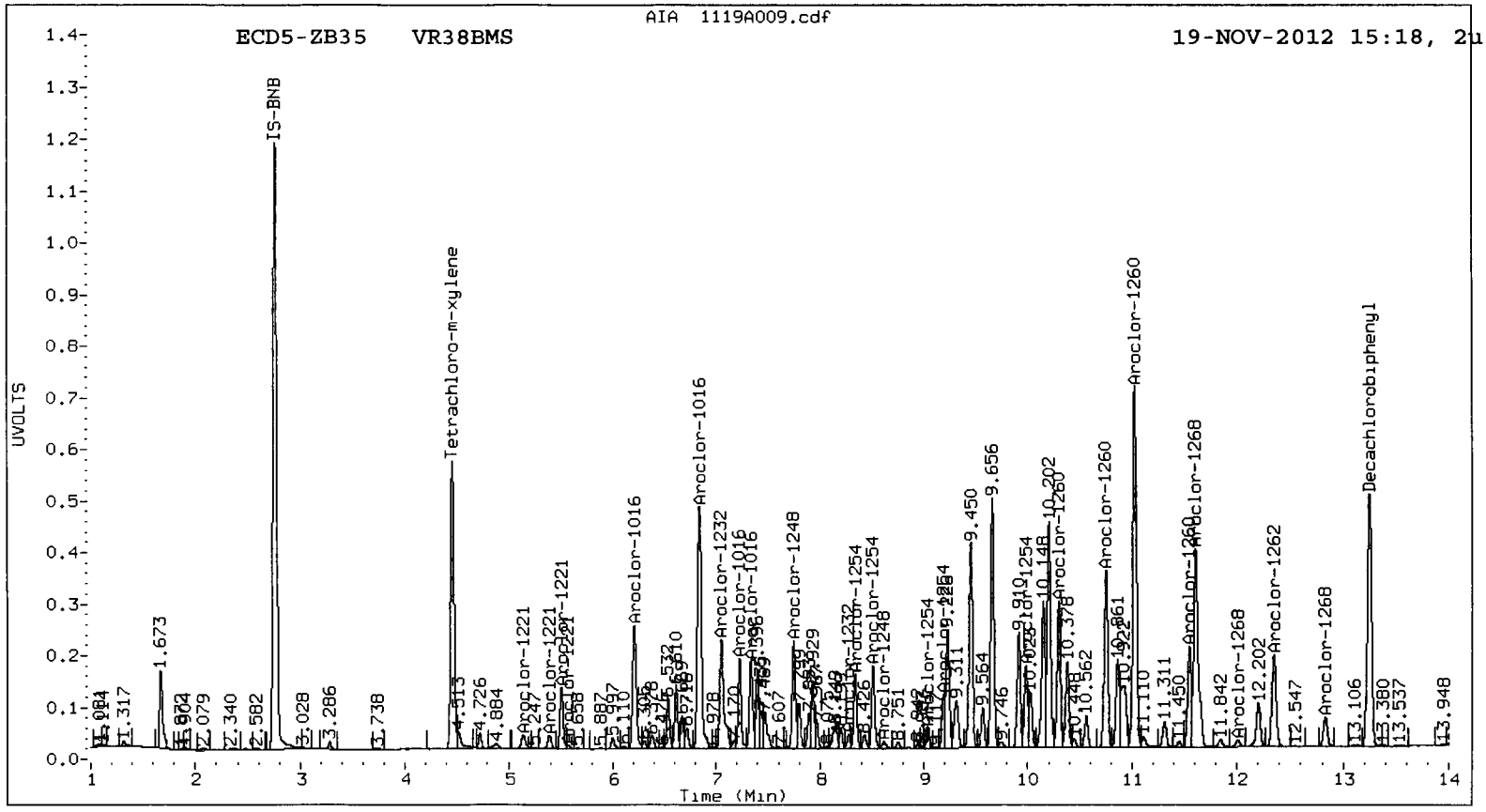
19-NOV-2012 15:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
IS-HBBP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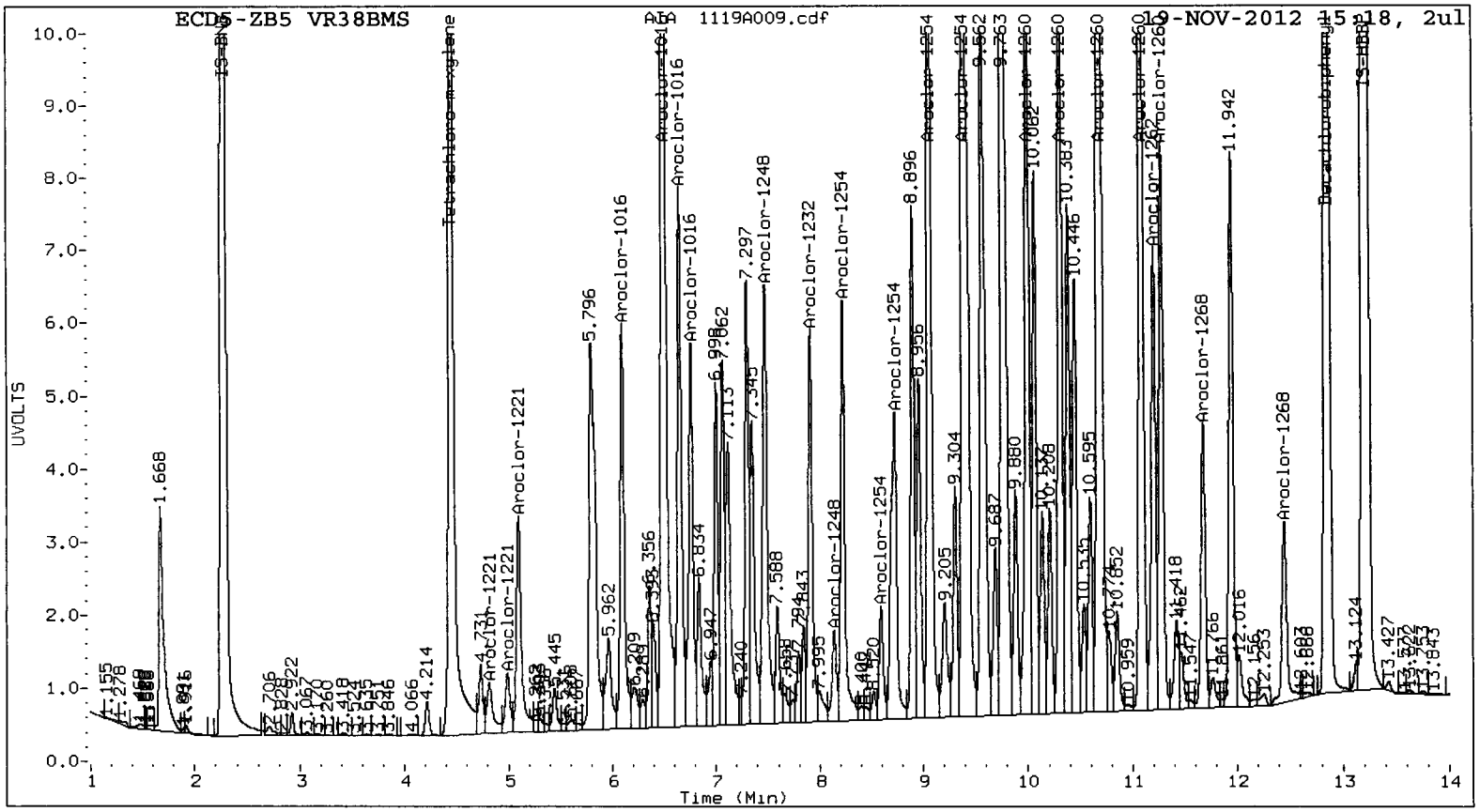
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl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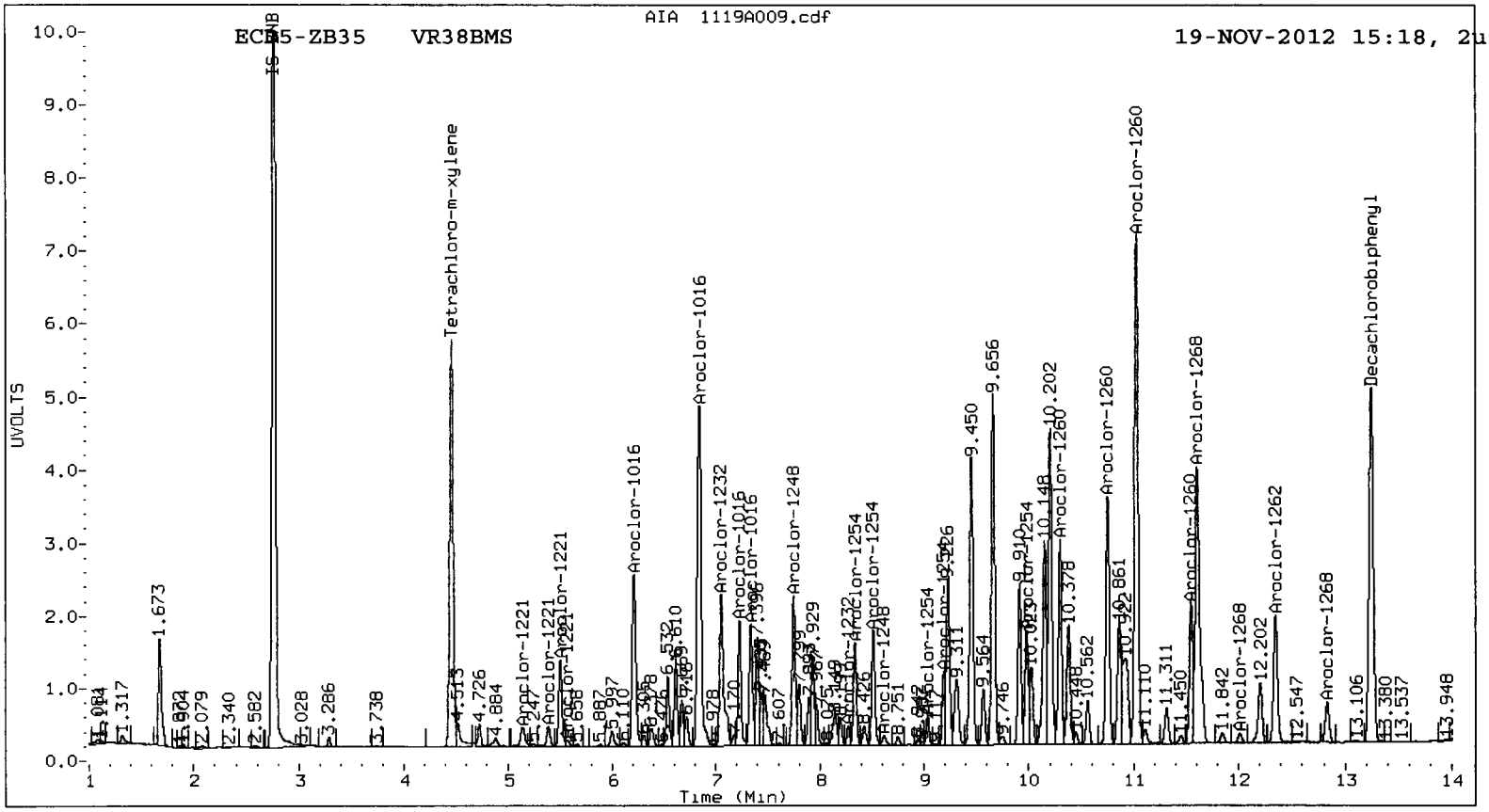
19-NOV-2012 15:18, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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ECD5-ZB35 VR38BMS
19-NOV-2012 15:18, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A010.d
Data file 2: 20121102.B/1119-2.b/1119A010.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38BMSD
Client ID: HT-02-S-C-12110 MSD
Injection Date: 19-NOV-2012 15:39
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	-0.003	24565490	4.453	-0.003	7143062	32.2	34.0	5.6	Tetrachloro-m-xylen
12.853	-0.002	34979794	13.245	-0.002	7263994	30.2	33.5	10.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	80.5	85.1
Decachlorobiphenyl	75.4	83.8

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	36528394	16.9
Hexabromobiphenyl	64198300	76978400	19.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14716599	1.2
Hexabromobiphenyl	15789428	15942611	1.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount	
Aroclor-1016	1	6.092	-0.003	8340698	408.4	1	6.207	-0.003	3193585	387.4	
Aroclor-1016	2	6.496	-0.003	25421839	399.4	2	6.838	-0.003	6932098	397.4	
Aroclor-1016	3	6.646	-0.003	10700336	389.7	3	7.223	-0.003	1860060	409.9	
Aroclor-1016	4	6.756	-0.003	7818859	398.1	4	7.332	-0.002	1969015	385.9	
	Total Col1Ave (4 peaks):				398.9		Total Col2Ave (4 peaks):			395.2	RPD = 1
	Corrected Ave (3 peaks):				395.7		Corrected Ave (3 peaks):			390.2	RPD = 1
Aroclor-1221	1	4.811	-0.006	1539931	172.7	1	5.142	0.000	410989	164.8	
Aroclor-1221	2	4.990	-0.005	1445344	236.7	2	5.390	-0.003	353019	240.4	
Aroclor-1221	3	5.096	-0.005	5314373	267.2	3	5.504	-0.003	1361187	294.8	
Aroclor-1221	NS	---			----	4	5.571	-0.005	100749	126.4	
	Total Col1Ave (3 peaks):				225.5		Total Col2Ave (4 peaks):			206.6	RPD = 9
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			177.2	
Aroclor-1232	1	6.092	-0.002	8340698	1002.5	1	6.207	-0.003	3193585	874.4	
Aroclor-1232	2	6.496	-0.001	25421839	977.3	2	6.838	-0.002	6932098	963.3	
Aroclor-1232	3	6.646	-0.002	10700336	943.2	3	7.048	-0.002	2882351	958.1	
Aroclor-1232	4	7.907	0.006	7759207	545.8	4	8.274	-0.002	271079	106.1	
	Total Col1Ave (4 peaks):				867.2		Total Col2Ave (4 peaks):			725.5	RPD = 18
	Corrected Ave (3 peaks):				822.1		Corrected Ave (3 peaks):			646.2	RPD = 24
Aroclor-1242	1	6.092	-0.003	8340698	524.9	1	6.207	-0.002	3193585	508.2	
Aroclor-1242	2	6.496	-0.003	25421839	516.4	2	6.838	-0.004	6932098	518.2	
Aroclor-1242	3	6.646	-0.002	10700336	500.6	3	7.048	-0.002	2882351	518.5	
Aroclor-1242	4	7.907	0.008	7759207	309.5	4	8.274	0.000	271079	57.9	
	Total Col1Ave (4 peaks):				462.9		Total Col2Ave (4 peaks):			400.7	RPD = 14
	Corrected Ave (3 peaks):				442.2		Corrected Ave (3 peaks):			361.4	RPD = 20
Aroclor-1248	1	6.496	0.003	25421839	790.0	1	6.838	0.000	6932098	793.6	
Aroclor-1248	2	7.471	0.001	10041299	296.4	2	7.744	-0.001	2373113	327.5	
Aroclor-1248	3	7.907	0.009	7759207	181.4	3	8.274	0.000	271079	36.2	
Aroclor-1248	4	8.139	0.006	1919069	58.2	4	8.620	0.000	209757	22.7	
	Total Col1Ave (4 peaks):				331.5		Total Col2Ave (4 peaks):			295.0	RPD = 12
	Corrected Ave (3 peaks):				178.6		Corrected Ave (3 peaks):			128.8	RPD = 32
Aroclor-1254	1	8.221	-0.001	8274495	189.7	1	8.338	-0.003	1534332	240.1	
Aroclor-1254	2	8.591	-0.003	2249864	78.5	2	8.512	-0.002	1803339	223.4	
Aroclor-1254	3	8.724	-0.004	8811778	158.1	3	9.035	-0.002	427333	68.9	
Aroclor-1254	4	9.058	-0.020	21216232	347.8	4	9.185	-0.001	899026	66.1	
Aroclor-1254	5	9.388	-0.051	31832324	829.9	5	9.979	0.009	1854054	226.3	
	Total Col1Ave (5 peaks):				320.8		Total Col2Ave (5 peaks):			165.0	RPD = 64*
	Corrected Ave (4 peaks):				193.5		Corrected Ave (4 peaks):			146.2	RPD = 28
Aroclor-1260	1	9.994	-0.002	16781066	375.1	1	10.298	-0.003	3250003	381.9	
Aroclor-1260	2	10.310	-0.002	17254288	383.7	2	10.749	-0.002	4242598	406.2	
Aroclor-1260	3	10.684	-0.002	40625807	381.0	3	11.023	-0.002	8772640	422.1	
Aroclor-1260	4	11.083	-0.001	21081661	345.0	4	11.545	0.000	2386930	381.1	
Aroclor-1260	5	11.274	-0.002	11438886	385.3	NS	---			----	
	Total Col1Ave (5 peaks):				374.0		Total Col2Ave (4 peaks):			397.8	RPD = 6
	Corrected Ave (4 peaks):				371.2		Corrected Ave (3 peaks):			389.7	RPD = 5
Aroclor-1262	1	9.994	-0.003	16781066	250.7	1	10.298	-0.004	3250003	233.8	
Aroclor-1262	2	10.310	-0.002	17254288	339.5	2	10.749	-0.004	4242598	343.5	
Aroclor-1262	3	10.684	-0.002	40625807	308.3	3	11.023	-0.002	8772640	323.6	
Aroclor-1262	4	11.201	-0.002	9477248	190.9	4	11.545	-0.001	2386930	217.6	
Aroclor-1262	5	11.274	-0.001	11438886	209.9	5	12.345	-0.002	2496536	236.8	
	Total Col1Ave (5 peaks):				259.9		Total Col2Ave (5 peaks):			271.0	RPD = 4
	Corrected Ave (4 peaks):				239.9		Corrected Ave (4 peaks):			252.9	RPD = 5
Aroclor-1268	1	11.201	-0.002	9477248	71.0	1	11.545	-0.002	2386930	86.2	

Aroclor-1268 2	11.274	-0.001	11438886	89.1	2	11.603	-0.010	5992897	222.5
Aroclor-1268 3	11.674	0.013	6005407	53.2	3	12.009	-0.002	177486	7.9
Aroclor-1268 4	12.446	-0.003	4153757	12.9	4	12.831	-0.003	759191	11.4

Total Col1Ave (4 peaks): 56.5 Total Col2Ave (4 peaks): 82.0 RPD = 37

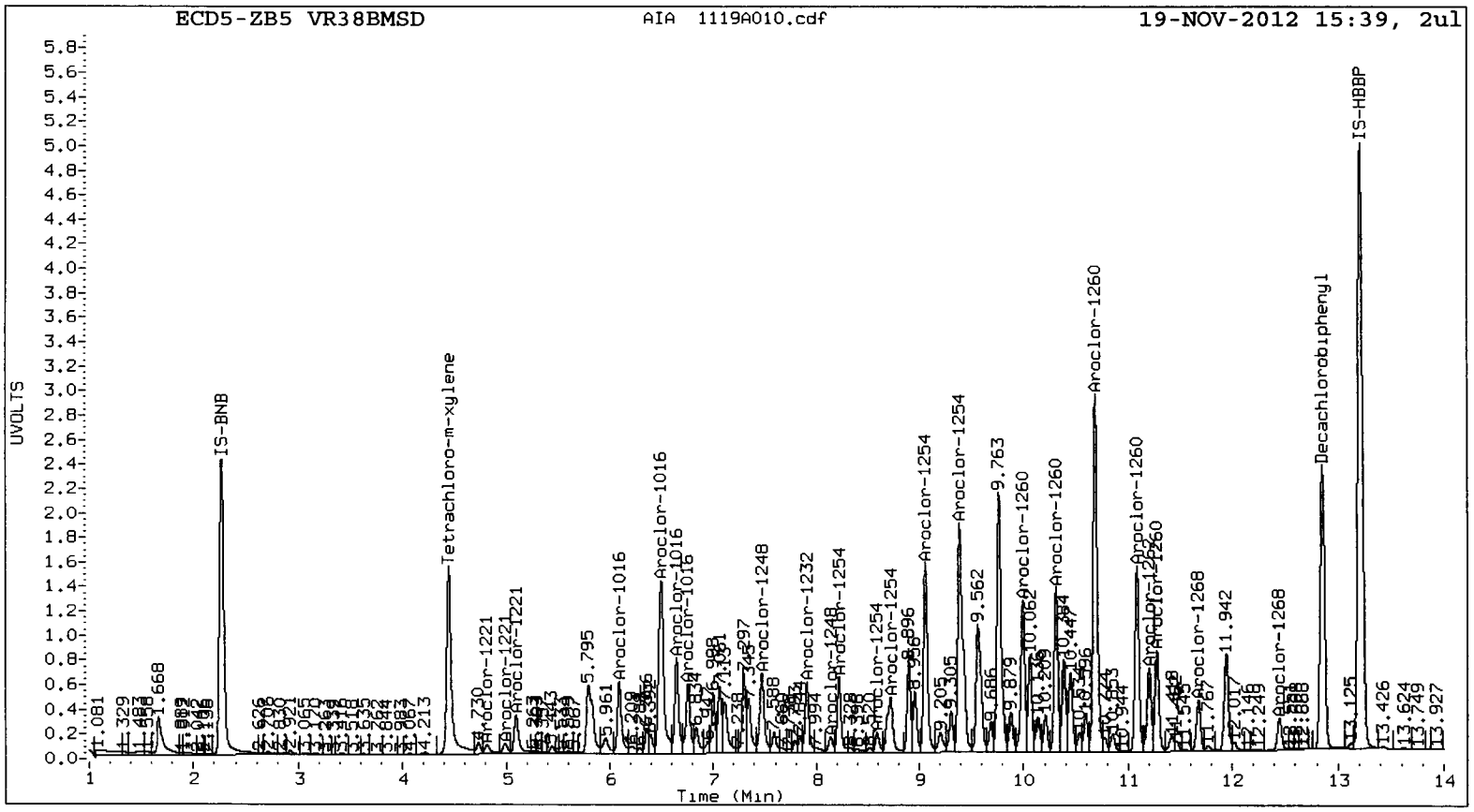
Corrected Ave (3 peaks): 45.7 Corrected Ave (3 peaks): 35.2 RPD = 26

Total PCB Area Col1 (4.547 - 12.755) = 493306026 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 107874967 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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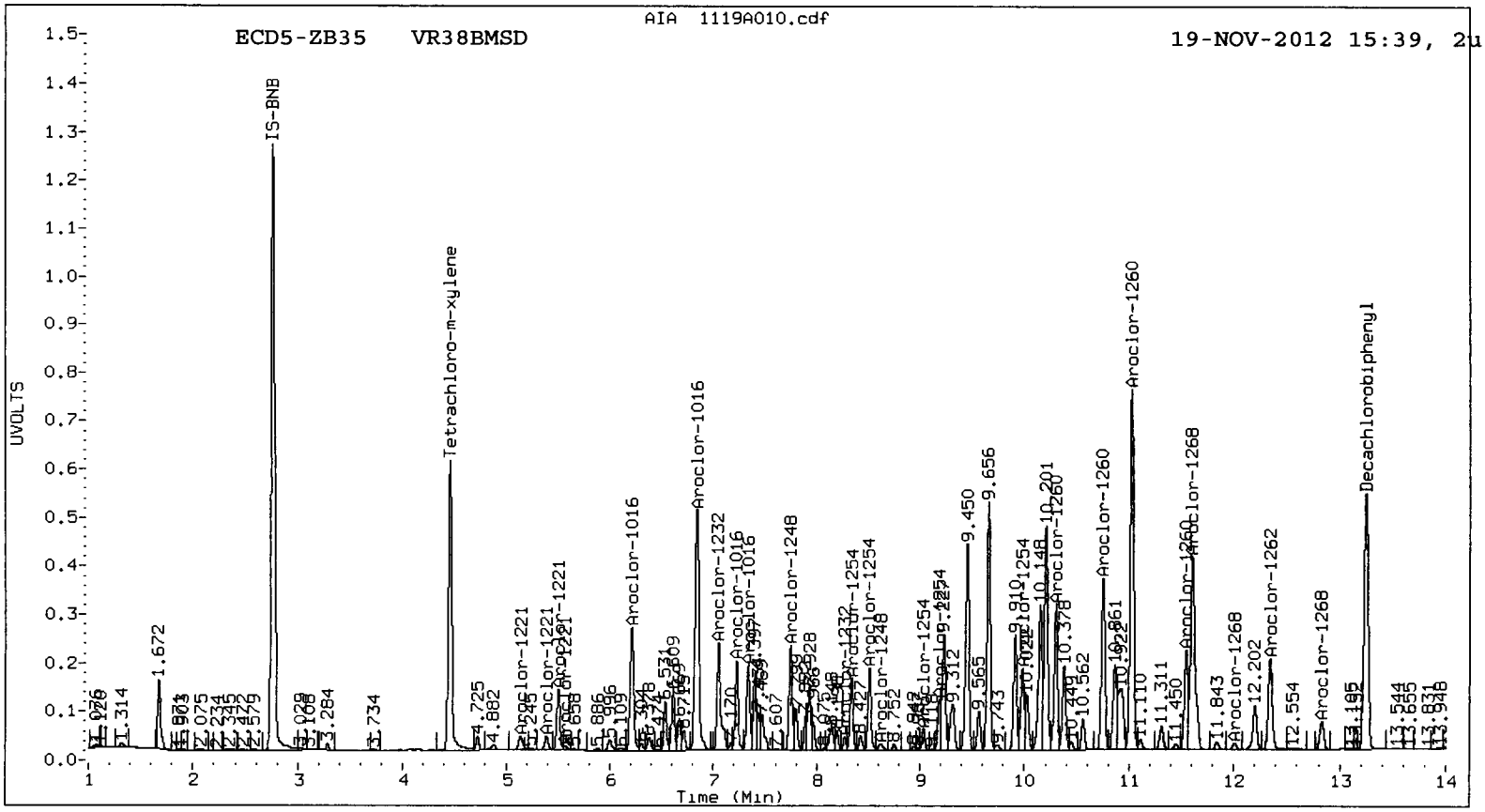
19-NOV-2012 15:39, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
Time (Min)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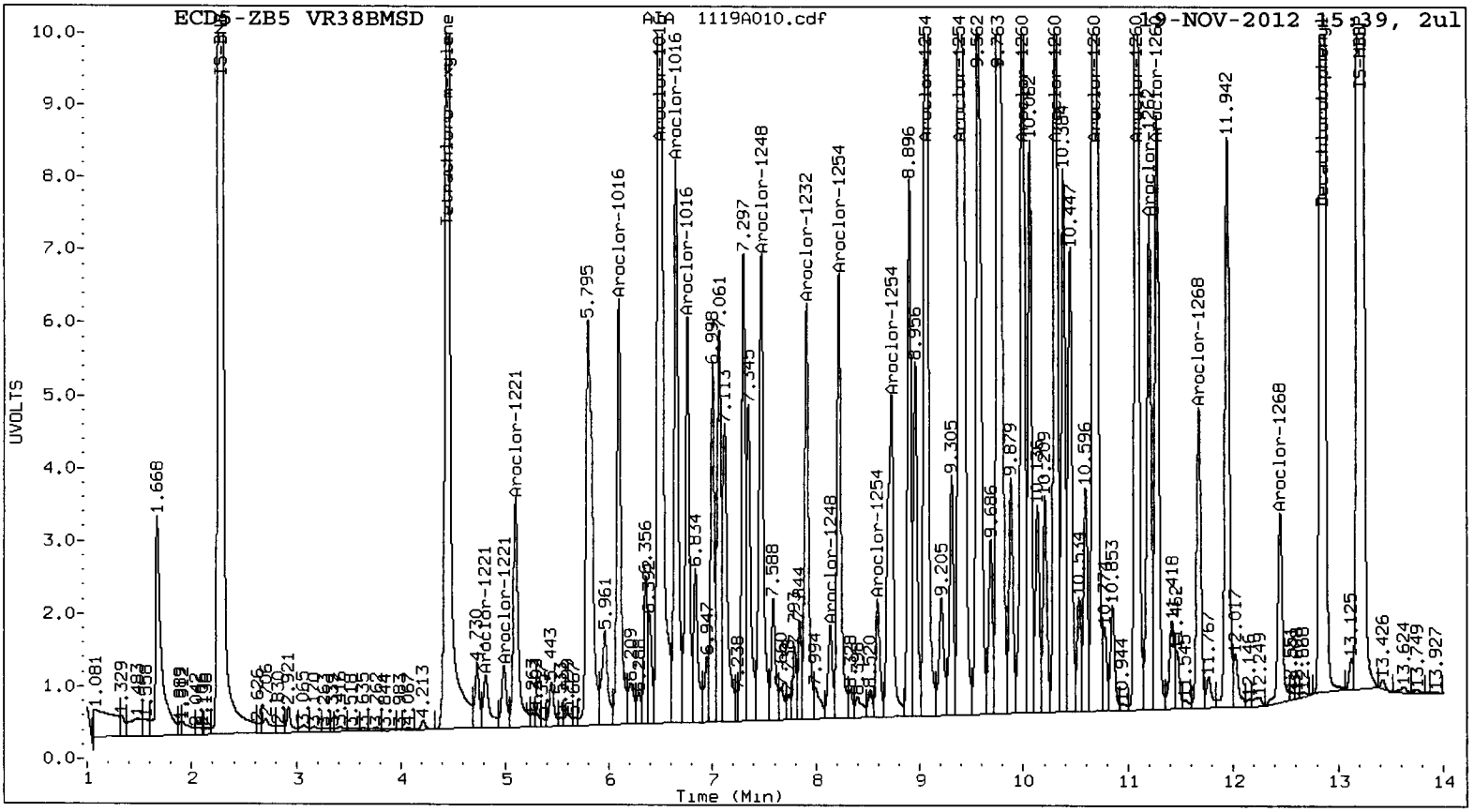
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
Time (Min)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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
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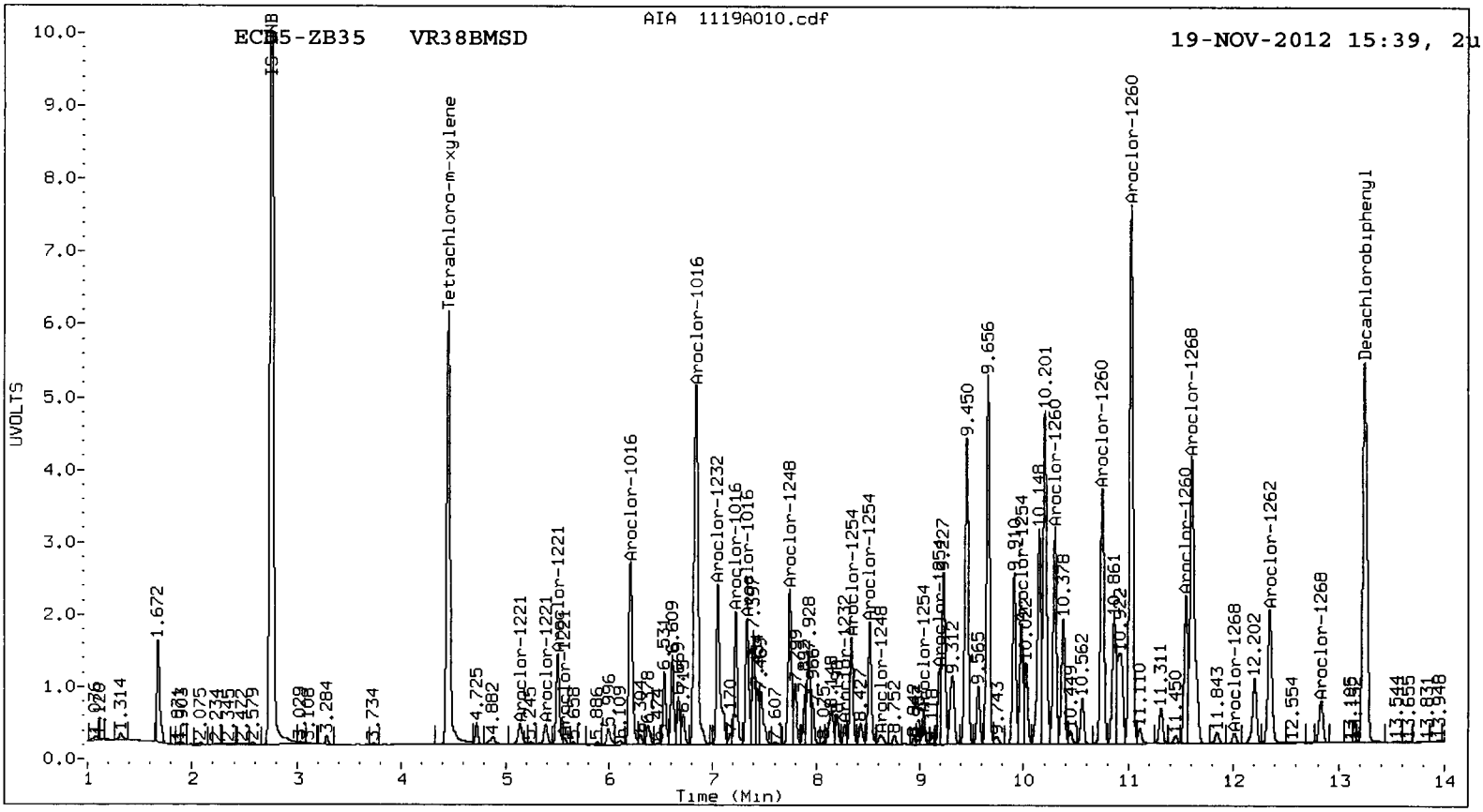
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A011.d
Data file 2: 20121102.B/1119-2.b/1119A011.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38C
Client ID: HT-03-S-C-121106
Injection Date: 19-NOV-2012 15:59
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.446	-0.001	22885516	4.455	-0.001	6610751	33.0	34.9	5.6	Tetrachloro-m-xylen
12.853	-0.002	30625814	13.245	-0.003	6457723	29.6	32.0	7.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	82.6	87.3
Decachlorobiphenyl	74.1	79.9

JL 11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33161905	6.1
Hexabromobiphenyl	64198300	68585105	6.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13273478	-8.7
Hexabromobiphenyl	15789428	14868130	-5.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.067	-0.028	546905	29.5	1	6.118	-0.091	34727	4.7
Aroclor-1016	2	6.490	-0.009	478047	8.3	2	6.834	-0.007	24086	1.5
Aroclor-1016	3	6.652	0.003	268644	10.8	3	---			0.0
Aroclor-1016	4	6.758	-0.001	242616	13.6	4	7.351	0.016	168250	36.6
	Total Col1Ave (4 peaks):			15.5		Total Col2Ave (3 peaks):			14.3	RPD = 9
	Corrected Ave (3 peaks):			10.9		Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.731	-0.086	2017119	249.2	1	5.159	0.018	166803	74.2
Aroclor-1221	2	4.977	-0.018	683113	123.2	2	5.414	0.021	94980	71.7
Aroclor-1221	3	5.103	0.002	292625	16.2	3	5.513	0.006	25563	6.1
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):			129.5		Total Col2Ave (3 peaks):			50.7	RPD = 88*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.067	-0.027	546905	72.4	1	6.118	-0.092	34727	10.5
Aroclor-1232	2	6.490	-0.007	478047	20.2	2	6.834	-0.007	24086	3.7
Aroclor-1232	3	6.652	0.004	268644	26.1	3	6.984	-0.066	22887	8.4
Aroclor-1232	4	7.905	0.005	369591	28.6	4	8.281	0.004	12219	5.3
	Total Col1Ave (4 peaks):			36.8		Total Col2Ave (4 peaks):			7.0	RPD = 136*
	Corrected Ave (3 peaks):			25.0		Corrected Ave (3 peaks):			5.8	RPD = 124*
Aroclor-1242	1	6.067	-0.028	546905	37.9	1	6.118	-0.091	34727	6.1
Aroclor-1242	2	6.490	-0.009	478047	10.7	2	6.834	-0.008	24086	2.0
Aroclor-1242	3	6.652	0.004	268644	13.8	3	6.984	-0.065	22887	4.6
Aroclor-1242	4	7.905	0.006	369591	16.2	4	8.281	0.006	12219	2.9
	Total Col1Ave (4 peaks):			19.7		Total Col2Ave (4 peaks):			3.9	RPD = 134*
	Corrected Ave (3 peaks):			13.6		Corrected Ave (3 peaks):			3.2	RPD = 125*
Aroclor-1248	1	6.490	-0.002	478047	16.4	1	6.834	-0.004	24086	3.1
Aroclor-1248	2	7.462	-0.007	366044	11.9	2	7.748	0.003	13146	2.0
Aroclor-1248	3	7.905	0.007	369591	9.5	3	8.281	0.007	12219	1.8
Aroclor-1248	4	8.118	-0.015	668038	22.3	4	8.647	0.027	93314	11.2
	Total Col1Ave (4 peaks):			15.0		Total Col2Ave (4 peaks):			4.5	RPD = 108*
	Corrected Ave (3 peaks):			12.6		Corrected Ave (3 peaks):			2.3	RPD = 138*
Aroclor-1254	1	8.210	-0.012	489086	12.4	1	8.335	-0.005	32491	5.6
Aroclor-1254	2	8.615	0.021	1178964	45.3	2	8.543	0.028	198876	27.3
Aroclor-1254	3	8.727	-0.001	876142	17.3	3	9.034	-0.003	31964	5.7
Aroclor-1254	4	9.075	-0.003	692628	12.5	4	9.184	-0.003	48009	3.9
Aroclor-1254	5	9.438	-0.001	482345	13.9	5	9.961	-0.010	15415	2.1
	Total Col1Ave (5 peaks):			20.3		Total Col2Ave (5 peaks):			8.9	RPD = 78*
	Corrected Ave (4 peaks):			14.0		Corrected Ave (4 peaks):			4.3	RPD = 105*
Aroclor-1260	1	9.991	-0.005	585240	14.7	1	10.285	-0.016	66489	8.4
Aroclor-1260	2	10.306	-0.006	336735	8.4	2	10.744	-0.007	12060	1.2
Aroclor-1260	3	10.684	-0.003	1073076	11.3	3	11.022	-0.002	31751	1.6
Aroclor-1260	4	11.075	-0.009	591572	10.9	4	11.494	-0.052	31896	5.5
Aroclor-1260	5	11.273	-0.003	508069	19.2	NS	---			----
	Total Col1Ave (5 peaks):			12.9		Total Col2Ave (4 peaks):			4.2	RPD = 102*
	Corrected Ave (4 peaks):			11.3		Corrected Ave (3 peaks):			2.8	RPD = 121*
Aroclor-1262	1	9.991	-0.005	585240	9.8	1	10.285	-0.017	66489	5.1
Aroclor-1262	2	10.306	-0.006	336735	7.4	2	10.744	-0.008	12060	1.0
Aroclor-1262	3	10.684	-0.003	1073076	9.1	3	11.022	-0.002	31751	1.3
Aroclor-1262	4	11.205	0.002	406436	9.2	4	11.599	0.052	16408	1.6
Aroclor-1262	5	11.273	-0.003	508069	10.5	5	12.375	0.029	35004	3.6
	Total Col1Ave (5 peaks):			9.2		Total Col2Ave (5 peaks):			2.5	RPD = 114*
	Corrected Ave (4 peaks):			8.9		Corrected Ave (4 peaks):			1.9	RPD = 131*
Aroclor-1268	1	11.205	0.002	406436	3.4	1	11.599	0.051	16408	0.6

Aroclor-1268	2	11.273	-0.002	508069	4.4	2	---		0.0
Aroclor-1268	3	11.717	0.057	859893	8.5	3	12.025	0.013	14488	0.7
Aroclor-1268	4	12.387	-0.061	208142	0.7	4	---		0.0

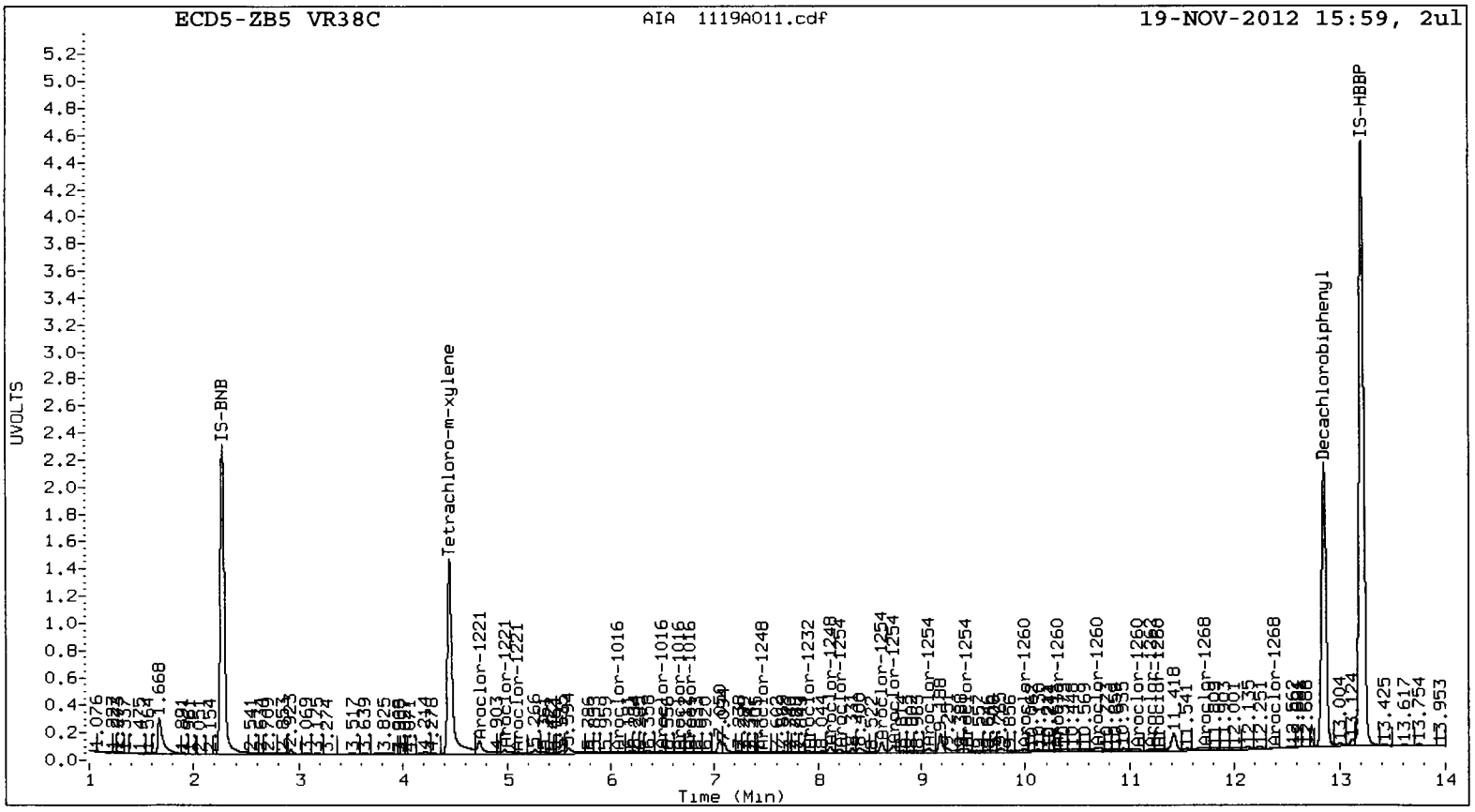
Total Col1Ave (4 peaks): 4.3 Col2Ave: <3 Quant Peaks

Total PCB Area Col1 (4.547 - 12.755) = 40925846 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 4268132 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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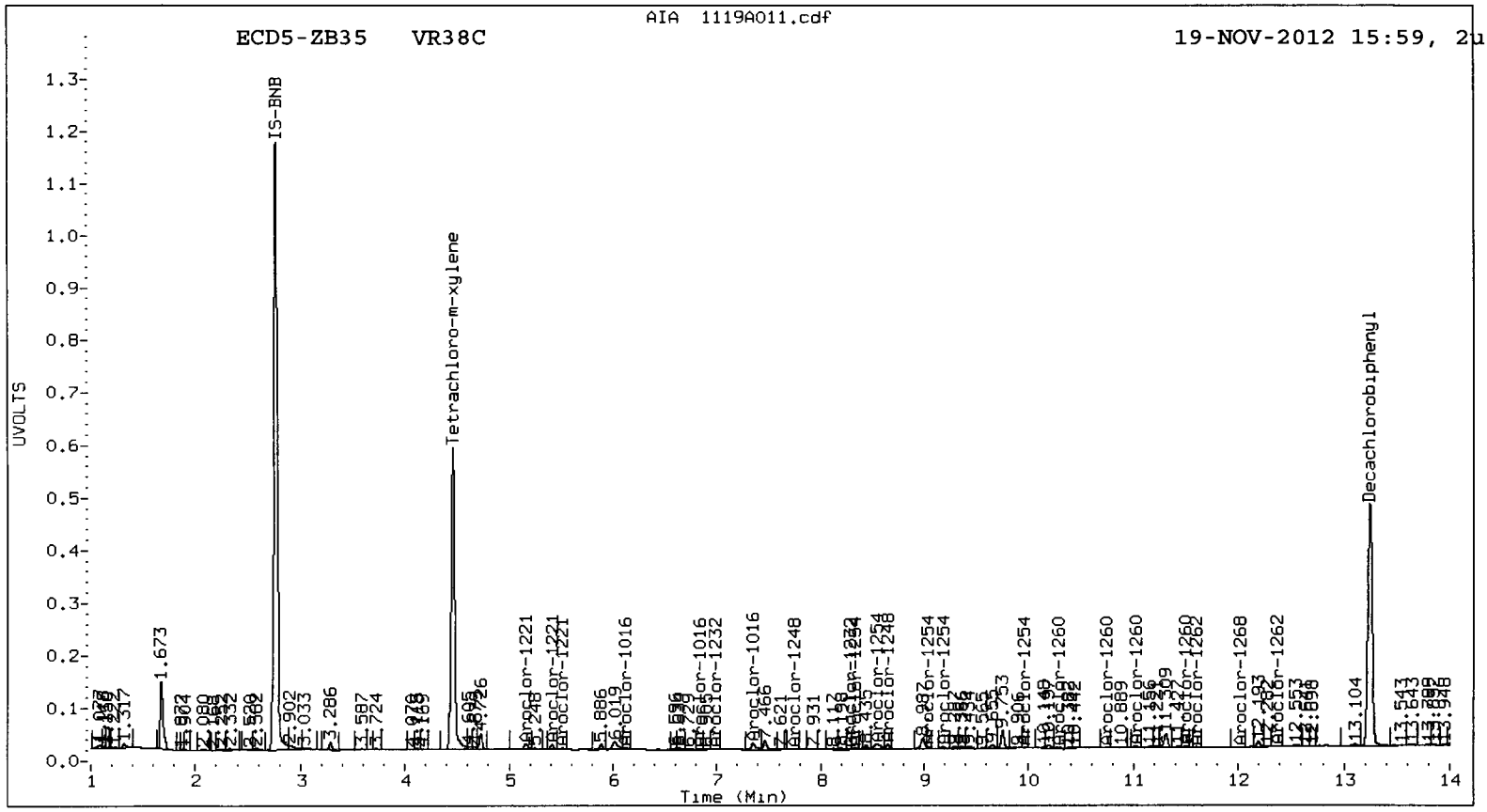
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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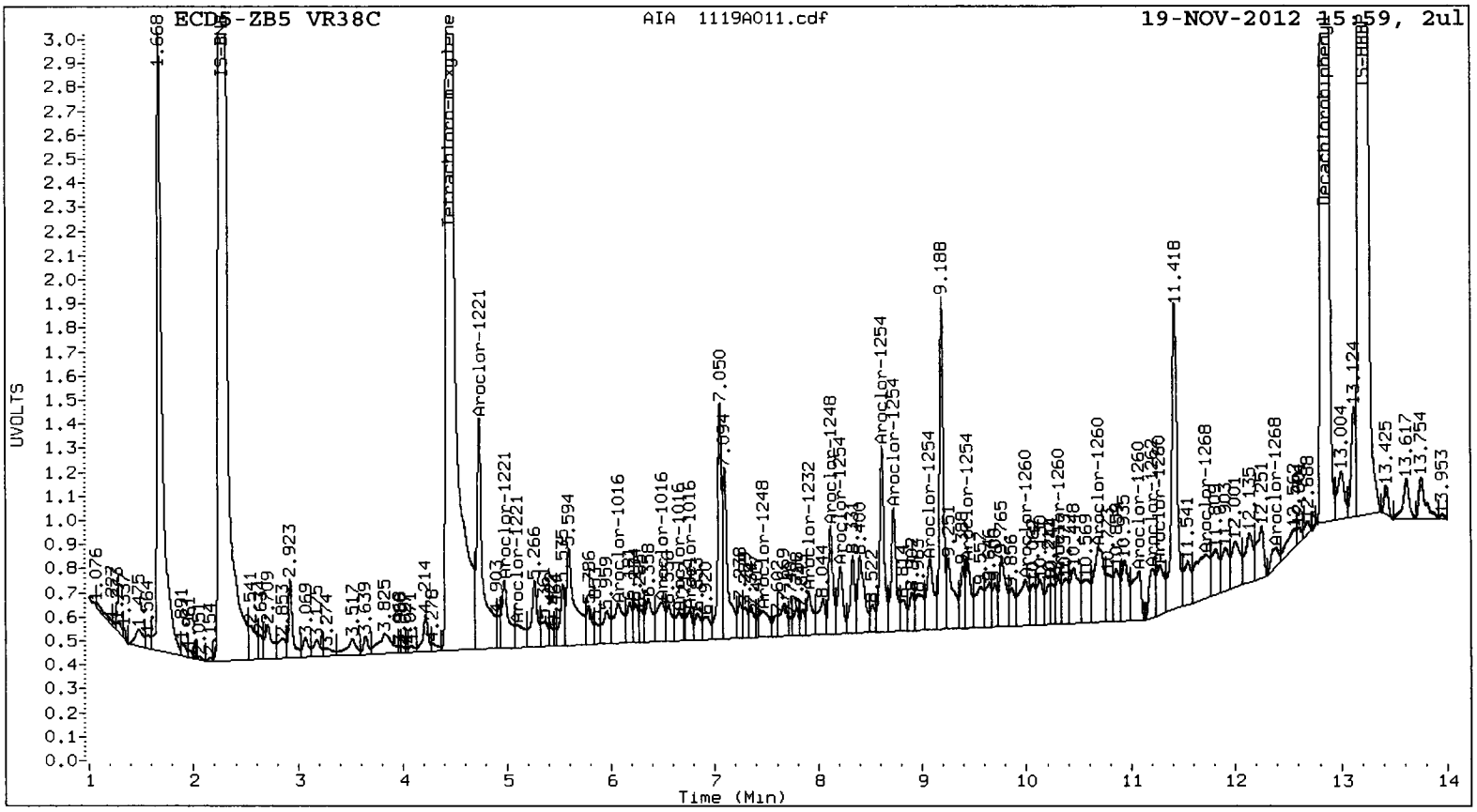
Tetrachloro-m-xylene
Decachlorobiphenyl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UVOLTS
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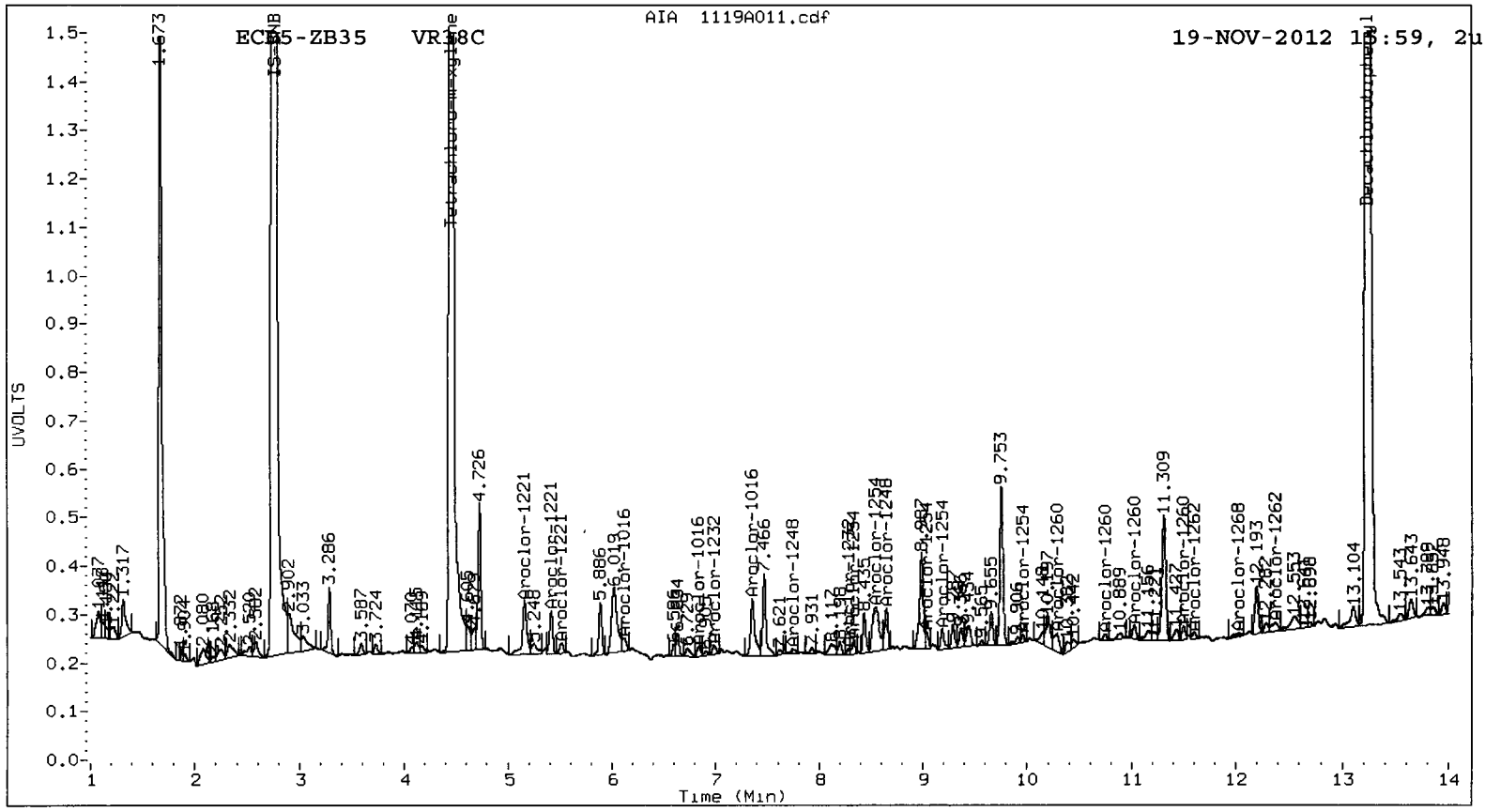
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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ECD5-ZB35 VR38C
19-NOV-2012 15:59, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A012.d
Data file 2: 20121102.B/1119-2.b/1119A012.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38D
Client ID: HT-04-S-C-121106
Injection Date: 19-NOV-2012 16:19
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	-0.003	23279027	4.457	0.001	6534014	34.6	35.8	3.4	Tetrachloro-m-xylen
12.853	-0.002	26772848	13.244	-0.004	6129567	27.2	31.4	14.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	86.4	89.4
Decachlorobiphenyl	68.1	78.5

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32239236	3.2
Hexabromobiphenyl	64198300	65220634	1.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	12818888	-11.8
Hexabromobiphenyl	15789428	14370111	-9.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.096	0.001	509767	28.3	1	6.192	-0.017	45315	6.3
Aroclor-1016	2	6.494	-0.005	795276	14.2	2	6.839	-0.002	27990	1.8
Aroclor-1016	3	6.647	-0.002	347173	14.3	3	---			0.0
Aroclor-1016	4	6.753	-0.006	419354	24.2	4	7.347	0.012	139326	31.3
	Total Col1Ave (4 peaks):				20.2	Total Col2Ave (3 peaks):			13.2	RPD = 42*
	Corrected Ave (3 peaks):				17.6	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.859	0.043	596716	75.6	1	5.159	0.018	140041	64.5
Aroclor-1221	2	4.976	-0.019	687985	127.7	2	5.415	0.023	300790	235.2
Aroclor-1221	3	5.106	0.004	291832	16.6	3	5.525	0.018	67883	16.9
Aroclor-1221	NS	---			----	4	5.583	0.008	12395	17.9
	Total Col1Ave (3 peaks):				73.4	Total Col2Ave (4 peaks):			83.6	RPD = 13
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			33.1	
Aroclor-1232	1	6.096	0.002	509767	69.4	1	6.192	-0.018	45315	14.2
Aroclor-1232	2	6.494	-0.003	795276	34.6	2	6.839	-0.002	27990	4.5
Aroclor-1232	3	6.647	0.000	347173	34.7	3	7.058	0.008	27829	10.6
Aroclor-1232	4	7.903	0.003	844253	67.3	4	8.273	-0.003	40503	18.2
	Total Col1Ave (4 peaks):				51.5	Total Col2Ave (4 peaks):			11.9	RPD = 125*
	Corrected Ave (3 peaks):				45.5	Corrected Ave (3 peaks):			9.8	RPD = 129*
Aroclor-1242	1	6.096	0.001	509767	36.3	1	6.192	-0.017	45315	8.3
Aroclor-1242	2	6.494	-0.005	795276	18.3	2	6.839	-0.004	27990	2.4
Aroclor-1242	3	6.647	0.000	347173	18.4	3	7.058	0.009	27829	5.7
Aroclor-1242	4	7.903	0.004	844253	38.2	4	8.273	-0.001	40503	9.9
	Total Col1Ave (4 peaks):				27.8	Total Col2Ave (4 peaks):			6.6	RPD = 123*
	Corrected Ave (3 peaks):				24.4	Corrected Ave (3 peaks):			5.5	RPD = 127*
Aroclor-1248	1	6.494	0.001	795276	28.0	1	6.839	0.000	27990	3.7
Aroclor-1248	2	7.458	-0.011	611634	20.5	2	7.748	0.003	50264	8.0
Aroclor-1248	3	7.903	0.005	844253	22.4	3	8.273	0.000	40503	6.2
Aroclor-1248	4	8.120	-0.013	1282246	44.1	4	8.605	-0.015	72019	8.9
	Total Col1Ave (4 peaks):				28.7	Total Col2Ave (4 peaks):			6.7	RPD = 124*
	Corrected Ave (3 peaks):				23.6	Corrected Ave (3 peaks):			6.0	RPD = 119*
Aroclor-1254	1	8.213	-0.009	1234034	32.1	1	8.338	-0.003	106900	19.2
Aroclor-1254	2	8.615	-0.021	4763799	188.3	2	8.523	-0.009	475612	67.7
Aroclor-1254	3	8.726	-0.002	1990821	40.5	3	9.033	-0.004	81436	15.1
Aroclor-1254	4	9.074	-0.004	1389967	25.8	4	9.185	-0.002	235697	19.9
Aroclor-1254	5	9.436	-0.002	903565	26.7	5	9.966	-0.004	146831	20.6
	Total Col1Ave (5 peaks):				62.7	Total Col2Ave (5 peaks):			28.5	RPD = 75*
	Corrected Ave (4 peaks):				31.3	Corrected Ave (4 peaks):			18.7	RPD = 50*
Aroclor-1260	1	9.989	-0.006	392424	10.4	1	10.295	-0.006	86827	11.3
Aroclor-1260	2	10.309	-0.003	297779	7.8	2	10.745	-0.006	93017	9.9
Aroclor-1260	3	10.685	-0.001	741430	8.2	3	11.024	-0.001	128928	6.9
Aroclor-1260	4	11.079	-0.006	573167	11.1	4	11.492	-0.054	259254	45.9
Aroclor-1260	5	11.271	-0.005	408505	16.2	NS	---			----
	Total Col1Ave (5 peaks):				10.7	Total Col2Ave (4 peaks):			18.5	RPD = 53*
	Corrected Ave (4 peaks):				9.4	Corrected Ave (3 peaks):			9.4	RPD = 0
Aroclor-1262	1	9.989	-0.007	392424	6.9	1	10.295	-0.006	86827	6.9
Aroclor-1262	2	10.309	-0.003	297779	6.9	2	10.745	-0.008	93017	8.4
Aroclor-1262	3	10.685	-0.002	741430	6.6	3	11.024	-0.001	128928	5.3
Aroclor-1262	4	11.201	-0.001	365591	8.7	4	11.492	-0.055	259254	26.2
Aroclor-1262	5	11.271	-0.005	408505	8.8	5	12.375	0.028	105769	11.1
	Total Col1Ave (5 peaks):				7.6	Total Col2Ave (5 peaks):			11.6	RPD = 41*
	Corrected Ave (4 peaks):				7.3	Corrected Ave (4 peaks):			7.9	RPD = 8
Aroclor-1268	1	11.201	-0.002	365591	3.2	1	11.602	0.055	90011	3.6

Aroclor-1268 2	11.271	-0.004	408505	3.8	2	---			0.0
Aroclor-1268 3	11.673	0.013	410795	4.3	3	11.980	-0.031	45124	2.2
Aroclor-1268 4	12.450	0.001	101565	0.4	4	12.926	0.092	18343	0.3

Total Col1Ave (4 peaks): 2.9 Total Col2Ave (3 peaks): 2.0 RPD = 35

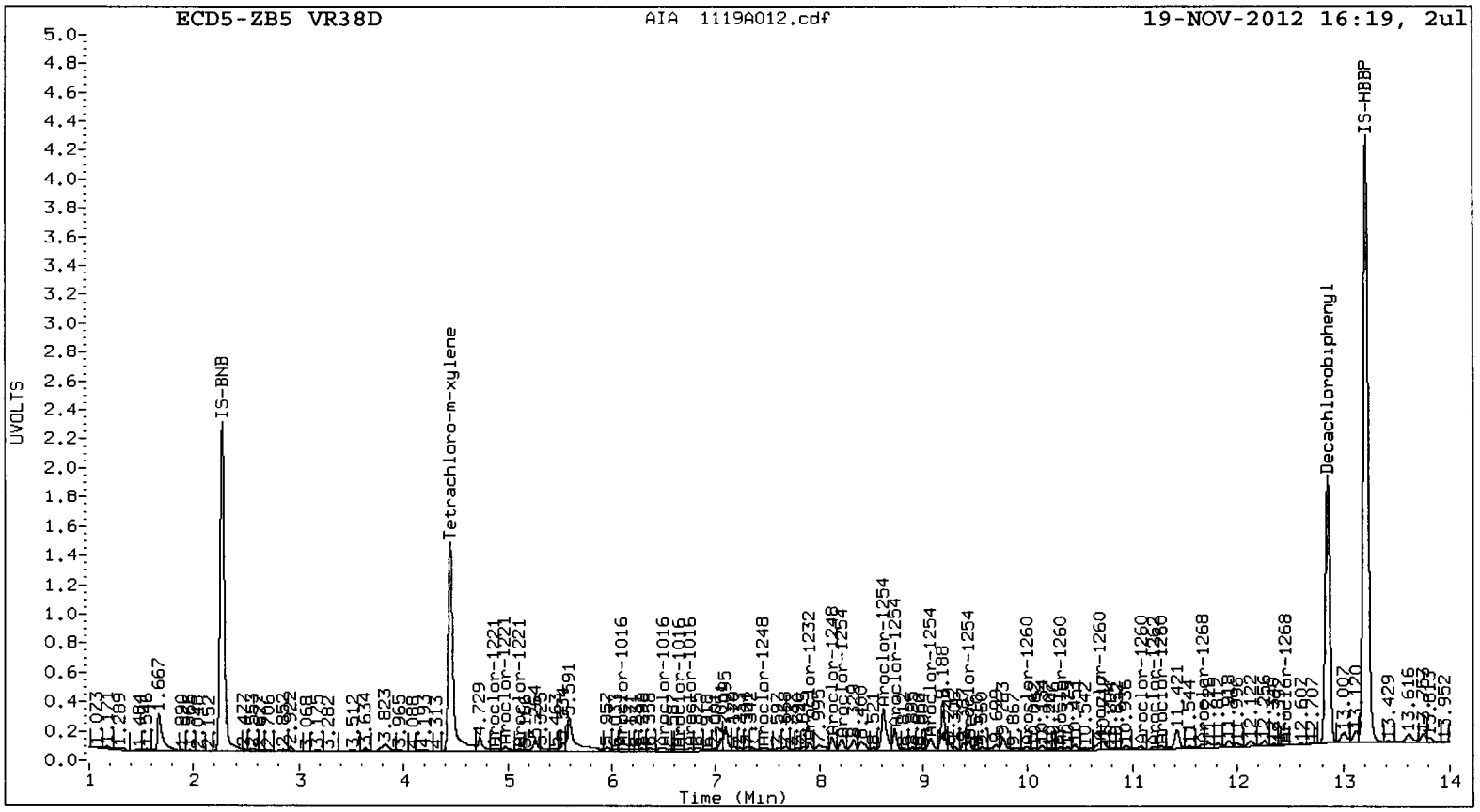
Corrected Ave (3 peaks): 2.5 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.547 - 12.755) = 64832971 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 11590881 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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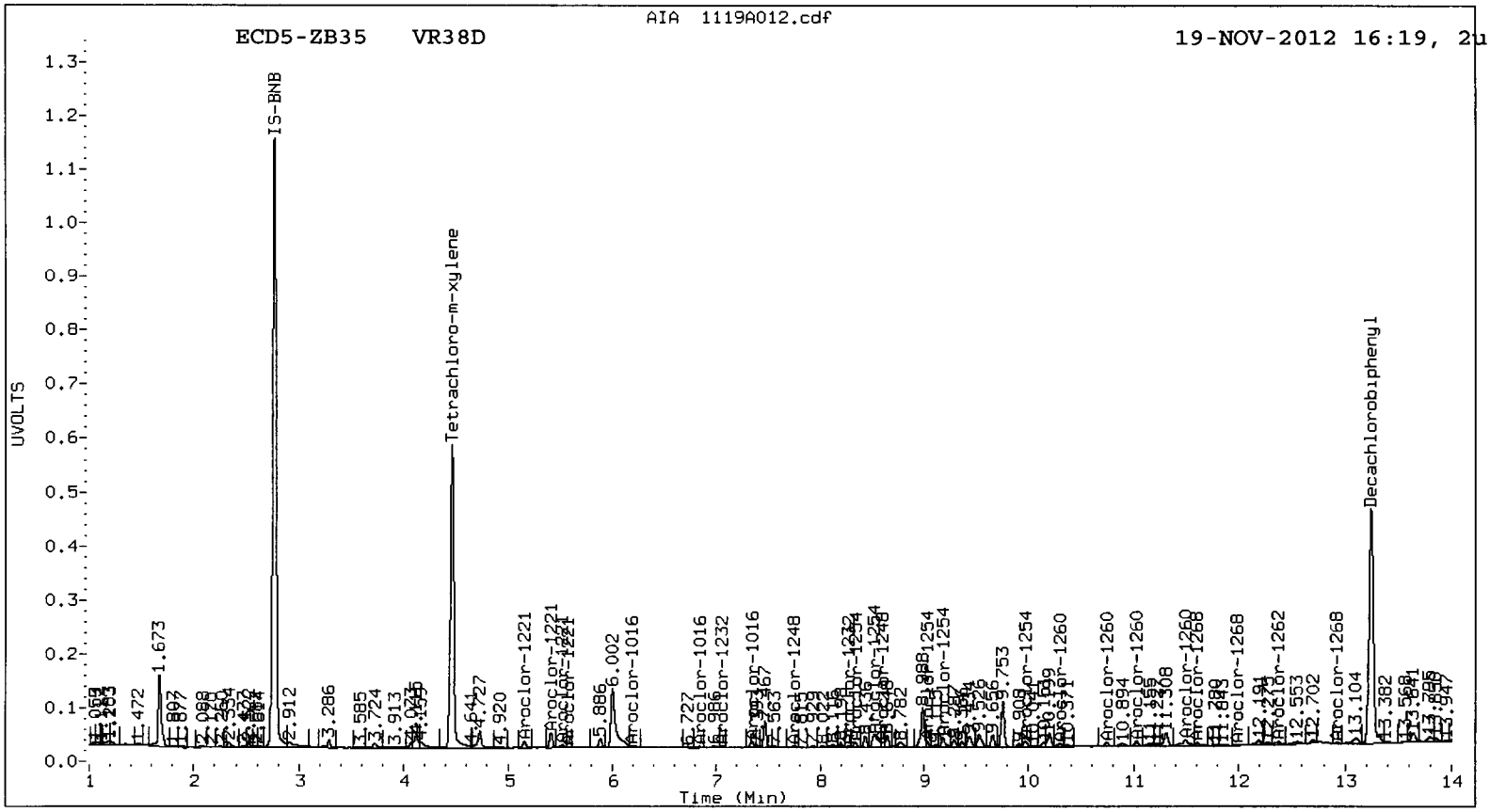
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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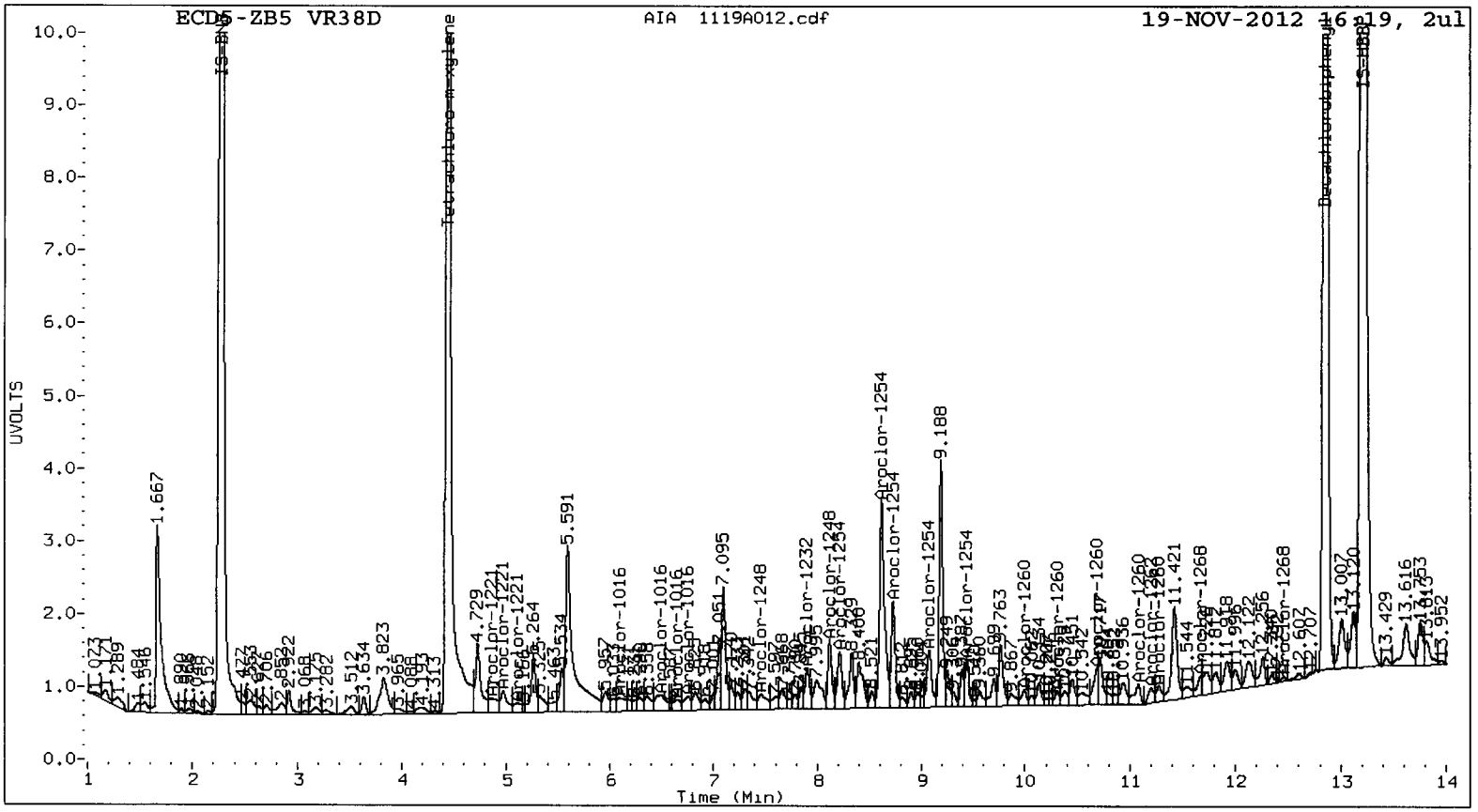
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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AIA 1119A012.cdf
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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DBB
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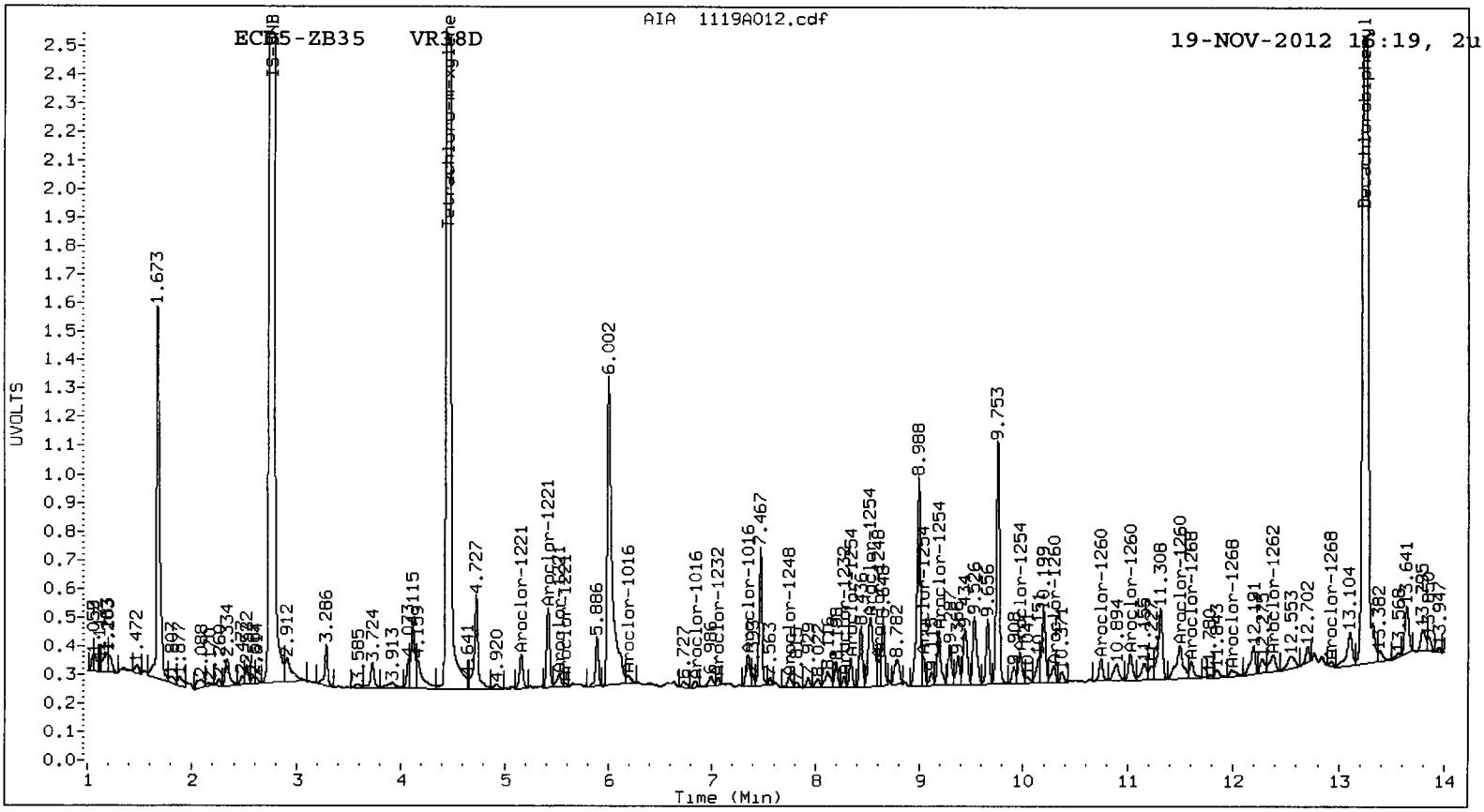
7.095
9.188
13.007
13.120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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Decachlorobiphenyl
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6.002
7.467
8.988
9.753
13.104

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A013.d
Data file 2: 20121102.B/1119-2.b/1119A013.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 19-NOV-2012 16:38
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	-0.003	12525863	4.456	0.000	3571118	18.7	20.2	8.0	Tetrachloro-m-xylen
12.853	-0.002	12820424	13.246	-0.002	3794325	13.2	19.8	39.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	46.6	50.5
Decachlorobiphenyl	33.1	49.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32151841	2.9
Hexabromobiphenyl	64198300	64264780	0.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	12390938	-14.8
Hexabromobiphenyl	15789428	14081410	-10.8

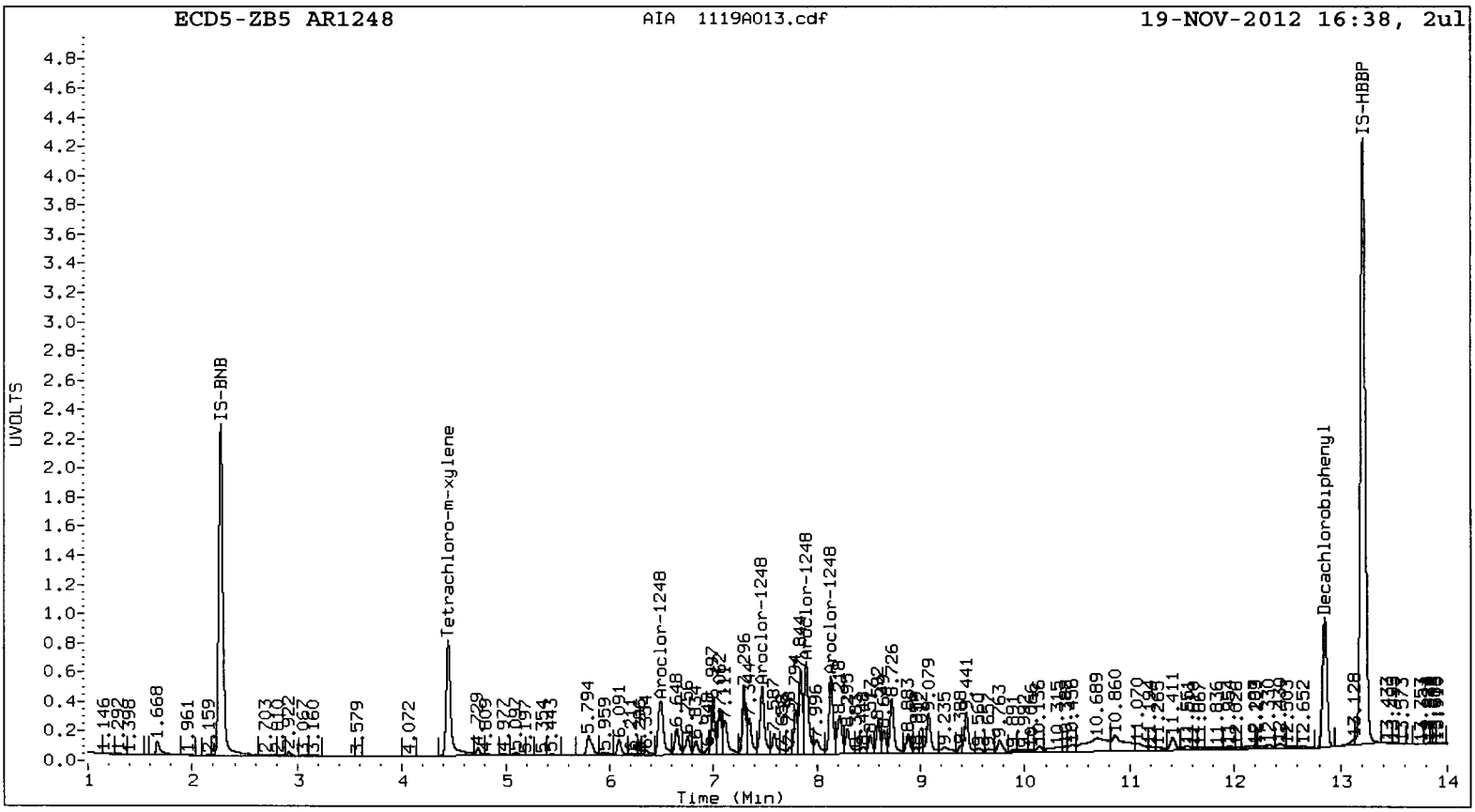
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.492	0.000	6713936	237.0	1	6.839	0.000	1766750	240.2
Aroclor-1248	2	7.469	0.000	7088173	237.7	2	7.745	0.000	1547676	253.7
Aroclor-1248	3	7.898	0.000	8915722	236.8	3	8.274	0.000	1584570	251.4
Aroclor-1248	4	8.133	0.000	6923193	238.5	4	8.620	0.000	1963307	251.8
Total Col1Ave (4 peaks):					237.5	Total Col2Ave (4 peaks):				249.3 RPD = 5
Corrected Ave (3 peaks):					237.2	Corrected Ave (3 peaks):				247.8 RPD = 4

Total PCB Area Col1 (4.547 - 12.755) = 138850098 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 26475321 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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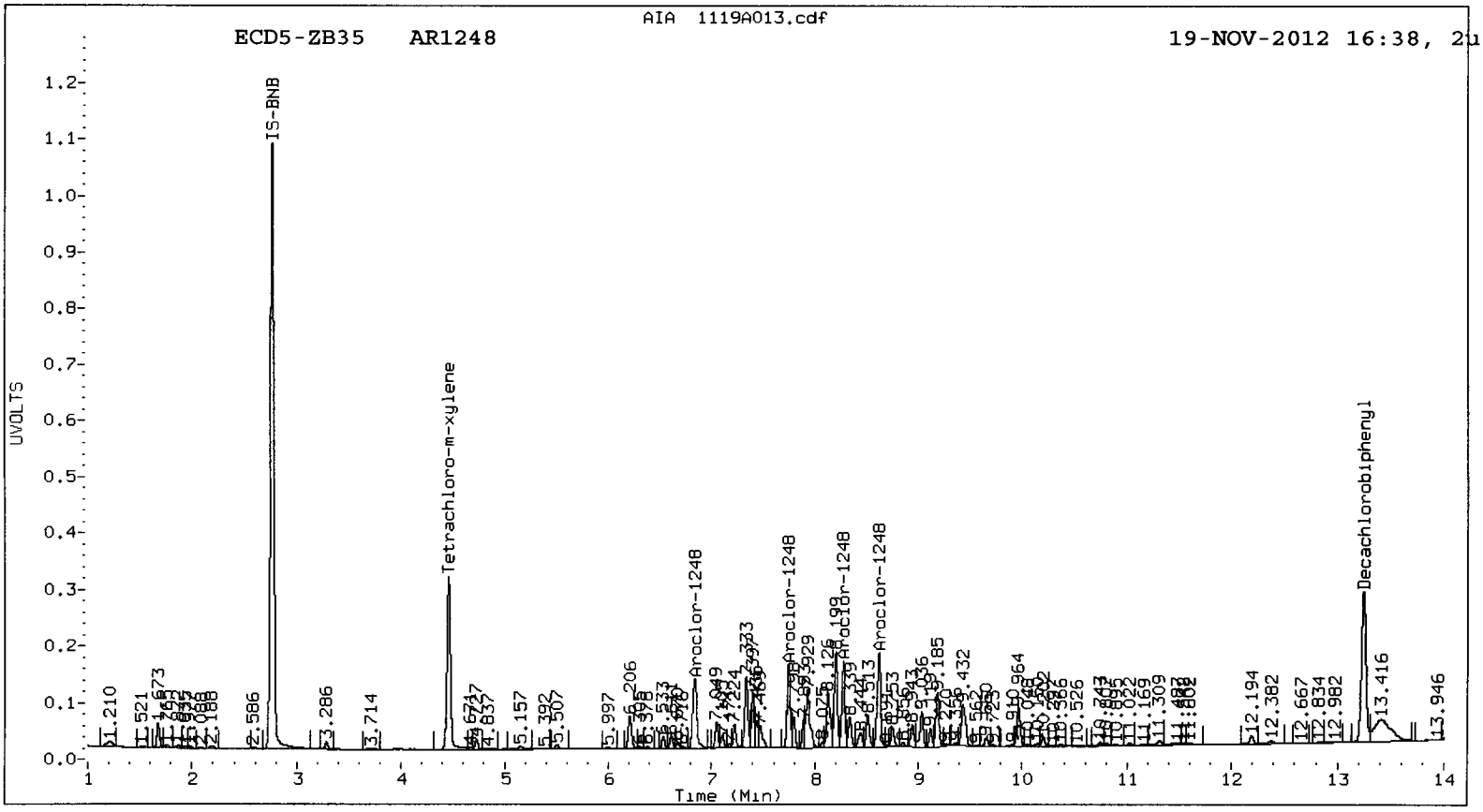
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A014.d
Data file 2: 20121102.B/1119-2.b/1119A014.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 19-NOV-2012 16:58
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.444	-0.003	11799809	4.456	0.000	3279020	18.8	19.7	4.8	Tetrachloro-m-xylen
12.853	-0.002	16941258	13.245	-0.003	3563499	18.0	19.7	9.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	46.9	49.2
Decachlorobiphenyl	45.0	49.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	30114462	-3.6
Hexabromobiphenyl	64198300	62505425	-2.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	11682244	-19.6
Hexabromobiphenyl	15789428	13325240	-15.6

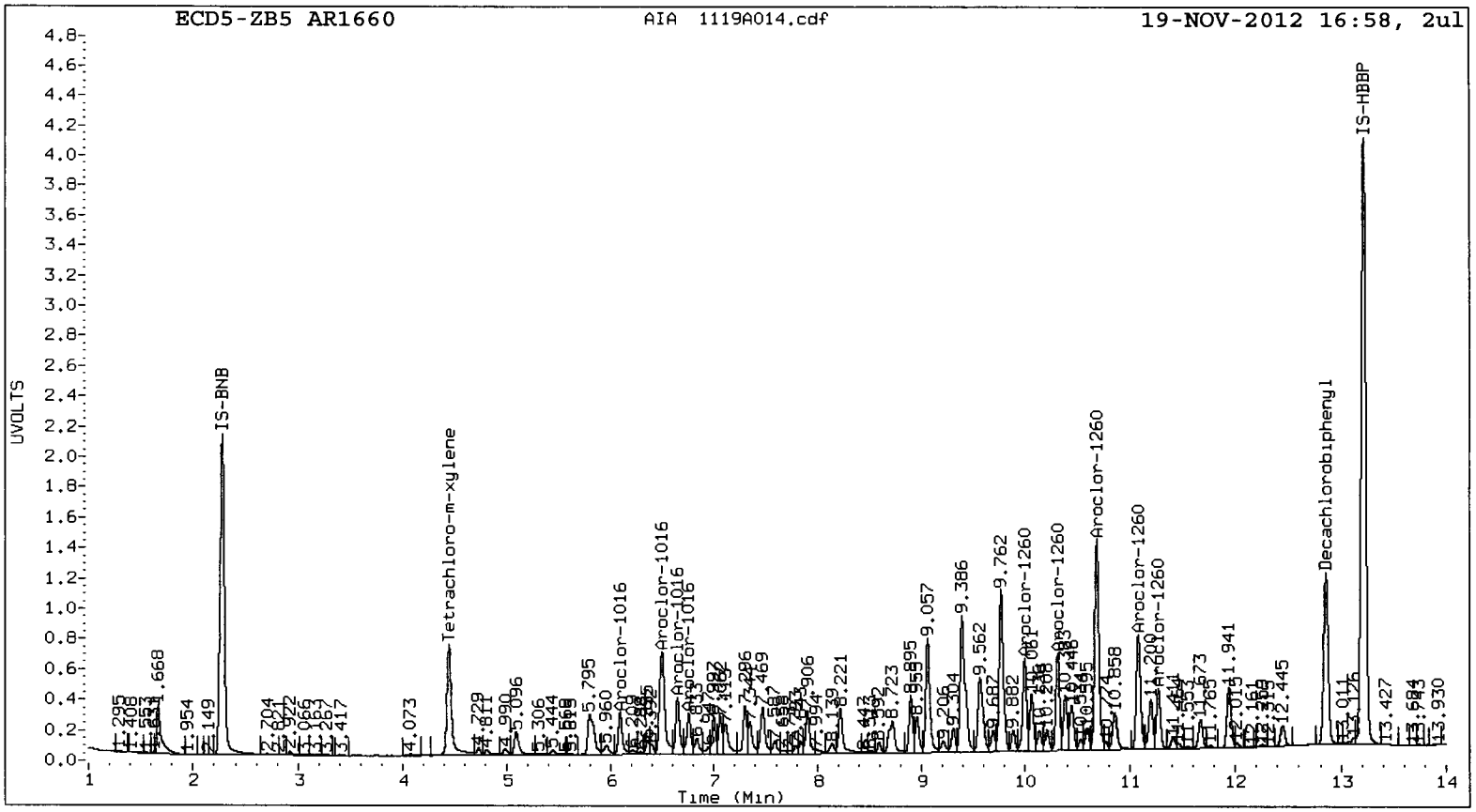
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.091	-0.004	3860462	229.3	1	6.209	-0.001	1571309	240.1
Aroclor-1016	2	6.495	-0.004	12214380	232.8	2	6.839	-0.002	3374853	243.7
Aroclor-1016	3	6.644	-0.004	5151957	227.6	3	7.224	-0.002	890457	247.2
Aroclor-1016	4	6.756	-0.004	3811437	235.4	4	7.334	-0.001	978975	241.7
	Total Col1Ave (4 peaks):				231.3	Total Col2Ave (4 peaks):				243.2 RPD = 5
	Corrected Ave (3 peaks):				229.9	Corrected Ave (3 peaks):				241.8 RPD = 5
Aroclor-1260	1	9.993	-0.003	8071553	222.2	1	10.298	-0.002	1689079	237.4
Aroclor-1260	2	10.309	-0.003	8143160	223.0	2	10.749	-0.002	2123144	243.2
Aroclor-1260	3	10.684	-0.002	19418117	224.3	3	11.023	-0.002	4279975	246.4
Aroclor-1260	4	11.082	-0.002	10927718	220.2	4	11.545	-0.001	1265115	241.7
Aroclor-1260	5	11.273	-0.003	5371152	222.8	NS	---			----
	Total Col1Ave (5 peaks):				222.5	Total Col2Ave (4 peaks):				242.2 RPD = 8
	Corrected Ave (4 peaks):				222.1	Corrected Ave (3 peaks):				240.8 RPD = 8

Total PCB Area Col1 (4.547 - 12.755) = 240716169 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 53368869 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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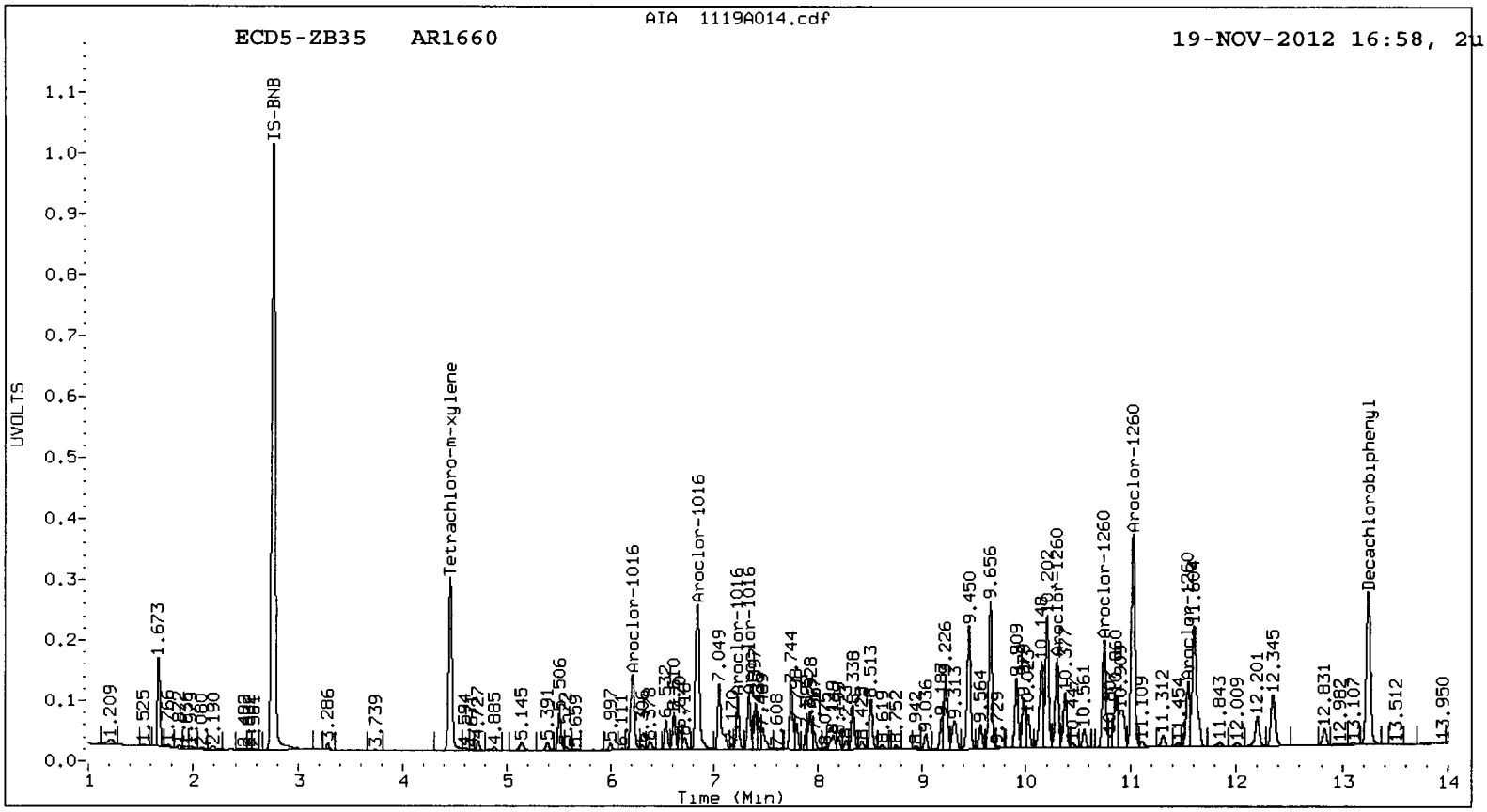
19-NOV-2012 16:58, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A015.d
Data file 2: 20121102.B/1119-2.b/1119A015.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38E
Client ID: HT-05-S-C-121106
Injection Date: 19-NOV-2012 17:18
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.444	-0.002	21781427	4.457	0.000	6337260	31.3	33.1	5.8	Tetrachloro-m-xylen
12.853	-0.002	32813660	13.246	-0.002	7002914	29.9	33.6	11.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	78.2	82.9
Decachlorobiphenyl	74.8	83.9

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	33330658	6.7
Hexabromobiphenyl	64198300	72835393	13.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13411691	-7.7
Hexabromobiphenyl	15789428	15360592	-2.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

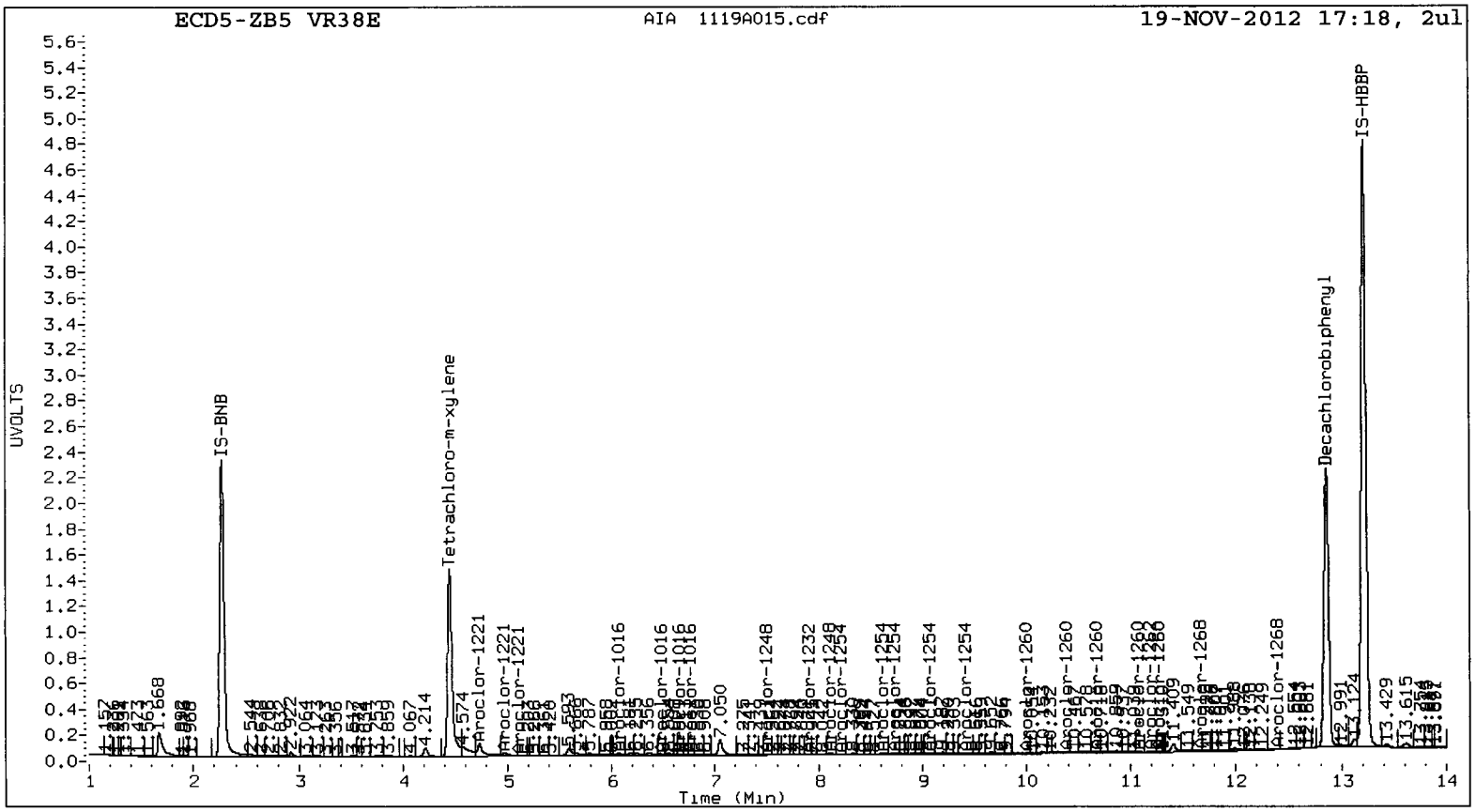
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.069	-0.026	396180	21.3	1	6.253	0.043	55956	7.4
Aroclor-1016	2	6.476	-0.023	265999	4.6	2	6.903	0.062	15381	1.0
Aroclor-1016	3	6.661	0.012	156838	6.3	3	---			0.0
Aroclor-1016	4	6.763	0.003	167644	9.4	4	7.351	0.016	123053	26.5
Total Col1Ave (4 peaks):					10.4	Total Col2Ave (3 peaks):			11.6	RPD = 11
Corrected Ave (3 peaks):					6.7	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.730	-0.087	2077602	255.4	1	5.161	0.019	247094	108.7
Aroclor-1221	2	4.975	-0.020	633353	113.7	2	5.401	0.008	69626	52.0
Aroclor-1221	3	5.110	0.009	146483	8.1	3	5.515	0.008	54386	12.9
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):					125.7	Total Col2Ave (3 peaks):			57.9	RPD = 74*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.069	-0.025	396180	52.2	1	6.253	0.043	55956	16.8
Aroclor-1232	2	6.476	-0.021	265999	11.2	2	6.903	0.063	15381	2.3
Aroclor-1232	3	6.661	0.014	156838	15.2	3	---			0.0
Aroclor-1232	4	7.908	0.007	61750	4.8	4	---			0.0
Total Col1Ave (4 peaks):					20.8	Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	6.069	-0.025	396180	27.3	1	6.253	0.044	55956	9.8
Aroclor-1242	2	6.476	-0.022	265999	5.9	2	6.903	0.061	15381	1.3
Aroclor-1242	3	6.661	0.014	156838	8.0	3	---			0.0
Aroclor-1242	4	7.908	0.008	61750	2.7	4	---			0.0
Total Col1Ave (4 peaks):					11.0	Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	6.476	-0.016	265999	9.1	1	6.903	0.065	15381	1.9
Aroclor-1248	2	7.499	0.030	95269	3.1	2	---			0.0
Aroclor-1248	3	7.908	0.009	61750	1.6	3	---			0.0
Aroclor-1248	4	8.114	-0.019	157843	5.2	4	8.650	0.030	21900	2.6
Total Col1Ave (4 peaks):					4.7	Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	8.209	-0.013	124223	3.1	1	8.436	0.096	14691	2.5
Aroclor-1254	2	8.615	0.022	239607	9.2	2	8.554	0.039	46858	6.4
Aroclor-1254	3	8.724	-0.004	184846	3.6	3	8.988	-0.049	18088	3.2
Aroclor-1254	4	9.072	-0.007	207481	3.7	4	---			0.0
Aroclor-1254	5	9.409	-0.030	343337	9.8	5	9.960	-0.011	20779	2.8
Total Col1Ave (5 peaks):					5.9	Total Col2Ave (4 peaks):			3.7	RPD = 45*
Corrected Ave (4 peaks):					4.9	Corrected Ave (3 peaks):			2.8	RPD = 54*
Aroclor-1260	1	9.996	0.001	416449	9.8	1	---			0.0
Aroclor-1260	2	10.376	0.064	516517	12.1	2	---			0.0
Aroclor-1260	3	10.677	-0.009	351232	3.5	3	---			0.0
Aroclor-1260	4	11.069	-0.015	190283	3.3	4	---			0.0
Aroclor-1260	5	11.276	0.001	168246	6.0	NS	---			----
Total Col1Ave (5 peaks):					6.9	Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	9.996	0.000	416449	6.6	1	---			0.0
Aroclor-1262	2	10.376	0.063	516517	10.7	2	---			0.0
Aroclor-1262	3	10.677	-0.009	351232	2.8	3	---			0.0
Aroclor-1262	4	11.186	-0.017	314229	6.7	4	11.616	0.069	14436	1.4
Aroclor-1262	5	11.276	0.001	168246	3.3	5	12.379	0.032	40418	4.0
Total Col1Ave (5 peaks):					6.0	Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	11.186	-0.017	314229	2.5	1	---			0.0
Aroclor-1268	2	11.276	0.001	168246	1.4	2	---			0.0
Aroclor-1268	3	11.670	0.009	272406	2.6	3	---			0.0
Aroclor-1268	4	12.397	-0.052	138365	0.5	4	---			0.0
Total Col1Ave (4 peaks):					1.7	Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (4.547 - 12.755) = 24977249 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 2339424 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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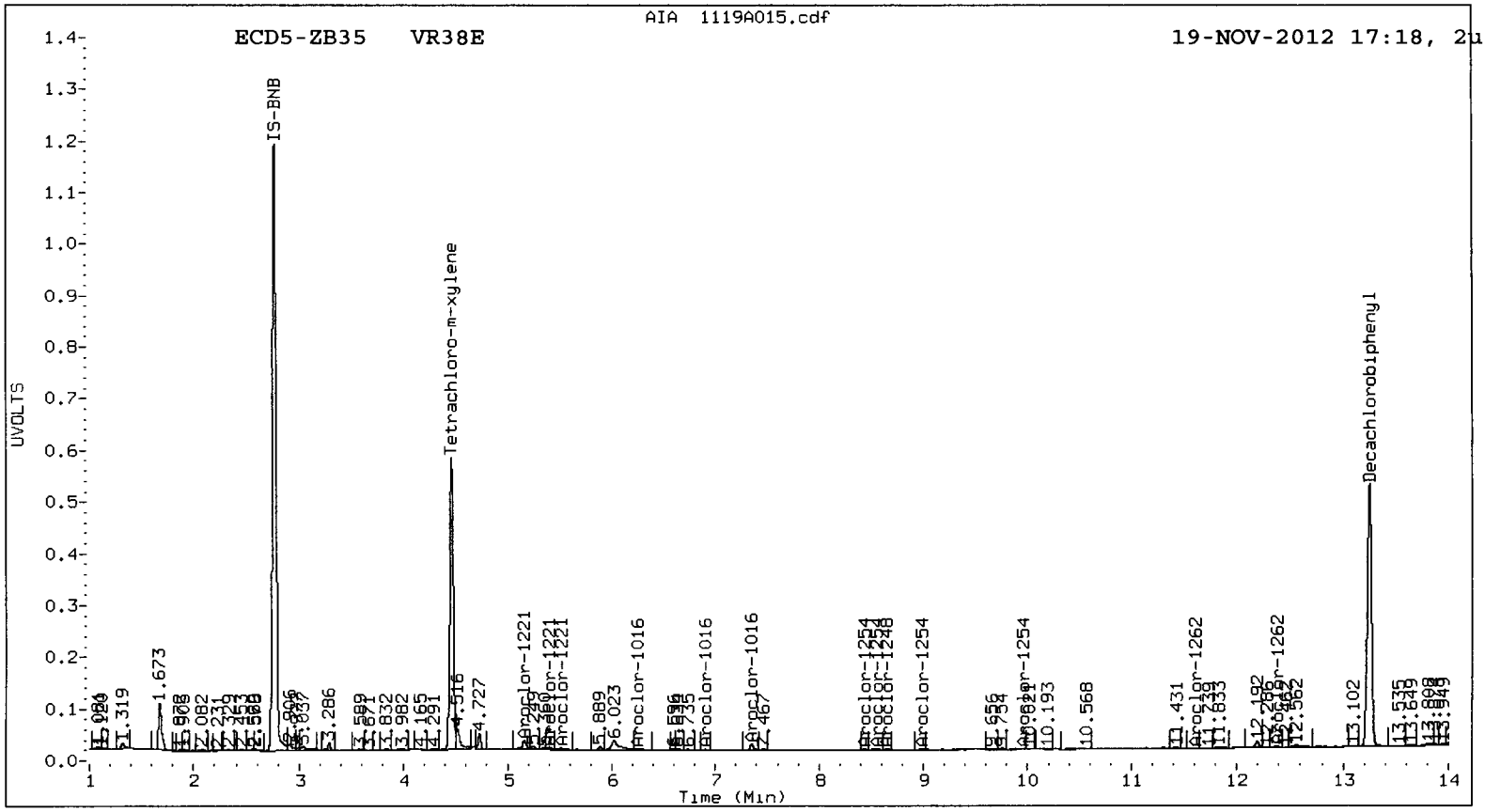
19-NOV-2012 17:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 VR38E
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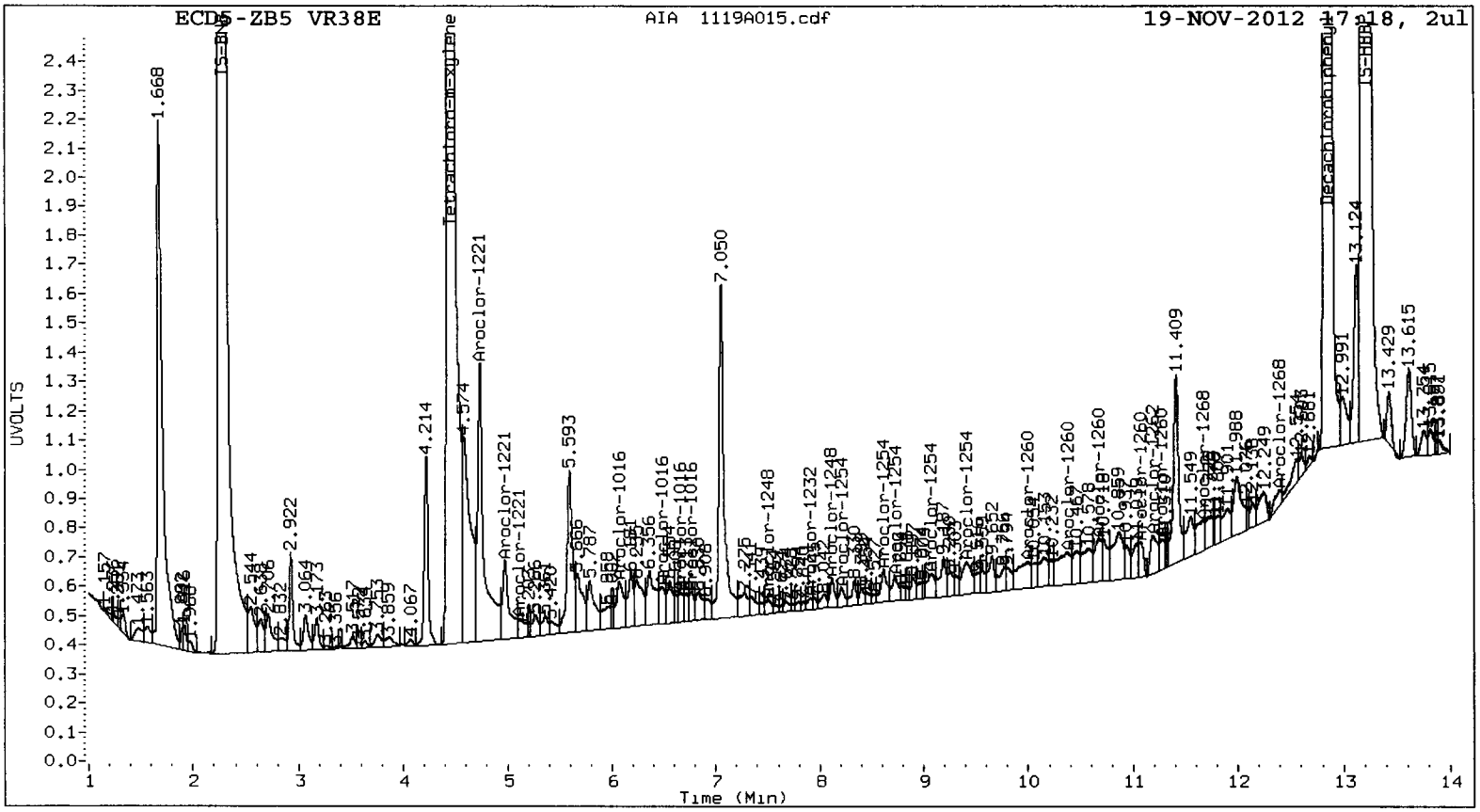
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB5 VR38E
AIA 1119A015.cdf
19-NOV-2012 17:18, 2ul
UVOLTS
Time (Min)
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4.574
5.593
7.050
11.409
13.124
13.429
13.615
Tetrachloro-m-xylene
Decachlorobiphenyl
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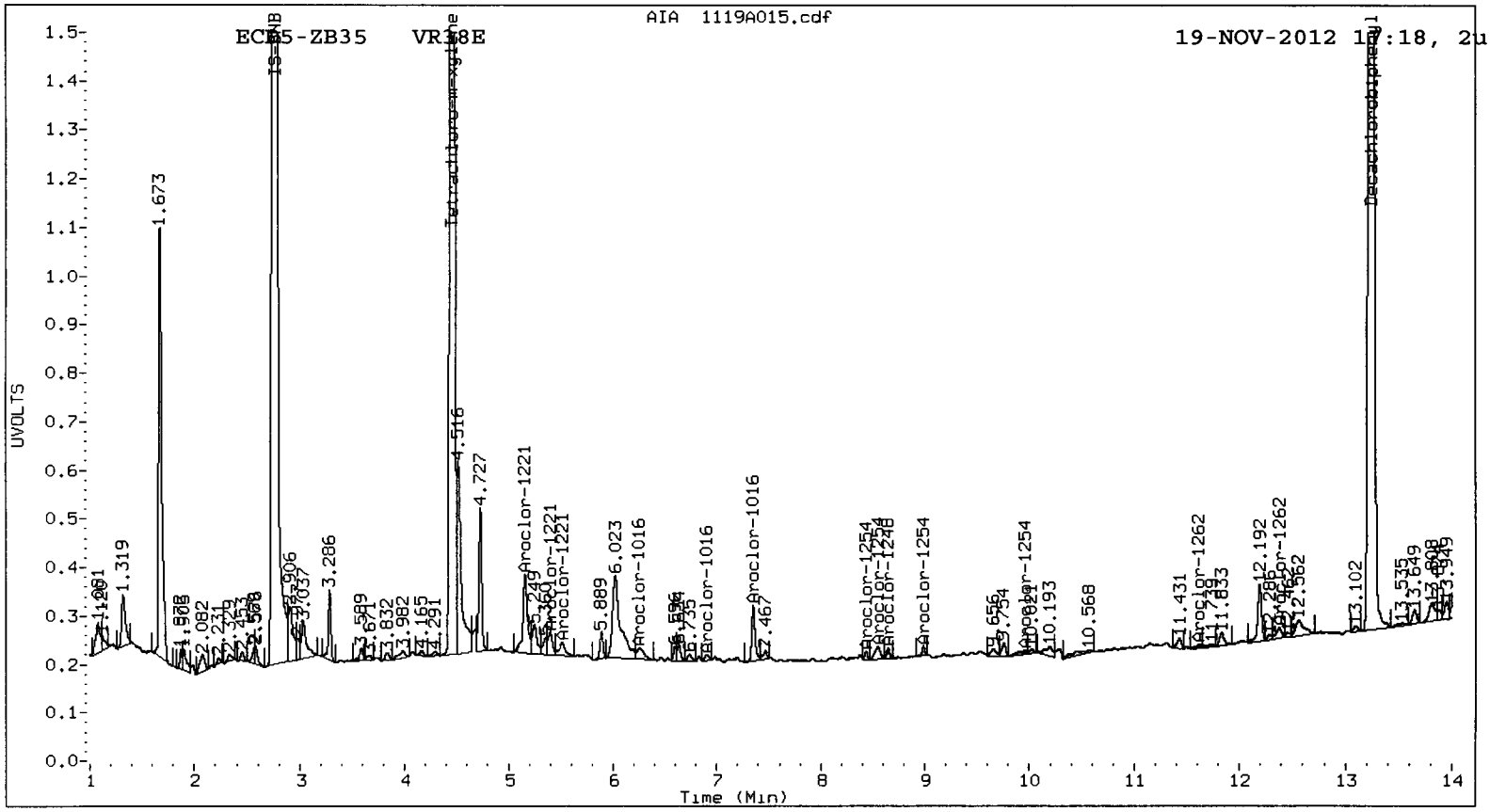
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268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ECD5-ZB35 VR38E
19-NOV-2012 17:18, 2u
UVOLTS
Time (Min)
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1.673
3.286
4.516
4.727
5.889
6.023
10.193
10.568
13.102
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1254
Aroclor-1260
Aroclor-1262

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A016.d
Data file 2: 20121102.B/1119-2.b/1119A016.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38F
Client ID: HT-08-S-C-121106
Injection Date: 19-NOV-2012 17:37
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.444	-0.003	23458908	4.457	0.000	6285000	31.9	32.1	0.6	Tetrachloro-m-xylen
12.854	-0.001	32274656	13.246	-0.001	6793838	29.0	32.2	10.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	79.8	80.3
Decachlorobiphenyl	72.4	80.4

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	35205028	12.7
Hexabromobiphenyl	64198300	73941576	15.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13733637	-5.5
Hexabromobiphenyl	15789428	15544013	-1.6

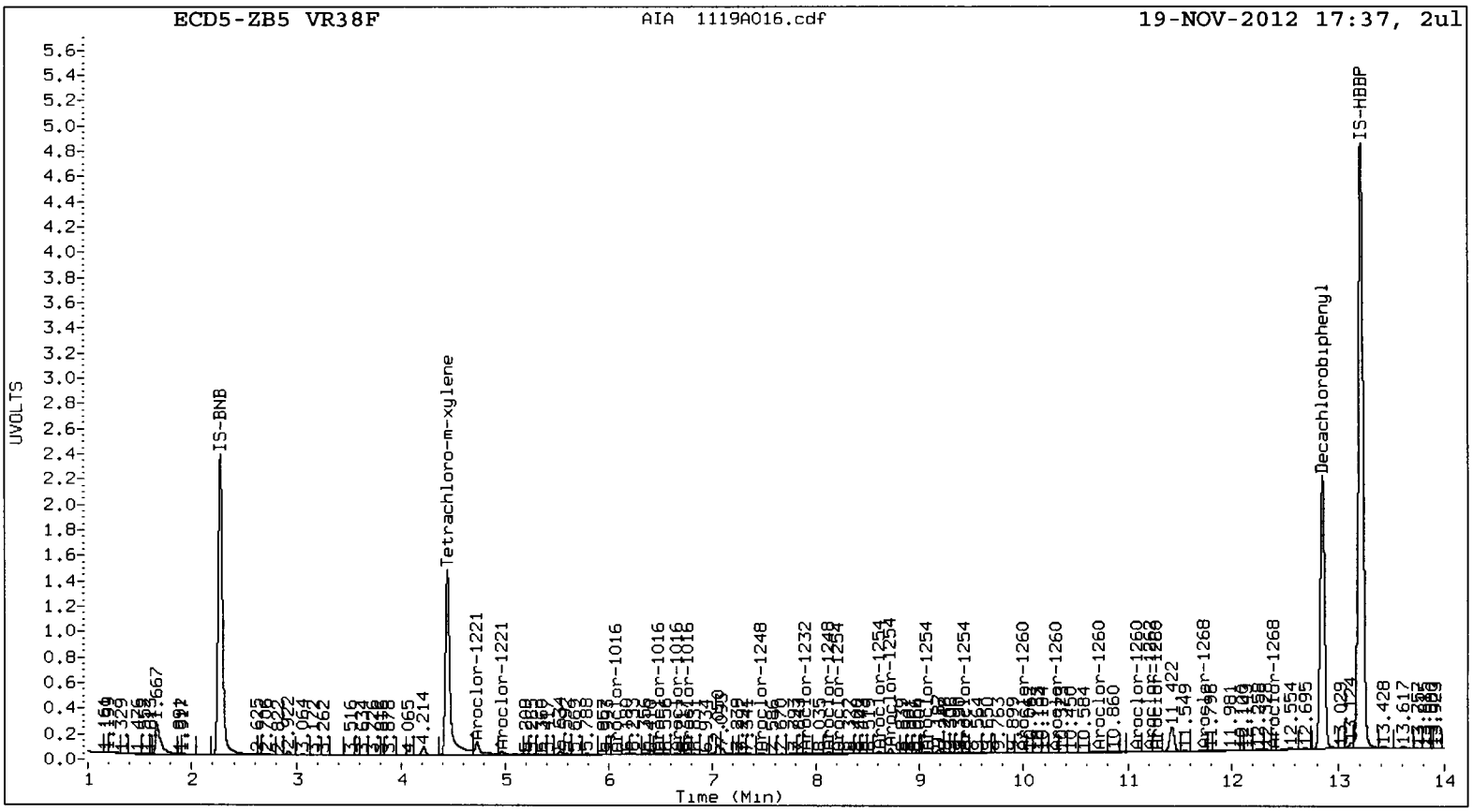
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Total PCB Area Col1 (4.547 - 12.755) = 17107462 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 2712689 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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19-NOV-2012 17:37, 2ul
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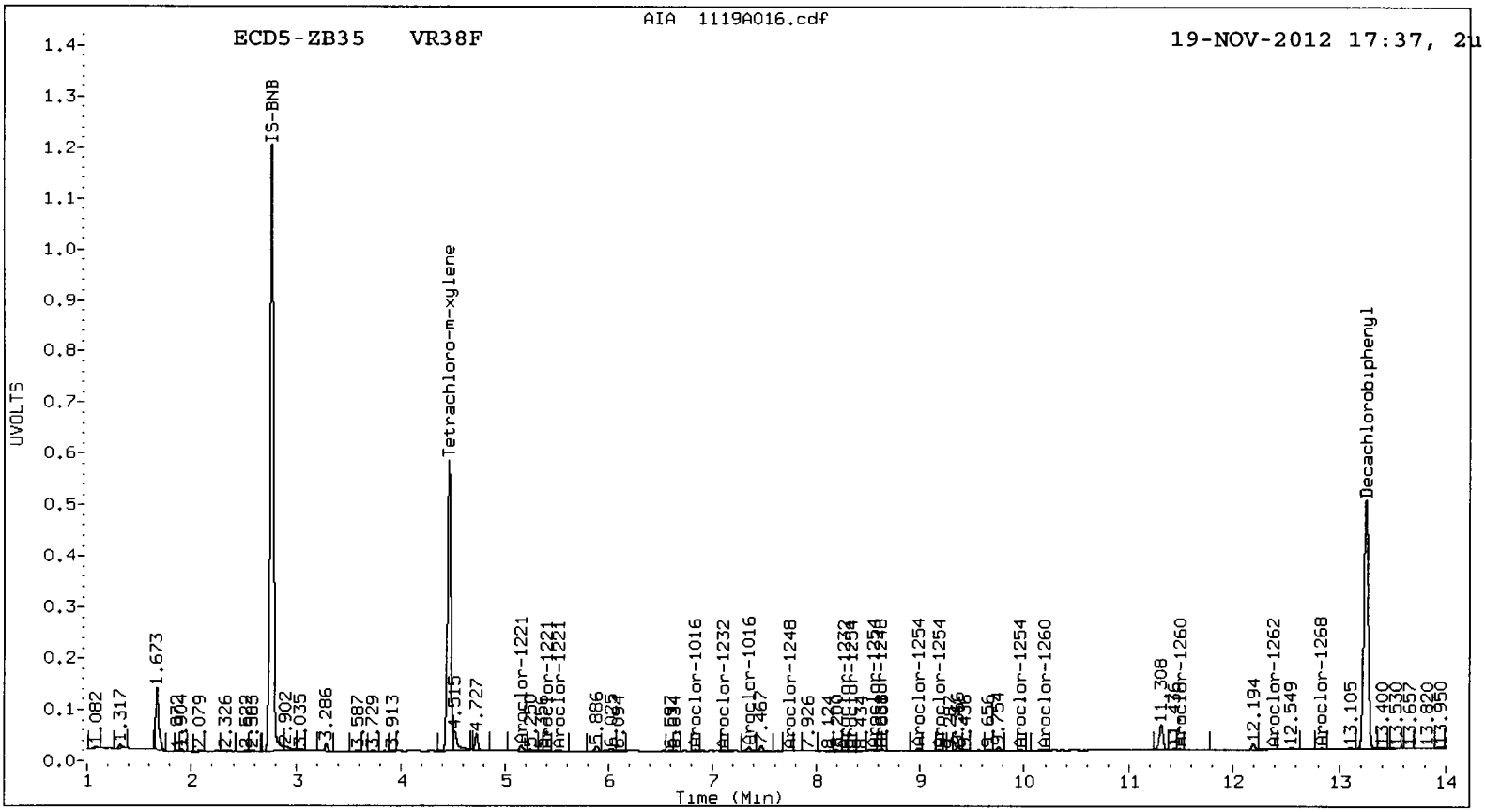
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-HBBP
Time (Min)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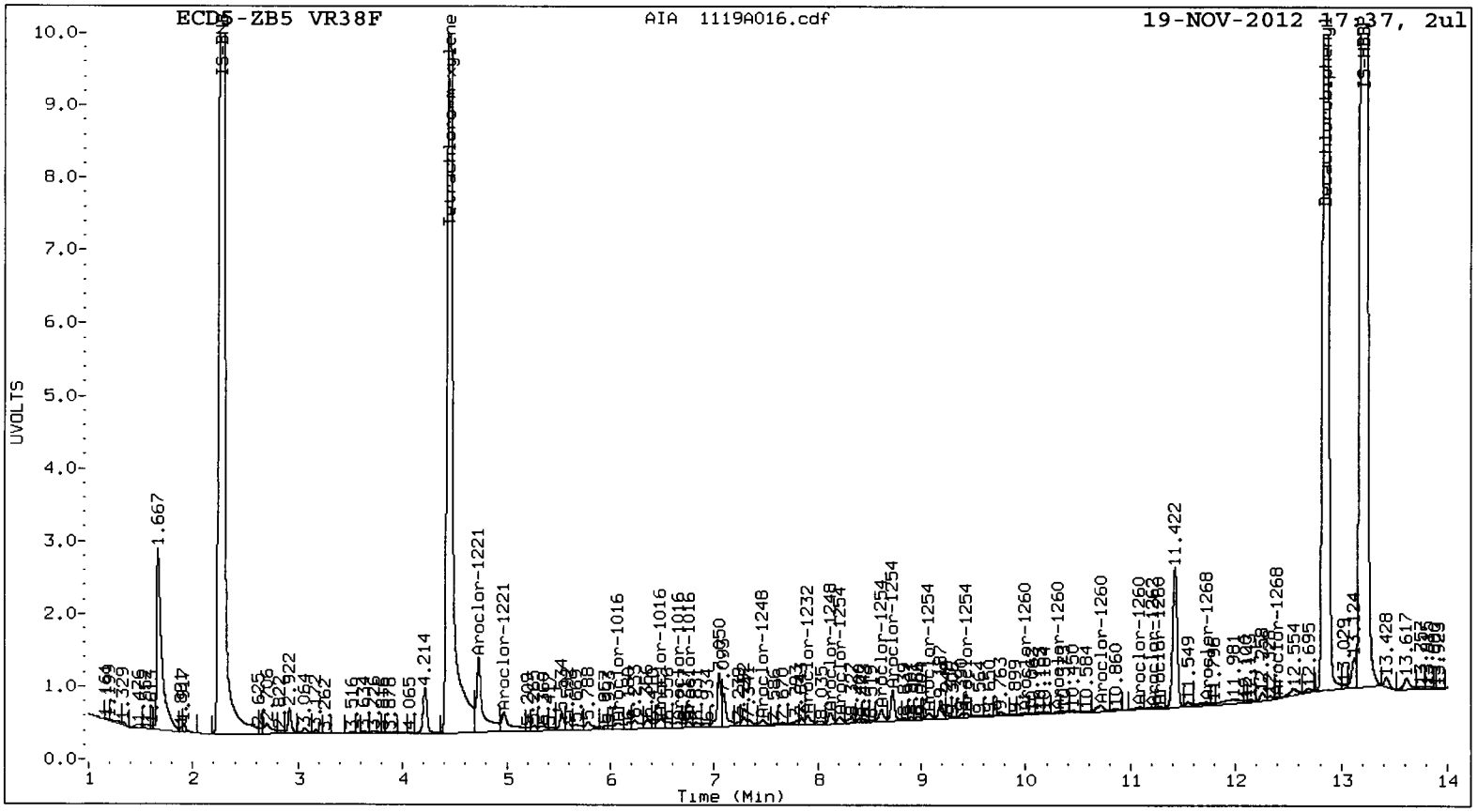
ECD5-ZB35 VR38F
19-NOV-2012 17:37, 2u
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 VR38F
AIA 1119A016.cdf
19-NOV-2012 17:37, 2ul
UVOLTS
Time (Min)
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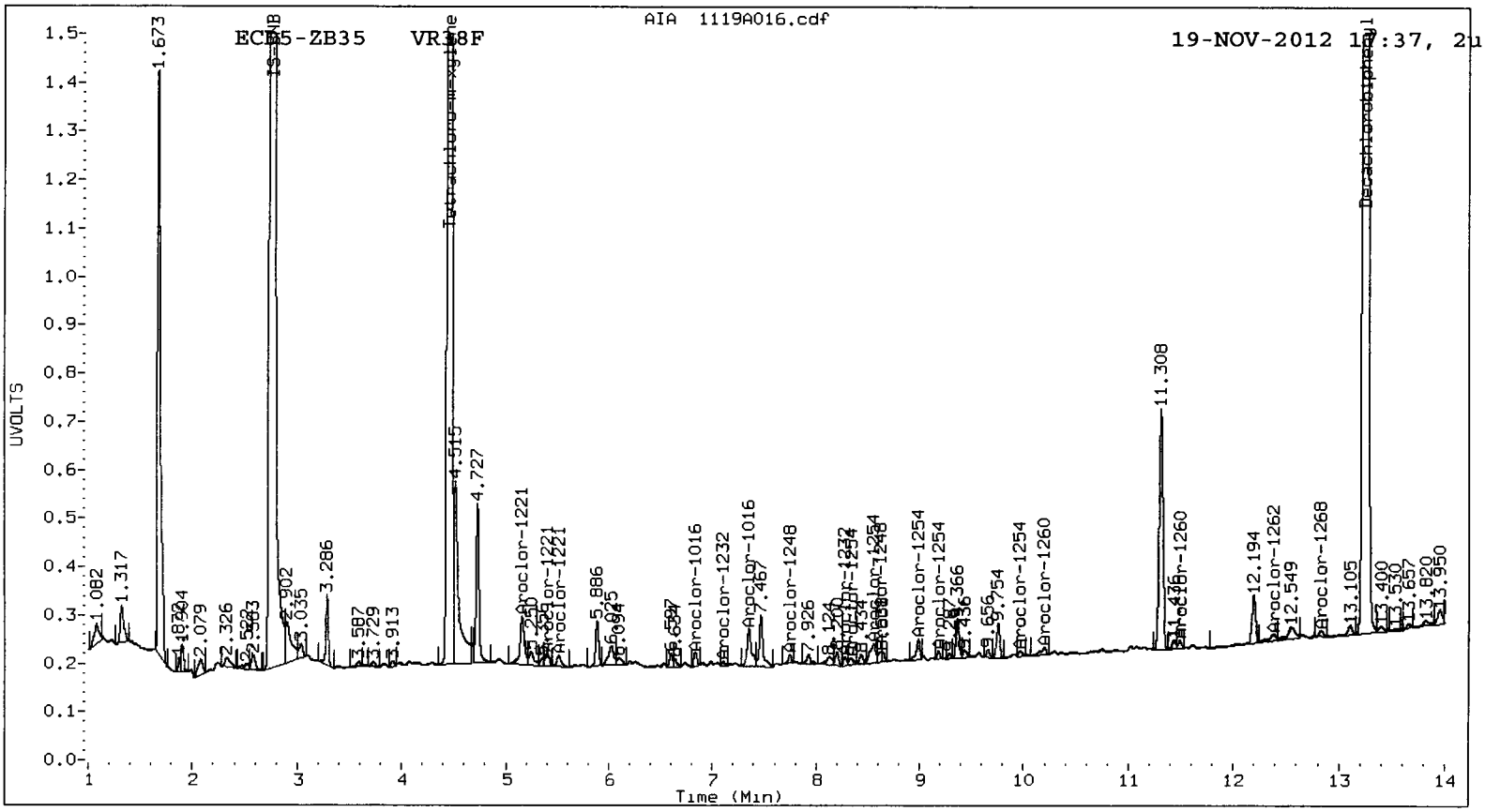
4.214
Aroclor-1221
11.422
12.695


ECD5-ZB35 VR38F
AIA 1119A016.cdf
19-NOV-2012 17:37, 2u
UVOLTS
Time (Min)
1.673
4.515
4.727
11.308
12.194

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A017.d
Data file 2: 20121102.B/1119-2.b/1119A017.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38G
Client ID: HT-09-S-C-121106
Injection Date: 19-NOV-2012 17:58
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.446	-0.001	23084433	4.456	0.000	6891430	31.9	35.4	10.4	Tetrachloro-m-xylen
12.855	0.000	32481029	13.247	-0.001	6790588	30.4	33.0	8.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	79.7	88.4
Decachlorobiphenyl	75.9	82.4

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	34688867	11.0
Hexabromobiphenyl	64198300	70961268	10.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13673341	-5.9
Hexabromobiphenyl	15789428	15154726	-4.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.065	-0.030	342586	17.7	1	---			0.0
Aroclor-1016	2	6.495	-0.004	332910	5.5	2	6.830	-0.011	25797	1.6
Aroclor-1016	3	6.654	0.005	201629	7.7	3	---			0.0
Aroclor-1016	4	6.765	0.005	153612	8.2	4	7.351	0.016	160640	33.9
Total Col1Ave (4 peaks):		9.8				Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	4.731	-0.086	2238171	264.3	1	5.161	0.019	319943	138.1
Aroclor-1221	2	4.976	-0.019	681327	117.5	2	5.408	0.016	64174	47.0
Aroclor-1221	3	5.113	0.012	146721	7.8	3	5.520	0.013	60473	14.1
Aroclor-1221	NS	---			----	4	---			0.0
Total Col1Ave (3 peaks):		129.9				Total Col2Ave (3 peaks):			66.4	RPD = 65*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.065	-0.029	342586	43.4	1	---			0.0
Aroclor-1232	2	6.495	-0.002	332910	13.5	2	6.830	-0.011	25797	3.9
Aroclor-1232	3	6.654	0.006	201629	18.7	3	---			0.0
Aroclor-1232	4	7.901	0.001	225052	16.7	4	8.273	-0.003	20196	8.5
Total Col1Ave (4 peaks):		23.1				Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	6.065	-0.029	342586	22.7	1	---			0.0
Aroclor-1242	2	6.495	-0.003	332910	7.1	2	6.830	-0.013	25797	2.1
Aroclor-1242	3	6.654	0.007	201629	9.9	3	---			0.0
Aroclor-1242	4	7.901	0.002	225052	9.5	4	8.273	-0.001	20196	4.6
Total Col1Ave (4 peaks):		12.3				Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	6.495	0.003	332910	10.9	1	6.830	-0.009	25797	3.2
Aroclor-1248	2	7.470	0.000	176648	5.5	2	7.745	0.000	10219	1.5
Aroclor-1248	3	7.901	0.003	225052	5.5	3	8.273	0.000	20196	2.9
Aroclor-1248	4	8.118	-0.016	359514	11.5	4	8.649	0.029	55309	6.4
Total Col1Ave (4 peaks):		8.4				Total Col2Ave (4 peaks):			3.5	RPD = 82*
Corrected Ave (3 peaks):		7.3				Corrected Ave (3 peaks):			2.5	RPD = 97*
Aroclor-1254	1	8.214	-0.008	187541	4.5	1	8.340	-0.001	16414	2.8
Aroclor-1254	2	8.615	0.021	539213	19.8	2	8.552	0.038	114943	15.3
Aroclor-1254	3	8.724	-0.004	459870	8.7	3	9.041	0.004	50680	8.8
Aroclor-1254	4	9.074	-0.005	280141	4.8	4	9.185	-0.002	43423	3.4
Aroclor-1254	5	9.437	-0.001	166372	4.6	5	9.969	-0.001	18865	2.5
Total Col1Ave (5 peaks):		8.5				Total Col2Ave (5 peaks):			6.6	RPD = 26
Corrected Ave (4 peaks):		5.7				Corrected Ave (4 peaks):			4.4	RPD = 26
Aroclor-1260	1	9.992	-0.003	136149	3.3	1	10.295	-0.006	22736	2.8
Aroclor-1260	2	10.312	0.000	96808	2.3	2	10.745	-0.006	17815	1.8
Aroclor-1260	3	10.717	0.031	473186	4.8	3	11.023	-0.001	58698	3.0
Aroclor-1260	4	11.085	0.000	138283	2.5	4	11.491	-0.054	58482	9.8
Aroclor-1260	5	11.274	-0.001	79401	2.9	NS	---			----
Total Col1Ave (5 peaks):		3.2				Total Col2Ave (4 peaks):			4.3	RPD = 32
Corrected Ave (4 peaks):		2.7				Corrected Ave (3 peaks):			2.5	RPD = 8
Aroclor-1262	1	9.992	-0.004	136149	2.2	1	10.295	-0.007	22736	1.7
Aroclor-1262	2	10.312	0.000	96808	2.1	2	10.745	-0.007	17815	1.5
Aroclor-1262	3	10.717	0.031	473186	3.9	3	11.023	-0.001	58698	2.3
Aroclor-1262	4	11.203	0.000	83896	1.8	4	11.491	-0.056	58482	5.6
Aroclor-1262	5	11.274	-0.001	79401	1.6	5	12.378	0.032	91081	9.1
Total Col1Ave (5 peaks):		2.3				Total Col2Ave (5 peaks):			4.0	RPD = 54*
Corrected Ave (4 peaks):		1.9				Corrected Ave (4 peaks):			2.8	RPD = 37
Aroclor-1268	1	11.203	0.000	83896	0.7	1	11.491	-0.056	58482	2.2
Aroclor-1268	2	11.274	0.000	79401	0.7	2	11.605	-0.008	23639	0.9
Aroclor-1268	3	11.618	-0.043	37809	0.4	3	---			0.0
Aroclor-1268	4	12.387	-0.062	25317	0.1	4	---			0.0

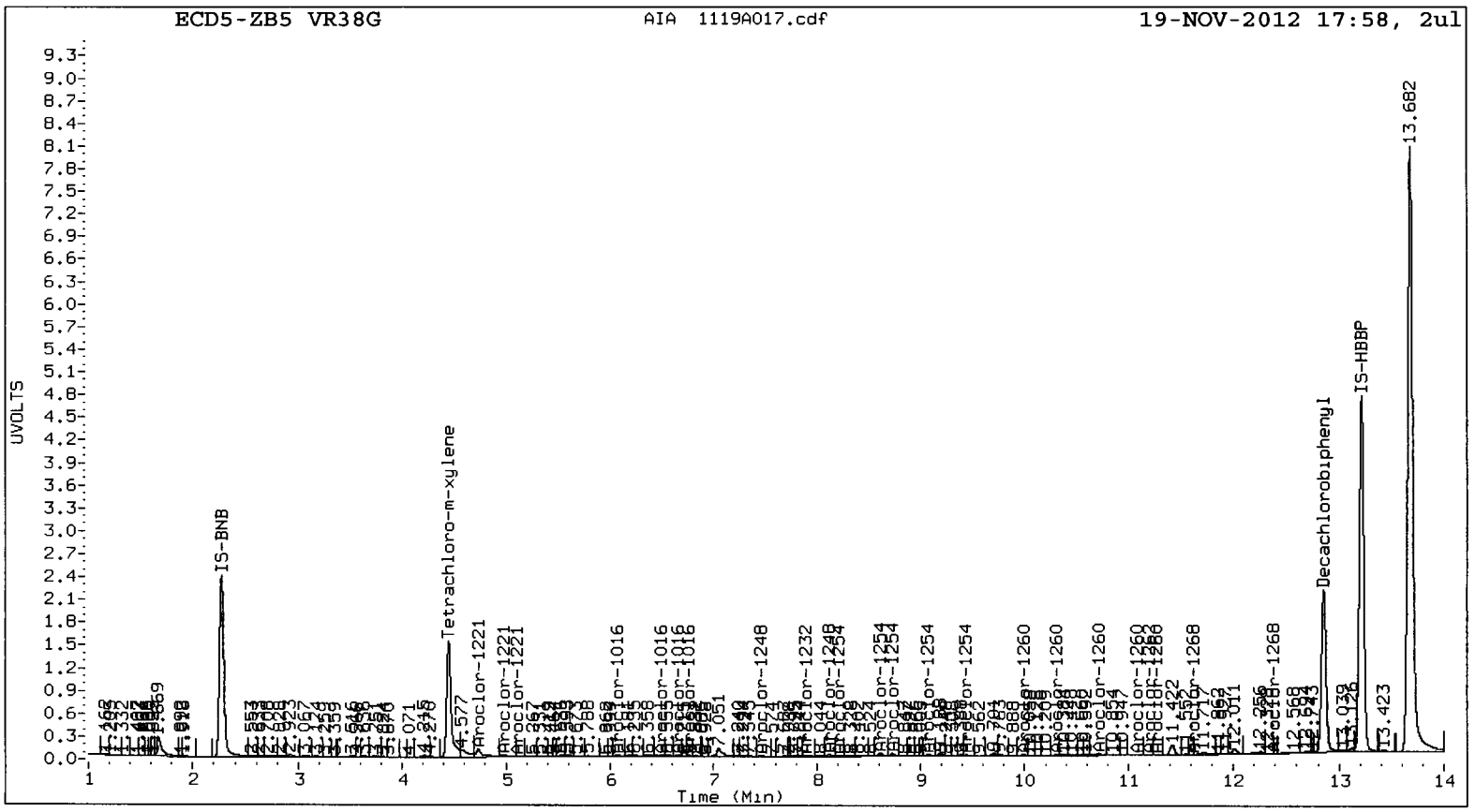
Total Col1Ave (4 peaks): 0.5 Col2Ave: <3 Quant Peaks

Total PCB Area Col1 (4.547 - 12.755) = 25067894 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 4573714 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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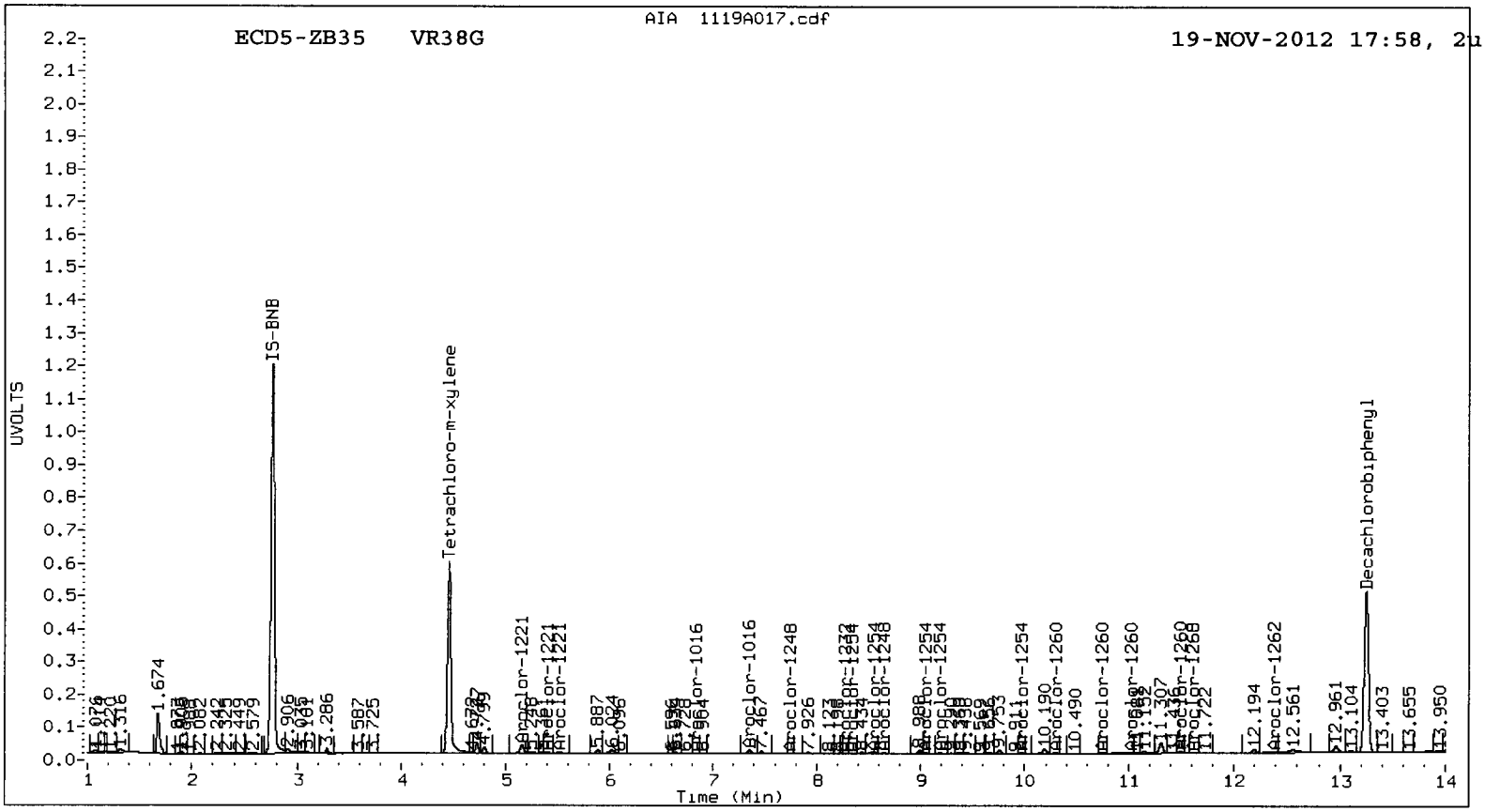
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Decachlorobiphenyl
IS-HBBP
13.682
Time (Min)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Tetrachloro-m-xylene
Aroclor-1221
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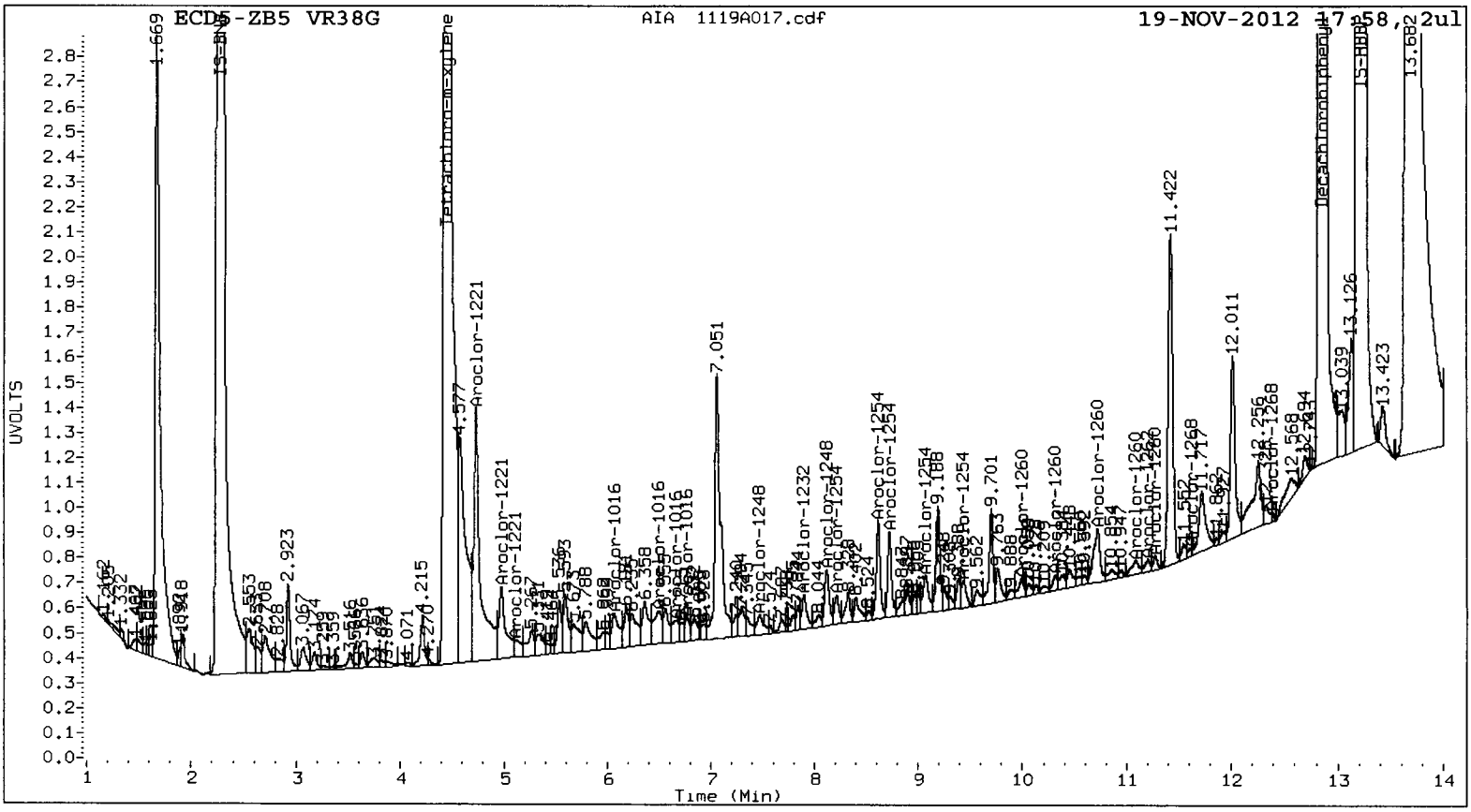
Aroclor-1254
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
Time (Min)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Time (Min)
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Tetrachloro-m-xylene
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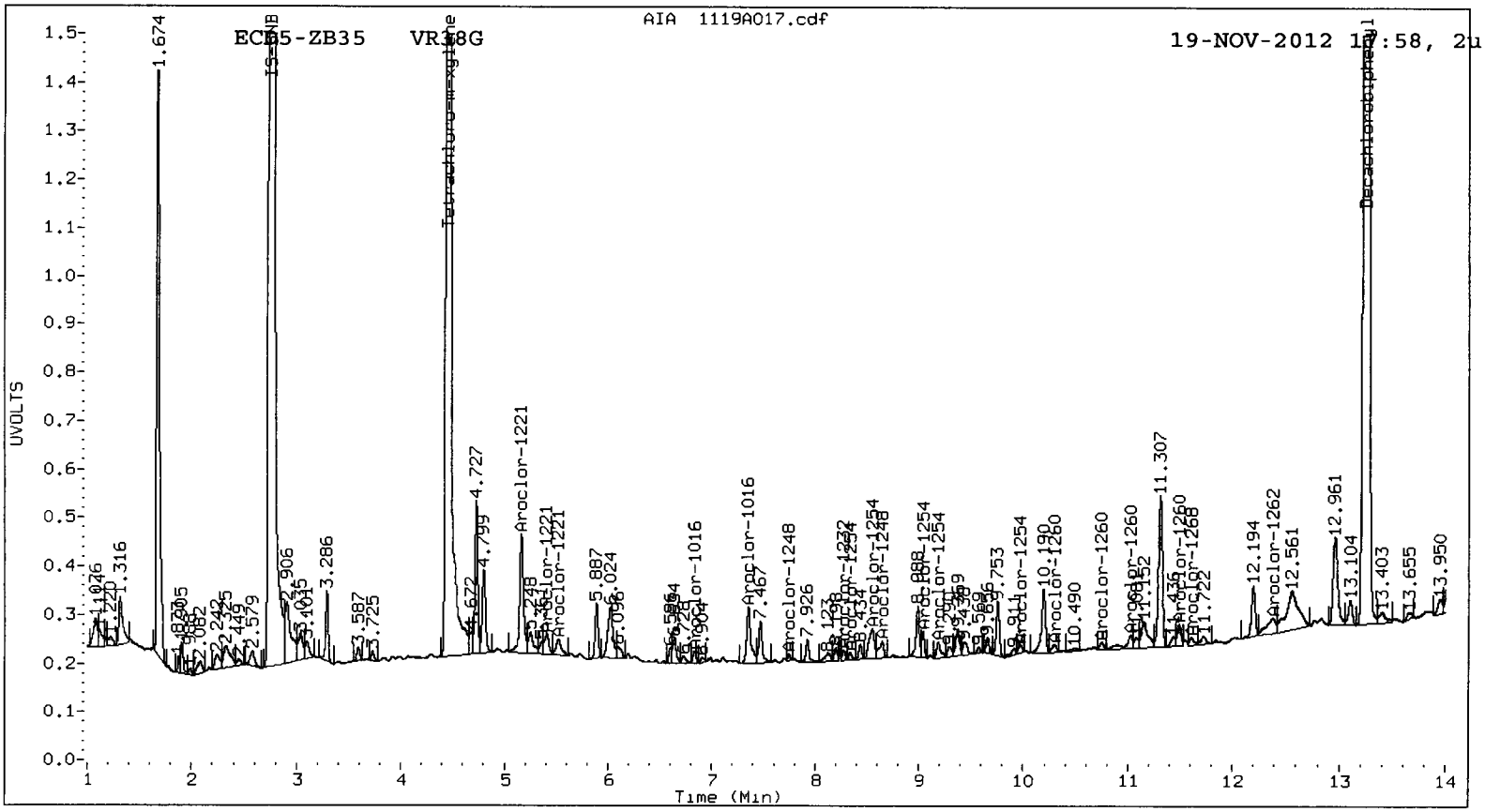
Aroclor-1221
7.051
11.422
12.011
13.126
13.423
13.682
Decachlorobiphenyl
IS-HBB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AIA 1119A017.cdf
19-NOV-2012 17:58, 2u
UVOLTS
Time (Min)
1.674
IS-DNB
Tetrachloro-m-xylene
4.727
Aroclor-1221
7.467
Aroclor-1016
11.307
12.961
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A018.d
Data file 2: 20121102.B/1119-2.b/1119A018.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38H
Client ID: HT-10-S-LFP-121106
Injection Date: 19-NOV-2012 18:18
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.446	0.000	23790657	4.455	-0.001	6308522	31.6	31.4	0.8	Tetrachloro-m-xylen
12.855	0.000	33754011	13.247	-0.001	7003247	29.6	32.8	10.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	79.0	78.4
Decachlorobiphenyl	74.1	81.9

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	36051694	15.4
Hexabromobiphenyl	64198300	75565093	17.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	14113753	-2.9
Hexabromobiphenyl	15789428	15733903	-0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.069	-0.026	209082	10.4	1	6.117	-0.093	12761	1.6
Aroclor-1016	2	6.460	-0.039	235782	3.8	2	6.828	-0.013	17366	1.0
Aroclor-1016	3	6.606	-0.043	105857	3.9	3	---			0.0
Aroclor-1016	4	6.765	0.006	54126	2.8	4	7.350	0.015	130903	26.7
	Total Col1Ave (4 peaks):				5.2	Total Col2Ave (3 peaks):			9.8	RPD = 61*
	Corrected Ave (3 peaks):				3.5	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.731	-0.086	2041374	232.0	1	5.159	0.018	136393	57.0
Aroclor-1221	2	4.976	-0.018	626645	104.0	2	5.410	0.017	12241	8.7
Aroclor-1221	3	5.103	0.002	169739	8.6	3	5.513	0.007	22961	5.2
Aroclor-1221	NS	---			----	4	---			0.0
	Total Col1Ave (3 peaks):				114.9	Total Col2Ave (3 peaks):			23.6	RPD = 132*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	6.069	-0.025	209082	25.5	1	6.117	-0.093	12761	3.6
Aroclor-1232	2	6.460	-0.037	235782	9.2	2	6.828	-0.012	17366	2.5
Aroclor-1232	3	6.606	-0.041	105857	9.5	3	7.058	0.008	22062	7.6
Aroclor-1232	4	7.905	0.005	85903	6.1	4	8.339	0.063	31907	13.0
	Total Col1Ave (4 peaks):				12.6	Total Col2Ave (4 peaks):			6.7	RPD = 61*
	Corrected Ave (3 peaks):				8.3	Corrected Ave (3 peaks):			4.6	RPD = 57*
Aroclor-1242	1	6.069	-0.025	209082	13.3	1	6.117	-0.092	12761	2.1
Aroclor-1242	2	6.460	-0.039	235782	4.9	2	6.828	-0.014	17366	1.4
Aroclor-1242	3	6.606	-0.041	105857	5.0	3	7.058	0.008	22062	4.1
Aroclor-1242	4	7.905	0.006	85903	3.5	4	8.339	0.065	31907	7.1
	Total Col1Ave (4 peaks):				6.7	Total Col2Ave (4 peaks):			3.7	RPD = 58*
	Corrected Ave (3 peaks):				4.4	Corrected Ave (3 peaks):			2.5	RPD = 55*
Aroclor-1248	1	6.460	-0.033	235782	7.4	1	6.828	-0.010	17366	2.1
Aroclor-1248	2	7.498	0.029	98527	2.9	2	---			0.0
Aroclor-1248	3	7.905	0.007	85903	2.0	3	8.339	0.065	31907	4.4
Aroclor-1248	4	8.120	-0.013	406933	12.5	4	8.649	0.029	61939	7.0
	Total Col1Ave (4 peaks):				6.2	Total Col2Ave (3 peaks):			4.5	RPD = 32
	Corrected Ave (3 peaks):				4.1	Corrected Ave: < 3 Peaks				
Aroclor-1254	1	8.205	-0.017	182236	4.2	1	8.339	-0.002	31907	5.2
Aroclor-1254	2	8.615	0.022	677181	23.9	2	8.531	0.016	132389	17.1
Aroclor-1254	3	8.730	0.002	198109	3.6	3	8.988	-0.049	156633	26.3
Aroclor-1254	4	9.071	-0.007	120116	2.0	4	9.186	-0.001	20271	1.6
Aroclor-1254	5	9.438	-0.001	73948	2.0	5	9.973	0.002	11432	1.5
	Total Col1Ave (5 peaks):				7.1	Total Col2Ave (5 peaks):			10.3	RPD = 36
	Corrected Ave (4 peaks):				2.9	Corrected Ave (4 peaks):			6.3	RPD = 73*
Aroclor-1260	1	9.984	-0.012	74057	1.7	1	---			0.0
Aroclor-1260	2	10.302	-0.010	30810	0.7	2	---			0.0
Aroclor-1260	3	10.721	0.034	278627	2.7	3	11.020	-0.005	16003	0.8
Aroclor-1260	4	11.094	0.010	64932	1.1	4	11.495	-0.051	18616	3.0
Aroclor-1260	5	11.291	0.015	39431	1.4	NS	---			----
	Total Col1Ave (5 peaks):				1.5	Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	9.984	-0.013	74057	1.1	1	---			0.0
Aroclor-1262	2	10.302	-0.011	30810	0.6	2	---			0.0
Aroclor-1262	3	10.721	0.034	278627	2.2	3	11.020	-0.005	16003	0.6
Aroclor-1262	4	11.213	0.011	35968	0.7	4	11.495	-0.052	18616	1.7
Aroclor-1262	5	11.291	0.015	39431	0.7	5	12.383	0.036	31349	3.0
	Total Col1Ave (5 peaks):				1.1	Total Col2Ave (3 peaks):			1.8	RPD = 49*
	Corrected Ave (4 peaks):				0.8	Corrected Ave: < 3 Peaks				
Aroclor-1268	1	11.213	0.010	35968	0.3	1	11.495	-0.053	18616	0.7
Aroclor-1268	2	11.291	0.016	39431	0.3	2	---			0.0

Aroclor-1268	3	11.667	0.006	85006	0.8	3	---		0.0
Aroclor-1268	4	---			0.0	4	12.831	-0.004	10292	0.2

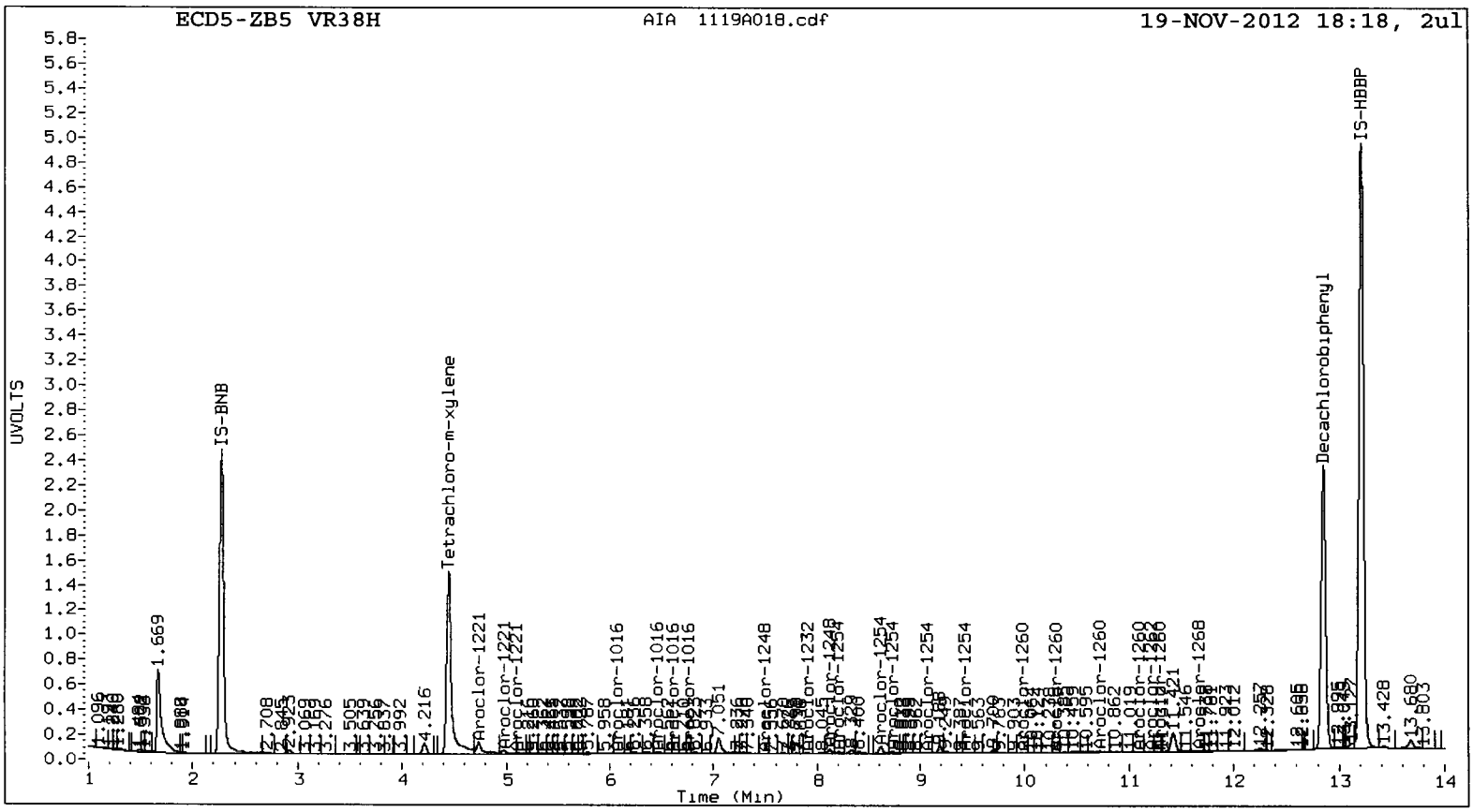
Total Col1Ave (3 peaks): 0.5 Col2Ave: <3 Quant Peaks

Total PCB Area Col1 (4.547 - 12.755) = 17032404 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 2630378 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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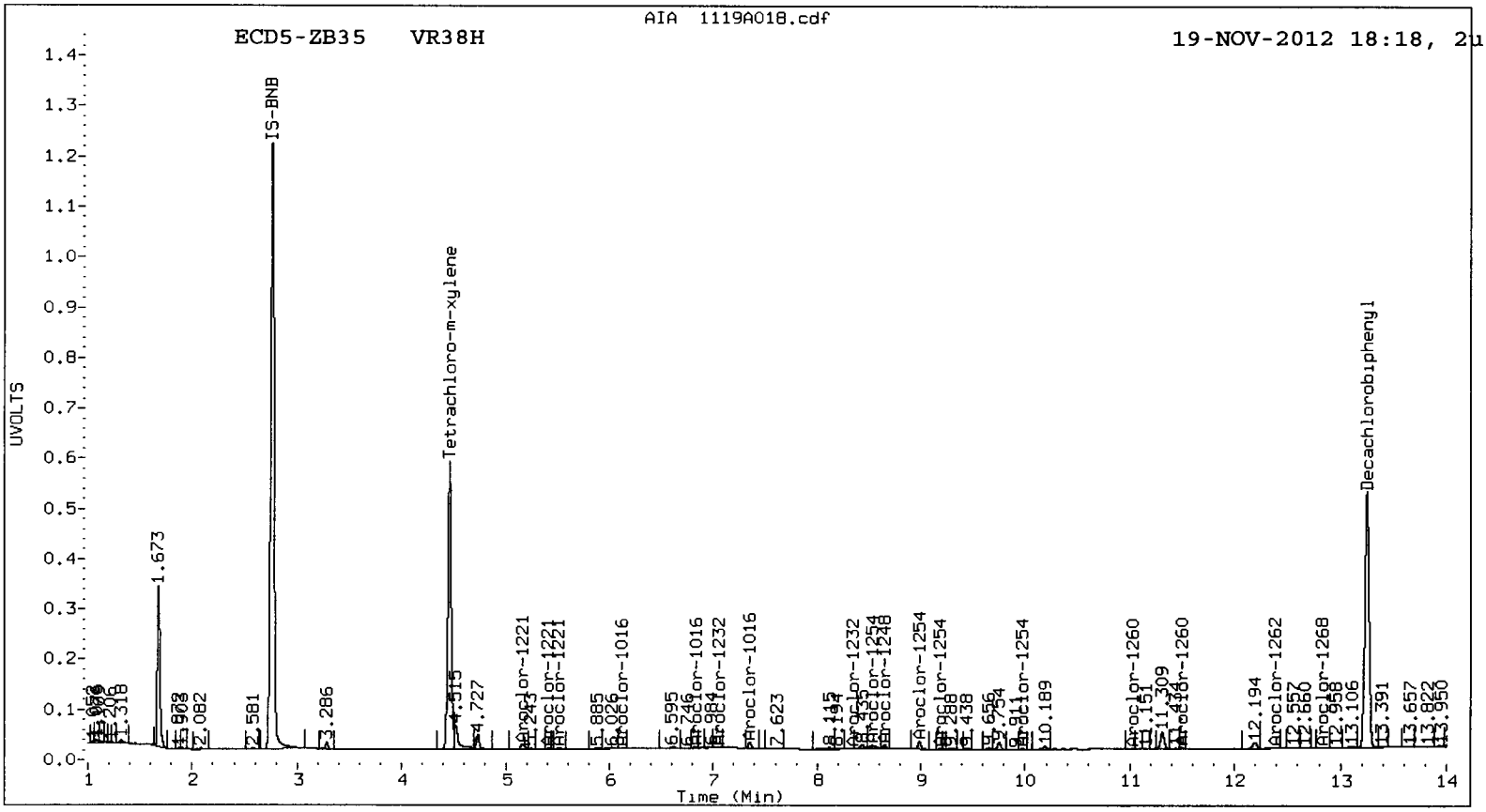
19-NOV-2012 18:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP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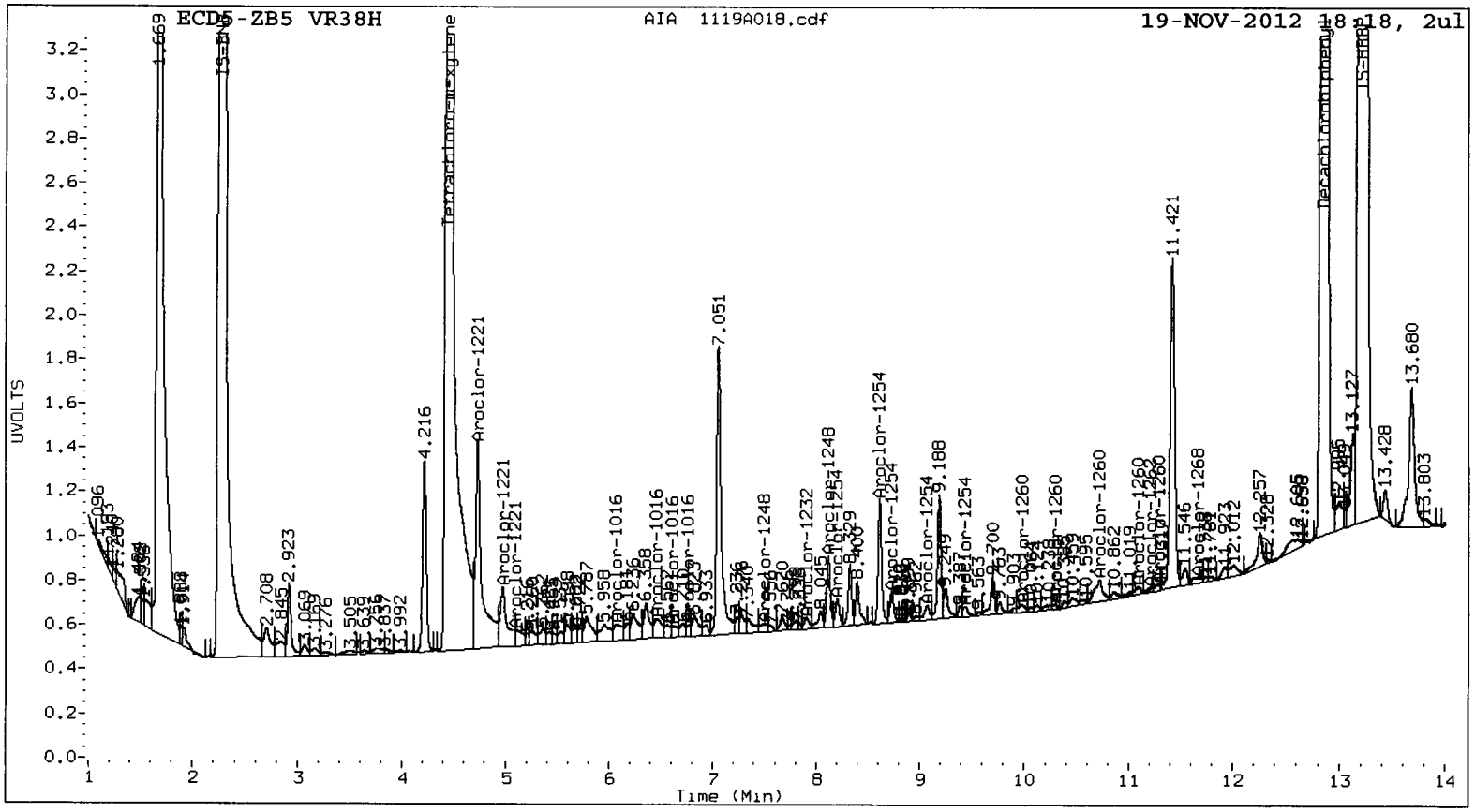
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl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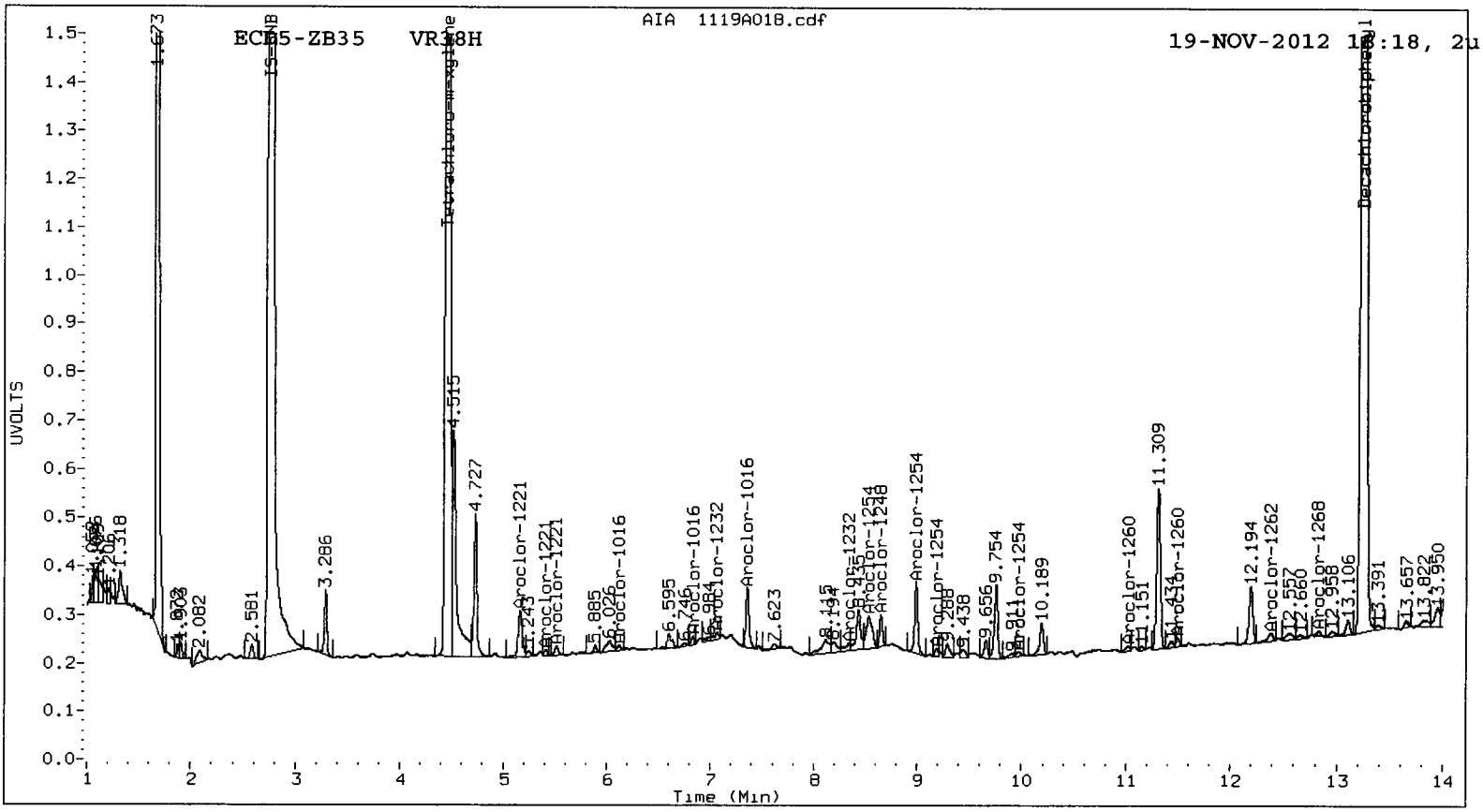
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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19-NOV-2012 18:18, 2u
UVOLTS
Time (Min)
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A019.d
Data file 2: 20121102.B/1119-2.b/1119A019.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38I
Client ID: HT-11-S-LFP-121106
Injection Date: 19-NOV-2012 18:38
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.445	-0.001	24156646	4.455	-0.001	6314433	34.0	33.1	2.7	Tetrachloro-m-xylen
12.855	0.000	30672822	13.247	-0.001	6543323	28.4	32.3	12.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	85.0	82.7
Decachlorobiphenyl	71.0	80.8

11/24/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	34006172	8.8
Hexabromobiphenyl	64198300	71692760	11.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13384501	-7.9
Hexabromobiphenyl	15789428	14901813	-5.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.075	-0.020	37333	2.0	1	6.116	-0.093	13809	1.8
Aroclor-1016	2	6.462	-0.037	63487	1.1	2	6.829	-0.012	12175	0.8
Aroclor-1016	3	6.615	-0.034	16587	0.6	3	---			0.0
Aroclor-1016	4	6.767	0.008	13243	0.7	4	7.351	0.016	138603	29.9
	Total Col1Ave (4 peaks):				1.1	Total Col2Ave (3 peaks):			10.8	RPD = 163*
	Corrected Ave (3 peaks):				0.8	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.731	-0.086	2155633	259.7	1	5.160	0.018	159517	70.3
Aroclor-1221	2	4.976	-0.019	692609	121.8	2	5.411	0.018	12404	9.3
Aroclor-1221	3	---			0.0	3	5.515	0.009	27984	6.7
Aroclor-1221	NS	---			----	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave:		28.8		
Aroclor-1232	1	6.075	-0.019	37333	4.8	1	6.116	-0.094	13809	4.2
Aroclor-1232	2	6.462	-0.035	63487	2.6	2	6.829	-0.012	12175	1.9
Aroclor-1232	3	6.615	-0.032	16587	1.6	3	7.008	-0.042	10662	3.9
Aroclor-1232	4	7.906	0.005	94371	7.1	4	8.334	0.058	41128	17.7
	Total Col1Ave (4 peaks):				4.0	Total Col2Ave (4 peaks):			6.9	RPD = 52*
	Corrected Ave (3 peaks):				3.0	Corrected Ave (3 peaks):			3.3	RPD = 10
Aroclor-1242	1	6.075	-0.020	37333	2.5	1	6.116	-0.092	13809	2.4
Aroclor-1242	2	6.462	-0.036	63487	1.4	2	6.829	-0.014	12175	1.0
Aroclor-1242	3	6.615	-0.032	16587	0.8	3	7.008	-0.041	10662	2.1
Aroclor-1242	4	7.906	0.007	94371	4.0	4	8.334	0.060	41128	9.7
	Total Col1Ave (4 peaks):				2.2	Total Col2Ave (4 peaks):			3.8	RPD = 53*
	Corrected Ave (3 peaks):				1.6	Corrected Ave (3 peaks):			1.8	RPD = 15
Aroclor-1248	1	6.462	-0.030	63487	2.1	1	6.829	-0.010	12175	1.5
Aroclor-1248	2	7.497	0.028	56621	1.8	2	---			0.0
Aroclor-1248	3	7.906	0.007	94371	2.4	3	8.334	0.061	41128	6.0
Aroclor-1248	4	8.119	-0.014	559569	18.2	4	8.648	0.028	96777	11.5
	Total Col1Ave (4 peaks):				6.1	Total Col2Ave (3 peaks):			6.4	RPD = 4
	Corrected Ave (3 peaks):				2.1	Corrected Ave: < 3 Peaks				
Aroclor-1254	1	8.208	-0.014	195840	4.8	1	8.334	-0.006	41128	7.1
Aroclor-1254	2	8.615	0.021	554718	20.8	2	8.532	0.017	149326	20.3
Aroclor-1254	3	8.731	0.002	256505	4.9	3	8.988	-0.049	139738	24.8
Aroclor-1254	4	9.074	-0.005	143690	2.5	4	9.185	-0.002	27743	2.2
Aroclor-1254	5	9.437	-0.002	74891	2.1	5	9.972	0.002	13173	1.8
	Total Col1Ave (5 peaks):				7.0	Total Col2Ave (5 peaks):			11.2	RPD = 46*
	Corrected Ave (4 peaks):				3.6	Corrected Ave (4 peaks):			7.9	RPD = 74*
Aroclor-1260	1	9.990	-0.006	54095	1.3	1	---			0.0
Aroclor-1260	2	10.328	0.017	45114	1.1	2	---			0.0
Aroclor-1260	3	10.723	0.036	165734	1.7	3	---			0.0
Aroclor-1260	4	11.083	-0.001	47943	0.8	4	---			0.0
Aroclor-1260	5	11.279	0.004	11379	0.4	NS	---			----
	Total Col1Ave (5 peaks):				1.1	Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	9.990	-0.006	54095	0.9	1	---			0.0
Aroclor-1262	2	10.328	0.016	45114	1.0	2	---			0.0
Aroclor-1262	3	10.723	0.036	165734	1.4	3	---			0.0
Aroclor-1262	4	11.209	0.007	21663	0.5	4	11.495	-0.052	12410	1.2
Aroclor-1262	5	11.279	0.004	11379	0.2	5	12.385	0.038	28842	2.9
	Total Col1Ave (5 peaks):				0.8	Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	11.209	0.007	21663	0.2	1	---			0.0
Aroclor-1268	2	11.279	0.004	11379	0.1	2	---			0.0
Aroclor-1268	3	11.655	-0.005	13541	0.1	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0

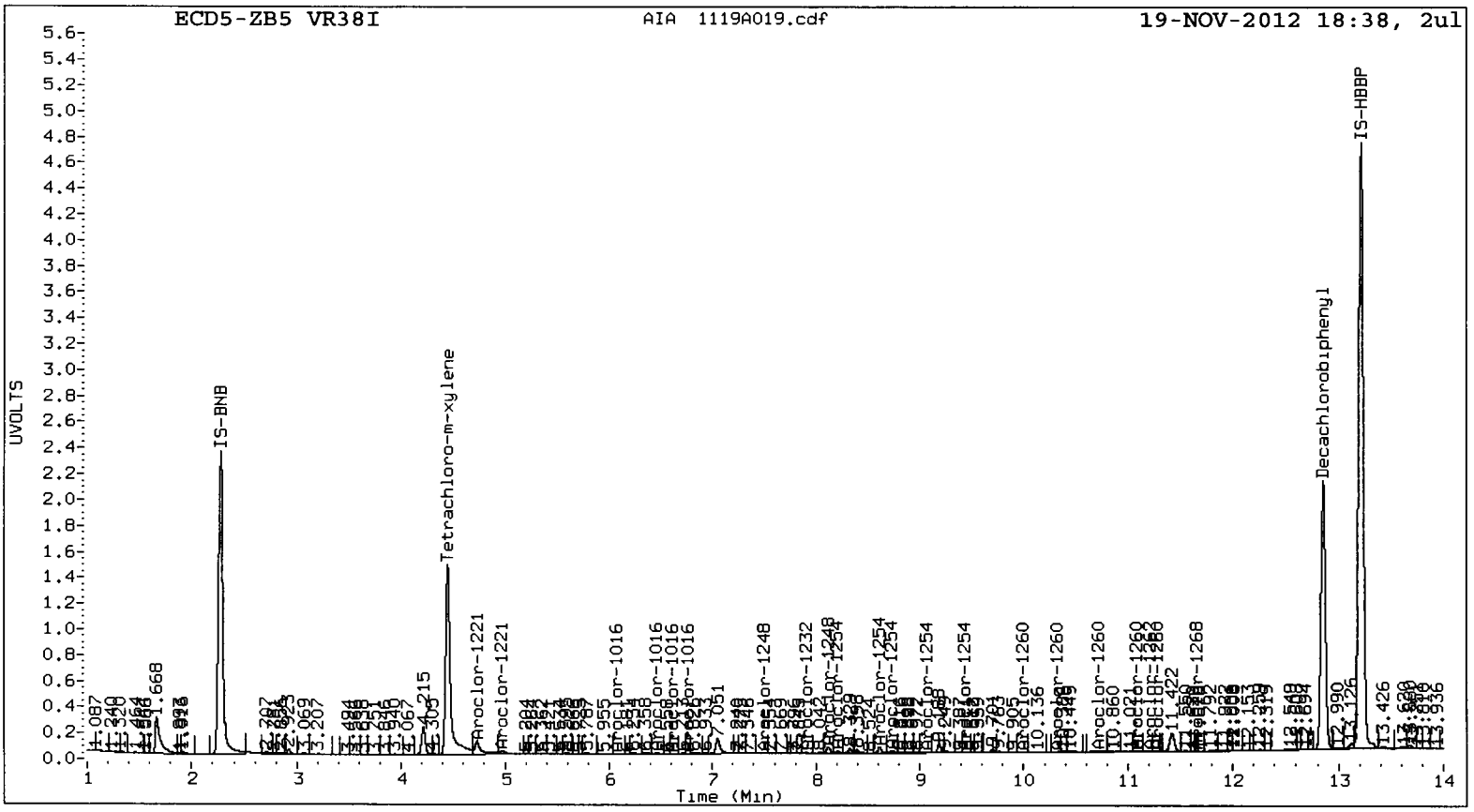
Total Col1Ave (3 peaks): 0.1 Col2Ave: <3 Quant Peaks

Total PCB Area Col1 (4.547 - 12.755) = 14284324 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 2488034 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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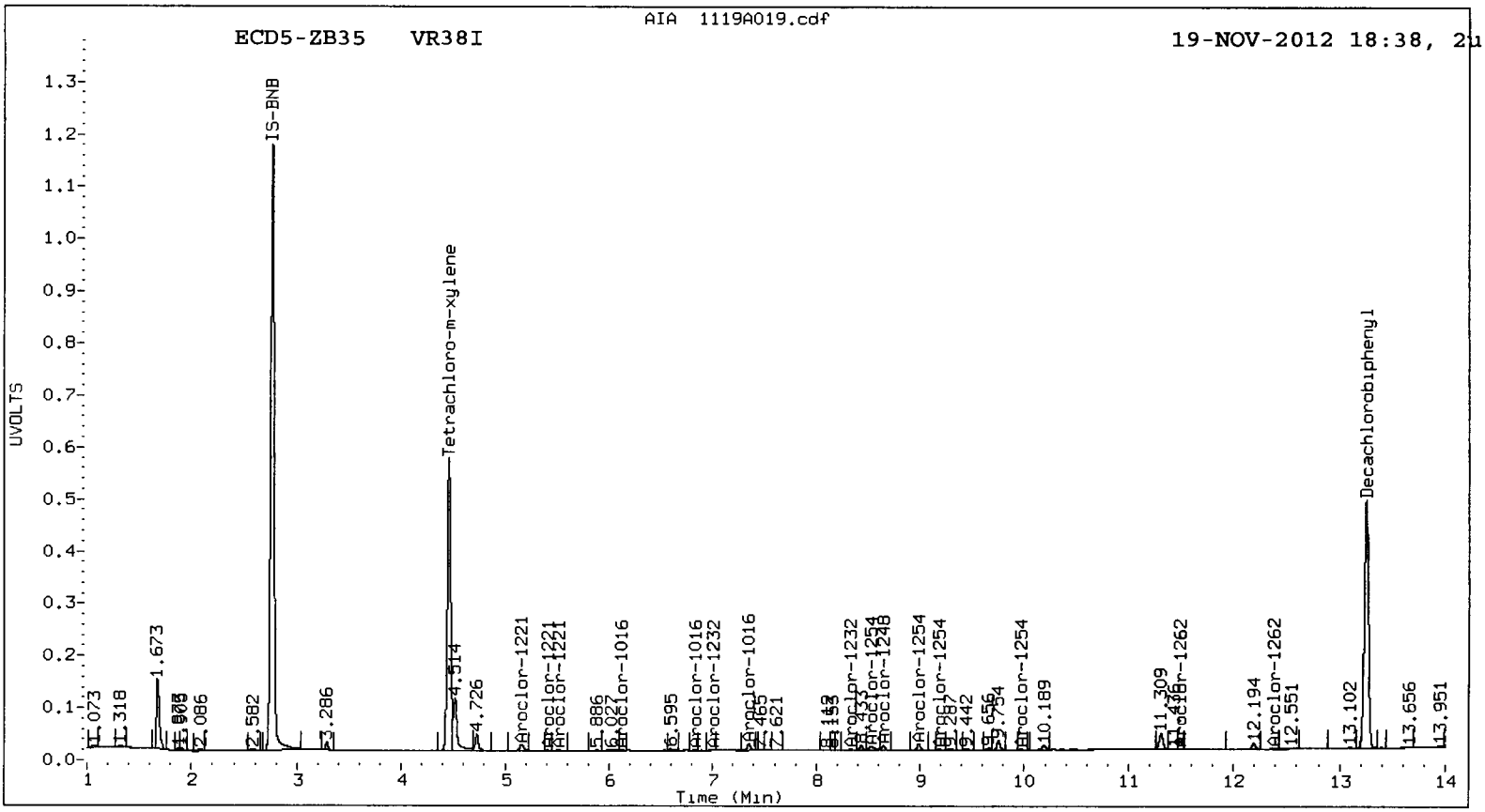
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-HBBP
Time (Min)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IS-BNB
Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1254
Aroclor-1254
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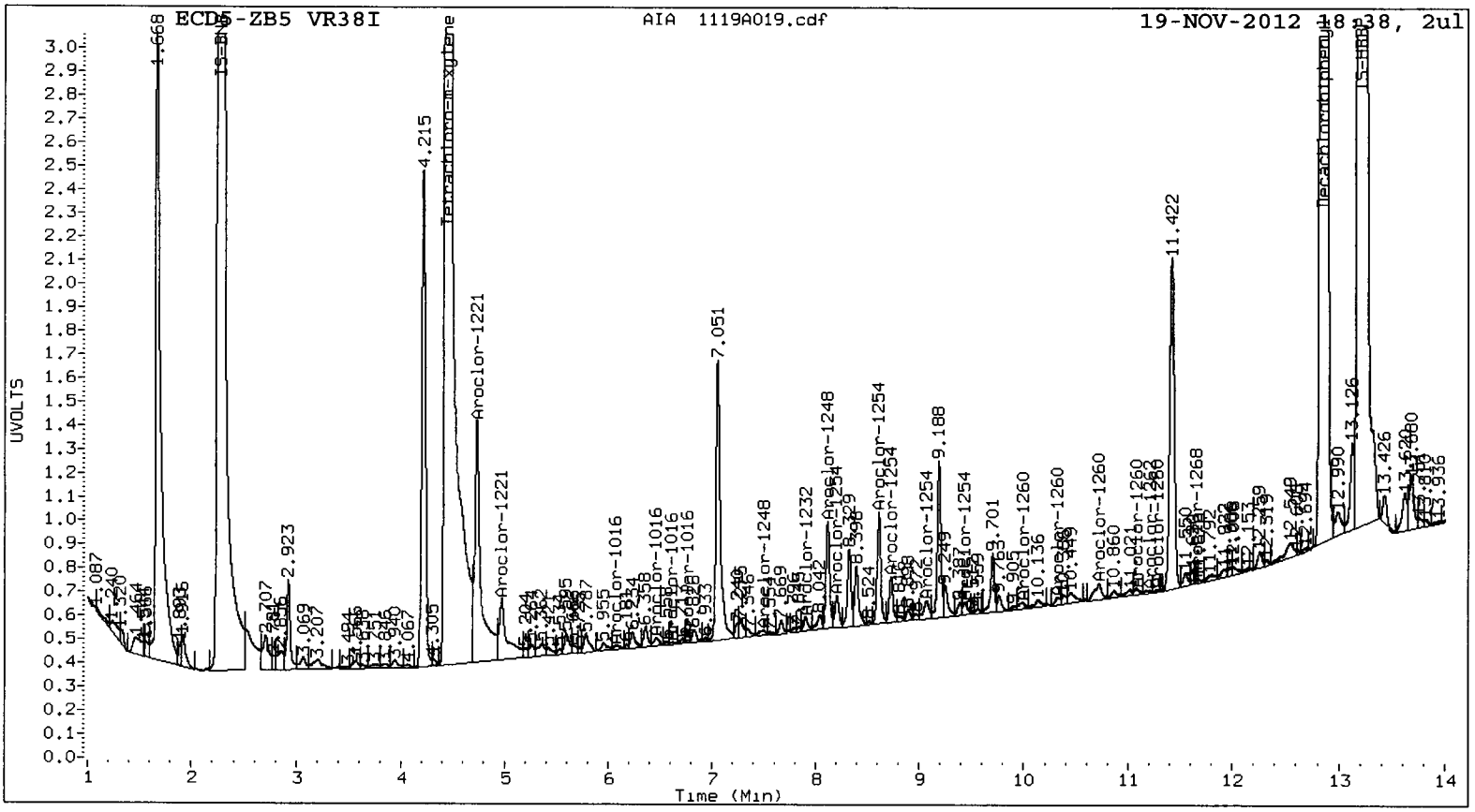
Aroclor-1262
Aroclor-1262
Decachlorobiphenyl
Time (Min)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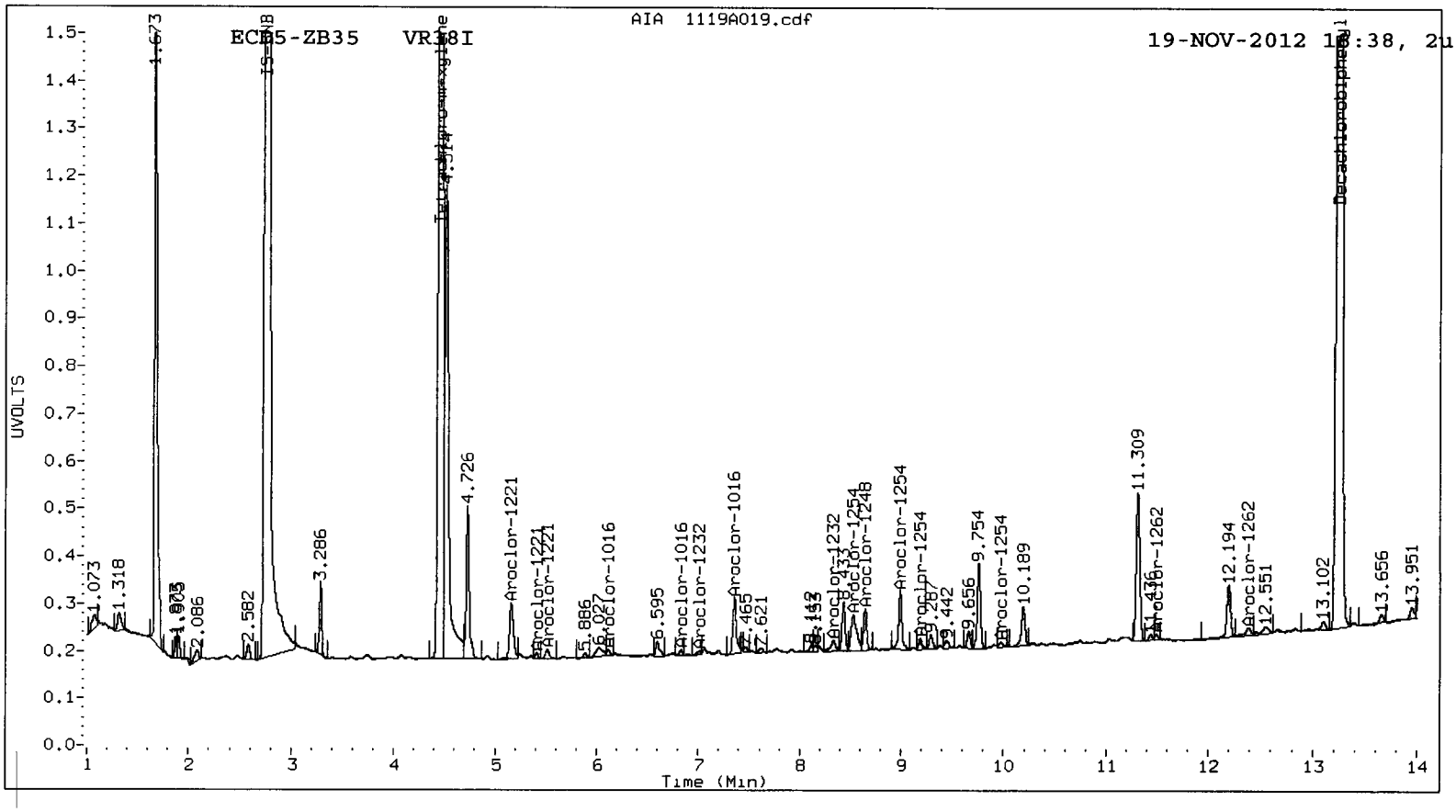
Aroclor-1254
11.422
Decachlorobiphenyl
IS=HBB
13.126
12.950


ECD5-ZB35 VR38I
AIA 1119A019.cdf
19-NOV-2012 18:38, 2u
UVOLTS
Time (Min)
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IS=DNB
4.726
Tetrachloro-m-xylene
Aroclor-1221
3.286
Aroclor-1016
Aroclor-1254
11.309
Decachlorobiphenyl
12.194
Aroclor-1262
13.102
13.951

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A020.d
Data file 2: 20121102.B/1119-2.b/1119A020.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38J
Client ID: HT-06-S-E-121106
Injection Date: 19-NOV-2012 18:58
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.446	0.000	25993647	4.456	0.000	6860906	34.0	34.8	2.4	Tetrachloro-m-xylen
12.855	0.000	33320514	13.246	-0.001	7051986	31.0	34.4	10.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	84.9	86.9
Decachlorobiphenyl	77.6	86.0

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	36652117	17.3
Hexabromobiphenyl	64198300	71276055	11.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13840982	-4.8
Hexabromobiphenyl	15789428	15093499	-4.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.065	-0.030	366395	17.9	1	6.195	-0.014	27343	3.5
Aroclor-1016	2	6.489	-0.010	319431	5.0	2	6.833	-0.008	28449	1.7
Aroclor-1016	3	6.662	0.013	213944	7.8	3	7.198	-0.029	19278	4.5
Aroclor-1016	4	6.763	0.004	145323	7.4	4	7.351	0.016	152918	31.9
Total Col1Ave (4 peaks):		9.5				Total Col2Ave (4 peaks):			10.4	RPD = 9
Corrected Ave (3 peaks):		6.7				Corrected Ave (3 peaks):			3.3	RPD = 69*
Aroclor-1221	1	4.732	-0.085	1951934	218.2	1	5.158	0.017	146115	62.3
Aroclor-1221	2	4.977	-0.018	805581	131.5	2	5.412	0.019	64227	46.5
Aroclor-1221	3	---			0.0	3	5.526	0.019	96225	22.2
Aroclor-1221	NS	---			----	4	---			0.0
Col1Ave: <3 Quant Peaks						Col2Ave:			43.7	
Aroclor-1232	1	6.065	-0.029	366395	43.9	1	6.195	-0.015	27343	8.0
Aroclor-1232	2	6.489	-0.008	319431	12.2	2	6.833	-0.007	28449	4.2
Aroclor-1232	3	6.662	0.014	213944	18.8	3	6.985	-0.065	17146	6.1
Aroclor-1232	4	7.906	0.005	232417	16.3	4	8.339	0.063	28636	11.9
Total Col1Ave (4 peaks):		22.8				Total Col2Ave (4 peaks):			7.5	RPD = 101*
Corrected Ave (3 peaks):		15.8				Corrected Ave (3 peaks):			6.1	RPD = 89*
Aroclor-1242	1	6.065	-0.030	366395	23.0	1	6.195	-0.014	27343	4.6
Aroclor-1242	2	6.489	-0.010	319431	6.5	2	6.833	-0.009	28449	2.3
Aroclor-1242	3	6.662	0.015	213944	10.0	3	6.985	-0.064	17146	3.3
Aroclor-1242	4	7.906	0.007	232417	9.2	4	8.339	0.065	28636	6.5
Total Col1Ave (4 peaks):		12.2				Total Col2Ave (4 peaks):			4.2	RPD = 98*
Corrected Ave (3 peaks):		8.6				Corrected Ave (3 peaks):			3.4	RPD = 87*
Aroclor-1248	1	6.489	-0.003	319431	9.9	1	6.833	-0.005	28449	3.5
Aroclor-1248	2	7.469	0.000	178900	5.3	2	7.748	0.003	21803	3.2
Aroclor-1248	3	7.906	0.008	232417	5.4	3	8.339	0.066	28636	4.1
Aroclor-1248	4	8.121	-0.013	394829	11.9	4	8.649	0.029	79925	9.2
Total Col1Ave (4 peaks):		8.1				Total Col2Ave (4 peaks):			5.0	RPD = 48*
Corrected Ave (3 peaks):		6.9				Corrected Ave (3 peaks):			3.6	RPD = 63*
Aroclor-1254	1	8.213	-0.009	317546	7.3	1	8.339	-0.001	28636	4.8
Aroclor-1254	2	8.615	0.021	723831	25.2	2	8.532	0.017	167794	22.1
Aroclor-1254	3	8.728	0.000	341805	6.1	3	9.034	-0.003	18936	3.2
Aroclor-1254	4	9.068	-0.010	345436	5.6	4	9.184	-0.002	73418	5.7
Aroclor-1254	5	9.435	-0.003	190839	5.0	5	9.972	0.002	61830	8.0
Total Col1Ave (5 peaks):		9.8				Total Col2Ave (5 peaks):			8.8	RPD = 11
Corrected Ave (4 peaks):		6.0				Corrected Ave (4 peaks):			5.4	RPD = 10
Aroclor-1260	1	9.993	-0.003	92020	2.2	1	10.296	-0.005	34318	4.3
Aroclor-1260	2	10.309	-0.003	52150	1.3	2	10.746	-0.005	27341	2.8
Aroclor-1260	3	10.685	-0.002	335507	3.4	3	11.024	-0.001	45575	2.3
Aroclor-1260	4	11.100	0.015	255439	4.5	4	11.491	-0.055	17143	2.9
Aroclor-1260	5	11.275	-0.001	61561	2.2	NS	---			----
Total Col1Ave (5 peaks):		2.7				Total Col2Ave (4 peaks):			3.1	RPD = 12
Corrected Ave (4 peaks):		2.3				Corrected Ave (3 peaks):			2.7	RPD = 15
Aroclor-1262	1	9.993	-0.004	92020	1.5	1	10.296	-0.005	34318	2.6
Aroclor-1262	2	10.309	-0.003	52150	1.1	2	10.746	-0.006	27341	2.3
Aroclor-1262	3	10.685	-0.002	335507	2.7	3	11.024	-0.001	45575	1.8
Aroclor-1262	4	11.201	-0.002	80881	1.8	4	11.491	-0.056	17143	1.7
Aroclor-1262	5	11.275	0.000	61561	1.2	5	12.380	0.033	60386	6.0
Total Col1Ave (5 peaks):		1.7				Total Col2Ave (5 peaks):			2.9	RPD = 54*
Corrected Ave (4 peaks):		1.4				Corrected Ave (4 peaks):			2.1	RPD = 40*
Aroclor-1268	1	11.201	-0.002	80881	0.7	1	11.491	-0.056	17143	0.7
Aroclor-1268	2	11.275	0.000	61561	0.5	2	11.607	-0.006	24033	0.9

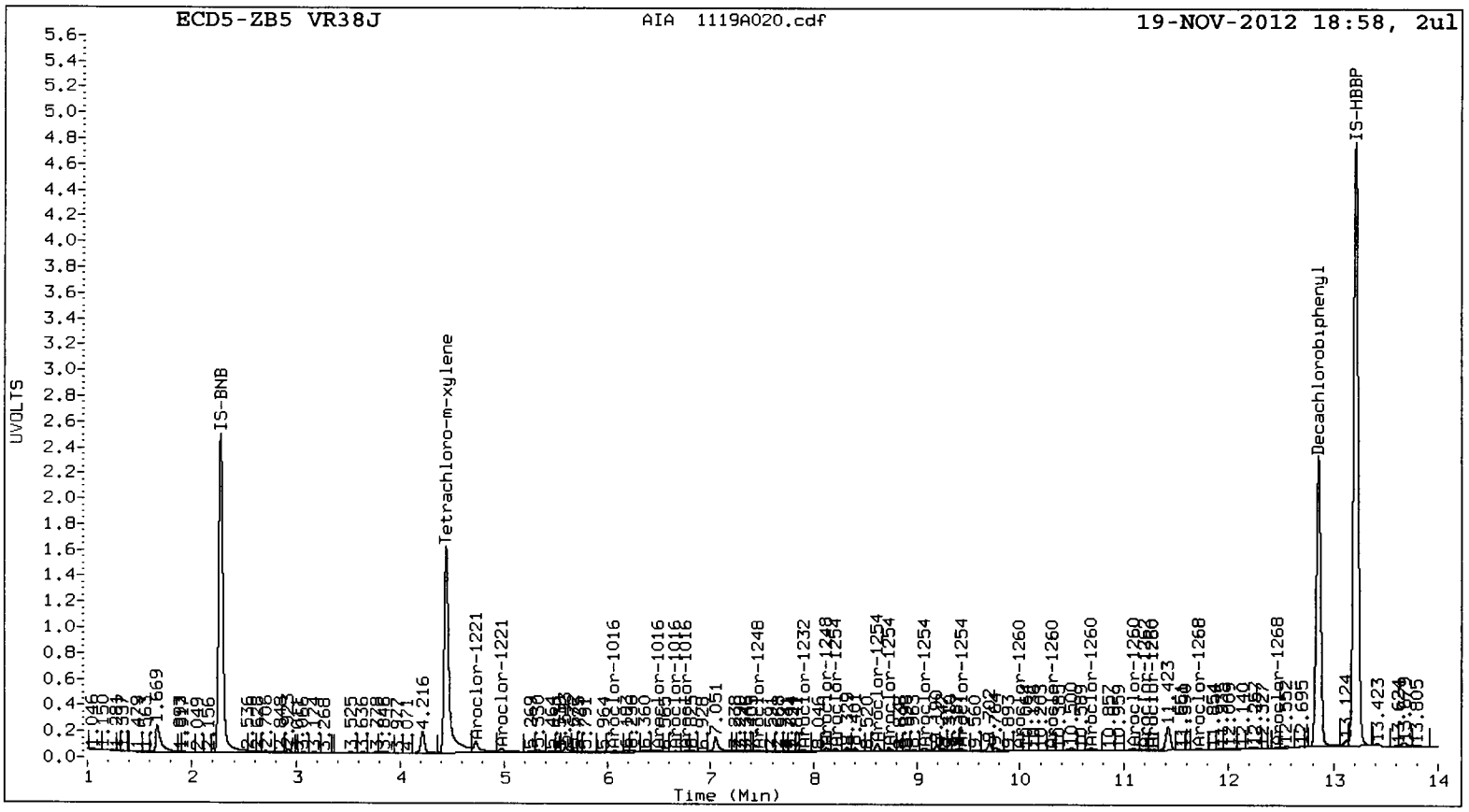
Aroclor-1268 3	11.717	0.057	223644	2.1	3	---	0.0
Aroclor-1268 4	12.462	0.013	70475	0.2	4	---	0.0

Total Col1Ave (4 peaks): 0.9 Col2Ave: <3 Quant Peaks

Total PCB Area Col1 (4.547 - 12.755) = 21730723 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 4117614 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical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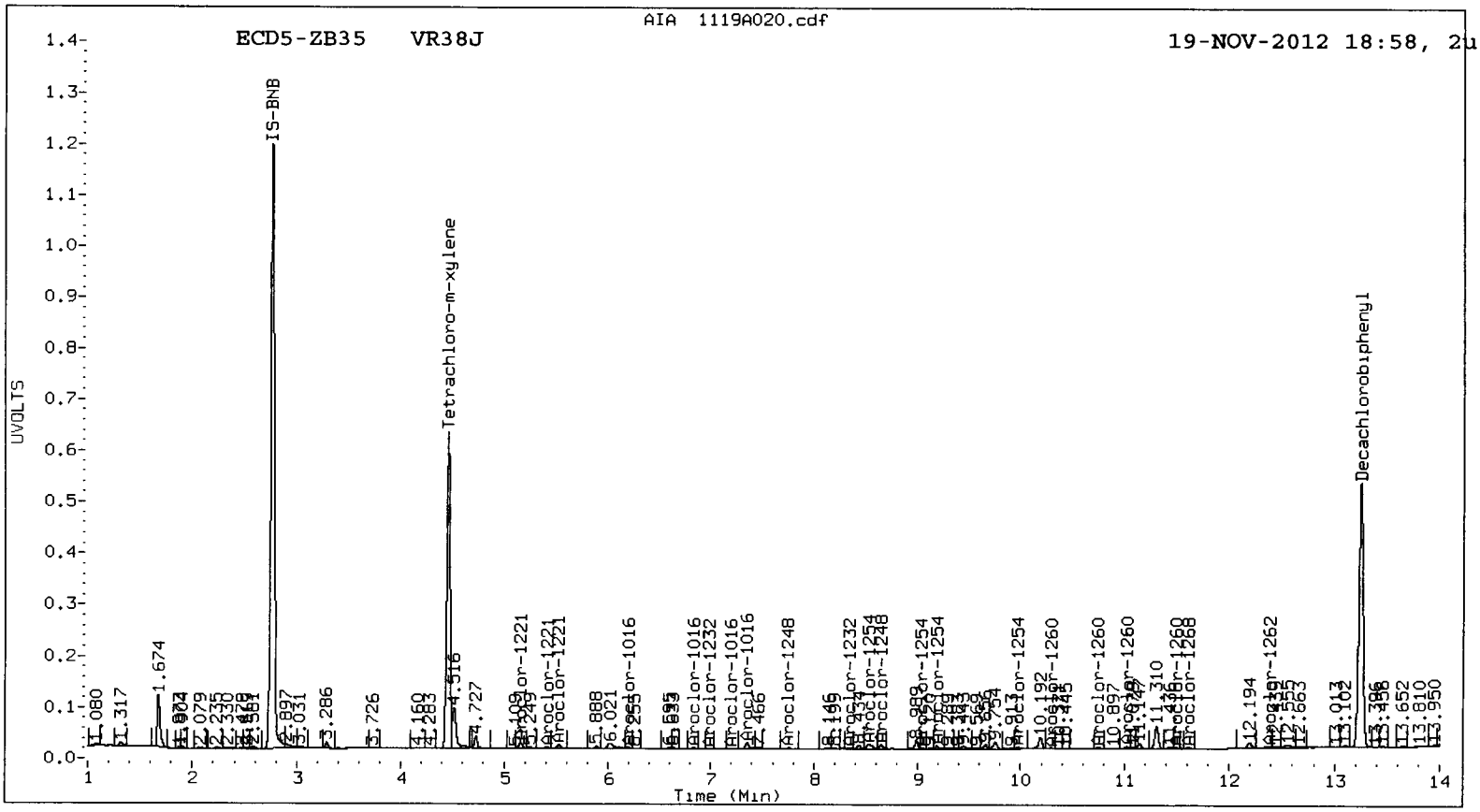
19-NOV-2012 18:58, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-HBBP
Time (Min)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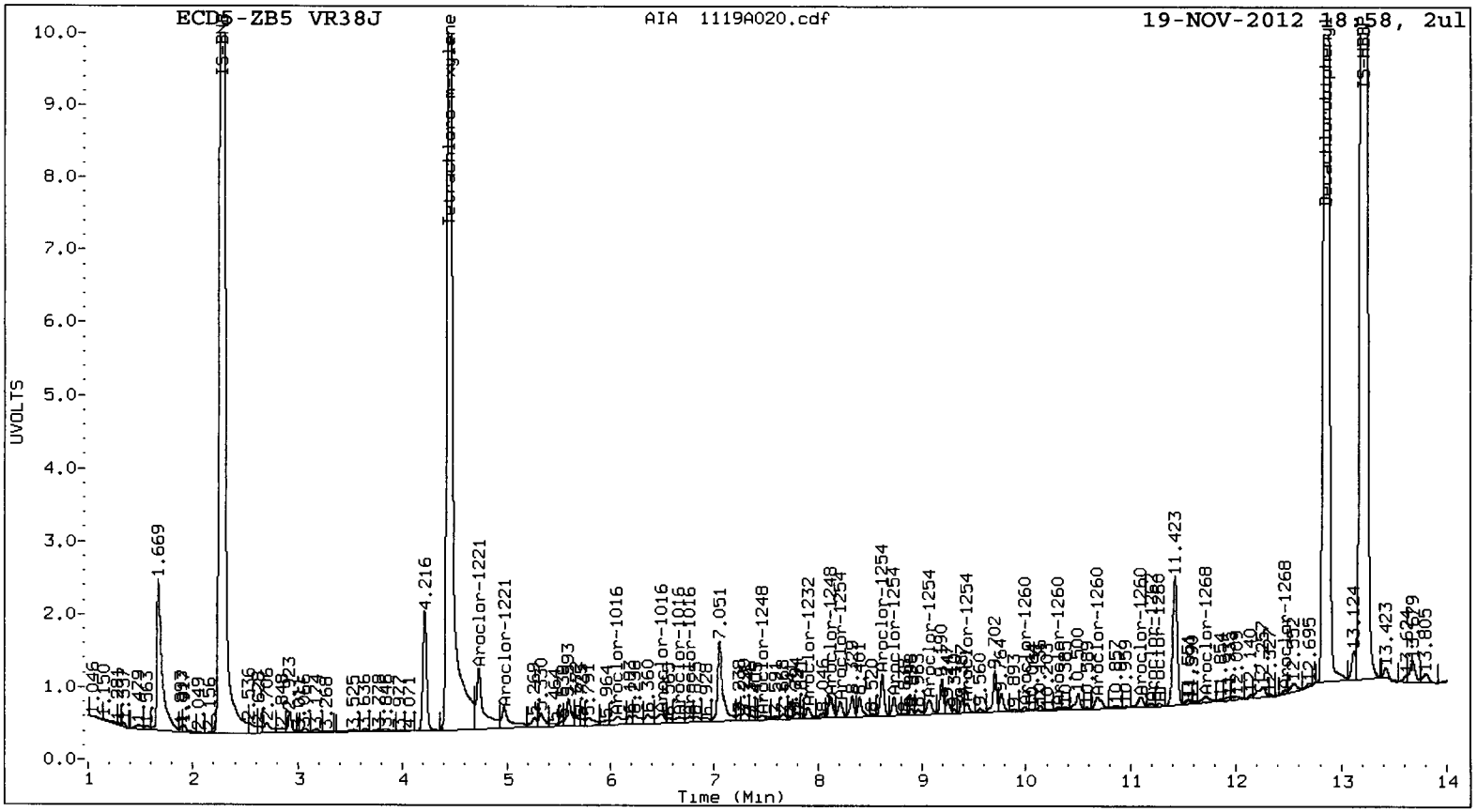
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Time (Min)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19-NOV-2012 18:58, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
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Decachlorobiphenyl
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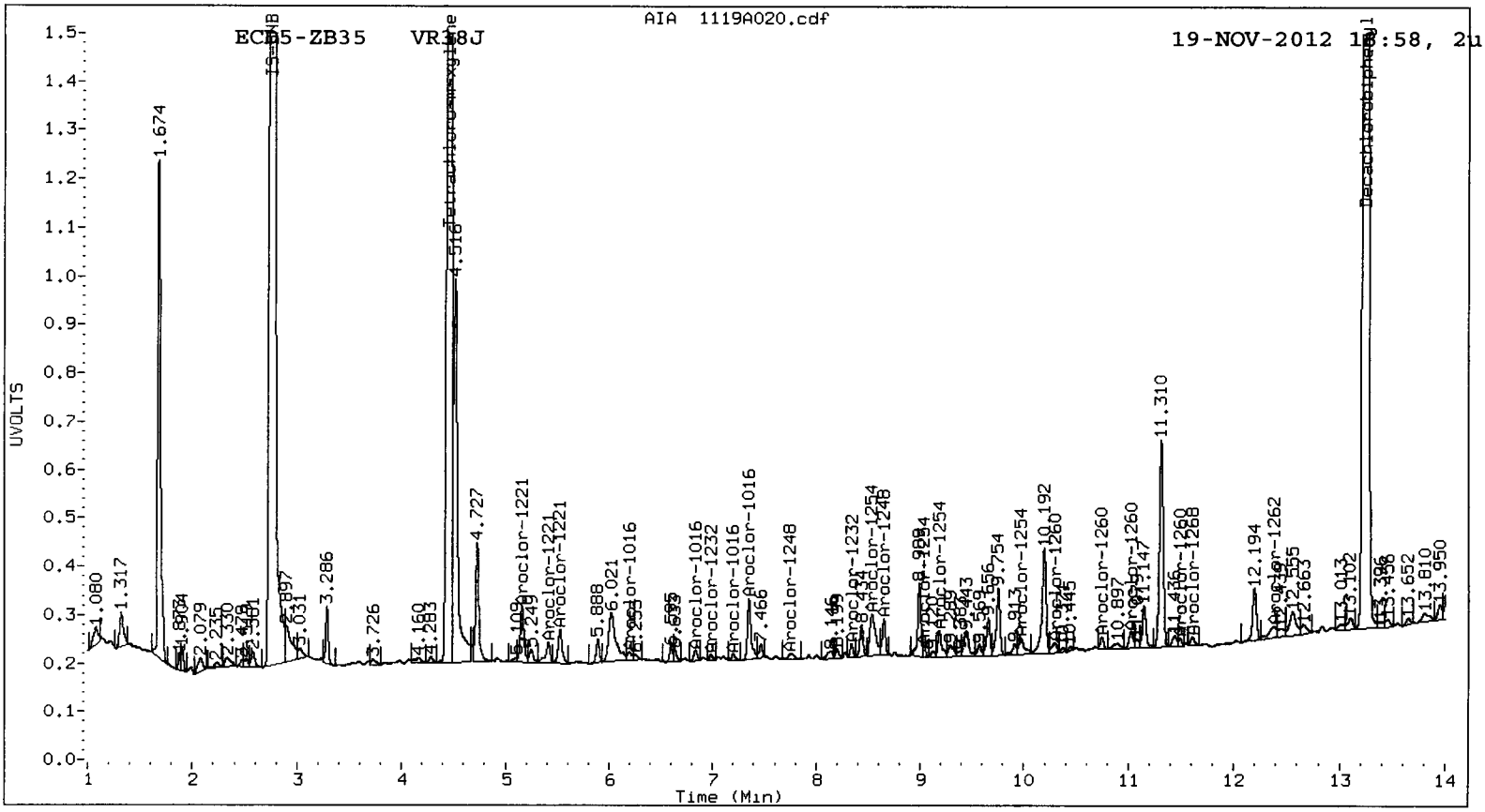
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UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
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Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
1.674
4.516
4.727
11.310
12.194

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A021.d
Data file 2: 20121102.B/1119-2.b/1119A021.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: VR38K
Client ID: HT-07-S-E-121106
Injection Date: 19-NOV-2012 19:18
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.446	0.000	25370114	4.456	-0.001	6663712	35.6	34.2	4.0	Tetrachloro-m-xylen
12.855	0.000	31995847	13.246	-0.002	6745134	30.3	33.9	11.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	88.9	85.4
Decachlorobiphenyl	75.7	84.8

11/21/12

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	34146415	9.3
Hexabromobiphenyl	64198300	70161032	9.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	13681580	-5.9
Hexabromobiphenyl	15789428	14633977	-7.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.094	0.000	31496	1.6	1	6.193	-0.016	14161	1.8
Aroclor-1016	2	6.474	-0.025	115005	1.9	2	6.829	-0.012	12276	0.8
Aroclor-1016	3	6.662	0.013	11161	0.4	3	---			0.0
Aroclor-1016	4	6.764	0.005	37983	2.1	4	7.351	0.016	110229	23.2
	Total Col1Ave (4 peaks):				1.5	Total Col2Ave (3 peaks):			8.6	RPD = 140*
	Corrected Ave (3 peaks):				1.3	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	4.732	-0.085	2245324	269.4	1	5.159	0.018	153984	66.4
Aroclor-1221	2	4.977	-0.018	749567	131.3	2	5.415	0.022	22888	16.8
Aroclor-1221	3	---			0.0	3	5.526	0.019	89021	20.7
Aroclor-1221	NS	---			----	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: 34.6				
Aroclor-1232	1	6.094	0.001	31496	4.0	1	6.193	-0.017	14161	4.2
Aroclor-1232	2	6.474	-0.023	115005	4.7	2	6.829	-0.012	12276	1.8
Aroclor-1232	3	6.662	0.015	11161	1.1	3	---			0.0
Aroclor-1232	4	7.907	0.006	106000	8.0	4	8.339	0.063	21980	9.3
	Total Col1Ave (4 peaks):				4.5	Total Col2Ave (3 peaks):			5.1	RPD = 13
	Corrected Ave (3 peaks):				3.3	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	6.094	0.000	31496	2.1	1	6.193	-0.015	14161	2.4
Aroclor-1242	2	6.474	-0.025	115005	2.5	2	6.829	-0.014	12276	1.0
Aroclor-1242	3	6.662	0.015	11161	0.6	3	---			0.0
Aroclor-1242	4	7.907	0.007	106000	4.5	4	8.339	0.065	21980	5.0
	Total Col1Ave (4 peaks):				2.4	Total Col2Ave (3 peaks):			2.8	RPD = 15
	Corrected Ave (3 peaks):				1.7	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	6.474	-0.018	115005	3.8	1	6.829	-0.010	12276	1.5
Aroclor-1248	2	7.490	0.021	61681	1.9	2	7.775	0.030	12435	1.8
Aroclor-1248	3	7.907	0.008	106000	2.7	3	8.339	0.066	21980	3.2
Aroclor-1248	4	8.121	-0.012	388626	12.6	4	8.649	0.029	91620	10.6
	Total Col1Ave (4 peaks):				5.3	Total Col2Ave (4 peaks):			4.3	RPD = 20
	Corrected Ave (3 peaks):				2.8	Corrected Ave (3 peaks):			2.2	RPD = 26
Aroclor-1254	1	8.208	-0.014	260298	6.4	1	8.339	-0.001	21980	3.7
Aroclor-1254	2	8.616	0.022	789185	29.4	2	8.533	0.018	177996	23.7
Aroclor-1254	3	8.730	0.001	232688	4.5	3	8.989	-0.048	200098	34.7
Aroclor-1254	4	9.071	-0.008	176494	3.1	4	9.185	-0.002	40753	3.2
Aroclor-1254	5	9.437	-0.002	106812	3.0	5	9.975	0.005	31500	4.1
	Total Col1Ave (5 peaks):				9.3	Total Col2Ave (5 peaks):			13.9	RPD = 40
	Corrected Ave (4 peaks):				4.2	Corrected Ave (4 peaks):			8.7	RPD = 69*
Aroclor-1260	1	9.989	-0.007	61754	1.5	1	10.293	-0.008	17252	2.2
Aroclor-1260	2	10.315	0.003	25522	0.6	2	10.747	-0.004	11178	1.2
Aroclor-1260	3	10.721	0.035	571814	5.9	3	11.080	0.055	62780	3.3
Aroclor-1260	4	11.107	0.022	219459	3.9	4	11.494	-0.052	130448	22.7
Aroclor-1260	5	11.280	0.004	52525	1.9	NS	---			----
	Total Col1Ave (5 peaks):				2.8	Total Col2Ave (4 peaks):			7.3	RPD = 90*
	Corrected Ave (4 peaks):				2.0	Corrected Ave (3 peaks):			2.2	RPD = 10
Aroclor-1262	1	9.989	-0.008	61754	1.0	1	10.293	-0.009	17252	1.4
Aroclor-1262	2	10.315	0.003	25522	0.6	2	10.747	-0.005	11178	1.0
Aroclor-1262	3	10.721	0.034	571814	4.8	3	11.080	0.055	62780	2.5
Aroclor-1262	4	11.210	0.007	68009	1.5	4	11.494	-0.053	130448	13.0
Aroclor-1262	5	11.280	0.005	52525	1.1	5	12.386	0.039	59873	6.2
	Total Col1Ave (5 peaks):				1.8	Total Col2Ave (5 peaks):			4.8	RPD = 92*
	Corrected Ave (4 peaks):				1.0	Corrected Ave (4 peaks):			2.8	RPD = 91*
Aroclor-1268	1	11.210	0.007	68009	0.6	1	11.494	-0.053	130448	5.1
Aroclor-1268	2	11.280	0.005	52525	0.4	2	11.615	0.002	57314	2.3

Aroclor-1268	3	11.713	0.053	148619	1.4	3	12.022	0.010	17451	0.8
Aroclor-1268	4	12.468	0.019	90596	0.3	4	---			0.0

Total Col1Ave (4 peaks): 0.7 Total Col2Ave (3 peaks): 2.8 RPD = 120*

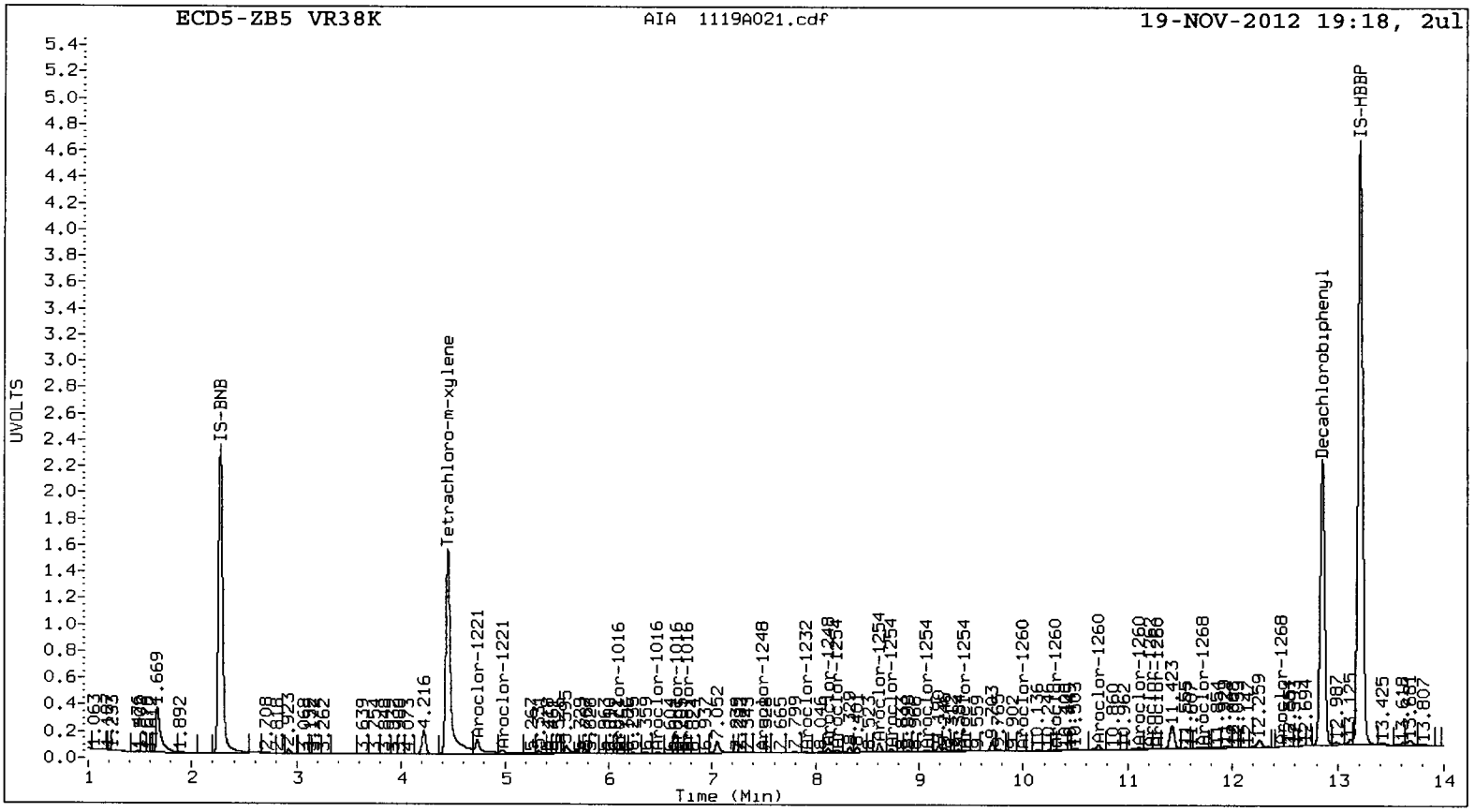
Corrected Ave (3 peaks): 0.4 Corrected Ave: < 3 Peaks

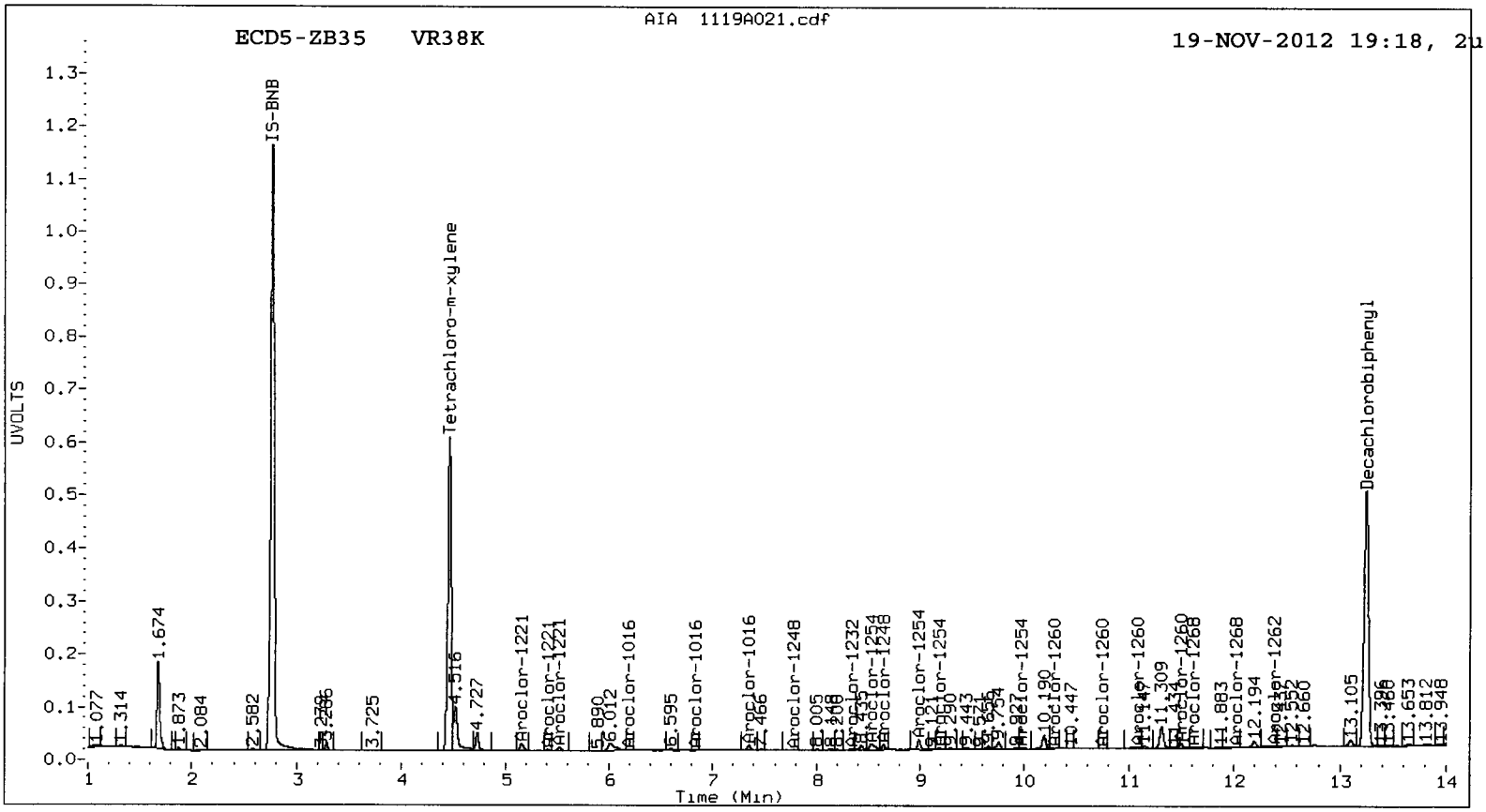
Total PCB Area Col1 (4.547 - 12.755) = 19296959 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 3923672 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 VR38K
AIA 1119A021.cdf
19-NOV-2012 19:18, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-HBBP
Time (Min)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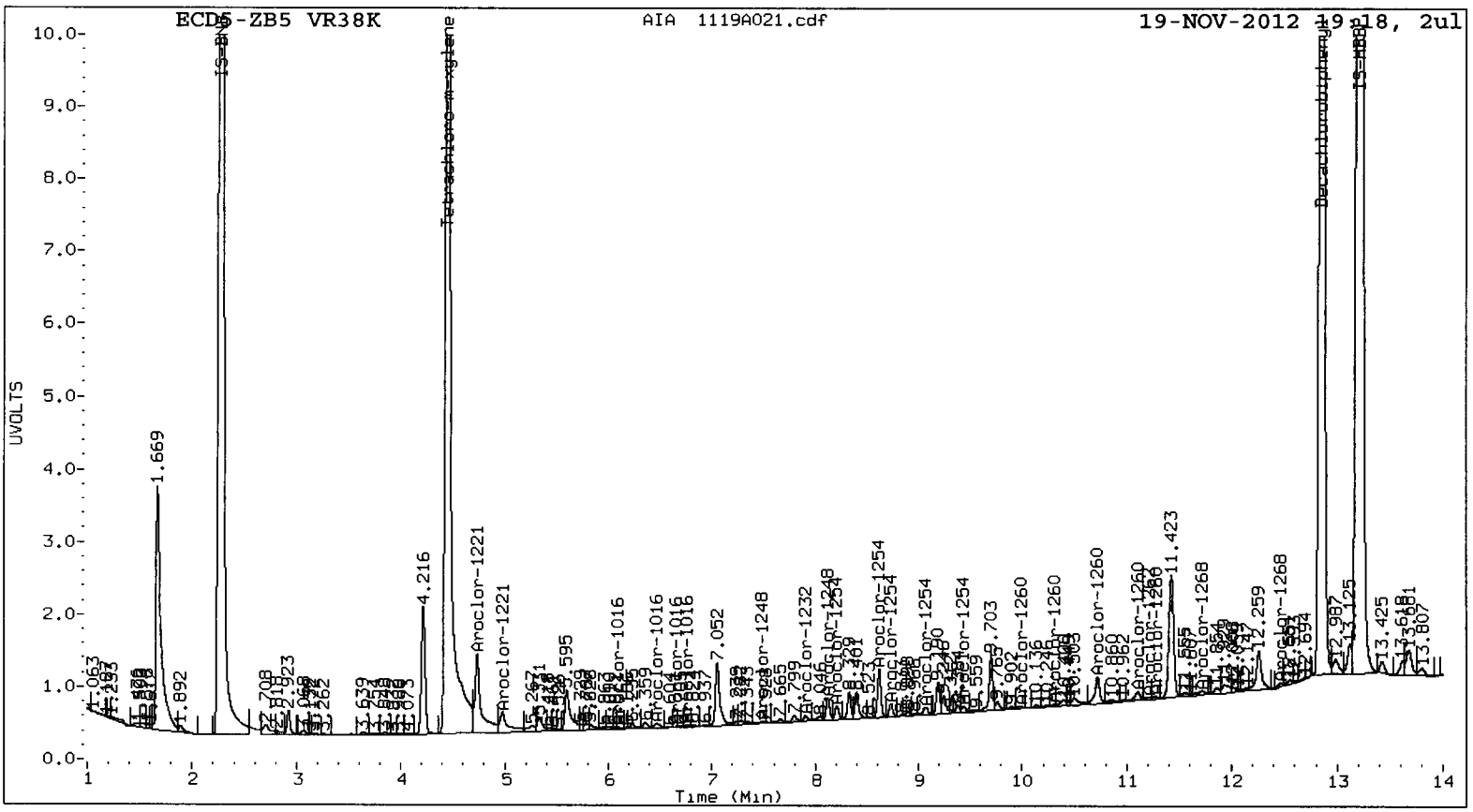
ECD5-ZB35 VR38K
19-NOV-2012 19:18, 2u
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Time (Min)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AIA 1119A021.cdf
19-NOV-2012 19:18, 2ul
UVOLTS
Time (Min)
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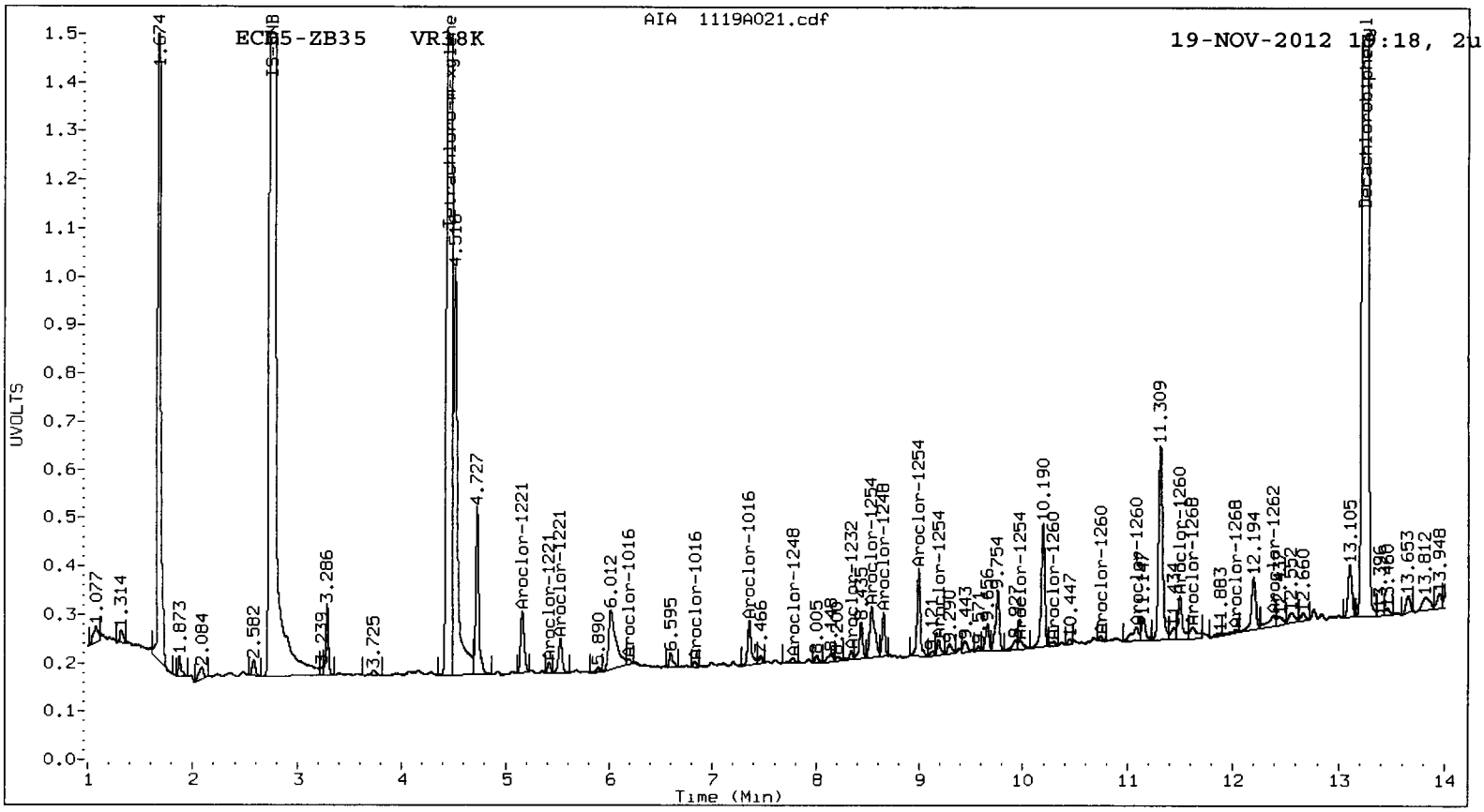
4.216
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
11.423
12.259
12.957
13.125
13.425


ECD5-ZB35 VR38K
AIA 1119A021.cdf
19-NOV-2012 19:18, 2u
UVOLTS
Time (Min)
1.674
4.516
4.727
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
11.309
12.194
13.105

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A022.d
Data file 2: 20121102.B/1119-2.b/1119A022.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 19-NOV-2012 19:39
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.447	0.000	12658890	4.455	-0.001	3394695	19.4	20.7	6.2	Tetrachloro-m-xylen
12.855	0.000	17154163	13.247	-0.001	3452654	18.0	19.4	7.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.6	51.7
Decachlorobiphenyl	45.1	48.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	31197606	-0.2
Hexabromobiphenyl	64198300	63133271	-1.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	11523481	-20.7
Hexabromobiphenyl	15789428	13088391	-17.1

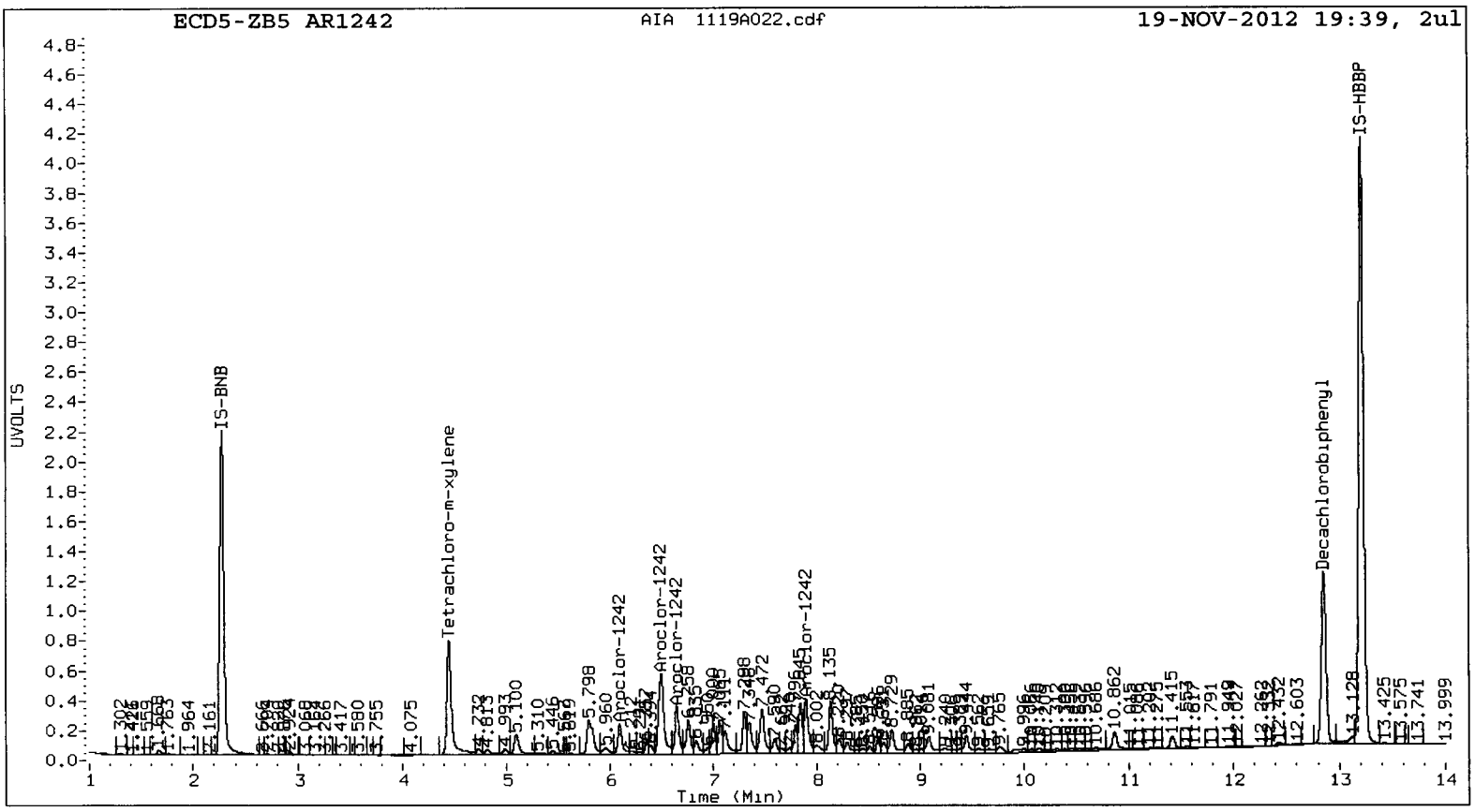
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

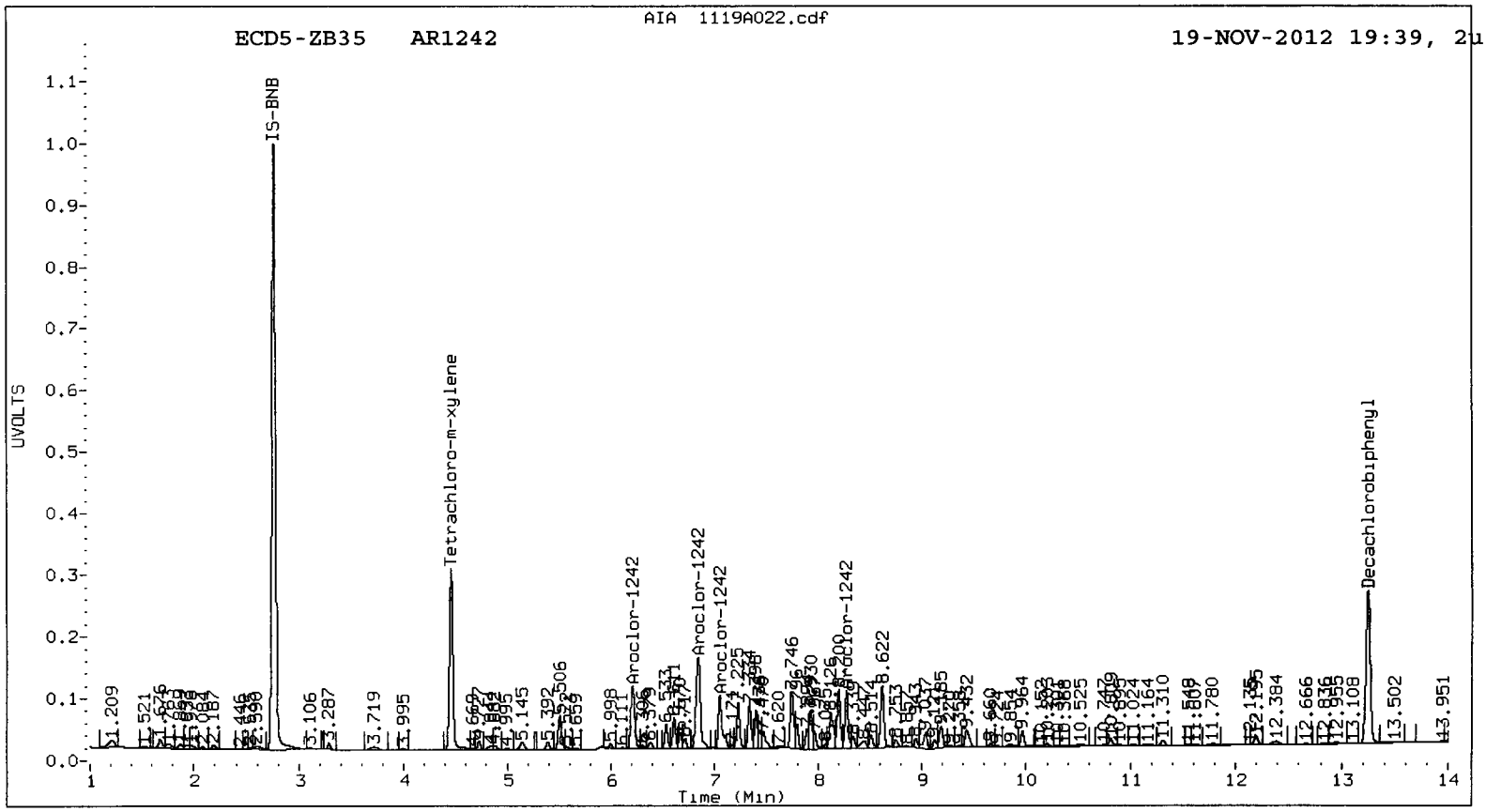
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.094	0.000	3091324	227.8	1	6.208	0.000	1273256	258.8
Aroclor-1242	2	6.498	0.000	10022052	238.4	2	6.843	0.000	2208380	210.8
Aroclor-1242	3	6.647	0.000	4507367	246.9	3	7.050	0.000	1123526	258.1
Aroclor-1242	4	7.899	0.000	5401698	252.3	4	8.274	0.000	984246	268.5
Total Col1Ave (4 peaks):					241.3	Total Col2Ave (4 peaks):				249.0 RPD = 3
Corrected Ave (3 peaks):					237.7	Corrected Ave (3 peaks):				242.6 RPD = 2

Total PCB Area Col1 (4.547 - 12.755) = 104833597 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 20774759 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1242
AIA 1119A022.cdf
19-NOV-2012 19:39, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
Time (Min)


AIA 1119A022.cdf
ECD5-ZB35 AR1242
19-NOV-2012 19:39, 2u
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20121102.B/1119-1.b/1119A023.d
Data file 2: 20121102.B/1119-2.b/1119A023.d
Method: /chem2/ecd5.i/20121102.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 19-NOV-2012 19:59
Ical Date: 02-NOV-2012
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.448	0.001	12867577	4.456	0.000	3388839	18.8	19.7	4.7	Tetrachloro-m-xylen
12.855	0.000	16998972	13.246	-0.001	3594355	17.4	19.7	12.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.1	49.4
Decachlorobiphenyl	43.4	49.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	31244918	32693771	4.6
Hexabromobiphenyl	64198300	64925899	1.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	14536489	12038518	-17.2
Hexabromobiphenyl	15789428	13437973	-14.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 02-NOV-2012
<- Indicates standard response outside Limits (-50 to +100%)

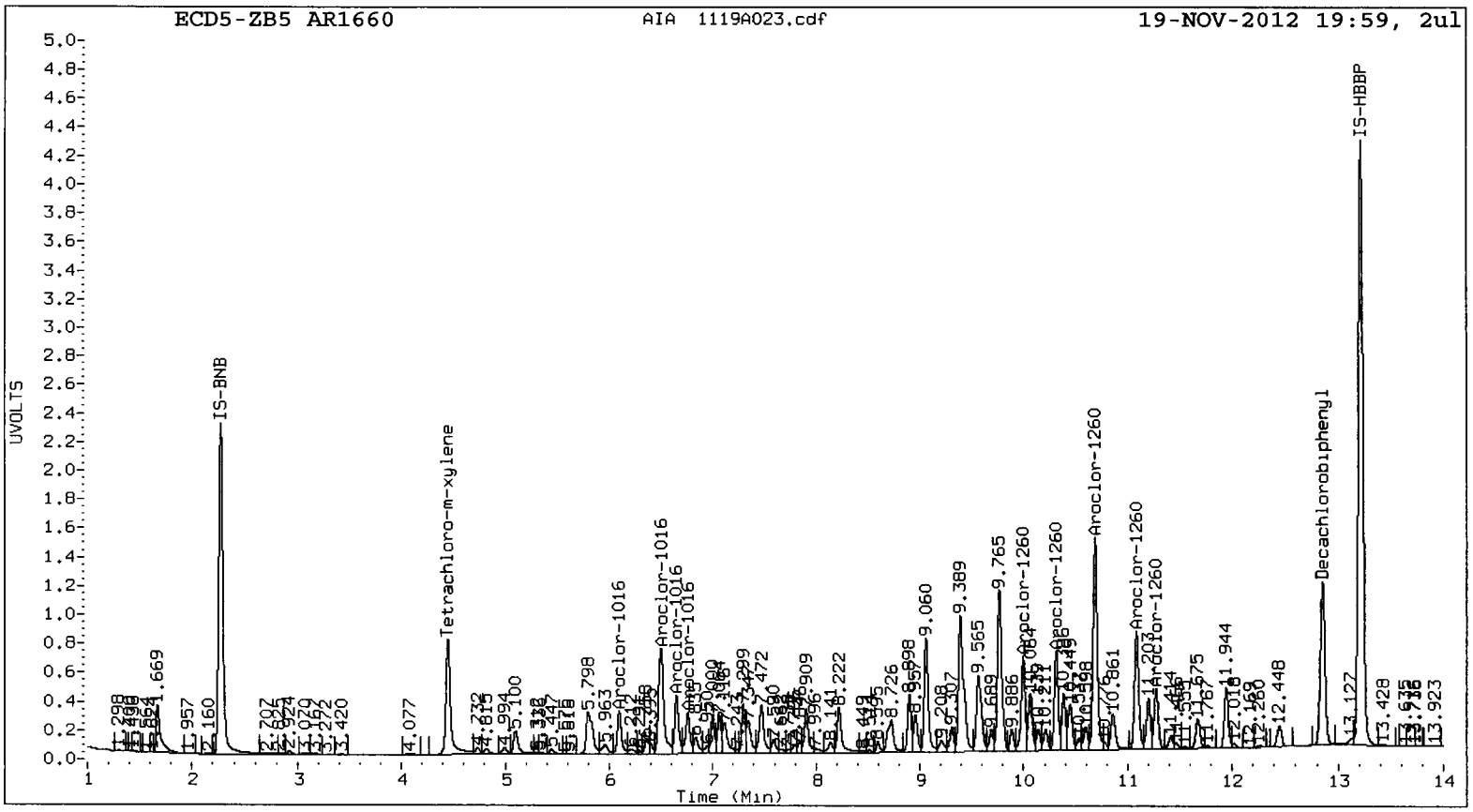
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.095	0.000	4193094	229.4	1	6.208	-0.001	1615346	239.5
Aroclor-1016	2	6.499	0.000	13173403	231.3	2	6.841	0.000	3463011	242.7
Aroclor-1016	3	6.648	-0.001	5583156	227.2	3	7.224	-0.002	915431	246.6
Aroclor-1016	4	6.759	-0.001	4147378	235.9	4	7.334	-0.001	1002879	240.2
	Total Col1Ave (4 peaks):				230.9	Total Col2Ave (4 peaks):				242.3 RPD = 5
	Corrected Ave (3 peaks):				229.3	Corrected Ave (3 peaks):				240.8 RPD = 5
Aroclor-1260	1	9.996	0.000	8688997	230.3	1	10.299	-0.001	1723136	240.2
Aroclor-1260	2	10.312	0.001	8767459	231.1	2	10.751	0.000	2159169	245.2
Aroclor-1260	3	10.687	0.000	20644032	229.5	3	11.024	0.000	4340605	247.8
Aroclor-1260	4	11.085	0.000	11683310	226.7	4	11.546	0.000	1287238	243.9
Aroclor-1260	5	11.276	0.000	5772931	230.5	NS	---			----
	Total Col1Ave (5 peaks):				229.6	Total Col2Ave (4 peaks):				244.3 RPD = 6
	Corrected Ave (4 peaks):				229.3	Corrected Ave (3 peaks):				243.1 RPD = 6

Total PCB Area Col1 (4.547 - 12.755) = 260406019 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.556 - 13.148) = 54470096 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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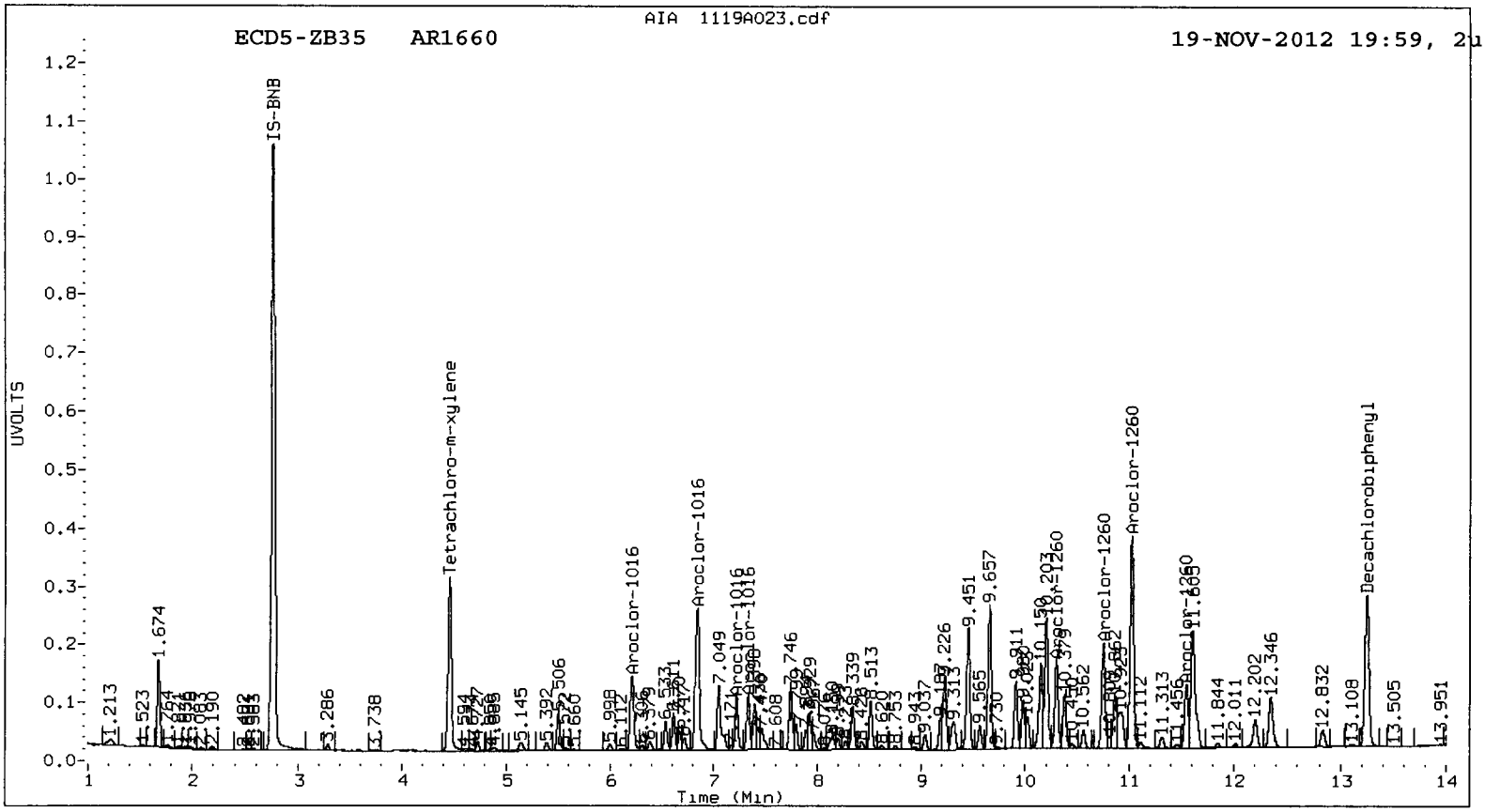
AIA 1119A023.cdf
19-NOV-2012 19:59, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)


AIA 1119A023.cdf
ECD5-ZB35 AR1660
19-NOV-2012 19:59, 2u
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 11-13-12

Final Volume 50

Final Volume (Hg): 50

Sample ID VR36 PBSPK, MBSPK

	Prepcode:	SWa		
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:	2977-9		
	Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag	50 ✓		2.0
	Al	200	200	
	As	200 ✓		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50 ✓		2.0
	Co	50	50	
	Cr	50 ✓	50	
	Cu	50 ✓	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50 ✓	50	
	Pb	200 ✓		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50 ✓	50	

	SWN		
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2967-2		
	1.0		
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80 ✓		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SHM	CVA	1.0	0.05	2903-7
Hg MBSPK	↓	CVA	1.0	0.1	↓
Sb	SWa	ICP	2000	0.1	2941-4
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 11-13-12 Time: 1505

Matrix: Soil Block ID: #1 Block Temp: 90°C Thermometer: MP40

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
VR38 A	1	—	1.036	50.0	1.049	50.0	
" ADUP	1	—	1.032		1.067		
" ASPK	1	—	1.035		1.073		
" B	1	—	1.002		1.035		
" C	1	—	1.065		1.052		
" D	1	—	1.011		1.005		
" E	1	—	1.045		1.090		
" F	1	—	1.003		1.054		
" G	1	—	1.027		1.014		
" H	1	—	1.049		1.051		
" I	1	—	1.029		1.070		
" J	1	—	1.028		1.046		
" K	1	—	1.038		1.058		
" MB1	—	—	—		—		
" MB1SPK	—	—	—	50.0	—	50.0	

11-13-12 DM

Chemical/Reagent ID:

HNO_3: MP2390 | I7633 HCl: I7676 H_2O_2: I7845 Tube Lot #: 1207143

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: DM
Bath Temp: 95°C
Start Time: 1520
Matrix: Soil
Date: 11-13-12
End Time: 1550

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR38 A	1	—	0.205	50.0	11/21 1	(Y)	
" ADUP	1	—	0.200		1		
" ASPK	1	—	0.202		1		
" B	1	—	0.288		1		
" C	1	—	0.261		1		
" D	1	—	0.262		1		
" E	1	—	0.275		1		
" F	1	—	0.296		1		
" G	1	—	0.257		1		
" H	1	—	0.290		1		
" I	1	—	0.264		1		
" J	1	—	0.288		1		
" K	1	—	0.228		1		
" MB1	—	—	—	↓	1	↓	
" MB1SPK	—	—	—	50.0	1	(Y)	
			11-13-12 DM				

Chemical/Reagent ID:

HNO_3: I7833
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2375
5% $KMnO_4$: MP2376
Digest Tube Lot: 1205256

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Metals Laboratory Analyst Notes

ARI Job No.: All Client ID: All VE30

Parameter: ICPMS -Elan Client Project:

List problems, concerns, corrective actions and any other pertinent information
Daily performance check - Mg intensity below ~~ARI~~ spec, but meets P.E. spec.

Analyst Initials:		Date:	11-19-12

5048F

Revision 005
6/11/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VR38
Unacceptable Blank:	☐	Date of Event:	11-21-12
Unacceptable Duplicate:	☑	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICP
Unacceptable Reference:	☐	Prep Code:	SWC

Details of Problem/Recommended Corrective Action:

ASPK recovery low for Sb at 47.6%. APOST was in control at 109%.

Wide RPD (35%) for Cr (See attached.)

Samples Affected:

Corrective Action Taken:

11/26/12

Analyst Initials: BA **Supervisor:**

Date: 11/23/12 **Date:**

5049F

Revision 007
6/11/10

VR38:02132

VR38

MATRIX DUPLICATE AND MATRIX SPIKE WORKSHEET (FOR SAMPLES >5 IDL)									
DUPLICATION:					SPIKE RECOVERY:				
	DUP	BKGD				SPIKE	BKGD		
VOLUME	100	100			VOLUME	100	100		
SAMP WT	1.032	1.036			SAMP WT	1.035	1.0360		
ELEMENT	DUP	BKGD	% RPD		ELEMENT	SPIKE	BKGD	SPK'D CONC	% RECOV
	mg/L					mg/L	mg/L	mg/L	
Ag	0	0	#DIV/0!		Ag	0.4863	0	0.5	97.3
Al			#DIV/0!		Al			2	0.0
As	0.00878	0.00155	140.18	QC	As	1.902	0.00155	2	95.0
B			#DIV/0!		B			0.5	0.0
Ba			#DIV/0!		Ba			2	0.0
Be			#DIV/0!		Be			0.5	0.0
Ca			#DIV/0!		Ca			10	0.0
Cd	0.00118	0.00164	32.25	✓ QC	Cd	0.4965	0.00164	0.5	99.0
Co			#DIV/0!		Co			0.5	0.0
Cr	0.2046	0.1442	35.01	✓	Cr	0.6351	0.1442	0.5	98.2
Cu	0.03076	0.03462	11.42	✓ QC	Cu	0.5214	0.03462	0.50	97.4
Fe			#DIV/0!		Fe			2	0.0
K			#DIV/0!		K			10	0.0
Mg			#DIV/0!		Mg			10	0.0
Mn			#DIV/0!		Mn			0.5	0.0
Mo			#DIV/0!		Mo			0.5	0.0
Na			#DIV/0!		Na			10	0.0
Ni	0.1585	0.164	3.02		Ni	0.6447	0.164	0.5	96.2
Pb	0.02398	0.03021	22.61	OK	Pb	1.965	0.03021	2	96.7
Sb	0.00276	0.00331	17.74		Sb	0.9551	0.00331	2	47.6
Se			#DIV/0!		Se			2	0.0
Si			#DIV/0!		Si			10	0.0
Sn			#DIV/0!		Sn			0.5	0.0
Sr			#DIV/0!		Sr			0.5	0.0
Ti			#DIV/0!		Ti			2	0.0
Tl			#DIV/0!		Tl			2	0.0
V			#DIV/0!		V			0.5	0.0
Zn	0.2553	0.2766	7.62		Zn	0.7351	0.2766	0.5	91.8

✓ → PS in control

TABLE 6

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VR38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11-12-12 Analysis Date: 11-21-12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 5

All corrections made by analyst unless otherwise noted. BA 11/21/12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2992-10
		2			2992-12
		3			-13
		4			-14 Ti noisy - rerun
		5			2993-1
		4			2992-14
		~~ICV~~ zzzzzz			2988-6 Sc R noisy Analytes noisy
		~~ICB~~ zzzzzz			
		~~CRI~~ zzzzzz			
		~~ICSA~~ zzzzzz			
		~~ICSAB~~ zzzzzz			
		ICV			
		ICB			
		CRI			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		VS28 MB	SWC	2	
		VS17 MB2	DMN		
	✓	VS28 A	SWC	2	Fe > LR
		VS17 F	DMN		
		G			
		EDUP			✓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-21-12 Analyst: BA

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS17 E	DMN		
		ESPK		✓	0.08 mL ICP Spike 2977-9
		MB2SPK		✓	
		VS28 MBSPK	SWC	2 ✓	
		CCV2			
		CCB2			
		VS17 MB1	TWC		
		H	DMN		
		B	TWC		
		C			
		D			
		ADUP		✓	
		A			
		ASPK		✓	
		MB1SPK		✓	
		CCV3			
		CCB3			
		VR38 MB1	SWC	2	
		B			
		C			
		D			
		E			
		ADUP		✓	Cr, Cu - wide RPD
		A			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-21-12 Analyst: BA

LR Date: — Page: 3 of 5

All corrections made by analyst unless otherwise noted. BA 11-21-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VR38 ASPK	SWC	2	Sb↓ (CAF)
		~~APQST~~ zzzzzz	↓	↓	0.08 mL ICP Spike 2977-9 – Redo w/ Sb spike
		↓ MBISPK	↓	↓	
		CCV4			
		CCB4			
		VR38 F	SWC	2	
		G	↓	↓	
		H			
		I			
		J			
		↓ K	↓	↓	
		CCV5			
		CCB5			
	✓	VS18 MBI	SWC	2	Failing CCVs bracketing CRI, ICSA, ICSAB
	✓	B	↓	5	
	✓	C		↓	
	✓	D			
	✓	~~AL~~ zzzzzz		25	
	✓	A		5	
	✓	ADUP		↓	
	✓	ASPK			
	✓	~~APQST~~ zzzzzz		↓	
	✓	↓ MBISPK	↓	2	
		CCV6			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-21-12 Analyst: BA

LR Date: — Page: 4 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCB6			
	✓	VS18E	SWC	5	CCV out
	✓	F			
	✓	G			
	✓	H			
	✓	I			
	✓	J			
	✓	K			
	✓	L			
		CCV7			Bkg ↑
		CCB7			
		CRI			Conc >150%
		ICSA			
		ICSAB			
		CCV8			Bkg ↑
		CCB8			
		VS12 MB	TWC		
		B			
		C			
		D			
		E			
		F			
		ADUP		✓	
		A			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-21-12 Analyst: BA

LR Date: _____ Page: 5 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS12 ASPK	TWC	✓	
		↓ MBSPK	↓	✓	
		CCV9			Ba↑
		CCB9			Cu (0.00201 mg/L)
		VS37 MB1	TWC		
		VS12 G			
		↓ H			
		↓ J			
		VS37 A			
		↓ B	↓		
	✓	VS28 A	SWC	5	Rinse - Boring sample
		VR38 APOST	↓	2 ✓	✓ 0.016 mL Sb Spike 2538-7
		VS37 MB1SPK	TWC	✓	
		CCV10			Ba↑
		CCB10			Cu (0.00209 mg/L) End Pkg
		Rinse/DI			
		BA 11/23/12			

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-21-12

ICP - 2	Analyst BA 11/23/12	Peer #11-23	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	See log
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—		
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	See log
Matrix Duplicates	✓	✓	↓
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓		
Correct samples identified for distribution	✓		
Raw data match distributed data	✓		
Data filename correct	✓		
Necessary Analysts Notes and CAF's	✓		CAF - VR38

1.23.12 ES

Analysis Begun

Start Time: 11/21/2012 9:33:01 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/21/2012 8:16:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121121
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded
Method Name: 7300bcESI2FAST
IEC File: IEC110912.iec
Method Description: 12Axial Elements
Method Last Saved: 11/21/2012 9:13:30 AM
MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 11/21/2012 9:33:02 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2432991.5	13191.14	0.54%	100.0	%
ScR 361.383	305169.7	2096.10	0.69%	100.0	%
Ag 328.068†	-124.1	20.55	16.56%	[0.00]	mg/L
Al 308.215†	187.7	28.26	15.06%	[0.00]	mg/L
As 188.979†	-12.9	4.13	32.02%	[0.00]	mg/L
B 249.677†	36.2	6.39	17.68%	[0.00]	mg/L

Ba 233.527†	23.3	2.16	9.27%	[0.00] mg/L
Be 313.042†	974.4	31.02	3.18%	[0.00] mg/L
Ca 317.933†	241.8	10.17	4.21%	[0.00] mg/L
Cd 228.802†	306.2	3.63	1.19%	[0.00] mg/L
Co 228.616†	-98.4	3.25	3.30%	[0.00] mg/L
Cr 267.716†	-104.7	2.75	2.63%	[0.00] mg/L
Cu 324.752†	3038.1	24.56	0.81%	[0.00] mg/L
Fe 273.955†	20.5	1.36	6.65%	[0.00] mg/L
K 766.490†	520.9	24.55	4.71%	[0.00] mg/L
Mg 279.077†	78.4	8.95	11.41%	[0.00] mg/L
Mn 257.610†	159.3	1.44	0.90%	[0.00] mg/L
Mo 202.031†	67.7	1.26	1.86%	[0.00] mg/L
Na 589.592†	-205.3	41.22	20.08%	[0.00] mg/L
Na 330.237†	-200.3	13.10	6.54%	[0.00] mg/L
Ni 231.604†	-20.5	4.03	19.65%	[0.00] mg/L
Pb 220.353†	49.8	3.20	6.43%	[0.00] mg/L
Sb 206.836†	60.9	8.19	13.45%	[0.00] mg/L
Se 196.026†	-47.4	5.17	10.91%	[0.00] mg/L
Si 288.158†	68.2	6.13	8.98%	[0.00] mg/L
Sn 189.927†	-2.1	3.15	148.15%	[0.00] mg/L
Sr 421.552†	408.1	13.72	3.36%	[0.00] mg/L
Ti 334.903†	-51.6	2.03	3.93%	[0.00] mg/L
Tl 190.801†	-45.1	5.02	11.14%	[0.00] mg/L
V 292.402†	153.5	20.38	13.28%	[0.00] mg/L
Zn 206.200†	18.3	0.75	4.11%	[0.00] mg/L

==========

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/21/2012 9:37:17 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2460157.6	8266.21	0.34%	101.1	%
ScR 361.383	310560.1	2428.10	0.78%	101.8	%
Ba 233.527†	49526.6	624.37	1.26%	[10]	mg/L
Cd 228.802†	297353.0	1735.31	0.58%	[10]	mg/L
Co 228.616†	381408.4	1454.24	0.38%	[10]	mg/L
Cr 267.716†	64042.6	656.75	1.03%	[10]	mg/L
Cu 324.752†	2643752.4	12677.93	0.48%	[10]	mg/L
Mn 257.610†	354940.1	2234.27	0.63%	[10]	mg/L
V 292.402†	1334458.4	7503.36	0.56%	[10]	mg/L

==========

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/21/2012 9:39:18 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2389479.5	21935.86	0.92%	98.21	%
ScR 361.383	301228.9	6038.02	2.00%	98.71	%
Ag 328.068†	184037.1	1852.00	1.01%	[1.0]	mg/L
As 188.979†	18449.6	211.26	1.15%	[10]	mg/L
B 249.677†	78691.8	1089.86	1.38%	[10]	mg/L
Be 313.042†	3143941.2	76070.97	2.42%	[5.0]	mg/L
Na 589.592†	640446.2	14533.50	2.27%	[50]	mg/L
Ni 231.604†	43112.4	571.56	1.33%	[10]	mg/L

Pb 220.353†	79863.6	734.36	0.92%	[10] mg/L
Se 196.026†	14363.2	189.24	1.32%	[10] mg/L
Sr 421.552†	4587707.0	102429.37	2.23%	[5] mg/L
Tl 190.801†	26028.6	265.97	1.02%	[10] mg/L
Zn 206.200†	39636.2	536.45	1.35%	[10] mg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: STD4 **Date Collected: 11/21/2012 9:41:37 AM**
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2461398.0	21530.76	0.87%	101.2	%
ScR 361.383	309844.2	10370.38	3.35%	101.5	%
Mo 202.031†	202008.5	1686.01	0.83%	[10]	mg/L
Sb 206.836†	33260.9	295.51	0.89%	[10]	mg/L
Si 288.158†	21592.3	732.07	3.39%	[10]	mg/L
Sn 189.927†	36960.3	354.85	0.96%	[10]	mg/L
Ti 334.903†	209601.6	8177.70	3.90%	[10]	mg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: STD5 **Date Collected: 11/21/2012 9:43:51 AM**
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2319878.2	12532.16	0.54%	95.35	%
ScR 361.383	305965.0	2744.18	0.90%	100.3	%
Al 308.215†	52776.4	288.61	0.55%	[30]	mg/L
Ca 317.933†	423338.9	4923.09	1.16%	[30]	mg/L
Fe 273.955†	127781.4	1325.04	1.04%	[100]	mg/L
K 766.490†	202376.5	2542.26	1.26%	[100]	mg/L
Mg 279.077†	43191.7	239.16	0.55%	[30]	mg/L
Na 330.237†	2902.5	10.81	0.37%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	184000	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1759	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1845	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7869	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4953	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	628800	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	14110	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	29740	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	38140	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6404	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	264400	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1278	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2024	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1440	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	35490	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	20200	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12810	0.00000	1.000000	

Na 330.237	1	Lin Thru 0	0.0	29.02	0.00000	1.000000
Ni 231.604	1	Lin Thru 0	0.0	4311	0.00000	1.000000
Pb 220.353	1	Lin Thru 0	0.0	7986	0.00000	1.000000
Sb 206.836	1	Lin Thru 0	0.0	3326	0.00000	1.000000
Se 196.026	1	Lin Thru 0	0.0	1436	0.00000	1.000000
Si 288.158	1	Lin Thru 0	0.0	2159	0.00000	1.000000
Sn 189.927	1	Lin Thru 0	0.0	3696	0.00000	1.000000
Sr 421.552	1	Lin Thru 0	0.0	917500	0.00000	1.000000
Ti 334.903	1	Lin Thru 0	0.0	20960	0.00000	1.000000
Tl 190.801	1	Lin Thru 0	0.0	2603	0.00000	1.000000
V 292.402	1	Lin Thru 0	0.0	133400	0.00000	1.000000
Zn 206.200	1	Lin Thru 0	0.0	3964	0.00000	1.000000

Analysis Begun

Start Time: 11/21/2012 9:59:38 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/21/2012 8:16:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121121
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: STD4
Date Collected: 11/21/2012 9:59:39 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2473414.2	2959.41	0.12%	101.7	%
ScR 361.383	313781.0	5609.20	1.79%	102.8	%
Mo 202.031†	203375.1	1100.07	0.54%	[10]	mg/L
Sb 206.836†	33509.4	158.63	0.47%	[10]	mg/L
Si 288.158†	21222.7	456.98	2.15%	[10]	mg/L
Sn 189.927†	37267.6	183.69	0.49%	[10]	mg/L
Ti 334.903†	209602.7	4530.06	2.16%	[10]	mg/L

==========

Analysis Begun

Start Time: 11/21/2012 10:12:42 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/21/2012 8:16:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121121
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1
Sample ID: ~~CV~~ ZZZZZZ
Analyst: BA
Dilution: 1.000000X
BA 11/23/12

Autosampler Location: 7
Date Collected: 11/21/2012 10:12:43 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2502906.3	102.9	%	0.31				0.30%
ScR 361.383	331695.6	108.7	%	5.69				5.23%
Ag 328.068†	181611.2	0.9871	mg/L	0.00897	0.9871	mg/L	0.00897	0.91%
Al 308.215†	3327.0	1.857	mg/L	0.1096	1.857	mg/L	0.1096	5.90%
As 188.979†	3595.3	1.971	mg/L	0.0149	1.971	mg/L	0.0149	0.76%
B 249.677†	7274.7	0.9236	mg/L	0.05138	0.9236	mg/L	0.05138	5.56%
Ba 233.527†	4779.2	0.9645	mg/L	0.05325	0.9645	mg/L	0.05325	5.52%
Be 313.042†	543371.8	0.8639	mg/L	0.10889	0.8639	mg/L	0.10889	12.60%
Ca 317.933†	26657.6	1.889	mg/L	0.1057	1.889	mg/L	0.1057	5.59%
Saturated within auto integration window (code 4)								
Cd 228.802†	29834.8	0.9911	mg/L	0.01069	0.9911	mg/L	0.01069	1.08%
Co 228.616†	37612.2	0.9843	mg/L	0.00897	0.9843	mg/L	0.00897	0.91%
Cr 267.716†	6076.2	0.9482	mg/L	0.05308	0.9482	mg/L	0.05308	5.60%
Cu 324.752†	262034.0	0.9908	mg/L	0.00886	0.9908	mg/L	0.00886	0.89%
Fe 273.955†	2383.8	1.859	mg/L	0.1091	1.859	mg/L	0.1091	5.87%
K 766.490†	36039.3	17.81	mg/L	2.351	17.81	mg/L	2.351	13.20%
Mg 279.077†	2693.3	1.878	mg/L	0.1036	1.878	mg/L	0.1036	5.52%
Mn 257.610†	31695.9	0.8934	mg/L	0.04973	0.8934	mg/L	0.04973	5.57%
Saturated within auto integration window (code 4)								
Mo 202.031†	20437.9	1.005	mg/L	0.0063	1.005	mg/L	0.0063	0.62%
Na 589.592†	574883.3	44.88	mg/L	5.771	44.88	mg/L	5.771	12.86%
Na 330.237†	1419.3	48.79	mg/L	2.135	48.79	mg/L	2.135	4.38%
Ni 231.604†	4009.9	0.9304	mg/L	0.05102	0.9304	mg/L	0.05102	5.48%
Pb 220.353†	16101.3	2.017	mg/L	0.0111	2.017	mg/L	0.0111	0.55%
Sb 206.836†	6947.0	2.073	mg/L	0.0094	2.073	mg/L	0.0094	0.45%
Se 196.026†	2782.8	1.936	mg/L	0.0158	1.936	mg/L	0.0158	0.81%
Si 288.158†	4142.6	1.951	mg/L	0.1165	1.951	mg/L	0.1165	5.97%
Sn 189.927†	3672.7	0.9869	mg/L	0.00831	0.9869	mg/L	0.00831	0.84%
Sr 421.552†	807027.0	0.8796	mg/L	0.11062	0.8796	mg/L	0.11062	12.58%
Ti 334.903†	19175.2	0.9137	mg/L	0.11435	0.9137	mg/L	0.11435	12.52%
Tl 190.801†	5110.7	1.955	mg/L	0.0088	1.955	mg/L	0.0088	0.45%
V 292.402†	131210.4	0.9875	mg/L	0.00921	0.9875	mg/L	0.00921	0.93%
Zn 206.200†	3759.7	0.9483	mg/L	0.05450	0.9483	mg/L	0.05450	5.75%

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Sequence No.: 2
Sample ID: ~~CB~~ ZZZZZZ
Analyst: BA
Dilution: 1.000000X
BA 11/23/12

Autosampler Location: 1
Date Collected: 11/21/2012 10:16:31 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2461545.7	101.2	%	0.16				0.16%
ScR 361.383	313449.8	102.7	%	1.37				1.33%
Ag 328.068†	11.8	0.00006	mg/L	0.000079	0.00006	mg/L	0.000079	122.90%
Al 308.215†	-11.6	-0.00663	mg/L	0.008557	-0.00663	mg/L	0.008557	129.03%
As 188.979†	-0.8	-0.00045	mg/L	0.001635	-0.00045	mg/L	0.001635	363.00%
B 249.677†	11.9	0.00152	mg/L	0.000545	0.00152	mg/L	0.000545	35.92%
Ba 233.527†	-3.3	-0.00067	mg/L	0.000488	-0.00067	mg/L	0.000488	72.80%
Be 313.042†	83.9	0.00013	mg/L	0.000042	0.00013	mg/L	0.000042	31.36%
Ca 317.933†	35.2	0.00249	mg/L	0.000599	0.00249	mg/L	0.000599	24.01%
Cd 228.802†	6.0	0.00020	mg/L	0.000099	0.00020	mg/L	0.000099	48.75%
Co 228.616†	8.6	0.00023	mg/L	0.000125	0.00023	mg/L	0.000125	55.25%
Cr 267.716†	1.7	0.00027	mg/L	0.000211	0.00027	mg/L	0.000211	77.81%
Cu 324.752†	110.5	0.00042	mg/L	0.000105	0.00042	mg/L	0.000105	25.15%
Fe 273.955†	-2.9	-0.00228	mg/L	0.002021	-0.00228	mg/L	0.002021	88.49%
K 766.490†	-31.8	-0.01573	mg/L	0.010060	-0.01573	mg/L	0.010060	63.98%
Mg 279.077†	-2.0	-0.00138	mg/L	0.005292	-0.00138	mg/L	0.005292	382.56%
Mn 257.610†	1.6	0.00005	mg/L	0.000173	0.00005	mg/L	0.000173	376.78%
Mo 202.031†	47.6	0.00234	mg/L	0.000308	0.00234	mg/L	0.000308	13.17%
Na 589.592†	100.4	0.00784	mg/L	0.001333	0.00784	mg/L	0.001333	17.00%
Na 330.237†	-8.3	-0.2872	mg/L	0.18191	-0.2872	mg/L	0.18191	63.34%
Ni 231.604†	-2.3	-0.00054	mg/L	0.000162	-0.00054	mg/L	0.000162	30.36%
Pb 220.353†	8.2	0.00102	mg/L	0.000318	0.00102	mg/L	0.000318	31.17%
Sb 206.836†	15.6	0.00465	mg/L	0.001326	0.00465	mg/L	0.001326	28.53%
Se 196.026†	3.4	0.00236	mg/L	0.001983	0.00236	mg/L	0.001983	84.13%
Si 288.158†	5.8	0.00272	mg/L	0.002557	0.00272	mg/L	0.002557	94.06%
Sn 189.927†	2.9	0.00078	mg/L	0.000438	0.00078	mg/L	0.000438	55.96%
Sr 421.552†	112.6	0.00012	mg/L	0.000032	0.00012	mg/L	0.000032	25.68%
Ti 334.903†	8.0	0.00038	mg/L	0.000641	0.00038	mg/L	0.000641	168.03%
Tl 190.801†	2.7	0.00105	mg/L	0.002266	0.00105	mg/L	0.002266	216.00%
V 292.402†	-5.3	-0.00004	mg/L	0.000196	-0.00004	mg/L	0.000196	521.86%
Zn 206.200†	4.9	0.00124	mg/L	0.000978	0.00124	mg/L	0.000978	79.04%

Sequence No.: 3
Sample ID: ~~CRI~~ ZZZZZZ
Analyst: BA BSA 11/23/12
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/21/2012 10:20:48 AM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2486039.6	102.2	%	0.13				0.13%
ScR 361.383	311485.3	102.1	%	1.31				1.28%
Ag 328.068†	608.8	0.00331	mg/L	0.000156	0.00331	mg/L	0.000156	4.70%
Al 308.215†	66.1	0.03744	mg/L	0.003949	0.03744	mg/L	0.003949	10.55%
As 188.979†	91.4	0.04965	mg/L	0.001917	0.04965	mg/L	0.001917	3.86%
B 249.677†	164.2	0.02087	mg/L	0.000530	0.02087	mg/L	0.000530	2.54%
Ba 233.527†	12.6	0.00254	mg/L	0.000346	0.00254	mg/L	0.000346	13.61%
Be 313.042†	616.7	0.00098	mg/L	0.000017	0.00098	mg/L	0.000017	1.71%
Ca 317.933†	624.6	0.04427	mg/L	0.000370	0.04427	mg/L	0.000370	0.84%
Cd 228.802†	71.4	0.00208	mg/L	0.000140	0.00208	mg/L	0.000140	6.73%
Co 228.616†	139.2	0.00364	mg/L	0.000067	0.00364	mg/L	0.000067	1.84%
Cr 267.716†	29.6	0.00461	mg/L	0.001014	0.00461	mg/L	0.001014	21.99%
Cu 324.752†	622.9	0.00235	mg/L	0.000083	0.00235	mg/L	0.000083	3.51%
Fe 273.955†	61.1	0.04776	mg/L	0.002347	0.04776	mg/L	0.002347	4.91%
K 766.490†	1036.8	0.5123	mg/L	0.01253	0.5123	mg/L	0.01253	2.45%
Mg 279.077†	77.1	0.05356	mg/L	0.006934	0.05356	mg/L	0.006934	12.95%
Mn 257.610†	37.7	0.00107	mg/L	0.000015	0.00107	mg/L	0.000015	1.38%
Mo 202.031†	124.8	0.00614	mg/L	0.000046	0.00614	mg/L	0.000046	0.75%
Na 589.592†	6193.6	0.4835	mg/L	0.00143	0.4835	mg/L	0.00143	0.30%
Na 330.237†	8.4	0.2859	mg/L	0.12061	0.2859	mg/L	0.12061	42.19%

Ni 231.604†	45.4	0.01053 mg/L	0.001061	0.01053 mg/L	0.001061	10.08%
Pb 220.353†	164.2	0.02057 mg/L	0.000634	0.02057 mg/L	0.000634	3.08%
Sb 206.836†	180.8	0.05399 mg/L	0.001075	0.05399 mg/L	0.001075	1.99%
Se 196.026†	79.6	0.05540 mg/L	0.001723	0.05540 mg/L	0.001723	3.11%
Si 288.158†	140.8	0.06631 mg/L	0.001693	0.06631 mg/L	0.001693	2.55%
Sn 189.927†	39.4	0.01059 mg/L	0.001330	0.01059 mg/L	0.001330	12.56%
Sr 421.552†	934.6	0.00102 mg/L	0.000026	0.00102 mg/L	0.000026	2.56%
Ti 334.903†	114.9	0.00547 mg/L	0.001098	0.00547 mg/L	0.001098	20.08%
Tl 190.801†	129.5	0.04975 mg/L	0.001922	0.04975 mg/L	0.001922	3.86%
V 292.402†	397.4	0.00300 mg/L	0.000074	0.00300 mg/L	0.000074	2.47%
Zn 206.200†	42.3	0.01066 mg/L	0.000635	0.01066 mg/L	0.000635	5.96%

Sequence No.: 4
Sample ID: ~~ICSA~~ ZZZZZZ
Analyst: BA BA 11/23/12
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/21/2012 10:25:05 AM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2425487.6	99.69	%	0.252				0.25%
ScR 361.383	304453.6	99.77	%	0.463				0.46%
Ag 328.068†	-137.0	-0.00074	mg/L	0.000236	-0.00074	mg/L	0.000236	31.73%
Al 308.215†	349035.3	198.4	mg/L	1.57	198.4	mg/L	1.57	0.79%
As 188.979†	44.9	0.01878	mg/L	0.002304	0.01878	mg/L	0.002304	12.27%
B 249.677†	-58.9	-0.00749	mg/L	0.000833	-0.00749	mg/L	0.000833	11.13%
Ba 233.527†	140.5	-0.00291	mg/L	0.000596	-0.00291	mg/L	0.000596	20.48%
Be 313.042†	76.8	0.00012	mg/L	0.000016	0.00012	mg/L	0.000016	12.99%
Ca 317.933†	1392910.8	98.71	mg/L	0.855	98.71	mg/L	0.855	0.87%
Cd 228.802†	70.4	0.00039	mg/L	0.000102	0.00039	mg/L	0.000102	26.47%
Co 228.616†	73.4	-0.00058	mg/L	0.000232	-0.00058	mg/L	0.000232	40.33%
Cr 267.716†	9.8	-0.00082	mg/L	0.001535	-0.00082	mg/L	0.001535	187.60%
Cu 324.752†	-1873.4	0.00049	mg/L	0.000115	0.00049	mg/L	0.000115	23.73%
Fe 273.955†	244113.2	191.0	mg/L	1.51	191.0	mg/L	1.51	0.79%
K 766.490†	21.0	0.01039	mg/L	0.018800	0.01039	mg/L	0.018800	180.87%
Mg 279.077†	149088.6	103.5	mg/L	0.78	103.5	mg/L	0.78	0.75%
Mn 257.610†	34.9	0.00092	mg/L	0.000480	0.00092	mg/L	0.000480	52.19%
Mo 202.031†	58.3	0.00180	mg/L	0.000339	0.00180	mg/L	0.000339	18.84%
Na 589.592†	251.4	0.01963	mg/L	0.003077	0.01963	mg/L	0.003077	15.68%
Na 330.237†	-13.8	-0.4747	mg/L	0.24362	-0.4747	mg/L	0.24362	51.32%
Ni 231.604†	-4.5	-0.00102	mg/L	0.000552	-0.00102	mg/L	0.000552	54.04%
Pb 220.353†	-321.3	-0.00061	mg/L	0.000328	-0.00061	mg/L	0.000328	54.14%
Sb 206.836†	22.6	0.00652	mg/L	0.003686	0.00652	mg/L	0.003686	56.56%
Se 196.026†	19.4	0.01352	mg/L	0.000531	0.01352	mg/L	0.000531	3.93%
Si 288.158†	-31.1	-0.00210	mg/L	0.003108	-0.00210	mg/L	0.003108	147.79%
Sn 189.927†	-91.2	-0.01226	mg/L	0.001699	-0.01226	mg/L	0.001699	13.85%
Sr 421.552†	3666.4	0.00400	mg/L	0.000030	0.00400	mg/L	0.000030	0.75%
Ti 334.903†	145.5	0.00223	mg/L	0.000254	0.00223	mg/L	0.000254	11.40%
Tl 190.801†	-50.6	0.00097	mg/L	0.001722	0.00097	mg/L	0.001722	178.17%
V 292.402†	792.9	-0.00073	mg/L	0.000132	-0.00073	mg/L	0.000132	18.11%
Zn 206.200†	13.2	0.00332	mg/L	0.000081	0.00332	mg/L	0.000081	2.45%

Sequence No.: 5
Sample ID: ~~ICSAB~~ ZZZZZZ
Analyst: BA BA 11/23/12
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/21/2012 10:29:21 AM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2421968.4	99.55	%	0.110				0.11%
ScR 361.383	307705.5	100.8	%	0.58				0.57%
Ag 328.068†	193473.0	1.052	mg/L	0.0061	1.052	mg/L	0.0061	0.58%
Al 308.215†	345817.8	196.6	mg/L	2.75	196.6	mg/L	2.75	1.40%
As 188.979†	1872.9	1.009	mg/L	0.0030	1.009	mg/L	0.0030	0.29%
B 249.677†	-33.5	-0.00629	mg/L	0.000394	-0.00629	mg/L	0.000394	6.25%
Ba 233.527†	5250.9	1.029	mg/L	0.0083	1.029	mg/L	0.0083	0.80%
Be 313.042†	605190.8	0.9623	mg/L	0.01511	0.9623	mg/L	0.01511	1.57%
Ca 317.933†	1401775.8	99.34	mg/L	1.718	99.34	mg/L	1.718	1.73%
Cd 228.802†	30352.7	1.013	mg/L	0.0019	1.013	mg/L	0.0019	0.19%
Co 228.616†	37862.4	0.9900	mg/L	0.00179	0.9900	mg/L	0.00179	0.18%
Cr 267.716†	6528.3	1.017	mg/L	0.0106	1.017	mg/L	0.0106	1.05%
Cu 324.752†	276839.9	1.055	mg/L	0.0060	1.055	mg/L	0.0060	0.57%
Fe 273.955†	244413.9	191.3	mg/L	3.24	191.3	mg/L	3.24	1.69%
K 766.490†	-83.7	-0.04138	mg/L	0.011372	-0.04138	mg/L	0.011372	27.48%
Mg 279.077†	143167.8	99.34	mg/L	1.639	99.34	mg/L	1.639	1.65%
Mn 257.610†	33712.9	0.9500	mg/L	0.01441	0.9500	mg/L	0.01441	1.52%
Mo 202.031†	61.5	0.00190	mg/L	0.000655	0.00190	mg/L	0.000655	34.52%
Na 589.592†	311.0	0.02428	mg/L	0.001576	0.02428	mg/L	0.001576	6.49%
Na 330.237†	-7.9	-0.5865	mg/L	0.14705	-0.5865	mg/L	0.14705	25.07%
Ni 231.604†	4189.3	0.9719	mg/L	0.00947	0.9719	mg/L	0.00947	0.97%
Pb 220.353†	7583.0	0.9892	mg/L	0.00088	0.9892	mg/L	0.00088	0.09%
Sb 206.836†	3448.7	1.018	mg/L	0.0002	1.018	mg/L	0.0002	0.02%
Se 196.026†	1433.8	0.9972	mg/L	0.01181	0.9972	mg/L	0.01181	1.18%
Si 288.158†	-35.9	-0.00119	mg/L	0.000893	-0.00119	mg/L	0.000893	75.25%
Sn 189.927†	-93.4	-0.01227	mg/L	0.001513	-0.01227	mg/L	0.001513	12.33%
Sr 421.552†	3648.3	0.00398	mg/L	0.000062	0.00398	mg/L	0.000062	1.55%
Ti 334.903†	150.2	0.00222	mg/L	0.000182	0.00222	mg/L	0.000182	8.22%
Tl 190.801†	2417.1	0.9398	mg/L	0.00074	0.9398	mg/L	0.00074	0.08%
V 292.402†	133081.9	0.9951	mg/L	0.00407	0.9951	mg/L	0.00407	0.41%
Zn 206.200†	3809.2	0.9610	mg/L	0.01085	0.9610	mg/L	0.01085	1.13%

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Sequence No.: 6
Sample ID: ICV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 10:34:26 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2464452.3	101.3	%	0.43				0.43%
ScR 361.383	307618.9	100.8	%	1.10				1.09%
Ag 328.068†	184820.4	1.005	mg/L	0.0013	1.005	mg/L	0.0013	0.13%
Al 308.215†	3641.2	2.035	mg/L	0.0175	2.035	mg/L	0.0175	0.86%
As 188.979†	3659.0	2.008	mg/L	0.0106	2.008	mg/L	0.0106	0.53%
B 249.677†	7864.3	0.9985	mg/L	0.00947	0.9985	mg/L	0.00947	0.95%
Ba 233.527†	5205.8	1.051	mg/L	0.0101	1.051	mg/L	0.0101	0.96%
Be 313.042†	602290.1	0.9576	mg/L	0.01470	0.9576	mg/L	0.01470	1.53%
Ca 317.933†	27604.5	1.956	mg/L	0.0296	1.956	mg/L	0.0296	1.51%
Cd 228.802†	30420.0	1.011	mg/L	0.0015	1.011	mg/L	0.0015	0.15%
Co 228.616†	38456.3	1.006	mg/L	0.0013	1.006	mg/L	0.0013	0.13%
Cr 267.716†	6586.8	1.028	mg/L	0.0086	1.028	mg/L	0.0086	0.83%
Cu 324.752†	264899.6	1.002	mg/L	0.0021	1.002	mg/L	0.0021	0.21%
Fe 273.955†	2614.5	2.039	mg/L	0.0157	2.039	mg/L	0.0157	0.77%
K 766.490†	40537.5	20.03	mg/L	0.253	20.03	mg/L	0.253	1.26%
Mg 279.077†	2954.2	2.059	mg/L	0.0226	2.059	mg/L	0.0226	1.10%
Mn 257.610†	34409.5	0.9698	mg/L	0.01531	0.9698	mg/L	0.01531	1.58%
Mo 202.031†	20789.1	1.022	mg/L	0.0055	1.022	mg/L	0.0055	0.54%
Na 589.592†	645526.3	50.40	mg/L	0.725	50.40	mg/L	0.725	1.44%
Na 330.237†	1513.6	52.04	mg/L	0.384	52.04	mg/L	0.384	0.74%
Ni 231.604†	4353.1	1.010	mg/L	0.0083	1.010	mg/L	0.0083	0.82%
Pb 220.353†	16430.0	2.058	mg/L	0.0107	2.058	mg/L	0.0107	0.52%
Sb 206.836†	7061.4	2.106	mg/L	0.0046	2.106	mg/L	0.0046	0.22%

Se 196.026†	2824.8	1.966 mg/L	0.0112	1.966 mg/L	0.0112	0.57%
Si 288.158†	4480.4	2.111 mg/L	0.0244	2.111 mg/L	0.0244	1.16%
Sn 189.927†	3733.5	1.003 mg/L	0.0059	1.003 mg/L	0.0059	0.59%
Sr 421.552†	903072.8	0.9842 mg/L	0.01519	0.9842 mg/L	0.01519	1.54%
Ti 334.903†	21339.0	1.017 mg/L	0.0162	1.017 mg/L	0.0162	1.59%
Tl 190.801†	5210.0	1.993 mg/L	0.0083	1.993 mg/L	0.0083	0.41%
V 292.402†	133862.9	1.008 mg/L	0.0012	1.008 mg/L	0.0012	0.12%
Zn 206.200†	4102.0	1.035 mg/L	0.0110	1.035 mg/L	0.0110	1.06%

User canceled analysis.

Analysis Begun

Start Time: 11/21/2012 11:04:02 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/21/2012 8:16:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\l121.sif
Batch ID:
Results Data Set: I2121121
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: ICB
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 1
Date Collected: 11/21/2012 11:04:03 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2473086.9	101.6	%	0.75				0.74%
ScR 361.383	312473.9	102.4	%	0.60				0.58%
Ag 328.068†	-0.8	-0.00000	mg/L	0.000047	-0.00000	mg/L	0.000047	>999.9%
Al 308.215†	6.5	0.00369	mg/L	0.002403	0.00369	mg/L	0.002403	65.11%
As 188.979†	-1.0	-0.00056	mg/L	0.000742	-0.00056	mg/L	0.000742	131.66%
B 249.677†	2.5	0.00032	mg/L	0.000130	0.00032	mg/L	0.000130	40.80%
Ba 233.527†	-1.5	-0.00031	mg/L	0.000747	-0.00031	mg/L	0.000747	238.98%
Be 313.042†	33.4	0.00005	mg/L	0.000002	0.00005	mg/L	0.000002	3.03%
Ca 317.933†	34.5	0.00245	mg/L	0.000231	0.00245	mg/L	0.000231	9.42%
Cd 228.802†	5.9	0.00020	mg/L	0.000045	0.00020	mg/L	0.000045	21.93%
Co 228.616†	6.1	0.00016	mg/L	0.000087	0.00016	mg/L	0.000087	54.34%
Cr 267.716†	-3.0	-0.00047	mg/L	0.000509	-0.00047	mg/L	0.000509	108.51%
Cu 324.752†	110.0	0.00042	mg/L	0.000065	0.00042	mg/L	0.000065	15.60%
Fe 273.955†	3.0	0.00237	mg/L	0.002950	0.00237	mg/L	0.002950	124.46%
K 766.490†	5.5	0.00273	mg/L	0.024652	0.00273	mg/L	0.024652	904.55%
Mg 279.077†	0.1	0.00007	mg/L	0.003852	0.00007	mg/L	0.003852	>999.9%
Mn 257.610†	-3.3	-0.00009	mg/L	0.000114	-0.00009	mg/L	0.000114	121.28%
Mo 202.031†	7.8	0.00039	mg/L	0.000142	0.00039	mg/L	0.000142	36.89%
Na 589.592†	-9.1	-0.00071	mg/L	0.002905	-0.00071	mg/L	0.002905	410.50%
Na 330.237†	-2.0	-0.06850	mg/L	0.224846	-0.06850	mg/L	0.224846	328.26%
Ni 231.604†	-2.1	-0.00049	mg/L	0.000409	-0.00049	mg/L	0.000409	84.25%
Pb 220.353†	1.6	0.00020	mg/L	0.001017	0.00020	mg/L	0.001017	502.95%
Sb 206.836†	7.5	0.00224	mg/L	0.000685	0.00224	mg/L	0.000685	30.60%
Se 196.026†	4.5	0.00315	mg/L	0.002148	0.00315	mg/L	0.002148	68.18%
Si 288.158†	-2.3	-0.00107	mg/L	0.000175	-0.00107	mg/L	0.000175	16.32%
Sn 189.927†	0.3	0.00008	mg/L	0.000481	0.00008	mg/L	0.000481	607.19%
Sr 421.552†	5.0	0.00001	mg/L	0.000028	0.00001	mg/L	0.000028	506.26%
Ti 334.903†	-5.0	-0.00024	mg/L	0.001200	-0.00024	mg/L	0.001200	497.51%
Tl 190.801†	1.9	0.00071	mg/L	0.000676	0.00071	mg/L	0.000676	94.99%
V 292.402†	-14.2	-0.00011	mg/L	0.000121	-0.00011	mg/L	0.000121	111.63%
Zn 206.200†	3.3	0.00084	mg/L	0.000175	0.00084	mg/L	0.000175	20.81%

Sequence No.: 2
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/21/2012 11:08:19 AM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2459707.3	101.1	%	0.37				0.37%
ScR 361.383	307880.0	100.9	%	0.85				0.85%
Ag 328.068†	567.6	0.00308	mg/L	0.000161	0.00308	mg/L	0.000161	5.23%
Al 308.215†	85.2	0.04830	mg/L	0.006741	0.04830	mg/L	0.006741	13.96%
As 188.979†	90.8	0.04931	mg/L	0.002508	0.04931	mg/L	0.002508	5.09%
B 249.677†	156.6	0.01990	mg/L	0.000464	0.01990	mg/L	0.000464	2.33%
Ba 233.527†	13.1	0.00264	mg/L	0.000757	0.00264	mg/L	0.000757	28.63%
Be 313.042†	627.4	0.00100	mg/L	0.000019	0.00100	mg/L	0.000019	1.94%
Ca 317.933†	621.9	0.04407	mg/L	0.001584	0.04407	mg/L	0.001584	3.60%
Cd 228.802†	73.5	0.00215	mg/L	0.000162	0.00215	mg/L	0.000162	7.53%
Co 228.616†	134.0	0.00350	mg/L	0.000127	0.00350	mg/L	0.000127	3.64%
Cr 267.716†	32.0	0.00500	mg/L	0.001422	0.00500	mg/L	0.001422	28.47%
Cu 324.752†	606.2	0.00229	mg/L	0.000096	0.00229	mg/L	0.000096	4.19%
Fe 273.955†	64.4	0.05034	mg/L	0.001919	0.05034	mg/L	0.001919	3.81%
K 766.490†	992.4	0.4903	mg/L	0.03343	0.4903	mg/L	0.03343	6.82%
Mg 279.077†	76.9	0.05341	mg/L	0.003348	0.05341	mg/L	0.003348	6.27%
Mn 257.610†	36.1	0.00102	mg/L	0.000132	0.00102	mg/L	0.000132	12.94%
Mo 202.031†	105.5	0.00519	mg/L	0.000149	0.00519	mg/L	0.000149	2.87%
Na 589.592†	6130.9	0.4786	mg/L	0.00330	0.4786	mg/L	0.00330	0.69%
Na 330.237†	4.1	0.1400	mg/L	0.41105	0.1400	mg/L	0.41105	293.53%
Ni 231.604†	36.8	0.00855	mg/L	0.001127	0.00855	mg/L	0.001127	13.19%
Pb 220.353†	166.7	0.02089	mg/L	0.000149	0.02089	mg/L	0.000149	0.71%
Sb 206.836†	165.3	0.04937	mg/L	0.000550	0.04937	mg/L	0.000550	1.11%
Se 196.026†	71.4	0.04971	mg/L	0.000341	0.04971	mg/L	0.000341	0.69%
Si 288.158†	137.4	0.06472	mg/L	0.001322	0.06472	mg/L	0.001322	2.04%
Sn 189.927†	37.5	0.01010	mg/L	0.000605	0.01010	mg/L	0.000605	5.99%
Sr 421.552†	892.1	0.00097	mg/L	0.000028	0.00097	mg/L	0.000028	2.84%
Ti 334.903†	100.0	0.00476	mg/L	0.000538	0.00476	mg/L	0.000538	11.29%
Tl 190.801†	124.1	0.04765	mg/L	0.000960	0.04765	mg/L	0.000960	2.02%
V 292.402†	415.0	0.00313	mg/L	0.000029	0.00313	mg/L	0.000029	0.92%
Zn 206.200†	39.8	0.01005	mg/L	0.000575	0.01005	mg/L	0.000575	5.72%

Sequence No.: 3
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/21/2012 11:12:35 AM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2481642.1	102.0	%	0.17				0.17%
ScR 361.383	306549.4	100.5	%	0.80				0.79%
Ag 328.068†	-163.7	-0.00089	mg/L	0.000125	-0.00089	mg/L	0.000125	14.05%
Al 308.215†	347701.5	197.6	mg/L	2.53	197.6	mg/L	2.53	1.28%
As 188.979†	39.2	0.01568	mg/L	0.002966	0.01568	mg/L	0.002966	18.91%
B 249.677†	-56.5	-0.00718	mg/L	0.002065	-0.00718	mg/L	0.002065	28.75%
Ba 233.527†	134.8	-0.00373	mg/L	0.000387	-0.00373	mg/L	0.000387	10.39%
Be 313.042†	46.1	0.00007	mg/L	0.000013	0.00007	mg/L	0.000013	17.58%
Ca 317.933†	1392421.8	98.67	mg/L	1.041	98.67	mg/L	1.041	1.05%
Cd 228.802†	65.6	0.00027	mg/L	0.000191	0.00027	mg/L	0.000191	71.68%
Co 228.616†	81.1	-0.00035	mg/L	0.000023	-0.00035	mg/L	0.000023	6.56%
Cr 267.716†	7.9	-0.00114	mg/L	0.000409	-0.00114	mg/L	0.000409	36.03%
Cu 324.752†	-1818.8	0.00061	mg/L	0.000173	0.00061	mg/L	0.000173	28.47%
Fe 273.955†	241474.8	189.0	mg/L	2.24	189.0	mg/L	2.24	1.18%
K 766.490†	0.3	0.00016	mg/L	0.005427	0.00016	mg/L	0.005427	>999.9%
Mg 279.077†	148049.9	102.7	mg/L	0.46	102.7	mg/L	0.46	0.45%
Mn 257.610†	28.1	0.00072	mg/L	0.000182	0.00072	mg/L	0.000182	25.40%
Mo 202.031†	49.0	0.00134	mg/L	0.000255	0.00134	mg/L	0.000255	19.01%
Na 589.592†	117.7	0.00919	mg/L	0.006397	0.00919	mg/L	0.006397	69.64%
Na 330.237†	-18.3	-0.6297	mg/L	0.28278	-0.6297	mg/L	0.28278	44.91%
Ni 231.604†	-0.7	-0.00015	mg/L	0.000721	-0.00015	mg/L	0.000721	491.36%
Pb 220.353†	-322.8	-0.00090	mg/L	0.000903	-0.00090	mg/L	0.000903	100.66%
Sb 206.836†	23.8	0.00687	mg/L	0.001960	0.00687	mg/L	0.001960	28.52%
Se 196.026†	23.5	0.01636	mg/L	0.003201	0.01636	mg/L	0.003201	19.57%
Si 288.158†	-32.5	-0.00282	mg/L	0.002971	-0.00282	mg/L	0.002971	105.31%
Sn 189.927†	-96.1	-0.01359	mg/L	0.001761	-0.01359	mg/L	0.001761	12.96%
Sr 421.552†	3561.1	0.00388	mg/L	0.000035	0.00388	mg/L	0.000035	0.90%
Ti 334.903†	139.9	0.00196	mg/L	0.000362	0.00196	mg/L	0.000362	18.48%
Tl 190.801†	-49.5	0.00115	mg/L	0.000618	0.00115	mg/L	0.000618	53.56%
V 292.402†	702.2	-0.00134	mg/L	0.000042	-0.00134	mg/L	0.000042	3.15%
Zn 206.200†	14.6	0.00368	mg/L	0.000923	0.00368	mg/L	0.000923	25.10%

Cont.

Sequence No.: 4
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/21/2012 11:16:51 AM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2459559.0	101.1	%	0.16				0.16%
ScR 361.383	306884.2	100.6	%	0.59				0.58%
Ag 328.068†	184401.2	1.002	mg/L	0.0017	1.002	mg/L	0.0017	0.17%
Al 308.215†	345032.1	196.1	mg/L	0.39	196.1	mg/L	0.39	0.20%
As 188.979†	1826.7	0.9838	mg/L	0.00647	0.9838	mg/L	0.00647	0.66%
B 249.677†	-40.0	-0.00708	mg/L	0.000950	-0.00708	mg/L	0.000950	13.42%
Ba 233.527†	5284.9	1.036	mg/L	0.0039	1.036	mg/L	0.0039	0.37%
Be 313.042†	600035.8	0.9541	mg/L	0.00060	0.9541	mg/L	0.00060	0.06%
Ca 317.933†	1398876.8	99.13	mg/L	0.060	99.13	mg/L	0.060	0.06%
Cd 228.802†	29301.2	0.9778	mg/L	0.00328	0.9778	mg/L	0.00328	0.34%
Co 228.616†	37117.2	0.9705	mg/L	0.00268	0.9705	mg/L	0.00268	0.28%
Cr 267.716†	6509.2	1.014	mg/L	0.0039	1.014	mg/L	0.0039	0.38%
Cu 324.752†	263774.7	1.005	mg/L	0.0020	1.005	mg/L	0.0020	0.20%
Fe 273.955†	241257.9	188.8	mg/L	0.69	188.8	mg/L	0.69	0.37%
K 766.490†	-77.7	-0.03839	mg/L	0.011905	-0.03839	mg/L	0.011905	31.01%
Mg 279.077†	142943.7	99.19	mg/L	0.127	99.19	mg/L	0.127	0.13%
Mn 257.610†	33365.5	0.9402	mg/L	0.00240	0.9402	mg/L	0.00240	0.25%
Mo 202.031†	51.4	0.00140	mg/L	0.000626	0.00140	mg/L	0.000626	44.69%
Na 589.592†	288.3	0.02251	mg/L	0.000886	0.02251	mg/L	0.000886	3.94%
Na 330.237†	-7.6	-0.5773	mg/L	0.06804	-0.5773	mg/L	0.06804	11.79%
Ni 231.604†	4188.9	0.9718	mg/L	0.00435	0.9718	mg/L	0.00435	0.45%
Pb 220.353†	7405.5	0.9671	mg/L	0.00250	0.9671	mg/L	0.00250	0.26%
Sb 206.836†	3362.2	0.9923	mg/L	0.00312	0.9923	mg/L	0.00312	0.31%
Se 196.026†	1397.4	0.9719	mg/L	0.00900	0.9719	mg/L	0.00900	0.93%
Si 288.158†	-33.4	-0.00013	mg/L	0.002105	-0.00013	mg/L	0.002105	>999.9%
Sn 189.927†	-93.3	-0.01227	mg/L	0.001415	-0.01227	mg/L	0.001415	11.53%
Sr 421.552†	3585.0	0.00391	mg/L Cont.	0.000023	0.00391	mg/L	0.000023	0.59%
Ti 334.903†	143.3	0.00190	mg/L	0.000398	0.00190	mg/L	0.000398	20.95%
Tl 190.801†	2363.7	0.9192	mg/L	0.00338	0.9192	mg/L	0.00338	0.37%
V 292.402†	127935.5	0.9566	mg/L	0.00198	0.9566	mg/L	0.00198	0.21%
Zn 206.200†	3799.7	0.9586	mg/L	0.00625	0.9586	mg/L	0.00625	0.65%

Sequence No.: 5
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 11:21:43 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2482877.3	102.1	%	0.62				0.61%
ScR 361.383	312918.4	102.5	%	1.42				1.38%
Ag 328.068†	183577.6	0.9978	mg/L	0.00246	0.9978	mg/L	0.00246	0.25%
Al 308.215†	3587.5	2.005	mg/L	0.0288	2.005	mg/L	0.0288	1.44%
As 188.979†	3620.7	1.987	mg/L	0.0032	1.987	mg/L	0.0032	0.16%
B 249.677†	7749.4	0.9839	mg/L	0.01540	0.9839	mg/L	0.01540	1.57%
Ba 233.527†	5180.2	1.045	mg/L	0.0153	1.045	mg/L	0.0153	1.46%
Be 313.042†	586425.1	0.9324	mg/L	0.01804	0.9324	mg/L	0.01804	1.93%
Ca 317.933†	27066.6	1.918	mg/L	0.0347	1.918	mg/L	0.0347	1.81%
Cd 228.802†	29794.0	0.9897	mg/L	0.00291	0.9897	mg/L	0.00291	0.29%
Co 228.616†	38107.5	0.9971	mg/L	0.00219	0.9971	mg/L	0.00219	0.22%
Cr 267.716†	6513.8	1.017	mg/L	0.0159	1.017	mg/L	0.0159	1.56%
Cu 324.752†	260975.3	0.9868	mg/L	0.00121	0.9868	mg/L	0.00121	0.12%
Fe 273.955†	2545.3	1.985	mg/L	0.0318	1.985	mg/L	0.0318	1.60%
K 766.490†	39746.8	19.64	mg/L	0.358	19.64	mg/L	0.358	1.82%
Mg 279.077†	2912.1	2.030	mg/L	0.0313	2.030	mg/L	0.0313	1.54%
Mn 257.610†	33527.9	0.9450	mg/L	0.01849	0.9450	mg/L	0.01849	1.96%
Mo 202.031†	20542.3	1.010	mg/L	0.0030	1.010	mg/L	0.0030	0.30%
Na 589.592†	632446.8	49.38	mg/L	0.843	49.38	mg/L	0.843	1.71%
Na 330.237†	1479.5	50.86	mg/L	0.609	50.86	mg/L	0.609	1.20%
Ni 231.604†	4319.0	1.002	mg/L	0.0153	1.002	mg/L	0.0153	1.53%
Pb 220.353†	16289.3	2.041	mg/L	0.0054	2.041	mg/L	0.0054	0.27%
Sb 206.836†	6987.6	2.084	mg/L	0.0057	2.084	mg/L	0.0057	0.27%
Se 196.026†	2787.9	1.940	mg/L	0.0057	1.940	mg/L	0.0057	0.29%
Si 288.158†	4419.4	2.082	mg/L	0.0383	2.082	mg/L	0.0383	1.84%
Sn 189.927†	3674.1	0.9873	mg/L	0.00427	0.9873	mg/L	0.00427	0.43%
Sr 421.552†	884517.7	0.9640	mg/L	0.01812	0.9640	mg/L	0.01812	1.88%
Ti 334.903†	20864.7	0.9943	mg/L	0.02030	0.9943	mg/L	0.02030	2.04%
Tl 190.801†	5184.9	1.984	mg/L	0.0037	1.984	mg/L	0.0037	0.19%
V 292.402†	132477.3	0.9972	mg/L	0.00165	0.9972	mg/L	0.00165	0.17%
Zn 206.200†	4066.9	1.026	mg/L	0.0154	1.026	mg/L	0.0154	1.50%

Sequence No.: 6
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 11:26:36 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2464618.2	101.3	%	0.38				0.38%
ScR 361.383	310088.5	101.6	%	2.08				2.05%
Ag 328.068†	43.4	0.00024	mg/L	0.000187	0.00024	mg/L	0.000187	79.42%
Al 308.215†	21.5	0.01219	mg/L	0.010062	0.01219	mg/L	0.010062	82.54%
As 188.979†	3.0	0.00162	mg/L	0.000770	0.00162	mg/L	0.000770	47.59%
B 249.677†	7.6	0.00097	mg/L	0.001681	0.00097	mg/L	0.001681	173.74%
Ba 233.527†	-1.0	-0.00021	mg/L	0.000314	-0.00021	mg/L	0.000314	150.83%
Be 313.042†	87.3	0.00014	mg/L	0.000021	0.00014	mg/L	0.000021	14.88%
Ca 317.933†	143.4	0.01017	mg/L	0.001082	0.01017	mg/L	0.001082	10.64%
Cd 228.802†	10.8	0.00035	mg/L	0.000082	0.00035	mg/L	0.000082	23.14%
Co 228.616†	5.0	0.00013	mg/L	0.000120	0.00013	mg/L	0.000120	90.44%
Cr 267.716†	1.3	0.00021	mg/L	0.001195	0.00021	mg/L	0.001195	571.83%
Cu 324.752†	255.3	0.00097	mg/L	0.000109	0.00097	mg/L	0.000109	11.29%
Fe 273.955†	19.1	0.01497	mg/L	0.002333	0.01497	mg/L	0.002333	15.59%
K 766.490†	5.1	0.00251	mg/L	0.003686	0.00251	mg/L	0.003686	147.07%
Mg 279.077†	19.6	0.01364	mg/L	0.004222	0.01364	mg/L	0.004222	30.95%
Mn 257.610†	4.5	0.00013	mg/L	0.000116	0.00013	mg/L	0.000116	91.35%
Mo 202.031†	15.4	0.00076	mg/L	0.000053	0.00076	mg/L	0.000053	7.01%
Na 589.592†	30.9	0.00241	mg/L	0.003789	0.00241	mg/L	0.003789	157.04%
Na 330.237†	-9.2	-0.3176	mg/L	0.43008	-0.3176	mg/L	0.43008	135.43%
Ni 231.604†	2.1	0.00050	mg/L	0.000268	0.00050	mg/L	0.000268	53.63%
Pb 220.353†	-2.8	-0.00034	mg/L	0.000257	-0.00034	mg/L	0.000257	74.86%
Sb 206.836†	10.5	0.00312	mg/L	0.000374	0.00312	mg/L	0.000374	11.99%
Se 196.026†	6.1	0.00424	mg/L	0.005308	0.00424	mg/L	0.005308	125.04%
Si 288.158†	-4.1	-0.00195	mg/L	0.003095	-0.00195	mg/L	0.003095	158.46%
Sn 189.927†	1.6	0.00043	mg/L	0.000422	0.00043	mg/L	0.000422	99.19%
Sr 421.552†	84.8	0.00009	mg/L	0.000046	0.00009	mg/L	0.000046	50.15%
Ti 334.903†	-10.4	-0.00050	mg/L	0.001191	-0.00050	mg/L	0.001191	240.13%
Tl 190.801†	0.9	0.00033	mg/L	0.001039	0.00033	mg/L	0.001039	312.72%
V 292.402†	1.6	0.00001	mg/L	0.000107	0.00001	mg/L	0.000107	819.89%
Zn 206.200†	4.2	0.00107	mg/L	0.001042	0.00107	mg/L	0.001042	97.18%

Sequence No.: 7
Sample ID: VS28 MB SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 304
Date Collected: 11/21/2012 11:30:51 AM
Data Type: Original

Nebulizer Parameters: VS28 MB SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS28 MB SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2548558.4	104.7	%	0.90				0.86%
ScR 361.383	323211.7	105.9	%	1.00				0.95%
Ag 328.068†	18.2	0.00010	mg/L	0.000109	0.00020	mg/L	0.000219	110.77%
Al 308.215†	5.6	0.00319	mg/L	0.002039	0.00638	mg/L	0.004078	63.94%
As 188.979†	2.2	0.00121	mg/L	0.000989	0.00243	mg/L	0.001978	81.46%
B 249.677†	1.7	0.00021	mg/L	0.001087	0.00043	mg/L	0.002173	507.67%
Ba 233.527†	-4.3	-0.00087	mg/L	0.000190	-0.00174	mg/L	0.000380	21.90%
Be 313.042†	7.4	0.00001	mg/L	0.000038	0.00002	mg/L	0.000075	319.96%
Ca 317.933†	221.3	0.01568	mg/L	0.001131	0.03136	mg/L	0.002261	7.21%
Cd 228.802†	-1.4	-0.00006	mg/L	0.000065	-0.00011	mg/L	0.000130	114.21%
Co 228.616†	2.8	0.00007	mg/L	0.000005	0.00015	mg/L	0.000010	6.85%
Cr 267.716†	2.9	0.00046	mg/L	0.000764	0.00091	mg/L	0.001529	167.59%
Cu 324.752†	436.7	0.00165	mg/L	0.000094	0.00330	mg/L	0.000188	5.70%
Fe 273.955†	8.5	0.00669	mg/L	0.001285	0.01338	mg/L	0.002571	19.22%
K 766.490†	-13.9	-0.00687	mg/L	0.012332	-0.01374	mg/L	0.024665	179.54%
Mg 279.077†	1.6	0.00110	mg/L	0.002124	0.00220	mg/L	0.004248	192.95%
Mn 257.610†	-2.2	-0.00006	mg/L	0.000033	-0.00012	mg/L	0.000067	54.08%
Mo 202.031†	1.1	0.00006	mg/L	0.000111	0.00011	mg/L	0.000222	200.28%
Na 589.592†	33.4	0.00261	mg/L	0.002856	0.00522	mg/L	0.005712	109.45%
Na 330.237†	4.3	0.1465	mg/L	0.28744	0.2929	mg/L	0.57489	196.27%
Ni 231.604†	-1.8	-0.00042	mg/L	0.000546	-0.00083	mg/L	0.001091	131.02%
Pb 220.353†	2.5	0.00031	mg/L	0.000449	0.00062	mg/L	0.000898	144.38%
Sb 206.836†	-2.2	-0.00065	mg/L	0.000897	-0.00130	mg/L	0.001794	138.46%
Se 196.026†	6.5	0.00455	mg/L	0.003328	0.00910	mg/L	0.006656	73.13%
Si 288.158†	-0.4	-0.00021	mg/L	0.003149	-0.00042	mg/L	0.006297	>999.9%
Sn 189.927†	2.4	0.00064	mg/L	0.000389	0.00129	mg/L	0.000779	60.57%
Sr 421.552†	-13.3	-0.00001	mg/L	0.000029	-0.00003	mg/L	0.000057	198.17%
Ti 334.903†	4.9	0.00023	mg/L	0.000504	0.00046	mg/L	0.001008	218.12%
Tl 190.801†	-1.3	-0.00051	mg/L	0.000393	-0.00102	mg/L	0.000787	77.30%
V 292.402†	-8.5	-0.00006	mg/L	0.000086	-0.00012	mg/L	0.000172	138.68%
Zn 206.200†	18.3	0.00462	mg/L	0.000702	0.00924	mg/L	0.001404	15.20%

Sequence No.: 8
Sample ID: VS17 MB2 DMN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 305
Date Collected: 11/21/2012 11:35:07 AM
Data Type: Original

Nebulizer Parameters: VS17 MB2 DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS17 MB2 DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2566779.5	105.5	%	0.16				0.15%
ScR 361.383	319499.2	104.7	%	1.06				1.01%
Ag 328.068†	16.1	0.00009	mg/L	0.000040	0.00009	mg/L	0.000040	45.61%
Al 308.215†	-5.2	-0.00296	mg/L	0.003646	-0.00296	mg/L	0.003646	123.21%
As 188.979†	1.3	0.00069	mg/L	0.001372	0.00069	mg/L	0.001372	199.58%
B 249.677†	7.4	0.00094	mg/L	0.000854	0.00094	mg/L	0.000854	90.39%
Ba 233.527†	-2.8	-0.00056	mg/L	0.000698	-0.00056	mg/L	0.000698	125.41%
Be 313.042†	6.6	0.00001	mg/L	0.000004	0.00001	mg/L	0.000004	41.05%
Ca 317.933†	85.6	0.00607	mg/L	0.001764	0.00607	mg/L	0.001764	29.06%
Cd 228.802†	4.7	0.00015	mg/L	0.000078	0.00015	mg/L	0.000078	51.02%
Co 228.616†	12.4	0.00032	mg/L	0.000082	0.00032	mg/L	0.000082	25.29%
Cr 267.716†	0.5	0.00007	mg/L	0.000252	0.00007	mg/L	0.000252	337.52%
Cu 324.752†	52.6	0.00020	mg/L	0.000026	0.00020	mg/L	0.000026	13.04%
Fe 273.955†	-4.4	-0.00342	mg/L	0.000631	-0.00342	mg/L	0.000631	18.47%
K 766.490†	10.4	0.00514	mg/L	0.002387	0.00514	mg/L	0.002387	46.45%
Mg 279.077†	1.3	0.00094	mg/L	0.001989	0.00094	mg/L	0.001989	212.61%
Mn 257.610†	-6.8	-0.00019	mg/L	0.000124	-0.00019	mg/L	0.000124	64.40%
Mo 202.031†	-11.6	-0.00057	mg/L	0.000148	-0.00057	mg/L	0.000148	25.94%
Na 589.592†	410.3	0.03203	mg/L	0.001310	0.03203	mg/L	0.001310	4.09%
Na 330.237†	-11.9	-0.4089	mg/L	0.15663	-0.4089	mg/L	0.15663	38.30%
Ni 231.604†	-1.9	-0.00044	mg/L	0.001323	-0.00044	mg/L	0.001323	301.66%
Pb 220.353†	-0.3	-0.00004	mg/L	0.000654	-0.00004	mg/L	0.000654	>999.9%
Sb 206.836†	-9.5	-0.00282	mg/L	0.003402	-0.00282	mg/L	0.003402	120.53%
Se 196.026†	13.7	0.00951	mg/L	0.002438	0.00951	mg/L	0.002438	25.63%
Si 288.158†	-19.8	-0.00935	mg/L	0.001211	-0.00935	mg/L	0.001211	12.95%
Sn 189.927†	3.6	0.00098	mg/L	0.000743	0.00098	mg/L	0.000743	76.19%
Sr 421.552†	41.5	0.00005	mg/L	0.000007	0.00005	mg/L	0.000007	15.52%
Ti 334.903†	-2.5	-0.00012	mg/L	0.000504	-0.00012	mg/L	0.000504	430.12%
Tl 190.801†	6.1	0.00234	mg/L	0.002459	0.00234	mg/L	0.002459	105.00%
V 292.402†	-14.5	-0.00011	mg/L	0.000092	-0.00011	mg/L	0.000092	84.92%
Zn 206.200†	1.9	0.00048	mg/L	0.000374	0.00048	mg/L	0.000374	78.67%

Sequence No.: 9
Sample ID: VS28 A SWC
Analyst: BA
Dilution: 2.000000X

Del

Autosampler Location: 306
Date Collected: 11/21/2012 11:39:22 AM
Data Type: Original

Nebulizer Parameters: VS28 A SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS28 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2572141.8	105.7	%	0.29				0.28%
ScR 361.383	318954.3	104.5	%	0.88				0.84%
Ag 328.068†	-48.6	-0.00024	mg/L	0.000155	-0.00049	mg/L	0.000311	63.77%
Al 308.215†	4077.1	2.316	mg/L	0.0278	4.632	mg/L	0.0557	1.20%
As 188.979†	74.4	0.04397	mg/L	0.002207	0.08794	mg/L	0.004414	5.02%
B 249.677†	88.8	0.01127	mg/L	0.001879	0.02254	mg/L	0.003759	16.68%
Ba 233.527†	1366.9	0.2247	mg/L	0.00314	0.4494	mg/L	0.00628	1.40%
Be 313.042†	116.0	0.00017	mg/L	0.000031	0.00034	mg/L	0.000063	18.63%
Ca 317.933†	279128.0	19.78	mg/L	0.237	39.56	mg/L	0.473	1.20%
Cd 228.802†	332.2	0.00793	mg/L	0.000143	0.01586	mg/L	0.000286	1.80%
Co 228.616†	275.6	0.00280	mg/L	0.000300	0.00560	mg/L	0.000601	10.72%
Cr 267.716†	53.0	0.02002	mg/L	0.000414	0.04004	mg/L	0.000827	2.07%
Cu 324.752†	12655.7	0.06167	mg/L	0.000277	0.1233	mg/L	0.00055	0.45%
Fe 273.955†	400275.8	313.2	mg/L	4.91	626.5	mg/L	9.82	1.57%
K 766.490†	1653.2	0.8169	mg/L	0.02106	1.634	mg/L	0.0421	2.58%
Mg 279.077†	3269.8	2.104	mg/L	0.0150	4.209	mg/L	0.0300	0.71%
Mn 257.610†	47708.4	1.346	mg/L	0.0203	2.693	mg/L	0.0406	1.51%
Mo 202.031†	58.2	0.00265	mg/L	0.000225	0.00530	mg/L	0.000451	8.51%
Na 589.592†	4586.9	0.3581	mg/L	0.00578	0.7162	mg/L	0.01155	1.61%
Na 330.237†	-0.5	-0.2608	mg/L	0.22161	-0.5215	mg/L	0.44323	84.99%
Ni 231.604†	41.1	0.00956	mg/L	0.000727	0.01912	mg/L	0.001453	7.60%
Pb 220.353†	399.4	0.03760	mg/L	0.000985	0.07519	mg/L	0.001971	2.62%
Sb 206.836†	61.2	0.01843	mg/L	0.000752	0.03686	mg/L	0.001504	4.08%
Se 196.026†	8.6	0.00594	mg/L	0.006007	0.01187	mg/L	0.012015	101.20%
Si 288.158†	9538.1	4.495	mg/L	0.0520	8.989	mg/L	0.1040	1.16%
Sn 189.927†	-30.6	-0.00574	mg/L	0.001032	-0.01148	mg/L	0.002064	17.97%
Sr 421.552†	337741.2	0.3681	mg/L	0.00407	0.7362	mg/L	0.00815	1.11%
Ti 334.903†	3527.4	0.1673	mg/L	0.00144	0.3347	mg/L	0.00289	0.86%
Tl 190.801†	-82.1	0.00169	mg/L	0.000319	0.00338	mg/L	0.000638	18.89%
V 292.402†	9368.4	0.05940	mg/L	0.000182	0.1188	mg/L	0.00036	0.31%
Zn 206.200†	3408.5	0.8599	mg/L	0.00820	1.720	mg/L	0.0164	0.95%

Sequence No.: 10
Sample ID: VS17 F DMN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 307
Date Collected: 11/21/2012 11:43:21 AM
Data Type: Original

Nebulizer Parameters: VS17 F DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS17 F DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2623384.5	107.8	%	0.44				0.41%
ScR 361.383	323551.9	106.0	%	1.70				1.61%
Ag 328.068†	44.0	0.00024	mg/L	0.000193	0.00024	mg/L	0.000193	80.61%
Al 308.215†	2.0	0.00109	mg/L	0.008352	0.00109	mg/L	0.008352	766.54%
As 188.979†	9.6	0.00480	mg/L	0.000360	0.00480	mg/L	0.000360	7.51%
B 249.677†	395.0	0.05020	mg/L	0.000670	0.05020	mg/L	0.000670	1.33%
Ba 233.527†	7.1	0.00135	mg/L	0.000138	0.00135	mg/L	0.000138	10.23%
Be 313.042†	-6.4	-0.00001	mg/L	0.000015	-0.00001	mg/L	0.000015	146.27%
Ca 317.933†	106462.2	7.544	mg/L	0.1099	7.544	mg/L	0.1099	1.46%
Cd 228.802†	5.6	0.00015	mg/L	0.000071	0.00015	mg/L	0.000071	47.16%
Co 228.616†	15.6	0.00040	mg/L	0.000203	0.00040	mg/L	0.000203	50.50%
Cr 267.716†	2.5	0.00010	mg/L	0.000979	0.00010	mg/L	0.000979	976.21%
Cu 324.752†	468.1	0.00177	mg/L	0.000116	0.00177	mg/L	0.000116	6.56%
Fe 273.955†	610.4	0.4777	mg/L	0.01776	0.4777	mg/L	0.01776	3.72%
K 766.490†	3037.2	1.501	mg/L	0.0143	1.501	mg/L	0.0143	0.95%
Mg 279.077†	3944.6	2.740	mg/L	0.0472	2.740	mg/L	0.0472	1.72%
Mn 257.610†	3872.0	0.1091	mg/L	0.00167	0.1091	mg/L	0.00167	1.53%
Mo 202.031†	54.8	0.00261	mg/L	0.000134	0.00261	mg/L	0.000134	5.12%
Na 589.592†	108529.4	8.473	mg/L	0.1335	8.473	mg/L	0.1335	1.58%
Na 330.237†	238.0	8.200	mg/L	0.0780	8.200	mg/L	0.0780	0.95%
Ni 231.604†	0.6	0.00013	mg/L	0.001356	0.00013	mg/L	0.001356	>999.9%
Pb 220.353†	-0.3	-0.00006	mg/L	0.000894	-0.00006	mg/L	0.000894	>999.9%
Sb 206.836†	-7.9	-0.00241	mg/L	0.001437	-0.00241	mg/L	0.001437	59.51%
Se 196.026†	8.1	0.00564	mg/L	0.000298	0.00564	mg/L	0.000298	5.29%
Si 288.158†	10562.9	4.978	mg/L	0.0751	4.978	mg/L	0.0751	1.51%
Sn 189.927†	-15.3	-0.00318	mg/L	0.001200	-0.00318	mg/L	0.001200	37.75%
Sr 421.552†	28595.1	0.03116	mg/L	0.000510	0.03116	mg/L	0.000510	1.64%
Ti 334.903†	22.2	0.00070	mg/L	0.000365	0.00070	mg/L	0.000365	52.26%
Tl 190.801†	9.4	0.00368	mg/L	0.000269	0.00368	mg/L	0.000269	7.33%
V 292.402†	44.2	0.00033	mg/L	0.000115	0.00033	mg/L	0.000115	34.49%
Zn 206.200†	17.2	0.00434	mg/L	0.000980	0.00434	mg/L	0.000980	22.60%

Sequence No.: 11
Sample ID: VS17 G DMN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 308
Date Collected: 11/21/2012 11:47:35 AM
Data Type: Original

Nebulizer Parameters: VS17 G DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS17 G DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2529546.4	104.0	%	0.14				0.13%
ScR 361.383	318353.6	104.3	%	1.64				1.57%
Ag 328.068†	-18.6	-0.00010	mg/L	0.000282	-0.00010	mg/L	0.000282	279.69%
Al 308.215†	22.5	0.01279	mg/L	0.001556	0.01279	mg/L	0.001556	12.17%
As 188.979†	13.2	0.00664	mg/L	0.001907	0.00664	mg/L	0.001907	28.70%
B 249.677†	404.5	0.05140	mg/L	0.000572	0.05140	mg/L	0.000572	1.11%
Ba 233.527†	36.1	0.00714	mg/L	0.000784	0.00714	mg/L	0.000784	10.98%
Be 313.042†	63.1	0.00010	mg/L	0.000026	0.00010	mg/L	0.000026	26.14%
Ca 317.933†	118248.8	8.380	mg/L	0.1319	8.380	mg/L	0.1319	1.57%
Cd 228.802†	27.3	0.00086	mg/L	0.000105	0.00086	mg/L	0.000105	12.20%
Co 228.616†	15.3	0.00039	mg/L	0.000095	0.00039	mg/L	0.000095	24.43%
Cr 267.716†	9.9	0.00133	mg/L	0.000572	0.00133	mg/L	0.000572	43.15%
Cu 324.752†	1085.4	0.00413	mg/L	0.000094	0.00413	mg/L	0.000094	2.27%
Fe 273.955†	1211.9	0.9484	mg/L	0.01310	0.9484	mg/L	0.01310	1.38%
K 766.490†	3156.3	1.560	mg/L	0.0403	1.560	mg/L	0.0403	2.58%
Mg 279.077†	2755.2	1.913	mg/L	0.0232	1.913	mg/L	0.0232	1.21%
Mn 257.610†	2089.9	0.05886	mg/L	0.000873	0.05886	mg/L	0.000873	1.48%
Mo 202.031†	13.5	0.00057	mg/L	0.000190	0.00057	mg/L	0.000190	33.06%
Na 589.592†	32091.6	2.505	mg/L	0.0344	2.505	mg/L	0.0344	1.37%
Na 330.237†	57.6	1.927	mg/L	0.0947	1.927	mg/L	0.0947	4.91%
Ni 231.604†	0.3	0.00007	mg/L	0.001028	0.00007	mg/L	0.001028	>999.9%
Pb 220.353†	3.0	0.00033	mg/L	0.000792	0.00033	mg/L	0.000792	239.01%
Sb 206.836†	-6.7	-0.00206	mg/L	0.001840	-0.00206	mg/L	0.001840	89.16%
Se 196.026†	6.1	0.00428	mg/L	0.004032	0.00428	mg/L	0.004032	94.18%
Si 288.158†	7217.4	3.401	mg/L	0.0426	3.401	mg/L	0.0426	1.25%
Sn 189.927†	-21.1	-0.00462	mg/L	0.001325	-0.00462	mg/L	0.001325	28.69%
Sr 421.552†	47561.8	0.05184	mg/L	0.000653	0.05184	mg/L	0.000653	1.26%
Ti 334.903†	1.9	-0.00031	mg/L	0.000437	-0.00031	mg/L	0.000437	139.97%
Tl 190.801†	4.0	0.00164	mg/L	0.000754	0.00164	mg/L	0.000754	45.87%
V 292.402†	38.4	0.00027	mg/L	0.000235	0.00027	mg/L	0.000235	86.98%
Zn 206.200†	714.9	0.1804	mg/L	0.00320	0.1804	mg/L	0.00320	1.77%

Sequence No.: 12
Sample ID: VS17 EDUP DMN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 309
Date Collected: 11/21/2012 11:51:34 AM
Data Type: Original

Nebulizer Parameters: VS17 EDUP DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS17 EDUP DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2557542.1	105.1	%	0.37				0.35%
ScR 361.383	319978.1	104.9	%	0.41				0.39%
Ag 328.068†	13.1	0.00007	mg/L	0.000161	0.00007	mg/L	0.000161	225.93%
Al 308.215†	16.0	0.00908	mg/L	0.000888	0.00908	mg/L	0.000888	9.78%
As 188.979†	8.5	0.00420	mg/L	0.000220	0.00420	mg/L	0.000220	5.23%
B 249.677†	381.7	0.04851	mg/L	0.000486	0.04851	mg/L	0.000486	1.00%
Ba 233.527†	5.7	0.00114	mg/L	0.000770	0.00114	mg/L	0.000770	67.82%
Be 313.042†	8.7	0.00001	mg/L	0.000010	0.00001	mg/L	0.000010	75.03%
Ca 317.933†	98835.3	7.004	mg/L	0.0304	7.004	mg/L	0.0304	0.43%
Cd 228.802†	11.3	0.00035	mg/L	0.000051	0.00035	mg/L	0.000051	14.75%
Co 228.616†	13.7	0.00036	mg/L	0.000050	0.00036	mg/L	0.000050	13.87%
Cr 267.716†	6.5	0.00072	mg/L	0.000629	0.00072	mg/L	0.000629	86.97%
Cu 324.752†	941.6	0.00354	mg/L	0.000023	0.00354	mg/L	0.000023	0.64%
Fe 273.955†	101.3	0.07931	mg/L	0.002728	0.07931	mg/L	0.002728	3.44%
K 766.490†	3031.9	1.498	mg/L	0.0243	1.498	mg/L	0.0243	1.62%
Mg 279.077†	3633.4	2.524	mg/L	0.0099	2.524	mg/L	0.0099	0.39%
Mn 257.610†	4881.7	0.1375	mg/L	0.00092	0.1375	mg/L	0.00092	0.67%
Mo 202.031†	27.1	0.00126	mg/L	0.000305	0.00126	mg/L	0.000305	24.25%
Na 589.592†	96436.2	7.529	mg/L	0.0423	7.529	mg/L	0.0423	0.56%
Na 330.237†	209.3	7.205	mg/L	0.1389	7.205	mg/L	0.1389	1.93%
Ni 231.604†	-0.0	-0.00001	mg/L	0.001263	-0.00001	mg/L	0.001263	>999.9%
Pb 220.353†	-3.7	-0.00047	mg/L	0.001218	-0.00047	mg/L	0.001218	259.62%
Sb 206.836†	-9.1	-0.00278	mg/L	0.001566	-0.00278	mg/L	0.001566	56.36%
Se 196.026†	7.8	0.00544	mg/L	0.001386	0.00544	mg/L	0.001386	25.45%
Si 288.158†	10069.0	4.745	mg/L	0.0123	4.745	mg/L	0.0123	0.26%
Sn 189.927†	-16.5	-0.00356	mg/L	0.000280	-0.00356	mg/L	0.000280	7.87%
Sr 421.552†	29452.8	0.03210	mg/L	0.000119	0.03210	mg/L	0.000119	0.37%
Ti 334.903†	10.7	0.00018	mg/L	0.000696	0.00018	mg/L	0.000696	397.24%
Tl 190.801†	6.3	0.00241	mg/L	0.001162	0.00241	mg/L	0.001162	48.18%
V 292.402†	39.9	0.00032	mg/L	0.000106	0.00032	mg/L	0.000106	32.86%
Zn 206.200†	66.6	0.01681	mg/L	0.000351	0.01681	mg/L	0.000351	2.09%

Sequence No.: 13
Sample ID: VS17 E DMN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 310
Date Collected: 11/21/2012 11:55:48 AM
Data Type: Original

Nebulizer Parameters: VS17 E DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS17 E DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2520846.7	103.6	%	0.39				0.37%
ScR 361.383	322950.9	105.8	%	1.08				1.02%
Ag 328.068†	-11.5	-0.00006	mg/L	0.000178	-0.00006	mg/L	0.000178	285.34%
Al 308.215†	14.4	0.00813	mg/L	0.004946	0.00813	mg/L	0.004946	60.81%
As 188.979†	10.9	0.00548	mg/L	0.001299	0.00548	mg/L	0.001299	23.69%
B 249.677†	376.9	0.04790	mg/L	0.000526	0.04790	mg/L	0.000526	1.10%
Ba 233.527†	7.0	0.00141	mg/L	0.000266	0.00141	mg/L	0.000266	18.96%
Be 313.042†	-12.3	-0.00002	mg/L	0.000035	-0.00002	mg/L	0.000035	179.92%
Ca 317.933†	98611.5	6.988	mg/L	0.0430	6.988	mg/L	0.0430	0.62%
Cd 228.802†	12.4	0.00038	mg/L	0.000111	0.00038	mg/L	0.000111	29.37%
Co 228.616†	12.8	0.00033	mg/L	0.000148	0.00033	mg/L	0.000148	44.18%
Cr 267.716†	3.3	0.00023	mg/L	0.000752	0.00023	mg/L	0.000752	327.73%
Cu 324.752†	917.8	0.00345	mg/L	0.000057	0.00345	mg/L	0.000057	1.65%
Fe 273.955†	93.3	0.07300	mg/L	0.001289	0.07300	mg/L	0.001289	1.77%
K 766.490†	2970.1	1.468	mg/L	0.0295	1.468	mg/L	0.0295	2.01%
Mg 279.077†	3614.5	2.511	mg/L	0.0224	2.511	mg/L	0.0224	0.89%
Mn 257.610†	4846.4	0.1365	mg/L	0.00021	0.1365	mg/L	0.00021	0.16%
Mo 202.031†	30.7	0.00143	mg/L	0.000163	0.00143	mg/L	0.000163	11.41%
Na 589.592†	96244.8	7.514	mg/L	0.0405	7.514	mg/L	0.0405	0.54%
Na 330.237†	213.1	7.336	mg/L	0.1581	7.336	mg/L	0.1581	2.16%
Ni 231.604†	1.7	0.00039	mg/L	0.001048	0.00039	mg/L	0.001048	270.36%
Pb 220.353†	-5.6	-0.00070	mg/L	0.000857	-0.00070	mg/L	0.000857	121.94%
Sb 206.836†	-7.0	-0.00213	mg/L	0.001725	-0.00213	mg/L	0.001725	80.93%
Se 196.026†	9.8	0.00682	mg/L	0.001408	0.00682	mg/L	0.001408	20.64%
Si 288.158†	9995.6	4.710	mg/L	0.0171	4.710	mg/L	0.0171	0.36%
Sn 189.927†	-19.2	-0.00430	mg/L	0.000435	-0.00430	mg/L	0.000435	10.13%
Sr 421.552†	29409.3	0.03205	mg/L	0.000120	0.03205	mg/L	0.000120	0.37%
Ti 334.903†	6.1	-0.00004	mg/L	0.000303	-0.00004	mg/L	0.000303	690.32%
Tl 190.801†	9.1	0.00351	mg/L	0.000429	0.00351	mg/L	0.000429	12.24%
V 292.402†	23.3	0.00020	mg/L	0.000103	0.00020	mg/L	0.000103	52.92%
Zn 206.200†	70.0	0.01766	mg/L	0.000643	0.01766	mg/L	0.000643	3.64%

Sequence No.: 14 **Autosampler Location: 311**
Sample ID: VS17 ESPK DMN **Date Collected: 11/21/2012 12:00:03 PM**
Analyst: BA **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: VS17 ESPK DMN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS17 ESPK DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2570369.4	105.6	%	0.21				0.20%
ScR 361.383	323948.4	106.2	%	2.04				1.92%
Ag 328.068†	91615.0	0.4980	mg/L	0.00533	0.4980	mg/L	0.00533	1.07%
Al 308.215†	3582.2	2.029	mg/L	0.0330	2.029	mg/L	0.0330	1.63%
As 188.979†	3970.0	2.150	mg/L	0.0046	2.150	mg/L	0.0046	0.22%
B 249.677†	375.9	0.04670	mg/L	0.000366	0.04670	mg/L	0.000366	0.78%
Ba 233.527†	10630.2	2.146	mg/L	0.0403	2.146	mg/L	0.0403	1.88%
Be 313.042†	307342.8	0.4887	mg/L	0.00736	0.4887	mg/L	0.00736	1.51%
Ca 317.933†	240709.3	17.06	mg/L	0.226	17.06	mg/L	0.226	1.32%
Cd 228.802†	16438.7	0.5389	mg/L	0.00454	0.5389	mg/L	0.00454	0.84%
Co 228.616†	20000.0	0.5241	mg/L	0.00361	0.5241	mg/L	0.00361	0.69%
Cr 267.716†	3319.4	0.5169	mg/L	0.00875	0.5169	mg/L	0.00875	1.69%
Cu 324.752†	136589.7	0.5167	mg/L	0.00483	0.5167	mg/L	0.00483	0.93%
Fe 273.955†	2580.9	2.016	mg/L	0.0448	2.016	mg/L	0.0448	2.22%
K 766.490†	23255.0	11.49	mg/L	0.180	11.49	mg/L	0.180	1.57%
Mg 279.077†	18818.9	13.07	mg/L	0.243	13.07	mg/L	0.243	1.86%
Mn 257.610†	22518.4	0.6348	mg/L	0.01151	0.6348	mg/L	0.01151	1.81%
Mo 202.031†	47.0	0.00210	mg/L	0.000353	0.00210	mg/L	0.000353	16.83%
Na 589.592†	222430.7	17.37	mg/L	0.250	17.37	mg/L	0.250	1.44%
Na 330.237†	510.5	17.41	mg/L	0.146	17.41	mg/L	0.146	0.84%
Ni 231.604†	2213.2	0.5124	mg/L	0.01048	0.5124	mg/L	0.01048	2.04%
Pb 220.353†	16583.3	2.077	mg/L	0.0193	2.077	mg/L	0.0193	0.93%
Sb 206.836†	10.2	-0.00244	mg/L	0.001291	-0.00244	mg/L	0.001291	52.88%
Se 196.026†	3320.8	2.311	mg/L	0.0112	2.311	mg/L	0.0112	0.48%
Si 288.158†	10209.9	4.814	mg/L	0.0822	4.814	mg/L	0.0822	1.71%
Sn 189.927†	-40.6	-0.00873	mg/L	0.001467	-0.00873	mg/L	0.001467	16.81%
Sr 421.552†	484341.3	0.5279	mg/L	0.00791	0.5279	mg/L	0.00791	1.50%
Ti 334.903†	22.5	0.00015	mg/L	0.000231	0.00015	mg/L	0.000231	151.23%
Tl 190.801†	5448.2	2.088	mg/L	0.0107	2.088	mg/L	0.0107	0.51%
V 292.402†	69106.9	0.5201	mg/L	0.00452	0.5201	mg/L	0.00452	0.87%
Zn 206.200†	2127.3	0.5368	mg/L	0.01235	0.5368	mg/L	0.01235	2.30%

Sequence No.: 15
Sample ID: VS17 MB2SPK DMN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 312
Date Collected: 11/21/2012 12:04:03 PM
Data Type: Original

Nebulizer Parameters: VS17 MB2SPK DMN

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS17 MB2SPK DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2553595.6	105.0	%	0.27				0.25%
ScR 361.383	320660.1	105.1	%	1.23				1.17%
Ag 328.068†	98480.7	0.5353	mg/L	0.00472	0.5353	mg/L	0.00472	0.88%
Al 308.215†	3479.7	1.970	mg/L	0.0228	1.970	mg/L	0.0228	1.16%
As 188.979†	3894.5	2.110	mg/L	0.0312	2.110	mg/L	0.0312	1.48%
B 249.677†	7.1	-0.00016	mg/L	0.000449	-0.00016	mg/L	0.000449	284.59%
Ba 233.527†	10377.2	2.095	mg/L	0.0186	2.095	mg/L	0.0186	0.89%
Be 313.042†	300835.3	0.4783	mg/L	0.00519	0.4783	mg/L	0.00519	1.09%
Ca 317.933†	137131.8	9.718	mg/L	0.0938	9.718	mg/L	0.0938	0.96%
Cd 228.802†	16403.3	0.5380	mg/L	0.00533	0.5380	mg/L	0.00533	0.99%
Co 228.616†	19762.0	0.5179	mg/L	0.00324	0.5179	mg/L	0.00324	0.63%
Cr 267.716†	3246.0	0.5057	mg/L	0.00383	0.5057	mg/L	0.00383	0.76%
Cu 324.752†	130485.0	0.4936	mg/L	0.00581	0.4936	mg/L	0.00581	1.18%
Fe 273.955†	2425.2	1.894	mg/L	0.0320	1.894	mg/L	0.0320	1.69%
K 766.490†	19981.6	9.873	mg/L	0.0678	9.873	mg/L	0.0678	0.69%
Mg 279.077†	14690.8	10.20	mg/L	0.091	10.20	mg/L	0.091	0.89%
Mn 257.610†	17093.5	0.4820	mg/L	0.00464	0.4820	mg/L	0.00464	0.96%
Mo 202.031†	13.5	0.00053	mg/L	0.000184	0.00053	mg/L	0.000184	34.53%
Na 589.592†	125498.3	9.798	mg/L	0.0577	9.798	mg/L	0.0577	0.59%
Na 330.237†	281.1	9.517	mg/L	0.1909	9.517	mg/L	0.1909	2.01%
Ni 231.604†	2166.6	0.5017	mg/L	0.00390	0.5017	mg/L	0.00390	0.78%
Pb 220.353†	16428.1	2.058	mg/L	0.0131	2.058	mg/L	0.0131	0.64%
Sb 206.836†	9.2	-0.00254	mg/L	0.001544	-0.00254	mg/L	0.001544	60.69%
Se 196.026†	3313.9	2.307	mg/L	0.0286	2.307	mg/L	0.0286	1.24%
Si 288.158†	-14.2	-0.00344	mg/L	0.002492	-0.00344	mg/L	0.002492	72.54%
Sn 189.927†	-24.4	-0.00528	mg/L	0.000297	-0.00528	mg/L	0.000297	5.63%
Sr 421.552†	448598.3	0.4889	mg/L	0.00315	0.4889	mg/L	0.00315	0.64%
Ti 334.903†	7.2	-0.00022	mg/L	0.000302	-0.00022	mg/L	0.000302	136.43%
Tl 190.801†	5383.7	2.064	mg/L	0.0281	2.064	mg/L	0.0281	1.36%
V 292.402†	69073.2	0.5198	mg/L	0.00293	0.5198	mg/L	0.00293	0.56%
Zn 206.200†	2008.9	0.5069	mg/L	0.00479	0.5069	mg/L	0.00479	0.94%

Sequence No.: 16
Sample ID: VS28 MBSPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 313
Date Collected: 11/21/2012 12:08:03 PM
Data Type: Original

Nebulizer Parameters: VS28 MBSPK SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS28 MBSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2527063.3	103.9	%	0.46				0.44%
ScR 361.383	319554.9	104.7	%	1.72				1.64%
Ag 328.068†	96737.8	0.5258	mg/L	0.00839	1.052	mg/L	0.0168	1.60%
Al 308.215†	3573.1	2.024	mg/L	0.0389	4.047	mg/L	0.0778	1.92%
As 188.979†	3548.6	1.922	mg/L	0.0451	3.845	mg/L	0.0903	2.35%
B 249.677†	0.8	-0.00092	mg/L	0.000829	-0.00184	mg/L	0.001657	89.82%
Ba 233.527†	10603.2	2.141	mg/L	0.0323	4.281	mg/L	0.0645	1.51%
Be 313.042†	308155.0	0.4900	mg/L	0.00524	0.9800	mg/L	0.01048	1.07%
Ca 317.933†	139773.0	9.905	mg/L	0.1115	19.81	mg/L	0.223	1.13%
Cd 228.802†	15172.4	0.4979	mg/L	0.01012	0.9957	mg/L	0.02025	2.03%
Co 228.616†	19025.0	0.4985	mg/L	0.01029	0.9971	mg/L	0.02058	2.06%
Cr 267.716†	3337.5	0.5200	mg/L	0.00883	1.040	mg/L	0.0177	1.70%
Cu 324.752†	129314.5	0.4892	mg/L	0.00953	0.9784	mg/L	0.01906	1.95%
Fe 273.955†	2528.0	1.975	mg/L	0.0397	3.950	mg/L	0.0794	2.01%
K 766.490†	20196.6	9.980	mg/L	0.1569	19.96	mg/L	0.314	1.57%
Mg 279.077†	14953.3	10.39	mg/L	0.189	20.77	mg/L	0.377	1.82%
Mn 257.610†	17595.9	0.4961	mg/L	0.01004	0.9922	mg/L	0.02007	2.02%
Mo 202.031†	20.5	0.00087	mg/L	0.000042	0.00174	mg/L	0.000084	4.83%
Na 589.592†	127349.8	9.942	mg/L	0.0943	19.88	mg/L	0.189	0.95%
Na 330.237†	293.6	9.946	mg/L	0.1305	19.89	mg/L	0.261	1.31%
Ni 231.604†	2204.8	0.5106	mg/L	0.00927	1.021	mg/L	0.0185	1.81%
Pb 220.353†	15631.2	1.958	mg/L	0.0386	3.916	mg/L	0.0773	1.97%
Sb 206.836†	8.6	-0.00298	mg/L	0.000929	-0.00595	mg/L	0.001858	31.21%
Se 196.026†	2757.9	1.920	mg/L	0.0465	3.839	mg/L	0.0929	2.42%
Si 288.158†	-4.2	0.00112	mg/L	0.004681	0.00223	mg/L	0.009363	419.12%
Sn 189.927†	-22.8	-0.00484	mg/L	0.000679	-0.00968	mg/L	0.001357	14.02%
Sr 421.552†	461890.4	0.5034	mg/L	0.00571	1.007	mg/L	0.0114	1.13%
Ti 334.903†	20.9	0.00042	mg/L	0.000383	0.00084	mg/L	0.000765	91.04%
Tl 190.801†	5013.5	1.922	mg/L	0.0411	3.843	mg/L	0.0821	2.14%
V 292.402†	66871.7	0.5034	mg/L	0.01023	1.007	mg/L	0.0205	2.03%
Zn 206.200†	2020.1	0.5097	mg/L	0.00990	1.019	mg/L	0.0198	1.94%

Sequence No.: 17
Sample ID: CV 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 12:12:03 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2495934.6	102.6	%	0.44				0.43%
ScR 361.383	310882.0	101.9	%	1.81				1.78%
Ag 328.068†	183952.2	0.9998	mg/L	0.00119	0.9998	mg/L	0.00119	0.12%
Al 308.215†	3596.3	2.010	mg/L	0.0367	2.010	mg/L	0.0367	1.83%
As 188.979†	3607.9	1.980	mg/L	0.0051	1.980	mg/L	0.0051	0.26%
B 249.677†	7863.6	0.9984	mg/L	0.01707	0.9984	mg/L	0.01707	1.71%
Ba 233.527†	5253.4	1.060	mg/L	0.0151	1.060	mg/L	0.0151	1.43%
Be 313.042†	595513.0	0.9469	mg/L	0.01596	0.9469	mg/L	0.01596	1.69%
Ca 317.933†	27397.9	1.942	mg/L	0.0345	1.942	mg/L	0.0345	1.78%
Cd 228.802†	29665.4	0.9854	mg/L	0.00401	0.9854	mg/L	0.00401	0.41%
Co 228.616†	39038.4	1.021	mg/L	0.0027	1.021	mg/L	0.0027	0.26%
Cr 267.716†	6578.8	1.027	mg/L	0.0149	1.027	mg/L	0.0149	1.45%
Cu 324.752†	262565.1	0.9928	mg/L	0.00110	0.9928	mg/L	0.00110	0.11%
Fe 273.955†	2533.4	1.976	mg/L	0.0295	1.976	mg/L	0.0295	1.49%
K 766.490†	40637.7	20.08	mg/L	0.322	20.08	mg/L	0.322	1.61%
Mg 279.077†	2915.3	2.032	mg/L	0.0204	2.032	mg/L	0.0204	1.01%
Mn 257.610†	33925.4	0.9562	mg/L	0.01278	0.9562	mg/L	0.01278	1.34%
Mo 202.031†	20490.8	1.007	mg/L	0.0032	1.007	mg/L	0.0032	0.32%
Na 589.592†	647514.7	50.55	mg/L	0.719	50.55	mg/L	0.719	1.42%
Na 330.237†	1502.5	51.66	mg/L	0.548	51.66	mg/L	0.548	1.06%
Ni 231.604†	4360.1	1.012	mg/L	0.0158	1.012	mg/L	0.0158	1.56%
Pb 220.353†	16201.2	2.030	mg/L	0.0083	2.030	mg/L	0.0083	0.41%
Sb 206.836†	6964.7	2.077	mg/L	0.0059	2.077	mg/L	0.0059	0.28%
Se 196.026†	2782.1	1.936	mg/L	0.0072	1.936	mg/L	0.0072	0.37%
Si 288.158†	4458.1	2.100	mg/L	0.0370	2.100	mg/L	0.0370	1.76%
Sn 189.927†	3647.6	0.9802	mg/L	0.00360	0.9802	mg/L	0.00360	0.37%
Sr 421.552†	906186.7	0.9876	mg/L	0.01300	0.9876	mg/L	0.01300	1.32%
Ti 334.903†	21334.9	1.017	mg/L	0.0145	1.017	mg/L	0.0145	1.43%
Tl 190.801†	5169.7	1.978	mg/L	0.0081	1.978	mg/L	0.0081	0.41%
V 292.402†	132655.6	0.9986	mg/L	0.00133	0.9986	mg/L	0.00133	0.13%
Zn 206.200†	4091.4	1.032	mg/L	0.0156	1.032	mg/L	0.0156	1.51%

Sequence No.: 18
Sample ID: CB 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 12:16:55 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2470482.8	101.5	%	0.57				0.56%
ScR 361.383	317459.5	104.0	%	1.46				1.41%
Ag 328.068†	42.8	0.00023	mg/L	0.000086	0.00023	mg/L	0.000086	36.94%
Al 308.215†	0.2	0.00010	mg/L	0.007340	0.00010	mg/L	0.007340	>999.9%
As 188.979†	1.5	0.00083	mg/L	0.002578	0.00083	mg/L	0.002578	310.41%
B 249.677†	9.5	0.00121	mg/L	0.000322	0.00121	mg/L	0.000322	26.75%
Ba 233.527†	-3.4	-0.00069	mg/L	0.000679	-0.00069	mg/L	0.000679	98.16%
Be 313.042†	26.3	0.00004	mg/L	0.000036	0.00004	mg/L	0.000036	84.95%
Ca 317.933†	29.1	0.00206	mg/L	0.000550	0.00206	mg/L	0.000550	26.65%
Cd 228.802†	6.3	0.00021	mg/L	0.000122	0.00021	mg/L	0.000122	58.88%
Co 228.616†	2.7	0.00007	mg/L	0.000187	0.00007	mg/L	0.000187	262.17%
Cr 267.716†	1.2	0.00018	mg/L	0.000701	0.00018	mg/L	0.000701	388.62%
Cu 324.752†	198.9	0.00075	mg/L	0.000052	0.00075	mg/L	0.000052	6.94%
Fe 273.955†	-1.8	-0.00144	mg/L	0.001776	-0.00144	mg/L	0.001776	123.00%
K 766.490†	1.0	0.00049	mg/L	0.012332	0.00049	mg/L	0.012332	>999.9%
Mg 279.077†	8.2	0.00571	mg/L	0.003070	0.00571	mg/L	0.003070	53.80%
Mn 257.610†	-4.3	-0.00012	mg/L	0.000098	-0.00012	mg/L	0.000098	81.46%
Mo 202.031†	9.4	0.00046	mg/L	0.000220	0.00046	mg/L	0.000220	47.62%
Na 589.592†	-8.6	-0.00067	mg/L	0.002489	-0.00067	mg/L	0.002489	368.76%
Na 330.237†	-6.8	-0.2336	mg/L	0.15922	-0.2336	mg/L	0.15922	68.15%
Ni 231.604†	1.5	0.00035	mg/L	0.001580	0.00035	mg/L	0.001580	454.27%
Pb 220.353†	-0.2	-0.00003	mg/L	0.000914	-0.00003	mg/L	0.000914	>999.9%
Sb 206.836†	7.9	0.00236	mg/L	0.001870	0.00236	mg/L	0.001870	79.23%
Se 196.026†	6.6	0.00456	mg/L	0.002477	0.00456	mg/L	0.002477	54.31%
Si 288.158†	-2.6	-0.00122	mg/L	0.003858	-0.00122	mg/L	0.003858	317.15%
Sn 189.927†	0.1	0.00003	mg/L	0.000754	0.00003	mg/L	0.000754	>999.9%
Sr 421.552†	13.6	0.00001	mg/L	0.000011	0.00001	mg/L	0.000011	75.23%
Ti 334.903†	-2.1	-0.00010	mg/L	0.000158	-0.00010	mg/L	0.000158	157.65%
Tl 190.801†	2.7	0.00103	mg/L	0.002204	0.00103	mg/L	0.002204	213.33%
V 292.402†	-12.6	-0.00009	mg/L	0.000194	-0.00009	mg/L	0.000194	207.97%
Zn 206.200†	5.5	0.00139	mg/L	0.000296	0.00139	mg/L	0.000296	21.34%

Sequence No.: 19
Sample ID: VS17 MB1 TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 314
Date Collected: 11/21/2012 12:21:10 PM
Data Type: Original

Nebulizer Parameters: VS17 MB1 TWC

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: VS17 MB1 TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2534966.8	104.2	%	0.35				0.33%
ScR 361.383	316741.5	103.8	%	0.54				0.52%
Ag 328.068†	27.0	0.00015	mg/L	0.000167	0.00015	mg/L	0.000167	114.23%
Al 308.215†	6.7	0.00384	mg/L	0.003554	0.00384	mg/L	0.003554	92.65%
As 188.979†	0.3	0.00020	mg/L	0.001588	0.00020	mg/L	0.001588	812.33%
B 249.677†	12.2	0.00154	mg/L	0.000872	0.00154	mg/L	0.000872	56.46%
Ba 233.527†	-2.4	-0.00048	mg/L	0.000525	-0.00048	mg/L	0.000525	109.62%
Be 313.042†	100.0	0.00016	mg/L	0.000016	0.00016	mg/L	0.000016	10.19%
Ca 317.933†	-2.5	-0.00018	mg/L	0.000632	-0.00018	mg/L	0.000632	355.46%
Cd 228.802†	4.9	0.00016	mg/L	0.000108	0.00016	mg/L	0.000108	65.75%
Co 228.616†	4.3	0.00011	mg/L	0.000129	0.00011	mg/L	0.000129	116.21%
Cr 267.716†	5.3	0.00082	mg/L	0.000308	0.00082	mg/L	0.000308	37.59%
Cu 324.752†	680.9	0.00258	mg/L	0.000100	0.00258	mg/L	0.000100	3.87%
Fe 273.955†	6.9	0.00543	mg/L	0.000744	0.00543	mg/L	0.000744	13.70%
K 766.490†	-3.5	-0.00172	mg/L	0.021705	-0.00172	mg/L	0.021705	>999.9%
Mg 279.077†	3.8	0.00261	mg/L	0.002441	0.00261	mg/L	0.002441	93.63%
Mn 257.610†	6.4	0.00018	mg/L	0.000055	0.00018	mg/L	0.000055	30.50%
Mo 202.031†	-1.1	-0.00006	mg/L	0.000052	-0.00006	mg/L	0.000052	91.96%
Na 589.592†	57.0	0.00445	mg/L	0.003734	0.00445	mg/L	0.003734	83.99%
Na 330.237†	-3.8	-0.1327	mg/L	0.35321	-0.1327	mg/L	0.35321	266.12%
Ni 231.604†	1.2	0.00028	mg/L	0.001853	0.00028	mg/L	0.001853	653.77%
Pb 220.353†	2.9	0.00036	mg/L	0.000497	0.00036	mg/L	0.000497	137.94%
Sb 206.836†	2.1	0.00061	mg/L	0.000855	0.00061	mg/L	0.000855	140.45%
Se 196.026†	4.7	0.00329	mg/L	0.002531	0.00329	mg/L	0.002531	76.91%
Si 288.158†	-4.6	-0.00215	mg/L	0.001969	-0.00215	mg/L	0.001969	91.61%
Sn 189.927†	2.2	0.00059	mg/L	0.000504	0.00059	mg/L	0.000504	85.15%
Sr 421.552†	81.7	0.00009	mg/L	0.000043	0.00009	mg/L	0.000043	48.12%
Ti 334.903†	9.4	0.00045	mg/L	0.000599	0.00045	mg/L	0.000599	134.02%
Tl 190.801†	2.2	0.00085	mg/L	0.000639	0.00085	mg/L	0.000639	75.09%
V 292.402†	-5.8	-0.00004	mg/L	0.000160	-0.00004	mg/L	0.000160	397.84%
Zn 206.200†	6.1	0.00154	mg/L	0.000229	0.00154	mg/L	0.000229	14.89%

Sequence No.: 20
Sample ID: VS17 H DMN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 315
Date Collected: 11/21/2012 12:25:26 PM
Data Type: Original

Nebulizer Parameters: VS17 H DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS17 H DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2545526.3	104.6	%	0.15				0.15%
ScR 361.383	321118.0	105.2	%	1.49				1.42%
Ag 328.068†	-11.5	-0.00006	mg/L	0.000108	-0.00006	mg/L	0.000108	172.64%
Al 308.215†	15.2	0.00861	mg/L	0.003778	0.00861	mg/L	0.003778	43.87%
As 188.979†	13.1	0.00635	mg/L	0.001760	0.00635	mg/L	0.001760	27.73%
B 249.677†	1056.1	0.1342	mg/L	0.00148	0.1342	mg/L	0.00148	1.10%
Ba 233.527†	23.2	0.00467	mg/L	0.000424	0.00467	mg/L	0.000424	9.08%
Be 313.042†	31.9	0.00005	mg/L	0.000026	0.00005	mg/L	0.000026	50.73%
Ca 317.933†	184615.5	13.08	mg/L	0.142	13.08	mg/L	0.142	1.09%
Cd 228.802†	16.2	0.00050	mg/L	0.000159	0.00050	mg/L	0.000159	31.85%
Co 228.616†	15.2	0.00039	mg/L	0.000066	0.00039	mg/L	0.000066	16.64%
Cr 267.716†	4.0	-0.00020	mg/L	0.000968	-0.00020	mg/L	0.000968	482.13%
Cu 324.752†	336.4	0.00121	mg/L	0.000036	0.00121	mg/L	0.000036	2.94%
Fe 273.955†	46.2	0.03612	mg/L	0.001295	0.03612	mg/L	0.001295	3.58%
K 766.490†	6990.6	3.454	mg/L	0.0258	3.454	mg/L	0.0258	0.75%
Mg 279.077†	11227.1	7.798	mg/L	0.0814	7.798	mg/L	0.0814	1.04%
Mn 257.610†	14470.1	0.4076	mg/L	0.00478	0.4076	mg/L	0.00478	1.17%
Mo 202.031†	28.9	0.00128	mg/L	0.000033	0.00128	mg/L	0.000033	2.61%
Na 589.592†	333492.2	26.04	mg/L	0.183	26.04	mg/L	0.183	0.70%
Na 330.237†	753.4	25.95	mg/L	0.187	25.95	mg/L	0.187	0.72%
Ni 231.604†	2.1	0.00047	mg/L	0.000995	0.00047	mg/L	0.000995	210.38%
Pb 220.353†	2.5	0.00031	mg/L	0.000466	0.00031	mg/L	0.000466	148.43%
Sb 206.836†	-6.5	-0.00203	mg/L	0.000494	-0.00203	mg/L	0.000494	24.29%
Se 196.026†	13.1	0.00911	mg/L	0.001711	0.00911	mg/L	0.001711	18.79%
Si 288.158†	29338.3	13.83	mg/L	0.135	13.83	mg/L	0.135	0.97%
Sn 189.927†	-32.2	-0.00703	mg/L	0.001141	-0.00703	mg/L	0.001141	16.23%
Sr 421.552†	58556.8	0.06382	mg/L	0.000439	0.06382	mg/L	0.000439	0.69%
Ti 334.903†	28.3	0.00073	mg/L	0.000590	0.00073	mg/L	0.000590	81.27%
Tl 190.801†	11.0	0.00422	mg/L	0.000909	0.00422	mg/L	0.000909	21.55%
V 292.402†	29.5	0.00028	mg/L	0.000094	0.00028	mg/L	0.000094	32.97%
Zn 206.200†	126.0	0.03180	mg/L	0.000791	0.03180	mg/L	0.000791	2.49%

Sequence No.: 21
Sample ID: VS17 B TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 316
Date Collected: 11/21/2012 12:29:40 PM
Data Type: Original

Nebulizer Parameters: VS17 B TWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS17 B TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2524444.7	103.8	%	0.62				0.60%
ScR 361.383	320067.3	104.9	%	0.32				0.31%
Ag 328.068†	20.9	0.00012	mg/L	0.000315	0.00012	mg/L	0.000315	264.46%
Al 308.215†	2414.5	1.372	mg/L	0.0045	1.372	mg/L	0.0045	0.33%
As 188.979†	11.0	0.00712	mg/L	0.002403	0.00712	mg/L	0.002403	33.77%
B 249.677†	367.9	0.04676	mg/L	0.000300	0.04676	mg/L	0.000300	0.64%
Ba 233.527†	220.6	0.03756	mg/L	0.000428	0.03756	mg/L	0.000428	1.14%
Be 313.042†	53.1	0.00008	mg/L	0.000010	0.00008	mg/L	0.000010	13.07%
Ca 317.933†	139015.5	9.851	mg/L	0.1105	9.851	mg/L	0.1105	1.12%
Cd 228.802†	38.0	0.00084	mg/L	0.000173	0.00084	mg/L	0.000173	20.72%
Co 228.616†	54.1	0.00074	mg/L	0.000119	0.00074	mg/L	0.000119	16.03%
Cr 267.716†	23.5	0.00493	mg/L	0.000391	0.00493	mg/L	0.000391	7.94%
Cu 324.752†	2410.6	0.01096	mg/L	0.000106	0.01096	mg/L	0.000106	0.97%
Fe 273.955†	54358.9	42.54	mg/L	0.460	42.54	mg/L	0.460	1.08%
K 766.490†	3299.5	1.630	mg/L	0.0108	1.630	mg/L	0.0108	0.66%
Mg 279.077†	4616.4	3.184	mg/L	0.0070	3.184	mg/L	0.0070	0.22%
Mn 257.610†	16103.2	0.4540	mg/L	0.00375	0.4540	mg/L	0.00375	0.83%
Mo 202.031†	66.4	0.00316	mg/L	0.000361	0.00316	mg/L	0.000361	11.42%
Na 589.592†	105073.9	8.203	mg/L	0.0667	8.203	mg/L	0.0667	0.81%
Na 330.237†	243.3	8.368	mg/L	0.0339	8.368	mg/L	0.0339	0.40%
Ni 231.604†	10.0	0.00232	mg/L	0.000298	0.00232	mg/L	0.000298	12.84%
Pb 220.353†	52.8	0.00518	mg/L	0.000974	0.00518	mg/L	0.000974	18.81%
Sb 206.836†	11.8	0.00352	mg/L	0.001391	0.00352	mg/L	0.001391	39.55%
Se 196.026†	3.6	0.00251	mg/L	0.002552	0.00251	mg/L	0.002552	101.77%
Si 288.158†	19255.1	9.073	mg/L	0.0745	9.073	mg/L	0.0745	0.82%
Sn 189.927†	-24.0	-0.00522	mg/L	0.000868	-0.00522	mg/L	0.000868	16.62%
Sr 421.552†	58065.6	0.06328	mg/L	0.000590	0.06328	mg/L	0.000590	0.93%
Ti 334.903†	1282.4	0.06071	mg/L	0.000764	0.06071	mg/L	0.000764	1.26%
Tl 190.801†	-8.7	0.00113	mg/L	0.001356	0.00113	mg/L	0.001356	119.50%
V 292.402†	2634.5	0.01831	mg/L	0.000075	0.01831	mg/L	0.000075	0.41%
Zn 206.200†	352.9	0.08904	mg/L	0.000987	0.08904	mg/L	0.000987	1.11%

Sequence No.: 22
Sample ID: VS17 C TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 317
Date Collected: 11/21/2012 12:33:40 PM
Data Type: Original

Nebulizer Parameters: VS17 C TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS17 C TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2492960.8	102.5	%	0.29				0.28%
ScR 361.383	318587.1	104.4	%	0.84				0.80%
Ag 328.068†	17.1	0.00009	mg/L	0.000200	0.00009	mg/L	0.000200	214.50%
Al 308.215†	62.9	0.03575	mg/L	0.004188	0.03575	mg/L	0.004188	11.72%
As 188.979†	7.4	0.00357	mg/L	0.001917	0.00357	mg/L	0.001917	53.64%
B 249.677†	385.1	0.04894	mg/L	0.000581	0.04894	mg/L	0.000581	1.19%
Ba 233.527†	40.2	0.00790	mg/L	0.000297	0.00790	mg/L	0.000297	3.76%
Be 313.042†	23.8	0.00004	mg/L	0.000017	0.00004	mg/L	0.000017	45.65%
Ca 317.933†	115007.9	8.150	mg/L	0.0789	8.150	mg/L	0.0789	0.97%
Cd 228.802†	18.3	0.00058	mg/L	0.000084	0.00058	mg/L	0.000084	14.60%
Co 228.616†	5.0	0.00011	mg/L	0.000085	0.00011	mg/L	0.000085	77.97%
Cr 267.716†	9.4	0.00127	mg/L	0.001390	0.00127	mg/L	0.001390	109.29%
Cu 324.752†	895.2	0.00343	mg/L	0.000075	0.00343	mg/L	0.000075	2.17%
Fe 273.955†	1783.6	1.396	mg/L	0.0054	1.396	mg/L	0.0054	0.38%
K 766.490†	3155.8	1.559	mg/L	0.0188	1.559	mg/L	0.0188	1.21%
Mg 279.077†	2681.9	1.862	mg/L	0.0130	1.862	mg/L	0.0130	0.70%
Mn 257.610†	2202.4	0.06204	mg/L	0.000253	0.06204	mg/L	0.000253	0.41%
Mo 202.031†	23.7	0.00108	mg/L	0.000083	0.00108	mg/L	0.000083	7.71%
Na 589.592†	31176.3	2.434	mg/L	0.0187	2.434	mg/L	0.0187	0.77%
Na 330.237†	66.9	2.248	mg/L	0.3013	2.248	mg/L	0.3013	13.40%
Ni 231.604†	-1.5	-0.00035	mg/L	0.001799	-0.00035	mg/L	0.001799	509.45%
Pb 220.353†	-1.4	-0.00023	mg/L	0.000334	-0.00023	mg/L	0.000334	146.90%
Sb 206.836†	2.9	0.00078	mg/L	0.002478	0.00078	mg/L	0.002478	319.46%
Se 196.026†	1.6	0.00114	mg/L	0.002121	0.00114	mg/L	0.002121	186.02%
Si 288.158†	6851.9	3.229	mg/L	0.0290	3.229	mg/L	0.0290	0.90%
Sn 189.927†	-23.4	-0.00526	mg/L	0.000493	-0.00526	mg/L	0.000493	9.36%
Sr 421.552†	47317.1	0.05157	mg/L	0.000395	0.05157	mg/L	0.000395	0.77%
Ti 334.903†	26.9	0.00089	mg/L	0.000485	0.00089	mg/L	0.000485	54.26%
Tl 190.801†	3.6	0.00153	mg/L	0.000435	0.00153	mg/L	0.000435	28.48%
V 292.402†	67.1	0.00047	mg/L	0.000059	0.00047	mg/L	0.000059	12.57%
Zn 206.200†	684.1	0.1726	mg/L	0.00203	0.1726	mg/L	0.00203	1.18%

Sequence No.: 23
Sample ID: VS17 D TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 318
Date Collected: 11/21/2012 12:37:39 PM
Data Type: Original

Nebulizer Parameters: VS17 D TWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS17 D TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2478298.1	101.9	%	0.16				0.16%
ScR 361.383	316894.3	103.8	%	0.64				0.62%
Ag 328.068†	9.6	0.00005	mg/L	0.000088	0.00005	mg/L	0.000088	168.81%
Al 308.215†	10.6	0.00596	mg/L	0.006101	0.00596	mg/L	0.006101	102.31%
As 188.979†	8.8	0.00410	mg/L	0.001044	0.00410	mg/L	0.001044	25.45%
B 249.677†	958.8	0.1218	mg/L	0.00071	0.1218	mg/L	0.00071	0.58%
Ba 233.527†	29.2	0.00570	mg/L	0.000476	0.00570	mg/L	0.000476	8.34%
Be 313.042†	19.8	0.00003	mg/L	0.000029	0.00003	mg/L	0.000029	92.20%
Ca 317.933†	168111.1	11.91	mg/L	0.149	11.91	mg/L	0.149	1.25%
Cd 228.802†	8.2	0.00023	mg/L	0.000147	0.00023	mg/L	0.000147	63.28%
Co 228.616†	11.9	0.00029	mg/L	0.000117	0.00029	mg/L	0.000117	39.84%
Cr 267.716†	5.4	0.00015	mg/L	0.001039	0.00015	mg/L	0.001039	704.83%
Cu 324.752†	410.2	0.00154	mg/L	0.000056	0.00154	mg/L	0.000056	3.65%
Fe 273.955†	1512.6	1.184	mg/L	0.0085	1.184	mg/L	0.0085	0.72%
K 766.490†	6484.2	3.204	mg/L	0.0190	3.204	mg/L	0.0190	0.59%
Mg 279.077†	9993.8	6.941	mg/L	0.0548	6.941	mg/L	0.0548	0.79%
Mn 257.610†	13159.8	0.3707	mg/L	0.00252	0.3707	mg/L	0.00252	0.68%
Mo 202.031†	31.4	0.00142	mg/L	0.000170	0.00142	mg/L	0.000170	11.98%
Na 589.592†	308522.3	24.09	mg/L	0.187	24.09	mg/L	0.187	0.78%
Na 330.237†	705.6	24.30	mg/L	0.347	24.30	mg/L	0.347	1.43%
Ni 231.604†	0.6	0.00015	mg/L	0.001734	0.00015	mg/L	0.001734	>999.9%
Pb 220.353†	-3.5	-0.00048	mg/L	0.000195	-0.00048	mg/L	0.000195	40.55%
Sb 206.836†	-1.3	-0.00048	mg/L	0.001884	-0.00048	mg/L	0.001884	391.22%
Se 196.026†	6.1	0.00424	mg/L	0.001270	0.00424	mg/L	0.001270	29.97%
Si 288.158†	3647.0	1.719	mg/L	0.0242	1.719	mg/L	0.0242	1.41%
Sn 189.927†	-28.8	-0.00626	mg/L	0.000257	-0.00626	mg/L	0.000257	4.11%
Sr 421.552†	54181.2	0.05905	mg/L	0.000566	0.05905	mg/L	0.000566	0.96%
Ti 334.903†	16.6	0.00022	mg/L	0.000796	0.00022	mg/L	0.000796	357.87%
Tl 190.801†	5.8	0.00236	mg/L	0.000840	0.00236	mg/L	0.000840	35.59%
V 292.402†	119.8	0.00092	mg/L	0.000062	0.00092	mg/L	0.000062	6.78%
Zn 206.200†	137.8	0.03477	mg/L	0.000999	0.03477	mg/L	0.000999	2.87%

Sequence No.: 24 **Autosampler Location: 319**
Sample ID: VS17 ADUP TWC **Date Collected: 11/21/2012 12:41:54 PM**
Analyst: BA **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: VS17 ADUP TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS17 ADUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2520425.0	103.6	%	0.72				0.70%
ScR 361.383	317370.7	104.0	%	0.94				0.90%
Ag 328.068†	9.3	0.00005	mg/L	0.000084	0.00005	mg/L	0.000084	166.06%
Al 308.215†	129.7	0.07366	mg/L	0.010639	0.07366	mg/L	0.010639	14.44%
As 188.979†	6.7	0.00333	mg/L	0.001988	0.00333	mg/L	0.001988	59.62%
B 249.677†	347.5	0.04416	mg/L	0.000555	0.04416	mg/L	0.000555	1.26%
Ba 233.527†	22.0	0.00401	mg/L	0.000645	0.00401	mg/L	0.000645	16.11%
Be 313.042†	-4.2	-0.00001	mg/L	0.000022	-0.00001	mg/L	0.000022	313.64%
Ca 317.933†	95669.8	6.780	mg/L	0.0637	6.780	mg/L	0.0637	0.94%
Cd 228.802†	3.3	0.00006	mg/L	0.000145	0.00006	mg/L	0.000145	235.60%
Co 228.616†	12.4	0.00028	mg/L	0.000202	0.00028	mg/L	0.000202	72.29%
Cr 267.716†	8.1	0.00108	mg/L	0.000423	0.00108	mg/L	0.000423	39.12%
Cu 324.752†	677.7	0.00266	mg/L	0.000061	0.00266	mg/L	0.000061	2.30%
Fe 273.955†	3468.5	2.714	mg/L	0.0296	2.714	mg/L	0.0296	1.09%
K 766.490†	2948.5	1.457	mg/L	0.0188	1.457	mg/L	0.0188	1.29%
Mg 279.077†	3465.6	2.406	mg/L	0.0278	2.406	mg/L	0.0278	1.16%
Mn 257.610†	5181.7	0.1460	mg/L	0.00161	0.1460	mg/L	0.00161	1.11%
Mo 202.031†	32.5	0.00152	mg/L	0.000204	0.00152	mg/L	0.000204	13.38%
Na 589.592†	91884.2	7.173	mg/L	0.0759	7.173	mg/L	0.0759	1.06%
Na 330.237†	206.6	7.111	mg/L	0.3507	7.111	mg/L	0.3507	4.93%
Ni 231.604†	9.1	0.00211	mg/L	0.001796	0.00211	mg/L	0.001796	85.29%
Pb 220.353†	5.4	0.00058	mg/L	0.000816	0.00058	mg/L	0.000816	140.80%
Sb 206.836†	3.9	0.00110	mg/L	0.001969	0.00110	mg/L	0.001969	179.02%
Se 196.026†	3.4	0.00237	mg/L	0.006068	0.00237	mg/L	0.006068	255.80%
Si 288.158†	9333.7	4.398	mg/L	0.0310	4.398	mg/L	0.0310	0.70%
Sn 189.927†	-17.2	-0.00377	mg/L	0.000634	-0.00377	mg/L	0.000634	16.80%
Sr 421.552†	29809.2	0.03249	mg/L	0.000380	0.03249	mg/L	0.000380	1.17%
Ti 334.903†	92.8	0.00410	mg/L	0.000850	0.00410	mg/L	0.000850	20.73%
Tl 190.801†	1.4	0.00084	mg/L	0.000970	0.00084	mg/L	0.000970	115.51%
V 292.402†	174.5	0.00124	mg/L	0.000028	0.00124	mg/L	0.000028	2.24%
Zn 206.200†	114.3	0.02883	mg/L	0.000090	0.02883	mg/L	0.000090	0.31%

Sequence No.: 25
Sample ID: VS17 A TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 320
Date Collected: 11/21/2012 12:46:08 PM
Data Type: Original

Nebulizer Parameters: VS17 A TWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS17 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2520741.4	103.6	%	0.49				0.48%
ScR 361.383	322594.5	105.7	%	0.55				0.52%
Ag 328.068†	20.1	0.00011	mg/L	0.000083	0.00011	mg/L	0.000083	75.77%
Al 308.215†	88.2	0.05005	mg/L	0.005646	0.05005	mg/L	0.005646	11.28%
As 188.979†	4.5	0.00218	mg/L	0.001427	0.00218	mg/L	0.001427	65.58%
B 249.677†	355.3	0.04515	mg/L	0.000759	0.04515	mg/L	0.000759	1.68%
Ba 233.527†	22.6	0.00412	mg/L	0.000634	0.00412	mg/L	0.000634	15.38%
Be 313.042†	-15.0	-0.00002	mg/L	0.000009	-0.00002	mg/L	0.000009	37.12%
Ca 317.933†	94079.7	6.667	mg/L	0.0439	6.667	mg/L	0.0439	0.66%
Cd 228.802†	11.1	0.00033	mg/L	0.000021	0.00033	mg/L	0.000021	6.25%
Co 228.616†	5.8	0.00011	mg/L	0.000053	0.00011	mg/L	0.000053	50.04%
Cr 267.716†	7.5	0.00100	mg/L	0.000765	0.00100	mg/L	0.000765	76.41%
Cu 324.752†	641.8	0.00252	mg/L	0.000227	0.00252	mg/L	0.000227	8.98%
Fe 273.955†	3403.7	2.664	mg/L	0.0158	2.664	mg/L	0.0158	0.59%
K 766.490†	2905.1	1.435	mg/L	0.0079	1.435	mg/L	0.0079	0.55%
Mg 279.077†	3399.4	2.360	mg/L	0.0168	2.360	mg/L	0.0168	0.71%
Mn 257.610†	5084.8	0.1433	mg/L	0.00025	0.1433	mg/L	0.00025	0.17%
Mo 202.031†	31.6	0.00148	mg/L	0.000250	0.00148	mg/L	0.000250	16.89%
Na 589.592†	90649.0	7.077	mg/L	0.0304	7.077	mg/L	0.0304	0.43%
Na 330.237†	204.2	7.029	mg/L	0.3883	7.029	mg/L	0.3883	5.52%
Ni 231.604†	8.9	0.00207	mg/L	0.000783	0.00207	mg/L	0.000783	37.91%
Pb 220.353†	5.2	0.00055	mg/L	0.000164	0.00055	mg/L	0.000164	29.71%
Sb 206.836†	-2.5	-0.00079	mg/L	0.000722	-0.00079	mg/L	0.000722	91.19%
Se 196.026†	5.0	0.00350	mg/L	0.002546	0.00350	mg/L	0.002546	72.66%
Si 288.158†	9479.9	4.467	mg/L	0.0163	4.467	mg/L	0.0163	0.37%
Sn 189.927†	-18.7	-0.00418	mg/L	0.000476	-0.00418	mg/L	0.000476	11.38%
Sr 421.552†	29254.2	0.03188	mg/L	0.000103	0.03188	mg/L	0.000103	0.32%
Ti 334.903†	95.2	0.00422	mg/L	0.000186	0.00422	mg/L	0.000186	4.42%
Tl 190.801†	-2.4	-0.00065	mg/L	0.001814	-0.00065	mg/L	0.001814	278.84%
V 292.402†	190.1	0.00136	mg/L	0.000086	0.00136	mg/L	0.000086	6.36%
Zn 206.200†	105.9	0.02672	mg/L	0.000508	0.02672	mg/L	0.000508	1.90%

Sequence No.: 26 **Autosampler Location: 321**
Sample ID: VS17 ASPK TWC **Date Collected: 11/21/2012 12:50:23 PM**
Analyst: BA **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: VS17 ASPK TWC

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: VS17 ASPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2543517.7	104.5	%	0.06				0.05%
ScR 361.383	318529.6	104.4	%	0.36				0.35%
Ag 328.068†	91414.3	0.4969	mg/L	0.00049	0.4969	mg/L	0.00049	0.10%
Al 308.215†	3428.3	1.942	mg/L	0.0102	1.942	mg/L	0.0102	0.53%
As 188.979†	3485.8	1.888	mg/L	0.0054	1.888	mg/L	0.0054	0.28%
B 249.677†	345.2	0.04289	mg/L	0.000525	0.04289	mg/L	0.000525	1.22%
Ba 233.527†	9927.3	2.004	mg/L	0.0103	2.004	mg/L	0.0103	0.51%
Be 313.042†	285400.1	0.4538	mg/L	0.00255	0.4538	mg/L	0.00255	0.56%
Ca 317.933†	227330.2	16.11	mg/L	0.073	16.11	mg/L	0.073	0.46%
Cd 228.802†	14535.9	0.4766	mg/L	0.00154	0.4766	mg/L	0.00154	0.32%
Co 228.616†	18041.4	0.4727	mg/L	0.00123	0.4727	mg/L	0.00123	0.26%
Cr 267.716†	3091.2	0.4814	mg/L	0.00164	0.4814	mg/L	0.00164	0.34%
Cu 324.752†	127686.2	0.4831	mg/L	0.00085	0.4831	mg/L	0.00085	0.18%
Fe 273.955†	5856.1	4.580	mg/L	0.0158	4.580	mg/L	0.0158	0.35%
K 766.490†	22085.5	10.91	mg/L	0.030	10.91	mg/L	0.030	0.27%
Mg 279.077†	17460.2	12.13	mg/L	0.034	12.13	mg/L	0.034	0.28%
Mn 257.610†	21569.0	0.6080	mg/L	0.00169	0.6080	mg/L	0.00169	0.28%
Mo 202.031†	50.4	0.00228	mg/L	0.000148	0.00228	mg/L	0.000148	6.51%
Na 589.592†	212993.4	16.63	mg/L	0.017	16.63	mg/L	0.017	0.10%
Na 330.237†	497.1	16.96	mg/L	0.324	16.96	mg/L	0.324	1.91%
Ni 231.604†	2040.6	0.4725	mg/L	0.00170	0.4725	mg/L	0.00170	0.36%
Pb 220.353†	14991.4	1.878	mg/L	0.0097	1.878	mg/L	0.0097	0.52%
Sb 206.836†	15.1	-0.00062	mg/L	0.001776	-0.00062	mg/L	0.001776	286.06%
Se 196.026†	2689.0	1.872	mg/L	0.0067	1.872	mg/L	0.0067	0.36%
Si 288.158†	9867.7	4.653	mg/L	0.0186	4.653	mg/L	0.0186	0.40%
Sn 189.927†	-36.9	-0.00784	mg/L	0.001071	-0.00784	mg/L	0.001071	13.65%
Sr 421.552†	458952.1	0.5002	mg/L	0.00038	0.5002	mg/L	0.00038	0.08%
Ti 334.903†	93.2	0.00358	mg/L	0.000306	0.00358	mg/L	0.000306	8.56%
Tl 190.801†	4954.0	1.899	mg/L	0.0056	1.899	mg/L	0.0056	0.30%
V 292.402†	63327.7	0.4766	mg/L	0.00110	0.4766	mg/L	0.00110	0.23%
Zn 206.200†	1958.1	0.4941	mg/L	0.00175	0.4941	mg/L	0.00175	0.36%

Sequence No.: 27
Sample ID: VS17 MB1SPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 322
Date Collected: 11/21/2012 12:54:23 PM
Data Type: Original

Nebulizer Parameters: VS17 MB1SPK TWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS17 MB1SPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2562236.1	105.3	%	0.57				0.54%
ScR 361.383	318037.2	104.2	%	0.64				0.61%
Ag 328.068†	93845.1	0.5101	mg/L	0.00333	0.5101	mg/L	0.00333	0.65%
Al 308.215†	3315.3	1.878	mg/L	0.0161	1.878	mg/L	0.0161	0.86%
As 188.979†	3469.7	1.880	mg/L	0.0198	1.880	mg/L	0.0198	1.06%
B 249.677†	8.4	0.00009	mg/L	0.000783	0.00009	mg/L	0.000783	906.47%
Ba 233.527†	10003.0	2.019	mg/L	0.0185	2.019	mg/L	0.0185	0.91%
Be 313.042†	288188.1	0.4582	mg/L	0.00358	0.4582	mg/L	0.00358	0.78%
Ca 317.933†	130877.8	9.275	mg/L	0.0679	9.275	mg/L	0.0679	0.73%
Cd 228.802†	14585.6	0.4784	mg/L	0.00309	0.4784	mg/L	0.00309	0.65%
Co 228.616†	18143.2	0.4754	mg/L	0.00327	0.4754	mg/L	0.00327	0.69%
Cr 267.716†	3118.7	0.4859	mg/L	0.00414	0.4859	mg/L	0.00414	0.85%
Cu 324.752†	122420.6	0.4631	mg/L	0.00070	0.4631	mg/L	0.00070	0.15%
Fe 273.955†	2343.9	1.831	mg/L	0.0214	1.831	mg/L	0.0214	1.17%
K 766.490†	19258.7	9.516	mg/L	0.0806	9.516	mg/L	0.0806	0.85%
Mg 279.077†	14007.4	9.730	mg/L	0.1042	9.730	mg/L	0.1042	1.07%
Mn 257.610†	16406.2	0.4626	mg/L	0.00456	0.4626	mg/L	0.00456	0.99%
Mo 202.031†	17.7	0.00074	mg/L	0.000216	0.00074	mg/L	0.000216	29.14%
Na 589.592†	120683.3	9.422	mg/L	0.0565	9.422	mg/L	0.0565	0.60%
Na 330.237†	269.4	9.123	mg/L	0.0598	9.123	mg/L	0.0598	0.65%
Ni 231.604†	2073.9	0.4802	mg/L	0.00595	0.4802	mg/L	0.00595	1.24%
Pb 220.353†	15032.4	1.883	mg/L	0.0136	1.883	mg/L	0.0136	0.72%
Sb 206.836†	12.6	-0.00138	mg/L	0.001338	-0.00138	mg/L	0.001338	97.09%
Se 196.026†	2709.7	1.886	mg/L	0.0170	1.886	mg/L	0.0170	0.90%
Si 288.158†	21.3	0.01300	mg/L	0.007056	0.01300	mg/L	0.007056	54.29%
Sn 189.927†	-22.3	-0.00477	mg/L	0.000109	-0.00477	mg/L	0.000109	2.29%
Sr 421.552†	432545.2	0.4714	mg/L	0.00291	0.4714	mg/L	0.00291	0.62%
Ti 334.903†	11.6	0.00001	mg/L	0.000305	0.00001	mg/L	0.000305	>999.9%
Tl 190.801†	4947.5	1.896	mg/L	0.0156	1.896	mg/L	0.0156	0.82%
V 292.402†	63893.2	0.4809	mg/L	0.00302	0.4809	mg/L	0.00302	0.63%
Zn 206.200†	1892.8	0.4776	mg/L	0.00507	0.4776	mg/L	0.00507	1.06%

Sequence No.: 28
Sample ID: CV 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 12:58:23 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2485528.2	102.2	%	0.23				0.23%
ScR 361.383	310790.3	101.8	%	1.13				1.11%
Ag 328.068†	191667.4	1.042	mg/L	0.0022	1.042	mg/L	0.0022	0.21%
Al 308.215†	3607.7	2.016	mg/L	0.0236	2.016	mg/L	0.0236	1.17%
As 188.979†	3650.1	2.003	mg/L	0.0045	2.003	mg/L	0.0045	0.22%
B 249.677†	7883.5	1.001	mg/L	0.0129	1.001	mg/L	0.0129	1.29%
Ba 233.527†	5301.8	1.070	mg/L	0.0156	1.070	mg/L	0.0156	1.46%
Be 313.042†	597911.8	0.9507	mg/L	0.01681	0.9507	mg/L	0.01681	1.77%
Ca 317.933†	27453.1	1.945	mg/L	0.0280	1.945	mg/L	0.0280	1.44%
Cd 228.802†	29990.0	0.9962	mg/L	0.00124	0.9962	mg/L	0.00124	0.12%
Co 228.616†	39552.3	1.035	mg/L	0.0027	1.035	mg/L	0.0027	0.26%
Cr 267.716†	6623.4	1.034	mg/L	0.0111	1.034	mg/L	0.0111	1.07%
Cu 324.752†	271280.0	1.026	mg/L	0.0020	1.026	mg/L	0.0020	0.20%
Fe 273.955†	2521.6	1.966	mg/L	0.0202	1.966	mg/L	0.0202	1.03%
K 766.490†	40873.8	20.20	mg/L	0.256	20.20	mg/L	0.256	1.27%
Mg 279.077†	2928.4	2.041	mg/L	0.0259	2.041	mg/L	0.0259	1.27%
Mn 257.610†	33869.4	0.9546	mg/L	0.01550	0.9546	mg/L	0.01550	1.62%
Mo 202.031†	20704.1	1.018	mg/L	0.0024	1.018	mg/L	0.0024	0.23%
Na 589.592†	651941.7	50.90	mg/L	0.684	50.90	mg/L	0.684	1.34%
Na 330.237†	1497.7	51.49	mg/L	0.439	51.49	mg/L	0.439	0.85%
Ni 231.604†	4386.6	1.018	mg/L	0.0111	1.018	mg/L	0.0111	1.09%
Pb 220.353†	16394.6	2.054	mg/L	0.0054	2.054	mg/L	0.0054	0.27%
Sb 206.836†	7042.2	2.100	mg/L	0.0052	2.100	mg/L	0.0052	0.25%
Se 196.026†	2808.1	1.954	mg/L	0.0069	1.954	mg/L	0.0069	0.35%
Si 288.158†	4493.8	2.117	mg/L	0.0295	2.117	mg/L	0.0295	1.39%
Sn 189.927†	3685.1	0.9902	mg/L	0.00321	0.9902	mg/L	0.00321	0.32%
Sr 421.552†	909709.3	0.9915	mg/L	0.01332	0.9915	mg/L	0.01332	1.34%
Ti 334.903†	21362.9	1.018	mg/L	0.0161	1.018	mg/L	0.0161	1.59%
Tl 190.801†	5239.1	2.004	mg/L	0.0015	2.004	mg/L	0.0015	0.07%
V 292.402†	136504.1	1.027	mg/L	0.0013	1.027	mg/L	0.0013	0.12%
Zn 206.200†	4114.8	1.038	mg/L	0.0133	1.038	mg/L	0.0133	1.29%

Sequence No.: 29
Sample ID: CB 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 1:03:31 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2503906.9	102.9	%	0.19				0.18%
ScR 361.383	315658.8	103.4	%	0.96				0.92%
Ag 328.068†	35.3	0.00019	mg/L	0.000096	0.00019	mg/L	0.000096	50.31%
Al 308.215†	7.4	0.00417	mg/L	0.008703	0.00417	mg/L	0.008703	208.72%
As 188.979†	-0.5	-0.00027	mg/L	0.002338	-0.00027	mg/L	0.002338	864.95%
B 249.677†	12.0	0.00153	mg/L	0.001189	0.00153	mg/L	0.001189	77.83%
Ba 233.527†	-0.8	-0.00017	mg/L	0.000801	-0.00017	mg/L	0.000801	475.51%
Be 313.042†	142.4	0.00023	mg/L	0.000063	0.00023	mg/L	0.000063	27.71%
Ca 317.933†	61.9	0.00439	mg/L	0.000666	0.00439	mg/L	0.000666	15.18%
Cd 228.802†	10.0	0.00034	mg/L	0.000070	0.00034	mg/L	0.000070	20.61%
Co 228.616†	11.9	0.00031	mg/L	0.000055	0.00031	mg/L	0.000055	17.45%
Cr 267.716†	-3.4	-0.00053	mg/L	0.000481	-0.00053	mg/L	0.000481	91.31%
Cu 324.752†	260.7	0.00099	mg/L	0.000028	0.00099	mg/L	0.000028	2.83%
Fe 273.955†	-0.2	-0.00018	mg/L	0.002694	-0.00018	mg/L	0.002694	>999.9%
K 766.490†	4.7	0.00235	mg/L	0.009837	0.00235	mg/L	0.009837	419.11%
Mg 279.077†	-3.5	-0.00242	mg/L	0.003491	-0.00242	mg/L	0.003491	144.39%
Mn 257.610†	1.9	0.00005	mg/L	0.000199	0.00005	mg/L	0.000199	370.30%
Mo 202.031†	18.8	0.00092	mg/L	0.000113	0.00092	mg/L	0.000113	12.23%
Na 589.592†	96.8	0.00755	mg/L	0.004126	0.00755	mg/L	0.004126	54.62%
Na 330.237†	-8.9	-0.3065	mg/L	0.27774	-0.3065	mg/L	0.27774	90.63%
Ni 231.604†	-3.8	-0.00088	mg/L	0.000299	-0.00088	mg/L	0.000299	33.98%
Pb 220.353†	1.2	0.00014	mg/L	0.000721	0.00014	mg/L	0.000721	497.50%
Sb 206.836†	2.2	0.00067	mg/L	0.001662	0.00067	mg/L	0.001662	247.62%
Se 196.026†	8.6	0.00602	mg/L	0.002119	0.00602	mg/L	0.002119	35.19%
Si 288.158†	9.2	0.00434	mg/L	0.005285	0.00434	mg/L	0.005285	121.80%
Sn 189.927†	2.5	0.00068	mg/L	0.000861	0.00068	mg/L	0.000861	126.19%
Sr 421.552†	181.6	0.00020	mg/L	0.000065	0.00020	mg/L	0.000065	33.08%
Ti 334.903†	-4.2	-0.00020	mg/L	0.000719	-0.00020	mg/L	0.000719	357.56%
Tl 190.801†	5.1	0.00195	mg/L	0.002219	0.00195	mg/L	0.002219	113.61%
V 292.402†	0.6	0.00000	mg/L	0.000088	0.00000	mg/L	0.000088	>999.9%
Zn 206.200†	7.9	0.00199	mg/L	0.000647	0.00199	mg/L	0.000647	32.55%

Sequence No.: 30
Sample ID: VR38 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 323
Date Collected: 11/21/2012 1:07:46 PM
Data Type: Original

Nebulizer Parameters: VR38 MB1 SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR38 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2516492.8	103.4	%	0.22				0.22%
ScR 361.383	320066.6	104.9	%	0.60				0.58%
Ag 328.068†	10.8	0.00006	mg/L	0.000090	0.00012	mg/L	0.000180	153.51%
Al 308.215†	-5.4	-0.00308	mg/L	0.006718	-0.00616	mg/L	0.013435	218.21%
As 188.979†	-1.6	-0.00083	mg/L	0.001914	-0.00167	mg/L	0.003829	229.79%
B 249.677†	7.7	0.00098	mg/L	0.000555	0.00196	mg/L	0.001110	56.61%
Ba 233.527†	-2.0	-0.00040	mg/L	0.000223	-0.00080	mg/L	0.000446	55.74%
Be 313.042†	12.7	0.00002	mg/L	0.000035	0.00004	mg/L	0.000070	173.63%
Ca 317.933†	24.6	0.00174	mg/L	0.000796	0.00349	mg/L	0.001592	45.64%
Cd 228.802†	7.3	0.00025	mg/L	0.000030	0.00050	mg/L	0.000061	12.20%
Co 228.616†	0.9	0.00002	mg/L	0.000026	0.00005	mg/L	0.000053	111.64%
Cr 267.716†	0.5	0.00008	mg/L	0.000123	0.00016	mg/L	0.000246	150.58%
Cu 324.752†	264.9	0.00100	mg/L	0.000030	0.00200	mg/L	0.000060	3.01%
Fe 273.955†	1.7	0.00135	mg/L	0.000657	0.00269	mg/L	0.001314	48.82%
K 766.490†	-6.5	-0.00322	mg/L	0.014988	-0.00644	mg/L	0.029977	465.74%
Mg 279.077†	0.7	0.00049	mg/L	0.003302	0.00099	mg/L	0.006604	668.86%
Mn 257.610†	-3.5	-0.00010	mg/L	0.000032	-0.00020	mg/L	0.000064	32.68%
Mo 202.031†	0.4	0.00002	mg/L	0.000405	0.00004	mg/L	0.000811	>999.9%
Na 589.592†	-46.1	-0.00360	mg/L	0.002803	-0.00720	mg/L	0.005606	77.84%
Na 330.237†	-9.8	-0.3397	mg/L	0.37905	-0.6794	mg/L	0.75810	111.59%
Ni 231.604†	-5.4	-0.00126	mg/L	0.001042	-0.00252	mg/L	0.002083	82.65%
Pb 220.353†	4.3	0.00054	mg/L	0.000653	0.00108	mg/L	0.001305	120.33%
Sb 206.836†	1.6	0.00049	mg/L	0.001207	0.00097	mg/L	0.002413	248.54%
Se 196.026†	3.8	0.00261	mg/L	0.001806	0.00523	mg/L	0.003612	69.10%
Si 288.158†	5.5	0.00258	mg/L	0.001070	0.00515	mg/L	0.002140	41.52%
Sn 189.927†	0.6	0.00017	mg/L	0.001207	0.00033	mg/L	0.002413	725.69%
Sr 421.552†	-21.2	-0.00002	mg/L	0.000028	-0.00005	mg/L	0.000056	120.57%
Ti 334.903†	13.1	0.00062	mg/L	0.000445	0.00125	mg/L	0.000890	71.20%
Tl 190.801†	-0.4	-0.00015	mg/L	0.000993	-0.00029	mg/L	0.001987	680.67%
V 292.402†	-26.4	-0.00020	mg/L	0.000079	-0.00040	mg/L	0.000157	39.76%
Zn 206.200†	9.9	0.00251	mg/L	0.000083	0.00502	mg/L	0.000167	3.32%

Sequence No.: 31
Sample ID: VR38 B SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 324
Date Collected: 11/21/2012 1:12:03 PM
Data Type: Original

Nebulizer Parameters: VR38 B SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2525813.4	103.8	%	0.26				0.25%
ScR 361.383	323211.5	105.9	%	1.48				1.40%
Ag 328.068†	-77.4	-0.00037	mg/L	0.000065	-0.00073	mg/L	0.000129	17.61%
Al 308.215†	98646.5	56.06	mg/L	0.868	112.1	mg/L	1.74	1.55%
As 188.979†	-237.9	0.00243	mg/L	0.003804	0.00486	mg/L	0.007608	156.66%
B 249.677†	69.1	0.00870	mg/L	0.000950	0.01739	mg/L	0.001899	10.92%
Ba 233.527†	1235.3	0.2363	mg/L	0.00352	0.4726	mg/L	0.00703	1.49%
Be 313.042†	540.0	0.00077	mg/L	0.000030	0.00153	mg/L	0.000061	3.97%
Ca 317.933†	371282.5	26.31	mg/L	0.384	52.62	mg/L	0.768	1.46%
Cd 228.802†	46.9	0.00184	mg/L	0.000122	0.00367	mg/L	0.000244	6.63%
Co 228.616†	1656.4	0.03335	mg/L	0.000273	0.06670	mg/L	0.000547	0.82%
Cr 267.716†	1163.3	0.1817	mg/L	0.00236	0.3634	mg/L	0.00471	1.30%
Cu 324.752†	10817.9	0.04324	mg/L	0.000083	0.08648	mg/L	0.000166	0.19%
Fe 273.955†	102043.1	79.86	mg/L	1.669	159.7	mg/L	3.34	2.09%
K 766.490†	5518.8	2.727	mg/L	0.0644	5.454	mg/L	0.1288	2.36%
Mg 279.077†	44136.2	30.61	mg/L	0.460	61.23	mg/L	0.919	1.50%
Mn 257.610†	44306.9	1.248	mg/L	0.0234	2.497	mg/L	0.0469	1.88%
Mo 202.031†	36.4	0.00149	mg/L	0.000172	0.00299	mg/L	0.000343	11.49%
Na 589.592†	18526.6	1.446	mg/L	0.0230	2.893	mg/L	0.0460	1.59%
Na 330.237†	13.8	1.430	mg/L	0.1955	2.861	mg/L	0.3911	13.67%
Ni 231.604†	796.1	0.1847	mg/L	0.00349	0.3693	mg/L	0.00697	1.89%
Pb 220.353†	196.1	0.03497	mg/L	0.000880	0.06994	mg/L	0.001760	2.52%
Sb 206.836†	3.2	0.00098	mg/L	0.000725	0.00197	mg/L	0.001450	73.70%
Se 196.026†	18.8	0.01294	mg/L	0.000844	0.02589	mg/L	0.001688	6.52%
Si 288.158†	8035.3	3.790	mg/L	0.0593	7.580	mg/L	0.1186	1.56%
Sn 189.927†	-49.2	-0.00927	mg/L	0.001840	-0.01854	mg/L	0.003681	19.85%
Sr 421.552†	110528.2	0.1205	mg/L	0.00178	0.2409	mg/L	0.00356	1.48%
Ti 334.903†	97490.5	4.650	mg/L	0.0697	9.300	mg/L	0.1394	1.50%
Tl 190.801†	-20.9	-0.00045	mg/L	0.000752	-0.00091	mg/L	0.001503	165.93%
V 292.402†	25098.7	0.1836	mg/L	0.00051	0.3673	mg/L	0.00101	0.28%
Zn 206.200†	1261.2	0.3182	mg/L	0.00495	0.6364	mg/L	0.00991	1.56%

Sequence No.: 32
Sample ID: VR38 C SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 325
Date Collected: 11/21/2012 1:16:03 PM
Data Type: Original

Nebulizer Parameters: VR38 C SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR38 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2503886.7	102.9	%	0.20				0.19%
ScR 361.383	325768.8	106.8	%	0.90				0.84%
Ag 328.068†	-81.1	-0.00039	mg/L	0.000058	-0.00079	mg/L	0.000117	14.79%
Al 308.215†	96555.0	54.87	mg/L	0.637	109.7	mg/L	1.27	1.16%
As 188.979†	-200.2	0.01442	mg/L	0.001229	0.02884	mg/L	0.002459	8.53%
B 249.677†	87.9	0.01108	mg/L	0.000442	0.02216	mg/L	0.000885	3.99%
Ba 233.527†	1719.6	0.3344	mg/L	0.00110	0.6688	mg/L	0.00221	0.33%
Be 313.042†	500.3	0.00071	mg/L	0.000020	0.00142	mg/L	0.000040	2.83%
Ca 317.933†	376690.7	26.69	mg/L	0.246	53.39	mg/L	0.493	0.92%
Cd 228.802†	64.1	0.00230	mg/L	0.000079	0.00460	mg/L	0.000158	3.44%
Co 228.616†	1749.8	0.03639	mg/L	0.000310	0.07277	mg/L	0.000620	0.85%
Cr 267.716†	1073.8	0.1678	mg/L	0.00174	0.3357	mg/L	0.00348	1.04%
Cu 324.752†	14115.1	0.05571	mg/L	0.000223	0.1114	mg/L	0.00045	0.40%
Fe 273.955†	99660.0	77.99	mg/L	0.816	156.0	mg/L	1.63	1.05%
K 766.490†	5888.5	2.910	mg/L	0.0377	5.819	mg/L	0.0755	1.30%
Mg 279.077†	41144.7	28.54	mg/L	0.293	57.07	mg/L	0.586	1.03%
Mn 257.610†	39563.9	1.115	mg/L	0.0109	2.230	mg/L	0.0218	0.98%
Mo 202.031†	43.3	0.00183	mg/L	0.000077	0.00366	mg/L	0.000155	4.22%
Na 589.592†	22502.0	1.757	mg/L	0.0196	3.513	mg/L	0.0392	1.12%
Na 330.237†	24.2	1.686	mg/L	0.1208	3.372	mg/L	0.2416	7.17%
Ni 231.604†	798.3	0.1852	mg/L	0.00085	0.3704	mg/L	0.00170	0.46%
Pb 220.353†	473.3	0.06944	mg/L	0.000598	0.1389	mg/L	0.00120	0.86%
Sb 206.836†	12.5	0.00370	mg/L	0.000819	0.00740	mg/L	0.001638	22.14%
Se 196.026†	13.9	0.00959	mg/L	0.002331	0.01917	mg/L	0.004663	24.32%
Si 288.158†	8513.9	4.015	mg/L	0.0263	8.030	mg/L	0.0526	0.66%
Sn 189.927†	-52.9	-0.01028	mg/L	0.000961	-0.02055	mg/L	0.001923	9.36%
Sr 421.552†	158136.7	0.1723	mg/L	0.00174	0.3447	mg/L	0.00349	1.01%
Ti 334.903†	91328.7	4.356	mg/L	0.0483	8.712	mg/L	0.0967	1.11%
Tl 190.801†	-17.4	0.00080	mg/L	0.002147	0.00160	mg/L	0.004294	269.11%
V 292.402†	21550.7	0.1572	mg/L	0.00052	0.3144	mg/L	0.00104	0.33%
Zn 206.200†	1681.8	0.4243	mg/L	0.00274	0.8486	mg/L	0.00548	0.65%

Sequence No.: 33
Sample ID: VR38 D SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 326
Date Collected: 11/21/2012 1:20:03 PM
Data Type: Original

Nebulizer Parameters: VR38 D SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2545104.8	104.6	%	0.71				0.68%
ScR 361.383	322065.7	105.5	%	1.27				1.20%
Ag 328.068†	110.2	0.00063	mg/L	0.000245	0.00126	mg/L	0.000489	38.78%
Al 308.215†	71487.2	40.63	mg/L	0.531	81.26	mg/L	1.063	1.31%
As 188.979†	-66.1	0.04847	mg/L	0.000864	0.09695	mg/L	0.001727	1.78%
B 249.677†	74.8	0.00942	mg/L	0.000713	0.01884	mg/L	0.001427	7.58%
Ba 233.527†	2069.4	0.4038	mg/L	0.00429	0.8076	mg/L	0.00858	1.06%
Be 313.042†	428.6	0.00062	mg/L	0.000026	0.00125	mg/L	0.000053	4.24%
Ca 317.933†	481198.5	34.10	mg/L	0.372	68.20	mg/L	0.743	1.09%
Cd 228.802†	89.5	0.00256	mg/L	0.000194	0.00512	mg/L	0.000389	7.59%
Co 228.616†	1676.6	0.03695	mg/L	0.000536	0.07391	mg/L	0.001071	1.45%
Cr 267.716†	879.6	0.1381	mg/L	0.00138	0.2763	mg/L	0.00276	1.00%
Cu 324.752†	19966.0	0.07849	mg/L	0.000324	0.1570	mg/L	0.00065	0.41%
Fe 273.955†	109189.2	85.45	mg/L	0.609	170.9	mg/L	1.22	0.71%
K 766.490†	5165.4	2.552	mg/L	0.0471	5.105	mg/L	0.0941	1.84%
Mg 279.077†	32657.9	22.64	mg/L	0.219	45.28	mg/L	0.438	0.97%
Mn 257.610†	89194.2	2.513	mg/L	0.0201	5.026	mg/L	0.0402	0.80%
Mo 202.031†	56.7	0.00241	mg/L	0.000058	0.00482	mg/L	0.000115	2.40%
Na 589.592†	19593.4	1.530	mg/L	0.0182	3.059	mg/L	0.0364	1.19%
Na 330.237†	31.0	1.556	mg/L	0.3558	3.113	mg/L	0.7115	22.86%
Ni 231.604†	609.0	0.1413	mg/L	0.00144	0.2825	mg/L	0.00288	1.02%
Pb 220.353†	625.3	0.08466	mg/L	0.000750	0.1693	mg/L	0.00150	0.89%
Sb 206.836†	6.8	0.00165	mg/L	0.001768	0.00330	mg/L	0.003536	107.07%
Se 196.026†	11.4	0.00783	mg/L	0.005615	0.01565	mg/L	0.011231	71.76%
Si 288.158†	7070.0	3.334	mg/L	0.0359	6.668	mg/L	0.0719	1.08%
Sn 189.927†	-53.8	-0.00977	mg/L	0.000871	-0.01955	mg/L	0.001743	8.91%
Sr 421.552†	229921.6	0.2506	mg/L	0.00285	0.5012	mg/L	0.00570	1.14%
Ti 334.903†	63315.3	3.019	mg/L	0.0333	6.038	mg/L	0.0667	1.10%
Tl 190.801†	-14.8	0.00279	mg/L	0.002206	0.00557	mg/L	0.004411	79.14%
V 292.402†	14670.0	0.1062	mg/L	0.00081	0.2124	mg/L	0.00162	0.76%
Zn 206.200†	2398.0	0.6050	mg/L	0.00680	1.210	mg/L	0.0136	1.12%

Sequence No.: 34
Sample ID: VR38 E SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 327
Date Collected: 11/21/2012 1:24:03 PM
Data Type: Original

Nebulizer Parameters: VR38 E SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR38 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2502556.9	102.9	%	0.38				0.37%
ScR 361.383	316754.6	103.8	%	0.96				0.92%
Ag 328.068†	-155.0	-0.00069	mg/L	0.000059	-0.00138	mg/L	0.000117	8.51%
Al 308.215†	362786.9	206.2	mg/L	2.22	412.4	mg/L	4.43	1.08%
As 188.979†	-580.8	-0.00476	mg/L	0.006450	-0.00952	mg/L	0.012900	135.56%
B 249.677†	226.2	0.02843	mg/L	0.001047	0.05686	mg/L	0.002093	3.68%
Ba 233.527†	1746.2	0.3117	mg/L	0.00229	0.6233	mg/L	0.00457	0.73%
Be 313.042†	788.8	0.00101	mg/L	0.000018	0.00203	mg/L	0.000037	1.81%
Ca 317.933†	1740321.8	123.3	mg/L	1.63	246.7	mg/L	3.26	1.32%
Cd 228.802†	88.4	0.00293	mg/L	0.000073	0.00585	mg/L	0.000145	2.48%
Co 228.616†	5896.1	0.1298	mg/L	0.00068	0.2597	mg/L	0.00136	0.52%
Cr 267.716†	1035.3	0.1632	mg/L	0.00161	0.3264	mg/L	0.00321	0.98%
Cu 324.752†	465847.7	1.770	mg/L	0.0030	3.540	mg/L	0.0059	0.17%
Fe 273.955†	318398.6	249.2	mg/L	3.43	498.3	mg/L	6.87	1.38%
K 766.490†	8066.5	3.986	mg/L	0.0514	7.972	mg/L	0.1027	1.29%
Mg 279.077†	110247.2	76.44	mg/L	1.068	152.9	mg/L	2.14	1.40%
Mn 257.610†	129385.0	3.646	mg/L	0.0470	7.291	mg/L	0.0939	1.29%
Mo 202.031†	58.0	0.00151	mg/L	0.000188	0.00302	mg/L	0.000377	12.47%
Na 589.592†	309908.5	24.19	mg/L	0.211	48.39	mg/L	0.421	0.87%
Na 330.237†	645.1	24.57	mg/L	0.038	49.13	mg/L	0.075	0.15%
Ni 231.604†	1262.4	0.2928	mg/L	0.00295	0.5857	mg/L	0.00589	1.01%
Pb 220.353†	-71.4	0.02797	mg/L	0.001671	0.05594	mg/L	0.003341	5.97%
Sb 206.836†	27.4	0.01253	mg/L	0.003208	0.02506	mg/L	0.006415	25.60%
Se 196.026†	41.0	0.02819	mg/L	0.002746	0.05639	mg/L	0.005492	9.74%
Si 288.158†	10539.0	4.975	mg/L	0.0445	9.951	mg/L	0.0891	0.90%
Sn 189.927†	-100.6	-0.01014	mg/L	0.001052	-0.02029	mg/L	0.002105	10.37%
Sr 421.552†	455242.4	0.4962	mg/L	0.00475	0.9923	mg/L	0.00950	0.96%
Ti 334.903†	232363.0	11.08	mg/L	0.125	22.16	mg/L	0.250	1.13%
Tl 190.801†	-60.6	0.00060	mg/L	0.001509	0.00121	mg/L	0.003018	250.24%
V 292.402†	71031.5	0.5186	mg/L	0.00130	1.037	mg/L	0.0026	0.25%
Zn 206.200†	2190.1	0.5525	mg/L	0.00551	1.105	mg/L	0.0110	1.00%

Sequence No.: 35
Sample ID: VR38 ADUP SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 328
Date Collected: 11/21/2012 1:27:51 PM
Data Type: Original

Nebulizer Parameters: VR38 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2576196.4	105.9	%	0.30				0.28%
ScR 361.383	327597.3	107.3	%	0.41				0.38%
Ag 328.068†	-16.2	-0.00004	mg/L	0.000308	-0.00008	mg/L	0.000616	732.12%
Al 308.215†	84986.4	48.30	mg/L	0.907	96.60	mg/L	1.815	1.88%
As 188.979†	-190.4	0.00878	mg/L	0.002992	0.01756	mg/L	0.005984	34.08%
B 249.677†	55.4	0.00697	mg/L	0.000327	0.01393	mg/L	0.000655	4.70%
Ba 233.527†	940.6	0.1782	mg/L	0.00310	0.3564	mg/L	0.00621	1.74%
Be 313.042†	434.8	0.00061	mg/L	0.000008	0.00122	mg/L	0.000015	1.25%
Ca 317.933†	351847.1	24.93	mg/L	0.432	49.87	mg/L	0.864	1.73%
Cd 228.802†	30.9	0.00118	mg/L	0.000319	0.00237	mg/L	0.000637	26.92%
Co 228.616†	1338.5	0.02645	mg/L	0.000865	0.05290	mg/L	0.001731	3.27%
Cr 267.716†	1311.2	0.2046	mg/L	0.00220	0.4093	mg/L	0.00440	1.07%
Cu 324.752†	7576.9	0.03076	mg/L	0.001075	0.06152	mg/L	0.002151	3.50%
Fe 273.955†	91239.7	71.40	mg/L	1.139	142.8	mg/L	2.28	1.59%
K 766.490†	4712.3	2.328	mg/L	0.0166	4.657	mg/L	0.0331	0.71%
Mg 279.077†	41627.2	28.88	mg/L	0.508	57.75	mg/L	1.017	1.76%
Mn 257.610†	48078.3	1.355	mg/L	0.0215	2.709	mg/L	0.0429	1.58%
Mo 202.031†	31.5	0.00127	mg/L	0.000265	0.00254	mg/L	0.000530	20.88%
Na 589.592†	16064.4	1.254	mg/L	0.0220	2.508	mg/L	0.0441	1.76%
Na 330.237†	13.7	1.293	mg/L	0.1886	2.585	mg/L	0.3771	14.59%
Ni 231.604†	683.5	0.1585	mg/L	0.00287	0.3171	mg/L	0.00574	1.81%
Pb 220.353†	119.9	0.02398	mg/L	0.000895	0.04797	mg/L	0.001790	3.73%
Sb 206.836†	11.7	0.00276	mg/L	0.001531	0.00552	mg/L	0.003062	55.47%
Se 196.026†	15.2	0.01047	mg/L	0.002258	0.02095	mg/L	0.004516	21.56%
Si 288.158†	10364.2	4.887	mg/L	0.0783	9.774	mg/L	0.1565	1.60%
Sn 189.927†	-46.9	-0.00892	mg/L	0.001471	-0.01784	mg/L	0.002942	16.49%
Sr 421.552†	89552.5	0.09760	mg/L	0.001725	0.1952	mg/L	0.00345	1.77%
Ti 334.903†	83263.0	3.971	mg/L	0.0722	7.942	mg/L	0.1444	1.82%
Tl 190.801†	-11.3	0.00247	mg/L	0.001390	0.00494	mg/L	0.002779	56.21%
V 292.402†	21326.1	0.1562	mg/L	0.00543	0.3123	mg/L	0.01086	3.48%
Zn 206.200†	1012.0	0.2553	mg/L	0.00414	0.5106	mg/L	0.00827	1.62%

Sequence No.: 36
Sample ID: VR38 A SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 329
Date Collected: 11/21/2012 1:31:51 PM
Data Type: Original

Nebulizer Parameters: VR38 A SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2549000.1	104.8	%	0.60				0.58%
ScR 361.383	327248.5	107.2	%	0.99				0.92%
Ag 328.068†	-88.8	-0.00043	mg/L	0.000219	-0.00085	mg/L	0.000437	51.21%
Al 308.215†	99658.7	56.64	mg/L	0.264	113.3	mg/L	0.53	0.47%
As 188.979†	-248.6	0.00155	mg/L	0.004217	0.00310	mg/L	0.008434	271.75%
B 249.677†	69.0	0.00868	mg/L	0.000307	0.01737	mg/L	0.000615	3.54%
Ba 233.527†	1066.8	0.2024	mg/L	0.00091	0.4048	mg/L	0.00181	0.45%
Be 313.042†	514.8	0.00072	mg/L	0.000012	0.00144	mg/L	0.000024	1.68%
Ca 317.933†	434038.3	30.76	mg/L	0.204	61.52	mg/L	0.407	0.66%
Cd 228.802†	40.3	0.00164	mg/L	0.000097	0.00328	mg/L	0.000194	5.92%
Co 228.616†	1577.2	0.03094	mg/L	0.000477	0.06189	mg/L	0.000954	1.54%
Cr 267.716†	923.1	0.1442	mg/L	0.00069	0.2885	mg/L	0.00139	0.48%
Cu 324.752†	8555.1	0.03462	mg/L	0.000226	0.06924	mg/L	0.000452	0.65%
Fe 273.955†	101062.1	79.09	mg/L	0.661	158.2	mg/L	1.32	0.84%
K 766.490†	5016.2	2.479	mg/L	0.0315	4.957	mg/L	0.0631	1.27%
Mg 279.077†	41893.4	29.06	mg/L	0.131	58.11	mg/L	0.263	0.45%
Mn 257.610†	53393.2	1.504	mg/L	0.0097	3.009	mg/L	0.0193	0.64%
Mo 202.031†	43.1	0.00178	mg/L	0.000202	0.00356	mg/L	0.000404	11.34%
Na 589.592†	18375.1	1.435	mg/L	0.0059	2.869	mg/L	0.0119	0.41%
Na 330.237†	10.3	1.363	mg/L	0.3211	2.725	mg/L	0.6423	23.57%
Ni 231.604†	707.1	0.1640	mg/L	0.00082	0.3280	mg/L	0.00164	0.50%
Pb 220.353†	157.2	0.03021	mg/L	0.000381	0.06043	mg/L	0.000762	1.26%
Sb 206.836†	8.9	0.00331	mg/L	0.001793	0.00661	mg/L	0.003585	54.21%
Se 196.026†	16.4	0.01127	mg/L	0.005229	0.02254	mg/L	0.010457	46.40%
Si 288.158†	8836.0	4.167	mg/L	0.0240	8.334	mg/L	0.0479	0.58%
Sn 189.927†	-55.6	-0.01043	mg/L	0.000751	-0.02085	mg/L	0.001503	7.21%
Sr 421.552†	100389.2	0.1094	mg/L	0.00060	0.2188	mg/L	0.00120	0.55%
Ti 334.903†	101259.0	4.829	mg/L	0.0248	9.659	mg/L	0.0496	0.51%
Tl 190.801†	-17.3	0.00088	mg/L	0.002270	0.00177	mg/L	0.004540	257.15%
V 292.402†	25785.9	0.1886	mg/L	0.00137	0.3772	mg/L	0.00274	0.73%
Zn 206.200†	1096.2	0.2766	mg/L	0.00022	0.5531	mg/L	0.00043	0.08%

Sequence No.: 37
Sample ID: VR38 ASPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 330
Date Collected: 11/21/2012 1:35:51 PM
Data Type: Original

Nebulizer Parameters: VR38 ASPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2553897.9	105.0	%	0.28				0.27%
ScR 361.383	323143.7	105.9	%	1.00				0.95%
Ag 328.068†	89461.3	0.4863	mg/L	0.00248	0.9726	mg/L	0.00495	0.51%
Al 308.215†	90957.7	51.69	mg/L	0.410	103.4	mg/L	0.82	0.79%
As 188.979†	3333.3	1.902	mg/L	0.0091	3.803	mg/L	0.0181	0.48%
B 249.677†	63.4	0.00696	mg/L	0.000320	0.01393	mg/L	0.000641	4.60%
Ba 233.527†	11057.3	2.221	mg/L	0.0217	4.441	mg/L	0.0433	0.98%
Be 313.042†	293674.1	0.4669	mg/L	0.00342	0.9338	mg/L	0.00685	0.73%
Ca 317.933†	489649.3	34.70	mg/L	0.228	69.40	mg/L	0.457	0.66%
Cd 228.802†	15126.2	0.4965	mg/L	0.00234	0.9930	mg/L	0.00468	0.47%
Co 228.616†	20296.7	0.5244	mg/L	0.00323	1.049	mg/L	0.0065	0.62%
Cr 267.716†	4074.7	0.6351	mg/L	0.00624	1.270	mg/L	0.0125	0.98%
Cu 324.752†	137232.7	0.5214	mg/L	0.00343	1.043	mg/L	0.0069	0.66%
Fe 273.955†	93097.7	72.85	mg/L	0.519	145.7	mg/L	1.04	0.71%
K 766.490†	22595.2	11.16	mg/L	0.077	22.33	mg/L	0.154	0.69%
Mg 279.077†	55687.1	38.64	mg/L	0.326	77.28	mg/L	0.651	0.84%
Mn 257.610†	65125.4	1.835	mg/L	0.0118	3.671	mg/L	0.0236	0.64%
Mo 202.031†	50.2	0.00206	mg/L	0.000273	0.00412	mg/L	0.000547	13.27%
Na 589.592†	135820.9	10.60	mg/L	0.076	21.21	mg/L	0.151	0.71%
Na 330.237†	295.1	10.70	mg/L	0.187	21.40	mg/L	0.375	1.75%
Ni 231.604†	2780.6	0.6447	mg/L	0.00632	1.289	mg/L	0.0126	0.98%
Pb 220.353†	15612.0	1.965	mg/L	0.0101	3.929	mg/L	0.0201	0.51%
Sb 206.836†	3217.3	0.9551	mg/L	0.00583	1.910	mg/L	0.0117	0.61%
Se 196.026†	2717.2	1.891	mg/L	0.0167	3.782	mg/L	0.0334	0.88%
Si 288.158†	10326.9	4.872	mg/L	0.0419	9.745	mg/L	0.0837	0.86%
Sn 189.927†	34.3	0.01449	mg/L	0.001377	0.02899	mg/L	0.002754	9.50%
Sr 421.552†	520641.2	0.5674	mg/L	0.00454	1.135	mg/L	0.0091	0.80%
Ti 334.903†	71422.0	3.406	mg/L	0.0263	6.811	mg/L	0.0525	0.77%
Tl 190.801†	4876.5	1.876	mg/L	0.0060	3.752	mg/L	0.0120	0.32%
V 292.402†	85703.3	0.6408	mg/L	0.00362	1.282	mg/L	0.0072	0.57%
Zn 206.200†	2913.5	0.7351	mg/L	0.00765	1.470	mg/L	0.0153	1.04%

Sequence No.: 38 ZZZZZZ
Sample ID: ~~VR38 APOST SWC~~ BA
Analyst: BA 11/21/12
Dilution: 2.000000X

Autosampler Location: 331
Date Collected: 11/21/2012 1:39:38 PM
Data Type: Original

Nebulizer Parameters: VR38 APOST SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2538643.8	104.3	%	0.17				0.17%
ScR 361.383	325973.1	106.8	%	1.01				0.94%
Ag 328.068†	94262.7	0.5124	mg/L	0.00175	1.025	mg/L	0.0035	0.34%
Al 308.215†	102549.7	58.27	mg/L	0.262	116.5	mg/L	0.52	0.45%
As 188.979†	3498.4	2.031	mg/L	0.0151	4.061	mg/L	0.0301	0.74%
B 249.677†	75.1	0.00838	mg/L	0.000631	0.01676	mg/L	0.001263	7.54%
Ba 233.527†	11581.9	2.325	mg/L	0.0198	4.651	mg/L	0.0395	0.85%
Be 313.042†	301373.7	0.4791	mg/L	0.00421	0.9582	mg/L	0.00843	0.88%
Ca 317.933†	571971.4	40.53	mg/L	0.274	81.07	mg/L	0.548	0.68%
Cd 228.802†	16121.0	0.5293	mg/L	0.00273	1.059	mg/L	0.0055	0.52%
Co 228.616†	21681.0	0.5579	mg/L	0.00318	1.116	mg/L	0.0064	0.57%
Cr 267.716†	4205.6	0.6557	mg/L	0.00476	1.311	mg/L	0.0095	0.73%
Cu 324.752†	146610.1	0.5569	mg/L	0.00176	1.114	mg/L	0.0035	0.32%
Fe 273.955†	102237.4	80.00	mg/L	0.340	160.0	mg/L	0.68	0.43%
K 766.490†	24980.2	12.34	mg/L	0.124	24.69	mg/L	0.248	1.00%
Mg 279.077†	55971.2	38.84	mg/L	0.248	77.67	mg/L	0.497	0.64%
Mn 257.610†	69461.8	1.958	mg/L	0.0115	3.915	mg/L	0.0231	0.59%
Mo 202.031†	51.0	0.00203	mg/L	0.000208	0.00407	mg/L	0.000415	10.22%
Na 589.592†	143542.5	11.21	mg/L	0.113	22.41	mg/L	0.227	1.01%
Na 330.237†	308.2	11.45	mg/L	0.151	22.91	mg/L	0.303	1.32%
Ni 231.604†	2875.6	0.6661	mg/L	0.00433	1.332	mg/L	0.0087	0.65%
Pb 220.353†	16577.6	2.087	mg/L	0.0095	4.174	mg/L	0.0190	0.46%
Sb 206.836†	31.0	0.00452	mg/L	0.000976	0.00904	mg/L	0.001953	21.60%
Se 196.026†	2939.0	2.046	mg/L	0.0125	4.091	mg/L	0.0251	0.61%
Si 288.158†	8817.4	4.161	mg/L	0.0130	8.323	mg/L	0.0260	0.31%
Sn 189.927†	-66.2	-0.01200	mg/L	0.001060	-0.02400	mg/L	0.002119	8.83%
Sr 421.552†	548033.1	0.5973	mg/L	0.00540	1.195	mg/L	0.0108	0.90%
Ti 334.903†	100517.2	4.794	mg/L	0.0188	9.587	mg/L	0.0376	0.39%
Tl 190.801†	5203.5	2.002	mg/L	0.0163	4.004	mg/L	0.0326	0.81%
V 292.402†	93516.5	0.6984	mg/L	0.00067	1.397	mg/L	0.0013	0.10%
Zn 206.200†	3071.4	0.7750	mg/L	0.00489	1.550	mg/L	0.0098	0.63%

Sequence No.: 39 **Autosampler Location: 332**
Sample ID: VR38 MB1SPK SWC **Date Collected: 11/21/2012 1:43:25 PM**
Analyst: BA **Data Type: Original**
Dilution: 2.000000X

Nebulizer Parameters: VR38 MB1SPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2545788.2	104.6	%	0.33				0.31%
ScR 361.383	320931.4	105.2	%	1.34				1.27%
Ag 328.068†	94703.7	0.5147	mg/L	0.00377	1.029	mg/L	0.0075	0.73%
Al 308.215†	3451.5	1.955	mg/L	0.0336	3.909	mg/L	0.0672	1.72%
As 188.979†	3533.2	1.914	mg/L	0.0178	3.828	mg/L	0.0356	0.93%
B 249.677†	8.3	0.00004	mg/L	0.000569	0.00008	mg/L	0.001139	>999.9%
Ba 233.527†	10386.0	2.097	mg/L	0.0366	4.193	mg/L	0.0733	1.75%
Be 313.042†	296274.1	0.4711	mg/L	0.00746	0.9422	mg/L	0.01492	1.58%
Ca 317.933†	135931.4	9.633	mg/L	0.1565	19.27	mg/L	0.313	1.62%
Cd 228.802†	14771.6	0.4844	mg/L	0.00240	0.9688	mg/L	0.00480	0.50%
Co 228.616†	18731.7	0.4909	mg/L	0.00248	0.9817	mg/L	0.00496	0.51%
Cr 267.716†	3227.0	0.5028	mg/L	0.00573	1.006	mg/L	0.0115	1.14%
Cu 324.752†	125552.2	0.4750	mg/L	0.00457	0.9500	mg/L	0.00914	0.96%
Fe 273.955†	2431.2	1.899	mg/L	0.0353	3.798	mg/L	0.0706	1.86%
K 766.490†	19714.1	9.741	mg/L	0.1331	19.48	mg/L	0.266	1.37%
Mg 279.077†	14478.7	10.06	mg/L	0.167	20.11	mg/L	0.335	1.66%
Mn 257.610†	16791.0	0.4734	mg/L	0.00844	0.9468	mg/L	0.01688	1.78%
Mo 202.031†	18.6	0.00078	mg/L	0.000053	0.00156	mg/L	0.000105	6.75%
Na 589.592†	123481.8	9.640	mg/L	0.1397	19.28	mg/L	0.279	1.45%
Na 330.237†	276.8	9.373	mg/L	0.2024	18.75	mg/L	0.405	2.16%
Ni 231.604†	2140.1	0.4966	mg/L	0.00865	0.9933	mg/L	0.01730	1.74%
Pb 220.353†	15343.0	1.922	mg/L	0.0056	3.844	mg/L	0.0112	0.29%
Sb 206.836†	6553.3	1.950	mg/L	0.0087	3.901	mg/L	0.0175	0.45%
Se 196.026†	2733.4	1.903	mg/L	0.0160	3.805	mg/L	0.0320	0.84%
Si 288.158†	1.9	0.00393	mg/L	0.001737	0.00786	mg/L	0.003474	44.20%
Sn 189.927†	-29.3	-0.00572	mg/L	0.000115	-0.01143	mg/L	0.000231	2.02%
Sr 421.552†	445722.7	0.4858	mg/L	0.00639	0.9716	mg/L	0.01277	1.31%
Ti 334.903†	61.5	0.00237	mg/L	0.000240	0.00474	mg/L	0.000480	10.12%
Tl 190.801†	4974.7	1.907	mg/L	0.0176	3.814	mg/L	0.0352	0.92%
V 292.402†	65702.2	0.4945	mg/L	0.00322	0.9890	mg/L	0.00644	0.65%
Zn 206.200†	1974.5	0.4982	mg/L	0.01049	0.9964	mg/L	0.02098	2.11%

Sequence No.: 40
Sample ID: CV 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 1:47:25 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2510695.6	103.2	%	0.15				0.15%
ScR 361.383	312310.0	102.3	%	1.14				1.11%
Ag 328.068†	186066.5	1.011	mg/L	0.0020	1.011	mg/L	0.0020	0.20%
Al 308.215†	3614.5	2.020	mg/L	0.0211	2.020	mg/L	0.0211	1.04%
As 188.979†	3625.9	1.990	mg/L	0.0053	1.990	mg/L	0.0053	0.27%
B 249.677†	7887.3	1.001	mg/L	0.0121	1.001	mg/L	0.0121	1.21%
Ba 233.527†	5353.3	1.080	mg/L	0.0107	1.080	mg/L	0.0107	0.99%
Be 313.042†	595211.6	0.9464	mg/L	0.01192	0.9464	mg/L	0.01192	1.26%
Ca 317.933†	27524.9	1.951	mg/L	0.0244	1.951	mg/L	0.0244	1.25%
Cd 228.802†	29421.7	0.9772	mg/L	0.00145	0.9772	mg/L	0.00145	0.15%
Co 228.616†	38491.3	1.007	mg/L	0.0028	1.007	mg/L	0.0028	0.28%
Cr 267.716†	6634.8	1.035	mg/L	0.0072	1.035	mg/L	0.0072	0.69%
Cu 324.752†	262945.1	0.9942	mg/L	0.00063	0.9942	mg/L	0.00063	0.06%
Fe 273.955†	2510.4	1.958	mg/L	0.0178	1.958	mg/L	0.0178	0.91%
K 766.490†	40779.9	20.15	mg/L	0.268	20.15	mg/L	0.268	1.33%
Mg 279.077†	2953.4	2.059	mg/L	0.0136	2.059	mg/L	0.0136	0.66%
Mn 257.610†	33599.8	0.9470	mg/L	0.01041	0.9470	mg/L	0.01041	1.10%
Mo 202.031†	20517.1	1.009	mg/L	0.0009	1.009	mg/L	0.0009	0.09%
Na 589.592†	651261.1	50.84	mg/L	0.651	50.84	mg/L	0.651	1.28%
Na 330.237†	1495.2	51.40	mg/L	0.399	51.40	mg/L	0.399	0.78%
Ni 231.604†	4426.7	1.027	mg/L	0.0082	1.027	mg/L	0.0082	0.80%
Pb 220.353†	16266.9	2.038	mg/L	0.0025	2.038	mg/L	0.0025	0.12%
Sb 206.836†	6997.1	2.087	mg/L	0.0031	2.087	mg/L	0.0031	0.15%
Se 196.026†	2774.4	1.931	mg/L	0.0068	1.931	mg/L	0.0068	0.35%
Si 288.158†	4479.1	2.110	mg/L	0.0226	2.110	mg/L	0.0226	1.07%
Sn 189.927†	3626.9	0.9746	mg/L	0.00158	0.9746	mg/L	0.00158	0.16%
Sr 421.552†	906752.7	0.9882	mg/L	0.01173	0.9882	mg/L	0.01173	1.19%
Ti 334.903†	21314.8	1.016	mg/L	0.0109	1.016	mg/L	0.0109	1.07%
Tl 190.801†	5222.3	1.998	mg/L	0.0036	1.998	mg/L	0.0036	0.18%
V 292.402†	133868.4	1.008	mg/L	0.0012	1.008	mg/L	0.0012	0.12%
Zn 206.200†	4139.1	1.044	mg/L	0.0082	1.044	mg/L	0.0082	0.78%

Sequence No.: 41
Sample ID: CB 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 1:52:18 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2531222.2	104.0	%	0.48				0.46%
ScR 361.383	321156.4	105.2	%	1.45				1.38%
Ag 328.068†	-6.7	-0.00004	mg/L	0.000247	-0.00004	mg/L	0.000247	679.98%
Al 308.215†	5.5	0.00311	mg/L	0.010108	0.00311	mg/L	0.010108	325.33%
As 188.979†	-1.8	-0.00096	mg/L	0.001239	-0.00096	mg/L	0.001239	129.04%
B 249.677†	4.0	0.00050	mg/L	0.000643	0.00050	mg/L	0.000643	127.48%
Ba 233.527†	-2.5	-0.00051	mg/L	0.000245	-0.00051	mg/L	0.000245	47.94%
Be 313.042†	49.8	0.00008	mg/L	0.000023	0.00008	mg/L	0.000023	28.64%
Ca 317.933†	43.1	0.00305	mg/L	0.000427	0.00305	mg/L	0.000427	13.99%
Cd 228.802†	8.8	0.00030	mg/L	0.000119	0.00030	mg/L	0.000119	39.35%
Co 228.616†	1.7	0.00005	mg/L	0.000047	0.00005	mg/L	0.000047	102.44%
Cr 267.716†	-0.6	-0.00010	mg/L	0.000709	-0.00010	mg/L	0.000709	740.42%
Cu 324.752†	254.0	0.00096	mg/L	0.000148	0.00096	mg/L	0.000148	15.44%
Fe 273.955†	-1.8	-0.00144	mg/L	0.000765	-0.00144	mg/L	0.000765	52.98%
K 766.490†	-14.2	-0.00700	mg/L	0.005724	-0.00700	mg/L	0.005724	81.83%
Mg 279.077†	5.1	0.00353	mg/L	0.000832	0.00353	mg/L	0.000832	23.55%
Mn 257.610†	0.2	0.00000	mg/L	0.000046	0.00000	mg/L	0.000046	>999.9%
Mo 202.031†	10.9	0.00054	mg/L	0.000172	0.00054	mg/L	0.000172	32.04%
Na 589.592†	-11.2	-0.00087	mg/L	0.002671	-0.00087	mg/L	0.002671	305.78%
Na 330.237†	-10.0	-0.3442	mg/L	0.36907	-0.3442	mg/L	0.36907	107.22%
Ni 231.604†	0.8	0.00018	mg/L	0.001280	0.00018	mg/L	0.001280	728.02%
Pb 220.353†	2.3	0.00029	mg/L	0.000297	0.00029	mg/L	0.000297	104.10%
Sb 206.836†	11.6	0.00349	mg/L	0.000513	0.00349	mg/L	0.000513	14.70%
Se 196.026†	7.3	0.00507	mg/L	0.001492	0.00507	mg/L	0.001492	29.43%
Si 288.158†	1.8	0.00082	mg/L	0.004033	0.00082	mg/L	0.004033	490.34%
Sn 189.927†	4.4	0.00119	mg/L	0.000304	0.00119	mg/L	0.000304	25.59%
Sr 421.552†	28.1	0.00003	mg/L	0.000039	0.00003	mg/L	0.000039	128.36%
Ti 334.903†	5.8	0.00028	mg/L	0.001125	0.00028	mg/L	0.001125	405.36%
Tl 190.801†	1.9	0.00075	mg/L	0.000692	0.00075	mg/L	0.000692	92.31%
V 292.402†	-7.6	-0.00006	mg/L	0.000144	-0.00006	mg/L	0.000144	253.36%
Zn 206.200†	6.0	0.00152	mg/L	0.000509	0.00152	mg/L	0.000509	33.43%

Sequence No.: 42
Sample ID: VR38 F SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 333
Date Collected: 11/21/2012 1:56:33 PM
Data Type: Original

Nebulizer Parameters: VR38 F SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2560338.8	105.2	%	0.15				0.14%
ScR 361.383	325566.1	106.7	%	0.18				0.17%
Ag 328.068†	-116.4	-0.00056	mg/L	0.000067	-0.00113	mg/L	0.000133	11.80%
Al 308.215†	145848.9	82.89	mg/L	0.145	165.8	mg/L	0.29	0.18%
As 188.979†	-245.5	0.01541	mg/L	0.003004	0.03082	mg/L	0.006009	19.50%
B 249.677†	105.9	0.01331	mg/L	0.000303	0.02663	mg/L	0.000605	2.27%
Ba 233.527†	1848.9	0.3531	mg/L	0.00240	0.7063	mg/L	0.00479	0.68%
Be 313.042†	670.1	0.00095	mg/L	0.000032	0.00191	mg/L	0.000065	3.38%
Ca 317.933†	440126.2	31.19	mg/L	0.087	62.38	mg/L	0.174	0.28%
Cd 228.802†	80.9	0.00262	mg/L	0.000117	0.00525	mg/L	0.000234	4.46%
Co 228.616†	2775.6	0.06094	mg/L	0.000184	0.1219	mg/L	0.00037	0.30%
Cr 267.716†	1460.3	0.2283	mg/L	0.00037	0.4566	mg/L	0.00074	0.16%
Cu 324.752†	76864.0	0.2947	mg/L	0.00011	0.5894	mg/L	0.00022	0.04%
Fe 273.955†	157051.9	122.9	mg/L	0.31	245.8	mg/L	0.62	0.25%
K 766.490†	7060.6	3.489	mg/L	0.0127	6.978	mg/L	0.0253	0.36%
Mg 279.077†	67288.2	46.67	mg/L	0.145	93.34	mg/L	0.290	0.31%
Mn 257.610†	59121.0	1.666	mg/L	0.0029	3.332	mg/L	0.0058	0.18%
Mo 202.031†	45.2	0.00187	mg/L	0.000017	0.00374	mg/L	0.000034	0.91%
Na 589.592†	22981.9	1.794	mg/L	0.0049	3.588	mg/L	0.0098	0.27%
Na 330.237†	22.3	1.830	mg/L	0.1169	3.661	mg/L	0.2338	6.39%
Ni 231.604†	942.0	0.2185	mg/L	0.00083	0.4370	mg/L	0.00167	0.38%
Pb 220.353†	330.1	0.05613	mg/L	0.000060	0.1123	mg/L	0.00012	0.11%
Sb 206.836†	23.6	0.00684	mg/L	0.002762	0.01368	mg/L	0.005524	40.39%
Se 196.026†	23.2	0.01595	mg/L	0.002561	0.03189	mg/L	0.005122	16.06%
Si 288.158†	9127.9	4.307	mg/L	0.0230	8.613	mg/L	0.0461	0.53%
Sn 189.927†	-55.1	-0.01017	mg/L	0.000374	-0.02034	mg/L	0.000747	3.67%
Sr 421.552†	130769.4	0.1425	mg/L	0.00041	0.2850	mg/L	0.00083	0.29%
Ti 334.903†	110263.2	5.259	mg/L	0.0090	10.52	mg/L	0.018	0.17%
Tl 190.801†	-29.1	0.00065	mg/L	0.001179	0.00130	mg/L	0.002358	181.53%
V 292.402†	31784.1	0.2322	mg/L	0.00047	0.4643	mg/L	0.00094	0.20%
Zn 206.200†	1641.2	0.4141	mg/L	0.00331	0.8281	mg/L	0.00663	0.80%

Sequence No.: 43
Sample ID: VR38 G SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 334
Date Collected: 11/21/2012 2:00:20 PM
Data Type: Original

Nebulizer Parameters: VR38 G SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR38 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2528619.0	103.9	%	0.43				0.41%
ScR 361.383	327207.6	107.2	%	0.89				0.83%
Ag 328.068†	-97.3	-0.00046	mg/L	0.000359	-0.00092	mg/L	0.000718	77.72%
Al 308.215†	115107.8	65.42	mg/L	0.435	130.8	mg/L	0.87	0.67%
As 188.979†	-217.5	0.00910	mg/L	0.001594	0.01820	mg/L	0.003188	17.52%
B 249.677†	78.7	0.00988	mg/L	0.001547	0.01977	mg/L	0.003095	15.65%
Ba 233.527†	1781.3	0.3432	mg/L	0.00221	0.6865	mg/L	0.00442	0.64%
Be 313.042†	575.4	0.00081	mg/L	0.000013	0.00163	mg/L	0.000026	1.60%
Ca 317.933†	407644.8	28.89	mg/L	0.261	57.78	mg/L	0.521	0.90%
Cd 228.802†	74.2	0.00248	mg/L	0.000272	0.00497	mg/L	0.000544	10.96%
Co 228.616†	2182.3	0.04716	mg/L	0.000058	0.09431	mg/L	0.000116	0.12%
Cr 267.716†	1277.8	0.2001	mg/L	0.00173	0.4002	mg/L	0.00345	0.86%
Cu 324.752†	39458.3	0.1525	mg/L	0.00127	0.3049	mg/L	0.00254	0.83%
Fe 273.955†	127729.3	99.96	mg/L	0.813	199.9	mg/L	1.63	0.81%
K 766.490†	7115.1	3.516	mg/L	0.0431	7.032	mg/L	0.0862	1.23%
Mg 279.077†	47698.2	33.08	mg/L	0.263	66.15	mg/L	0.526	0.79%
Mn 257.610†	58249.6	1.641	mg/L	0.0111	3.283	mg/L	0.0222	0.68%
Mo 202.031†	57.9	0.00253	mg/L	0.000541	0.00505	mg/L	0.001081	21.41%
Na 589.592†	26401.2	2.061	mg/L	0.0127	4.122	mg/L	0.0254	0.62%
Na 330.237†	31.3	1.956	mg/L	0.1568	3.913	mg/L	0.3135	8.01%
Ni 231.604†	787.7	0.1827	mg/L	0.00212	0.3654	mg/L	0.00424	1.16%
Pb 220.353†	544.3	0.07986	mg/L	0.000711	0.1597	mg/L	0.00142	0.89%
Sb 206.836†	17.8	0.00520	mg/L	0.001862	0.01041	mg/L	0.003723	35.78%
Se 196.026†	10.8	0.00736	mg/L	0.004642	0.01473	mg/L	0.009284	63.04%
Si 288.158†	10175.6	4.799	mg/L	0.0346	9.598	mg/L	0.0691	0.72%
Sn 189.927†	-47.0	-0.00840	mg/L	0.000321	-0.01680	mg/L	0.000641	3.82%
Sr 421.552†	131676.7	0.1435	mg/L	0.00093	0.2870	mg/L	0.00185	0.65%
Ti 334.903†	94398.2	4.502	mg/L	0.0317	9.005	mg/L	0.0634	0.70%
Tl 190.801†	-28.6	-0.00147	mg/L	0.001174	-0.00294	mg/L	0.002347	79.85%
V 292.402†	30911.9	0.2267	mg/L	0.00121	0.4534	mg/L	0.00242	0.53%
Zn 206.200†	1770.2	0.4466	mg/L	0.00359	0.8932	mg/L	0.00717	0.80%

Sequence No.: 44
Sample ID: VR38 H SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 335
Date Collected: 11/21/2012 2:04:20 PM
Data Type: Original

Nebulizer Parameters: VR38 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2550833.7	104.8	%	0.77				0.74%
ScR 361.383	324251.1	106.3	%	0.30				0.28%
Ag 328.068†	-98.0	-0.00045	mg/L	0.000016	-0.00091	mg/L	0.000033	3.61%
Al 308.215†	144039.9	81.86	mg/L	0.160	163.7	mg/L	0.32	0.20%
As 188.979†	-298.4	0.00272	mg/L	0.001966	0.00544	mg/L	0.003932	72.24%
B 249.677†	64.6	0.00809	mg/L	0.000564	0.01618	mg/L	0.001128	6.97%
Ba 233.527†	1601.6	0.3043	mg/L	0.00071	0.6087	mg/L	0.00141	0.23%
Be 313.042†	695.5	0.00098	mg/L	0.000023	0.00196	mg/L	0.000046	2.36%
Ca 317.933†	507806.8	35.99	mg/L	0.089	71.97	mg/L	0.178	0.25%
Cd 228.802†	59.6	0.00217	mg/L	0.000167	0.00435	mg/L	0.000333	7.67%
Co 228.616†	2252.7	0.04623	mg/L	0.000242	0.09246	mg/L	0.000485	0.52%
Cr 267.716†	1341.5	0.2099	mg/L	0.00111	0.4199	mg/L	0.00223	0.53%
Cu 324.752†	19422.2	0.07706	mg/L	0.000417	0.1541	mg/L	0.00083	0.54%
Fe 273.955†	148062.6	115.9	mg/L	0.08	231.7	mg/L	0.16	0.07%
K 766.490†	7204.4	3.560	mg/L	0.0210	7.120	mg/L	0.0420	0.59%
Mg 279.077†	57808.6	40.09	mg/L	0.132	80.18	mg/L	0.264	0.33%
Mn 257.610†	72764.5	2.050	mg/L	0.0016	4.101	mg/L	0.0032	0.08%
Mo 202.031†	44.1	0.00177	mg/L	0.000178	0.00353	mg/L	0.000357	10.10%
Na 589.592†	17031.3	1.330	mg/L	0.0049	2.659	mg/L	0.0098	0.37%
Na 330.237†	3.8	1.287	mg/L	0.1068	2.575	mg/L	0.2136	8.30%
Ni 231.604†	988.6	0.2293	mg/L	0.00055	0.4586	mg/L	0.00110	0.24%
Pb 220.353†	492.6	0.07680	mg/L	0.000884	0.1536	mg/L	0.00177	1.15%
Sb 206.836†	10.0	0.00340	mg/L	0.000408	0.00680	mg/L	0.000815	12.00%
Se 196.026†	20.4	0.01401	mg/L	0.005634	0.02801	mg/L	0.011267	40.22%
Si 288.158†	9714.4	4.582	mg/L	0.0058	9.165	mg/L	0.0116	0.13%
Sn 189.927†	-60.7	-0.01099	mg/L	0.000570	-0.02198	mg/L	0.001140	5.18%
Sr 421.552†	104337.6	0.1137	mg/L	0.00025	0.2274	mg/L	0.00050	0.22%
Ti 334.903†	122153.7	5.826	mg/L	0.0115	11.65	mg/L	0.023	0.20%
Tl 190.801†	-30.1	-0.00049	mg/L	0.003064	-0.00097	mg/L	0.006129	629.26%
V 292.402†	35766.2	0.2619	mg/L	0.00152	0.5238	mg/L	0.00305	0.58%
Zn 206.200†	2025.8	0.5111	mg/L	0.00251	1.022	mg/L	0.0050	0.49%

Sequence No.: 45
Sample ID: VR38 I SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 336
Date Collected: 11/21/2012 2:08:21 PM
Data Type: Original

Nebulizer Parameters: VR38 I SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2576004.6	105.9	%	0.42				0.40%
ScR 361.383	327240.0	107.2	%	0.77				0.72%
Ag 328.068†	-132.3	-0.00064	mg/L	0.000128	-0.00128	mg/L	0.000256	20.05%
Al 308.215†	171571.4	97.51	mg/L	0.782	195.0	mg/L	1.56	0.80%
As 188.979†	-292.7	0.01295	mg/L	0.005551	0.02590	mg/L	0.011103	42.87%
B 249.677†	132.9	0.01677	mg/L	0.000377	0.03353	mg/L	0.000754	2.25%
Ba 233.527†	1667.4	0.3162	mg/L	0.00206	0.6324	mg/L	0.00411	0.65%
Be 313.042†	963.8	0.00140	mg/L	0.000043	0.00281	mg/L	0.000086	3.06%
Ca 317.933†	715317.7	50.69	mg/L	0.397	101.4	mg/L	0.79	0.78%
Cd 228.802†	60.6	0.00212	mg/L	0.000160	0.00423	mg/L	0.000320	7.55%
Co 228.616†	2346.9	0.04805	mg/L	0.000665	0.09610	mg/L	0.001331	1.38%
Cr 267.716†	1169.0	0.1832	mg/L	0.00197	0.3664	mg/L	0.00395	1.08%
Cu 324.752†	18075.5	0.07229	mg/L	0.000557	0.1446	mg/L	0.00111	0.77%
Fe 273.955†	159049.9	124.5	mg/L	0.83	248.9	mg/L	1.66	0.67%
K 766.490†	7417.9	3.665	mg/L	0.0527	7.331	mg/L	0.1054	1.44%
Mg 279.077†	57404.4	39.81	mg/L	0.293	79.61	mg/L	0.586	0.74%
Mn 257.610†	74469.7	2.098	mg/L	0.0129	4.197	mg/L	0.0257	0.61%
Mo 202.031†	46.5	0.00173	mg/L	0.000361	0.00346	mg/L	0.000721	20.88%
Na 589.592†	23010.8	1.796	mg/L	0.0158	3.593	mg/L	0.0317	0.88%
Na 330.237†	17.7	1.852	mg/L	0.0523	3.703	mg/L	0.1045	2.82%
Ni 231.604†	1040.5	0.2413	mg/L	0.00231	0.4827	mg/L	0.00462	0.96%
Pb 220.353†	289.3	0.05470	mg/L	0.000703	0.1094	mg/L	0.00141	1.29%
Sb 206.836†	10.3	0.00405	mg/L	0.001694	0.00810	mg/L	0.003388	41.85%
Se 196.026†	18.5	0.01272	mg/L	0.009092	0.02545	mg/L	0.018184	71.46%
Si 288.158†	8680.8	4.095	mg/L	0.0298	8.191	mg/L	0.0597	0.73%
Sn 189.927†	-67.2	-0.01089	mg/L	0.000292	-0.02179	mg/L	0.000585	2.68%
Sr 421.552†	119468.6	0.1302	mg/L	0.00114	0.2604	mg/L	0.00228	0.88%
Ti 334.903†	127955.1	6.102	mg/L	0.0505	12.20	mg/L	0.101	0.83%
Tl 190.801†	-27.5	0.00136	mg/L	0.000782	0.00272	mg/L	0.001563	57.56%
V 292.402†	37639.1	0.2754	mg/L	0.00310	0.5507	mg/L	0.00621	1.13%
Zn 206.200†	1756.1	0.4430	mg/L	0.00359	0.8861	mg/L	0.00719	0.81%

Sequence No.: 46
Sample ID: VR38 J SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 337
Date Collected: 11/21/2012 2:12:07 PM
Data Type: Original

Nebulizer Parameters: VR38 J SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2587803.3	106.4	%	0.15				0.14%
ScR 361.383	329434.8	108.0	%	0.88				0.81%
Ag 328.068†	-63.5	-0.00028	mg/L	0.000130	-0.00056	mg/L	0.000260	46.45%
Al 308.215†	112029.4	63.67	mg/L	0.333	127.3	mg/L	0.67	0.52%
As 188.979†	-259.4	-0.00164	mg/L	0.003636	-0.00327	mg/L	0.007272	222.19%
B 249.677†	86.1	0.01083	mg/L	0.000307	0.02166	mg/L	0.000614	2.84%
Ba 233.527†	1596.5	0.3080	mg/L	0.00325	0.6161	mg/L	0.00650	1.05%
Be 313.042†	616.7	0.00088	mg/L	0.000022	0.00175	mg/L	0.000045	2.55%
Ca 317.933†	416659.7	29.53	mg/L	0.156	59.05	mg/L	0.312	0.53%
Cd 228.802†	53.3	0.00210	mg/L	0.000198	0.00420	mg/L	0.000397	9.44%
Co 228.616†	2048.2	0.04299	mg/L	0.000089	0.08599	mg/L	0.000178	0.21%
Cr 267.716†	1234.1	0.1927	mg/L	0.00176	0.3854	mg/L	0.00353	0.92%
Cu 324.752†	19078.2	0.07472	mg/L	0.000359	0.1494	mg/L	0.00072	0.48%
Fe 273.955†	111143.0	86.98	mg/L	0.275	174.0	mg/L	0.55	0.32%
K 766.490†	6893.6	3.406	mg/L	0.0387	6.813	mg/L	0.0774	1.14%
Mg 279.077†	47434.3	32.90	mg/L	0.207	65.80	mg/L	0.414	0.63%
Mn 257.610†	75114.2	2.116	mg/L	0.0079	4.233	mg/L	0.0158	0.37%
Mo 202.031†	49.3	0.00210	mg/L	0.000301	0.00419	mg/L	0.000601	14.34%
Na 589.592†	19528.0	1.525	mg/L	0.0065	3.049	mg/L	0.0130	0.43%
Na 330.237†	17.6	1.594	mg/L	0.0916	3.188	mg/L	0.1832	5.75%
Ni 231.604†	985.8	0.2287	mg/L	0.00211	0.4573	mg/L	0.00421	0.92%
Pb 220.353†	268.2	0.04551	mg/L	0.000417	0.09102	mg/L	0.000833	0.92%
Sb 206.836†	6.8	0.00216	mg/L	0.001846	0.00433	mg/L	0.003692	85.28%
Se 196.026†	17.3	0.01190	mg/L	0.003499	0.02381	mg/L	0.006998	29.39%
Si 288.158†	10442.3	4.924	mg/L	0.0303	9.849	mg/L	0.0605	0.61%
Sn 189.927†	-52.3	-0.00967	mg/L	0.001613	-0.01934	mg/L	0.003225	16.68%
Sr 421.552†	130056.4	0.1417	mg/L	0.00051	0.2835	mg/L	0.00101	0.36%
Ti 334.903†	103201.4	4.922	mg/L	0.0225	9.844	mg/L	0.0450	0.46%
Tl 190.801†	-13.8	0.00287	mg/L	0.000763	0.00574	mg/L	0.001525	26.59%
V 292.402†	30217.7	0.2218	mg/L	0.00112	0.4436	mg/L	0.00224	0.50%
Zn 206.200†	1575.5	0.3975	mg/L	0.00233	0.7949	mg/L	0.00466	0.59%

Sequence No.: 47
Sample ID: VR38 K SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 338
Date Collected: 11/21/2012 2:16:07 PM
Data Type: Original

Nebulizer Parameters: VR38 K SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR38 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2534795.7	104.2	%	0.05				0.05%
ScR 361.383	324588.8	106.4	%	2.12				1.99%
Ag 328.068†	-132.4	-0.00063	mg/L	0.000108	-0.00126	mg/L	0.000216	17.09%
Al 308.215†	159975.3	90.92	mg/L	1.634	181.8	mg/L	3.27	1.80%
As 188.979†	-284.6	0.00923	mg/L	0.005273	0.01846	mg/L	0.010545	57.13%
B 249.677†	81.6	0.01024	mg/L	0.000313	0.02047	mg/L	0.000626	3.06%
Ba 233.527†	2796.5	0.5429	mg/L	0.00921	1.086	mg/L	0.0184	1.70%
Be 313.042†	856.5	0.00123	mg/L	0.000053	0.00246	mg/L	0.000106	4.32%
Ca 317.933†	581033.6	41.18	mg/L	0.655	82.35	mg/L	1.310	1.59%
Cd 228.802†	74.1	0.00250	mg/L	0.000177	0.00500	mg/L	0.000354	7.08%
Co 228.616†	2542.7	0.05364	mg/L	0.000461	0.1073	mg/L	0.00092	0.86%
Cr 267.716†	1596.1	0.2498	mg/L	0.00291	0.4996	mg/L	0.00581	1.16%
Cu 324.752†	23823.1	0.09440	mg/L	0.000646	0.1888	mg/L	0.00129	0.68%
Fe 273.955†	168953.3	132.2	mg/L	2.08	264.4	mg/L	4.16	1.57%
K 766.490†	7546.8	3.729	mg/L	0.0828	7.458	mg/L	0.1656	2.22%
Mg 279.077†	63751.4	44.21	mg/L	0.797	88.42	mg/L	1.593	1.80%
Mn 257.610†	120728.3	3.402	mg/L	0.0568	6.803	mg/L	0.1137	1.67%
Mo 202.031†	61.5	0.00257	mg/L	0.000066	0.00513	mg/L	0.000131	2.56%
Na 589.592†	18900.8	1.476	mg/L	0.0294	2.951	mg/L	0.0588	1.99%
Na 330.237†	13.7	1.545	mg/L	0.0280	3.090	mg/L	0.0560	1.81%
Ni 231.604†	1206.3	0.2798	mg/L	0.00272	0.5596	mg/L	0.00545	0.97%
Pb 220.353†	522.9	0.08214	mg/L	0.001240	0.1643	mg/L	0.00248	1.51%
Sb 206.836†	21.7	0.00646	mg/L	0.002418	0.01292	mg/L	0.004836	37.45%
Se 196.026†	26.0	0.01792	mg/L	0.000847	0.03583	mg/L	0.001694	4.73%
Si 288.158†	11954.1	5.638	mg/L	0.0826	11.28	mg/L	0.165	1.46%
Sn 189.927†	-68.3	-0.01240	mg/L	0.000540	-0.02480	mg/L	0.001080	4.35%
Sr 421.552†	229018.5	0.2496	mg/L	0.00442	0.4992	mg/L	0.00885	1.77%
Ti 334.903†	121685.0	5.803	mg/L	0.0974	11.61	mg/L	0.195	1.68%
Tl 190.801†	-28.6	0.00164	mg/L	0.003864	0.00329	mg/L	0.007728	235.10%
V 292.402†	40793.4	0.2994	mg/L	0.00160	0.5988	mg/L	0.00320	0.53%
Zn 206.200†	2964.3	0.7479	mg/L	0.01077	1.496	mg/L	0.0215	1.44%

Sequence No.: 48
Sample ID: CV 5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 2:20:08 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2538447.3	104.3	%	0.34				0.33%
ScR 361.383	321576.7	105.4	%	0.72				0.69%
Ag 328.068†	186585.8	1.014	mg/L	0.0018	1.014	mg/L	0.0018	0.18%
Al 308.215†	3588.5	2.005	mg/L	0.0252	2.005	mg/L	0.0252	1.26%
As 188.979†	3665.6	2.011	mg/L	0.0062	2.011	mg/L	0.0062	0.31%
B 249.677†	7776.6	0.9874	mg/L	0.00758	0.9874	mg/L	0.00758	0.77%
Ba 233.527†	5319.5	1.074	mg/L	0.0095	1.074	mg/L	0.0095	0.88%
Be 313.042†	595070.5	0.9462	mg/L	0.00815	0.9462	mg/L	0.00815	0.86%
Ca 317.933†	27593.7	1.955	mg/L	0.0210	1.955	mg/L	0.0210	1.07%
Cd 228.802†	29426.1	0.9772	mg/L	0.00161	0.9772	mg/L	0.00161	0.16%
Co 228.616†	38783.4	1.015	mg/L	0.0023	1.015	mg/L	0.0023	0.23%
Cr 267.716†	6577.0	1.026	mg/L	0.0070	1.026	mg/L	0.0070	0.68%
Cu 324.752†	262171.3	0.9913	mg/L	0.00209	0.9913	mg/L	0.00209	0.21%
Fe 273.955†	2522.3	1.967	mg/L	0.0289	1.967	mg/L	0.0289	1.47%
K 766.490†	40138.8	19.83	mg/L	0.172	19.83	mg/L	0.172	0.86%
Mg 279.077†	2937.7	2.048	mg/L	0.0172	2.048	mg/L	0.0172	0.84%
Mn 257.610†	33298.3	0.9385	mg/L	0.00820	0.9385	mg/L	0.00820	0.87%
Mo 202.031†	20707.1	1.018	mg/L	0.0024	1.018	mg/L	0.0024	0.24%
Na 589.592†	638837.7	49.87	mg/L	0.401	49.87	mg/L	0.401	0.80%
Na 330.237†	1469.6	50.52	mg/L	0.221	50.52	mg/L	0.221	0.44%
Ni 231.604†	4384.8	1.017	mg/L	0.0072	1.017	mg/L	0.0072	0.71%
Pb 220.353†	16469.5	2.063	mg/L	0.0063	2.063	mg/L	0.0063	0.31%
Sb 206.836†	7038.7	2.099	mg/L	0.0073	2.099	mg/L	0.0073	0.35%
Se 196.026†	2802.2	1.950	mg/L	0.0068	1.950	mg/L	0.0068	0.35%
Si 288.158†	4413.2	2.079	mg/L	0.0128	2.079	mg/L	0.0128	0.62%
Sn 189.927†	3658.3	0.9831	mg/L	0.00174	0.9831	mg/L	0.00174	0.18%
Sr 421.552†	888808.9	0.9687	mg/L	0.00744	0.9687	mg/L	0.00744	0.77%
Ti 334.903†	21224.4	1.011	mg/L	0.0096	1.011	mg/L	0.0096	0.95%
Tl 190.801†	5276.5	2.019	mg/L	0.0071	2.019	mg/L	0.0071	0.35%
V 292.402†	134602.4	1.013	mg/L	0.0006	1.013	mg/L	0.0006	0.06%
Zn 206.200†	4123.5	1.040	mg/L	0.0066	1.040	mg/L	0.0066	0.64%

Sequence No.: 49
Sample ID: CB 5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 2:24:59 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2542866.5	104.5	%	0.08				0.08%
ScR 361.383	319173.9	104.6	%	1.68				1.61%
Ag 328.068†	-2.1	-0.00001	mg/L	0.000201	-0.00001	mg/L	0.000201	>999.9%
Al 308.215†	-0.5	-0.00029	mg/L	0.006000	-0.00029	mg/L	0.006000	>999.9%
As 188.979†	-1.1	-0.00059	mg/L	0.000934	-0.00059	mg/L	0.000934	157.85%
B 249.677†	11.3	0.00143	mg/L	0.000482	0.00143	mg/L	0.000482	33.60%
Ba 233.527†	-2.6	-0.00053	mg/L	0.000547	-0.00053	mg/L	0.000547	104.20%
Be 313.042†	64.4	0.00010	mg/L	0.000039	0.00010	mg/L	0.000039	37.86%
Ca 317.933†	40.9	0.00290	mg/L	0.001218	0.00290	mg/L	0.001218	42.05%
Cd 228.802†	6.7	0.00023	mg/L	0.000120	0.00023	mg/L	0.000120	52.44%
Co 228.616†	2.2	0.00006	mg/L	0.000140	0.00006	mg/L	0.000140	242.70%
Cr 267.716†	-5.8	-0.00090	mg/L	0.000698	-0.00090	mg/L	0.000698	77.69%
Cu 324.752†	289.3	0.00109	mg/L	0.000036	0.00109	mg/L	0.000036	3.25%
Fe 273.955†	1.0	0.00080	mg/L	0.001920	0.00080	mg/L	0.001920	238.77%
K 766.490†	7.3	0.00359	mg/L	0.010909	0.00359	mg/L	0.010909	303.94%
Mg 279.077†	9.1	0.00632	mg/L	0.001476	0.00632	mg/L	0.001476	23.35%
Mn 257.610†	4.5	0.00013	mg/L	0.000049	0.00013	mg/L	0.000049	37.96%
Mo 202.031†	8.9	0.00044	mg/L	0.000167	0.00044	mg/L	0.000167	38.31%
Na 589.592†	-11.7	-0.00092	mg/L	0.004278	-0.00092	mg/L	0.004278	467.14%
Na 330.237†	-6.3	-0.2187	mg/L	0.23292	-0.2187	mg/L	0.23292	106.50%
Ni 231.604†	-2.1	-0.00049	mg/L	0.000546	-0.00049	mg/L	0.000546	111.82%
Pb 220.353†	-1.4	-0.00017	mg/L	0.000667	-0.00017	mg/L	0.000667	381.88%
Sb 206.836†	-1.4	-0.00039	mg/L	0.001691	-0.00039	mg/L	0.001691	428.13%
Se 196.026†	4.7	0.00325	mg/L	0.001076	0.00325	mg/L	0.001076	33.08%
Si 288.158†	2.4	0.00111	mg/L	0.004253	0.00111	mg/L	0.004253	381.58%
Sn 189.927†	2.5	0.00068	mg/L	0.000776	0.00068	mg/L	0.000776	113.94%
Sr 421.552†	56.2	0.00006	mg/L	0.000071	0.00006	mg/L	0.000071	115.55%
Ti 334.903†	2.0	0.00010	mg/L	0.000225	0.00010	mg/L	0.000225	231.17%
Tl 190.801†	1.4	0.00053	mg/L	0.001388	0.00053	mg/L	0.001388	260.61%
V 292.402†	-10.4	-0.00008	mg/L	0.000184	-0.00008	mg/L	0.000184	224.91%
Zn 206.200†	4.2	0.00107	mg/L	0.000605	0.00107	mg/L	0.000605	56.72%

Sequence No.: 50
Sample ID: VS18 MB1 SWC
Analyst: BA
Dilution: 2.000000X

D4

Autosampler Location: 339
Date Collected: 11/21/2012 2:29:14 PM
Data Type: Original

Nebulizer Parameters: VS18 MB1 SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2556988.8	105.1	%	0.27				0.26%
ScR 361.383	326304.5	106.9	%	1.35				1.26%
Ag 328.068†	20.8	0.00011	mg/L	0.000289	0.00023	mg/L	0.000579	255.99%
Al 308.215†	19.1	0.01088	mg/L	0.002776	0.02175	mg/L	0.005552	25.52%
As 188.979†	-0.4	-0.00019	mg/L	0.001504	-0.00038	mg/L	0.003007	786.05%
B 249.677†	0.2	0.00003	mg/L	0.001897	0.00006	mg/L	0.003795	>999.9%
Ba 233.527†	-4.0	-0.00082	mg/L	0.000308	-0.00164	mg/L	0.000617	37.71%
Be 313.042†	-5.0	-0.00001	mg/L	0.000023	-0.00002	mg/L	0.000045	289.02%
Ca 317.933†	45.0	0.00319	mg/L	0.000694	0.00638	mg/L	0.001389	21.77%
Cd 228.802†	10.2	0.00035	mg/L	0.000140	0.00069	mg/L	0.000280	40.49%
Co 228.616†	2.5	0.00006	mg/L	0.000115	0.00013	mg/L	0.000230	181.95%
Cr 267.716†	-2.0	-0.00031	mg/L	0.000416	-0.00061	mg/L	0.000832	135.28%
Cu 324.752†	255.2	0.00097	mg/L	0.000029	0.00193	mg/L	0.000058	2.99%
Fe 273.955†	9.6	0.00749	mg/L	0.001513	0.01497	mg/L	0.003026	20.21%
K 766.490†	-4.5	-0.00222	mg/L	0.010577	-0.00445	mg/L	0.021154	475.45%
Mg 279.077†	4.5	0.00312	mg/L	0.006038	0.00624	mg/L	0.012076	193.52%
Mn 257.610†	5.7	0.00016	mg/L	0.000108	0.00032	mg/L	0.000216	67.80%
Mo 202.031†	-0.9	-0.00004	mg/L	0.000123	-0.00009	mg/L	0.000246	274.99%
Na 589.592†	-109.2	-0.00852	mg/L	0.002006	-0.01705	mg/L	0.004013	23.54%
Na 330.237†	-3.4	-0.1178	mg/L	0.29955	-0.2357	mg/L	0.59910	254.21%
Ni 231.604†	0.8	0.00019	mg/L	0.000381	0.00038	mg/L	0.000762	200.51%
Pb 220.353†	-2.8	-0.00036	mg/L	0.000153	-0.00071	mg/L	0.000305	42.83%
Sb 206.836†	-3.7	-0.00110	mg/L	0.002004	-0.00220	mg/L	0.004009	182.00%
Se 196.026†	5.1	0.00357	mg/L	0.002688	0.00713	mg/L	0.005375	75.37%
Si 288.158†	6.1	0.00287	mg/L	0.002850	0.00574	mg/L	0.005700	99.29%
Sn 189.927†	-0.5	-0.00012	mg/L	0.000217	-0.00025	mg/L	0.000434	175.47%
Sr 421.552†	0.6	0.00000	mg/L	0.000041	0.00000	mg/L	0.000081	>999.9%
Ti 334.903†	13.5	0.00064	mg/L	0.001014	0.00129	mg/L	0.002029	157.48%
Tl 190.801†	-0.5	-0.00017	mg/L	0.001231	-0.00034	mg/L	0.002461	715.88%
V 292.402†	-20.4	-0.00015	mg/L	0.000070	-0.00031	mg/L	0.000140	45.10%
Zn 206.200†	13.0	0.00329	mg/L	0.000716	0.00657	mg/L	0.001432	21.79%

Sequence No.: 51
Sample ID: VS18 B SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 340
Date Collected: 11/21/2012 2:33:29 PM
Data Type: Original

Nebulizer Parameters: VS18 B SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2548980.4	104.8	%	0.27				0.26%
ScR 361.383	327523.2	107.3	%	1.32				1.23%
Ag 328.068†	-353.0	-0.00181	mg/L	0.000204	-0.00906	mg/L	0.001019	11.26%
Al 308.215†	213530.5	121.4	mg/L	1.56	606.8	mg/L	7.80	1.29%
As 188.979†	-403.6	0.02953	mg/L	0.002627	0.1477	mg/L	0.01314	8.90%
B 249.677†	18.7	0.00215	mg/L	0.000948	0.01077	mg/L	0.004742	44.05%
Ba 233.527†	15917.0	3.189	mg/L	0.0527	15.94	mg/L	0.264	1.65%
Be 313.042†	1863.6	0.00278	mg/L	0.000051	0.01392	mg/L	0.000256	1.84%
Ca 317.933†	411195.7	29.14	mg/L	0.428	145.7	mg/L	2.14	1.47%
Cd 228.802†	514.4	0.01744	mg/L	0.000016	0.08720	mg/L	0.000079	0.09%
Co 228.616†	4124.7	0.08894	mg/L	0.000436	0.4447	mg/L	0.00218	0.49%
Cr 267.716†	4881.2	0.7592	mg/L	0.01205	3.796	mg/L	0.0602	1.59%
Cu 324.752†	23608.1	0.09344	mg/L	0.000463	0.4672	mg/L	0.00231	0.50%
Fe 273.955†	194864.2	152.5	mg/L	1.83	762.5	mg/L	9.14	1.20%
K 766.490†	81799.1	40.42	mg/L	0.569	202.1	mg/L	2.85	1.41%
Mg 279.077†	137632.2	95.52	mg/L	1.303	477.6	mg/L	6.52	1.36%
Mn 257.610†	128914.7	3.632	mg/L	0.0426	18.16	mg/L	0.213	1.17%
Mo 202.031†	66.8	0.00293	mg/L	0.000224	0.01464	mg/L	0.001118	7.64%
Na 589.592†	10257.8	0.8008	mg/L	0.01260	4.004	mg/L	0.0630	1.57%
Na 330.237†	-20.0	1.005	mg/L	0.1222	5.027	mg/L	0.6110	12.16%
Ni 231.604†	778.7	0.1806	mg/L	0.00356	0.9032	mg/L	0.01780	1.97%
Pb 220.353†	4461.0	0.5826	mg/L	0.00367	2.913	mg/L	0.0184	0.63%
Sb 206.836†	53.2	0.01000	mg/L	0.001358	0.04998	mg/L	0.006791	13.59%
Se 196.026†	30.0	0.02061	mg/L	0.001814	0.1031	mg/L	0.00907	8.80%
Si 288.158†	1477.9	0.7080	mg/L	0.01170	3.540	mg/L	0.0585	1.65%
Sn 189.927†	-54.1	-0.00964	mg/L	0.001621	-0.04820	mg/L	0.008106	16.82%
Sr 421.552†	266668.8	0.2906	mg/L	0.00376	1.453	mg/L	0.0188	1.29%
Ti 334.903†	183849.0	8.770	mg/L	0.1052	43.85	mg/L	0.526	1.20%
Tl 190.801†	-36.0	0.00032	mg/L	0.002578	0.00159	mg/L	0.012889	811.97%
V 292.402†	49404.3	0.3638	mg/L	0.00248	1.819	mg/L	0.0124	0.68%
Zn 206.200†	3611.9	0.9112	mg/L	0.01515	4.556	mg/L	0.0757	1.66%

Sequence No.: 52
Sample ID: VS18 C SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 341
Date Collected: 11/21/2012 2:37:30 PM
Data Type: Original

Nebulizer Parameters: VS18 C SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2557713.6	105.1	%	0.09				0.08%
ScR 361.383	326478.7	107.0	%	1.28				1.20%
Ag 328.068†	-96.1	-0.00048	mg/L	0.000080	-0.00242	mg/L	0.000399	16.50%
Al 308.215†	100577.1	57.16	mg/L	0.879	285.8	mg/L	4.40	1.54%
As 188.979†	-121.0	0.02680	mg/L	0.001747	0.1340	mg/L	0.00873	6.52%
B 249.677†	54.4	0.00684	mg/L	0.000254	0.03421	mg/L	0.001271	3.72%
Ba 233.527†	3418.8	0.6801	mg/L	0.00696	3.401	mg/L	0.0348	1.02%
Be 313.042†	1035.7	0.00158	mg/L	0.000034	0.00790	mg/L	0.000170	2.15%
Ca 317.933†	391817.4	27.77	mg/L	0.435	138.8	mg/L	2.18	1.57%
Cd 228.802†	371.4	0.01238	mg/L	0.000121	0.06191	mg/L	0.000603	0.97%
Co 228.616†	1394.2	0.02933	mg/L	0.000248	0.1467	mg/L	0.00124	0.84%
Cr 267.716†	577.0	0.09038	mg/L	0.000717	0.4519	mg/L	0.00358	0.79%
Cu 324.752†	23328.3	0.09014	mg/L	0.000537	0.4507	mg/L	0.00268	0.60%
Fe 273.955†	79069.4	61.88	mg/L	1.026	309.4	mg/L	5.13	1.66%
K 766.490†	21160.9	10.46	mg/L	0.161	52.28	mg/L	0.805	1.54%
Mg 279.077†	27907.3	19.35	mg/L	0.279	96.76	mg/L	1.395	1.44%
Mn 257.610†	60067.4	1.692	mg/L	0.0280	8.462	mg/L	0.1402	1.66%
Mo 202.031†	57.8	0.00254	mg/L	0.000277	0.01268	mg/L	0.001385	10.92%
Na 589.592†	11203.5	0.8747	mg/L	0.01633	4.373	mg/L	0.0816	1.87%
Na 330.237†	0.7	0.5591	mg/L	0.27976	2.795	mg/L	1.3988	50.04%
Ni 231.604†	260.5	0.06042	mg/L	0.001830	0.3021	mg/L	0.00915	3.03%
Pb 220.353†	3610.8	0.4633	mg/L	0.00118	2.316	mg/L	0.0059	0.25%
Sb 206.836†	12.7	0.00435	mg/L	0.001933	0.02174	mg/L	0.009665	44.45%
Se 196.026†	7.7	0.00528	mg/L	0.005176	0.02639	mg/L	0.025881	98.08%
Si 288.158†	1798.8	0.8500	mg/L	0.00883	4.250	mg/L	0.0442	1.04%
Sn 189.927†	-44.6	-0.00804	mg/L	0.001208	-0.04022	mg/L	0.006038	15.01%
Sr 421.552†	512080.5	0.5581	mg/L	0.00828	2.791	mg/L	0.0414	1.48%
Ti 334.903†	68905.6	3.286	mg/L	0.0507	16.43	mg/L	0.254	1.54%
Tl 190.801†	-7.1	0.00318	mg/L	0.002901	0.01590	mg/L	0.014505	91.21%
V 292.402†	17781.4	0.1299	mg/L	0.00027	0.6494	mg/L	0.00135	0.21%
Zn 206.200†	2581.4	0.6513	mg/L	0.00686	3.256	mg/L	0.0343	1.05%

Sequence No.: 53
Sample ID: VS18 D SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 342
Date Collected: 11/21/2012 2:41:30 PM
Data Type: Original

Nebulizer Parameters: VS18 D SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS18 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2570203.8	105.6	%	1.02				0.96%
ScR 361.383	325383.7	106.6	%	1.48				1.39%
Ag 328.068†	-34.6	-0.00015	mg/L	0.000210	-0.00076	mg/L	0.001052	139.14%
Al 308.215†	100526.0	57.13	mg/L	0.597	285.7	mg/L	2.98	1.04%
As 188.979†	-101.2	0.03876	mg/L	0.003170	0.1938	mg/L	0.01585	8.18%
B 249.677†	47.3	0.00595	mg/L	0.000948	0.02973	mg/L	0.004741	15.95%
Ba 233.527†	3347.9	0.6660	mg/L	0.00926	3.330	mg/L	0.0463	1.39%
Be 313.042†	1010.1	0.00154	mg/L	0.000041	0.00770	mg/L	0.000206	2.67%
Ca 317.933†	430646.7	30.52	mg/L	0.295	152.6	mg/L	1.48	0.97%
Cd 228.802†	648.7	0.02165	mg/L	0.000259	0.1083	mg/L	0.00129	1.19%
Co 228.616†	1391.8	0.02919	mg/L	0.000279	0.1459	mg/L	0.00140	0.96%
Cr 267.716†	635.5	0.09939	mg/L	0.000627	0.4969	mg/L	0.00313	0.63%
Cu 324.752†	27953.9	0.1076	mg/L	0.00078	0.5379	mg/L	0.00389	0.72%
Fe 273.955†	77717.1	60.82	mg/L	0.645	304.1	mg/L	3.23	1.06%
K 766.490†	19242.3	9.508	mg/L	0.1062	47.54	mg/L	0.531	1.12%
Mg 279.077†	28568.2	19.81	mg/L	0.207	99.05	mg/L	1.035	1.04%
Mn 257.610†	65472.7	1.845	mg/L	0.0197	9.224	mg/L	0.0983	1.07%
Mo 202.031†	65.3	0.00287	mg/L	0.000490	0.01437	mg/L	0.002448	17.04%
Na 589.592†	13400.0	1.046	mg/L	0.0109	5.231	mg/L	0.0543	1.04%
Na 330.237†	15.4	1.013	mg/L	0.0840	5.064	mg/L	0.4199	8.29%
Ni 231.604†	281.2	0.06523	mg/L	0.001025	0.3261	mg/L	0.00513	1.57%
Pb 220.353†	6778.7	0.8600	mg/L	0.00785	4.300	mg/L	0.0392	0.91%
Sb 206.836†	13.1	0.00429	mg/L	0.001829	0.02147	mg/L	0.009144	42.58%
Se 196.026†	6.8	0.00466	mg/L	0.004349	0.02332	mg/L	0.021744	93.24%
Si 288.158†	3732.0	1.761	mg/L	0.0233	8.805	mg/L	0.1166	1.32%
Sn 189.927†	-50.0	-0.00914	mg/L	0.000891	-0.04569	mg/L	0.004454	9.75%
Sr 421.552†	586443.8	0.6391	mg/L	0.00676	3.196	mg/L	0.0338	1.06%
Ti 334.903†	69944.1	3.336	mg/L	0.0346	16.68	mg/L	0.173	1.04%
Tl 190.801†	-10.3	0.00187	mg/L	0.000511	0.00936	mg/L	0.002556	27.31%
V 292.402†	17103.0	0.1249	mg/L	0.00101	0.6243	mg/L	0.00506	0.81%
Zn 206.200†	3322.7	0.8383	mg/L	0.01220	4.192	mg/L	0.0610	1.46%

Sequence No.: 54 222222 BA 11/23/12
Sample ID: ~~VS18 A-L SWC~~
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 343
Date Collected: 11/21/2012 2:45:30 PM
Data Type: Original

Nebulizer Parameters: VS18 A-L SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	Sample RSD
ScA 357.253	2549034.7	104.8	%	0.22				0.21%
ScR 361.383	322817.6	105.8	%	0.83				0.78%
Ag 328.068†	16.3	0.00009	mg/L	0.000205	0.00236	mg/L	0.005118	216.62%
Al 308.215†	18020.1	10.24	mg/L	0.118	256.0	mg/L	2.95	1.15%
As 188.979†	-7.4	0.00916	mg/L	0.000894	0.2290	mg/L	0.02235	9.76%
B 249.677†	5.9	0.00075	mg/L	0.000352	0.01863	mg/L	0.008799	47.22%
Ba 233.527†	775.1	0.1548	mg/L	0.00084	3.869	mg/L	0.0211	0.54%
Be 313.042†	306.8	0.00048	mg/L	0.000018	0.01195	mg/L	0.000441	3.69%
Ca 317.933†	107882.7	7.645	mg/L	0.0788	191.1	mg/L	1.97	1.03%
Cd 228.802†	144.6	0.00480	mg/L	0.000043	0.1199	mg/L	0.00109	0.91%
Co 228.616†	209.2	0.00441	mg/L	0.000149	0.1104	mg/L	0.00373	3.38%
Cr 267.716†	97.2	0.01522	mg/L	0.001146	0.3806	mg/L	0.02866	7.53%
Cu 324.752†	7667.9	0.02935	mg/L	0.000189	0.7337	mg/L	0.00473	0.64%
Fe 273.955†	13352.0	10.45	mg/L	0.125	261.2	mg/L	3.13	1.20%
K 766.490†	1670.3	0.8253	mg/L	0.01715	20.63	mg/L	0.429	2.08%
Mg 279.077†	3772.4	2.615	mg/L	0.0229	65.37	mg/L	0.572	0.87%
Mn 257.610†	21431.1	0.6038	mg/L	0.00684	15.10	mg/L	0.171	1.13%
Mo 202.031†	14.6	0.00063	mg/L	0.000315	0.01585	mg/L	0.007873	49.69%
Na 589.592†	2032.8	0.1587	mg/L	0.00195	3.968	mg/L	0.0487	1.23%
Na 330.237†	-8.0	-0.2447	mg/L	0.13598	-6.117	mg/L	3.3994	55.57%
Ni 231.604†	37.7	0.00875	mg/L	0.000381	0.2188	mg/L	0.00952	4.35%
Pb 220.353†	1952.6	0.2465	mg/L	0.00132	6.163	mg/L	0.0330	0.54%
Sb 206.836†	6.1	0.00185	mg/L	0.001627	0.04613	mg/L	0.040667	88.15%
Se 196.026†	5.7	0.00397	mg/L	0.001938	0.09932	mg/L	0.048444	48.78%
Si 288.158†	620.7	0.2928	mg/L	0.00425	7.321	mg/L	0.1063	1.45%
Sn 189.927†	-18.5	-0.00393	mg/L	0.000358	-0.09837	mg/L	0.008952	9.10%
Sr 421.552†	193516.8	0.2109	mg/L	0.00242	5.273	mg/L	0.0605	1.15%
Ti 334.903†	9984.9	0.4760	mg/L	0.00499	11.90	mg/L	0.125	1.05%
Tl 190.801†	-0.7	0.00076	mg/L	0.001715	0.01897	mg/L	0.042866	225.93%
V 292.402†	2701.1	0.01977	mg/L	0.000099	0.4941	mg/L	0.00247	0.50%
Zn 206.200†	931.5	0.2350	mg/L	0.00146	5.876	mg/L	0.0364	0.62%

Sequence No.: 55
Sample ID: VS18 A SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 344
Date Collected: 11/21/2012 2:49:29 PM
Data Type: Original

Nebulizer Parameters: VS18 A SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS18 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2543736.8	104.6	%	0.38				0.36%
ScR 361.383	322759.6	105.8	%	1.03				0.97%
Ag 328.068†	65.7	0.00038	mg/L	0.000155	0.00192	mg/L	0.000776	40.41%
Al 308.215†	88048.3	50.04	mg/L	0.447	250.2	mg/L	2.24	0.89%
As 188.979†	-39.4	0.04268	mg/L	0.003393	0.2134	mg/L	0.01697	7.95%
B 249.677†	44.0	0.00555	mg/L	0.000620	0.02773	mg/L	0.003101	11.18%
Ba 233.527†	3707.3	0.7402	mg/L	0.00817	3.701	mg/L	0.0409	1.10%
Be 313.042†	1365.6	0.00213	mg/L	0.000041	0.01063	mg/L	0.000206	1.94%
Ca 317.933†	512377.4	36.31	mg/L	0.429	181.5	mg/L	2.14	1.18%
Cd 228.802†	642.2	0.02129	mg/L	0.000106	0.1064	mg/L	0.00053	0.50%
Co 228.616†	978.3	0.02045	mg/L	0.000048	0.1023	mg/L	0.00024	0.23%
Cr 267.716†	426.6	0.06691	mg/L	0.000234	0.3345	mg/L	0.00117	0.35%
Cu 324.752†	35230.9	0.1349	mg/L	0.00015	0.6747	mg/L	0.00073	0.11%
Fe 273.955†	64956.4	50.83	mg/L	0.601	254.2	mg/L	3.00	1.18%
K 766.490†	8011.8	3.959	mg/L	0.0469	19.79	mg/L	0.235	1.19%
Mg 279.077†	17155.6	11.89	mg/L	0.123	59.44	mg/L	0.614	1.03%
Mn 257.610†	104842.8	2.954	mg/L	0.0312	14.77	mg/L	0.156	1.06%
Mo 202.031†	61.9	0.00265	mg/L	0.000318	0.01324	mg/L	0.001588	11.99%
Na 589.592†	10170.0	0.7940	mg/L	0.00562	3.970	mg/L	0.0281	0.71%
Na 330.237†	12.6	0.5904	mg/L	0.12486	2.952	mg/L	0.6243	21.15%
Ni 231.604†	171.0	0.03966	mg/L	0.000602	0.1983	mg/L	0.00301	1.52%
Pb 220.353†	9107.2	1.150	mg/L	0.0036	5.751	mg/L	0.0180	0.31%
Sb 206.836†	10.0	0.00328	mg/L	0.003095	0.01642	mg/L	0.015473	94.24%
Se 196.026†	6.4	0.00437	mg/L	0.002513	0.02183	mg/L	0.012563	57.55%
Si 288.158†	2994.4	1.413	mg/L	0.0150	7.063	mg/L	0.0750	1.06%
Sn 189.927†	-48.9	-0.00826	mg/L	0.001078	-0.04132	mg/L	0.005390	13.05%
Sr 421.552†	922448.9	1.005	mg/L	0.0100	5.027	mg/L	0.0502	1.00%
Ti 334.903†	48501.3	2.312	mg/L	0.0204	11.56	mg/L	0.102	0.88%
Tl 190.801†	-6.9	0.00231	mg/L	0.002008	0.01157	mg/L	0.010038	86.74%
V 292.402†	12537.6	0.09161	mg/L	0.000271	0.4581	mg/L	0.00135	0.30%
Zn 206.200†	4468.4	1.127	mg/L	0.0146	5.637	mg/L	0.0732	1.30%

Sequence No.: 56
Sample ID: VS18 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 345
Date Collected: 11/21/2012 2:53:45 PM
Data Type: Original

Nebulizer Parameters: VS18 ADUP SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2529903.1	104.0	%	0.31				0.29%
ScR 361.383	317507.2	104.0	%	1.09				1.05%
Ag 328.068†	24.3	0.00016	mg/L	0.000292	0.00081	mg/L	0.001461	180.71%
Al 308.215†	91983.2	52.28	mg/L	0.529	261.4	mg/L	2.65	1.01%
As 188.979†	-43.6	0.04307	mg/L	0.002233	0.2153	mg/L	0.01117	5.19%
B 249.677†	45.1	0.00568	mg/L	0.000775	0.02839	mg/L	0.003875	13.65%
Ba 233.527†	3907.2	0.7801	mg/L	0.00858	3.900	mg/L	0.0429	1.10%
Be 313.042†	1416.7	0.00220	mg/L	0.000040	0.01102	mg/L	0.000201	1.83%
Ca 317.933†	530376.8	37.59	mg/L	0.407	187.9	mg/L	2.04	1.08%
Cd 228.802†	686.9	0.02277	mg/L	0.000145	0.1139	mg/L	0.00073	0.64%
Co 228.616†	950.2	0.01949	mg/L	0.000039	0.09743	mg/L	0.000193	0.20%
Cr 267.716†	376.0	0.05903	mg/L	0.000403	0.2952	mg/L	0.00202	0.68%
Cu 324.752†	36423.3	0.1396	mg/L	0.00068	0.6978	mg/L	0.00341	0.49%
Fe 273.955†	68934.5	53.95	mg/L	0.430	269.7	mg/L	2.15	0.80%
K 766.490†	8439.6	4.170	mg/L	0.0441	20.85	mg/L	0.221	1.06%
Mg 279.077†	18209.3	12.62	mg/L	0.124	63.10	mg/L	0.618	0.98%
Mn 257.610†	113647.9	3.202	mg/L	0.0251	16.01	mg/L	0.126	0.78%
Mo 202.031†	67.1	0.00289	mg/L	0.000288	0.01444	mg/L	0.001440	9.97%
Na 589.592†	11640.6	0.9088	mg/L	0.01090	4.544	mg/L	0.0545	1.20%
Na 330.237†	6.2	0.3734	mg/L	0.14060	1.867	mg/L	0.7030	37.65%
Ni 231.604†	172.7	0.04005	mg/L	0.000185	0.2003	mg/L	0.00092	0.46%
Pb 220.353†	9607.4	1.213	mg/L	0.0006	6.066	mg/L	0.0029	0.05%
Sb 206.836†	14.0	0.00466	mg/L	0.002059	0.02329	mg/L	0.010293	44.20%
Se 196.026†	3.8	0.00259	mg/L	0.003716	0.01294	mg/L	0.018582	143.61%
Si 288.158†	2616.4	1.235	mg/L	0.0174	6.173	mg/L	0.0871	1.41%
Sn 189.927†	-49.5	-0.00824	mg/L	0.000498	-0.04119	mg/L	0.002491	6.05%
Sr 421.552†	966199.6	1.053	mg/L	0.0077	5.265	mg/L	0.0383	0.73%
Ti 334.903†	50501.6	2.408	mg/L	0.0234	12.04	mg/L	0.117	0.97%
Tl 190.801†	-5.9	0.00298	mg/L	0.002936	0.01492	mg/L	0.014682	98.43%
V 292.402†	13851.2	0.1013	mg/L	0.00013	0.5065	mg/L	0.00066	0.13%
Zn 206.200†	4658.5	1.175	mg/L	0.0111	5.877	mg/L	0.0555	0.94%

Sequence No.: 57
Sample ID: VS18 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 346
Date Collected: 11/21/2012 2:58:01 PM
Data Type: Original

Nebulizer Parameters: VS18 ASPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2553189.0	104.9	%	0.04				0.04%
ScR 361.383	320428.7	105.0	%	1.25				1.19%
Ag 328.068†	38460.3	0.2091	mg/L	0.00080	1.045	mg/L	0.0040	0.38%
Al 308.215†	92986.9	52.85	mg/L	0.612	264.2	mg/L	3.06	1.16%
As 188.979†	1408.7	0.8334	mg/L	0.00224	4.167	mg/L	0.0112	0.27%
B 249.677†	45.5	0.00530	mg/L	0.000058	0.02651	mg/L	0.000290	1.09%
Ba 233.527†	8223.9	1.652	mg/L	0.0166	8.258	mg/L	0.0829	1.00%
Be 313.042†	121630.6	0.1933	mg/L	0.00145	0.9667	mg/L	0.00726	0.75%
Ca 317.933†	590043.3	41.81	mg/L	0.374	209.1	mg/L	1.87	0.90%
Cd 228.802†	6885.0	0.2261	mg/L	0.00061	1.131	mg/L	0.0030	0.27%
Co 228.616†	8930.7	0.2284	mg/L	0.00028	1.142	mg/L	0.0014	0.12%
Cr 267.716†	1713.6	0.2674	mg/L	0.00213	1.337	mg/L	0.0107	0.80%
Cu 324.752†	91594.2	0.3482	mg/L	0.00155	1.741	mg/L	0.0077	0.44%
Fe 273.955†	68950.7	53.96	mg/L	0.241	269.8	mg/L	1.21	0.45%
K 766.490†	16280.4	8.045	mg/L	0.1219	40.22	mg/L	0.609	1.52%
Mg 279.077†	24440.3	16.95	mg/L	0.176	84.74	mg/L	0.882	1.04%
Mn 257.610†	116693.6	3.288	mg/L	0.0188	16.44	mg/L	0.094	0.57%
Mo 202.031†	64.8	0.00272	mg/L	0.000092	0.01360	mg/L	0.000461	3.39%
Na 589.592†	63170.2	4.932	mg/L	0.0578	24.66	mg/L	0.289	1.17%
Na 330.237†	136.1	4.816	mg/L	0.1119	24.08	mg/L	0.559	2.32%
Ni 231.604†	1057.7	0.2450	mg/L	0.00276	1.225	mg/L	0.0138	1.13%
Pb 220.353†	15587.2	1.962	mg/L	0.0080	9.811	mg/L	0.0400	0.41%
Sb 206.836†	18.8	0.00393	mg/L	0.002407	0.01966	mg/L	0.012036	61.23%
Se 196.026†	1119.9	0.7794	mg/L	0.00618	3.897	mg/L	0.0309	0.79%
Si 288.158†	3800.6	1.794	mg/L	0.0176	8.969	mg/L	0.0881	0.98%
Sn 189.927†	-55.3	-0.00924	mg/L	0.000960	-0.04622	mg/L	0.004800	10.39%
Sr 421.552†	1143276.4	1.246	mg/L	0.0134	6.230	mg/L	0.0668	1.07%
Ti 334.903†	53094.7	2.531	mg/L	0.0239	12.66	mg/L	0.120	0.95%
Tl 190.801†	2045.1	0.7890	mg/L	0.00295	3.945	mg/L	0.0148	0.37%
V 292.402†	40467.5	0.3016	mg/L	0.00111	1.508	mg/L	0.0056	0.37%
Zn 206.200†	5400.5	1.363	mg/L	0.0124	6.813	mg/L	0.0620	0.91%

Sequence No.: 58 ZZZZZZ PBA 11/23/12 DCL
Sample ID: ~~VS18 APOST SWC~~
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 347
Date Collected: 11/21/2012 3:02:04 PM
Data Type: Original

Nebulizer Parameters: VS18 APOST SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2543120.6	104.5	%	0.25				0.24%
ScR 361.383	318068.8	104.2	%	0.52				0.49%
Ag 328.068†	92710.5	0.5039	mg/L	0.00152	2.520	mg/L	0.0076	0.30%
Al 308.215†	92173.4	52.38	mg/L	0.498	261.9	mg/L	2.49	0.95%
As 188.979†	3631.0	2.031	mg/L	0.0181	10.16	mg/L	0.090	0.89%
B 249.677†	54.9	0.00586	mg/L	0.001503	0.02932	mg/L	0.007517	25.63%
Ba 233.527†	14552.5	2.930	mg/L	0.0162	14.65	mg/L	0.081	0.55%
Be 313.042†	302329.0	0.4807	mg/L	0.00389	2.403	mg/L	0.0195	0.81%
Ca 317.933†	667835.9	47.33	mg/L	0.453	236.6	mg/L	2.27	0.96%
Cd 228.802†	16132.2	0.5294	mg/L	0.00396	2.647	mg/L	0.0198	0.75%
Co 228.616†	20747.9	0.5385	mg/L	0.00337	2.693	mg/L	0.0169	0.63%
Cr 267.716†	3717.2	0.5795	mg/L	0.00278	2.898	mg/L	0.0139	0.48%
Cu 324.752†	170129.3	0.6452	mg/L	0.00094	3.226	mg/L	0.0047	0.15%
Fe 273.955†	66832.1	52.30	mg/L	0.576	261.5	mg/L	2.88	1.10%
K 766.490†	28616.3	14.14	mg/L	0.106	70.70	mg/L	0.530	0.75%
Mg 279.077†	33043.2	22.92	mg/L	0.116	114.6	mg/L	0.58	0.51%
Mn 257.610†	120592.1	3.398	mg/L	0.0376	16.99	mg/L	0.188	1.11%
Mo 202.031†	68.4	0.00282	mg/L	0.000173	0.01410	mg/L	0.000867	6.15%
Na 589.592†	139351.5	10.88	mg/L	0.084	54.40	mg/L	0.420	0.77%
Na 330.237†	306.6	10.56	mg/L	0.287	52.79	mg/L	1.436	2.72%
Ni 231.604†	2359.6	0.5465	mg/L	0.00491	2.732	mg/L	0.0246	0.90%
Pb 220.353†	25329.7	3.182	mg/L	0.0218	15.91	mg/L	0.109	0.69%
Sb 206.836†	37.2	0.00599	mg/L	0.001828	0.02996	mg/L	0.009140	30.51%
Se 196.026†	2823.5	1.965	mg/L	0.0202	9.826	mg/L	0.1008	1.03%
Si 288.158†	2940.9	1.391	mg/L	0.0149	6.953	mg/L	0.0743	1.07%
Sn 189.927†	-55.3	-0.00856	mg/L	0.000384	-0.04279	mg/L	0.001919	4.49%
Sr 421.552†	1409739.3	1.536	mg/L	0.0125	7.682	mg/L	0.0626	0.81%
Ti 334.903†	48723.6	2.322	mg/L	0.0209	11.61	mg/L	0.105	0.90%
Tl 190.801†	5107.3	1.963	mg/L	0.0122	9.813	mg/L	0.0608	0.62%
V 292.402†	79078.5	0.5925	mg/L	0.00105	2.962	mg/L	0.0052	0.18%
Zn 206.200†	6425.5	1.621	mg/L	0.0071	8.106	mg/L	0.0354	0.44%

Sequence No.: 59
Sample ID: VS18 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Del

Autosampler Location: 348
Date Collected: 11/21/2012 3:05:07 PM
Data Type: Original

Nebulizer Parameters: VS18 MB1SPK SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS18 MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2509247.8	103.1	%	0.28				0.27%
ScR 361.383	323398.0	106.0	%	0.98				0.92%
Ag 328.068†	99697.3	0.5419	mg/L	0.00325	1.084	mg/L	0.0065	0.60%
Al 308.215†	3525.6	1.996	mg/L	0.0208	3.993	mg/L	0.0415	1.04%
As 188.979†	3753.1	2.033	mg/L	0.0082	4.067	mg/L	0.0164	0.40%
B 249.677†	4.3	-0.00054	mg/L	0.000464	-0.00107	mg/L	0.000928	86.54%
Ba 233.527†	10746.9	2.170	mg/L	0.0189	4.339	mg/L	0.0378	0.87%
Be 313.042†	302665.2	0.4812	mg/L	0.00388	0.9625	mg/L	0.00775	0.81%
Ca 317.933†	140849.9	9.981	mg/L	0.0853	19.96	mg/L	0.171	0.85%
Cd 228.802†	15435.7	0.5060	mg/L	0.00044	1.012	mg/L	0.0009	0.09%
Co 228.616†	19998.3	0.5241	mg/L	0.00238	1.048	mg/L	0.0048	0.45%
Cr 267.716†	3308.4	0.5155	mg/L	0.00536	1.031	mg/L	0.0107	1.04%
Cu 324.752†	138064.3	0.5223	mg/L	0.00243	1.045	mg/L	0.0049	0.47%
Fe 273.955†	2446.9	1.911	mg/L	0.0166	3.823	mg/L	0.0331	0.87%
K 766.490†	20083.5	9.924	mg/L	0.0549	19.85	mg/L	0.110	0.55%
Mg 279.077†	14842.2	10.31	mg/L	0.092	20.62	mg/L	0.183	0.89%
Mn 257.610†	17001.6	0.4794	mg/L	0.00444	0.9587	mg/L	0.00888	0.93%
Mo 202.031†	17.4	0.00072	mg/L	0.000184	0.00144	mg/L	0.000367	25.57%
Na 589.592†	125977.2	9.835	mg/L	0.0856	19.67	mg/L	0.171	0.87%
Na 330.237†	281.8	9.541	mg/L	0.1145	19.08	mg/L	0.229	1.20%
Ni 231.604†	2210.8	0.5119	mg/L	0.00520	1.024	mg/L	0.0104	1.02%
Pb 220.353†	16277.8	2.039	mg/L	0.0072	4.078	mg/L	0.0144	0.35%
Sb 206.836†	13.1	-0.00150	mg/L	0.000177	-0.00300	mg/L	0.000355	11.83%
Se 196.026†	2865.3	1.994	mg/L	0.0055	3.989	mg/L	0.0110	0.28%
Si 288.158†	-1.4	0.00250	mg/L	0.000827	0.00500	mg/L	0.001654	33.05%
Sn 189.927†	-28.6	-0.00637	mg/L	0.000890	-0.01274	mg/L	0.001779	13.97%
Sr 421.552†	450668.6	0.4912	mg/L	0.00400	0.9823	mg/L	0.00799	0.81%
Ti 334.903†	44.4	0.00154	mg/L	0.000608	0.00308	mg/L	0.001215	39.45%
Tl 190.801†	5322.2	2.040	mg/L	0.0042	4.080	mg/L	0.0085	0.21%
V 292.402†	69697.3	0.5245	mg/L	0.00229	1.049	mg/L	0.0046	0.44%
Zn 206.200†	2019.1	0.5095	mg/L	0.00486	1.019	mg/L	0.0097	0.95%

Sequence No.: 60
Sample ID: CV 6
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 3:09:07 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2507581.6	103.1	%	0.33				0.32%
ScR 361.383	312259.2	102.3	%	0.55				0.54%
Ag 328.068†	192441.1	1.046	mg/L	0.0069	1.046	mg/L	0.0069	0.66%
Al 308.215†	3594.6	2.009	mg/L	0.0115	2.009	mg/L	0.0115	0.57%
As 188.979†	3634.9	1.995	mg/L	0.0067	1.995	mg/L	0.0067	0.34%
B 249.677†	7855.4	0.9973	mg/L	0.00755	0.9973	mg/L	0.00755	0.76%
Ba 233.527†	5408.1	1.091	mg/L	0.0076	1.091	mg/L	0.0076	0.70%
Be 313.042†	587233.5	0.9337	mg/L	0.00455	0.9337	mg/L	0.00455	0.49%
Ca 317.933†	27428.6	1.944	mg/L	0.0128	1.944	mg/L	0.0128	0.66%
Cd 228.802†	29295.6	0.9729	mg/L	0.00663	0.9729	mg/L	0.00663	0.68%
Co 228.616†	39748.3	1.040	mg/L	0.0021	1.040	mg/L	0.0021	0.20%
Cr 267.716†	6626.0	1.034	mg/L	0.0062	1.034	mg/L	0.0062	0.60%
Cu 324.752†	268219.3	1.014	mg/L	0.0065	1.014	mg/L	0.0065	0.64%
Fe 273.955†	2459.6	1.918	mg/L	0.0157	1.918	mg/L	0.0157	0.82%
K 766.490†	40728.5	20.13	mg/L	0.235	20.13	mg/L	0.235	1.17%
Mg 279.077†	2944.9	2.053	mg/L	0.0133	2.053	mg/L	0.0133	0.65%
Mn 257.610†	33087.8	0.9326	mg/L	0.00807	0.9326	mg/L	0.00807	0.86%
Mo 202.031†	20587.8	1.012	mg/L	0.0029	1.012	mg/L	0.0029	0.29%
Na 589.592†	649974.1	50.74	mg/L	0.358	50.74	mg/L	0.358	0.71%
Na 330.237†	1474.5	50.69	mg/L	0.262	50.69	mg/L	0.262	0.52%
Ni 231.604†	4443.2	1.031	mg/L	0.0057	1.031	mg/L	0.0057	0.55%
Pb 220.353†	16357.5	2.049	mg/L	0.0040	2.049	mg/L	0.0040	0.19%
Sb 206.836†	7004.3	2.089	mg/L	0.0058	2.089	mg/L	0.0058	0.28%
Se 196.026†	2776.6	1.932	mg/L	0.0076	1.932	mg/L	0.0076	0.39%
Si 288.158†	4444.5	2.094	mg/L	0.0209	2.094	mg/L	0.0209	1.00%
Sn 189.927†	3615.1	0.9714	mg/L	0.00410	0.9714	mg/L	0.00410	0.42%
Sr 421.552†	902092.1	0.9832	mg/L	0.00793	0.9832	mg/L	0.00793	0.81%
Ti 334.903†	21183.9	1.009	mg/L	0.0070	1.009	mg/L	0.0070	0.69%
Tl 190.801†	5265.5	2.014	mg/L	0.0043	2.014	mg/L	0.0043	0.21%
V 292.402†	136759.9	1.029	mg/L	0.0053	1.029	mg/L	0.0053	0.52%
Zn 206.200†	4139.1	1.044	mg/L	0.0055	1.044	mg/L	0.0055	0.53%

Sequence No.: 61
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 3:14:14 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2497021.7	102.6	%	0.61				0.59%
ScR 361.383	318410.5	104.3	%	0.91				0.87%
Ag 328.068†	2.6	0.00001	mg/L	0.000089	0.00001	mg/L	0.000089	623.03%
Al 308.215†	2.8	0.00156	mg/L	0.006909	0.00156	mg/L	0.006909	444.05%
As 188.979†	1.4	0.00078	mg/L	0.001309	0.00078	mg/L	0.001309	168.79%
B 249.677†	8.6	0.00110	mg/L	0.000265	0.00110	mg/L	0.000265	24.20%
Ba 233.527†	-1.7	-0.00034	mg/L	0.000928	-0.00034	mg/L	0.000928	276.71%
Be 313.042†	115.7	0.00018	mg/L	0.000037	0.00018	mg/L	0.000037	20.33%
Ca 317.933†	61.1	0.00433	mg/L	0.000209	0.00433	mg/L	0.000209	4.82%
Cd 228.802†	11.3	0.00037	mg/L	0.000229	0.00037	mg/L	0.000229	61.10%
Co 228.616†	2.5	0.00007	mg/L	0.000096	0.00007	mg/L	0.000096	147.68%
Cr 267.716†	-3.2	-0.00051	mg/L	0.000296	-0.00051	mg/L	0.000296	58.64%
Cu 324.752†	382.6	0.00145	mg/L	0.000110	0.00145	mg/L	0.000110	7.58%
Fe 273.955†	-0.1	-0.00012	mg/L	0.002045	-0.00012	mg/L	0.002045	>999.9%
K 766.490†	7.6	0.00376	mg/L	0.003386	0.00376	mg/L	0.003386	89.97%
Mg 279.077†	1.3	0.00088	mg/L	0.003988	0.00088	mg/L	0.003988	451.44%
Mn 257.610†	4.5	0.00013	mg/L	0.000135	0.00013	mg/L	0.000135	107.53%
Mo 202.031†	12.6	0.00062	mg/L	0.000086	0.00062	mg/L	0.000086	13.92%
Na 589.592†	-16.6	-0.00130	mg/L	0.005482	-0.00130	mg/L	0.005482	423.12%
Na 330.237†	-10.2	-0.3516	mg/L	0.15830	-0.3516	mg/L	0.15830	45.02%
Ni 231.604†	-0.4	-0.00009	mg/L	0.001205	-0.00009	mg/L	0.001205	>999.9%
Pb 220.353†	1.9	0.00023	mg/L	0.000807	0.00023	mg/L	0.000807	349.46%
Sb 206.836†	4.6	0.00139	mg/L	0.000339	0.00139	mg/L	0.000339	24.29%
Se 196.026†	8.7	0.00603	mg/L	0.003771	0.00603	mg/L	0.003771	62.53%
Si 288.158†	-0.9	-0.00044	mg/L	0.000663	-0.00044	mg/L	0.000663	150.01%
Sn 189.927†	0.7	0.00020	mg/L	0.000980	0.00020	mg/L	0.000980	498.10%
Sr 421.552†	146.6	0.00016	mg/L	0.000074	0.00016	mg/L	0.000074	46.22%
Ti 334.903†	14.1	0.00067	mg/L	0.000220	0.00067	mg/L	0.000220	32.80%
Tl 190.801†	2.1	0.00081	mg/L	0.003140	0.00081	mg/L	0.003140	385.72%
V 292.402†	-3.6	-0.00003	mg/L	0.000218	-0.00003	mg/L	0.000218	742.91%
Zn 206.200†	7.7	0.00194	mg/L	0.000625	0.00194	mg/L	0.000625	32.19%

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Analysis Begun

Start Time: 11/21/2012 3:18:48 PM **Plasma On Time: 11/21/2012 8:16:09 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\1121.sif
Batch ID:
Results Data Set: I2121121
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 349**
Sample ID: VS18 E SWC **Date Collected: 11/21/2012 3:18:49 PM**
Analyst: BA **Data Type: Original**
Dilution: 5.000000X

Dal

Nebulizer Parameters: VS18 E SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS18 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2568783.2	105.6	%	0.79				0.75%
ScR 361.383	327795.3	107.4	%	1.01				0.94%
Ag 328.068†	-70.1	-0.00034	mg/L	0.000185	-0.00172	mg/L	0.000925	53.73%
Al 308.215†	95461.1	54.25	mg/L	0.438	271.3	mg/L	2.19	0.81%
As 188.979†	-105.2	0.03243	mg/L	0.002434	0.1622	mg/L	0.01217	7.50%
B 249.677†	35.0	0.00439	mg/L	0.000848	0.02193	mg/L	0.004238	19.32%
Ba 233.527†	3060.8	0.6083	mg/L	0.00610	3.042	mg/L	0.0305	1.00%
Be 313.042†	977.3	0.00149	mg/L	0.000023	0.00745	mg/L	0.000116	1.55%
Ca 317.933†	378302.2	26.81	mg/L	0.182	134.0	mg/L	0.91	0.68%
Cd 228.802†	439.1	0.01463	mg/L	0.000081	0.07314	mg/L	0.000404	0.55%
Co 228.616†	1301.3	0.02714	mg/L	0.000148	0.1357	mg/L	0.00074	0.54%
Cr 267.716†	519.5	0.08138	mg/L	0.000628	0.4069	mg/L	0.00314	0.77%
Cu 324.752†	24564.7	0.09472	mg/L	0.001070	0.4736	mg/L	0.00535	1.13%
Fe 273.955†	75394.5	59.00	mg/L	0.701	295.0	mg/L	3.51	1.19%
K 766.490†	16541.6	8.174	mg/L	0.0517	40.87	mg/L	0.258	0.63%
Mg 279.077†	26625.5	18.46	mg/L	0.146	92.31	mg/L	0.731	0.79%
Mn 257.610†	60211.0	1.697	mg/L	0.0170	8.483	mg/L	0.0850	1.00%
Mo 202.031†	63.5	0.00283	mg/L	0.000053	0.01413	mg/L	0.000263	1.86%
Na 589.592†	12480.5	0.9744	mg/L	0.00589	4.872	mg/L	0.0294	0.60%
Na 330.237†	11.9	0.9243	mg/L	0.11198	4.622	mg/L	0.5599	12.11%
Ni 231.604†	252.5	0.05857	mg/L	0.000484	0.2928	mg/L	0.00242	0.83%
Pb 220.353†	4774.9	0.6085	mg/L	0.00480	3.042	mg/L	0.0240	0.79%
Sb 206.836†	8.6	0.00317	mg/L	0.001233	0.01584	mg/L	0.006166	38.92%
Se 196.026†	16.7	0.01157	mg/L	0.002024	0.05783	mg/L	0.010121	17.50%
Si 288.158†	2490.6	1.176	mg/L	0.0097	5.879	mg/L	0.0486	0.83%
Sn 189.927†	-44.7	-0.00820	mg/L	0.001313	-0.04102	mg/L	0.006566	16.01%
Sr 421.552†	511086.3	0.5570	mg/L	0.00425	2.785	mg/L	0.0212	0.76%
Ti 334.903†	66709.5	3.181	mg/L	0.0257	15.91	mg/L	0.128	0.81%
Tl 190.801†	-11.4	0.00127	mg/L	0.002523	0.00634	mg/L	0.012614	198.99%
V 292.402†	16791.0	0.1226	mg/L	0.00112	0.6129	mg/L	0.00561	0.92%
Zn 206.200†	2530.0	0.6383	mg/L	0.00666	3.192	mg/L	0.0333	1.04%

Sequence No.: 2
Sample ID: VS18 F SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 350
Date Collected: 11/21/2012 3:22:52 PM
Data Type: Original

Nebulizer Parameters: VS18 F SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2573131.2	105.8	%	0.73				0.69%
ScR 361.383	323007.8	105.8	%	0.15				0.15%
Ag 328.068†	-158.7	-0.00082	mg/L	0.000295	-0.00410	mg/L	0.001474	35.91%
Al 308.215†	112063.2	63.69	mg/L	0.346	318.5	mg/L	1.73	0.54%
As 188.979†	-150.1	0.02072	mg/L	0.002766	0.1036	mg/L	0.01383	13.35%
B 249.677†	19.3	0.00237	mg/L	0.000194	0.01186	mg/L	0.000971	8.19%
Ba 233.527†	3169.3	0.6292	mg/L	0.00250	3.146	mg/L	0.0125	0.40%
Be 313.042†	1126.6	0.00172	mg/L	0.000015	0.00860	mg/L	0.000075	0.87%
Ca 317.933†	398891.8	28.27	mg/L	0.291	141.3	mg/L	1.46	1.03%
Cd 228.802†	163.1	0.00546	mg/L	0.000145	0.02730	mg/L	0.000727	2.66%
Co 228.616†	1452.2	0.03015	mg/L	0.000163	0.1507	mg/L	0.00081	0.54%
Cr 267.716†	625.9	0.09796	mg/L	0.001580	0.4898	mg/L	0.00790	1.61%
Cu 324.752†	24307.5	0.09391	mg/L	0.000534	0.4696	mg/L	0.00267	0.57%
Fe 273.955†	83584.0	65.41	mg/L	0.535	327.1	mg/L	2.68	0.82%
K 766.490†	17134.6	8.467	mg/L	0.0478	42.33	mg/L	0.239	0.56%
Mg 279.077†	30996.9	21.50	mg/L	0.133	107.5	mg/L	0.66	0.62%
Mn 257.610†	64154.3	1.808	mg/L	0.0109	9.038	mg/L	0.0545	0.60%
Mo 202.031†	50.0	0.00215	mg/L	0.000252	0.01074	mg/L	0.001260	11.73%
Na 589.592†	16643.4	1.299	mg/L	0.0086	6.497	mg/L	0.0431	0.66%
Na 330.237†	14.7	1.220	mg/L	0.0098	6.100	mg/L	0.0491	0.81%
Ni 231.604†	311.6	0.07229	mg/L	0.001006	0.3614	mg/L	0.00503	1.39%
Pb 220.353†	1441.4	0.1931	mg/L	0.00166	0.9655	mg/L	0.00830	0.86%
Sb 206.836†	2.9	0.00149	mg/L	0.002168	0.00745	mg/L	0.010840	145.41%
Se 196.026†	13.5	0.00933	mg/L	0.004881	0.04663	mg/L	0.024403	52.33%
Si 288.158†	1491.6	0.7055	mg/L	0.00404	3.527	mg/L	0.0202	0.57%
Sn 189.927†	-46.2	-0.00838	mg/L	0.001303	-0.04192	mg/L	0.006515	15.54%
Sr 421.552†	524523.1	0.5717	mg/L	0.00273	2.858	mg/L	0.0136	0.48%
Ti 334.903†	76050.3	3.627	mg/L	0.0235	18.13	mg/L	0.118	0.65%
Tl 190.801†	-7.3	0.00347	mg/L	0.001625	0.01733	mg/L	0.008127	46.89%
V 292.402†	19214.1	0.1404	mg/L	0.00080	0.7018	mg/L	0.00402	0.57%
Zn 206.200†	1328.6	0.3352	mg/L	0.00106	1.676	mg/L	0.0053	0.32%

Sequence No.: 3
Sample ID: VS18 G SWC
Analyst: BA
Dilution: 5.000000X

Del.

Autosampler Location: 351
Date Collected: 11/21/2012 3:26:52 PM
Data Type: Original

Nebulizer Parameters: VS18 G SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS18 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2578213.9	106.0	%	0.20				0.19%
ScR 361.383	328358.5	107.6	%	0.63				0.59%
Ag 328.068†	-182.7	-0.00095	mg/L	0.000170	-0.00474	mg/L	0.000851	17.93%
Al 308.215†	112607.4	64.00	mg/L	0.395	320.0	mg/L	1.97	0.62%
As 188.979†	-181.7	0.00899	mg/L	0.001176	0.04493	mg/L	0.005882	13.09%
B 249.677†	15.4	0.00188	mg/L	0.000355	0.00940	mg/L	0.001774	18.87%
Ba 233.527†	2852.2	0.5646	mg/L	0.00466	2.823	mg/L	0.0233	0.82%
Be 313.042†	1138.2	0.00173	mg/L	0.000024	0.00867	mg/L	0.000119	1.37%
Ca 317.933†	357040.2	25.30	mg/L	0.202	126.5	mg/L	1.01	0.80%
Cd 228.802†	107.5	0.00367	mg/L	0.000186	0.01837	mg/L	0.000928	5.05%
Co 228.616†	1535.9	0.03196	mg/L	0.000189	0.1598	mg/L	0.00094	0.59%
Cr 267.716†	637.0	0.09985	mg/L	0.001304	0.4992	mg/L	0.00652	1.31%
Cu 324.752†	27139.4	0.1047	mg/L	0.00071	0.5236	mg/L	0.00356	0.68%
Fe 273.955†	87420.7	68.41	mg/L	0.763	342.1	mg/L	3.81	1.11%
K 766.490†	16158.7	7.984	mg/L	0.0658	39.92	mg/L	0.329	0.82%
Mg 279.077†	31194.8	21.63	mg/L	0.183	108.2	mg/L	0.92	0.85%
Mn 257.610†	54860.7	1.546	mg/L	0.0139	7.729	mg/L	0.0695	0.90%
Mo 202.031†	52.2	0.00229	mg/L	0.000177	0.01143	mg/L	0.000887	7.76%
Na 589.592†	14992.0	1.170	mg/L	0.0085	5.852	mg/L	0.0424	0.72%
Na 330.237†	6.3	0.9946	mg/L	0.17624	4.973	mg/L	0.8812	17.72%
Ni 231.604†	313.2	0.07266	mg/L	0.001525	0.3633	mg/L	0.00763	2.10%
Pb 220.353†	837.1	0.1174	mg/L	0.00096	0.5868	mg/L	0.00479	0.82%
Sb 206.836†	-0.5	0.00056	mg/L	0.000581	0.00281	mg/L	0.002905	103.57%
Se 196.026†	14.8	0.01018	mg/L	0.002782	0.05092	mg/L	0.013910	27.32%
Si 288.158†	1804.7	0.8530	mg/L	0.00879	4.265	mg/L	0.0439	1.03%
Sn 189.927†	-45.2	-0.00844	mg/L	0.000625	-0.04219	mg/L	0.003124	7.40%
Sr 421.552†	460187.0	0.5015	mg/L	0.00292	2.508	mg/L	0.0146	0.58%
Ti 334.903†	79861.2	3.809	mg/L	0.0268	19.04	mg/L	0.134	0.70%
Tl 190.801†	-11.9	0.00194	mg/L	0.001984	0.00970	mg/L	0.009920	102.27%
V 292.402†	20475.8	0.1496	mg/L	0.00113	0.7478	mg/L	0.00565	0.76%
Zn 206.200†	1060.5	0.2676	mg/L	0.00239	1.338	mg/L	0.0119	0.89%

Sequence No.: 4
Sample ID: VS18 H SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 352
Date Collected: 11/21/2012 3:30:53 PM
Data Type: Original

Nebulizer Parameters: VS18 H SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2611422.2	107.3	%	0.13				0.12%
ScR 361.383	327425.9	107.3	%	1.61				1.50%
Ag 328.068†	40.3	0.00028	mg/L	0.000133	0.00138	mg/L	0.000667	48.33%
Al 308.215†	121669.9	69.15	mg/L	1.266	345.8	mg/L	6.33	1.83%
As 188.979†	-27.5	0.09518	mg/L	0.000839	0.4759	mg/L	0.00420	0.88%
B 249.677†	6.5	0.00073	mg/L	0.000622	0.00363	mg/L	0.003109	85.66%
Ba 233.527†	3749.4	0.7435	mg/L	0.01262	3.718	mg/L	0.0631	1.70%
Be 313.042†	1364.2	0.00208	mg/L	0.000060	0.01042	mg/L	0.000301	2.89%
Ca 317.933†	226125.3	16.02	mg/L	0.286	80.12	mg/L	1.432	1.79%
Cd 228.802†	755.2	0.02477	mg/L	0.000169	0.1239	mg/L	0.00085	0.68%
Co 228.616†	1934.7	0.04208	mg/L	0.000083	0.2104	mg/L	0.00041	0.20%
Cr 267.716†	882.8	0.1380	mg/L	0.00255	0.6899	mg/L	0.01276	1.85%
Cu 324.752†	35049.6	0.1352	mg/L	0.00027	0.6758	mg/L	0.00136	0.20%
Fe 273.955†	105112.1	82.26	mg/L	1.336	411.3	mg/L	6.68	1.62%
K 766.490†	26691.5	13.19	mg/L	0.248	65.95	mg/L	1.241	1.88%
Mg 279.077†	44767.8	31.05	mg/L	0.544	155.3	mg/L	2.72	1.75%
Mn 257.610†	72371.8	2.039	mg/L	0.0337	10.20	mg/L	0.168	1.65%
Mo 202.031†	51.5	0.00235	mg/L	0.000137	0.01175	mg/L	0.000684	5.82%
Na 589.592†	12638.4	0.9867	mg/L	0.01796	4.933	mg/L	0.0898	1.82%
Na 330.237†	7.6	0.8329	mg/L	0.24796	4.165	mg/L	1.2398	29.77%
Ni 231.604†	333.3	0.07731	mg/L	0.000647	0.3866	mg/L	0.00323	0.84%
Pb 220.353†	9463.4	1.198	mg/L	0.0028	5.991	mg/L	0.0142	0.24%
Sb 206.836†	26.5	0.00834	mg/L	0.000858	0.04171	mg/L	0.004289	10.28%
Se 196.026†	23.9	0.01649	mg/L	0.002231	0.08244	mg/L	0.011154	13.53%
Si 288.158†	2172.3	1.027	mg/L	0.0164	5.137	mg/L	0.0822	1.60%
Sn 189.927†	-24.0	-0.00386	mg/L	0.001035	-0.01932	mg/L	0.005176	26.79%
Sr 421.552†	136780.1	0.1491	mg/L	0.00271	0.7454	mg/L	0.01355	1.82%
Ti 334.903†	81397.1	3.883	mg/L	0.0708	19.41	mg/L	0.354	1.82%
Tl 190.801†	-16.4	0.00150	mg/L	0.002817	0.00748	mg/L	0.014087	188.35%
V 292.402†	26298.6	0.1929	mg/L	0.00025	0.9646	mg/L	0.00125	0.13%
Zn 206.200†	3776.0	0.9527	mg/L	0.01365	4.764	mg/L	0.0683	1.43%

Sequence No.: 5
Sample ID: VS18 I SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 353
Date Collected: 11/21/2012 3:34:53 PM
Data Type: Original

Nebulizer Parameters: VS18 I SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2581420.3	106.1	%	0.33				0.31%
ScR 361.383	326832.8	107.1	%	0.69				0.65%
Ag 328.068†	843.5	0.00461	mg/L	0.000121	0.02307	mg/L	0.000604	2.62%
Al 308.215†	86352.0	49.08	mg/L	0.348	245.4	mg/L	1.74	0.71%
As 188.979†	47.2	0.09388	mg/L	0.001688	0.4694	mg/L	0.00844	1.80%
B 249.677†	88.5	0.01118	mg/L	0.000968	0.05588	mg/L	0.004841	8.66%
Ba 233.527†	5708.0	1.142	mg/L	0.0042	5.711	mg/L	0.0210	0.37%
Be 313.042†	961.9	0.00148	mg/L	0.000039	0.00740	mg/L	0.000195	2.63%
Ca 317.933†	379768.4	26.91	mg/L	0.182	134.6	mg/L	0.91	0.68%
Cd 228.802†	2484.6	0.08284	mg/L	0.000421	0.4142	mg/L	0.00211	0.51%
Co 228.616†	1282.3	0.02798	mg/L	0.000247	0.1399	mg/L	0.00123	0.88%
Cr 267.716†	544.1	0.08520	mg/L	0.000526	0.4260	mg/L	0.00263	0.62%
Cu 324.752†	37117.6	0.1425	mg/L	0.00080	0.7126	mg/L	0.00399	0.56%
Fe 273.955†	79887.0	62.52	mg/L	0.493	312.6	mg/L	2.47	0.79%
K 766.490†	18834.1	9.306	mg/L	0.0675	46.53	mg/L	0.338	0.73%
Mg 279.077†	24742.8	17.15	mg/L	0.138	85.76	mg/L	0.689	0.80%
Mn 257.610†	119129.0	3.357	mg/L	0.0239	16.79	mg/L	0.119	0.71%
Mo 202.031†	76.5	0.00347	mg/L	0.000108	0.01733	mg/L	0.000542	3.13%
Na 589.592†	7766.7	0.6063	mg/L	0.00697	3.032	mg/L	0.0348	1.15%
Na 330.237†	42.1	0.5860	mg/L	0.21235	2.930	mg/L	1.0618	36.24%
Ni 231.604†	271.6	0.06300	mg/L	0.000616	0.3150	mg/L	0.00308	0.98%
Pb 220.353†	35022.1	4.394	mg/L	0.0338	21.97	mg/L	0.169	0.77%
Sb 206.836†	77.7	0.02349	mg/L	0.001533	0.1175	mg/L	0.00766	6.52%
Se 196.026†	16.3	0.01124	mg/L	0.002121	0.05621	mg/L	0.010607	18.87%
Si 288.158†	1494.6	0.7066	mg/L	0.00203	3.533	mg/L	0.0101	0.29%
Sn 189.927†	15.4	0.00796	mg/L	0.000685	0.03979	mg/L	0.003426	8.61%
Sr 421.552†	247446.0	0.2697	mg/L	0.00196	1.348	mg/L	0.0098	0.73%
Ti 334.903†	51220.9	2.442	mg/L	0.0186	12.21	mg/L	0.093	0.76%
Tl 190.801†	-3.5	0.00477	mg/L	0.002053	0.02383	mg/L	0.010266	43.08%
V 292.402†	14163.9	0.1035	mg/L	0.00058	0.5173	mg/L	0.00290	0.56%
Zn 206.200†	17103.5	4.315	mg/L	0.0155	21.58	mg/L	0.078	0.36%

Sequence No.: 6
Sample ID: VS18 J SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 354
Date Collected: 11/21/2012 3:38:53 PM
Data Type: Original

Nebulizer Parameters: VS18 J SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2585254.2	106.3	%	0.16				0.15%
ScR 361.383	328424.0	107.6	%	1.11				1.04%
Ag 328.068†	459.8	0.00259	mg/L	0.000234	0.01294	mg/L	0.001171	9.05%
Al 308.215†	195875.0	111.3	mg/L	1.47	556.6	mg/L	7.36	1.32%
As 188.979†	-210.2	0.1305	mg/L	0.00295	0.6527	mg/L	0.01474	2.26%
B 249.677†	30.7	0.00368	mg/L	0.001315	0.01841	mg/L	0.006577	35.72%
Ba 233.527†	11086.9	2.214	mg/L	0.0252	11.07	mg/L	0.126	1.14%
Be 313.042†	1549.9	0.00230	mg/L	0.000043	0.01150	mg/L	0.000215	1.87%
Ca 317.933†	371398.4	26.32	mg/L	0.314	131.6	mg/L	1.57	1.19%
Cd 228.802†	1792.4	0.05991	mg/L	0.000196	0.2996	mg/L	0.00098	0.33%
Co 228.616†	4065.6	0.08778	mg/L	0.000574	0.4389	mg/L	0.00287	0.65%
Cr 267.716†	4210.2	0.6544	mg/L	0.00711	3.272	mg/L	0.0356	1.09%
Cu 324.752†	62406.3	0.2401	mg/L	0.00032	1.200	mg/L	0.0016	0.13%
Fe 273.955†	189222.3	148.1	mg/L	1.91	740.4	mg/L	9.54	1.29%
K 766.490†	111506.0	55.10	mg/L	0.793	275.5	mg/L	3.97	1.44%
Mg 279.077†	133832.7	92.88	mg/L	1.318	464.4	mg/L	6.59	1.42%
Mn 257.610†	137377.3	3.871	mg/L	0.0512	19.36	mg/L	0.256	1.32%
Mo 202.031†	63.7	0.00281	mg/L	0.000049	0.01407	mg/L	0.000245	1.74%
Na 589.592†	16027.6	1.251	mg/L	0.0160	6.256	mg/L	0.0801	1.28%
Na 330.237†	12.7	1.460	mg/L	0.2228	7.299	mg/L	1.1138	15.26%
Ni 231.604†	1412.8	0.3277	mg/L	0.00404	1.639	mg/L	0.0202	1.23%
Pb 220.353†	26828.5	3.381	mg/L	0.0162	16.90	mg/L	0.081	0.48%
Sb 206.836†	90.0	0.02229	mg/L	0.001861	0.1114	mg/L	0.00930	8.35%
Se 196.026†	35.5	0.02450	mg/L	0.001858	0.1225	mg/L	0.00929	7.58%
Si 288.158†	1322.0	0.6343	mg/L	0.00685	3.172	mg/L	0.0343	1.08%
Sn 189.927†	-16.3	0.00024	mg/L	0.000816	0.00122	mg/L	0.004081	334.91%
Sr 421.552†	328710.4	0.3583	mg/L	0.00449	1.791	mg/L	0.0225	1.25%
Ti 334.903†	180795.0	8.624	mg/L	0.1100	43.12	mg/L	0.550	1.28%
Tl 190.801†	-36.2	0.00004	mg/L	0.000795	0.00021	mg/L	0.003975	>999.9%
V 292.402†	41077.8	0.3012	mg/L	0.00036	1.506	mg/L	0.0018	0.12%
Zn 206.200†	11334.7	2.860	mg/L	0.0330	14.30	mg/L	0.165	1.16%

Sequence No.: 7
Sample ID: VS18 K SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 355
Date Collected: 11/21/2012 3:42:39 PM
Data Type: Original

Nebulizer Parameters: VS18 K SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2573184.9	105.8	%	0.11				0.11%
ScR 361.383	328566.1	107.7	%	0.29				0.27%
Ag 328.068†	221.6	0.00126	mg/L	0.000167	0.00629	mg/L	0.000833	13.25%
Al 308.215†	144751.1	82.27	mg/L	0.453	411.4	mg/L	2.26	0.55%
As 188.979†	-1.0	0.1118	mg/L	0.00299	0.5589	mg/L	0.01493	2.67%
B 249.677†	41.1	0.00511	mg/L	0.000937	0.02556	mg/L	0.004684	18.33%
Ba 233.527†	15880.2	3.191	mg/L	0.0077	15.96	mg/L	0.038	0.24%
Be 313.042†	1357.9	0.00207	mg/L	0.000016	0.01037	mg/L	0.000082	0.79%
Ca 317.933†	416148.9	29.49	mg/L	0.226	147.5	mg/L	1.13	0.77%
Cd 228.802†	3316.1	0.1107	mg/L	0.00024	0.5535	mg/L	0.00120	0.22%
Co 228.616†	2125.1	0.04652	mg/L	0.000226	0.2326	mg/L	0.00113	0.49%
Cr 267.716†	1256.7	0.1959	mg/L	0.00093	0.9795	mg/L	0.00466	0.48%
Cu 324.752†	34870.1	0.1349	mg/L	0.00043	0.6746	mg/L	0.00216	0.32%
Fe 273.955†	119670.0	93.65	mg/L	0.453	468.3	mg/L	2.26	0.48%
K 766.490†	19414.0	9.593	mg/L	0.0728	47.97	mg/L	0.364	0.76%
Mg 279.077†	49825.6	34.56	mg/L	0.216	172.8	mg/L	1.08	0.63%
Mn 257.610†	235477.4	6.635	mg/L	0.0290	33.18	mg/L	0.145	0.44%
Mo 202.031†	75.6	0.00339	mg/L	0.000210	0.01694	mg/L	0.001050	6.19%
Na 589.592†	8066.4	0.6298	mg/L	0.00319	3.149	mg/L	0.0159	0.51%
Na 330.237†	20.5	0.5356	mg/L	0.19198	2.678	mg/L	0.9599	35.84%
Ni 231.604†	359.4	0.08338	mg/L	0.000462	0.4169	mg/L	0.00231	0.55%
Pb 220.353†	30332.7	3.814	mg/L	0.0062	19.07	mg/L	0.031	0.16%
Sb 206.836†	61.0	0.01776	mg/L	0.001035	0.08881	mg/L	0.005177	5.83%
Se 196.026†	20.4	0.01404	mg/L	0.001518	0.07020	mg/L	0.007591	10.81%
Si 288.158†	1333.9	0.6331	mg/L	0.00549	3.166	mg/L	0.0274	0.87%
Sn 189.927†	-23.2	-0.00187	mg/L	0.000801	-0.00936	mg/L	0.004003	42.78%
Sr 421.552†	329256.9	0.3588	mg/L	0.00183	1.794	mg/L	0.0091	0.51%
Ti 334.903†	83696.4	3.992	mg/L	0.0244	19.96	mg/L	0.122	0.61%
Tl 190.801†	-26.8	-0.00131	mg/L	0.002336	-0.00656	mg/L	0.011679	177.99%
V 292.402†	24537.3	0.1802	mg/L	0.00048	0.9010	mg/L	0.00242	0.27%
Zn 206.200†	12988.0	3.277	mg/L	0.0081	16.38	mg/L	0.041	0.25%

Sequence No.: 8
Sample ID: VS18 L SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 356
Date Collected: 11/21/2012 3:46:39 PM
Data Type: Original

Nebulizer Parameters: VS18 L SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2526834.3	103.9	%	0.34				0.33%
ScR 361.383	318077.0	104.2	%	0.52				0.50%
Ag 328.068†	-629.0	-0.00333	mg/L	0.000016	-0.01665	mg/L	0.000082	0.49%
Al 308.215†	205876.1	117.0	mg/L	0.87	585.1	mg/L	4.33	0.74%
As 188.979†	-79.1	0.05917	mg/L	0.002631	0.2958	mg/L	0.01316	4.45%
B 249.677†	-6.2	-0.00103	mg/L	0.001779	-0.00516	mg/L	0.008893	172.19%
Ba 233.527†	56068.4	11.30	mg/L	0.104	56.48	mg/L	0.522	0.92%
Be 313.042†	3771.0	0.00589	mg/L	0.000055	0.02945	mg/L	0.000277	0.94%
Ca 317.933†	763484.5	54.10	mg/L	0.412	270.5	mg/L	2.06	0.76%
Cd 228.802†	665.7	0.02184	mg/L	0.000127	0.1092	mg/L	0.00064	0.58%
Co 228.616†	4696.8	0.1129	mg/L	0.00038	0.5647	mg/L	0.00190	0.34%
Cr 267.716†	11200.8	1.742	mg/L	0.0199	8.708	mg/L	0.0996	1.14%
Cu 324.752†	54411.1	0.2106	mg/L	0.00022	1.053	mg/L	0.0011	0.10%
Fe 273.955†	195531.9	153.0	mg/L	1.98	765.1	mg/L	9.91	1.30%
K 766.490†	143221.2	70.77	mg/L	0.527	353.8	mg/L	2.64	0.74%
Mg 279.077†	207573.4	144.1	mg/L	1.16	720.5	mg/L	5.79	0.80%
Mn 257.610†	117279.7	3.305	mg/L	0.0391	16.52	mg/L	0.195	1.18%
Mo 202.031†	98.4	0.00416	mg/L	0.000295	0.02080	mg/L	0.001476	7.09%
Na 589.592†	15801.4	1.234	mg/L	0.0091	6.168	mg/L	0.0456	0.74%
Na 330.237†	5.5	0.6311	mg/L	0.27561	3.156	mg/L	1.3781	43.67%
Ni 231.604†	2921.0	0.6776	mg/L	0.01202	3.388	mg/L	0.0601	1.77%
Pb 220.353†	7579.4	0.9737	mg/L	0.00466	4.868	mg/L	0.0233	0.48%
Sb 206.836†	104.8	0.00862	mg/L	0.003324	0.04311	mg/L	0.016620	38.56%
Se 196.026†	25.4	0.01743	mg/L	0.005404	0.08713	mg/L	0.027019	31.01%
Si 288.158†	2010.7	0.9649	mg/L	0.01386	4.825	mg/L	0.0693	1.44%
Sn 189.927†	-84.7	-0.01545	mg/L	0.000766	-0.07725	mg/L	0.003832	4.96%
Sr 421.552†	2082066.3	2.269	mg/L	0.0183	11.35	mg/L	0.092	0.81%
Ti 334.903†	78937.9	3.763	mg/L	0.0328	18.82	mg/L	0.164	0.87%
Tl 190.801†	-34.2	0.00081	mg/L	0.000826	0.00404	mg/L	0.004131	102.18%
V 292.402†	41037.0	0.3081	mg/L	0.00081	1.540	mg/L	0.0041	0.26%
Zn 206.200†	5017.4	1.266	mg/L	0.0143	6.329	mg/L	0.0714	1.13%

Sequence No.: 9
Sample ID: CV 7
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 3:49:42 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2544464.9	104.6	%	0.56				0.53%
ScR 361.383	317332.3	104.0	%	0.48	.			0.46%
Ag 328.068†	186343.5	1.013	mg/L	0.0011	1.013	mg/L	0.0011	0.11%
Al 308.215†	3634.7	2.032	mg/L	0.0041	2.032	mg/L	0.0041	0.20%
As 188.979†	3623.9	1.989	mg/L	0.0128	1.989	mg/L	0.0128	0.65%
B 249.677†	7847.9	0.9964	mg/L	0.00447	0.9964	mg/L	0.00447	0.45%
Ba 233.527†	5477.3	1.105	mg/L	0.0015	1.105	mg/L	0.0015	0.14%
Be 313.042†	586950.7	0.9333	mg/L	0.00407	0.9333	mg/L	0.00407	0.44%
Ca 317.933†	27746.0	1.966	mg/L	0.0097	1.966	mg/L	0.0097	0.49%
Cd 228.802†	28828.1	0.9572	mg/L	0.00049	0.9572	mg/L	0.00049	0.05%
Co 228.616†	38617.2	1.010	mg/L	0.0010	1.010	mg/L	0.0010	0.10%
Cr 267.716†	6666.1	1.040	mg/L	0.0016	1.040	mg/L	0.0016	0.15%
Cu 324.752†	259165.3	0.9799	mg/L	0.00175	0.9799	mg/L	0.00175	0.18%
Fe 273.955†	2493.8	1.945	mg/L	0.0091	1.945	mg/L	0.0091	0.47%
K 766.490†	40864.6	20.19	mg/L	0.147	20.19	mg/L	0.147	0.73%
Mg 279.077†	3004.3	2.094	mg/L	0.0057	2.094	mg/L	0.0057	0.27%
Mn 257.610†	33085.1	0.9325	mg/L	0.00303	0.9325	mg/L	0.00303	0.32%
Mo 202.031†	20409.6	1.003	mg/L	0.0062	1.003	mg/L	0.0062	0.62%
Na 589.592†	649100.6	50.68	mg/L	0.391	50.68	mg/L	0.391	0.77%
Na 330.237†	1461.3	50.23	mg/L	0.209	50.23	mg/L	0.209	0.42%
Ni 231.604†	4474.8	1.038	mg/L	0.0017	1.038	mg/L	0.0017	0.16%
Pb 220.353†	16269.0	2.038	mg/L	0.0094	2.038	mg/L	0.0094	0.46%
Sb 206.836†	6941.8	2.070	mg/L	0.0072	2.070	mg/L	0.0072	0.35%
Se 196.026†	2748.4	1.912	mg/L	0.0175	1.912	mg/L	0.0175	0.91%
Si 288.158†	4439.4	2.091	mg/L	0.0075	2.091	mg/L	0.0075	0.36%
Sn 189.927†	3574.3	0.9605	mg/L	0.00575	0.9605	mg/L	0.00575	0.60%
Sr 421.552†	901294.9	0.9823	mg/L	0.00802	0.9823	mg/L	0.00802	0.82%
Ti 334.903†	21242.8	1.012	mg/L	0.0069	1.012	mg/L	0.0069	0.68%
Tl 190.801†	5245.9	2.007	mg/L	0.0099	2.007	mg/L	0.0099	0.49%
V 292.402†	134182.5	1.010	mg/L	0.0004	1.010	mg/L	0.0004	0.04%
Zn 206.200†	4200.7	1.060	mg/L	0.0001	1.060	mg/L	0.0001	0.01%

Sequence No.: 10
Sample ID: CB 7
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 3:54:35 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2536813.0	104.3	%	0.61				0.59%
ScR 361.383	320304.6	105.0	%	1.68				1.60%
Ag 328.068†	44.4	0.00024	mg/L	0.000137	0.00024	mg/L	0.000137	56.58%
Al 308.215†	36.2	0.02056	mg/L	0.015106	0.02056	mg/L	0.015106	73.49%
As 188.979†	-1.7	-0.00089	mg/L	0.001023	-0.00089	mg/L	0.001023	115.16%
B 249.677†	8.3	0.00106	mg/L	0.001046	0.00106	mg/L	0.001046	99.13%
Ba 233.527†	3.4	0.00068	mg/L	0.001075	0.00068	mg/L	0.001075	158.17%
Be 313.042†	110.6	0.00018	mg/L	0.000068	0.00018	mg/L	0.000068	38.38%
Ca 317.933†	144.4	0.01023	mg/L	0.003636	0.01023	mg/L	0.003636	35.54%
Cd 228.802†	17.4	0.00059	mg/L	0.000106	0.00059	mg/L	0.000106	17.97%
Co 228.616†	5.9	0.00015	mg/L	0.000035	0.00015	mg/L	0.000035	22.87%
Cr 267.716†	2.1	0.00033	mg/L	0.000499	0.00033	mg/L	0.000499	149.25%
Cu 324.752†	406.0	0.00154	mg/L	0.000002	0.00154	mg/L	0.000002	0.13%
Fe 273.955†	26.5	0.02072	mg/L	0.011283	0.02072	mg/L	0.011283	54.46%
K 766.490†	10.6	0.00523	mg/L	0.006785	0.00523	mg/L	0.006785	129.73%
Mg 279.077†	23.0	0.01596	mg/L	0.008441	0.01596	mg/L	0.008441	52.90%
Mn 257.610†	31.5	0.00089	mg/L	0.000652	0.00089	mg/L	0.000652	73.38%
Mo 202.031†	11.0	0.00054	mg/L	0.000262	0.00054	mg/L	0.000262	48.53%
Na 589.592†	25.8	0.00201	mg/L	0.000730	0.00201	mg/L	0.000730	36.29%
Na 330.237†	-7.6	-0.2627	mg/L	0.37971	-0.2627	mg/L	0.37971	144.53%
Ni 231.604†	-4.1	-0.00094	mg/L	0.000218	-0.00094	mg/L	0.000218	23.06%
Pb 220.353†	-0.1	-0.00001	mg/L	0.000323	-0.00001	mg/L	0.000323	>999.9%
Sb 206.836†	0.6	0.00019	mg/L	0.000930	0.00019	mg/L	0.000930	489.28%
Se 196.026†	11.5	0.00804	mg/L	0.003454	0.00804	mg/L	0.003454	42.97%
Si 288.158†	1.8	0.00084	mg/L	0.001590	0.00084	mg/L	0.001590	190.34%
Sn 189.927†	2.7	0.00072	mg/L	0.000413	0.00072	mg/L	0.000413	57.35%
Sr 421.552†	318.7	0.00035	mg/L	0.000142	0.00035	mg/L	0.000142	40.79%
Ti 334.903†	20.0	0.00095	mg/L	0.000817	0.00095	mg/L	0.000817	85.96%
Tl 190.801†	0.7	0.00027	mg/L	0.002659	0.00027	mg/L	0.002659	>999.9%
V 292.402†	-1.8	-0.00001	mg/L	0.000124	-0.00001	mg/L	0.000124	965.07%
Zn 206.200†	7.5	0.00189	mg/L	0.000507	0.00189	mg/L	0.000507	26.90%

Sequence No.: 11
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/21/2012 3:58:50 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2543733.5	104.6	%	0.27				0.26%
ScR 361.383	322870.2	105.8	%	1.24				1.17%
Ag 328.068†	612.0	0.00333	mg/L	0.000195	0.00333	mg/L	0.000195	5.85%
Al 308.215†	88.6	0.05024	mg/L	0.009747	0.05024	mg/L	0.009747	19.40%
As 188.979†	86.0	0.04672	mg/L	0.001532	0.04672	mg/L	0.001532	3.28%
B 249.677†	155.4	0.01975	mg/L	0.000594	0.01975	mg/L	0.000594	3.01%
Ba 233.527†	16.0	0.00323	mg/L	0.000709	0.00323	mg/L	0.000709	21.98%
Be 313.042†	603.7	0.00096	mg/L	0.000035	0.00096	mg/L	0.000035	3.61%
Ca 317.933†	617.4	0.04375	mg/L	0.000962	0.04375	mg/L	0.000962	2.20%
Cd 228.802†	83.7	0.00252	mg/L	0.000038	0.00252	mg/L	0.000038	1.51%
Co 228.616†	137.0	0.00358	mg/L	0.000118	0.00358	mg/L	0.000118	3.30%
Cr 267.716†	30.0	0.00467	mg/L	0.001009	0.00467	mg/L	0.001009	21.59%
Cu 324.752†	889.6	0.00336	mg/L	0.000127	0.00336	mg/L	0.000127	3.77%
Fe 273.955†	64.3	0.05033	mg/L	0.004619	0.05033	mg/L	0.004619	9.18%
K 766.490†	988.3	0.4883	mg/L	0.02178	0.4883	mg/L	0.02178	4.46%
Mg 279.077†	85.1	0.05910	mg/L	0.005979	0.05910	mg/L	0.005979	10.12%
Mn 257.610†	45.2	0.00128	mg/L	0.000187	0.00128	mg/L	0.000187	14.62%
Mo 202.031†	100.6	0.00495	mg/L	0.000248	0.00495	mg/L	0.000248	5.00%
Na 589.592†	6012.8	0.4694	mg/L	0.00579	0.4694	mg/L	0.00579	1.23%
Na 330.237†	3.3	0.1130	mg/L	0.38941	0.1130	mg/L	0.38941	344.67%
Ni 231.604†	45.3	0.01052	mg/L	0.000163	0.01052	mg/L	0.000163	1.55%
Pb 220.353†	168.1	0.02106	mg/L	0.000138	0.02106	mg/L	0.000138	0.65%
Sb 206.836†	163.6	0.04884	mg/L	0.001096	0.04884	mg/L	0.001096	2.24%
Se 196.026†	78.0	0.05433	mg/L	0.003593	0.05433	mg/L	0.003593	6.61%
Si 288.158†	130.3	0.06134	mg/L	0.002931	0.06134	mg/L	0.002931	4.78%
Sn 189.927†	35.8	0.00964	mg/L	0.000373	0.00964	mg/L	0.000373	3.87%
Sr 421.552†	919.3	0.00100	mg/L	0.000016	0.00100	mg/L	0.000016	1.55%
Ti 334.903†	107.3	0.00511	mg/L	0.000338	0.00511	mg/L	0.000338	6.60%
Tl 190.801†	125.8	0.04831	mg/L	0.000337	0.04831	mg/L	0.000337	0.70%
V 292.402†	417.6	0.00315	mg/L	0.000121	0.00315	mg/L	0.000121	3.85%
Zn 206.200†	40.4	0.01019	mg/L	0.000229	0.01019	mg/L	0.000229	2.25%

Sequence No.: 12
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/21/2012 4:03:06 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2510956.2	103.2	%	0.32				0.31%
ScR 361.383	314386.9	103.0	%	0.17				0.17%
Ag 328.068†	-114.6	-0.00062	mg/L	0.000185	-0.00062	mg/L	0.000185	29.71%
Al 308.215†	346083.6	196.7	mg/L	1.08	196.7	mg/L	1.08	0.55%
As 188.979†	40.8	0.01652	mg/L	0.001046	0.01652	mg/L	0.001046	6.33%
B 249.677†	-73.2	-0.00931	mg/L	0.001998	-0.00931	mg/L	0.001998	21.47%
Ba 233.527†	138.5	-0.00136	mg/L	0.000464	-0.00136	mg/L	0.000464	34.21%
Be 313.042†	81.2	0.00013	mg/L	0.000015	0.00013	mg/L	0.000015	11.41%
Ca 317.933†	1397366.5	99.02	mg/L	0.846	99.02	mg/L	0.846	0.85%
Cd 228.802†	76.0	0.00071	mg/L	0.000169	0.00071	mg/L	0.000169	23.96%
Co 228.616†	74.1	-0.00040	mg/L	0.000101	-0.00040	mg/L	0.000101	25.11%
Cr 267.716†	6.2	-0.00199	mg/L	0.001035	-0.00199	mg/L	0.001035	51.98%
Cu 324.752†	-1442.5	0.00157	mg/L	0.000127	0.00157	mg/L	0.000127	8.06%
Fe 273.955†	228796.8	179.1	mg/L	1.83	179.1	mg/L	1.83	1.02%
K 766.490†	23.5	0.01163	mg/L	0.014766	0.01163	mg/L	0.014766	126.98%
Mg 279.077†	151473.5	105.1	mg/L	0.81	105.1	mg/L	0.81	0.77%
Mn 257.610†	35.3	0.00085	mg/L	0.000240	0.00085	mg/L	0.000240	28.18%
Mo 202.031†	51.8	0.00147	mg/L	0.000367	0.00147	mg/L	0.000367	24.88%
Na 589.592†	36.2	0.00283	mg/L	0.001153	0.00283	mg/L	0.001153	40.77%
Na 330.237†	-19.3	-0.6658	mg/L	0.14474	-0.6658	mg/L	0.14474	21.74%
Ni 231.604†	-2.7	-0.00061	mg/L	0.001976	-0.00061	mg/L	0.001976	321.90%
Pb 220.353†	-343.5	-0.00330	mg/L	0.000757	-0.00330	mg/L	0.000757	22.96%
Sb 206.836†	24.5	0.00706	mg/L	0.001978	0.00706	mg/L	0.001978	28.03%
Se 196.026†	40.4	0.02815	mg/L	0.006278	0.02815	mg/L	0.006278	22.30%
Si 288.158†	-30.5	-0.00159	mg/L	0.000977	-0.00159	mg/L	0.000977	61.56%
Sn 189.927†	-98.8	-0.01426	mg/L	0.000921	-0.01426	mg/L	0.000921	6.45%
Sr 421.552†	3611.9	0.00394	mg/L cont.	0.000037	0.00394	mg/L	0.000037	0.93%
Ti 334.903†	138.3	0.00187	mg/L	0.000270	0.00187	mg/L	0.000270	14.46%
Tl 190.801†	-56.2	-0.00246	mg/L	0.001934	-0.00246	mg/L	0.001934	78.71%
V 292.402†	415.3	-0.00314	mg/L	0.000244	-0.00314	mg/L	0.000244	7.77%
Zn 206.200†	15.6	0.00392	mg/L	0.000731	0.00392	mg/L	0.000731	18.64%

Sequence No.: 13
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/21/2012 4:07:22 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2468827.6	101.5	%	0.51				0.51%
ScR 361.383	314016.6	102.9	%	0.65				0.63%
Ag 328.068†	198190.9	1.077	mg/L	0.0023	1.077	mg/L	0.0023	0.21%
Al 308.215†	344685.2	195.9	mg/L	2.06	195.9	mg/L	2.06	1.05%
As 188.979†	1879.8	1.013	mg/L	0.0062	1.013	mg/L	0.0062	0.62%
B 249.677†	-46.7	-0.00801	mg/L	0.000637	-0.00801	mg/L	0.000637	7.95%
Ba 233.527†	5564.0	1.094	mg/L	0.0078	1.094	mg/L	0.0078	0.71%
Be 313.042†	585004.2	0.9302	mg/L	0.01093	0.9302	mg/L	0.01093	1.18%
Ca 317.933†	1400135.4	99.22	mg/L	1.146	99.22	mg/L	1.146	1.15%
Cd 228.802†	28921.1	0.9649	mg/L	0.00322	0.9649	mg/L	0.00322	0.33%
Co 228.616†	38612.1	1.010	mg/L	0.0054	1.010	mg/L	0.0054	0.53%
Cr 267.716†	6612.7	1.030	mg/L	0.0070	1.030	mg/L	0.0070	0.68%
Cu 324.752†	274406.2	1.045	mg/L	0.0023	1.045	mg/L	0.0023	0.22%
Fe 273.955†	227935.2	178.4	mg/L	1.81	178.4	mg/L	1.81	1.01%
K 766.490†	-63.8	-0.03151	mg/L	0.014577	-0.03151	mg/L	0.014577	46.27%
Mg 279.077†	144266.5	100.1	mg/L	1.03	100.1	mg/L	1.03	1.03%
Mn 257.610†	32001.7	0.9017	mg/L	0.00947	0.9017	mg/L	0.00947	1.05%
Mo 202.031†	52.5	0.00145	mg/L	0.000164	0.00145	mg/L	0.000164	11.26%
Na 589.592†	193.3	0.01509	mg/L	0.004166	0.01509	mg/L	0.004166	27.61%
Na 330.237†	-2.4	-0.4029	mg/L	0.23046	-0.4029	mg/L	0.23046	57.20%
Ni 231.604†	4320.8	1.002	mg/L	0.0094	1.002	mg/L	0.0094	0.94%
Pb 220.353†	7599.0	0.9916	mg/L	0.00591	0.9916	mg/L	0.00591	0.60%
Sb 206.836†	3448.7	1.018	mg/L	0.0061	1.018	mg/L	0.0061	0.60%
Se 196.026†	1429.2	0.9940	mg/L	0.00681	0.9940	mg/L	0.00681	0.69%
Si 288.158†	-37.8	-0.00213	mg/L	0.000695	-0.00213	mg/L	0.000695	32.67%
Sn 189.927†	-104.0	-0.01514	mg/L	0.000851	-0.01514	mg/L	0.000851	5.62%
Sr 421.552†	3600.2	0.00392	mg/L	0.000023	0.00392	mg/L	0.000023	0.58%
Ti 334.903†	153.9	0.00240	mg/L	0.000408	0.00240	mg/L	0.000408	17.00%
Tl 190.801†	2464.3	0.9563	mg/L	0.00524	0.9563	mg/L	0.00524	0.55%
V 292.402†	135063.7	1.010	mg/L	0.0024	1.010	mg/L	0.0024	0.24%
Zn 206.200†	3869.6	0.9763	mg/L	0.00715	0.9763	mg/L	0.00715	0.73%

Cont.

Sequence No.: 14
Sample ID: CV8
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 4:11:25 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2511523.6	103.2	%	0.75				0.73%
ScR 361.383	318656.6	104.4	%	0.64				0.61%
Ag 328.068†	194995.6	1.060	mg/L	0.0064	1.060	mg/L	0.0064	0.60%
Al 308.215†	3727.7	2.084	mg/L	0.0268	2.084	mg/L	0.0268	1.29%
As 188.979†	3666.0	2.011	mg/L	0.0132	2.011	mg/L	0.0132	0.66%
B 249.677†	7831.8	0.9943	mg/L	0.00821	0.9943	mg/L	0.00821	0.83%
Ba 233.527†	5491.5	1.108	mg/L	0.0091	1.108	mg/L	0.0091	0.82%
Be 313.042†	584635.8	0.9296	mg/L	0.00897	0.9296	mg/L	0.00897	0.97%
Ca 317.933†	28261.6	2.003	mg/L	0.0108	2.003	mg/L	0.0108	0.54%
Cd 228.802†	29188.0	0.9692	mg/L	0.00667	0.9692	mg/L	0.00667	0.69%
Co 228.616†	40307.9	1.055	mg/L	0.0066	1.055	mg/L	0.0066	0.63%
Cr 267.716†	6663.9	1.040	mg/L	0.0094	1.040	mg/L	0.0094	0.90%
Cu 324.752†	268240.1	1.014	mg/L	0.0062	1.014	mg/L	0.0062	0.61%
Fe 273.955†	2523.2	1.967	mg/L	0.0266	1.967	mg/L	0.0266	1.35%
K 766.490†	40581.5	20.05	mg/L	0.190	20.05	mg/L	0.190	0.95%
Mg 279.077†	3017.5	2.103	mg/L	0.0176	2.103	mg/L	0.0176	0.84%
Mn 257.610†	32800.7	0.9245	mg/L	0.00729	0.9245	mg/L	0.00729	0.79%
Mo 202.031†	20711.6	1.018	mg/L	0.0073	1.018	mg/L	0.0073	0.71%
Na 589.592†	647096.8	50.52	mg/L	0.490	50.52	mg/L	0.490	0.97%
Na 330.237†	1454.7	50.00	mg/L	0.190	50.00	mg/L	0.190	0.38%
Ni 231.604†	4496.0	1.043	mg/L	0.0071	1.043	mg/L	0.0071	0.68%
Pb 220.353†	16534.0	2.071	mg/L	0.0156	2.071	mg/L	0.0156	0.75%
Sb 206.836†	7058.9	2.105	mg/L	0.0144	2.105	mg/L	0.0144	0.68%
Se 196.026†	2783.9	1.937	mg/L	0.0186	1.937	mg/L	0.0186	0.96%
Si 288.158†	4424.9	2.084	mg/L	0.0214	2.084	mg/L	0.0214	1.03%
Sn 189.927†	3611.3	0.9704	mg/L	0.00807	0.9704	mg/L	0.00807	0.83%
Sr 421.552†	897324.0	0.9780	mg/L	0.00981	0.9780	mg/L	0.00981	1.00%
Ti 334.903†	21145.0	1.008	mg/L	0.0100	1.008	mg/L	0.0100	0.99%
Tl 190.801†	5335.4	2.041	mg/L	0.0112	2.041	mg/L	0.0112	0.55%
V 292.402†	138772.5	1.044	mg/L	0.0068	1.044	mg/L	0.0068	0.65%
Zn 206.200†	4201.2	1.060	mg/L	0.0073	1.060	mg/L	0.0073	0.69%

Sequence No.: 15
Sample ID: CB 8
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 4:16:32 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2536039.3	104.2	%	0.56				0.54%
ScR 361.383	321173.0	105.2	%	0.50				0.48%
Ag 328.068†	11.8	0.00006	mg/L	0.000189	0.00006	mg/L	0.000189	295.49%
Al 308.215†	16.4	0.00929	mg/L	0.004430	0.00929	mg/L	0.004430	47.68%
As 188.979†	3.5	0.00192	mg/L	0.000898	0.00192	mg/L	0.000898	46.77%
B 249.677†	3.9	0.00050	mg/L	0.000619	0.00050	mg/L	0.000619	124.09%
Ba 233.527†	-2.9	-0.00058	mg/L	0.000845	-0.00058	mg/L	0.000845	145.17%
Be 313.042†	129.3	0.00021	mg/L	0.000030	0.00021	mg/L	0.000030	14.75%
Ca 317.933†	120.0	0.00850	mg/L	0.000412	0.00850	mg/L	0.000412	4.85%
Cd 228.802†	15.2	0.00050	mg/L	0.000081	0.00050	mg/L	0.000081	16.25%
Co 228.616†	2.5	0.00006	mg/L	0.000101	0.00006	mg/L	0.000101	157.38%
Cr 267.716†	-5.5	-0.00086	mg/L	0.000420	-0.00086	mg/L	0.000420	49.18%
Cu 324.752†	439.3	0.00166	mg/L	0.000171	0.00166	mg/L	0.000171	10.31%
Fe 273.955†	12.3	0.00963	mg/L	0.002614	0.00963	mg/L	0.002614	27.15%
K 766.490†	26.5	0.01311	mg/L	0.005645	0.01311	mg/L	0.005645	43.07%
Mg 279.077†	3.4	0.00235	mg/L	0.001606	0.00235	mg/L	0.001606	68.27%
Mn 257.610†	3.3	0.00009	mg/L	0.000124	0.00009	mg/L	0.000124	133.48%
Mo 202.031†	11.0	0.00054	mg/L	0.000170	0.00054	mg/L	0.000170	31.43%
Na 589.592†	-10.8	-0.00084	mg/L	0.003387	-0.00084	mg/L	0.003387	402.37%
Na 330.237†	-5.3	-0.1820	mg/L	0.18458	-0.1820	mg/L	0.18458	101.39%
Ni 231.604†	-3.3	-0.00076	mg/L	0.001495	-0.00076	mg/L	0.001495	196.14%
Pb 220.353†	0.8	0.00010	mg/L	0.000586	0.00010	mg/L	0.000586	587.45%
Sb 206.836†	1.4	0.00043	mg/L	0.000358	0.00043	mg/L	0.000358	83.25%
Se 196.026†	9.3	0.00648	mg/L	0.004366	0.00648	mg/L	0.004366	67.33%
Si 288.158†	-7.2	-0.00338	mg/L	0.002942	-0.00338	mg/L	0.002942	87.13%
Sn 189.927†	1.2	0.00031	mg/L	0.000988	0.00031	mg/L	0.000988	315.51%
Sr 421.552†	78.9	0.00009	mg/L	0.000060	0.00009	mg/L	0.000060	69.86%
Ti 334.903†	1.6	0.00007	mg/L	0.000474	0.00007	mg/L	0.000474	634.36%
Tl 190.801†	0.9	0.00036	mg/L	0.000884	0.00036	mg/L	0.000884	243.72%
V 292.402†	-13.6	-0.00011	mg/L	0.000021	-0.00011	mg/L	0.000021	19.54%
Zn 206.200†	7.9	0.00201	mg/L	0.000362	0.00201	mg/L	0.000362	18.05%

Sequence No.: 16
Sample ID: VS12 MB TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 357
Date Collected: 11/21/2012 4:20:47 PM
Data Type: Original

Nebulizer Parameters: VS12 MB TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS12 MB TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2546577.0	104.7	%	0.35				0.34%
ScR 361.383	322684.1	105.7	%	2.06				1.95%
Ag 328.068†	3.1	0.00002	mg/L	0.000225	0.00002	mg/L	0.000225	>999.9%
Al 308.215†	5.4	0.00307	mg/L	0.008906	0.00307	mg/L	0.008906	290.06%
As 188.979†	-0.3	-0.00018	mg/L	0.000553	-0.00018	mg/L	0.000553	314.11%
B 249.677†	6.3	0.00079	mg/L	0.000129	0.00079	mg/L	0.000129	16.25%
Ba 233.527†	-3.3	-0.00067	mg/L	0.000317	-0.00067	mg/L	0.000317	47.66%
Be 313.042†	49.0	0.00008	mg/L	0.000051	0.00008	mg/L	0.000051	65.31%
Ca 317.933†	-25.5	-0.00181	mg/L	0.000214	-0.00181	mg/L	0.000214	11.79%
Cd 228.802†	12.8	0.00043	mg/L	0.000160	0.00043	mg/L	0.000160	37.01%
Co 228.616†	-6.0	-0.00016	mg/L	0.000123	-0.00016	mg/L	0.000123	79.09%
Cr 267.716†	3.4	0.00053	mg/L	0.001565	0.00053	mg/L	0.001565	294.03%
Cu 324.752†	951.0	0.00360	mg/L	0.000126	0.00360	mg/L	0.000126	3.51%
Fe 273.955†	17.9	0.01400	mg/L	0.002352	0.01400	mg/L	0.002352	16.80%
K 766.490†	27.8	0.01373	mg/L	0.009735	0.01373	mg/L	0.009735	70.92%
Mg 279.077†	4.0	0.00278	mg/L	0.003540	0.00278	mg/L	0.003540	127.28%
Mn 257.610†	80.4	0.00227	mg/L	0.000145	0.00227	mg/L	0.000145	6.41%
Mo 202.031†	-0.7	-0.00003	mg/L	0.000168	-0.00003	mg/L	0.000168	525.24%
Na 589.592†	-78.7	-0.00614	mg/L	0.001686	-0.00614	mg/L	0.001686	27.45%
Na 330.237†	-11.1	-0.3852	mg/L	0.14651	-0.3852	mg/L	0.14651	38.03%
Ni 231.604†	-0.2	-0.00005	mg/L	0.000660	-0.00005	mg/L	0.000660	>999.9%
Pb 220.353†	4.5	0.00056	mg/L	0.000636	0.00056	mg/L	0.000636	112.66%
Sb 206.836†	-1.0	-0.00029	mg/L	0.002362	-0.00029	mg/L	0.002362	812.70%
Se 196.026†	9.0	0.00626	mg/L	0.003309	0.00626	mg/L	0.003309	52.86%
Si 288.158†	-2.0	-0.00096	mg/L	0.001608	-0.00096	mg/L	0.001608	166.88%
Sn 189.927†	1.0	0.00026	mg/L	0.000635	0.00026	mg/L	0.000635	247.16%
Sr 421.552†	-43.5	-0.00005	mg/L	0.000038	-0.00005	mg/L	0.000038	80.13%
Ti 334.903†	-26.4	-0.00126	mg/L	0.000641	-0.00126	mg/L	0.000641	50.81%
Tl 190.801†	0.0	0.00001	mg/L	0.001575	0.00001	mg/L	0.001575	>999.9%
V 292.402†	-8.7	-0.00006	mg/L	0.000194	-0.00006	mg/L	0.000194	312.03%
Zn 206.200†	11.4	0.00289	mg/L	0.000922	0.00289	mg/L	0.000922	31.95%

Sequence No.: 17
Sample ID: VS12 B TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 358
Date Collected: 11/21/2012 4:25:03 PM
Data Type: Original

Nebulizer Parameters: VS12 B TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS12 B TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2521709.5	103.6	%	0.44				0.42%
ScR 361.383	323105.4	105.9	%	0.66				0.63%
Ag 328.068†	8.2	0.00005	mg/L	0.000135	0.00005	mg/L	0.000135	298.31%
Al 308.215†	236.2	0.1342	mg/L	0.00293	0.1342	mg/L	0.00293	2.19%
As 188.979†	17.7	0.00842	mg/L	0.002369	0.00842	mg/L	0.002369	28.12%
B 249.677†	83.3	0.01059	mg/L	0.000675	0.01059	mg/L	0.000675	6.37%
Ba 233.527†	55.6	0.01121	mg/L	0.000274	0.01121	mg/L	0.000274	2.44%
Be 313.042†	8.6	0.00001	mg/L	0.000022	0.00001	mg/L	0.000022	169.04%
Ca 317.933†	312827.6	22.17	mg/L	0.257	22.17	mg/L	0.257	1.16%
Cd 228.802†	22.9	0.00071	mg/L	0.000151	0.00071	mg/L	0.000151	21.34%
Co 228.616†	-5.9	-0.00017	mg/L	0.000124	-0.00017	mg/L	0.000124	74.47%
Cr 267.716†	13.0	0.00146	mg/L	0.000597	0.00146	mg/L	0.000597	40.81%
Cu 324.752†	3338.7	0.01260	mg/L	0.000112	0.01260	mg/L	0.000112	0.89%
Fe 273.955†	139.1	0.1089	mg/L	0.00271	0.1089	mg/L	0.00271	2.49%
K 766.490†	10287.8	5.083	mg/L	0.0574	5.083	mg/L	0.0574	1.13%
Mg 279.077†	5959.7	4.139	mg/L	0.0505	4.139	mg/L	0.0505	1.22%
Mn 257.610†	657.7	0.01847	mg/L	0.000200	0.01847	mg/L	0.000200	1.08%
Mo 202.031†	73.6	0.00338	mg/L	0.000151	0.00338	mg/L	0.000151	4.47%
Na 589.592†	48706.9	3.803	mg/L	0.0325	3.803	mg/L	0.0325	0.86%
Na 330.237†	102.6	3.529	mg/L	0.2345	3.529	mg/L	0.2345	6.64%
Ni 231.604†	9.0	0.00208	mg/L	0.000669	0.00208	mg/L	0.000669	32.22%
Pb 220.353†	-5.0	-0.00061	mg/L	0.000151	-0.00061	mg/L	0.000151	24.84%
Sb 206.836†	-0.6	-0.00031	mg/L	0.001627	-0.00031	mg/L	0.001627	522.58%
Se 196.026†	1.3	0.00092	mg/L	0.006924	0.00092	mg/L	0.006924	748.99%
Si 288.158†	7757.8	3.656	mg/L	0.0365	3.656	mg/L	0.0365	1.00%
Sn 189.927†	-49.5	-0.01054	mg/L	0.000451	-0.01054	mg/L	0.000451	4.28%
Sr 421.552†	102502.5	0.1117	mg/L	0.00099	0.1117	mg/L	0.00099	0.89%
Ti 334.903†	100.7	0.00374	mg/L	0.000631	0.00374	mg/L	0.000631	16.86%
Tl 190.801†	5.2	0.00200	mg/L	0.000555	0.00200	mg/L	0.000555	27.76%
V 292.402†	324.7	0.00244	mg/L	0.000189	0.00244	mg/L	0.000189	7.74%
Zn 206.200†	106.5	0.02687	mg/L	0.000523	0.02687	mg/L	0.000523	1.95%

Sequence No.: 18
Sample ID: VS12 C TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 359
Date Collected: 11/21/2012 4:29:18 PM
Data Type: Original

Nebulizer Parameters: VS12 C TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS12 C TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2541980.0	104.5	%	0.05				0.05%
ScR 361.383	320301.6	105.0	%	0.86				0.82%
Ag 328.068†	-5.7	-0.00003	mg/L	0.000205	-0.00003	mg/L	0.000205	665.19%
Al 308.215†	138.2	0.07851	mg/L	0.004405	0.07851	mg/L	0.004405	5.61%
As 188.979†	19.4	0.00907	mg/L	0.001916	0.00907	mg/L	0.001916	21.13%
B 249.677†	180.7	0.02296	mg/L	0.000413	0.02296	mg/L	0.000413	1.80%
Ba 233.527†	58.3	0.01174	mg/L	0.001079	0.01174	mg/L	0.001079	9.19%
Be 313.042†	59.0	0.00009	mg/L	0.000056	0.00009	mg/L	0.000056	60.21%
Ca 317.933†	360672.8	25.56	mg/L	0.225	25.56	mg/L	0.225	0.88%
Cd 228.802†	23.5	0.00072	mg/L	0.000082	0.00072	mg/L	0.000082	11.34%
Co 228.616†	0.6	0.00001	mg/L	0.000063	0.00001	mg/L	0.000063	741.13%
Cr 267.716†	9.3	0.00073	mg/L	0.001250	0.00073	mg/L	0.001250	171.33%
Cu 324.752†	2706.7	0.01019	mg/L	0.000135	0.01019	mg/L	0.000135	1.33%
Fe 273.955†	169.9	0.1330	mg/L	0.00199	0.1330	mg/L	0.00199	1.50%
K 766.490†	8324.1	4.113	mg/L	0.0219	4.113	mg/L	0.0219	0.53%
Mg 279.077†	8252.5	5.732	mg/L	0.0296	5.732	mg/L	0.0296	0.52%
Mn 257.610†	1057.0	0.02971	mg/L	0.000381	0.02971	mg/L	0.000381	1.28%
Mo 202.031†	59.7	0.00266	mg/L	0.000149	0.00266	mg/L	0.000149	5.60%
Na 589.592†	81890.4	6.393	mg/L	0.0549	6.393	mg/L	0.0549	0.86%
Na 330.237†	175.8	6.053	mg/L	0.4777	6.053	mg/L	0.4777	7.89%
Ni 231.604†	12.7	0.00295	mg/L	0.000363	0.00295	mg/L	0.000363	12.31%
Pb 220.353†	-7.1	-0.00089	mg/L	0.000418	-0.00089	mg/L	0.000418	47.08%
Sb 206.836†	8.1	0.00227	mg/L	0.003060	0.00227	mg/L	0.003060	134.96%
Se 196.026†	1.2	0.00082	mg/L	0.003739	0.00082	mg/L	0.003739	458.51%
Si 288.158†	13916.6	6.558	mg/L	0.0354	6.558	mg/L	0.0354	0.54%
Sn 189.927†	-51.0	-0.01051	mg/L	0.001528	-0.01051	mg/L	0.001528	14.53%
Sr 421.552†	76545.1	0.08342	mg/L	0.000633	0.08342	mg/L	0.000633	0.76%
Ti 334.903†	56.0	0.00145	mg/L	0.000912	0.00145	mg/L	0.000912	62.87%
Tl 190.801†	4.4	0.00171	mg/L	0.000245	0.00171	mg/L	0.000245	14.36%
V 292.402†	120.3	0.00091	mg/L	0.000162	0.00091	mg/L	0.000162	17.84%
Zn 206.200†	54.1	0.01365	mg/L	0.000637	0.01365	mg/L	0.000637	4.67%

Sequence No.: 19
Sample ID: VS12 D TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 360
Date Collected: 11/21/2012 4:33:32 PM
Data Type: Original

Nebulizer Parameters: VS12 D TWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS12 D TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2556939.0	105.1	%	0.26				0.25%
ScR 361.383	323406.9	106.0	%	0.56				0.53%
Ag 328.068†	13.1	0.00007	mg/L	0.000210	0.00007	mg/L	0.000210	292.30%
Al 308.215†	77.5	0.04399	mg/L	0.014276	0.04399	mg/L	0.014276	32.45%
As 188.979†	16.5	0.00782	mg/L	0.001568	0.00782	mg/L	0.001568	20.04%
B 249.677†	95.3	0.01212	mg/L	0.000429	0.01212	mg/L	0.000429	3.54%
Ba 233.527†	38.4	0.00773	mg/L	0.000529	0.00773	mg/L	0.000529	6.85%
Be 313.042†	33.5	0.00005	mg/L	0.000051	0.00005	mg/L	0.000051	95.91%
Ca 317.933†	287459.9	20.37	mg/L	0.062	20.37	mg/L	0.062	0.30%
Cd 228.802†	15.8	0.00047	mg/L	0.000040	0.00047	mg/L	0.000040	8.38%
Co 228.616†	0.5	0.00001	mg/L	0.000087	0.00001	mg/L	0.000087	>999.9%
Cr 267.716†	11.8	0.00089	mg/L	0.000675	0.00089	mg/L	0.000675	75.79%
Cu 324.752†	2483.1	0.00932	mg/L	0.000086	0.00932	mg/L	0.000086	0.92%
Fe 273.955†	252.1	0.1973	mg/L	0.00155	0.1973	mg/L	0.00155	0.79%
K 766.490†	6118.9	3.024	mg/L	0.0423	3.024	mg/L	0.0423	1.40%
Mg 279.077†	12869.6	8.939	mg/L	0.1080	8.939	mg/L	0.1080	1.21%
Mn 257.610†	1504.8	0.04234	mg/L	0.000335	0.04234	mg/L	0.000335	0.79%
Mo 202.031†	48.0	0.00214	mg/L	0.000099	0.00214	mg/L	0.000099	4.65%
Na 589.592†	83147.1	6.491	mg/L	0.0131	6.491	mg/L	0.0131	0.20%
Na 330.237†	182.0	6.269	mg/L	0.3012	6.269	mg/L	0.3012	4.81%
Ni 231.604†	14.4	0.00334	mg/L	0.000497	0.00334	mg/L	0.000497	14.88%
Pb 220.353†	-9.0	-0.00114	mg/L	0.000277	-0.00114	mg/L	0.000277	24.41%
Sb 206.836†	-4.1	-0.00137	mg/L	0.001990	-0.00137	mg/L	0.001990	145.11%
Se 196.026†	1.5	0.00107	mg/L	0.002063	0.00107	mg/L	0.002063	192.51%
Si 288.158†	14045.2	6.619	mg/L	0.0497	6.619	mg/L	0.0497	0.75%
Sn 189.927†	-46.8	-0.01003	mg/L	0.000544	-0.01003	mg/L	0.000544	5.42%
Sr 421.552†	105541.6	0.1150	mg/L	0.00060	0.1150	mg/L	0.00060	0.52%
Ti 334.903†	56.7	0.00173	mg/L	0.000928	0.00173	mg/L	0.000928	53.69%
Tl 190.801†	2.6	0.00100	mg/L	0.001424	0.00100	mg/L	0.001424	142.04%
V 292.402†	177.0	0.00133	mg/L	0.000109	0.00133	mg/L	0.000109	8.20%
Zn 206.200†	40.2	0.01015	mg/L	0.000742	0.01015	mg/L	0.000742	7.31%

Sequence No.: 20
Sample ID: VS12 E TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 361
Date Collected: 11/21/2012 4:37:46 PM
Data Type: Original

Nebulizer Parameters: VS12 E TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS12 E TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2552079.8	104.9	%	0.13				0.13%
ScR 361.383	321343.7	105.3	%	0.99				0.94%
Ag 328.068†	-10.5	-0.00006	mg/L	0.000196	-0.00006	mg/L	0.000196	345.83%
Al 308.215†	40.7	0.02306	mg/L	0.011140	0.02306	mg/L	0.011140	48.30%
As 188.979†	17.9	0.00854	mg/L	0.002343	0.00854	mg/L	0.002343	27.44%
B 249.677†	86.3	0.01097	mg/L	0.000553	0.01097	mg/L	0.000553	5.04%
Ba 233.527†	62.7	0.01264	mg/L	0.000273	0.01264	mg/L	0.000273	2.16%
Be 313.042†	33.8	0.00005	mg/L	0.000013	0.00005	mg/L	0.000013	24.27%
Ca 317.933†	304099.9	21.55	mg/L	0.171	21.55	mg/L	0.171	0.79%
Cd 228.802†	18.3	0.00055	mg/L	0.000142	0.00055	mg/L	0.000142	25.73%
Co 228.616†	-1.5	-0.00005	mg/L	0.000175	-0.00005	mg/L	0.000175	384.26%
Cr 267.716†	5.4	0.00019	mg/L	0.000298	0.00019	mg/L	0.000298	154.18%
Cu 324.752†	1984.0	0.00746	mg/L	0.000081	0.00746	mg/L	0.000081	1.08%
Fe 273.955†	97.7	0.07647	mg/L	0.002444	0.07647	mg/L	0.002444	3.20%
K 766.490†	14781.6	7.304	mg/L	0.1039	7.304	mg/L	0.1039	1.42%
Mg 279.077†	7398.4	5.139	mg/L	0.0933	5.139	mg/L	0.0933	1.82%
Mn 257.610†	1720.1	0.04840	mg/L	0.000666	0.04840	mg/L	0.000666	1.38%
Mo 202.031†	46.9	0.00207	mg/L	0.000098	0.00207	mg/L	0.000098	4.74%
Na 589.592†	43648.5	3.408	mg/L	0.0297	3.408	mg/L	0.0297	0.87%
Na 330.237†	86.8	2.989	mg/L	0.8475	2.989	mg/L	0.8475	28.35%
Ni 231.604†	12.2	0.00282	mg/L	0.000248	0.00282	mg/L	0.000248	8.80%
Pb 220.353†	-7.3	-0.00092	mg/L	0.000585	-0.00092	mg/L	0.000585	63.63%
Sb 206.836†	-11.5	-0.00356	mg/L	0.000847	-0.00356	mg/L	0.000847	23.76%
Se 196.026†	1.6	0.00110	mg/L	0.002139	0.00110	mg/L	0.002139	195.14%
Si 288.158†	9374.3	4.418	mg/L	0.0572	4.418	mg/L	0.0572	1.30%
Sn 189.927†	-49.4	-0.01060	mg/L	0.000454	-0.01060	mg/L	0.000454	4.28%
Sr 421.552†	98998.3	0.1079	mg/L	0.00089	0.1079	mg/L	0.00089	0.83%
Ti 334.903†	55.1	0.00160	mg/L	0.000194	0.00160	mg/L	0.000194	12.16%
Tl 190.801†	5.4	0.00210	mg/L	0.002569	0.00210	mg/L	0.002569	122.64%
V 292.402†	91.1	0.00069	mg/L	0.000067	0.00069	mg/L	0.000067	9.70%
Zn 206.200†	13.1	0.00330	mg/L	0.000334	0.00330	mg/L	0.000334	10.12%

Sequence No.: 21
Sample ID: VS12 F TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 362
Date Collected: 11/21/2012 4:42:01 PM
Data Type: Original

Nebulizer Parameters: VS12 F TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS12 F TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2521886.6	103.7	%	0.17				0.16%
ScR 361.383	320781.5	105.1	%	1.70				1.62%
Ag 328.068†	-36.2	-0.00020	mg/L	0.000181	-0.00020	mg/L	0.000181	92.24%
Al 308.215†	44.6	0.02523	mg/L	0.005254	0.02523	mg/L	0.005254	20.82%
As 188.979†	27.5	0.01263	mg/L	0.001672	0.01263	mg/L	0.001672	13.24%
B 249.677†	113.3	0.01440	mg/L	0.000799	0.01440	mg/L	0.000799	5.55%
Ba 233.527†	115.7	0.02335	mg/L	0.001050	0.02335	mg/L	0.001050	4.50%
Be 313.042†	39.7	0.00006	mg/L	0.000026	0.00006	mg/L	0.000026	41.88%
Ca 317.933†	577994.9	40.96	mg/L	0.538	40.96	mg/L	0.538	1.31%
Cd 228.802†	21.9	0.00064	mg/L	0.000055	0.00064	mg/L	0.000055	8.58%
Co 228.616†	-7.5	-0.00021	mg/L	0.000082	-0.00021	mg/L	0.000082	39.38%
Cr 267.716†	16.8	0.00092	mg/L	0.000964	0.00092	mg/L	0.000964	104.25%
Cu 324.752†	2961.7	0.01108	mg/L	0.000051	0.01108	mg/L	0.000051	0.46%
Fe 273.955†	148.7	0.1164	mg/L	0.00225	0.1164	mg/L	0.00225	1.93%
K 766.490†	16587.5	8.196	mg/L	0.1273	8.196	mg/L	0.1273	1.55%
Mg 279.077†	21978.2	15.27	mg/L	0.257	15.27	mg/L	0.257	1.68%
Mn 257.610†	668.3	0.01871	mg/L	0.000239	0.01871	mg/L	0.000239	1.28%
Mo 202.031†	95.4	0.00425	mg/L	0.000272	0.00425	mg/L	0.000272	6.39%
Na 589.592†	126685.0	9.890	mg/L	0.1142	9.890	mg/L	0.1142	1.16%
Na 330.237†	278.4	9.589	mg/L	0.2148	9.589	mg/L	0.2148	2.24%
Ni 231.604†	5.3	0.00122	mg/L	0.000629	0.00122	mg/L	0.000629	51.37%
Pb 220.353†	-10.9	-0.00138	mg/L	0.000552	-0.00138	mg/L	0.000552	40.00%
Sb 206.836†	-6.0	-0.00199	mg/L	0.003002	-0.00199	mg/L	0.003002	150.70%
Se 196.026†	-2.6	-0.00183	mg/L	0.003073	-0.00183	mg/L	0.003073	167.59%
Si 288.158†	23970.1	11.30	mg/L	0.186	11.30	mg/L	0.186	1.65%
Sn 189.927†	-71.5	-0.01411	mg/L	0.000691	-0.01411	mg/L	0.000691	4.89%
Sr 421.552†	172257.7	0.1877	mg/L	0.00208	0.1877	mg/L	0.00208	1.11%
Ti 334.903†	91.6	0.00241	mg/L	0.000489	0.00241	mg/L	0.000489	20.27%
Tl 190.801†	7.8	0.00302	mg/L	0.001018	0.00302	mg/L	0.001018	33.66%
V 292.402†	154.5	0.00117	mg/L	0.000064	0.00117	mg/L	0.000064	5.50%
Zn 206.200†	42.2	0.01064	mg/L	0.000218	0.01064	mg/L	0.000218	2.05%

Sequence No.: 22
Sample ID: VS12 ADUP TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 363
Date Collected: 11/21/2012 4:46:15 PM
Data Type: Original

Nebulizer Parameters: VS12 ADUP TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS12 ADUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2533994.0	104.2	%	0.10				0.09%
ScR 361.383	319054.0	104.5	%	0.48				0.46%
Ag 328.068†	-5.7	-0.00003	mg/L	0.000282	-0.00003	mg/L	0.000282	918.49%
Al 308.215†	364.4	0.2070	mg/L	0.00105	0.2070	mg/L	0.00105	0.51%
As 188.979†	27.5	0.01271	mg/L	0.000863	0.01271	mg/L	0.000863	6.79%
B 249.677†	75.8	0.00964	mg/L	0.000079	0.00964	mg/L	0.000079	0.82%
Ba 233.527†	136.0	0.02743	mg/L	0.000541	0.02743	mg/L	0.000541	1.97%
Be 313.042†	17.9	0.00003	mg/L	0.000018	0.00003	mg/L	0.000018	64.05%
Ca 317.933†	604721.9	42.85	mg/L	0.449	42.85	mg/L	0.449	1.05%
Cd 228.802†	23.1	0.00068	mg/L	0.000063	0.00068	mg/L	0.000063	9.22%
Co 228.616†	5.2	0.00011	mg/L	0.000056	0.00011	mg/L	0.000056	51.41%
Cr 267.716†	13.4	0.00113	mg/L	0.000413	0.00113	mg/L	0.000413	36.52%
Cu 324.752†	1957.3	0.00735	mg/L	0.000113	0.00735	mg/L	0.000113	1.54%
Fe 273.955†	262.3	0.2053	mg/L	0.00307	0.2053	mg/L	0.00307	1.50%
K 766.490†	21382.4	10.57	mg/L	0.126	10.57	mg/L	0.126	1.19%
Mg 279.077†	9624.0	6.685	mg/L	0.0417	6.685	mg/L	0.0417	0.62%
Mn 257.610†	533.3	0.01490	mg/L	0.000304	0.01490	mg/L	0.000304	2.04%
Mo 202.031†	84.7	0.00370	mg/L	0.000201	0.00370	mg/L	0.000201	5.44%
Na 589.592†	69784.8	5.448	mg/L	0.0441	5.448	mg/L	0.0441	0.81%
Na 330.237†	153.6	5.294	mg/L	0.2297	5.294	mg/L	0.2297	4.34%
Ni 231.604†	24.4	0.00566	mg/L	0.000415	0.00566	mg/L	0.000415	7.33%
Pb 220.353†	-10.3	-0.00125	mg/L	0.000755	-0.00125	mg/L	0.000755	60.19%
Sb 206.836†	-1.2	-0.00055	mg/L	0.000972	-0.00055	mg/L	0.000972	177.28%
Se 196.026†	-8.0	-0.00559	mg/L	0.001823	-0.00559	mg/L	0.001823	32.63%
Si 288.158†	12958.5	6.107	mg/L	0.0373	6.107	mg/L	0.0373	0.61%
Sn 189.927†	-71.9	-0.01399	mg/L	0.001739	-0.01399	mg/L	0.001739	12.43%
Sr 421.552†	185688.2	0.2024	mg/L	0.00196	0.2024	mg/L	0.00196	0.97%
Ti 334.903†	241.2	0.00946	mg/L	0.001239	0.00946	mg/L	0.001239	13.10%
Tl 190.801†	7.9	0.00304	mg/L	0.000739	0.00304	mg/L	0.000739	24.31%
V 292.402†	200.9	0.00151	mg/L	0.000076	0.00151	mg/L	0.000076	5.02%
Zn 206.200†	24.7	0.00623	mg/L	0.000590	0.00623	mg/L	0.000590	9.47%

Sequence No.: 23
Sample ID: VS12 A TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 364
Date Collected: 11/21/2012 4:50:30 PM
Data Type: Original

Nebulizer Parameters: VS12 A TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS12 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2532014.4	104.1	%	0.06				0.06%
ScR 361.383	318892.4	104.5	%	0.95				0.91%
Ag 328.068†	-22.1	-0.00012	mg/L	0.000168	-0.00012	mg/L	0.000168	139.88%
Al 308.215†	324.5	0.1843	mg/L	0.01335	0.1843	mg/L	0.01335	7.24%
As 188.979†	25.3	0.01157	mg/L	0.000288	0.01157	mg/L	0.000288	2.49%
B 249.677†	71.2	0.00906	mg/L	0.000153	0.00906	mg/L	0.000153	1.69%
Ba 233.527†	134.8	0.02719	mg/L	0.000101	0.02719	mg/L	0.000101	0.37%
Be 313.042†	5.3	0.00001	mg/L	0.000017	0.00001	mg/L	0.000017	211.52%
Ca 317.933†	591338.3	41.91	mg/L	0.410	41.91	mg/L	0.410	0.98%
Cd 228.802†	24.8	0.00075	mg/L	0.000039	0.00075	mg/L	0.000039	5.24%
Co 228.616†	-3.0	-0.00010	mg/L	0.000111	-0.00010	mg/L	0.000111	107.47%
Cr 267.716†	10.7	0.00072	mg/L	0.000683	0.00072	mg/L	0.000683	94.47%
Cu 324.752†	1865.5	0.00701	mg/L	0.000089	0.00701	mg/L	0.000089	1.26%
Fe 273.955†	219.3	0.1716	mg/L	0.00141	0.1716	mg/L	0.00141	0.82%
K 766.490†	20806.5	10.28	mg/L	0.117	10.28	mg/L	0.117	1.14%
Mg 279.077†	9365.9	6.505	mg/L	0.0376	6.505	mg/L	0.0376	0.58%
Mn 257.610†	547.1	0.01529	mg/L	0.000092	0.01529	mg/L	0.000092	0.60%
Mo 202.031†	79.7	0.00347	mg/L	0.000072	0.00347	mg/L	0.000072	2.08%
Na 589.592†	68082.9	5.315	mg/L	0.0499	5.315	mg/L	0.0499	0.94%
Na 330.237†	148.4	5.113	mg/L	0.3891	5.113	mg/L	0.3891	7.61%
Ni 231.604†	17.3	0.00401	mg/L	0.000330	0.00401	mg/L	0.000330	8.23%
Pb 220.353†	-9.8	-0.00119	mg/L	0.000701	-0.00119	mg/L	0.000701	58.68%
Sb 206.836†	-4.8	-0.00163	mg/L	0.002244	-0.00163	mg/L	0.002244	137.75%
Se 196.026†	-8.8	-0.00613	mg/L	0.001788	-0.00613	mg/L	0.001788	29.18%
Si 288.158†	12405.4	5.846	mg/L	0.0496	5.846	mg/L	0.0496	0.85%
Sn 189.927†	-72.1	-0.01417	mg/L	0.000658	-0.01417	mg/L	0.000658	4.65%
Sr 421.552†	180999.2	0.1973	mg/L	0.00197	0.1973	mg/L	0.00197	1.00%
Ti 334.903†	229.9	0.00896	mg/L	0.000919	0.00896	mg/L	0.000919	10.26%
Tl 190.801†	5.5	0.00212	mg/L	0.002387	0.00212	mg/L	0.002387	112.36%
V 292.402†	160.8	0.00120	mg/L	0.000049	0.00120	mg/L	0.000049	4.06%
Zn 206.200†	19.2	0.00484	mg/L	0.000238	0.00484	mg/L	0.000238	4.92%

Sequence No.: 24
Sample ID: VS12 ASPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 365
Date Collected: 11/21/2012 4:54:45 PM
Data Type: Original

Nebulizer Parameters: VS12 ASPK TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS12 ASPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2526240.0	103.8	%	0.23				0.22%
ScR 361.383	321682.5	105.4	%	0.53				0.50%
Ag 328.068†	102545.0	0.5574	mg/L	0.00294	0.5574	mg/L	0.00294	0.53%
Al 308.215†	3952.4	2.234	mg/L	0.0182	2.234	mg/L	0.0182	0.81%
As 188.979†	3717.1	2.069	mg/L	0.0074	2.069	mg/L	0.0074	0.36%
B 249.677†	4036.0	0.5118	mg/L	0.00322	0.5118	mg/L	0.00322	0.63%
Ba 233.527†	11408.1	2.303	mg/L	0.0152	2.303	mg/L	0.0152	0.66%
Be 313.042†	304274.4	0.4838	mg/L	0.00305	0.4838	mg/L	0.00305	0.63%
Ca 317.933†	762675.1	54.05	mg/L	0.417	54.05	mg/L	0.417	0.77%
Cd 228.802†	15366.9	0.5038	mg/L	0.00507	0.5038	mg/L	0.00507	1.01%
Co 228.616†	20293.1	0.5279	mg/L	0.00265	0.5279	mg/L	0.00265	0.50%
Cr 267.716†	3423.0	0.5323	mg/L	0.00332	0.5323	mg/L	0.00332	0.62%
Cu 324.752†	142433.2	0.5384	mg/L	0.00345	0.5384	mg/L	0.00345	0.64%
Fe 273.955†	2595.9	2.028	mg/L	0.0195	2.028	mg/L	0.0195	0.96%
K 766.490†	42548.4	21.02	mg/L	0.103	21.02	mg/L	0.103	0.49%
Mg 279.077†	25384.4	17.63	mg/L	0.130	17.63	mg/L	0.130	0.74%
Mn 257.610†	17637.9	0.4972	mg/L	0.00439	0.4972	mg/L	0.00439	0.88%
Mo 202.031†	88.7	0.00375	mg/L	0.000224	0.00375	mg/L	0.000224	5.98%
Na 589.592†	202802.9	15.83	mg/L	0.102	15.83	mg/L	0.102	0.64%
Na 330.237†	446.8	15.68	mg/L	0.072	15.68	mg/L	0.072	0.46%
Ni 231.604†	2290.3	0.5303	mg/L	0.00390	0.5303	mg/L	0.00390	0.73%
Pb 220.353†	16350.3	2.048	mg/L	0.0155	2.048	mg/L	0.0155	0.76%
Sb 206.836†	-7.9	-0.00282	mg/L	0.002458	-0.00282	mg/L	0.002458	87.24%
Se 196.026†	2854.4	1.987	mg/L	0.0103	1.987	mg/L	0.0103	0.52%
Si 288.158†	12993.2	6.123	mg/L	0.0535	6.123	mg/L	0.0535	0.87%
Sn 189.927†	1700.2	0.4633	mg/L	0.00324	0.4633	mg/L	0.00324	0.70%
Sr 421.552†	656356.6	0.7153	mg/L	0.00507	0.7153	mg/L	0.00507	0.71%
Ti 334.903†	42104.8	2.006	mg/L	0.0133	2.006	mg/L	0.0133	0.66%
Tl 190.801†	5384.0	2.064	mg/L	0.0078	2.064	mg/L	0.0078	0.38%
V 292.402†	71422.5	0.5364	mg/L	0.00300	0.5364	mg/L	0.00300	0.56%
Zn 206.200†	2073.0	0.5231	mg/L	0.00446	0.5231	mg/L	0.00446	0.85%

Sequence No.: 25
Sample ID: VS12 MBSPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 366
Date Collected: 11/21/2012 4:58:45 PM
Data Type: Original

Nebulizer Parameters: VS12 MBSPK TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS12 MBSPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2543516.1	104.5	%	0.46				0.44%
ScR 361.383	317755.9	104.1	%	0.68				0.65%
Ag 328.068†	96481.5	0.5244	mg/L	0.00484	0.5244	mg/L	0.00484	0.92%
Al 308.215†	3450.3	1.950	mg/L	0.0115	1.950	mg/L	0.0115	0.59%
As 188.979†	3416.2	1.907	mg/L	0.0037	1.907	mg/L	0.0037	0.19%
B 249.677†	3872.2	0.4910	mg/L	0.00327	0.4910	mg/L	0.00327	0.67%
Ba 233.527†	10777.8	2.176	mg/L	0.0102	2.176	mg/L	0.0102	0.47%
Be 313.042†	286762.3	0.4559	mg/L	0.00421	0.4559	mg/L	0.00421	0.92%
Ca 317.933†	134396.7	9.524	mg/L	0.0721	9.524	mg/L	0.0721	0.76%
Cd 228.802†	14426.7	0.4732	mg/L	0.00409	0.4732	mg/L	0.00409	0.86%
Co 228.616†	19260.2	0.5009	mg/L	0.00395	0.5009	mg/L	0.00395	0.79%
Cr 267.716†	3241.7	0.5051	mg/L	0.00258	0.5051	mg/L	0.00258	0.51%
Cu 324.752†	131766.3	0.4981	mg/L	0.00454	0.4981	mg/L	0.00454	0.91%
Fe 273.955†	2289.0	1.788	mg/L	0.0121	1.788	mg/L	0.0121	0.68%
K 766.490†	19673.9	9.721	mg/L	0.0613	9.721	mg/L	0.0613	0.63%
Mg 279.077†	14538.9	10.10	mg/L	0.050	10.10	mg/L	0.050	0.50%
Mn 257.610†	16235.1	0.4578	mg/L	0.00311	0.4578	mg/L	0.00311	0.68%
Mo 202.031†	22.5	0.00097	mg/L	0.000174	0.00097	mg/L	0.000174	17.87%
Na 589.592†	124695.8	9.735	mg/L	0.0634	9.735	mg/L	0.0634	0.65%
Na 330.237†	265.1	9.419	mg/L	0.1542	9.419	mg/L	0.1542	1.64%
Ni 231.604†	2184.4	0.5058	mg/L	0.00284	0.5058	mg/L	0.00284	0.56%
Pb 220.353†	15425.6	1.932	mg/L	0.0114	1.932	mg/L	0.0114	0.59%
Sb 206.836†	-14.2	-0.00430	mg/L	0.001851	-0.00430	mg/L	0.001851	43.04%
Se 196.026†	2678.6	1.864	mg/L	0.0030	1.864	mg/L	0.0030	0.16%
Si 288.158†	19.1	0.00904	mg/L	0.004050	0.00904	mg/L	0.004050	44.78%
Sn 189.927†	1750.8	0.4713	mg/L	0.00060	0.4713	mg/L	0.00060	0.13%
Sr 421.552†	445570.3	0.4856	mg/L	0.00307	0.4856	mg/L	0.00307	0.63%
Ti 334.903†	41358.7	1.973	mg/L	0.0134	1.973	mg/L	0.0134	0.68%
Tl 190.801†	5118.5	1.962	mg/L	0.0020	1.962	mg/L	0.0020	0.10%
V 292.402†	67090.6	0.5038	mg/L	0.00442	0.5038	mg/L	0.00442	0.88%
Zn 206.200†	1961.9	0.4951	mg/L	0.00095	0.4951	mg/L	0.00095	0.19%

Sequence No.: 26
Sample ID: CV 9
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 5:02:45 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2529181.5	104.0	%	0.28				0.27%
ScR 361.383	316753.8	103.8	%	0.43				0.41%
Ag 328.068†	187932.5	1.021	mg/L	0.0012	1.021	mg/L	0.0012	0.12%
Al 308.215†	3563.4	1.991	mg/L	0.0089	1.991	mg/L	0.0089	0.45%
As 188.979†	3599.9	1.976	mg/L	0.0061	1.976	mg/L	0.0061	0.31%
B 249.677†	7833.2	0.9945	mg/L	0.00427	0.9945	mg/L	0.00427	0.43%
Ba 233.527†	5505.3	1.111	mg/L	0.0041	1.111	mg/L	0.0041	0.37%
Be 313.042†	576256.1	0.9162	mg/L	0.00209	0.9162	mg/L	0.00209	0.23%
Ca 317.933†	27290.0	1.934	mg/L	0.0024	1.934	mg/L	0.0024	0.12%
Cd 228.802†	28489.8	0.9459	mg/L	0.00132	0.9459	mg/L	0.00132	0.14%
Co 228.616†	39695.1	1.039	mg/L	0.0024	1.039	mg/L	0.0024	0.23%
Cr 267.716†	6624.3	1.034	mg/L	0.0045	1.034	mg/L	0.0045	0.44%
Cu 324.752†	259649.1	0.9817	mg/L	0.00109	0.9817	mg/L	0.00109	0.11%
Fe 273.955†	2373.4	1.850	mg/L	0.0108	1.850	mg/L	0.0108	0.58%
K 766.490†	40619.0	20.07	mg/L	0.101	20.07	mg/L	0.101	0.50%
Mg 279.077†	2924.4	2.039	mg/L	0.0136	2.039	mg/L	0.0136	0.67%
Mn 257.610†	32266.7	0.9095	mg/L	0.00373	0.9095	mg/L	0.00373	0.41%
Mo 202.031†	20376.3	1.002	mg/L	0.0016	1.002	mg/L	0.0016	0.16%
Na 589.592†	650153.4	50.76	mg/L	0.317	50.76	mg/L	0.317	0.62%
Na 330.237†	1453.8	49.97	mg/L	0.191	49.97	mg/L	0.191	0.38%
Ni 231.604†	4466.7	1.036	mg/L	0.0037	1.036	mg/L	0.0037	0.36%
Pb 220.353†	16222.4	2.032	mg/L	0.0068	2.032	mg/L	0.0068	0.33%
Sb 206.836†	6941.8	2.070	mg/L	0.0050	2.070	mg/L	0.0050	0.24%
Se 196.026†	2727.0	1.898	mg/L	0.0034	1.898	mg/L	0.0034	0.18%
Si 288.158†	4416.7	2.081	mg/L	0.0202	2.081	mg/L	0.0202	0.97%
Sn 189.927†	3531.5	0.9490	mg/L	0.00179	0.9490	mg/L	0.00179	0.19%
Sr 421.552†	899300.3	0.9801	mg/L	0.00559	0.9801	mg/L	0.00559	0.57%
Ti 334.903†	21048.3	1.003	mg/L	0.0057	1.003	mg/L	0.0057	0.56%
Tl 190.801†	5268.6	2.016	mg/L	0.0059	2.016	mg/L	0.0059	0.29%
V 292.402†	134895.1	1.015	mg/L	0.0007	1.015	mg/L	0.0007	0.07%
Zn 206.200†	4145.0	1.046	mg/L	0.0064	1.046	mg/L	0.0064	0.61%

Sequence No.: 27
Sample ID: CB9
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 5:07:38 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2532190.3	104.1	%	0.41				0.39%
ScR 361.383	316954.4	103.9	%	1.36				1.31%
Ag 328.068†	39.2	0.00021	mg/L	0.000155	0.00021	mg/L	0.000155	73.00%
Al 308.215†	1.8	0.00103	mg/L	0.005289	0.00103	mg/L	0.005289	511.51%
As 188.979†	3.8	0.00205	mg/L	0.001868	0.00205	mg/L	0.001868	91.15%
B 249.677†	9.6	0.00122	mg/L	0.000228	0.00122	mg/L	0.000228	18.67%
Ba 233.527†	-0.6	-0.00011	mg/L	0.001025	-0.00011	mg/L	0.001025	919.70%
Be 313.042†	133.0	0.00021	mg/L	0.000075	0.00021	mg/L	0.000075	35.66%
Ca 317.933†	69.6	0.00493	mg/L	0.000767	0.00493	mg/L	0.000767	15.55%
Cd 228.802†	15.1	0.00049	mg/L	0.000064	0.00049	mg/L	0.000064	12.98%
Co 228.616†	-4.1	-0.00011	mg/L	0.000090	-0.00011	mg/L	0.000090	82.65%
Cr 267.716†	-6.3	-0.00098	mg/L	0.001002	-0.00098	mg/L	0.001002	101.82%
Cu 324.752†	531.9	0.00201	mg/L	0.000061	0.00201	mg/L	0.000061	3.05%
Fe 273.955†	-0.6	-0.00049	mg/L	0.000505	-0.00049	mg/L	0.000505	102.56%
K 766.490†	36.9	0.01824	mg/L	0.011887	0.01824	mg/L	0.011887	65.17%
Mg 279.077†	4.4	0.00304	mg/L	0.002672	0.00304	mg/L	0.002672	87.78%
Mn 257.610†	5.8	0.00016	mg/L	0.000052	0.00016	mg/L	0.000052	32.03%
Mo 202.031†	9.9	0.00049	mg/L	0.000301	0.00049	mg/L	0.000301	61.94%
Na 589.592†	50.7	0.00396	mg/L	0.002639	0.00396	mg/L	0.002639	66.62%
Na 330.237†	-13.8	-0.4754	mg/L	0.39457	-0.4754	mg/L	0.39457	82.99%
Ni 231.604†	1.6	0.00037	mg/L	0.000966	0.00037	mg/L	0.000966	258.60%
Pb 220.353†	-5.6	-0.00071	mg/L	0.000320	-0.00071	mg/L	0.000320	45.28%
Sb 206.836†	0.9	0.00030	mg/L	0.000371	0.00030	mg/L	0.000371	123.91%
Se 196.026†	9.5	0.00662	mg/L	0.001243	0.00662	mg/L	0.001243	18.79%
Si 288.158†	5.1	0.00240	mg/L	0.003870	0.00240	mg/L	0.003870	161.30%
Sn 189.927†	3.1	0.00082	mg/L	0.001098	0.00082	mg/L	0.001098	133.52%
Sr 421.552†	98.4	0.00011	mg/L	0.000067	0.00011	mg/L	0.000067	62.63%
Ti 334.903†	4.6	0.00022	mg/L	0.000745	0.00022	mg/L	0.000745	337.52%
Tl 190.801†	0.6	0.00025	mg/L	0.002581	0.00025	mg/L	0.002581	>999.9%
V 292.402†	-28.2	-0.00022	mg/L	0.000025	-0.00022	mg/L	0.000025	11.54%
Zn 206.200†	4.7	0.00120	mg/L	0.000078	0.00120	mg/L	0.000078	6.55%

Sequence No.: 28
Sample ID: VS37 MB1 TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 367
Date Collected: 11/21/2012 5:11:53 PM
Data Type: Original

Nebulizer Parameters: VS37 MB1 TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS37 MB1 TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2535211.5	104.2	%	0.85				0.81%
ScR 361.383	322085.6	105.5	%	0.98				0.93%
Ag 328.068†	12.5	0.00007	mg/L	0.000189	0.00007	mg/L	0.000189	279.33%
Al 308.215†	-4.6	-0.00263	mg/L	0.002690	-0.00263	mg/L	0.002690	102.13%
As 188.979†	0.2	0.00008	mg/L	0.001355	0.00008	mg/L	0.001355	>999.9%
B 249.677†	4.4	0.00056	mg/L	0.000201	0.00056	mg/L	0.000201	35.97%
Ba 233.527†	2.5	0.00050	mg/L	0.000653	0.00050	mg/L	0.000653	131.41%
Be 313.042†	41.8	0.00007	mg/L	0.000023	0.00007	mg/L	0.000023	34.99%
Ca 317.933†	-21.1	-0.00149	mg/L	0.000175	-0.00149	mg/L	0.000175	11.72%
Cd 228.802†	13.9	0.00047	mg/L	0.000126	0.00047	mg/L	0.000126	26.99%
Co 228.616†	-0.2	-0.00001	mg/L	0.000154	-0.00001	mg/L	0.000154	>999.9%
Cr 267.716†	3.8	0.00060	mg/L	0.000851	0.00060	mg/L	0.000851	142.76%
Cu 324.752†	445.6	0.00169	mg/L	0.000152	0.00169	mg/L	0.000152	9.00%
Fe 273.955†	1.1	0.00083	mg/L	0.000942	0.00083	mg/L	0.000942	113.38%
K 766.490†	40.7	0.02009	mg/L	0.016207	0.02009	mg/L	0.016207	80.67%
Mg 279.077†	7.4	0.00512	mg/L	0.002844	0.00512	mg/L	0.002844	55.49%
Mn 257.610†	2.4	0.00007	mg/L	0.000116	0.00007	mg/L	0.000116	174.11%
Mo 202.031†	0.2	0.00001	mg/L	0.000068	0.00001	mg/L	0.000068	616.93%
Na 589.592†	-97.4	-0.00760	mg/L	0.003062	-0.00760	mg/L	0.003062	40.28%
Na 330.237†	-4.9	-0.1705	mg/L	0.09693	-0.1705	mg/L	0.09693	56.84%
Ni 231.604†	-0.9	-0.00020	mg/L	0.000935	-0.00020	mg/L	0.000935	464.24%
Pb 220.353†	3.6	0.00045	mg/L	0.000995	0.00045	mg/L	0.000995	223.28%
Sb 206.836†	-4.5	-0.00133	mg/L	0.000718	-0.00133	mg/L	0.000718	53.86%
Se 196.026†	10.8	0.00754	mg/L	0.000346	0.00754	mg/L	0.000346	4.59%
Si 288.158†	4.4	0.00207	mg/L	0.001709	0.00207	mg/L	0.001709	82.52%
Sn 189.927†	1.6	0.00043	mg/L	0.000358	0.00043	mg/L	0.000358	82.94%
Sr 421.552†	-36.4	-0.00004	mg/L	0.000018	-0.00004	mg/L	0.000018	45.48%
Ti 334.903†	-0.8	-0.00004	mg/L	0.000807	-0.00004	mg/L	0.000807	>999.9%
Tl 190.801†	0.3	0.00010	mg/L	0.000879	0.00010	mg/L	0.000879	899.94%
V 292.402†	-21.9	-0.00016	mg/L	0.000051	-0.00016	mg/L	0.000051	31.85%
Zn 206.200†	6.8	0.00173	mg/L	0.000753	0.00173	mg/L	0.000753	43.65%

Sequence No.: 29
Sample ID: VS12 G TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 368
Date Collected: 11/21/2012 5:16:10 PM
Data Type: Original

Nebulizer Parameters: VS12 G TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS12 G TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2528130.3	103.9	%	0.26				0.25%
ScR 361.383	322153.5	105.6	%	0.08				0.08%
Ag 328.068†	-2.3	-0.00001	mg/L	0.000064	-0.00001	mg/L	0.000064	512.55%
Al 308.215†	60.8	0.03450	mg/L	0.003234	0.03450	mg/L	0.003234	9.37%
As 188.979†	15.8	0.00726	mg/L	0.001706	0.00726	mg/L	0.001706	23.48%
B 249.677†	104.1	0.01323	mg/L	0.001112	0.01323	mg/L	0.001112	8.41%
Ba 233.527†	38.2	0.00769	mg/L	0.000226	0.00769	mg/L	0.000226	2.94%
Be 313.042†	20.5	0.00003	mg/L	0.000038	0.00003	mg/L	0.000038	116.98%
Ca 317.933†	334884.9	23.73	mg/L	0.199	23.73	mg/L	0.199	0.84%
Cd 228.802†	24.2	0.00076	mg/L	0.000047	0.00076	mg/L	0.000047	6.17%
Co 228.616†	-1.5	-0.00005	mg/L	0.000067	-0.00005	mg/L	0.000067	142.87%
Cr 267.716†	8.6	0.00062	mg/L	0.000717	0.00062	mg/L	0.000717	114.71%
Cu 324.752†	1564.5	0.00587	mg/L	0.000090	0.00587	mg/L	0.000090	1.53%
Fe 273.955†	80.9	0.06333	mg/L	0.002529	0.06333	mg/L	0.002529	3.99%
K 766.490†	10815.7	5.344	mg/L	0.0301	5.344	mg/L	0.0301	0.56%
Mg 279.077†	8188.3	5.687	mg/L	0.0235	5.687	mg/L	0.0235	0.41%
Mn 257.610†	2278.8	0.06413	mg/L	0.000280	0.06413	mg/L	0.000280	0.44%
Mo 202.031†	50.8	0.00224	mg/L	0.000104	0.00224	mg/L	0.000104	4.66%
Na 589.592†	56333.9	4.398	mg/L	0.0132	4.398	mg/L	0.0132	0.30%
Na 330.237†	120.1	4.135	mg/L	0.1221	4.135	mg/L	0.1221	2.95%
Ni 231.604†	4.0	0.00094	mg/L	0.000744	0.00094	mg/L	0.000744	79.43%
Pb 220.353†	-3.9	-0.00049	mg/L	0.000352	-0.00049	mg/L	0.000352	71.42%
Sb 206.836†	-11.8	-0.00367	mg/L	0.000314	-0.00367	mg/L	0.000314	8.55%
Se 196.026†	-0.7	-0.00047	mg/L	0.002757	-0.00047	mg/L	0.002757	587.97%
Si 288.158†	10836.9	5.107	mg/L	0.0208	5.107	mg/L	0.0208	0.41%
Sn 189.927†	-52.7	-0.01120	mg/L	0.000610	-0.01120	mg/L	0.000610	5.44%
Sr 421.552†	106676.9	0.1163	mg/L	0.00047	0.1163	mg/L	0.00047	0.40%
Ti 334.903†	71.3	0.00227	mg/L	0.000552	0.00227	mg/L	0.000552	24.36%
Tl 190.801†	1.1	0.00044	mg/L	0.000620	0.00044	mg/L	0.000620	141.37%
V 292.402†	77.4	0.00059	mg/L	0.000183	0.00059	mg/L	0.000183	30.81%
Zn 206.200†	44.3	0.01117	mg/L	0.000517	0.01117	mg/L	0.000517	4.63%

Sequence No.: 30 **Autosampler Location: 369**
Sample ID: VS12 H TWC **Date Collected: 11/21/2012 5:20:25 PM**
Analyst: BA **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: VS12 H TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS12 H TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2519543.8	103.6	%	0.67				0.65%
ScR 361.383	321685.8	105.4	%	0.42				0.40%
Ag 328.068†	13.3	0.00007	mg/L	0.000205	0.00007	mg/L	0.000205	282.19%
Al 308.215†	99.1	0.05628	mg/L	0.004436	0.05628	mg/L	0.004436	7.88%
As 188.979†	13.0	0.00624	mg/L	0.002091	0.00624	mg/L	0.002091	33.49%
B 249.677†	68.1	0.00866	mg/L	0.000377	0.00866	mg/L	0.000377	4.36%
Ba 233.527†	35.1	0.00708	mg/L	0.000785	0.00708	mg/L	0.000785	11.08%
Be 313.042†	37.6	0.00006	mg/L	0.000031	0.00006	mg/L	0.000031	51.99%
Ca 317.933†	208714.5	14.79	mg/L	0.080	14.79	mg/L	0.080	0.54%
Cd 228.802†	25.2	0.00080	mg/L	0.000066	0.00080	mg/L	0.000066	8.31%
Co 228.616†	1.8	0.00004	mg/L	0.000176	0.00004	mg/L	0.000176	407.50%
Cr 267.716†	11.2	0.00128	mg/L	0.000386	0.00128	mg/L	0.000386	30.14%
Cu 324.752†	1776.7	0.00669	mg/L	0.000152	0.00669	mg/L	0.000152	2.27%
Fe 273.955†	79.2	0.06195	mg/L	0.000850	0.06195	mg/L	0.000850	1.37%
K 766.490†	10842.3	5.358	mg/L	0.0297	5.358	mg/L	0.0297	0.55%
Mg 279.077†	5424.8	3.768	mg/L	0.0112	3.768	mg/L	0.0112	0.30%
Mn 257.610†	1303.1	0.03667	mg/L	0.000079	0.03667	mg/L	0.000079	0.21%
Mo 202.031†	38.2	0.00172	mg/L	0.000314	0.00172	mg/L	0.000314	18.30%
Na 589.592†	38969.4	3.042	mg/L	0.0197	3.042	mg/L	0.0197	0.65%
Na 330.237†	83.6	2.873	mg/L	0.2446	2.873	mg/L	0.2446	8.51%
Ni 231.604†	8.6	0.00198	mg/L	0.001211	0.00198	mg/L	0.001211	61.03%
Pb 220.353†	-4.3	-0.00054	mg/L	0.000593	-0.00054	mg/L	0.000593	110.16%
Sb 206.836†	-8.2	-0.00257	mg/L	0.000734	-0.00257	mg/L	0.000734	28.54%
Se 196.026†	1.8	0.00123	mg/L	0.002371	0.00123	mg/L	0.002371	193.06%
Si 288.158†	7919.4	3.732	mg/L	0.0192	3.732	mg/L	0.0192	0.52%
Sn 189.927†	-37.0	-0.00811	mg/L	0.000532	-0.00811	mg/L	0.000532	6.55%
Sr 421.552†	71768.5	0.07822	mg/L	0.000457	0.07822	mg/L	0.000457	0.58%
Ti 334.903†	39.8	0.00119	mg/L	0.000731	0.00119	mg/L	0.000731	61.51%
Tl 190.801†	1.7	0.00066	mg/L	0.001975	0.00066	mg/L	0.001975	301.27%
V 292.402†	75.1	0.00057	mg/L	0.000148	0.00057	mg/L	0.000148	25.81%
Zn 206.200†	94.9	0.02394	mg/L	0.000135	0.02394	mg/L	0.000135	0.56%

Sequence No.: 31
Sample ID: VS12 J TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 370
Date Collected: 11/21/2012 5:24:40 PM
Data Type: Original

Nebulizer Parameters: VS12 J TWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS12 J TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2565838.9	105.5	%	0.20				0.19%
ScR 361.383	326916.1	107.1	%	1.00				0.93%
Ag 328.068†	6.0	0.00003	mg/L	0.000337	0.00003	mg/L	0.000337	>999.9%
Al 308.215†	221.7	0.1259	mg/L	0.01026	0.1259	mg/L	0.01026	8.15%
As 188.979†	16.8	0.00808	mg/L	0.000303	0.00808	mg/L	0.000303	3.75%
B 249.677†	76.5	0.00973	mg/L	0.000299	0.00973	mg/L	0.000299	3.07%
Ba 233.527†	79.9	0.01610	mg/L	0.000437	0.01610	mg/L	0.000437	2.71%
Be 313.042†	-0.7	-0.00000	mg/L	0.000043	-0.00000	mg/L	0.000043	>999.9%
Ca 317.933†	290110.5	20.56	mg/L	0.294	20.56	mg/L	0.294	1.43%
Cd 228.802†	21.8	0.00067	mg/L	0.000058	0.00067	mg/L	0.000058	8.72%
Co 228.616†	-0.4	-0.00003	mg/L	0.000018	-0.00003	mg/L	0.000018	70.24%
Cr 267.716†	12.7	0.00131	mg/L	0.000486	0.00131	mg/L	0.000486	37.07%
Cu 324.752†	3812.2	0.01438	mg/L	0.000035	0.01438	mg/L	0.000035	0.24%
Fe 273.955†	240.1	0.1879	mg/L	0.00267	0.1879	mg/L	0.00267	1.42%
K 766.490†	14774.8	7.301	mg/L	0.0698	7.301	mg/L	0.0698	0.96%
Mg 279.077†	8245.6	5.727	mg/L	0.0653	5.727	mg/L	0.0653	1.14%
Mn 257.610†	979.1	0.02753	mg/L	0.000238	0.02753	mg/L	0.000238	0.86%
Mo 202.031†	83.1	0.00386	mg/L	0.000207	0.00386	mg/L	0.000207	5.35%
Na 589.592†	69888.2	5.456	mg/L	0.0752	5.456	mg/L	0.0752	1.38%
Na 330.237†	145.1	4.993	mg/L	0.3486	4.993	mg/L	0.3486	6.98%
Ni 231.604†	7.5	0.00175	mg/L	0.000624	0.00175	mg/L	0.000624	35.66%
Pb 220.353†	1.1	0.00014	mg/L	0.000538	0.00014	mg/L	0.000538	377.54%
Sb 206.836†	-6.4	-0.00205	mg/L	0.000983	-0.00205	mg/L	0.000983	47.93%
Se 196.026†	-4.2	-0.00289	mg/L	0.002010	-0.00289	mg/L	0.002010	69.52%
Si 288.158†	11632.0	5.482	mg/L	0.0456	5.482	mg/L	0.0456	0.83%
Sn 189.927†	-47.5	-0.01020	mg/L	0.000305	-0.01020	mg/L	0.000305	2.99%
Sr 421.552†	92177.2	0.1005	mg/L	0.00146	0.1005	mg/L	0.00146	1.46%
Ti 334.903†	121.9	0.00483	mg/L	0.000833	0.00483	mg/L	0.000833	17.25%
Tl 190.801†	6.4	0.00248	mg/L	0.001067	0.00248	mg/L	0.001067	42.98%
V 292.402†	205.7	0.00155	mg/L	0.000140	0.00155	mg/L	0.000140	9.02%
Zn 206.200†	70.7	0.01785	mg/L	0.000366	0.01785	mg/L	0.000366	2.05%

Sequence No.: 32
Sample ID: VS37 A TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 371
Date Collected: 11/21/2012 5:28:54 PM
Data Type: Original

Nebulizer Parameters: VS37 A TWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS37 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2568324.3	105.6	%	0.74				0.70%
ScR 361.383	322799.0	105.8	%	0.77				0.72%
Ag 328.068†	-8.4	-0.00005	mg/L	0.000132	-0.00005	mg/L	0.000132	290.50%
Al 308.215†	129.6	0.07365	mg/L	0.001436	0.07365	mg/L	0.001436	1.95%
As 188.979†	1.3	0.00067	mg/L	0.002507	0.00067	mg/L	0.002507	375.72%
B 249.677†	31.5	0.00401	mg/L	0.001348	0.00401	mg/L	0.001348	33.63%
Ba 233.527†	19.2	0.00384	mg/L	0.000333	0.00384	mg/L	0.000333	8.67%
Be 313.042†	41.0	0.00007	mg/L	0.000023	0.00007	mg/L	0.000023	35.94%
Ca 317.933†	26284.8	1.863	mg/L	0.0250	1.863	mg/L	0.0250	1.34%
Cd 228.802†	16.6	0.00055	mg/L	0.000152	0.00055	mg/L	0.000152	27.41%
Co 228.616†	-0.9	-0.00003	mg/L	0.000150	-0.00003	mg/L	0.000150	476.98%
Cr 267.716†	6.5	0.00096	mg/L	0.000608	0.00096	mg/L	0.000608	63.36%
Cu 324.752†	2520.3	0.00954	mg/L	0.000283	0.00954	mg/L	0.000283	2.97%
Fe 273.955†	294.7	0.2307	mg/L	0.00191	0.2307	mg/L	0.00191	0.83%
K 766.490†	408.5	0.2018	mg/L	0.01145	0.2018	mg/L	0.01145	5.67%
Mg 279.077†	623.5	0.4329	mg/L	0.00538	0.4329	mg/L	0.00538	1.24%
Mn 257.610†	1068.0	0.03009	mg/L	0.000224	0.03009	mg/L	0.000224	0.74%
Mo 202.031†	1.6	0.00006	mg/L	0.000074	0.00006	mg/L	0.000074	125.84%
Na 589.592†	7821.5	0.6106	mg/L	0.00633	0.6106	mg/L	0.00633	1.04%
Na 330.237†	7.4	0.2444	mg/L	0.08836	0.2444	mg/L	0.08836	36.16%
Ni 231.604†	5.7	0.00133	mg/L	0.001314	0.00133	mg/L	0.001314	99.15%
Pb 220.353†	-1.3	-0.00017	mg/L	0.000050	-0.00017	mg/L	0.000050	29.40%
Sb 206.836†	0.4	0.00009	mg/L	0.002062	0.00009	mg/L	0.002062	>999.9%
Se 196.026†	16.8	0.01170	mg/L	0.001406	0.01170	mg/L	0.001406	12.03%
Si 288.158†	1335.2	0.6292	mg/L	0.01453	0.6292	mg/L	0.01453	2.31%
Sn 189.927†	-6.6	-0.00155	mg/L	0.000518	-0.00155	mg/L	0.000518	33.54%
Sr 421.552†	9686.6	0.01056	mg/L	0.000105	0.01056	mg/L	0.000105	0.99%
Ti 334.903†	57.1	0.00263	mg/L	0.000335	0.00263	mg/L	0.000335	12.71%
Tl 190.801†	2.5	0.00097	mg/L	0.001427	0.00097	mg/L	0.001427	147.59%
V 292.402†	26.4	0.00020	mg/L	0.000162	0.00020	mg/L	0.000162	81.94%
Zn 206.200†	143.5	0.03620	mg/L	0.000357	0.03620	mg/L	0.000357	0.99%

Sequence No.: 33
Sample ID: VS37 B TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 372
Date Collected: 11/21/2012 5:32:53 PM
Data Type: Original

Nebulizer Parameters: VS37 B TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS37 B TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2553146.5	104.9	%	0.15				0.14%
ScR 361.383	322155.4	105.6	%	0.70				0.67%
Ag 328.068†	17.7	0.00010	mg/L	0.000152	0.00010	mg/L	0.000152	157.86%
Al 308.215†	552.4	0.3140	mg/L	0.00704	0.3140	mg/L	0.00704	2.24%
As 188.979†	7.5	0.00389	mg/L	0.001332	0.00389	mg/L	0.001332	34.22%
B 249.677†	87.5	0.01112	mg/L	0.000987	0.01112	mg/L	0.000987	8.87%
Ba 233.527†	34.3	0.00690	mg/L	0.000154	0.00690	mg/L	0.000154	2.23%
Be 313.042†	26.4	0.00004	mg/L	0.000028	0.00004	mg/L	0.000028	67.55%
Ca 317.933†	107580.8	7.624	mg/L	0.0573	7.624	mg/L	0.0573	0.75%
Cd 228.802†	16.6	0.00053	mg/L	0.000107	0.00053	mg/L	0.000107	20.07%
Co 228.616†	0.8	-0.00000	mg/L	0.000093	-0.00000	mg/L	0.000093	>999.9%
Cr 267.716†	3.9	0.00042	mg/L	0.000723	0.00042	mg/L	0.000723	172.05%
Cu 324.752†	1058.7	0.00400	mg/L	0.000186	0.00400	mg/L	0.000186	4.66%
Fe 273.955†	203.9	0.1596	mg/L	0.00117	0.1596	mg/L	0.00117	0.73%
K 766.490†	6838.3	3.379	mg/L	0.0409	3.379	mg/L	0.0409	1.21%
Mg 279.077†	1983.2	1.377	mg/L	0.0122	1.377	mg/L	0.0122	0.89%
Mn 257.610†	267.1	0.00750	mg/L	0.000214	0.00750	mg/L	0.000214	2.85%
Mo 202.031†	22.2	0.00101	mg/L	0.000033	0.00101	mg/L	0.000033	3.30%
Na 589.592†	59825.1	4.671	mg/L	0.0286	4.671	mg/L	0.0286	0.61%
Na 330.237†	125.4	4.319	mg/L	0.0212	4.319	mg/L	0.0212	0.49%
Ni 231.604†	8.7	0.00202	mg/L	0.001052	0.00202	mg/L	0.001052	52.20%
Pb 220.353†	-4.1	-0.00045	mg/L	0.000665	-0.00045	mg/L	0.000665	148.09%
Sb 206.836†	-0.6	-0.00023	mg/L	0.001551	-0.00023	mg/L	0.001551	687.28%
Se 196.026†	9.2	0.00641	mg/L	0.001673	0.00641	mg/L	0.001673	26.11%
Si 288.158†	8146.7	3.839	mg/L	0.0341	3.839	mg/L	0.0341	0.89%
Sn 189.927†	-22.4	-0.00507	mg/L	0.000526	-0.00507	mg/L	0.000526	10.38%
Sr 421.552†	15185.0	0.01655	mg/L	0.000162	0.01655	mg/L	0.000162	0.98%
Ti 334.903†	205.9	0.00946	mg/L	0.000298	0.00946	mg/L	0.000298	3.15%
Tl 190.801†	4.8	0.00185	mg/L	0.000602	0.00185	mg/L	0.000602	32.51%
V 292.402†	72.3	0.00054	mg/L	0.000109	0.00054	mg/L	0.000109	20.41%
Zn 206.200†	26.6	0.00670	mg/L	0.000394	0.00670	mg/L	0.000394	5.88%

Sequence No.: 34
Sample ID: VS28 A SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 373
Date Collected: 11/21/2012 5:37:07 PM
Data Type: Original

Nebulizer Parameters: VS28 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS28 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2576230.2	105.9	%	0.40				0.37%
ScR 361.383	323560.2	106.0	%	0.55				0.52%
Ag 328.068†	-14.8	-0.00007	mg/L	0.000190	-0.00036	mg/L	0.000951	264.43%
Al 308.215†	1775.4	1.009	mg/L	0.0100	5.043	mg/L	0.0502	1.00%
As 188.979†	31.1	0.01840	mg/L	0.000580	0.09202	mg/L	0.002900	3.15%
B 249.677†	22.1	0.00280	mg/L	0.001185	0.01402	mg/L	0.005927	42.28%
Ba 233.527†	619.7	0.1050	mg/L	0.00077	0.5249	mg/L	0.00383	0.73%
Be 313.042†	85.6	0.00013	mg/L	0.000012	0.00065	mg/L	0.000062	9.59%
Ca 317.933†	116635.1	8.265	mg/L	0.0545	41.33	mg/L	0.273	0.66%
Cd 228.802†	145.6	0.00362	mg/L	0.000296	0.01808	mg/L	0.001478	8.17%
Co 228.616†	114.1	0.00124	mg/L	0.000187	0.00622	mg/L	0.000937	15.07%
Cr 267.716†	22.1	0.00804	mg/L	0.001004	0.04020	mg/L	0.005021	12.49%
Cu 324.752†	5587.9	0.02655	mg/L	0.000501	0.1328	mg/L	0.00251	1.89%
Fe 273.955†	157105.6	122.9	mg/L	1.15	614.7	mg/L	5.74	0.93%
K 766.490†	736.2	0.3638	mg/L	0.00453	1.819	mg/L	0.0226	1.24%
Mg 279.077†	1430.6	0.9283	mg/L	0.00782	4.641	mg/L	0.0391	0.84%
Mn 257.610†	19000.9	0.5362	mg/L	0.00380	2.681	mg/L	0.0190	0.71%
Mo 202.031†	21.9	0.00099	mg/L	0.000119	0.00494	mg/L	0.000594	12.03%
Na 589.592†	1896.2	0.1480	mg/L	0.00188	0.7402	mg/L	0.00942	1.27%
Na 330.237†	-5.5	-0.2931	mg/L	0.08062	-1.465	mg/L	0.4031	27.51%
Ni 231.604†	19.8	0.00461	mg/L	0.001194	0.02304	mg/L	0.005968	25.90%
Pb 220.353†	172.2	0.01671	mg/L	0.000811	0.08354	mg/L	0.004056	4.86%
Sb 206.836†	17.1	0.00517	mg/L	0.001709	0.02584	mg/L	0.008544	33.06%
Se 196.026†	15.1	0.01049	mg/L	0.005775	0.05245	mg/L	0.028873	55.05%
Si 288.158†	4096.7	1.931	mg/L	0.0126	9.653	mg/L	0.0630	0.65%
Sn 189.927†	-18.7	-0.00398	mg/L	0.000587	-0.01988	mg/L	0.002937	14.77%
Sr 421.552†	143273.2	0.1561	mg/L	0.00072	0.7807	mg/L	0.00359	0.46%
Ti 334.903†	1497.6	0.07105	mg/L	0.000464	0.3553	mg/L	0.00232	0.65%
Tl 190.801†	-32.8	0.00045	mg/L	0.000853	0.00223	mg/L	0.004265	190.84%
V 292.402†	3868.4	0.02475	mg/L	0.000589	0.1237	mg/L	0.00294	2.38%
Zn 206.200†	1457.7	0.3678	mg/L	0.00350	1.839	mg/L	0.0175	0.95%

Sequence No.: 35 **Autosampler Location: 375**
Sample ID: VR38 APOST SWC **Date Collected: 11/21/2012 5:41:06 PM**
Analyst: BA **Data Type: Original**
Dilution: 2.000000X

Nebulizer Parameters: VR38 APOST SWC

Analyte	Back Pressure	Flow
A11	218.0 kPa	0.75 L/min

Mean Data: VR38 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2557859.2	105.1	%	0.48				0.46%
ScR 361.383	328898.0	107.8	%	0.55				0.51%
Ag 328.068†	-122.0	-0.00061	mg/L	0.000154	-0.00121	mg/L	0.000309	25.47%
Al 308.215†	101186.2	57.50	mg/L	0.562	115.0	mg/L	1.12	0.98%
As 188.979†	-254.8	-0.00015	mg/L	0.003452	-0.00030	mg/L	0.006903	>999.9%
B 249.677†	65.2	0.00821	mg/L	0.000111	0.01641	mg/L	0.000221	1.35%
Ba 233.527†	1140.9	0.2179	mg/L	0.00186	0.4358	mg/L	0.00371	0.85%
Be 313.042†	546.7	0.00077	mg/L	0.000013	0.00154	mg/L	0.000026	1.67%
Ca 317.933†	441391.3	31.28	mg/L	0.302	62.56	mg/L	0.604	0.97%
Cd 228.802†	57.1	0.00226	mg/L	0.000213	0.00453	mg/L	0.000425	9.39%
Co 228.616†	1612.5	0.03180	mg/L	0.001031	0.06359	mg/L	0.002062	3.24%
Cr 267.716†	938.7	0.1465	mg/L	0.00116	0.2930	mg/L	0.00232	0.79%
Cu 324.752†	8861.9	0.03562	mg/L	0.000782	0.07123	mg/L	0.001563	2.19%
Fe 273.955†	96801.4	75.75	mg/L	0.747	151.5	mg/L	1.49	0.99%
K 766.490†	5150.1	2.545	mg/L	0.0137	5.090	mg/L	0.0274	0.54%
Mg 279.077†	42910.0	29.76	mg/L	0.273	59.53	mg/L	0.545	0.92%
Mn 257.610†	51913.7	1.463	mg/L	0.0126	2.925	mg/L	0.0253	0.86%
Mo 202.031†	45.8	0.00190	mg/L	0.000084	0.00381	mg/L	0.000169	4.43%
Na 589.592†	18852.8	1.472	mg/L	0.0153	2.944	mg/L	0.0307	1.04%
Na 330.237†	8.9	1.324	mg/L	0.1339	2.649	mg/L	0.2678	10.11%
Ni 231.604†	732.1	0.1710	mg/L	0.00115	0.3420	mg/L	0.00230	0.67%
Pb 220.353†	153.3	0.03008	mg/L	0.000096	0.06016	mg/L	0.000192	0.32%
Sb 206.836†	7332.3	2.189	mg/L	0.0427	4.378	mg/L	0.0855	1.95%
Se 196.026†	16.8	0.01159	mg/L	0.000331	0.02318	mg/L	0.000662	2.85%
Si 288.158†	9266.2	4.370	mg/L	0.0396	8.740	mg/L	0.0792	0.91%
Sn 189.927†	-63.2	-0.01139	mg/L	0.000998	-0.02279	mg/L	0.001997	8.76%
Sr 421.552†	101983.8	0.1111	mg/L	0.00101	0.2223	mg/L	0.00203	0.91%
Ti 334.903†	102503.5	4.889	mg/L	0.0486	9.778	mg/L	0.0972	0.99%
Tl 190.801†	-22.5	-0.00150	mg/L	0.001286	-0.00300	mg/L	0.002571	85.83%
V 292.402†	26287.7	0.1924	mg/L	0.00452	0.3849	mg/L	0.00903	2.35%
Zn 206.200†	1127.2	0.2844	mg/L	0.00307	0.5688	mg/L	0.00614	1.08%

Sequence No.: 36
Sample ID: VS37 MB1SPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 374
Date Collected: 11/21/2012 5:45:07 PM
Data Type: Original

Nebulizer Parameters: VS37 MB1SPK TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS37 MB1SPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2579793.4	106.0	%	0.31				0.29%
ScR 361.383	323368.1	106.0	%	0.82				0.78%
Ag 328.068†	98512.3	0.5354	mg/L	0.00080	0.5354	mg/L	0.00080	0.15%
Al 308.215†	3409.6	1.931	mg/L	0.0141	1.931	mg/L	0.0141	0.73%
As 188.979†	3579.4	1.939	mg/L	0.0072	1.939	mg/L	0.0072	0.37%
B 249.677†	8.0	-0.00002	mg/L	0.000702	-0.00002	mg/L	0.000702	>999.9%
Ba 233.527†	10841.2	2.189	mg/L	0.0201	2.189	mg/L	0.0201	0.92%
Be 313.042†	286617.5	0.4557	mg/L	0.00267	0.4557	mg/L	0.00267	0.59%
Ca 317.933†	135597.8	9.609	mg/L	0.0689	9.609	mg/L	0.0689	0.72%
Cd 228.802†	14487.0	0.4747	mg/L	0.00195	0.4747	mg/L	0.00195	0.41%
Co 228.616†	19365.3	0.5075	mg/L	0.00206	0.5075	mg/L	0.00206	0.41%
Cr 267.716†	3249.7	0.5063	mg/L	0.00522	0.5063	mg/L	0.00522	1.03%
Cu 324.752†	126461.7	0.4784	mg/L	0.00052	0.4784	mg/L	0.00052	0.11%
Fe 273.955†	2291.2	1.789	mg/L	0.0192	1.789	mg/L	0.0192	1.07%
K 766.490†	19589.4	9.680	mg/L	0.0837	9.680	mg/L	0.0837	0.86%
Mg 279.077†	14543.8	10.10	mg/L	0.106	10.10	mg/L	0.106	1.05%
Mn 257.610†	16117.4	0.4544	mg/L	0.00533	0.4544	mg/L	0.00533	1.17%
Mo 202.031†	22.9	0.00100	mg/L	0.000212	0.00100	mg/L	0.000212	21.25%
Na 589.592†	123679.1	9.656	mg/L	0.0907	9.656	mg/L	0.0907	0.94%
Na 330.237†	274.4	9.289	mg/L	0.1562	9.289	mg/L	0.1562	1.68%
Ni 231.604†	2189.3	0.5070	mg/L	0.00704	0.5070	mg/L	0.00704	1.39%
Pb 220.353†	15659.7	1.962	mg/L	0.0087	1.962	mg/L	0.0087	0.44%
Sb 206.836†	22.6	0.00141	mg/L	0.001676	0.00141	mg/L	0.001676	119.10%
Se 196.026†	2705.6	1.883	mg/L	0.0058	1.883	mg/L	0.0058	0.31%
Si 288.158†	10.3	0.00787	mg/L	0.002274	0.00787	mg/L	0.002274	28.88%
Sn 189.927†	-24.2	-0.00524	mg/L	0.000884	-0.00524	mg/L	0.000884	16.85%
Sr 421.552†	438544.7	0.4780	mg/L	0.00485	0.4780	mg/L	0.00485	1.02%
Ti 334.903†	47.6	0.00171	mg/L	0.000717	0.00171	mg/L	0.000717	41.97%
Tl 190.801†	5159.4	1.978	mg/L	0.0030	1.978	mg/L	0.0030	0.15%
V 292.402†	68128.4	0.5127	mg/L	0.00091	0.5127	mg/L	0.00091	0.18%
Zn 206.200†	1974.4	0.4982	mg/L	0.00651	0.4982	mg/L	0.00651	1.31%

Sequence No.: 37
Sample ID: CV 10
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/21/2012 5:49:08 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2514357.3	103.3	%	0.44				0.43%
ScR 361.383	318158.5	104.3	%	0.14				0.13%
Ag 328.068†	195731.2	1.064	mg/L	0.0089	1.064	mg/L	0.0089	0.84%
Al 308.215†	3532.7	1.973	mg/L	0.0077	1.973	mg/L	0.0077	0.39%
As 188.979†	3637.8	1.997	mg/L	0.0055	1.997	mg/L	0.0055	0.28%
B 249.677†	7759.2	0.9851	mg/L	0.00405	0.9851	mg/L	0.00405	0.41%
Ba 233.527†	5522.0	1.115	mg/L	0.0067	1.115	mg/L	0.0067	0.60%
Be 313.042†	577428.7	0.9181	mg/L	0.00214	0.9181	mg/L	0.00214	0.23%
Ca 317.933†	28723.0	2.035	mg/L	0.0096	2.035	mg/L	0.0096	0.47%
Cd 228.802†	28726.9	0.9538	mg/L	0.00268	0.9538	mg/L	0.00268	0.28%
Co 228.616†	40260.6	1.053	mg/L	0.0039	1.053	mg/L	0.0039	0.37%
Cr 267.716†	6610.6	1.032	mg/L	0.0052	1.032	mg/L	0.0052	0.50%
Cu 324.752†	267782.2	1.013	mg/L	0.0071	1.013	mg/L	0.0071	0.70%
Fe 273.955†	2362.3	1.841	mg/L	0.0071	1.841	mg/L	0.0071	0.39%
K 766.490†	40746.3	20.13	mg/L	0.038	20.13	mg/L	0.038	0.19%
Mg 279.077†	2917.8	2.034	mg/L	0.0099	2.034	mg/L	0.0099	0.49%
Mn 257.610†	33355.5	0.9402	mg/L	0.00192	0.9402	mg/L	0.00192	0.20%
Mo 202.031†	20552.5	1.010	mg/L	0.0033	1.010	mg/L	0.0033	0.33%
Na 589.592†	650920.0	50.82	mg/L	0.072	50.82	mg/L	0.072	0.14%
Na 330.237†	1427.8	49.08	mg/L	0.132	49.08	mg/L	0.132	0.27%
Ni 231.604†	4500.7	1.044	mg/L	0.0074	1.044	mg/L	0.0074	0.71%
Pb 220.353†	16424.3	2.058	mg/L	0.0069	2.058	mg/L	0.0069	0.33%
Sb 206.836†	7016.6	2.093	mg/L	0.0076	2.093	mg/L	0.0076	0.36%
Se 196.026†	2748.7	1.913	mg/L	0.0147	1.913	mg/L	0.0147	0.77%
Si 288.158†	4400.3	2.073	mg/L	0.0093	2.073	mg/L	0.0093	0.45%
Sn 189.927†	3554.0	0.9551	mg/L	0.00386	0.9551	mg/L	0.00386	0.40%
Sr 421.552†	900220.0	0.9811	mg/L	0.00233	0.9811	mg/L	0.00233	0.24%
Ti 334.903†	21827.6	1.040	mg/L	0.0032	1.040	mg/L	0.0032	0.30%
Tl 190.801†	5327.7	2.038	mg/L	0.0053	2.038	mg/L	0.0053	0.26%
V 292.402†	138689.2	1.044	mg/L	0.0083	1.044	mg/L	0.0083	0.79%
Zn 206.200†	4183.6	1.055	mg/L	0.0031	1.055	mg/L	0.0031	0.30%

Sequence No.: 38
Sample ID: CB 10
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/21/2012 5:53:29 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2565435.7	105.4	%	0.44				0.41%
ScR 361.383	324497.2	106.3	%	0.49				0.46%
Ag 328.068†	5.9	0.00003	mg/L	0.000116	0.00003	mg/L	0.000116	360.33%
Al 308.215†	-13.8	-0.00785	mg/L	0.008276	-0.00785	mg/L	0.008276	105.48%
As 188.979†	-2.8	-0.00152	mg/L	0.001577	-0.00152	mg/L	0.001577	103.47%
B 249.677†	5.5	0.00070	mg/L	0.000904	0.00070	mg/L	0.000904	129.47%
Ba 233.527†	-3.4	-0.00069	mg/L	0.000664	-0.00069	mg/L	0.000664	95.79%
Be 313.042†	146.7	0.00023	mg/L	0.000093	0.00023	mg/L	0.000093	39.81%
Ca 317.933†	59.6	0.00422	mg/L	0.000022	0.00422	mg/L	0.000022	0.52%
Cd 228.802†	14.9	0.00051	mg/L	0.000165	0.00051	mg/L	0.000165	32.41%
Co 228.616†	1.6	0.00004	mg/L	0.000122	0.00004	mg/L	0.000122	302.29%
Cr 267.716†	-1.2	-0.00018	mg/L	0.001182	-0.00018	mg/L	0.001182	645.60%
Cu 324.752†	553.6	0.00209	mg/L	0.000150	0.00209	mg/L	0.000150	7.16%
Fe 273.955†	1.6	0.00124	mg/L	0.001111	0.00124	mg/L	0.001111	89.21%
K 766.490†	29.4	0.01455	mg/L	0.014241	0.01455	mg/L	0.014241	97.87%
Mg 279.077†	2.4	0.00170	mg/L	0.003598	0.00170	mg/L	0.003598	211.37%
Mn 257.610†	4.8	0.00014	mg/L	0.000030	0.00014	mg/L	0.000030	21.96%
Mo 202.031†	11.1	0.00055	mg/L	0.000262	0.00055	mg/L	0.000262	47.96%
Na 589.592†	27.2	0.00212	mg/L	0.006767	0.00212	mg/L	0.006767	319.12%
Na 330.237†	2.6	0.09017	mg/L	0.372796	0.09017	mg/L	0.372796	413.42%
Ni 231.604†	1.3	0.00029	mg/L	0.000449	0.00029	mg/L	0.000449	153.07%
Pb 220.353†	1.6	0.00019	mg/L	0.000793	0.00019	mg/L	0.000793	411.54%
Sb 206.836†	-0.6	-0.00015	mg/L	0.000912	-0.00015	mg/L	0.000912	591.05%
Se 196.026†	9.5	0.00658	mg/L	0.002092	0.00658	mg/L	0.002092	31.79%
Si 288.158†	10.2	0.00480	mg/L	0.005550	0.00480	mg/L	0.005550	115.63%
Sn 189.927†	3.5	0.00095	mg/L	0.000900	0.00095	mg/L	0.000900	94.84%
Sr 421.552†	108.9	0.00012	mg/L	0.000152	0.00012	mg/L	0.000152	128.37%
Ti 334.903†	11.4	0.00054	mg/L	0.000746	0.00054	mg/L	0.000746	137.26%
Tl 190.801†	2.0	0.00075	mg/L	0.001713	0.00075	mg/L	0.001713	228.34%
V 292.402†	14.4	0.00011	mg/L	0.000269	0.00011	mg/L	0.000269	250.57%
Zn 206.200†	4.9	0.00124	mg/L	0.000176	0.00124	mg/L	0.000176	14.17%

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 11-19-12 **Analyst:** GL **Page:** 1 of 3

All corrections made by analyst unless otherwise noted. GL 11-21-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	222222 ~~STD 0~~				2988-11
		~~1~~			2993-4
		~~2~~			↓ -5
	222222	~~3~~			2992-5
	STD 0	~~4~~			2993-6
	1	222222 ~~Rinse Samp~~			
	2	ICV			2955.7 Tl, Th ~~low~~ high 12-A-12
	3	ICB			
	4	CCV1			Tl, Th high U high
	Rinse	CCB1			
	222222 ~~Low check~~				All IS. High
		ICSA			
		ICSAB			
		Low check			V2, Cr^{53} high
		LR200			
		LR300			Ag, Pb low
		CCV2			Tl, Th high U high
		CCB2			
		US62 MB1	REN	2	Mn high As high RRCu CAF
		↓ MB2	↓	↓	RRCu
		DI Check			
		ERA P197		10 ✓	
		US62-MB5pk	REN	2 ✓	RRCu
		↓ MB2Spk	↓	↓ ✓	↓

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 11-19-12 **Analyst:** QL **Page:** 2 **of** 3

All corrections made by analyst unless otherwise noted. QL 11-19-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS62 A	REN	2	RR Mn^{Cd} x5^{Cu}
		B	↓	↓	↓
		C			
		D			RR cd^{Cu} x5
		CCV3			Ni^{62}, Cu, ~~Se^{82}~~ Tl high Se^{82} low
		CCB3			Ni^{62} high
		VR63MB1	RHN		Pb = 0.13 ppb ~~A.N.~~ CAF RR
		↓ MB2	↓		Pb = 0.22 Sc, In, CAF RR
		VS62 E	REN	2	Sc high RR x5 - Mn, Cu, Cd
		↓ F	↓	↓	RR x5 Mn, Cu, Cd
		VR63MB1SPK	RHN		↓ Sc, In high RR Cd, Cu, Mn
		↓ MB2SPK	↓		↓ ↓
		VR48 ADup	REN	2	↓ Sc high RR x10 - ~~As~~, Mn, Cu, Pb, Zn
		A	↓	↓	↓ ↓
		↓ ASPK	↓	↓	↓
		VR63 B	RHN		↓ RR x10 Zn, Mn
		CCV4			Co, Ni^{62}, Cu, Tl, Th, U high
		CCB4			Ni^{62} high
		STD 0			
		CCV5			Co, Ni^{62}, Cu, Tl, Th, U high
		CCB5			
		VS62 A	REN	5	Cd Mn RR Cu
		B	↓	↓	↓ ↓
		↓ C	↓	↓	↓ ↓

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 11-19-12 **Analyst:** QC **Page:** 3 of 3

All corrections made by analyst unless otherwise noted. QC 11-9-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS62D	REN	5	Cd RR Cu
		E	↓	↓	Mn ↓
		F	↓	↓	↓ ↓
		VR48 ADup	REN	10 ✓	As
		A	↓	↓	↓
		↓ ASpk	↓	↓ x	As STL ↓
		VQ67 x	↓	20	
		CCV6			Cr, Co, Ni^{62}, Cu^{65}, Tl, Th, U high V2 Cr^{53} high
		CCB6			
		VR38 MB1	SWN	20	
		MB1Spk	↓	↓ ✓	
		ADup		✓	
		A			
		ASpk		✓	
		B			
		C			
		D			
		E			
		↓ F	↓	↓	
		CCV7			Co, Tl, Th, U high
		CCB7			Endpts Ni^{62} low
		Rinse			
		DI			
		~~QC~~			

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA Analysis Date: 11-19-12

Elan-1	Analyst 11-20-12	Peer MJJ 11.21.12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	See log
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	See log
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	VR-63-CAF V562 ✓ 11-20-12
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's:	✓	✓	A.N.-D.L. CAF VR63, V562

1 st

Instrument Tuning Report

File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.028	2031	2158	0.705	
Mg	23.985	23.929	5654	2270	0.713	
Co	58.933	58.879	14148	2537	0.675	
In	114.904	114.928	27795	2981	0.676	
Pb	207.977	207.976	50442	3730	0.677	

Report Date/Time: Monday, November 19, 2012 08:44:54

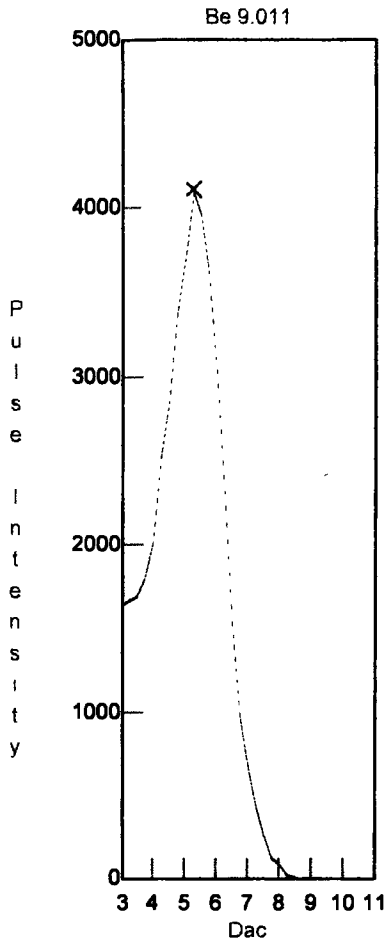
2nd

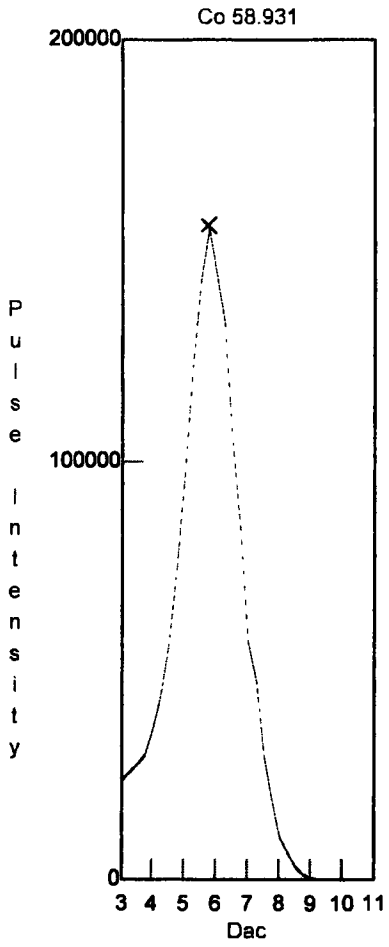
Instrument Tuning Report

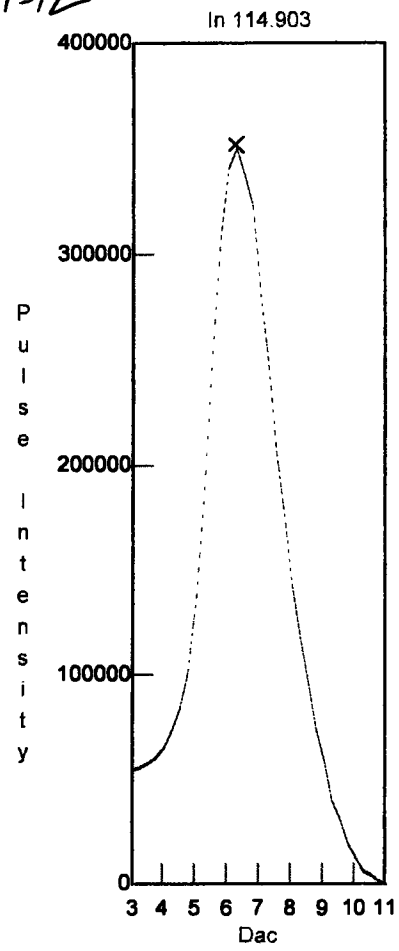
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

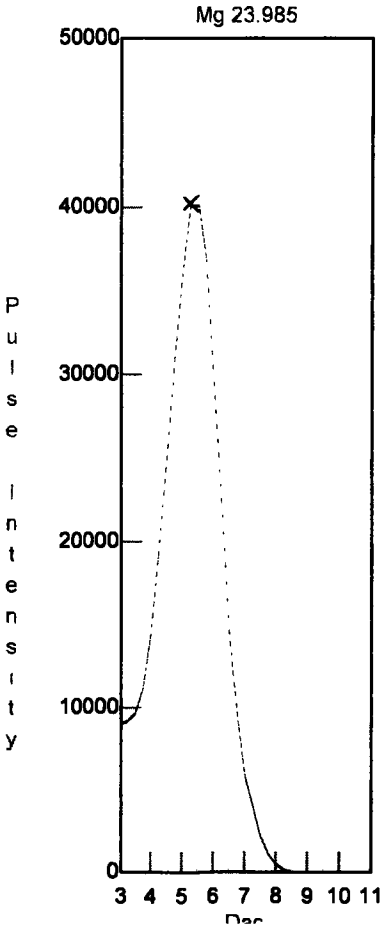
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.027	2034	2158	0.703	
Mg	23.985	24.029	5664	2270	0.694	
Co	58.933	58.979	14158	2537	0.673	
In	114.904	114.928	27800	2981	0.677	
Pb	207.977	207.976	50441	3730	0.681	

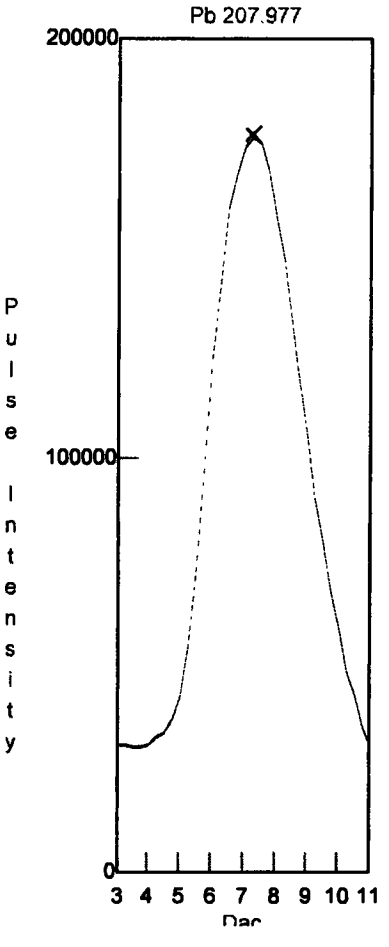
11-19-12

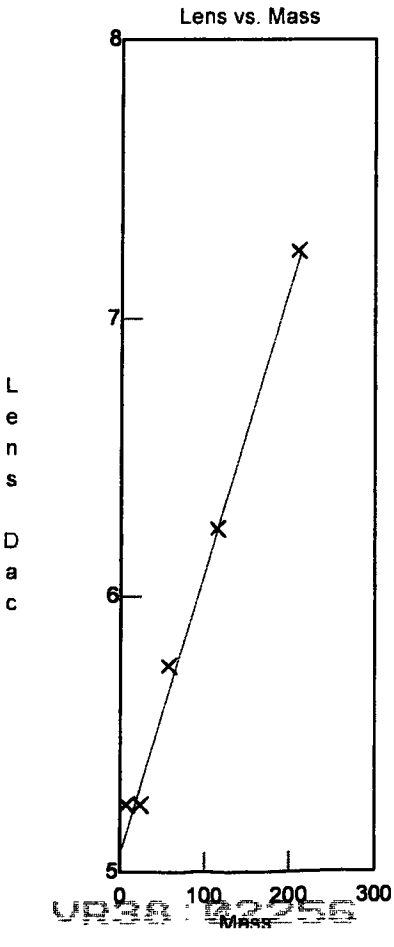












UD38 : 1235

Daily Performance Report

Disc. Thresh = 7

Neb = 0.93

Sample ID: Sample
Sample Date/Time: Monday, November 19, 2012 09:27:23
Sample Description:
Sample File: 1120.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1150
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	22742.277	332.822	1.463
	In	115	284258.946	2421.409	0.852
	Pb	208	173977.167	2217.823	1.275
⌈>	Ba	138	219909.157	1584.880	0.721
⌊	Ba++	69	0.009	0.000	4.184
⌈>	Ce	140	271461.830	2168.349	0.799
⌊	CeO	156	0.030	0.001	2.049
	Bkgd	220	5.501	3.260	59.265

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank 222222 Ec 11-21-12
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 09:52:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				78314	0
[	Be	9		ug/L				2	65
	C	13		mg/L				2839	2
	Cl	37		mg/L				1556481	0
[>	Sc	45		ug/L				53200	1
|	V	51		ug/L				1198	10
|	V-1	51		ug/L				2150	1
|	Cr	52		ug/L				4259	1
|	Cr	53		ug/L				785	4
|	Mn	55		ug/L				487	2
[	Co	59		ug/L				35	34
[>	Ge	72		ug/L				71373	0
|	Ni	60		ug/L				72	52
|	Ni	62		ug/L				26	21
|	Cu	63		ug/L				121	10
|	Cu	65		ug/L				57	14
|	Zn	66		ug/L				295	21
|	Zn	67		ug/L				108	3
|	Zn	68		ug/L				6103	3
|	As	75		ug/L				236	1
|	As-1	75		ug/L				8560	0
|	Se	82		ug/L				-4	60
|	Se	78		ug/L				8689	0
[	Mo	98		ug/L				342	23
	Y	89		ug/L				76370	1
	Kr	83		ug/L				159	0
[>	In	115		ug/L				81675	1
|	Ag	107		ug/L				22	28
|	Cd	111		ug/L				71	16
|	Cd	114		ug/L				34	13
|	Sb	121		ug/L				20	24
|	Sb	123		ug/L				16	4
|	Ba	135		ug/L				19	7
[	Ba	137		ug/L				29	20
[>	Tb	159		ug/L				105020	1
|	Tl	205		ug/L				242	30
|	Pb	208		ug/L				542	18
|	Bi	209		ug/L				82954	0
|	Th	232		ug/L				53	11
[	U	238		ug/L				18	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~Standard 1~~ ZZZZZZ
Sample Dil Factor: SL 11-21-12
Comments:
Sample Date/Time: Monday, November 19, 2012 09:58:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			78314	249069	0
[	Be	9	10.000	ug/L	0.272	2	2	2783	2
	C	13		mg/L			2839	2056	2
	Cl	37		mg/L			1556481	1583828	0
[>	Sc	45		ug/L			53200	154698	1
[	V	51	10.000	ug/L	0.317	3	1198	69405	1
[	V-1	51	10.000	ug/L	0.202	2	2150	72305	1
[	Cr	52	10.000	ug/L	0.195	1	4259	66811	0
[	Cr	53	10.000	ug/L	0.214	2	785	8476	3
[	Mn	55	10.000	ug/L	0.120	1	487	107288	1
[	Co	59	10.000	ug/L	0.024	0	35	85531	2
[>	Ge	72		ug/L			71373	234453	0
[	Ni	60	10.000	ug/L	0.084	0	72	18182	0
[	Ni	62	10.000	ug/L	0.078	0	26	2788	0
[	Cu	63	10.000	ug/L	0.140	1	121	41260	1
[	Cu	65	10.000	ug/L	0.174	1	57	20245	1
[	Zn	66	10.000	ug/L	0.102	1	295	13206	1
[	Zn	67	10.000	ug/L	0.167	1	108	2377	1
[	Zn	68	10.000	ug/L	0.413	4	6103	15120	1
[	As	75	10.000	ug/L	0.057	0	236	14406	0
[	As-1	75	10.000	ug/L	0.072	0	8560	22090	0
[	Se	82	10.000	ug/L	0.164	1	-4	1722	1
[	Se	78	10.000	ug/L	0.103	1	8689	12432	1
[	Mo	98	10.000	ug/L	0.141	1	342	55431	1
	Y	89		ug/L			76370	243068	1
	Kr	83		ug/L			159	158	3
[>	In	115		ug/L			81675	261646	1
[	Ag	107	10.000	ug/L	0.235	2	22	91127	0
[	Cd	111	10.000	ug/L	0.051	0	71	22759	1
[	Cd	114	10.000	ug/L	0.063	0	34	52263	1
[	Sb	121	10.000	ug/L	0.066	0	20	75052	0
[	Sb	123	10.000	ug/L	0.107	1	16	58210	0
[	Ba	135	10.000	ug/L	0.114	1	19	18595	0
[	Ba	137	10.000	ug/L	0.063	0	29	32249	0
[>	Tb	159		ug/L			105020	337188	2
[	Tl	205	10.000	ug/L	0.086	0	242	231282	2
[	Pb	208	10.000	ug/L	0.148	1	542	316356	0
[	Bi	209		ug/L			82954	271204	1
[	Th	232	10.000	ug/L	0.172	1	53	355427	0
[	U	238	10.000	ug/L	0.232	2	18	376864	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2 ZZZZZZ
Sample Dil Factor: GL 11-21-12
Comments:
Sample Date/Time: Monday, November 19, 2012 10:04:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			78314	258646	1
[	Be	9	19.764	ug/L	0.191	0	2	5447	0
	C	13		mg/L			2839	1957	2
	Cl	37		mg/L			1556481	1584894	0
[>	Sc	45		ug/L			53200	159101	1
[	V	51	20.052	ug/L	0.351	1	1198	140997	0
[	V-1	51	20.092	ug/L	0.408	2	2150	145468	1
[	Cr	52	20.261	ug/L	0.251	1	4259	132394	0
[	Cr	53	20.380	ug/L	0.460	2	785	16390	0
[	Mn	55	19.986	ug/L	0.432	2	487	218451	1
[	Co	59	19.966	ug/L	0.353	1	35	174333	1
[>	Ge	72		ug/L			71373	241583	0
[	Ni	60	19.998	ug/L	0.073	0	72	37207	0
[	Ni	62	19.970	ug/L	0.276	1	26	5616	1
[	Cu	63	19.937	ug/L	0.034	0	121	83310	0
[	Cu	65	19.897	ug/L	0.283	1	57	40483	1
[	Zn	66	20.079	ug/L	0.312	1	295	26722	1
[	Zn	67	19.977	ug/L	0.558	2	108	4508	2
[	Zn	68	62.671	ug/L	5.063	8	6103	24885	0
[	As	75	20.057	ug/L	0.318	1	236	29293	1
[	As-1	75	41.720	ug/L	2.270	5	8560	36729	0
[	Se	82	19.958	ug/L	0.483	2	-4	3526	2
[	Se	78	15.098	ug/L	0.145	0	8689	16754	0
[	Mo	98	19.989	ug/L	0.239	1	342	112753	1
	Y	89		ug/L			76370	253964	0
	Kr	83		ug/L			159	152	3
[>	In	115		ug/L			81675	271472	0
[	Ag	107	19.886	ug/L	0.196	0	22	183787	0
[	Cd	111	19.957	ug/L	0.142	0	71	46491	0
[	Cd	114	19.859	ug/L	0.058	0	34	104620	0
[	Sb	121	19.912	ug/L	0.090	0	20	152335	0
[	Sb	123	19.844	ug/L	0.012	0	16	116186	0
[	Ba	135	19.874	ug/L	0.150	0	19	37349	0
[	Ba	137	19.890	ug/L	0.196	0	29	65031	0
[>	Tb	159		ug/L			105020	351410	0
[	Tl	205	19.852	ug/L	0.209	1	242	464010	1
[	Pb	208	19.879	ug/L	0.126	0	542	638356	0
[	Bi	209		ug/L			82954	279055	0
[	Th	232	19.890	ug/L	0.131	0	53	720818	0
[	U	238	19.916	ug/L	0.099	0	18	769481	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~Standard 3~~ ZZZZZZ
Sample Dil Factor: EL 11-21-12
Comments:
Sample Date/Time: Monday, November 19, 2012 10:10:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			78314	256103	0
[	**Be**	**9**	**50.093**	ug/L	1.258	2	2	13784	1
	C	**13**		mg/L			2839	2696	4
	Cl	**37**		mg/L			1556481	1602151	0
[>	**Sc**	**45**		ug/L			53200	163193	4
|	**V**	**51**	**50.340**	ug/L	1.710	3	1198	369642	1
|	**V-1**	**51**	**50.404**	ug/L	1.504	2	2150	379168	1
|	**Cr**	**52**	**50.481**	ug/L	1.305	2	4259	334122	2
|	**Cr**	**53**	**50.675**	ug/L	0.860	1	785	40802	3
|	**Mn**	**55**	**50.166**	ug/L	1.570	3	487	569211	2
[	**Co**	**59**	**49.982**	ug/L	1.383	2	35	446335	1
[>	**Ge**	**72**		ug/L			71373	242480	1
|	**Ni**	**60**	**50.163**	ug/L	0.473	0	72	94840	0
|	**Ni**	**62**	**50.322**	ug/L	0.362	0	26	14533	1
|	**Cu**	**63**	**50.129**	ug/L	0.297	0	121	212345	1
|	**Cu**	**65**	**49.934**	ug/L	0.149	0	57	101018	1
|	**Zn**	**66**	**50.233**	ug/L	0.556	1	295	67130	1
|	**Zn**	**67**	**50.616**	ug/L	0.727	1	108	11590	2
|	**Zn**	**68**	**58.815**	ug/L	1.299	2	6103	54330	2
|	**As**	**75**	**50.228**	ug/L	0.339	0	236	74090	1
|	**As-1**	**75**	**57.897**	ug/L	1.057	1	8560	80434	1
|	**Se**	**82**	**50.042**	ug/L	0.161	0	-4	8937	1
|	**Se**	**78**	**-0.246**	ug/L	3.325	1352	8689	29551	1
[	**Mo**	**98**	**50.218**	ug/L	0.519	1	342	288808	0
	Y	**89**		ug/L			76370	256961	2
	Kr	**83**		ug/L			159	209	13
[>	**In**	**115**		ug/L			81675	270942	1
|	**Ag**	**107**	**50.065**	ug/L	0.487	0	22	464678	1
|	**Cd**	**111**	**50.119**	ug/L	0.555	1	71	117571	1
|	**Cd**	**114**	**50.106**	ug/L	0.371	0	34	266107	1
|	**Sb**	**121**	**49.996**	ug/L	0.421	0	20	381465	0
|	**Sb**	**123**	**50.007**	ug/L	0.630	1	16	292305	0
|	**Ba**	**135**	**50.068**	ug/L	0.608	1	19	94443	0
[	**Ba**	**137**	**50.035**	ug/L	0.389	0	29	163683	0
[>	**Tb**	**159**		ug/L			105020	345554	0
|	**Tl**	**205**	**50.129**	ug/L	0.505	1	242	1165863	0
|	**Pb**	**208**	**50.114**	ug/L	0.404	0	542	1597877	0
|	**Bi**	**209**		ug/L			82954	274727	0
|	**Th**	**232**	**50.081**	ug/L	0.538	1	53	1798939	1
[	**U**	**238**	**50.116**	ug/L	0.415	0	18	1926280	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor: 222222 11-21-12
Comments:
Sample Date/Time: Monday, November 19, 2012 10:16:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			78314	275830	0
[	Be	9	98.176	ug/L	1.586	1	2	27421	0
	C	13		mg/L			2839	2088	1
	Cl	37		mg/L			1556481	1620758	0
[>	Sc	45		ug/L			53200	179805	1
[	V	51	98.240	ug/L	1.219	1	1198	748197	2
[	V-1	51	98.301	ug/L	1.427	1	2150	765701	2
[	Cr	52	98.926	ug/L	0.877	0	4259	684105	0
[	Cr	53	99.072	ug/L	1.167	1	785	82901	1
[	Mn	55	98.713	ug/L	0.361	0	487	1182838	1
[	Co	59	98.014	ug/L	1.883	1	35	904926	0
[>	Ge	72		ug/L			71373	267479	0
[	Ni	60	98.460	ug/L	2.155	2	72	195073	1
[	Ni	62	98.180	ug/L	0.971	0	26	29407	0
[	Cu	63	97.785	ug/L	1.233	1	121	425116	0
[	Cu	65	98.045	ug/L	1.079	1	57	205227	1
[	Zn	66	97.992	ug/L	0.485	0	295	134487	1
[	Zn	67	98.116	ug/L	0.363	0	108	22980	1
[	Zn	68	104.787	ug/L	1.435	1	6103	101421	1
[	As	75	97.994	ug/L	1.084	1	236	148717	0
[	As-1	75	104.643	ug/L	1.353	1	8560	153214	0
[	Se	82	97.856	ug/L	0.919	0	-4	18004	0
[	Se	78	174.300	ug/L	4.444	2	8689	50744	0
[	Mo	98	97.879	ug/L	1.126	1	342	578920	0
	Y	89		ug/L			76370	280557	0
	Kr	83		ug/L			159	211	2
[>	In	115		ug/L			81675	293645	1
[	Ag	107	98.067	ug/L	0.998	1	22	926636	0
[	Cd	111	98.122	ug/L	1.537	1	71	234560	2
[	Cd	114	98.117	ug/L	0.791	0	34	531260	1
[	Sb	121	98.229	ug/L	0.733	0	20	766899	0
[	Sb	123	98.116	ug/L	0.882	0	16	584786	0
[	Ba	135	98.084	ug/L	0.496	0	19	188435	1
[	Ba	137	98.202	ug/L	0.781	0	29	328397	0
[>	Tb	159		ug/L			105020	376266	0
[	Tl	205	93.778	ug/L	1.000	1	242	1966630	1
[	Pb	208	97.735	ug/L	0.711	0	542	3153580	0
[	Bi	209		ug/L			82954	294253	1
[	Th	232	94.007	ug/L	1.341	1	53	3064639	1
[	U	238	94.169	ug/L	1.897	2	18	3299563	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~Rinse Sample~~ 22222
Sample Dil Factor: @ 11-21-12
Comments:
Sample Date/Time: Monday, November 19, 2012 10:23:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			78314	80266	0
[	Be	9	-0.001	ug/L	0.023	2391	2	2	65
	C	13		mg/L			2839	2851	5
	Cl	37		mg/L			1556481	1638880	0
[>	Sc	45		ug/L			53200	56168	0
[	V	51	0.127	ug/L	0.021	16	1198	1565	3
[	V-1	51	-0.139	ug/L	0.016	11	2150	1936	2
[	Cr	52	0.191	ug/L	0.021	11	4259	4900	0
[	Cr	53	-0.623	ug/L	0.038	6	785	672	0
[	Mn	55	0.018	ug/L	0.015	85	487	581	9
[	Co	59	0.007	ug/L	0.002	27	35	58	9
[>	Ge	72		ug/L			71373	77531	1
[	Ni	60	-0.047	ug/L	0.023	47	72	51	24
[	Ni	62	-0.074	ug/L	0.045	61	26	22	17
[	Cu	63	0.007	ug/L	0.020	278	121	140	16
[	Cu	65	0.012	ug/L	0.029	245	57	69	24
[	Zn	66	0.065	ug/L	0.107	164	295	345	11
[	Zn	67	-0.153	ug/L	0.073	47	108	107	3
[	Zn	68	-0.483	ug/L	0.481	99	6103	6525	1
[	As	75	0.024	ug/L	0.048	202	236	267	7
[	As-1	75	0.193	ug/L	0.428	222	8560	9362	0
[	Se	82	0.192	ug/L	0.371	193	-4	5	367
[	Se	78	2.720	ug/L	4.562	167	8689	9519	0
[	Mo	98	-0.124	ug/L	0.014	10	342	158	13
	Y	89		ug/L			76370	82412	0
	Kr	83		ug/L			159	174	5
[>	In	115		ug/L			81675	85786	0
[	Ag	107	0.055	ug/L	0.018	32	22	175	28
[	Cd	111	-0.014	ug/L	0.017	119	71	65	18
[	Cd	114	-0.001	ug/L	0.007	496	34	33	30
[	Sb	121	0.200	ug/L	0.040	19	20	476	18
[	Sb	123	0.188	ug/L	0.030	15	16	344	14
[	Ba	135	0.021	ug/L	0.005	26	19	32	9
[	Ba	137	0.015	ug/L	0.004	23	29	45	7
[>	Tb	159		ug/L			105020	109313	0
[	Tl	205	0.010	ug/L	0.010	96	242	313	19
[	Pb	208	0.008	ug/L	0.009	106	542	642	13
[	Bi	209		ug/L			82954	87682	0
[	Th	232	0.070	ug/L	0.018	25	53	723	24
[	U	238	0.011	ug/L	0.004	38	18	130	33

Quantitative Analysis - Calibration Report

Sample Date/Time: Monday, November 19, 2012 10:23:13
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	0.9994	0.0010	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	0.9995	0.0421	10	20	50	100	
V-1	51	0.9995	0.0429	10	20	50	100	
Cr	52	0.9997	0.0377	10	20	50	100	
Cr	53	0.9997	0.0045	10	20	50	100	
Mn	55	0.9997	0.0665	10	20	50	100	
Co	59	0.9993	0.0514	10	20	50	100	
Ge	72							
Ni	60	0.9996	0.0074	10	20	50	100	
Ni	62	0.9994	0.0011	10	20	50	100	
Cu	63	0.9992	0.0162	10	20	50	100	
Cu	65	0.9994	0.0078	10	20	50	100	
Zn	66	0.9993	0.0051	10	20	50	100	
Zn	67	0.9993	0.0009	10	20	50	100	
Zn	68	0.9806	0.0028	10	20	50	100	
As	75	0.9993	0.0056	10	20	50	100	
As-1	75	0.9837	0.0043	10	20	50	100	
Se	82	0.9992	0.0007	10	20	50	100	
Se	78	0.4045	0.0004	10	20	50	100	
Mo	98	0.9992	0.0221	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9994	0.0322	10	20	50	100	
Cd	111	0.9994	0.0081	10	20	50	100	
Cd	114	0.9994	0.0184	10	20	50	100	
Sb	121	0.9995	0.0266	10	20	50	100	
Sb	123	0.9994	0.0203	10	20	50	100	
Ba	135	0.9994	0.0065	10	20	50	100	
Ba	137	0.9995	0.0114	10	20	50	100	
Tb	159							
Tl	205	0.9936	0.0557	10	20	50	100	
Pb	208	0.9991	0.0857	10	20	50	100	
Bi	209							
Th	232	0.9941	0.0866	10	20	50	100	
U	238	0.9944	0.0931	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~Blank~~ 222222
Sample Dil Factor: 5x 11-21-12
Comments:
Sample Date/Time: Monday, November 19, 2012 10:39:53
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				257850	0
[	Be	9		ug/L				2	65
	C	13		mg/L				3469	1
	Cl	37		mg/L				1672116	0
[>	Sc	45		ug/L				167392	0
|	V	51		ug/L				1572	5
|	V-1	51		ug/L				1965	1
|	Cr	52		ug/L				5019	3
|	Cr	53		ug/L				693	6
|	Mn	55		ug/L				426	6
[	Co	59		ug/L				46	9
[>	Ge	72		ug/L				254379	1
|	Ni	60		ug/L				43	44
|	Ni	62		ug/L				39	7
|	Cu	63		ug/L				160	17
|	Cu	65		ug/L				78	31
|	Zn	66		ug/L				554	18
|	Zn	67		ug/L				142	9
|	Zn	68		ug/L				6608	2
|	As	75		ug/L				251	7
|	As-1	75		ug/L				9305	0
|	Se	82		ug/L				-11	66
|	Se	78		ug/L				9452	0
[	Mo	98		ug/L				72	9
	Y	89		ug/L				265405	0
	Kr	83		ug/L				181	4
[>	In	115		ug/L				278651	0
|	Ag	107		ug/L				48	27
|	Cd	111		ug/L				154	8
|	Cd	114		ug/L				32	8
|	Sb	121		ug/L				61	22
|	Sb	123		ug/L				48	24
|	Ba	135		ug/L				17	22
[	Ba	137		ug/L				31	17
[>	Tb	159		ug/L				354097	0
|	Tl	205		ug/L				151	7
|	Pb	208		ug/L				513	12
|	Bi	209		ug/L				284236	0
|	Th	232		ug/L				273	8
[	U	238		ug/L				50	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 10:48:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				250992	2
⌊	Be	9		ug/L				4	41
	C	13		mg/L				3467	2
	Cl	37		mg/L				1677002	0
⌈>	Sc	45		ug/L				164415	2
|	V	51		ug/L				1570	8
|	V-1	51		ug/L				1979	4
|	Cr	52		ug/L				4880	6
|	Cr	53		ug/L				682	5
|	Mn	55		ug/L				410	4
⌊	Co	59		ug/L				40	16
⌈>	Ge	72		ug/L				248541	2
|	Ni	60		ug/L				42	24
|	Ni	62		ug/L				33	42
|	Cu	63		ug/L				145	11
|	Cu	65		ug/L				76	5
|	Zn	66		ug/L				511	6
|	Zn	67		ug/L				141	7
|	Zn	68		ug/L				6402	2
|	As	75		ug/L				250	16
|	As-1	75		ug/L				9167	2
|	Se	82		ug/L				-9	160
|	Se	78		ug/L				9315	3
⌊	Mo	98		ug/L				47	17
	Y	89		ug/L				260781	2
	Kr	83		ug/L				179	3
⌈>	In	115		ug/L				276493	0
|	Ag	107		ug/L				60	11
|	Cd	111		ug/L				169	7
|	Cd	114		ug/L				34	8
|	Sb	121		ug/L				48	12
|	Sb	123		ug/L				36	33
|	Ba	135		ug/L				19	20
⌊	Ba	137		ug/L				25	18
⌈>	Tb	159		ug/L				348843	1
|	Tl	205		ug/L				165	8
|	Pb	208		ug/L				530	6
|	Bi	209		ug/L				281191	2
|	Th	232		ug/L				225	3
⌊	U	238		ug/L				54	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 10:54:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	257884	0
[	Be	9	10.000	ug/L	0.274	2	4	2806	2
	C	13		mg/L			3467	2176	1
	Cl	37		mg/L			1677002	1663319	0
[>	Sc	45		ug/L			164415	170051	1
|	V	51	10.000	ug/L	0.228	2	1570	79227	1
|	V-1	51	10.000	ug/L	0.243	2	1979	81245	1
|	Cr	52	10.000	ug/L	0.069	0	4880	76027	1
|	Cr	53	10.000	ug/L	0.044	0	682	9236	0
|	Mn	55	10.000	ug/L	0.049	0	410	122732	0
[	Co	59	10.000	ug/L	0.156	1	40	97605	0
[>	Ge	72		ug/L			248541	254796	1
|	Ni	60	10.000	ug/L	0.140	1	42	20470	0
|	Ni	62	10.000	ug/L	0.245	2	33	3108	1
|	Cu	63	10.000	ug/L	0.128	1	145	45707	1
|	Cu	65	10.000	ug/L	0.261	2	76	22316	1
|	Zn	66	10.000	ug/L	0.229	2	511	14591	1
|	Zn	67	10.000	ug/L	0.269	2	141	2555	3
|	Zn	68	10.000	ug/L	0.356	3	6402	16778	2
|	As	75	10.000	ug/L	0.217	2	250	15871	0
|	As-1	75	10.000	ug/L	0.217	2	9167	24616	0
|	Se	82	10.000	ug/L	0.432	4	-9	1927	2
|	Se	78	10.000	ug/L	0.463	4	9315	14092	0
[	Mo	98	10.000	ug/L	0.090	0	47	60236	0
	Y	89		ug/L			260781	269754	0
	Kr	83		ug/L			179	190	1
[>	In	115		ug/L			276493	283237	0
|	Ag	107	10.000	ug/L	0.075	0	60	99346	0
|	Cd	111	10.000	ug/L	0.171	1	169	24819	2
|	Cd	114	10.000	ug/L	0.123	1	34	56816	0
|	Sb	121	10.000	ug/L	0.141	1	48	78875	0
|	Sb	123	10.000	ug/L	0.138	1	36	60634	0
|	Ba	135	10.000	ug/L	0.090	0	19	19668	0
[	Ba	137	10.000	ug/L	0.065	0	25	34164	0
[>	Tb	159		ug/L			348843	360769	0
|	Tl	205	10.000	ug/L	0.021	0	165	246642	0
|	Pb	208	10.000	ug/L	0.139	1	530	341187	1
|	Bi	209		ug/L			281191	286365	0
|	Th	232	10.000	ug/L	0.039	0	225	379683	0
[	U	238	10.000	ug/L	0.030	0	54	405157	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 11:00:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			250992	264082	0
[	**Be**	**9**	**19.926**	ug/L	0.467	2	4	5639	1
	C	**13**		mg/L			3467	2084	1
	Cl	**37**		mg/L			1677002	1663928	0
[>	**Sc**	**45**		ug/L			164415	173112	1
|	**V**	**51**	**19.875**	ug/L	0.173	0	1570	154862	0
|	**V-1**	**51**	**19.879**	ug/L	0.206	1	1979	158576	0
|	**Cr**	**52**	**19.828**	ug/L	0.374	1	4880	143608	0
|	**Cr**	**53**	**19.841**	ug/L	0.394	1	682	17415	1
|	**Mn**	**55**	**19.854**	ug/L	0.113	0	410	240599	1
[	**Co**	**59**	**19.820**	ug/L	0.306	1	40	190075	1
[>	**Ge**	**72**		ug/L			248541	255817	0
|	**Ni**	**60**	**19.927**	ug/L	0.216	1	42	40330	0
|	**Ni**	**62**	**19.907**	ug/L	0.265	1	33	6067	0
|	**Cu**	**63**	**19.934**	ug/L	0.276	1	145	90148	1
|	**Cu**	**65**	**19.851**	ug/L	0.193	0	76	43127	0
|	**Zn**	**66**	**19.969**	ug/L	0.306	1	511	28556	1
|	**Zn**	**67**	**19.959**	ug/L	0.217	1	141	4937	1
|	**Zn**	**68**	**19.922**	ug/L	0.109	0	6402	26712	0
|	**As**	**75**	**19.898**	ug/L	0.193	0	250	30834	0
|	**As-1**	**75**	**19.837**	ug/L	0.175	0	9167	38793	0
|	**Se**	**82**	**19.931**	ug/L	0.271	1	-9	3815	1
|	**Se**	**78**	**19.702**	ug/L	0.151	0	9315	18072	0
[	**Mo**	**98**	**19.950**	ug/L	0.117	0	47	119412	0
	Y	**89**		ug/L			260781	270953	1
	Kr	**83**		ug/L			179	177	4
[>	**In**	**115**		ug/L			276493	284187	0
|	**Ag**	**107**	**19.907**	ug/L	0.195	0	60	194733	0
|	**Cd**	**111**	**19.994**	ug/L	0.111	0	169	49552	1
|	**Cd**	**114**	**19.890**	ug/L	0.056	0	34	110931	0
|	**Sb**	**121**	**19.948**	ug/L	0.221	1	48	156202	0
|	**Sb**	**123**	**19.951**	ug/L	0.038	0	36	120178	0
|	**Ba**	**135**	**19.932**	ug/L	0.078	0	19	38784	0
[	**Ba**	**137**	**19.940**	ug/L	0.057	0	25	67523	0
[>	**Tb**	**159**		ug/L			348843	362886	0
|	**Tl**	**205**	**19.931**	ug/L	0.125	0	165	487605	0
|	**Pb**	**208**	**19.904**	ug/L	0.150	0	530	669761	0
|	**Bi**	**209**		ug/L			281191	288984	0
|	**Th**	**232**	**19.936**	ug/L	0.120	0	225	751452	0
[	**U**	**238**	**19.944**	ug/L	0.225	1	54	803708	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 11:06:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	259572	0
[	Be	9	50.102	ug/L	0.581	1	4	14074	1
	C	13		mg/L			3467	2536	4
	Cl	37		mg/L			1677002	1670041	0
[>	Sc	45		ug/L			164415	174505	0
|	V	51	50.093	ug/L	0.487	0	1570	394610	1
|	V-1	51	50.096	ug/L	0.356	0	1979	403529	0
|	Cr	52	50.166	ug/L	0.394	0	4880	364363	0
|	Cr	53	50.170	ug/L	0.625	1	682	44025	1
|	Mn	55	50.178	ug/L	0.579	1	410	623449	1
[	Co	59	49.988	ug/L	0.603	1	40	482597	1
[>	Ge	72		ug/L			248541	255428	0
|	Ni	60	49.992	ug/L	0.925	1	42	100867	1
|	Ni	62	50.051	ug/L	0.031	0	33	15259	0
|	Cu	63	50.045	ug/L	0.603	1	145	226756	0
|	Cu	65	49.909	ug/L	0.704	1	76	107173	1
|	Zn	66	50.115	ug/L	0.603	1	511	71581	1
|	Zn	67	50.155	ug/L	0.468	0	141	12356	0
|	Zn	68	49.930	ug/L	0.417	0	6402	56583	0
|	As	75	50.043	ug/L	0.771	1	250	77367	0
|	As-1	75	50.107	ug/L	0.563	1	9167	84265	0
|	Se	82	49.999	ug/L	0.785	1	-9	9571	0
|	Se	78	50.215	ug/L	0.225	0	9315	31640	0
[	Mo	98	50.003	ug/L	0.578	1	47	298845	0
	Y	89		ug/L			260781	272705	0
	Kr	83		ug/L			179	180	5
[>	In	115		ug/L			276493	282277	0
|	Ag	107	50.037	ug/L	0.373	0	60	487881	0
|	Cd	111	50.027	ug/L	0.412	0	169	123216	0
|	Cd	114	50.049	ug/L	0.507	1	34	278568	1
|	Sb	121	50.063	ug/L	0.290	0	48	391798	0
|	Sb	123	49.974	ug/L	0.131	0	36	298157	0
|	Ba	135	49.996	ug/L	0.398	0	19	96568	0
[	Ba	137	49.952	ug/L	0.692	1	25	167167	0
[>	Tb	159		ug/L			348843	358574	0
|	Tl	205	50.044	ug/L	0.130	0	165	1214876	0
|	Pb	208	49.997	ug/L	0.196	0	530	1660992	0
|	Bi	209		ug/L			281191	283362	0
|	Th	232	50.011	ug/L	0.435	0	225	1864309	0
[	U	238	50.006	ug/L	0.387	0	54	1992311	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 11:13:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	266227	1
[	Be	9	99.288	ug/L	2.094	2	4	27933	0
	C	13		mg/L			3467	2235	0
	Cl	37		mg/L			1677002	1703179	0
[>	Sc	45		ug/L			164415	180766	1
[	V	51	99.280	ug/L	1.546	1	1570	789417	0
[	V-1	51	99.306	ug/L	1.851	1	1979	807683	0
[	Cr	52	98.545	ug/L	0.869	0	4880	702358	0
[	Cr	53	98.670	ug/L	1.749	1	682	85207	0
[	Mn	55	98.471	ug/L	0.949	0	410	1205376	0
[	Co	59	98.754	ug/L	0.673	0	40	948162	1
[>	Ge	72		ug/L			248541	263662	0
[	Ni	60	99.163	ug/L	2.161	2	42	200878	1
[	Ni	62	98.694	ug/L	1.066	1	33	29731	1
[	Cu	63	98.511	ug/L	1.312	1	145	438830	1
[	Cu	65	98.951	ug/L	1.318	1	76	211847	0
[	Zn	66	98.712	ug/L	1.003	1	511	139063	0
[	Zn	67	98.845	ug/L	1.677	1	141	24068	1
[	Zn	68	98.848	ug/L	1.250	1	6402	105191	0
[	As	75	99.249	ug/L	0.813	0	250	154273	0
[	As-1	75	99.162	ug/L	0.713	0	9167	158464	0
[	Se	82	98.952	ug/L	1.475	1	-9	18903	0
[	Se	78	98.632	ug/L	1.220	1	9315	52669	0
[	Mo	98	99.418	ug/L	1.344	1	47	601592	0
	Y	89		ug/L			260781	281485	0
	Kr	83		ug/L			179	191	3
[>	In	115		ug/L			276493	292461	0
[	Ag	107	98.793	ug/L	0.492	0	60	959419	0
[	Cd	111	98.852	ug/L	0.526	0	169	242798	0
[	Cd	114	98.807	ug/L	1.018	1	34	547949	0
[	Sb	121	99.239	ug/L	0.466	0	48	784721	0
[	Sb	123	99.186	ug/L	0.731	0	36	596887	0
[	Ba	135	99.037	ug/L	0.572	0	19	192008	0
[	Ba	137	99.277	ug/L	0.713	0	25	336126	1
[>	Tb	159		ug/L			348843	370742	0
[	Tl	205	94.772	ug/L	0.386	0	165	2025616	0
[	Pb	208	98.809	ug/L	0.508	0	530	3263976	0
[	Bi	209		ug/L			281191	290274	0
[	Th	232	94.989	ug/L	0.554	0	225	3137044	0
[	U	238	95.424	ug/L	0.681	0	54	3410643	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 11:19:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			250992	258479	1
	Be	9	0.004	ug/L	0.003	62	4	5	12
	C	13		mg/L			3467	3375	1
	Cl	37		mg/L			1677002	1707973	0
>	Sc	45		ug/L			164415	175373	0
	V	51	0.014	ug/L	0.017	117	1570	1785	6
	V-1	51	-0.031	ug/L	0.011	37	1979	1870	4
	Cr	52	0.027	ug/L	0.007	23	4880	5393	0
	Cr	53	-0.110	ug/L	0.016	14	682	636	2
	Mn	55	0.007	ug/L	0.001	13	410	515	1
	Co	59	0.002	ug/L	0.002	61	40	66	20
>	Ge	72		ug/L			248541	259553	0
	Ni	60	0.001	ug/L	0.002	192	42	46	8
	Ni	62	0.016	ug/L	0.015	91	33	40	11
	Cu	63	0.007	ug/L	0.003	36	145	182	6
	Cu	65	0.011	ug/L	0.002	15	76	103	3
	Zn	66	0.062	ug/L	0.011	18	511	619	2
	Zn	67	0.026	ug/L	0.048	181	141	153	7
	Zn	68	0.113	ug/L	0.238	209	6402	6796	3
	As	75	-0.008	ug/L	0.012	148	250	249	7
	As-1	75	0.085	ug/L	0.064	75	9167	9698	0
	Se	82	0.033	ug/L	0.023	68	-9	-3	111
	Se	78	0.294	ug/L	0.215	73	9315	9853	0
	Mo	98	0.013	ug/L	0.006	43	47	126	26
	Y	89		ug/L			260781	277433	0
	Kr	83		ug/L			179	176	2
>	In	115		ug/L			276493	288202	0
	Ag	107	0.016	ug/L	0.002	12	60	212	9
	Cd	111	-0.001	ug/L	0.005	925	169	174	7
	Cd	114	0.002	ug/L	0.001	79	34	44	16
	Sb	121	0.051	ug/L	0.014	27	48	445	24
	Sb	123	0.055	ug/L	0.014	25	36	364	22
	Ba	135	0.006	ug/L	0.002	31	19	32	11
	Ba	137	0.009	ug/L	0.002	26	25	55	13
>	Tb	159		ug/L			348843	362088	0
	Tl	205	0.007	ug/L	0.001	19	165	325	9
	Pb	208	0.005	ug/L	0.001	21	530	717	5
	Bi	209		ug/L			281191	292883	1
	Th	232	0.031	ug/L	0.009	27	225	1230	23
	U	238	0.003	ug/L	0.001	53	54	149	33

Quantitative Analysis - Calibration Report

Sample Date/Time: Monday, November 19, 2012 11:19:42
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	0.9999	0.0011	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	0.9999	0.0439	10	20	50	100	
V-1	51	0.9999	0.0449	10	20	50	100	
Cr	52	0.9996	0.0391	10	20	50	100	
Cr	53	0.9997	0.0047	10	20	50	100	
Mn	55	0.9996	0.0677	10	20	50	100	
Co	59	0.9997	0.0531	10	20	50	100	
Ge	72							
Ni	60	0.9999	0.0077	10	20	50	100	
Ni	62	0.9997	0.0011	10	20	50	100	
Cu	63	0.9996	0.0169	10	20	50	100	
Cu	65	0.9998	0.0081	10	20	50	100	
Zn	66	0.9997	0.0053	10	20	50	100	
Zn	67	0.9998	0.0009	10	20	50	100	
Zn	68	0.9998	0.0038	10	20	50	100	
As	75	0.9999	0.0059	10	20	50	100	
As-1	75	0.9999	0.0057	10	20	50	100	
Se	82	0.9998	0.0007	10	20	50	100	
Se	78	0.9997	0.0016	10	20	50	100	
Mo	98	0.9999	0.0229	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9998	0.0332	10	20	50	100	
Cd	111	0.9998	0.0084	10	20	50	100	
Cd	114	0.9998	0.0190	10	20	50	100	
Sb	121	0.9999	0.0270	10	20	50	100	
Sb	123	0.9999	0.0206	10	20	50	100	
Ba	135	0.9998	0.0066	10	20	50	100	
Ba	137	0.9999	0.0116	10	20	50	100	
Tb	159							
Tl	205	0.9955	0.0576	10	20	50	100	
Pb	208	0.9998	0.0891	10	20	50	100	
Bi	209							
Th	232	0.9958	0.0891	10	20	50	100	
U	238	0.9965	0.0964	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 11:33:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	264454	1
[	Be	9	51.707	ug/L	0.783	1	4	14454	1
	C	13		mg/L			3467	7510	1
	Cl	37		mg/L			1677002	1729992	0
[>	Sc	45		ug/L			164415	185517	0
|	V	51	51.144	ug/L	0.971	1	1570	418257	1
|	V-1	51	51.071	ug/L	0.807	1	1979	427441	1
|	Cr	52	51.054	ug/L	0.763	1	4880	376119	1
|	Cr	53	50.840	ug/L	0.307	0	682	45438	0
|	Mn	55	50.885	ug/L	0.908	1	410	639510	1
[	Co	59	50.433	ug/L	0.474	0	40	496964	0
[>	Ge	72		ug/L			248541	266329	0
|	Ni	60	52.185	ug/L	0.449	0	42	106813	1
|	Ni	62	51.918	ug/L	0.678	1	33	15814	0
|	Cu	63	52.165	ug/L	0.135	0	145	234808	0
|	Cu	65	52.066	ug/L	0.808	1	76	112634	0
|	Zn	66	50.680	ug/L	0.456	0	511	72385	0
|	Zn	67	50.848	ug/L	0.495	0	141	12581	1
|	Zn	68	50.958	ug/L	0.744	1	6402	58100	0
|	As	75	52.963	ug/L	0.542	1	250	83285	0
|	As-1	75	52.124	ug/L	0.521	0	9167	88800	1
|	Se	82	81.692	ug/L	0.766	0	-9	15762	0
|	Se	78	82.196	ug/L	0.545	0	9315	46002	0
[	Mo	98	50.019	ug/L	0.261	0	47	305782	1
	Y	89		ug/L			260781	280794	0
	Kr	83		ug/L			179	187	4
[>	In	115		ug/L			276493	293674	0
|	Ag	107	52.912	ug/L	0.510	0	60	515990	0
|	Cd	111	51.224	ug/L	0.446	0	169	126423	0
|	Cd	114	51.249	ug/L	0.339	0	34	285401	0
|	Sb	121	50.382	ug/L	0.677	1	48	400050	0
|	Sb	123	50.782	ug/L	0.783	1	36	306866	0
|	Ba	135	51.261	ug/L	0.625	1	19	99801	0
[	Ba	137	51.166	ug/L	0.953	1	25	173947	1
[>	Tb	159		ug/L			348843	371193	0
|	Tl	205	58.926	ug/L	0.166	0	165	1261083	1
|	Pb	208	52.134	ug/L	0.414	0	530	1724441	0
|	Bi	209		ug/L			281191	293014	0
|	Th	232	59.010	ug/L	0.461	0	225	1951244	0
[	U	238	50.519	ug/L	0.555	1	54	1807800	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 11:40:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	254606	1
[	Be	9	-0.003	ug/L	0.008	246	4	3	57
	C	13		mg/L			3467	3443	2
	Cl	37		mg/L			1677002	1739494	0
[>	Sc	45		ug/L			164415	168670	2
[	V	51	-0.007	ug/L	0.026	402	1570	1565	15
[	V-1	51	-0.016	ug/L	0.020	125	1979	1909	5
[	Cr	52	-0.009	ug/L	0.017	184	4880	4947	4
[	Cr	53	-0.036	ug/L	0.123	337	682	668	12
[	Mn	55	0.003	ug/L	0.001	46	410	452	0
[	Co	59	0.000	ug/L	0.001	266	40	43	13
[>	Ge	72		ug/L			248541	252464	2
[	Ni	60	0.001	ug/L	0.004	699	42	44	15
[	Ni	62	0.011	ug/L	0.024	213	33	37	17
[	Cu	63	0.005	ug/L	0.001	10	145	169	2
[	Cu	65	0.005	ug/L	0.004	84	76	88	10
[	Zn	66	0.049	ug/L	0.020	41	511	585	2
[	Zn	67	-0.013	ug/L	0.051	383	141	140	8
[	Zn	68	-0.101	ug/L	0.222	218	6402	6408	4
[	As	75	0.005	ug/L	0.033	726	250	260	16
[	As-1	75	-0.090	ug/L	0.094	104	9167	9183	3
[	Se	82	0.044	ug/L	0.059	136	-9	-1	557
[	Se	78	-0.299	ug/L	0.322	107	9315	9339	3
[	Mo	98	0.003	ug/L	0.002	50	47	66	13
	Y	89		ug/L			260781	265235	1
	Kr	83		ug/L			179	178	5
[>	In	115		ug/L			276493	281490	1
[	Ag	107	0.008	ug/L	0.001	17	60	136	10
[	Cd	111	-0.001	ug/L	0.004	295	169	169	6
[	Cd	114	0.002	ug/L	0.000	13	34	44	3
[	Sb	121	0.010	ug/L	0.002	25	48	121	14
[	Sb	123	0.007	ug/L	0.001	7	36	78	4
[	Ba	135	0.005	ug/L	0.002	41	19	28	11
[	Ba	137	0.005	ug/L	0.001	24	25	44	9
[>	Tb	159		ug/L			348843	354785	0
[	Tl	205	0.003	ug/L	0.001	17	165	235	5
[	Pb	208	0.003	ug/L	0.001	38	530	628	5
[	Bi	209		ug/L			281191	284637	0
[	Th	232	0.015	ug/L	0.003	21	225	711	13
[	U	238	0.001	ug/L	0.000	38	54	96	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 11:45:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	255130	1
[	Be	9	52.127	ug/L	0.193	0	4	14058	0
	C	13		mg/L			3467	2666	0
	Cl	37		mg/L			1677002	1747116	0
[>	Sc	45		ug/L			164415	170190	2
|	V	51	51.716	ug/L	0.437	0	1570	388029	3
|	V-1	51	51.381	ug/L	0.392	0	1979	394538	2
|	Cr	52	52.182	ug/L	0.561	1	4880	352621	3
|	Cr	53	51.138	ug/L	0.399	0	682	41927	2
|	Mn	55	51.415	ug/L	0.522	1	410	592787	2
[	Co	59	51.418	ug/L	0.280	0	40	464842	2
[>	Ge	72		ug/L			248541	250761	1
|	Ni	60	51.430	ug/L	0.848	1	42	99116	2
|	Ni	62	52.022	ug/L	1.078	2	33	14919	2
|	Cu	63	52.749	ug/L	1.062	2	145	223526	1
|	Cu	65	52.745	ug/L	0.225	0	76	107438	1
|	Zn	66	52.732	ug/L	1.164	2	511	70908	3
|	Zn	67	52.569	ug/L	0.896	1	141	12242	2
|	Zn	68	52.599	ug/L	0.453	0	6402	56263	2
|	As	75	52.034	ug/L	0.794	1	250	77048	2
|	As-1	75	52.231	ug/L	0.996	1	9167	83762	2
|	Se	82	51.550	ug/L	0.917	1	-9	9362	2
|	Se	78	52.208	ug/L	1.584	3	9315	30939	2
[	Mo	98	51.562	ug/L	0.562	1	47	296782	1
	Y	89		ug/L			260781	265336	2
	Kr	83		ug/L			179	186	3
[>	In	115		ug/L			276493	278484	1
|	Ag	107	52.160	ug/L	0.620	1	60	482319	0
|	Cd	111	51.962	ug/L	0.641	1	169	121598	0
|	Cd	114	52.416	ug/L	0.924	1	34	276778	1
|	Sb	121	52.489	ug/L	0.969	1	48	395177	0
|	Sb	123	52.210	ug/L	0.776	1	36	299156	0
|	Ba	135	51.898	ug/L	0.286	0	19	95824	1
[	Ba	137	52.086	ug/L	0.368	0	25	167920	0
[>	Tb	159		ug/L			348843	352582	1
|	Tl	205	58.280	ug/L	0.203	0	165	1184701	1
|	Pb	208	52.067	ug/L	0.572	1	530	1636090	2
|	Bi	209		ug/L			281191	280605	1
|	Th	232	58.506	ug/L	0.241	0	225	1837687	1
[	U	238	55.235	ug/L	4.132	7	54	1876489	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 11:52:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	247288	2
[	Be	9	0.004	ug/L	0.010	286	4	5	48
	C	13		mg/L			3467	3330	0
	Cl	37		mg/L			1677002	1763444	0
[>	Sc	45		ug/L			164415	157968	2
|	V	51	-0.012	ug/L	0.006	52	1570	1428	3
|	V-1	51	0.023	ug/L	0.003	12	1979	2064	1
|	Cr	52	-0.020	ug/L	0.024	119	4880	4563	1
|	Cr	53	0.086	ug/L	0.037	43	682	719	2
|	Mn	55	0.005	ug/L	0.002	34	410	453	6
[	Co	59	0.002	ug/L	0.001	39	40	60	14
[>	Ge	72		ug/L			248541	242478	1
|	Ni	60	-0.005	ug/L	0.005	113	42	32	31
|	Ni	62	0.015	ug/L	0.028	183	33	37	19
|	Cu	63	0.010	ug/L	0.002	19	145	182	5
|	Cu	65	0.013	ug/L	0.013	103	76	99	24
|	Zn	66	0.048	ug/L	0.021	43	511	560	4
|	Zn	67	0.071	ug/L	0.032	44	141	153	6
|	Zn	68	-0.158	ug/L	0.136	86	6402	6102	3
|	As	75	0.032	ug/L	0.023	72	250	290	9
|	As-1	75	-0.276	ug/L	0.026	9	9167	8563	1
|	Se	82	0.005	ug/L	0.040	873	-9	-8	82
|	Se	78	-1.010	ug/L	0.073	7	9315	8685	2
[	Mo	98	0.006	ug/L	0.003	57	47	78	25
	Y	89		ug/L			260781	252158	1
	Kr	83		ug/L			179	182	2
[>	In	115		ug/L			276493	272947	1
|	Ag	107	0.010	ug/L	0.003	31	60	154	19
|	Cd	111	0.001	ug/L	0.006	779	169	168	7
|	Cd	114	0.002	ug/L	0.001	50	34	43	11
|	Sb	121	0.015	ug/L	0.004	29	48	159	20
|	Sb	123	0.016	ug/L	0.003	19	36	128	15
|	Ba	135	0.007	ug/L	0.001	17	19	32	6
[	Ba	137	0.010	ug/L	0.002	17	25	57	9
[>	Tb	159		ug/L			348843	341827	2
|	Tl	205	0.006	ug/L	0.001	21	165	276	10
|	Pb	208	0.006	ug/L	0.000	7	530	711	2
|	Bi	209		ug/L			281191	273617	2
|	Th	232	0.024	ug/L	0.004	17	225	950	15
[	U	238	0.002	ug/L	0.001	30	54	114	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor: 22222 SC 11-21-12
Comments:
Sample Date/Time: Monday, November 19, 2012 11:58:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	304809	0
[	Be	9	0.161	ug/L	0.007	4	4	57	3
	C	13		mg/L			3467	3155	1
	Cl	37		mg/L			1677002	1759415	0
[>	Sc	45		ug/L			164415	193334	1
[	V	51	0.100	ug/L	0.006	6	1570	2699	3
[	V-1	51	0.142	ug/L	0.013	9	1979	3561	2
[	Cr	52	0.254	ug/L	0.016	6	4880	7655	0
[	Cr	53	0.370	ug/L	0.058	15	682	1140	3
[	Mn	55	0.445	ug/L	0.006	1	410	6307	2
[	Co	59	0.174	ug/L	0.003	1	40	1829	3
[>	Ge	72		ug/L			248541	301307	0
[	Ni	60	0.407	ug/L	0.019	4	42	992	4
[	Ni	62	0.420	ug/L	0.054	12	33	185	9
[	Cu	63	0.443	ug/L	0.016	3	145	2429	3
[	Cu	65	0.442	ug/L	0.016	3	76	1173	3
[	Zn	66	3.268	ug/L	0.059	1	511	5860	1
[	Zn	67	2.807	ug/L	0.025	0	141	947	0
[	Zn	68	1.725	ug/L	0.165	9	6402	9723	1
[	As	75	0.195	ug/L	0.023	11	250	649	5
[	As-1	75	-1.348	ug/L	0.031	2	9167	8802	0
[	Se	82	0.442	ug/L	0.053	12	-9	84	13
[	Se	78	-4.974	ug/L	0.089	1	9315	8826	0
[	Mo	98	0.155	ug/L	0.005	3	47	1127	2
	Y	89		ug/L			260781	308417	1
	Kr	83		ug/L			179	192	1
[>	In	115		ug/L			276493	335878	1
[	Ag	107	0.169	ug/L	0.007	3	60	1962	2
[	Cd	111	0.083	ug/L	0.004	4	169	440	2
[	Cd	114	0.090	ug/L	0.001	1	34	617	1
[	Sb	121	0.163	ug/L	0.004	2	48	1538	3
[	Sb	123	0.171	ug/L	0.002	0	36	1228	0
[	Ba	135	0.432	ug/L	0.008	1	19	985	1
[	Ba	137	0.428	ug/L	0.023	5	25	1692	4
[>	Tb	159		ug/L			348843	424611	0
[	Tl	205	0.200	ug/L	0.002	1	165	5109	1
[	Pb	208	0.088	ug/L	0.001	1	530	3989	1
[	Bi	209		ug/L			281191	339714	1
[	Th	232	0.208	ug/L	0.002	0	225	8135	0
[	U	238	0.186	ug/L	0.003	1	54	7679	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:04:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	241814	0
[	Be	9	0.004	ug/L	0.006	143	4	5	26
	C	13		mg/L			3467	10574	1
	Cl	37		mg/L			1677002	2502856	0
[>	Sc	45		ug/L			164415	153848	0
[	V	51	-0.010	ug/L	0.039	398	1570	1402	18
[	V-1	51	0.703	ug/L	0.021	2	1979	6709	2
[	Cr	52	0.486	ug/L	0.029	5	4880	7494	2
[	Cr	53	2.615	ug/L	0.115	4	682	2543	3
[	Mn	55	0.419	ug/L	0.052	12	410	4748	11
[	Co	59	0.020	ug/L	0.004	19	40	204	15
[>	Ge	72		ug/L			248541	236037	1
[	Ni	60	0.485	ug/L	0.025	5	42	919	4
[	Ni	62	4.120	ug/L	0.102	2	33	1141	2
[	Cu	63	0.472	ug/L	0.003	0	145	2021	1
[	Cu	65	0.690	ug/L	0.044	6	76	1394	5
[	Zn	66	1.122	ug/L	0.033	2	511	1894	3
[	Zn	67	1.304	ug/L	0.059	4	141	416	4
[	Zn	68	0.031	ug/L	0.023	75	6402	6107	0
[	As	75	0.124	ug/L	0.036	29	250	410	11
[	As-1	75	-0.160	ug/L	0.034	21	9167	8491	1
[	Se	82	-0.044	ug/L	0.035	80	-9	-16	35
[	Se	78	-0.784	ug/L	0.093	11	9315	8542	1
[	Mo	98	359.003	ug/L	2.184	0	47	1944712	0
	Y	89		ug/L			260781	242867	0
	Kr	83		ug/L			179	210	2
[>	In	115		ug/L			276493	259592	1
[	Ag	107	0.023	ug/L	0.001	3	60	259	4
[	Cd	111	0.057	ug/L	0.021	36	169	281	16
[	Cd	114	0.757	ug/L	0.024	3	34	3757	1
[	Sb	121	0.065	ug/L	0.005	6	48	501	7
[	Sb	123	0.066	ug/L	0.005	7	36	385	5
[	Ba	135	0.040	ug/L	0.008	19	19	87	15
[	Ba	137	0.042	ug/L	0.004	9	25	150	6
[>	Tb	159		ug/L			348843	330317	0
[	Tl	205	0.038	ug/L	0.002	5	165	885	4
[	Pb	208	0.038	ug/L	0.001	3	530	1631	2
[	Bi	209		ug/L			281191	259161	0
[	Th	232	0.054	ug/L	0.005	9	225	1810	8
[	U	238	-0.000	ug/L	0.000	192	54	48	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:13:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			250992	237028	0
⌊	Be	9	-0.001	ug/L	0.003	449	4	4	17
	C	13		mg/L			3467	10612	0
	Cl	37		mg/L			1677002	2425841	0
⌈>	Sc	45		ug/L			164415	150162	1
|	V	51	-0.280	ug/L	0.098	35	1570	-408	157
|	V-1	51	0.776	ug/L	0.037	4	1979	7036	2
|	Cr	52	21.627	ug/L	0.708	3	4880	131501	2
|	Cr	53	23.374	ug/L	0.703	3	682	17240	1
|	Mn	55	20.921	ug/L	0.556	2	410	213003	1
⌊	Co	59	20.785	ug/L	0.558	2	40	165761	1
⌈>	Ge	72		ug/L			248541	233647	0
|	Ni	60	19.997	ug/L	0.284	1	42	35929	0
|	Ni	62	23.956	ug/L	0.687	2	33	6417	1
|	Cu	63	20.518	ug/L	0.277	1	145	81103	1
|	Cu	65	20.646	ug/L	0.230	1	76	39226	0
|	Zn	66	20.917	ug/L	0.283	1	511	26490	0
|	Zn	67	17.871	ug/L	0.372	2	141	3964	1
|	Zn	68	19.652	ug/L	0.644	3	6402	23352	1
|	As	75	19.691	ug/L	0.044	0	250	27313	0
|	As-1	75	20.083	ug/L	0.161	0	9167	35311	0
|	Se	82	-0.104	ug/L	0.058	55	-9	-26	35
|	Se	78	-0.827	ug/L	0.450	54	9315	8437	1
⌊	Mo	98	356.447	ug/L	7.211	2	47	1911131	1
	Y	89		ug/L			260781	239338	1
	Kr	83		ug/L			179	211	1
⌈>	In	115		ug/L			276493	254574	1
|	Ag	107	20.608	ug/L	0.211	1	60	174246	1
|	Cd	111	20.482	ug/L	0.400	1	169	43907	0
|	Cd	114	21.295	ug/L	0.285	1	34	102816	0
|	Sb	121	0.063	ug/L	0.003	4	48	477	3
|	Sb	123	0.063	ug/L	0.004	5	36	363	6
|	Ba	135	0.039	ug/L	0.004	11	19	83	8
⌊	Ba	137	0.041	ug/L	0.001	3	25	143	2
⌈>	Tb	159		ug/L			348843	329505	1
|	Tl	205	0.040	ug/L	0.001	3	165	908	1
|	Pb	208	0.038	ug/L	0.003	7	530	1626	4
|	Bi	209		ug/L			281191	260175	1
|	Th	232	0.051	ug/L	0.006	12	225	1707	12
⌊	U	238	-0.000	ug/L	0.000	28	54	37	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:19:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	232441	0
[	Be	9	0.237	ug/L	0.060	25	4	62	23
	C	13		mg/L			3467	1852	2
	Cl	37		mg/L			1677002	1641425	0
[>	Sc	45		ug/L			164415	145341	1
[	V	51	0.202	ug/L	0.009	4	1570	2675	2
[	V-1	51	0.421	ug/L	0.010	2	1979	4497	1
[	Cr	52	0.517	ug/L	0.019	3	4880	7251	0
[	Cr	53	1.161	ug/L	0.018	1	682	1401	0
[	Mn	55	0.577	ug/L	0.023	3	410	6041	3
[	Co	59	0.221	ug/L	0.005	2	40	1743	3
[>	Ge	72		ug/L			248541	227011	0
[	Ni	60	0.531	ug/L	0.002	0	42	964	1
[	Ni	62	0.565	ug/L	0.019	3	33	177	2
[	Cu	63	0.570	ug/L	0.017	3	145	2316	2
[	Cu	65	0.569	ug/L	0.010	1	76	1117	1
[	Zn	66	4.320	ug/L	0.118	2	511	5687	2
[	Zn	67	3.837	ug/L	0.115	2	141	928	2
[	Zn	68	4.111	ug/L	0.025	0	6402	9371	0
[	As	75	0.259	ug/L	0.007	2	250	574	0
[	As-1	75	0.226	ug/L	0.051	22	9167	8664	0
[	Se	82	0.512	ug/L	0.024	4	-9	75	6
[	Se	78	0.551	ug/L	0.148	26	9315	8713	0
[	Mo	98	0.231	ug/L	0.002	1	47	1248	1
	Y	89		ug/L			260781	234603	0
	Kr	83		ug/L			179	181	3
[>	In	115		ug/L			276493	254040	0
[	Ag	107	0.217	ug/L	0.005	2	60	1890	1
[	Cd	111	0.115	ug/L	0.008	7	169	401	4
[	Cd	114	0.120	ug/L	0.006	4	34	609	4
[	Sb	121	0.212	ug/L	0.005	2	48	1503	2
[	Sb	123	0.217	ug/L	0.015	7	36	1169	6
[	Ba	135	0.543	ug/L	0.013	2	19	932	2
[	Ba	137	0.554	ug/L	0.016	2	25	1651	2
[>	Tb	159		ug/L			348843	325106	0
[	Tl	205	0.278	ug/L	0.002	0	165	5361	0
[	Pb	208	0.122	ug/L	0.004	3	530	4037	2
[	Bi	209		ug/L			281191	265131	0
[	Th	232	0.256	ug/L	0.004	1	225	7616	1
[	U	238	0.248	ug/L	0.005	1	54	7824	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:26:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	234956	0
[	Be	9	211.352	ug/L	2.594	1	4	52478	0
	C	13		mg/L			3467	3240	2
	Cl	37		mg/L			1677002	1706488	1
[>	Sc	45		ug/L			164415	151706	0
[	V	51	201.672	ug/L	3.490	1	1570	1344340	0
[	V-1	51	202.768	ug/L	2.221	1	1979	1382302	0
[	Cr	52	205.108	ug/L	4.621	2	4880	1221933	1
[	Cr	53	208.201	ug/L	1.029	0	682	150218	1
[	Mn	55	184.768	ug/L	6.211	3	410	1897573	2
[	Co	59	201.446	ug/L	3.336	1	40	1623045	1
[>	Ge	72		ug/L			248541	236253	0
[	Ni	60	189.247	ug/L	1.871	0	42	343479	0
[	Ni	62	197.039	ug/L	1.196	0	33	53155	1
[	Cu	63	193.418	ug/L	3.604	1	145	771871	1
[	Cu	65	194.624	ug/L	3.464	1	76	373280	1
[	Zn	66	194.857	ug/L	1.787	0	511	245500	0
[	Zn	67	195.033	ug/L	1.779	0	141	42422	0
[	Zn	68	198.977	ug/L	1.873	0	6402	183575	0
[	As	75	201.409	ug/L	2.758	1	250	280281	1
[	As-1	75	201.898	ug/L	2.896	1	9167	280069	1
[	Se	82	190.947	ug/L	1.747	0	-9	32694	0
[	Se	78	191.697	ug/L	2.050	1	9315	83369	0
[	Mo	98	202.026	ug/L	1.693	0	47	1095377	0
	Y	89		ug/L			260781	240782	0
	Kr	83		ug/L			179	215	0
[>	In	115		ug/L			276493	260054	0
[	Ag	107	198.828	ug/L	2.319	1	60	1716851	1
[	Cd	111	203.826	ug/L	0.394	0	169	444998	0
[	Cd	114	204.028	ug/L	2.399	1	34	1006081	1
[	Sb	121	210.365	ug/L	2.191	1	48	1479106	1
[	Sb	123	214.302	ug/L	1.440	0	36	1146712	0
[	Ba	135	209.121	ug/L	1.359	0	19	360497	0
[	Ba	137	207.195	ug/L	1.500	0	25	623743	0
[>	Tb	159		ug/L			348843	332212	1
[	Tl	205	195.633	ug/L	3.479	1	165	3746023	1
[	Pb	208	187.843	ug/L	3.742	1	530	5558604	1
[	Bi	209		ug/L			281191	248014	0
[	Th	232	200.974	ug/L	3.143	1	225	5946336	0
[	U	238	198.369	ug/L	4.749	2	54	6351625	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:32:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	233307	0
[	Be	9	311.724	ug/L	1.465	0	4	76857	0
	C	13		mg/L			3467	3318	1
	Cl	37		mg/L			1677002	1775321	1
[>	Sc	45		ug/L			164415	174544	0
[	V	51	279.020	ug/L	2.767	0	1570	2139558	1
[	V-1	51	286.380	ug/L	3.254	1	1979	2245465	1
[	Cr	52	284.367	ug/L	1.613	0	4880	1947425	0
[	Cr	53	306.314	ug/L	7.125	2	682	253927	2
[	Mn	55	283.394	ug/L	4.278	1	410	3349019	1
[	Co	59	274.514	ug/L	3.674	1	40	2544881	1
[>	Ge	72		ug/L			248541	255566	0
[	Ni	60	298.993	ug/L	2.184	0	42	587032	0
[	Ni	62	301.708	ug/L	5.810	1	33	88022	1
[	Cu	63	292.595	ug/L	2.784	0	145	1263100	0
[	Cu	65	295.467	ug/L	5.004	1	76	613018	1
[	Zn	66	291.443	ug/L	1.334	0	511	396959	0
[	Zn	67	293.240	ug/L	2.074	0	141	68930	1
[	Zn	68	291.533	ug/L	3.012	1	6402	287909	1
[	As	75	293.807	ug/L	1.764	0	250	442180	0
[	As-1	75	295.867	ug/L	1.465	0	9167	439599	0
[	Se	82	285.128	ug/L	2.902	1	-9	52817	0
[	Se	78	291.590	ug/L	2.081	0	9315	132193	0
[	Mo	98	303.914	ug/L	0.818	0	47	1782581	0
	Y	89		ug/L			260781	263018	1
	Kr	83		ug/L			179	246	8
[>	In	115		ug/L			276493	282622	1
[	Ag	107	265.733	ug/L	0.428	0	60	2493698	1
[	Cd	111	301.943	ug/L	1.447	0	169	716330	1
[	Cd	114	300.476	ug/L	2.862	0	34	1610125	0
[	Sb	121	273.879	ug/L	0.041	0	48	2092754	1
[	Sb	123	302.952	ug/L	1.695	0	36	1761669	0
[	Ba	135	303.728	ug/L	5.139	1	19	568941	0
[	Ba	137	300.858	ug/L	0.523	0	25	984280	1
[>	Tb	159		ug/L			348843	346153	0
[	Tl	205	294.690	ug/L	0.990	0	165	5880492	0
[	Pb	208	267.348	ug/L	0.635	0	530	8244765	0
[	Bi	209		ug/L			281191	234873	0
[	Th	232	299.621	ug/L	2.811	0	225	9238440	1
[	U	238	297.478	ug/L	2.493	0	54	9927202	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:39:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	248608	0
[	Be	9	51.848	ug/L	0.567	1	4	13625	0
	C	13		mg/L			3467	2630	1
	Cl	37		mg/L			1677002	1777187	0
[>	Sc	45		ug/L			164415	172693	1
[	V	51	51.098	ug/L	0.589	1	1570	388984	0
[	V-1	51	50.996	ug/L	0.477	0	1979	397300	0
[	Cr	52	52.178	ug/L	1.270	2	4880	357665	1
[	Cr	53	51.798	ug/L	0.926	1	682	43075	0
[	Mn	55	51.910	ug/L	0.816	1	410	607269	1
[	Co	59	52.219	ug/L	0.560	1	40	478967	0
[>	Ge	72		ug/L			248541	257840	0
[	Ni	60	51.418	ug/L	0.209	0	42	101888	0
[	Ni	62	52.289	ug/L	0.981	1	33	15420	2
[	Cu	63	51.820	ug/L	0.177	0	145	225818	0
[	Cu	65	51.794	ug/L	0.417	0	76	108483	1
[	Zn	66	52.300	ug/L	0.335	0	511	72305	1
[	Zn	67	51.408	ug/L	0.772	1	141	12312	1
[	Zn	68	52.322	ug/L	1.037	1	6402	57580	1
[	As	75	50.839	ug/L	0.495	0	250	77409	0
[	As-1	75	51.340	ug/L	0.488	0	9167	84819	0
[	Se	82	50.590	ug/L	0.247	0	-9	9446	0
[	Se	78	52.365	ug/L	0.396	0	9315	31879	0
[	Mo	98	50.932	ug/L	0.578	1	47	301436	1
	Y	89		ug/L			260781	267987	0
	Kr	83		ug/L			179	198	2
[>	In	115		ug/L			276493	288101	0
[	Ag	107	52.287	ug/L	0.598	1	60	500226	0
[	Cd	111	52.653	ug/L	0.378	0	169	127479	0
[	Cd	114	52.548	ug/L	0.988	1	34	287091	1
[	Sb	121	51.676	ug/L	0.462	0	48	402553	0
[	Sb	123	52.200	ug/L	0.400	0	36	309464	0
[	Ba	135	51.088	ug/L	0.683	1	19	97580	1
[	Ba	137	50.559	ug/L	0.295	0	25	168637	0
[>	Tb	159		ug/L			348843	354762	0
[	Tl	205	58.341	ug/L	0.434	0	165	1193279	0
[	Pb	208	52.046	ug/L	0.407	0	530	1645347	0
[	Bi	209		ug/L			281191	281964	0
[	Th	232	58.417	ug/L	0.320	0	225	1846180	0
[	U	238	57.717	ug/L	1.136	1	54	1973838	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:46:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			250992	248309	1
⌊	Be	9	0.003	ug/L	0.016	447	4	5	74
	C	13		mg/L			3467	3341	1
	Cl	37		mg/L			1677002	1789920	0
⌈>	Sc	45		ug/L			164415	166633	3
|	V	51	0.001	ug/L	0.028	3084	1570	1597	12
|	V-1	51	0.063	ug/L	0.021	32	1979	2475	3
|	Cr	52	0.011	ug/L	0.027	233	4880	5023	6
|	Cr	53	0.200	ug/L	0.096	48	682	848	8
|	Mn	55	0.021	ug/L	0.013	61	410	645	20
⌊	Co	59	0.002	ug/L	0.001	28	40	60	6
⌈>	Ge	72		ug/L			248541	249943	3
|	Ni	60	-0.005	ug/L	0.004	80	42	33	19
|	Ni	62	0.009	ug/L	0.033	376	33	36	22
|	Cu	63	0.019	ug/L	0.005	26	145	225	6
|	Cu	65	0.009	ug/L	0.002	16	76	96	6
|	Zn	66	0.045	ug/L	0.006	13	511	574	2
|	Zn	67	0.113	ug/L	0.095	83	141	167	9
|	Zn	68	0.319	ug/L	0.235	73	6402	6741	5
|	As	75	0.047	ug/L	0.021	44	250	320	7
|	As-1	75	0.178	ug/L	0.070	39	9167	9473	4
|	Se	82	0.086	ug/L	0.035	40	-9	5	109
|	Se	78	0.592	ug/L	0.282	47	9315	9613	4
⌊	Mo	98	0.010	ug/L	0.002	19	47	105	9
	Y	89		ug/L			260781	264895	2
	Kr	83		ug/L			179	188	2
⌈>	In	115		ug/L			276493	286712	1
|	Ag	107	0.017	ug/L	0.004	21	60	226	14
|	Cd	111	0.005	ug/L	0.004	88	169	187	7
|	Cd	114	0.000	ug/L	0.001	432	34	36	10
|	Sb	121	0.029	ug/L	0.008	26	48	275	20
|	Sb	123	0.031	ug/L	0.006	19	36	218	14
|	Ba	135	0.006	ug/L	0.003	43	19	31	14
⌊	Ba	137	0.006	ug/L	0.004	58	25	47	24
⌈>	Tb	159		ug/L			348843	350007	1
|	Tl	205	0.010	ug/L	0.001	6	165	363	2
|	Pb	208	0.007	ug/L	0.002	35	530	737	9
|	Bi	209		ug/L			281191	283133	1
|	Th	232	0.043	ug/L	0.010	24	225	1557	20
⌊	U	238	0.002	ug/L	0.001	23	54	130	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 12:52:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	248632 ✓	0
[	Be	9	0.011	ug/L	0.005	41	4	7	16
	C	13		mg/L			3467	3630	1
	Cl	37		mg/L			1677002	1789690	0
[>	Sc	45		ug/L			164415	168809	2
[	V	51	0.009	ug/L	0.018	197	1570	1680	8
[	V-1	51	0.067	ug/L	0.030	45	1979	2537	6
[	Cr	52	U 0.029	ug/L	0.012	41	4880	5199	2
[	Cr	53	0.204	ug/L	0.120	59	682	861	9
[	Mn	55	0.732	ug/L	0.011	1	410	8791	3
[	Co	59	0.008	ug/L	0.000	4	40	115	1
[>	Ge	72		ug/L			248541	253934 ✓	0
[	Ni	60	U -0.001	ug/L	0.001	56	42	41	3
[	Ni	62	0.035	ug/L	0.039	112	33	44	25
[	Cu	63	U 0.090	ug/L	0.006	6	145	535	4
[	Cu	65	0.088	ug/L	0.004	4	76	260	3
[	Zn	66	U 1.000	ug/L	0.046	4	511	1873	3
[	Zn	67	0.893	ug/L	0.091	10	141	352	6
[	Zn	68	1.069	ug/L	0.201	18	6402	7566	2
[	As	75	0.228	ug/L	0.010	4	250	597	2
[	As-1	75	0.334	ug/L	0.184	54	9167	9849	2
[	Se	82	0.027	ug/L	0.071	258	-9	-4	270
[	Se	78	0.446	ug/L	0.672	150	9315	9703	2
[	Mo	98	0.028	ug/L	0.009	32	47	210	24
	Y	89		ug/L			260781	264754	2
	Kr	83		ug/L			179	195	3
[>	In	115		ug/L			276493	286264 ✓	0
[	Ag	107	U 0.011	ug/L	0.003	30	60	167	19
[	Cd	111	U 0.004	ug/L	0.004	119	169	183	5
[	Cd	114	0.005	ug/L	0.001	15	34	63	6
[	Sb	121	U 0.017	ug/L	0.001	5	48	185	4
[	Sb	123	0.019	ug/L	0.006	29	36	152	22
[	Ba	135	0.041	ug/L	0.009	22	19	98	17
[	Ba	137	0.041	ug/L	0.002	5	25	162	4
[>	Tb	159		ug/L			348843	357357 ✓	0
[	Tl	205	0.009	ug/L	0.004	45	165	355	24
[	Pb	208	U 0.007	ug/L	0.001	12	530	767	4
[	Bi	209		ug/L			281191	285038	0
[	Th	232	0.052	ug/L	0.009	17	225	1885	16
[	U	238	0.006	ug/L	0.001	20	54	254	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 12:58:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	244442	2
[	Be	9	-0.001	ug/L	0.010	783	4	4	62
	C	13		mg/L			3467	3639	1
	Cl	37		mg/L			1677002	1790635	0
[>	Sc	45		ug/L			164415	163101	1
[	V	51	0.004	ug/L	0.009	194	1570	1588	3
[	V-1	51	0.101	ug/L	0.023	22	1979	2698	4
[	Cr	52	U 0.016	ug/L	0.018	113	4880	4943	4
[	Cr	53	0.307	ug/L	0.047	15	682	913	2
[	Mn	55	U 0.259	ug/L	0.002	0	410	3262	1
[	Co	59	0.005	ug/L	0.001	18	40	86	10
[>	Ge	72		ug/L			248541	247821	2
[	Ni	60	U 0.015	ug/L	0.002	15	42	70	4
[	Ni	62	0.039	ug/L	0.033	85	33	44	18
[	Cu	63	U 0.101	ug/L	0.004	4	145	566	5
[	Cu	65	0.099	ug/L	0.005	5	76	275	6
[	Zn	66	U 0.701	ug/L	0.013	1	511	1433	2
[	Zn	67	0.664	ug/L	0.068	10	141	291	5
[	Zn	68	0.595	ug/L	0.103	17	6402	6939	2
[	As	75	U 0.046	ug/L	0.012	27	250	316	4
[	As-1	75	-0.011	ug/L	0.129	1214	9167	9123	2
[	Se	82	0.057	ug/L	0.042	73	-9	0	1321
[	Se	78	-0.093	ug/L	0.477	515	9315	9248	2
[	Mo	98	0.004	ug/L	0.001	27	47	72	9
	Y	89		ug/L			260781	257204	2
	Kr	83		ug/L			179	185	3
[>	In	115		ug/L			276493	281977	1
[	Ag	107	U 0.001	ug/L	0.001	51	60	75	8
[	Cd	111	U -0.004	ug/L	0.002	61	169	163	2
[	Cd	114	-0.001	ug/L	0.001	112	34	30	16
[	Sb	121	U 0.009	ug/L	0.001	8	48	115	4
[	Sb	123	0.008	ug/L	0.003	37	36	86	22
[	Ba	135	0.043	ug/L	0.002	4	19	100	1
[	Ba	137	0.050	ug/L	0.007	13	25	187	10
[>	Tb	159		ug/L			348843	349048	1
[	Tl	205	-0.002	ug/L	0.000	18	165	127	6
[	Pb	208	0.096	ug/L	0.003	3	530	3527	3
[	Bi	209		ug/L			281191	277331	1
[	Th	232	0.020	ug/L	0.003	13	225	852	10
[	U	238	-0.001	ug/L	0.000	19	54	34	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI CHECK
Sample Dil Factor: 1
Comments:
Sample Date/Time: Monday, November 19, 2012 13:04:44
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	245111	0
[	Be	9	-0.003	ug/L	0.005	170	4	3	33
	C	13		mg/L			3467	1738	2
	Cl	37		mg/L			1677002	1755898	0
[>	Sc	45		ug/L			164415	154931	0
[	V	51	-0.059	ug/L	0.005	7	1570	1077	3
[	V-1	51	0.076	ug/L	0.009	11	1979	2391	3
[	Cr	52	-0.128	ug/L	0.010	7	4880	3822	1
[	Cr	53	0.285	ug/L	0.010	3	682	852	1
[	Mn	55	-0.015	ug/L	0.002	11	410	231	7
[	Co	59	0.000	ug/L	0.001	261	40	40	15
[>	Ge	72		ug/L			248541	242197	0
[	Ni	60	-0.015	ug/L	0.004	24	42	13	48
[	Ni	62	-0.000	ug/L	0.033	49359	33	32	28
[	Cu	63	-0.008	ug/L	0.003	33	145	108	10
[	Cu	65	-0.008	ug/L	0.003	41	76	59	10
[	Zn	66	-0.115	ug/L	0.039	34	511	350	14
[	Zn	67	-0.019	ug/L	0.031	161	141	133	5
[	Zn	68	-0.418	ug/L	0.082	19	6402	5856	1
[	As	75	0.050	ug/L	0.021	41	250	315	9
[	As-1	75	-0.276	ug/L	0.078	28	9167	8552	1
[	Se	82	0.047	ug/L	0.084	176	-9	-1	1420
[	Se	78	-1.046	ug/L	0.242	23	9315	8660	1
[	Mo	98	-0.004	ug/L	0.000	7	47	25	6
	Y	89		ug/L			260781	246919	2
	Kr	83		ug/L			179	179	6
[>	In	115		ug/L			276493	209487	24
[	Ag	107	-0.002	ug/L	0.003	140	60	30	35
[	Cd	111	0.031	ug/L	0.026	84	169	175	4
[	Cd	114	0.002	ug/L	0.004	193	34	31	15
[	Sb	121	-0.001	ug/L	0.003	278	48	28	25
[	Sb	123	-0.001	ug/L	0.001	88	36	22	16
[	Ba	135	-0.002	ug/L	0.002	112	19	12	40
[	Ba	137	-0.003	ug/L	0.001	36	25	13	35
[>	Tb	159		ug/L			348843	346570	1
[	Tl	205	0.019	ug/L	0.004	23	165	538	14
[	Pb	208	-0.001	ug/L	0.001	155	530	508	4
[	Bi	209		ug/L			281191	55123	11
[	Th	232	-0.006	ug/L	0.000	2	225	47	10
[	U	238	-0.001	ug/L	0.000	30	54	25	35

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ERA P197
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, November 19, 2012 13:11:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	238399	1
[	Be	9	6.512	ug/L	0.093	1	4	1644	1
	C	13		mg/L			3467	2924	2
	Cl	37		mg/L			1677002	1777878	0
[>	Sc	45		ug/L			164415	155128	0
[	V	51	53.035	ug/L	0.778	1	1570	362635	1
[	V-1	51	53.206	ug/L	0.398	0	1979	372295	0
[	Cr	52	58.672	ug/L	0.532	0	4880	360756	0
[	Cr	53	58.815	ug/L	0.899	1	682	43854	1
[	Mn	55	49.137	ug/L	1.441	2	410	516436	3
[	Co	59	95.290	ug/L	0.445	0	40	785157	0
[>	Ge	72		ug/L			248541	238560	1
[	Ni	60	72.561	ug/L	0.999	1	42	133011	1
[	Ni	62	74.004	ug/L	1.751	2	33	20174	1
[	Cu	63	33.180	ug/L	0.940	2	145	133805	2
[	Cu	65	32.945	ug/L	0.477	1	76	63861	0
[	Zn	66	52.010	ug/L	1.354	2	511	66518	1
[	Zn	67	51.522	ug/L	1.979	3	141	11413	2
[	Zn	68	52.281	ug/L	0.963	1	6402	53231	1
[	As	75	23.297	ug/L	0.478	2	250	32944	0
[	As-1	75	22.892	ug/L	0.281	1	9167	39864	0
[	Se	82	31.997	ug/L	0.771	2	-9	5523	1
[	Se	78	31.770	ug/L	0.165	0	9315	21411	1
[	Mo	98	55.997	ug/L	0.934	1	47	306585	0
	Y	89		ug/L			260781	246757	1
	Kr	83		ug/L			179	192	1
[>	In	115		ug/L			276493	270047	1
[	Ag	107	42.358	ug/L	0.228	0	60	379842	0
[	Cd	111	15.382	ug/L	0.181	1	169	35029	2
[	Cd	114	15.674	ug/L	0.102	0	34	80285	0
[	Sb	121	32.650	ug/L	0.250	0	48	238413	0
[	Sb	123	32.692	ug/L	0.562	1	36	181664	0
[	Ba	135	47.795	ug/L	0.545	1	19	85569	1
[	Ba	137	48.135	ug/L	0.536	1	25	150488	1
[>	Tb	159		ug/L			348843	340099	0
[	Tl	205	22.211	ug/L	0.377	1	165	435609	1
[	Pb	208	201.002	ug/L	1.289	0	530	6090388	0
[	Bi	209		ug/L			281191	271058	0
[	Th	232	0.006	ug/L	0.001	11	225	416	5
[	U	238	-0.001	ug/L	0.000	25	54	29	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 13:17:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	238789 ✓	0
[	Be	9	25.800	ug/L	0.868	3	4	6513	2
	C	13		mg/L			3467	3780	0
	Cl	37		mg/L			1677002	1776680	0
[>	Sc	45		ug/L			164415	155602 ✓	1
[	V	51	25.141	ug/L	0.332	1	1570	173211	1
[	V-1	51	25.228	ug/L	0.308	1	1979	178041	1
[	Cr	52	25.916	ug/L	0.257	0	4880	162401	0
[	Cr	53	26.127	ug/L	0.582	2	682	19896	1
[	Mn	55	25.799	ug/L	0.641	2	410	272110	1
[	Co	59	25.695	ug/L	0.304	1	40	212388	1
[>	Ge	72		ug/L			248541	238128 ✓	0
[	Ni	60	25.211	ug/L	0.738	2	42	46153	2
[	Ni	62	25.897	ug/L	0.809	3	33	7069	2
[	Cu	63	26.100	ug/L	0.171	0	145	105112	0
[	Cu	65	26.228	ug/L	0.450	1	76	50769	1
[	Zn	66	80.934	ug/L	0.869	1	511	103065	0
[	Zn	67	75.138	ug/L	1.236	1	141	16556	1
[	Zn	68	82.343	ug/L	0.265	0	6402	80171	0
[	As	75	27.616	ug/L	0.353	1	250	38943	0
[	As-1	75	25.986	ug/L	0.204	0	9167	43987	0
[	Se	82	77.274	ug/L	1.469	1	-9	13330	1
[	Se	78	77.733	ug/L	1.876	2	9315	39381	1
[	Mo	98	23.841	ug/L	0.256	1	47	130334	1
	Y	89		ug/L			260781	249274	0
	Kr	83		ug/L			179	196	2
[>	In	115		ug/L			276493	269545 ✓	0
[	Ag	107	25.410	ug/L	0.271	1	60	227455	0
[	Cd	111	24.557	ug/L	0.395	1	169	55718	2
[	Cd	114	25.008	ug/L	0.380	1	34	127840	1
[	Sb	121	25.115	ug/L	0.208	0	48	183069	1
[	Sb	123	25.031	ug/L	0.149	0	36	138856	1
[	Ba	135	25.801	ug/L	0.546	2	19	46112	1
[	Ba	137	25.397	ug/L	0.081	0	25	79266	0
[>	Tb	159		ug/L			348843	340128 ✓	0
[	Tl	205	28.885	ug/L	0.166	0	165	566504	0
[	Pb	208	25.603	ug/L	0.177	0	530	776302	0
[	Bi	209		ug/L			281191	269322	0
[	Th	232	28.781	ug/L	0.239	0	225	872155	0
[	U	238	27.925	ug/L	0.243	0	54	915689	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 13:23:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			250992	244155	1
	Be	9	25.577	ug/L	0.504	1	4	6603	2
	C	13		mg/L			3467	3818	0
	Cl	37		mg/L			1677002	1778152	0
>	Sc	45		ug/L			164415	157202	0
	V	51	25.500	ug/L	0.426	1	1570	177463	1
	V-1	51	25.550	ug/L	0.317	1	1979	182145	0
	Cr	52	26.081	ug/L	0.351	1	4880	165092	0
	Cr	53	26.193	ug/L	0.484	1	682	20152	1
	Mn	55	29.626	ug/L	0.385	1	410	315661	0
	Co	59	26.084	ug/L	0.642	2	40	217810	2
>	Ge	72		ug/L			248541	240900	1
	Ni	60	25.592	ug/L	0.439	1	42	47399	1
	Ni	62	25.631	ug/L	0.453	1	33	7077	0
	Cu	63	25.949	ug/L	0.334	1	145	105708	0
	Cu	65	26.070	ug/L	0.268	1	76	51050	0
	Zn	66	84.574	ug/L	1.395	1	511	108920	0
	Zn	67	76.501	ug/L	0.888	1	141	17050	0
	Zn	68	84.774	ug/L	0.842	0	6402	83308	0
	As	75	29.450	ug/L	0.440	1	250	41992	0
	As-1	75	27.723	ug/L	0.431	1	9167	46875	0
	Se	82	77.237	ug/L	1.715	2	-9	13477	0
	Se	78	77.094	ug/L	1.742	2	9315	39581	0
	Mo	98	24.262	ug/L	0.179	0	47	134175	0
	Y	89		ug/L			260781	249221	1
	Kr	83		ug/L			179	192	2
>	In	115		ug/L			276493	272488	1
	Ag	107	25.335	ug/L	0.471	1	60	229254	1
	Cd	111	24.610	ug/L	0.311	1	169	56447	2
	Cd	114	24.873	ug/L	0.118	0	34	128541	1
	Sb	121	24.762	ug/L	0.252	1	48	182461	0
	Sb	123	24.777	ug/L	0.342	1	36	138934	0
	Ba	135	25.831	ug/L	0.280	1	19	46672	0
	Ba	137	25.940	ug/L	0.341	1	25	81837	0
>	Tb	159		ug/L			348843	343225	0
	Tl	205	29.206	ug/L	0.179	0	165	578009	0
	Pb	208	25.731	ug/L	0.261	1	530	787267	0
	Bi	209		ug/L			281191	269764	0
	Th	232	29.002	ug/L	0.270	0	225	886869	0
	U	238	28.217	ug/L	0.176	0	54	933711	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 13:29:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

RR Mn x5
Cd
Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	209289	0
[	Be	9	0.030	ug/L	0.013	44	4	10	27
	C	13		mg/L			3467	4291	1
	Cl	37		mg/L			1677002	2256805	1
[>	Sc	45		ug/L			164415	176708	1
[	V	51	0.090	ug/L	0.014	15	1570	2384	3
[	V-1	51	0.321	ug/L	0.017	5	1979	4674	2
[	Cr	52	0.184	ug/L	0.026	13	4880	6515	3
[	Cr	53	0.879	ug/L	0.075	8	682	1468	4
[	Mn	55	308.341	ug/L	4.452	1	410	3689468	2
[	Co	59	0.430	ug/L	0.017	3	40	4076	2
[>	Ge	72		ug/L			248541	239049	0
[	Ni	60	4.253	ug/L	0.117	2	42	7849	2
[	Ni	62	14.646	ug/L	2.315	15	33	4024	15
[	Cu	63	13.670	ug/L	0.387	2	145	55324	2
[	Cu	65	9.352	ug/L	0.281	3	76	18217	2
[	Zn	66	31.899	ug/L	0.388	1	511	41076	0
[	Zn	67	29.032	ug/L	0.426	1	141	6505	1
[	Zn	68	32.839	ug/L	0.180	0	6402	35798	1
[	As	75	0.544	ug/L	0.031	5	250	1006	3
[	As-1	75	0.924	ug/L	0.067	7	9167	10072	0
[	Se	82	0.409	ug/L	0.034	8	-9	61	9
[	Se	78	1.997	ug/L	0.256	12	9315	9744	0
[	Mo	98	15.097	ug/L	0.201	1	47	82864	0
	Y	89		ug/L			260781	251351	0
	Kr	83		ug/L			179	218	4
[>	In	115		ug/L			276493	266039	1
[	Ag	107	U 0.007	ug/L	0.003	37	60	121	18
[	Cd	111	-0.440	ug/L	0.207	46	169	-819	55
[	Cd	114	0.151	ug/L	0.003	1	34	794	2
[	Sb	121	1.649	ug/L	0.018	1	48	11905	0
[	Sb	123	1.675	ug/L	0.021	1	36	9201	1
[	Ba	135	31.857	ug/L	0.564	1	19	56190	0
[	Ba	137	31.689	ug/L	0.692	2	25	97594	1
[>	Tb	159		ug/L			348843	326182	0
[	Tl	205	0.007	ug/L	0.001	11	165	282	5
[	Pb	208	0.383	ug/L	0.007	1	530	11628	2
[	Bi	209		ug/L			281191	226257	0
[	Th	232	0.065	ug/L	0.010	15	225	2102	14
[	U	238	0.098	ug/L	0.003	2	54	3132	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 13:36:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

RR Cd, Mn x5 Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	208944	1
[	Be	9	0.036	ug/L	0.012	33	4	11	22
	C	13		mg/L			3467	4557	1
	Cl	37		mg/L			1677002	2502086	1
[>	Sc	45		ug/L			164415	189043	0
[	V	51	0.062	ug/L	0.025	41	1570	2320	9
[	V-1	51	0.317	ug/L	0.021	6	1979	4966	4
[	Cr	52	0.188	ug/L	0.008	4	4880	7001	0
[	Cr	53	0.952	ug/L	0.093	9	682	1637	5
[	Mn	55	326.892	ug/L	4.301	1	410	4183784	0
[	Co	59	0.446	ug/L	0.002	0	40	4524	1
[>	Ge	72		ug/L			248541	246807	1
[	Ni	60	4.571	ug/L	0.086	1	42	8707	0
[	Ni	62	20.051	ug/L	1.347	6	33	5678	5
[	Cu	63	11.129	ug/L	0.470	4	145	46518	2
[	Cu	65	5.753	ug/L	0.091	1	76	11600	0
[	Zn	66	24.782	ug/L	0.249	1	511	33061	1
[	Zn	67	22.171	ug/L	0.445	2	141	5161	0
[	Zn	68	25.129	ug/L	0.280	1	6402	29772	0
[	As	75	0.560	ug/L	0.037	6	250	1061	4
[	As-1	75	0.687	ug/L	0.072	10	9167	10067	0
[	Se	82	0.587	ug/L	0.037	6	-9	95	7
[	Se	78	1.220	ug/L	0.219	17	9315	9745	0
[	Mo	98	14.053	ug/L	0.251	1	47	79632	0
	Y	89		ug/L			260781	248403	1
	Kr	83		ug/L			179	208	5
[>	In	115		ug/L			276493	280152	1
[	Ag	107	<0.002	ug/L	0.001	53	60	80	11
[	Cd	111	-0.714	ug/L	0.066	9	169	-1507	11
[	Cd	114	0.155	ug/L	0.007	4	34	859	3
[	Sb	121	1.692	ug/L	0.024	1	48	12865	2
[	Sb	123	1.675	ug/L	0.011	0	36	9692	1
[	Ba	135	29.391	ug/L	0.374	1	19	54592	0
[	Ba	137	28.695	ug/L	0.370	1	25	93069	0
[>	Tb	159		ug/L			348843	332127	0
[	Tl	205	0.004	ug/L	0.000	11	165	232	4
[	Pb	208	0.146	ug/L	0.003	2	530	4832	1
[	Bi	209		ug/L			281191	223274	0
[	Th	232	0.039	ug/L	0.003	7	225	1383	7
[	U	238	0.056	ug/L	0.002	4	54	1848	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 13:42:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

RRCd, Mn x5 Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	210366	2
[	Be	9	0.011	ug/L	0.019	180	4	6	69
	C	13		mg/L			3467	4484	1
	Cl	37		mg/L			1677002	2530451	0
[>	Sc	45		ug/L			164415	191699	0
[	V	51	0.102	ug/L	0.033	32	1570	2692	10
[	V-1	51	0.342	ug/L	0.007	2	1979	5248	0
[	Cr	52	0.268	ug/L	0.010	3	4880	7700	1
[	Cr	53	0.982	ug/L	0.071	7	682	1687	4
[	Mn	55	308.387	ug/L	3.195	1	410	4002392	0
[	Co	59	0.413	ug/L	0.003	0	40	4253	0
[>	Ge	72		ug/L			248541	246582	1
[	Ni	60	4.486	ug/L	0.118	2	42	8537	1
[	Ni	62	16.537	ug/L	2.336	14	33	4681	12
[	Cu	63	7.403	ug/L	0.133	1	145	30968	0
[	Cu	65	3.285	ug/L	0.064	1	76	6650	0
[	Zn	66	28.126	ug/L	0.468	1	511	37414	0
[	Zn	67	25.015	ug/L	0.122	0	141	5801	1
[	Zn	68	28.274	ug/L	0.358	1	6402	32673	1
[	As	75	0.536	ug/L	0.011	1	250	1026	0
[	As-1	75	0.644	ug/L	0.107	16	9167	9996	0
[	Se	82	0.565	ug/L	0.067	11	-9	91	13
[	Se	78	1.128	ug/L	0.346	30	9315	9697	0
[	Mo	98	16.995	ug/L	0.116	0	47	96212	1
	Y	89		ug/L			260781	243010	2
	Kr	83		ug/L			179	207	2
[>	In	115		ug/L			276493	288466	0
[	Ag	107	0.001	ug/L	0.001	83	60	71	9
[	Cd	111	-0.572	ug/L	0.102	17	169	-1210	21
[	Cd	114	0.163	ug/L	0.011	6	34	929	6
[	Sb	121	1.791	ug/L	0.017	0	48	14014	0
[	Sb	123	1.760	ug/L	0.023	1	36	10482	1
[	Ba	135	29.315	ug/L	0.386	1	19	56070	0
[	Ba	137	28.703	ug/L	0.076	0	25	95870	0
[>	Tb	159		ug/L			348843	337374	0
[	Tl	205	0.005	ug/L	0.001	13	165	254	4
[	Pb	208	1.197	ug/L	0.006	0	530	36491	0
[	Bi	209		ug/L			281191	230656	0
[	Th	232	0.031	ug/L	0.002	5	225	1138	3
[	U	238	0.043	ug/L	0.000	0	54	1439	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 13:48:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

RR cd x5

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	206542	0
[	Be	9	0.009	ug/L	0.014	152	4	5	53
	C	13		mg/L			3467	4986	1
	Cl	37		mg/L			1677002	2618286	0
[>	Sc	45		ug/L			164415	189082	0
[	V	51	0.048	ug/L	0.010	21	1570	2202	3
[	V-1	51	0.329	ug/L	0.016	4	1979	5072	2
[	Cr	52	u0.166	ug/L	0.019	11	4880	6838	1
[	Cr	53	1.012	ug/L	0.032	3	682	1690	1
[	Mn	55	290.133	ug/L	2.224	0	410	3714368	1
[	Co	59	0.409	ug/L	0.003	0	40	4157	1
[>	Ge	72		ug/L			248541	243610	0
[	Ni	60	4.622	ug/L	0.104	2	42	8691	1
[	Ni	62	19.975	ug/L	2.291	11	33	5584	10
[	Cu	63	13.027	ug/L	0.234	1	145	53738	1
[	Cu	65	8.437	ug/L	0.124	1	76	16758	1
[	Zn	66	13.271	ug/L	0.126	0	511	17709	1
[	Zn	67	12.704	ug/L	0.276	2	141	2979	2
[	Zn	68	14.376	ug/L	0.195	1	6402	19499	1
[	As	75	0.550	ug/L	0.022	4	250	1034	3
[	As-1	75	0.609	ug/L	0.086	14	9167	9829	1
[	Se	82	0.564	ug/L	0.056	9	-9	90	11
[	Se	78	0.941	ug/L	0.255	27	9315	9507	1
[	Mo	98	14.378	ug/L	0.124	0	47	80428	0
	Y	89		ug/L			260781	235255	1
	Kr	83		ug/L			179	203	3
[>	In	115		ug/L			276493	284817	1
[	Ag	107	u-0.000	ug/L	0.001	874	60	61	11
[	Cd	111	-0.584	ug/L	0.092	15	169	-1221	17
[	Cd	114	0.127	ug/L	0.005	4	34	719	2
[	Sb	121	1.591	ug/L	0.015	0	48	12303	1
[	Sb	123	1.580	ug/L	0.018	1	36	9293	0
[	Ba	135	31.765	ug/L	0.335	1	19	59982	0
[	Ba	137	31.358	ug/L	0.707	2	25	103384	0
[>	Tb	159		ug/L			348843	331887	0
[	Tl	205	0.005	ug/L	0.001	22	165	245	7
[	Pb	208	u0.036	ug/L	0.001	2	530	1577	2
[	Bi	209		ug/L			281191	226478	0
[	Th	232	0.018	ug/L	0.002	9	225	735	6
[	U	238	0.094	ug/L	0.004	3	54	3072	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:55:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	230464	1
[	Be	9	53.440	ug/L	0.536	1	4	13018	0
	C	13		mg/L			3467	2802	1
	Cl	37		mg/L			1677002	2305410	0
[>	Sc	45		ug/L			164415	181402	0
[	V	51	51.737	ug/L	0.825	1	1570	413726	1
[	V-1	51	52.002	ug/L	0.811	1	1979	425554	1
[	Cr	52	52.484	ug/L	0.544	1	4880	377936	1
[	Cr	53	53.238	ug/L	1.037	1	682	46489	1
[	Mn	55	49.408	ug/L	1.098	2	410	607206	2
[	Co	59	52.637	ug/L	0.826	1	40	507178	1
[>	Ge	72		ug/L			248541	262390	0
[	Ni	60	54.646	ug/L	1.512	2	42	110178	2
[	Ni	62	56.785	ug/L	0.928	1	33	17037	1
[	Cu	63	57.154	ug/L	1.202	2	145	253418	1
[	Cu	65	56.726	ug/L	0.873	1	76	120898	1
[	Zn	66	53.747	ug/L	0.570	1	511	75603	1
[	Zn	67	54.690	ug/L	0.370	0	141	13319	0
[	Zn	68	54.590	ug/L	0.841	1	6402	60839	0
[	As	75	50.962	ug/L	0.474	0	250	78965	1
[	As-1	75	51.634	ug/L	0.348	0	9167	86755	0
[	Se	82	44.467	ug/L	0.580	1	-9	8448	1
[	Se	78	46.086	ug/L	0.463	1	9315	29730	0
[	Mo	98	49.568	ug/L	0.638	1	47	298523	0
	Y	89		ug/L			260781	242807	0
	Kr	83		ug/L			179	201	2
[>	In	115		ug/L			276493	307360	1
[	Ag	107	49.988	ug/L	0.468	0	60	510168	0
[	Cd	111	49.678	ug/L	0.810	1	169	128312	0
[	Cd	114	51.163	ug/L	0.938	1	34	298158	0
[	Sb	121	52.077	ug/L	0.487	0	48	432763	0
[	Sb	123	52.565	ug/L	0.373	0	36	332441	0
[	Ba	135	50.362	ug/L	0.874	1	19	102612	0
[	Ba	137	49.099	ug/L	0.452	0	25	174703	0
[>	Tb	159		ug/L			348843	347843	1
[	Tl	205	56.727	ug/L	0.361	0	165	1137687	1
[	Pb	208	49.868	ug/L	0.408	0	530	1545853	1
[	Bi	209		ug/L			281191	265010	1
[	Th	232	53.617	ug/L	0.708	1	225	1661390	1
[	U	238	51.791	ug/L	0.456	0	54	1736720	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:01:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	234653	1
[	Be	9	-0.006	ug/L	0.006	105	4	2	49
	C	13		mg/L			3467	3495	3
	Cl	37		mg/L			1677002	2263851	0
[>	Sc	45		ug/L			164415	178910	0
[	V	51	0.003	ug/L	0.021	686	1570	1732	9
[	V-1	51	0.093	ug/L	0.009	9	1979	2900	1
[	Cr	52	0.061	ug/L	0.034	56	4880	5733	3
[	Cr	53	0.330	ug/L	0.055	16	682	1021	4
[	Mn	55	0.013	ug/L	0.004	31	410	598	8
[	Co	59	0.000	ug/L	0.000	475	40	45	10
[>	Ge	72		ug/L			248541	261165	1
[	Ni	60	0.001	ug/L	0.003	213	42	47	12
[	Ni	62	0.612	ug/L	0.080	13	33	217	10
[	Cu	63	0.161	ug/L	0.012	7	145	863	5
[	Cu	65	0.014	ug/L	0.004	30	76	109	8
[	Zn	66	0.124	ug/L	0.010	8	511	709	2
[	Zn	67	0.236	ug/L	0.036	15	141	205	3
[	Zn	68	0.395	ug/L	0.076	19	6402	7115	0
[	As	75	0.042	ug/L	0.002	3	250	327	0
[	As-1	75	-0.102	ug/L	0.044	42	9167	9480	0
[	Se	82	-0.010	ug/L	0.059	601	-9	-12	93
[	Se	78	-0.416	ug/L	0.202	48	9315	9608	0
[	Mo	98	0.002	ug/L	0.002	121	47	60	21
	Y	89		ug/L			260781	247477	1
	Kr	83		ug/L			179	204	3
[>	In	115		ug/L			276493	303853	0
[	Ag	107	0.007	ug/L	0.002	32	60	138	16
[	Cd	111	0.019	ug/L	0.005	27	169	234	5
[	Cd	114	0.002	ug/L	0.001	54	34	49	12
[	Sb	121	0.011	ug/L	0.005	41	48	143	25
[	Sb	123	0.014	ug/L	0.004	29	36	126	19
[	Ba	135	0.003	ug/L	0.004	110	19	28	26
[	Ba	137	0.004	ug/L	0.004	99	25	43	34
[>	Tb	159		ug/L			348843	346933	0
[	Tl	205	0.014	ug/L	0.001	8	165	437	5
[	Pb	208	0.007	ug/L	0.002	28	530	734	8
[	Bi	209		ug/L			281191	267333	1
[	Th	232	0.020	ug/L	0.006	28	225	837	20
[	U	238	0.001	ug/L	0.001	62	54	96	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR63 MB1 RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Monday, November 19, 2012 14:07:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

RRO

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	243237 ✓	1
[	Be	9	0.010	ug/L	0.010	96	4	7	36
	C	13		mg/L			3467	3817	1
	Cl	37		mg/L			1677002	2241712	0
[>	Sc	45		ug/L			164415	184928 ✓	0
[	V	51	0.003	ug/L	0.026	1040	1570	1786	11
[	V-1	51	0.081	ug/L	0.018	21	1979	2898	4
[	Cr	52	0.177	ug/L	0.016	8	4880	6772	1
[	Cr	53	0.404	ug/L	0.042	10	682	1121	3
[	Mn	55	u 0.394	ug/L	0.008	2	410	5398	1
[	Co	59	0.001	ug/L	0.000	43	40	56	7
[>	Ge	72		ug/L			248541	264935 ✓	2
[	Ni	60	0.007	ug/L	0.002	28	42	59	8
[	Ni	62	0.473	ug/L	0.036	7	33	178	4
[	Cu	63	u 0.470	ug/L	0.012	2	145	2259	1
[	Cu	65	0.377	ug/L	0.003	0	76	891	2
[	Zn	66	u 0.538	ug/L	0.020	3	511	1303	3
[	Zn	67	0.578	ug/L	0.121	20	141	290	8
[	Zn	68	0.955	ug/L	0.209	21	6402	7776	0
[	As	75	0.038	ug/L	0.017	45	250	326	6
[	As-1	75	0.006	ug/L	0.058	1019	9167	9779	1
[	Se	82	0.035	ug/L	0.026	74	-9	-3	132
[	Se	78	-0.046	ug/L	0.212	465	9315	9908	1
[	Mo	98	-0.000	ug/L	0.001	173	47	47	9
	Y	89		ug/L			260781	257526	2
	Kr	83		ug/L			179	196	2
[>	In	115		ug/L			276493	315940 ✓	0
[	Ag	107	0.000	ug/L	0.001	351	60	73	18
[	Cd	111	u 0.006	ug/L	0.003	45	169	209	3
[	Cd	114	0.000	ug/L	0.001	407	34	41	19
[	Sb	121	0.004	ug/L	0.001	24	48	91	9
[	Sb	123	0.004	ug/L	0.000	6	36	66	2
[	Ba	135	0.039	ug/L	0.004	10	19	104	7
[	Ba	137	0.034	ug/L	0.001	1	25	153	1
[>	Tb	159		ug/L			348843	353183 ✓	1
[	Tl	205	0.000	ug/L	0.001	1179	165	169	8
[	Pb	208	0.130	ug/L	0.002	1	530	4635	0
[	Bi	209		ug/L			281191	272620	1
[	Th	232	0.034	ug/L	0.009	26	225	1287	21
[	U	238	-0.000	ug/L	0.000	26	54	42	6

ICP-MS Quantitative Analysis - Summary Report

RR Cu, Mn Cd Pb

Sample ID: VR63 MB2 RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Monday, November 19, 2012 14:14:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	257909	0
[	Be	9	0.016	ug/L	0.012	71	4	9	34
	C	13		mg/L			3467	3972	1
	Cl	37		mg/L			1677002	2192448	0
[>	Sc	45		ug/L			164415	202666	0
[	V	51	0.284	ug/L	0.013	4	1570	4459	2
[	V-1	51	0.290	ug/L	0.017	5	1979	5076	2
[	Cr	52	0.532	ug/L	0.007	1	4880	10232	0
[	Cr	53	0.534	ug/L	0.021	3	682	1353	1
[	Mn	55	u 0.458	ug/L	0.014	3	410	6783	2
[	Co	59	0.016	ug/L	0.000	3	40	218	2
[>	Ge	72		ug/L			248541	281899	0
[	Ni	60	0.080	ug/L	0.007	8	42	222	7
[	Ni	62	0.403	ug/L	0.046	11	33	167	8
[	Cu	63	u 0.443	ug/L	0.014	3	145	2274	2
[	Cu	65	u 0.372	ug/L	0.007	1	76	938	1
[	Zn	66	u 0.391	ug/L	0.007	1	511	1166	1
[	Zn	67	0.465	ug/L	0.022	4	141	280	1
[	Zn	68	1.002	ug/L	0.082	8	6402	8327	0
[	As	75	0.022	ug/L	0.012	55	250	321	6
[	As-1	75	0.260	ug/L	0.038	14	9167	10813	0
[	Se	82	0.055	ug/L	0.073	134	-9	0	6387
[	Se	78	0.861	ug/L	0.094	10	9315	10964	0
[	Mo	98	-0.002	ug/L	0.001	45	47	40	15
	Y	89		ug/L			260781	282986	0
	Kr	83		ug/L			179	200	7
[>	In	115		ug/L			276493	332171	1
[	Ag	107	-0.001	ug/L	0.001	68	60	57	17
[	Cd	111	u 0.008	ug/L	0.003	35	169	226	2
[	Cd	114	-0.001	ug/L	0.000	30	34	35	4
[	Sb	121	0.003	ug/L	0.001	35	48	85	10
[	Sb	123	0.004	ug/L	0.001	21	36	69	8
[	Ba	135	1.385	ug/L	0.026	1	19	3073	1
[	Ba	137	1.328	ug/L	0.008	0	25	5137	1
[>	Tb	159		ug/L			348843	365369	1
[	Tl	205	-0.004	ug/L	0.000	2	165	97	1
[	Pb	208	0.222	ug/L	0.004	1	530	7765	1
[	Bi	209		ug/L			281191	282322	0
[	Th	232	0.059	ug/L	0.002	3	225	2147	4
[	U	238	0.010	ug/L	0.000	1	54	406	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 14:20:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

RR Cd Mn x5 Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	218139	1
[	Be	9	0.001	ug/L	0.006	810	4	4	34
	C	13		mg/L			3467	4806	2
	Cl	37		mg/L			1677002	2548144	0
[>	Sc	45		ug/L			164415	200170	1
[	V	51	0.084	ug/L	0.018	21	1570	2653	5
[	V-1	51	0.260	ug/L	0.014	5	1979	4748	2
[	Cr	52	0.205	ug/L	0.014	6	4880	7549	2
[	Cr	53	0.730	ug/L	0.070	9	682	1523	5
[	Mn	55	313.597	ug/L	6.617	2	410	4249710	1
[	Co	59	0.435	ug/L	0.016	3	40	4671	2
[>	Ge	72		ug/L			248541	254902	0
[	Ni	60	4.708	ug/L	0.100	2	42	9263	2
[	Ni	62	15.046	ug/L	1.357	9	33	4410	8
[	Cu	63	8.223	ug/L	0.149	1	145	35550	1
[	Cu	65	3.751	ug/L	0.091	2	76	7840	2
[	Zn	66	18.509	ug/L	0.111	0	511	25635	1
[	Zn	67	16.691	ug/L	0.097	0	141	4049	0
[	Zn	68	19.722	ug/L	0.174	0	6402	25547	1
[	As	75	0.465	ug/L	0.047	10	250	955	7
[	As-1	75	0.942	ug/L	0.063	6	9167	10768	1
[	Se	82	0.520	ug/L	0.049	9	-9	86	10
[	Se	78	2.311	ug/L	0.150	6	9315	10523	1
[	Mo	98	13.531	ug/L	0.051	0	47	79204	0
	Y	89		ug/L			260781	256838	2
	Kr	83		ug/L			179	207	3
[>	In	115		ug/L			276493	293397	0
[	Ag	107	u -0.001	ug/L	0.000	30	60	50	8
[	Cd	111	-0.601	ug/L	0.142	23	169	-1300	26
[	Cd	114	0.143	ug/L	0.004	3	34	830	3
[	Sb	121	1.578	ug/L	0.015	0	48	12568	0
[	Sb	123	1.583	ug/L	0.016	1	36	9594	1
[	Ba	135	26.835	ug/L	0.257	0	19	52208	0
[	Ba	137	26.217	ug/L	0.112	0	25	89064	0
[>	Tb	159		ug/L			348843	328449	0
[	Tl	205	0.002	ug/L	0.000	13	165	194	1
[	Pb	208	u 0.036	ug/L	0.000	0	530	1557	0
[	Bi	209		ug/L			281191	225626	1
[	Th	232	0.008	ug/L	0.002	28	225	459	14
[	U	238	0.055	ug/L	0.000	0	54	1795	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 14:26:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

cd
RR Mn x5

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	221663	0
[	Be	9	0.001	ug/L	0.008	1513	4	4	45
	C	13		mg/L			3467	5086	4
	Cl	37		mg/L			1677002	2519977	0
[>	Sc	45		ug/L			164415	196322	0
[	V	51	0.073	ug/L	0.014	19	1570	2503	5
[	V-1	51	0.232	ug/L	0.007	3	1979	4411	1
[	Cr	52	0.226	ug/L	0.024	10	4880	7562	2
[	Cr	53	0.699	ug/L	0.003	0	682	1464	0
[	Mn	55	306.266	ug/L	2.300	0	410	4070844	0
[	Co	59	0.387	ug/L	0.004	1	40	4086	1
[>	Ge	72		ug/L			248541	253763	0
[	Ni	60	4.440	ug/L	0.070	1	42	8698	2
[	Ni	62	14.786	ug/L	1.525	10	33	4318	10
[	Cu	63	6.028	ug/L	0.193	3	145	25987	3
[	Cu	65	2.388	ug/L	0.043	1	76	4996	1
[	Zn	66	18.312	ug/L	0.174	0	511	25254	1
[	Zn	67	16.647	ug/L	0.106	0	141	4021	1
[	Zn	68	19.464	ug/L	0.115	0	6402	25186	0
[	As	75	0.496	ug/L	0.024	4	250	997	4
[	As-1	75	0.923	ug/L	0.102	11	9167	10691	1
[	Se	82	0.490	ug/L	0.061	12	-9	80	14
[	Se	78	2.127	ug/L	0.359	16	9315	10398	1
[	Mo	98	16.526	ug/L	0.039	0	47	96294	0
	Y	89		ug/L			260781	251810	0
	Kr	83		ug/L			179	210	2
[>	In	115		ug/L			276493	296290	1
[	Ag	107	-0.002	ug/L	0.000	13	60	41	6
[	Cd	111	-0.504	ug/L	0.081	16	169	-1071	18
[	Cd	114	0.143	ug/L	0.009	6	34	839	5
[	Sb	121	1.666	ug/L	0.035	2	48	13393	0
[	Sb	123	1.680	ug/L	0.023	1	36	10282	1
[	Ba	135	26.972	ug/L	0.326	1	19	52986	0
[	Ba	137	26.555	ug/L	0.541	2	25	91083	0
[>	Tb	159		ug/L			348843	332536	0
[	Tl	205	0.002	ug/L	0.000	12	165	202	2
[	Pb	208	0.038	ug/L	0.002	4	530	1643	3
[	Bi	209		ug/L			281191	233100	0
[	Th	232	0.011	ug/L	0.001	11	225	527	6
[	U	238	0.044	ug/L	0.000	0	54	1458	0

ICP-MS Quantitative Analysis - Summary Report

Cd
RR Cu Mn

Sample ID: VR63 MB1SPK RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Monday, November 19, 2012 14:32:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	262214	0
[	Be	9	22.328	ug/L	0.285	1	4	6191	1
	C	13		mg/L			3467	4059	1
	Cl	37		mg/L			1677002	2282957	0
[>	Sc	45		ug/L			164415	201827	1
[	V	51	25.134	ug/L	0.355	1	1570	224601	1
[	V-1	51	25.121	ug/L	0.292	1	1979	229958	0
[	Cr	52	25.464	ug/L	0.199	0	4880	207098	1
[	Cr	53	25.401	ug/L	0.462	1	682	25115	1
[	Mn	55	25.035	ug/L	0.392	1	410	342531	0
[	Co	59	25.735	ug/L	0.739	2	40	275869	1
[>	Ge	72		ug/L			248541	282092	1
[	Ni	60	27.776	ug/L	0.256	0	42	60235	0
[	Ni	62	29.925	ug/L	0.652	2	33	9673	3
[	Cu	63	29.476	ug/L	0.536	1	145	140590	1
[	Cu	65	29.361	ug/L	0.282	0	76	67314	0
[	Zn	66	79.384	ug/L	0.658	0	511	119762	0
[	Zn	67	72.544	ug/L	1.696	2	141	18939	1
[	Zn	68	78.368	ug/L	1.894	2	6402	90725	1
[	As	75	24.384	ug/L	0.540	2	250	40762	1
[	As-1	75	23.837	ug/L	0.399	1	9167	48654	0
[	Se	82	64.505	ug/L	1.016	1	-9	13179	0
[	Se	78	67.386	ug/L	0.769	1	9315	41848	0
[	Mo	98	0.002	ug/L	0.001	36	47	67	8
	Y	89		ug/L			260781	274100	1
	Kr	83		ug/L			179	201	4
[>	In	115		ug/L			276493	334577	0
[	Ag	107	25.011	ug/L	0.112	0	60	277921	0
[	Cd	111	22.725	ug/L	0.211	0	169	64014	1
[	Cd	114	23.299	ug/L	0.198	0	34	147846	0
[	Sb	121	0.001	ug/L	0.002	196	48	66	22
[	Sb	123	0.001	ug/L	0.001	49	36	52	8
[	Ba	135	23.362	ug/L	0.163	0	19	51832	0
[	Ba	137	23.028	ug/L	0.067	0	25	89215	0
[>	Tb	159		ug/L			348843	364013	0
[	Tl	205	28.516	ug/L	0.151	0	165	598537	0
[	Pb	208	25.100	ug/L	0.198	0	530	814486	0
[	Bi	209		ug/L			281191	287954	0
[	Th	232	26.844	ug/L	0.254	0	225	870591	0
[	U	238	26.234	ug/L	0.183	0	54	920645	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR63 MB2SPK RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Monday, November 19, 2012 14:39:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

RR Co, Cu, Mn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	269057	1
[	Be	9	22.817	ug/L	0.493	2	4	6490	0
	C	13		mg/L			3467	3918	1
	Cl	37		mg/L			1677002	2244279	0
[>	Sc	45		ug/L			164415	205992	1
[	V	51	26.766	ug/L	0.198	0	1570	243987	1
[	V-1	51	26.728	ug/L	0.127	0	1979	249576	1
[	Cr	52	27.467	ug/L	0.388	1	4880	227480	0
[	Cr	53	27.304	ug/L	0.134	0	682	27492	1
[	Mn	55	25.744	ug/L	0.293	1	410	359499	1
[	Co	59	26.923	ug/L	0.290	1	40	294581	1
[>	Ge	72		ug/L			248541	285109	0
[	Ni	60	29.043	ug/L	0.698	2	42	63649	1
[	Ni	62	30.137	ug/L	0.793	2	33	9842	2
[	Cu	63	30.457	ug/L	0.390	1	145	146819	0
[	Cu	65	30.415	ug/L	0.257	0	76	70480	1
[	Zn	66	79.539	ug/L	1.289	1	511	121274	0
[	Zn	67	72.950	ug/L	1.037	1	141	19250	0
[	Zn	68	78.271	ug/L	0.612	0	6402	91604	1
[	As	75	24.695	ug/L	0.152	0	250	41724	0
[	As-1	75	24.405	ug/L	0.141	0	9167	50100	0
[	Se	82	63.533	ug/L	0.785	1	-9	13120	0
[	Se	78	67.150	ug/L	0.882	1	9315	42185	0
[	Mo	98	0.011	ug/L	0.001	6	47	124	2
	Y	89		ug/L			260781	282549	0
	Kr	83		ug/L			179	203	1
[>	In	115		ug/L			276493	339834	0
[	Ag	107	23.126	ug/L	0.329	1	60	261010	1
[	Cd	111	22.894	ug/L	0.254	1	169	65498	0
[	Cd	114	23.393	ug/L	0.105	0	34	150774	0
[	Sb	121	0.002	ug/L	0.001	41	48	78	10
[	Sb	123	0.004	ug/L	0.001	16	36	70	6
[	Ba	135	25.416	ug/L	0.217	0	19	57273	0
[	Ba	137	24.771	ug/L	0.349	1	25	97471	1
[>	Tb	159		ug/L			348843	368805	0
[	Tl	205	29.287	ug/L	0.158	0	165	622826	0
[	Pb	208	26.024	ug/L	0.209	0	530	855586	1
[	Bi	209		ug/L			281191	291294	1
[	Th	232	28.119	ug/L	0.452	1	225	923926	1
[	U	238	27.098	ug/L	0.274	1	54	963507	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR48 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 14:45:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	249992	0
[	Be	9	0.041	ug/L	0.007	17	4	15	12
	C	13		mg/L			3467	4589	1
	Cl	37		mg/L			1677002	2286559	1
[>	Sc	45		ug/L			164415	276937	0
[	V	51	2.844	ug/L	0.062	2	1570	37224	2
[	V-1	51	2.819	ug/L	0.060	2	1979	38375	2
[	Cr	52	0.787	ug/L	0.017	2	4880	16747	1
[	Cr	53	0.847	ug/L	0.035	4	682	2260	2
[	Mn	55	845.822	ug/L	7.939	0	410	15858558	1
[	Co	59	0.903	ug/L	0.005	0	40	13351	0
[>	Ge	72		ug/L			248541	289800	0
[	Ni	60	1.743	ug/L	0.063	3	42	3929	2
[	Ni	62	2.042	ug/L	0.085	4	33	714	3
[	Cu	63	0.573	ug/L	0.012	2	145	2976	2
[	Cu	65	0.339	ug/L	0.014	4	76	886	3
[	Zn	66	1.301	ug/L	0.031	2	511	2602	1
[	Zn	67	2.877	ug/L	0.072	2	141	930	2
[	Zn	68	3.080	ug/L	0.112	3	6402	10835	1
[	As	75	785.751	ug/L	9.070	1	250	1340411	0
[	As-1	75	812.419	ug/L	9.457	1	9167	1350054	0
[	Se	82	0.875	ug/L	0.047	5	-9	172	4
[	Se	78	-0.648	ug/L	0.316	48	9315	10551	0
[	Mo	98	2.230	ug/L	0.036	1	47	14883	1
	Y	89		ug/L			260781	280111	1
	Kr	83		ug/L			179	199	2
[>	In	115		ug/L			276493	328342	0
[	Ag	107	0.024	ug/L	0.004	15	60	329	11
[	Cd	111	0.049	ug/L	0.009	18	169	337	7
[	Cd	114	0.014	ug/L	0.002	13	34	126	8
[	Sb	121	0.200	ug/L	0.001	0	48	1832	0
[	Sb	123	0.200	ug/L	0.008	4	36	1393	3
[	Ba	135	46.907	ug/L	0.900	1	19	102104	1
[	Ba	137	45.728	ug/L	0.590	1	25	173821	0
[>	Tb	159		ug/L			348843	354521	0
[	Tl	205	0.012	ug/L	0.002	18	165	405	10
[	Pb	208	0.054	ug/L	0.000	0	530	2244	0
[	Bi	209		ug/L			281191	268295	1
[	Th	232	0.052	ug/L	0.003	6	225	1873	4
[	U	238	0.036	ug/L	0.002	5	54	1299	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR48 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 14:51:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

RR x10 As, Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	243744 ✓	1
[	Be	9	0.047	ug/L	0.011	22	4	16	15
	C	13		mg/L			3467	4732	2
	Cl	37		mg/L			1677002	2297960	0
[>	Sc	45		ug/L			164415	272584	0
[	V	51	2.921	ug/L	0.029	0	1570	37555	0
[	V-1	51	2.906	ug/L	0.034	1	1979	38834	0
[	Cr	52	0.846	ug/L	0.009	1	4880	17118	1
[	Cr	53	0.939	ug/L	0.011	1	682	2343	0
[	Mn	55	876.721	ug/L	19.862	2	410	16177316	1
[	Co	59	0.929	ug/L	0.009	0	40	13513	0
[>	Ge	72		ug/L			248541	285832 ✓	1
[	Ni	60	1.828	ug/L	0.072	3	42	4061	2
[	Ni	62	1.966	ug/L	0.067	3	33	680	2
[	Cu	63	1.567	ug/L	0.037	2	145	7732	1
[	Cu	65	1.322	ug/L	0.034	2	76	3155	2
[	Zn	66	u1.514	ug/L	0.043	2	511	2891	1
[	Zn	67	3.179	ug/L	0.192	6	141	996	6
[	Zn	68	3.466	ug/L	0.162	4	6402	11102	1
[	As	75	819.737	ug/L	7.444	0	250	1379220	0
[	As-1	75	847.651	ug/L	7.791	0	9167	1388686	0
[	Se	82	0.929	ug/L	0.054	5	-9	181	5
[	Se	78	-0.666	ug/L	0.421	63	9315	10397	0
[	Mo	98	2.217	ug/L	0.053	2	47	14595	1
	Y	89		ug/L			260781	277506	0
	Kr	83		ug/L			179	199	2
[>	In	115		ug/L			276493	321035 ✓	0
[	Ag	107	0.023	ug/L	0.005	21	60	316	17
[	Cd	111	0.039	ug/L	0.004	11	169	301	4
[	Cd	114	0.007	ug/L	0.000	0	34	79	1
[	Sb	121	0.202	ug/L	0.003	1	48	1812	1
[	Sb	123	0.197	ug/L	0.005	2	36	1346	3
[	Ba	135	49.367	ug/L	0.691	1	19	105066	0
[	Ba	137	47.953	ug/L	0.677	1	25	178217	0
[>	Tb	159		ug/L			348843	346313 ✓	0
[	Tl	205	0.002	ug/L	0.000	8	165	208	1
[	Pb	208	u0.051	ug/L	0.001	2	530	2101	1
[	Bi	209		ug/L			281191	263085	0
[	Th	232	0.033	ug/L	0.002	5	225	1230	3
[	U	238	0.027	ug/L	0.001	3	54	953	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR48 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 14:58:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	243946	1
[	Be	9	25.184	ug/L	0.475	1	4	6495	0
	C	13		mg/L			3467	4551	2
	Cl	37		mg/L			1677002	2299229	0
[>	Sc	45		ug/L			164415	274946	0
[	V	51	22.555	ug/L	0.486	2	1570	274819	1
[	V-1	51	22.418	ug/L	0.443	1	1979	279909	1
[	Cr	52	20.211	ug/L	0.384	1	4880	225585	0
[	Cr	53	19.951	ug/L	0.370	1	682	27119	1
[	Mn	55	890.362	ug/L	12.534	1	410	16572554	1
[	Co	59	20.193	ug/L	0.116	0	40	294943	0
[>	Ge	72		ug/L			248541	291258	1
[	Ni	60	28.678	ug/L	0.452	1	42	64208	1
[	Ni	62	29.081	ug/L	0.568	1	33	9703	1
[	Cu	63	27.715	ug/L	0.414	1	145	136500	1
[	Cu	65	27.815	ug/L	0.271	0	76	65847	1
[	Zn	66	81.231	ug/L	0.602	0	511	126523	1
[	Zn	67	76.013	ug/L	1.035	1	141	20485	1
[	Zn	68	82.309	ug/L	0.778	0	6402	98013	0
[	As	75	820.420	ug/L	2.689	0	250	1406631	0
[	As-1	75	847.091	ug/L	3.021	0	9167	1414340	0
[	Se	82	68.100	ug/L	0.727	1	-9	14368	1
[	Se	78	70.471	ug/L	0.806	1	9315	44686	0
[	Mo	98	2.148	ug/L	0.029	1	47	14410	1
	Y	89		ug/L			260781	276853	2
	Kr	83		ug/L			179	201	6
[>	In	115		ug/L			276493	322576	0
[	Ag	107	19.226	ug/L	0.158	0	60	205984	0
[	Cd	111	24.347	ug/L	0.051	0	169	66107	0
[	Cd	114	24.895	ug/L	0.317	1	34	152308	1
[	Sb	121	0.204	ug/L	0.002	0	48	1832	0
[	Sb	123	0.196	ug/L	0.009	4	36	1345	4
[	Ba	135	72.404	ug/L	0.489	0	19	154834	0
[	Ba	137	70.923	ug/L	0.760	1	25	264848	0
[>	Tb	159		ug/L			348843	348600	0
[	Tl	205	29.324	ug/L	0.119	0	165	589456	0
[	Pb	208	25.459	ug/L	0.071	0	530	791184	0
[	Bi	209		ug/L			281191	263507	0
[	Th	232	28.620	ug/L	0.129	0	225	888894	0
[	U	238	27.458	ug/L	0.106	0	54	922820	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR63 B RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Monday, November 19, 2012 15:04:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

Mn
RR x 10 - Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	239373	0
[	Be	9	0.172	ug/L	0.041	23	4	47	21
	C	13		mg/L			3467	3981	2
	Cl	37		mg/L			1677002	1987639	1
[>	Sc	45		ug/L			164415	303492	2
[	V	51	16.377	ug/L	0.436	2	1570	220971	0
[	V-1	51	16.083	ug/L	0.437	2	1979	222595	0
[	Cr	52	4.031	ug/L	0.075	1	4880	56871	1
[	Cr	53	3.958	ug/L	0.112	2	682	6945	1
[	Mn	55	366.553	ug/L	7.730	2	410	7529193	1
[	Co	59	4.788	ug/L	0.188	3	40	77206	2
[>	Ge	72		ug/L			248541	270933	0
[	Ni	60	22.660	ug/L	0.298	1	42	47210	1
[	Ni	62	24.411	ug/L	0.804	3	33	7583	3
[	Cu	63	39.688	ug/L	0.137	0	145	181772	0
[	Cu	65	40.727	ug/L	0.106	0	76	89651	0
[	Zn	66	1652.248	ug/L	17.832	1	511	2383080	0
[	Zn	67	1549.324	ug/L	16.143	1	141	385418	1
[	Zn	68	1722.759	ug/L	24.601	1	6402	1769273	1
[	As	75	62.566	ug/L	0.198	0	250	100041	0
[	As-1	75	64.786	ug/L	0.229	0	9167	109853	0
[	Se	82	1.190	ug/L	0.011	0	-9	223	0
[	Se	78	1.713	ug/L	0.168	9	9315	10918	1
[	Mo	98	3.724	ug/L	0.013	0	47	23206	0
	Y	89		ug/L			260781	382645	0
	Kr	83		ug/L			179	226	2
[>	In	115		ug/L			276493	309756	0
[	Ag	107	0.055	ug/L	0.003	5	60	632	4
[	Cd	111	8.763	ug/L	0.092	1	169	22969	1
[	Cd	114	8.966	ug/L	0.090	1	34	52699	1
[	Sb	121	0.320	ug/L	0.004	1	48	2733	0
[	Sb	123	0.321	ug/L	0.011	3	36	2083	2
[	Ba	135	120.500	ug/L	1.064	0	19	247422	0
[	Ba	137	118.547	ug/L	1.174	0	25	425070	0
[>	Tb	159		ug/L			348843	338923	0
[	Tl	205	0.089	ug/L	0.003	3	165	1893	3
[	Pb	208	4.605	ug/L	0.025	0	530	139559	0
[	Bi	209		ug/L			281191	256832	0
[	Th	232	0.277	ug/L	0.012	4	225	8570	4
[	U	238	1.799	ug/L	0.008	0	54	58824	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:10:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	248608	1
[	Be	9	51.713	ug/L	0.731	1	4	13588	0
	C	13		mg/L			3467	2858	1
	Cl	37		mg/L			1677002	2184475	0
[>	Sc	45		ug/L			164415	185779	1
[	V	51	52.903	ug/L	1.286	2	1570	433134	1
[	V-1	51	52.889	ug/L	0.882	1	1979	443166	1
[	Cr	52	53.918	ug/L	1.490	2	4880	397398	1
[	Cr	53	53.809	ug/L	0.262	0	682	48114	1
[	Mn	55	51.717	ug/L	0.484	0	410	650858	0
[	Co	59	55.228	ug/L	0.558	1	40	544960	1
[>	Ge	72		ug/L			248541	277929	1
[	Ni	60	54.623	ug/L	1.010	1	42	116654	1
[	Ni	62	57.350	ug/L	0.705	1	33	18225	0
[	Cu	63	56.023	ug/L	0.270	0	145	263146	1
[	Cu	65	56.174	ug/L	1.226	2	76	126790	0
[	Zn	66	54.564	ug/L	0.782	1	511	81284	1
[	Zn	67	54.874	ug/L	0.494	0	141	14156	1
[	Zn	68	54.910	ug/L	0.159	0	6402	64781	1
[	As	75	50.977	ug/L	0.286	0	250	83663	0
[	As-1	75	51.759	ug/L	0.258	0	9167	92087	0
[	Se	82	46.475	ug/L	1.013	2	-9	9351	0
[	Se	78	48.761	ug/L	1.170	2	9315	32710	0
[	Mo	98	49.618	ug/L	0.672	1	47	316503	0
	Y	89		ug/L			260781	267780	0
	Kr	83		ug/L			179	222	1
[>	In	115		ug/L			276493	315524	0
[	Ag	107	52.187	ug/L	0.388	0	60	546795	0
[	Cd	111	51.622	ug/L	0.179	0	169	136885	0
[	Cd	114	52.092	ug/L	0.628	1	34	311683	1
[	Sb	121	51.714	ug/L	0.182	0	48	441201	0
[	Sb	123	51.590	ug/L	0.310	0	36	334963	0
[	Ba	135	48.507	ug/L	0.395	0	19	101472	0
[	Ba	137	47.726	ug/L	0.155	0	25	174342	0
[>	Tb	159		ug/L			348843	345625	0
[	Tl	205	58.587	ug/L	0.152	0	165	1167453	0
[	Pb	208	51.948	ug/L	0.188	0	530	1600031	0
[	Bi	209		ug/L			281191	276479	0
[	Th	232	58.192	ug/L	0.472	0	225	1791753	1
[	U	238	56.368	ug/L	0.598	1	54	1878255	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:17:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			250992	244243	1
[	Be	9	0.004	ug/L	0.003	75	4	5	13
	C	13		mg/L			3467	3478	0
	Cl	37		mg/L			1677002	2250900	0
[>	Sc	45		ug/L			164415	183914	1
[	V	51	0.014	ug/L	0.015	106	1570	1871	5
[	V-1	51	0.007	ug/L	0.003	51	1979	2267	0
[	Cr	52	0.122	ug/L	0.020	16	4880	6335	1
[	Cr	53	0.091	ug/L	0.027	30	682	842	3
[	Mn	55	0.011	ug/L	0.001	13	410	592	3
[	Co	59	0.001	ug/L	0.002	271	40	52	33
[>	Ge	72		ug/L			248541	277787	0
[	Ni	60	0.001	ug/L	0.004	364	42	49	15
[	Ni	62	1.068	ug/L	0.047	4	33	376	4
[	Cu	63	0.043	ug/L	0.004	8	145	363	4
[	Cu	65	0.012	ug/L	0.011	88	76	113	21
[	Zn	66	0.036	ug/L	0.023	65	511	624	5
[	Zn	67	0.007	ug/L	0.036	537	141	159	5
[	Zn	68	0.672	ug/L	0.212	31	6402	7860	2
[	As	75	0.018	ug/L	0.011	61	250	309	5
[	As-1	75	0.159	ug/L	0.077	48	9167	10496	1
[	Se	82	-0.044	ug/L	0.067	152	-9	-19	68
[	Se	78	0.524	ug/L	0.264	50	9315	10650	0
[	Mo	98	0.001	ug/L	0.002	195	47	60	25
	Y	89		ug/L			260781	266383	0
	Kr	83		ug/L			179	216	3
[>	In	115		ug/L			276493	321026	1
[	Ag	107	0.007	ug/L	0.003	37	60	148	20
[	Cd	111	0.013	ug/L	0.003	21	169	230	2
[	Cd	114	-0.001	ug/L	0.000	30	34	32	7
[	Sb	121	0.009	ug/L	0.003	38	48	134	22
[	Sb	123	0.009	ug/L	0.002	20	36	104	13
[	Ba	135	0.005	ug/L	0.004	80	19	32	23
[	Ba	137	0.007	ug/L	0.002	33	25	55	15
[>	Tb	159		ug/L			348843	345508	0
[	Tl	205	0.007	ug/L	0.001	13	165	293	6
[	Pb	208	0.005	ug/L	0.001	31	530	670	6
[	Bi	209		ug/L			281191	272725	0
[	Th	232	0.015	ug/L	0.004	28	225	675	19
[	U	238	0.001	ug/L	0.000	20	54	95	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:24:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				244976	0
[	Be	9		ug/L				2	50
	C	13		mg/L				3449	0
	Cl	37		mg/L				2263109	0
[>	Sc	45		ug/L				186509	1
|	V	51		ug/L				1972	3
|	V-1	51		ug/L				2281	1
|	Cr	52		ug/L				6442	1
|	Cr	53		ug/L				826	2
|	Mn	55		ug/L				548	5
[	Co	59		ug/L				47	19
[>	Ge	72		ug/L				278990	0
|	Ni	60		ug/L				47	19
|	Ni	62		ug/L				324	7
|	Cu	63		ug/L				325	9
|	Cu	65		ug/L				106	12
|	Zn	66		ug/L				877	25
|	Zn	67		ug/L				208	16
|	Zn	68		ug/L				8147	0
|	As	75		ug/L				313	6
|	As-1	75		ug/L				10586	0
|	Se	82		ug/L				-5	131
|	Se	78		ug/L				10757	0
[	Mo	98		ug/L				24	15
	Y	89		ug/L				266978	1
	Kr	83		ug/L				211	3
[>	In	115		ug/L				317040	0
|	Ag	107		ug/L				117	16
|	Cd	111		ug/L				226	4
|	Cd	114		ug/L				36	3
|	Sb	121		ug/L				52	30
|	Sb	123		ug/L				47	9
|	Ba	135		ug/L				24	5
[	Ba	137		ug/L				41	19
[>	Tb	159		ug/L				346907	0
|	Tl	205		ug/L				308	1
|	Pb	208		ug/L				773	10
|	Bi	209		ug/L				275682	1
|	Th	232		ug/L				274	18
[	U	238		ug/L				51	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:32:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	246185	0
[	Be	9	53.051	ug/L	0.911	1	2	13803	1
	C	13		mg/L			3449	2793	1
	Cl	37		mg/L			2263109	2203890	0
[>	Sc	45		ug/L			186509	184309	0
[	V	51	53.063	ug/L	1.014	1	1972	431245	1
[	V-1	51	53.253	ug/L	0.760	1	2281	442734	1
[	Cr	52	53.944	ug/L	0.986	1	6442	395413	1
[	Cr	53	54.461	ug/L	0.208	0	826	48356	0
[	Mn	55	52.080	ug/L	0.163	0	548	650360	0
[	Co	59	55.589	ug/L	0.449	0	47	544234	1
[>	Ge	72		ug/L			278990	276735	1
[	Ni	60	54.969	ug/L	1.052	1	47	116885	0
[	Ni	62	55.482	ug/L	2.149	3	324	17838	2
[	Cu	63	56.128	ug/L	0.901	1	325	262636	0
[	Cu	65	56.168	ug/L	0.616	1	106	126273	1
[	Zn	66	53.887	ug/L	0.923	1	877	80231	0
[	Zn	67	53.571	ug/L	0.502	0	208	13813	1
[	Zn	68	54.055	ug/L	0.416	0	8147	64563	1
[	As	75	50.708	ug/L	0.267	0	313	82898	1
[	As-1	75	51.376	ug/L	0.352	0	10586	91383	0
[	Se	82	46.744	ug/L	0.733	1	-5	9371	0
[	Se	78	48.634	ug/L	1.330	2	10757	32810	0
[	Mo	98	49.703	ug/L	0.791	1	24	315657	0
	Y	89		ug/L			266978	264045	1
	Kr	83		ug/L			211	218	1
[>	In	115		ug/L			317040	313006	1
[	Ag	107	52.300	ug/L	1.134	2	117	543546	0
[	Cd	111	51.072	ug/L	0.584	1	226	134367	0
[	Cd	114	52.160	ug/L	0.597	1	36	309562	0
[	Sb	121	51.594	ug/L	0.802	1	52	436599	0
[	Sb	123	51.698	ug/L	0.828	1	47	332941	0
[	Ba	135	48.915	ug/L	0.882	1	24	101493	0
[	Ba	137	47.791	ug/L	0.967	2	41	173163	0
[>	Tb	159		ug/L			346907	341610	0
[	Tl	205	58.871	ug/L	0.270	0	308	1159647	0
[	Pb	208	51.985	ug/L	0.496	0	773	1582752	0
[	Bi	209		ug/L			275682	271248	0
[	Th	232	57.824	ug/L	0.806	1	274	1759700	0
[	U	238	56.184	ug/L	0.566	1	51	1850293	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:38:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	245800	1
[	Be	9	0.008	ug/L	0.010	123	2	4	56
	C	13		mg/L			3449	3335	3
	Cl	37		mg/L			2263109	2203639	0
[>	Sc	45		ug/L			186509	185176	0
[	V	51	0.004	ug/L	0.008	200	1972	1989	2
[	V-1	51	-0.012	ug/L	0.002	15	2281	2164	0
[	Cr	52	-0.033	ug/L	0.005	14	6442	6158	0
[	Cr	53	-0.079	ug/L	0.018	22	826	751	2
[	Mn	55	0.004	ug/L	0.003	79	548	588	5
[	Co	59	0.000	ug/L	0.001	198	47	51	17
[>	Ge	72		ug/L			278990	276221	0
[	Ni	60	-0.002	ug/L	0.002	86	47	42	8
[	Ni	62	-0.233	ug/L	0.043	18	324	247	5
[	Cu	63	-0.005	ug/L	0.007	150	325	300	11
[	Cu	65	-0.003	ug/L	0.003	108	106	98	6
[	Zn	66	0.043	ug/L	0.042	96	877	933	7
[	Zn	67	-0.025	ug/L	0.061	245	208	200	7
[	Zn	68	0.024	ug/L	0.043	179	8147	8091	1
[	As	75	-0.004	ug/L	0.008	212	313	304	5
[	As-1	75	0.021	ug/L	0.134	649	10586	10512	1
[	Se	82	0.032	ug/L	0.067	211	-5	0	2660
[	Se	78	0.097	ug/L	0.477	491	10757	10693	1
[	Mo	98	0.006	ug/L	0.004	57	24	62	36
	Y	89		ug/L			266978	269325	0
	Kr	83		ug/L			211	204	5
[>	In	115		ug/L			317040	314757	0
[	Ag	107	0.002	ug/L	0.003	124	117	141	21
[	Cd	111	0.003	ug/L	0.005	180	226	231	5
[	Cd	114	0.000	ug/L	0.001	975	36	36	8
[	Sb	121	0.010	ug/L	0.005	46	52	139	29
[	Sb	123	0.008	ug/L	0.004	54	47	98	27
[	Ba	135	-0.000	ug/L	0.002	696	24	23	18
[	Ba	137	-0.001	ug/L	0.002	346	41	39	20
[>	Tb	159		ug/L			346907	345315	0
[	Tl	205	0.001	ug/L	0.001	75	308	333	6
[	Pb	208	0.002	ug/L	0.002	86	773	837	6
[	Bi	209		ug/L			275682	276071	1
[	Th	232	0.017	ug/L	0.006	36	274	787	24
[	U	238	0.002	ug/L	0.001	36	51	103	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 A REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, November 19, 2012 15:48:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR ea

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	232765	1
[	Be	9	0.024	ug/L	0.017	68	2	8	48
	C	13		mg/L			3449	3902	1
	Cl	37		mg/L			2263109	2245346	0
[>	Sc	45		ug/L			186509	182019	1
[	V	51	0.027	ug/L	0.040	149	1972	2135	13
[	V-1	51	0.091	ug/L	0.011	12	2281	2967	1
[	Cr	52	u 0.054	ug/L	0.019	34	6442	6670	0
[	Cr	53	0.246	ug/L	0.084	34	826	1019	8
[	Mn	55	145.883	ug/L	5.876	4	548	1797636	3
[	Co	59	0.191	ug/L	0.007	3	47	1894	2
[>	Ge	72		ug/L			278990	261708	0
[	Ni	60	1.849	ug/L	0.026	1	47	3762	0
[	Ni	62	4.130	ug/L	0.741	17	324	1536	13
[	Cu	63	5.645	ug/L	0.152	2	325	25253	2
[	Cu	65	4.070	ug/L	0.185	4	106	8745	4
[	Zn	66	14.029	ug/L	0.366	2	877	20364	2
[	Zn	67	12.579	ug/L	0.357	2	208	3217	3
[	Zn	68	13.970	ug/L	0.625	4	8147	21446	2
[	As	75	0.229	ug/L	0.029	12	313	645	6
[	As-1	75	0.310	ug/L	0.063	20	10586	10391	0
[	Se	82	0.218	ug/L	0.089	40	-5	35	46
[	Se	78	0.534	ug/L	0.237	44	10757	10320	0
[	Mo	98	6.063	ug/L	0.141	2	24	36432	2
	Y	89		ug/L			266978	259124	1
	Kr	83		ug/L			211	204	1
[>	In	115		ug/L			317040	293362	1
[	Ag	107	u -0.004	ug/L	0.002	47	117	74	23
[	Cd	111	-0.176	ug/L	0.037	20	226	-225	41
[	Cd	114	u 0.060	ug/L	0.003	4	36	364	3
[	Sb	121	0.658	ug/L	0.013	1	52	5265	1
[	Sb	123	0.666	ug/L	0.032	4	47	4064	5
[	Ba	135	12.482	ug/L	0.378	3	24	24289	2
[	Ba	137	12.275	ug/L	0.349	2	41	41717	2
[>	Tb	159		ug/L			346907	332748	1
[	Tl	205	-0.003	ug/L	0.001	35	308	242	8
[	Pb	208	0.165	ug/L	0.007	4	773	5639	2
[	Bi	209		ug/L			275682	248909	0
[	Th	232	0.019	ug/L	0.003	15	274	811	9
[	U	238	0.042	ug/L	0.000	0	51	1401	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 B REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, November 19, 2012 15:54:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR CL

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	241406 ✓	0
[	Be	9	0.013	ug/L	0.020	149	2	5	86
	C	13		mg/L			3449	3716	0
	Cl	37		mg/L			2263109	2228815	0
[>	Sc	45		ug/L			186509	181924 ✓	2
[	V	51	0.038	ug/L	0.015	38	1972	2225	6
[	V-1	51	0.083	ug/L	0.006	7	2281	2906	1
[	Cr	52	A 0.039	ug/L	0.009	23	6442	6560	3
[	Cr	53	0.177	ug/L	0.043	24	826	958	3
[	Mn	55	150.748	ug/L	2.427	1	548	1856724	1
[	Co	59	0.196	ug/L	0.007	3	47	1943	3
[>	Ge	72		ug/L			278990	261023 ✓	0
[	Ni	60	1.860	ug/L	0.041	2	47	3774	2
[	Ni	62	4.292	ug/L	0.324	7	324	1582	6
[	Cu	63	4.108	ug/L	0.058	1	325	18416	1
[	Cu	65	2.306	ug/L	0.049	2	106	4984	1
[	Zn	66	10.905	ug/L	0.085	0	877	15970	0
[	Zn	67	9.825	ug/L	0.090	0	208	2549	1
[	Zn	68	10.786	ug/L	0.134	1	8147	18253	1
[	As	75	0.233	ug/L	0.005	2	313	650	1
[	As-1	75	0.182	ug/L	0.036	19	10586	10175	0
[	Se	82	0.301	ug/L	0.034	11	-5	51	12
[	Se	78	0.164	ug/L	0.141	85	10757	10135	0
[	Mo	98	5.638	ug/L	0.057	1	24	33796	1
	Y	89		ug/L			266978	260844	0
	Kr	83		ug/L			211	202	2
[>	In	115		ug/L			317040	295072 ✓	0
[	Ag	107	U -0.006	ug/L	0.001	13	117	52	15
[	Cd	111	-0.184	ug/L	0.044	23	226	-244	44
[	Cd	114	U 0.064	ug/L	0.001	2	36	392	2
[	Sb	121	0.693	ug/L	0.006	0	52	5575	1
[	Sb	123	0.689	ug/L	0.005	0	47	4228	0
[	Ba	135	11.402	ug/L	0.156	1	24	22324	1
[	Ba	137	11.142	ug/L	0.135	1	41	38095	1
[>	Tb	159		ug/L			346907	337288 ✓	0
[	Tl	205	-0.001	ug/L	0.001	80	308	271	8
[	Pb	208	U 0.057	ug/L	0.003	5	773	2474	3
[	Bi	209		ug/L			275682	252382	0
[	Th	232	0.008	ug/L	0.001	8	274	500	3
[	U	238	0.025	ug/L	0.000	1	51	850	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 C REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, November 19, 2012 16:00:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	240978 ✓	1
[	Be	9	0.002	ug/L	0.003	165	2	2	24
	C	13		mg/L			3449	3897	1
	Cl	37		mg/L			2263109	2176638	0
[>	Sc	45		ug/L			186509	177824 ✓	0
[	V	51	0.023	ug/L	0.011	47	1972	2062	3
[	V-1	51	0.078	ug/L	0.001	1	2281	2798	0
[	Cr	52	U 0.075	ug/L	0.029	38	6442	6665	3
[	Cr	53	0.238	ug/L	0.023	9	826	988	2
[	Mn	55	147.709	ug/L	2.671	1	548	1778724	1
[	Co	59	0.175	ug/L	0.005	2	47	1696	2
[>	Ge	72		ug/L			278990	259704 ✓	0
[	Ni	60	1.803	ug/L	0.034	1	47	3642	1
[	Ni	62	3.827	ug/L	0.403	10	324	1436	8
[	Cu	63	2.663	ug/L	0.030	1	325	11983	1
[	Cu	65	1.314	ug/L	0.029	2	106	2868	1
[	Zn	66	11.773	ug/L	0.198	1	877	17089	1
[	Zn	67	10.621	ug/L	0.373	3	208	2725	2
[	Zn	68	11.627	ug/L	0.385	3	8147	18983	1
[	As	75	0.237	ug/L	0.011	4	313	654	2
[	As-1	75	0.097	ug/L	0.057	59	10586	9997	0
[	Se	82	0.247	ug/L	0.002	0	-5	41	1
[	Se	78	-0.169	ug/L	0.177	104	10757	9940	0
[	Mo	98	6.903	ug/L	0.168	2	24	41164	2
	Y	89		ug/L			266978	257627	0
	Kr	83		ug/L			211	207	1
[>	In	115		ug/L			317040	295698 ✓	0
[	Ag	107	U -0.007	ug/L	0.001	13	117	39	23
[	Cd	111	-0.159	ug/L	0.024	15	226	-182	32
[	Cd	114	U 0.070	ug/L	0.009	12	36	426	11
[	Sb	121	0.730	ug/L	0.018	2	52	5885	1
[	Sb	123	0.733	ug/L	0.015	2	47	4502	1
[	Ba	135	11.433	ug/L	0.361	3	24	22428	2
[	Ba	137	11.312	ug/L	0.340	3	41	38751	2
[>	Tb	159		ug/L			346907	336344 ✓	0
[	Tl	205	-0.002	ug/L	0.001	47	308	251	8
[	Pb	208	0.532	ug/L	0.014	2	773	16699	2
[	Bi	209		ug/L			275682	256023	1
[	Th	232	0.006	ug/L	0.001	13	274	434	4
[	U	238	0.020	ug/L	0.001	5	51	689	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 D REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, November 19, 2012 16:07:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	240988 ✓	1
[	Be	9	0.008	ug/L	0.003	34	2	4	15
	C	13		mg/L			3449	3952	2
	Cl	37		mg/L			2263109	2191080	0
[>	Sc	45		ug/L			186509	180912 ✓	1
[	V	51	0.015	ug/L	0.007	48	1972	2034	4
[	V-1	51	0.069	ug/L	0.013	19	2281	2775	2
[	Cr	52	u 0.025	ug/L	0.020	77	6442	6430	3
[	Cr	53	0.189	ug/L	0.048	25	826	963	2
[	Mn	55	138.210	ug/L	4.062	2	548	1692797	1
[	Co	59	0.183	ug/L	0.005	2	47	1805	1
[>	Ge	72		ug/L			278990	258930 ✓	0
[	Ni	60	1.909	ug/L	0.041	2	47	3841	2
[	Ni	62	4.318	ug/L	0.468	10	324	1576	8
[	Cu	63	4.929	ug/L	0.063	1	325	21857	0
[	Cu	65	3.371	ug/L	0.071	2	106	7184	1
[	Zn	66	5.365	ug/L	0.123	2	877	8207	1
[	Zn	67	5.157	ug/L	0.442	8	208	1418	7
[	Zn	68	5.526	ug/L	0.244	4	8147	12963	1
[	As	75	0.225	ug/L	0.022	9	313	633	5
[	As-1	75	0.251	ug/L	0.124	49	10586	10195	1
[	Se	82	0.295	ug/L	0.067	22	-5	49	24
[	Se	78	0.407	ug/L	0.418	102	10757	10156	1
[	Mo	98	5.900	ug/L	0.136	2	24	35081	2
	Y	89		ug/L			266978	261072	2
	Kr	83		ug/L			211	197	3
[>	In	115		ug/L			317040	291716 ✓	1
[	Ag	107	u -0.006	ug/L	0.001	17	117	50	20
[	Cd	111	-0.187	ug/L	0.040	21	226	-250	39
[	Cd	114	u 0.053	ug/L	0.001	1	36	328	1
[	Sb	121	0.623	ug/L	0.025	4	52	4960	3
[	Sb	123	0.629	ug/L	0.032	5	47	3816	4
[	Ba	135	12.588	ug/L	0.335	2	24	24358	1
[	Ba	137	12.353	ug/L	0.529	4	41	41738	3
[>	Tb	159		ug/L			346907	337607 ✓	0
[	Tl	205	-0.003	ug/L	0.001	17	308	242	4
[	Pb	208	(A) 0.008	ug/L	0.002	25	773	991	5
[	Bi	209		ug/L			275682	254894	0
[	Th	232	0.001	ug/L	0.000	15	274	305	1
[	U	238	0.043	ug/L	0.003	6	51	1450	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 E REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, November 19, 2012 16:13:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	242805	0
[	Be	9	0.008	ug/L	0.010	123	2	4	56
	C	13		mg/L			3449	4086	1
	Cl	37		mg/L			2263109	2207875	0
[>	Sc	45		ug/L			186509	180617	0
[	V	51	0.034	ug/L	0.001	2	1972	2183	1
[	V-1	51	0.067	ug/L	0.004	5	2281	2750	1
[	Cr	52	0.047	ug/L	0.016	33	6442	6573	0
[	Cr	53	0.144	ug/L	0.016	11	826	923	1
[	Mn	55	149.363	ug/L	4.191	2	548	1826551	1
[	Co	59	0.193	ug/L	0.009	4	47	1898	3
[>	Ge	72		ug/L			278990	259438	0
[	Ni	60	1.898	ug/L	0.021	1	47	3826	1
[	Ni	62	5.012	ug/L	0.623	12	324	1786	10
[	Cu	63	3.220	ug/L	0.056	1	325	14412	1
[	Cu	65	1.521	ug/L	0.035	2	106	3302	2
[	Zn	66	7.797	ug/L	0.151	1	877	11582	1
[	Zn	67	7.216	ug/L	0.178	2	208	1912	2
[	Zn	68	8.027	ug/L	0.197	2	8147	15438	0
[	As	75	0.206	ug/L	0.019	9	313	606	5
[	As-1	75	0.248	ug/L	0.062	24	10586	10209	0
[	Se	82	0.267	ug/L	0.021	7	-5	44	8
[	Se	78	0.423	ug/L	0.246	58	10757	10183	0
[	Mo	98	5.472	ug/L	0.172	3	24	32600	2
	Y	89		ug/L			266978	260375	0
	Kr	83		ug/L			211	197	5
[>	In	115		ug/L			317040	294619	0
[	Ag	107	u 0.008	ug/L	0.000	3	117	34	7
[	Cd	111	-0.223	ug/L	0.022	9	226	-342	15
[	Cd	114	h 0.059	ug/L	0.004	6	36	364	5
[	Sb	121	0.659	ug/L	0.017	2	52	5294	2
[	Sb	123	0.664	ug/L	0.011	1	47	4067	1
[	Ba	135	10.967	ug/L	0.184	1	24	21439	1
[	Ba	137	10.691	ug/L	0.238	2	41	36498	2
[>	Tb	159		ug/L			346907	334215	1
[	Tl	205	-0.004	ug/L	0.000	4	308	227	2
[	Pb	208	h 0.007	ug/L	0.002	32	773	945	6
[	Bi	209		ug/L			275682	252722	1
[	Th	232	0.001	ug/L	0.001	47	274	308	7
[	U	238	0.024	ug/L	0.001	5	51	830	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS62 F REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, November 19, 2012 16:19:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	244994 ✓	0
[	Be	9	0.006	ug/L	0.012	188	2	4	75
	C	13		mg/L			3449	4023	2
	Cl	37		mg/L			2263109	2179230	0
[>	Sc	45		ug/L			186509	180213 ✓	1
[	V	51	0.035	ug/L	0.014	41	1972	2181	3
[	V-1	51	0.056	ug/L	0.011	19	2281	2659	2
[	Cr	52	0.057	ug/L	0.029	51	6442	6623	2
[	Cr	53	0.120	ug/L	0.016	13	826	901	2
[	Mn	55	145.101	ug/L	4.140	2	548	1770326	1
[	Co	59	0.166	ug/L	0.005	2	47	1635	1
[>	Ge	72		ug/L			278990	262591 ✓	0
[	Ni	60	1.819	ug/L	0.051	2	47	3713	2
[	Ni	62	4.162	ug/L	0.271	6	324	1553	5
[	Cu	63	2.222	ug/L	0.058	2	325	10159	2
[	Cu	65	0.927	ug/L	0.008	0	106	2076	1
[	Zn	66	7.577	ug/L	0.215	2	877	11415	2
[	Zn	67	6.846	ug/L	0.265	3	208	1846	2
[	Zn	68	7.619	ug/L	0.219	2	8147	15222	1
[	As	75	0.191	ug/L	0.005	2	313	590	0
[	As-1	75	0.174	ug/L	0.080	46	10586	10224	0
[	Se	82	0.238	ug/L	0.035	14	-5	39	16
[	Se	78	0.193	ug/L	0.288	149	10757	10207	0
[	Mo	98	6.623	ug/L	0.107	1	24	39933	1
	Y	89		ug/L			266978	262082	0
	Kr	83		ug/L			211	199	3
[>	In	115		ug/L			317040	297431 ✓	0
[	Ag	107	u -0.007	ug/L	0.001	9	117	39	17
[	Cd	111	-0.177	ug/L	0.050	28	226	-228	53
[	Cd	114	u 0.057	ug/L	0.005	9	36	357	8
[	Sb	121	0.692	ug/L	0.020	2	52	5611	2
[	Sb	123	0.681	ug/L	0.022	3	47	4211	2
[	Ba	135	10.837	ug/L	0.280	2	24	21385	1
[	Ba	137	10.670	ug/L	0.324	3	41	36769	2
[>	Tb	159		ug/L			346907	335056 ✓	0
[	Tl	205	-0.004	ug/L	0.001	16	308	221	5
[	Pb	208	u 0.011	ug/L	0.002	20	773	1067	5
[	Bi	209		ug/L			275682	257343	1
[	Th	232	-0.000	ug/L	0.001	728	274	261	8
[	U	238	0.020	ug/L	0.001	6	51	688	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR48 ADUP REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, November 19, 2012 16:26:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	261049	1
[	Be	9	0.016	ug/L	0.005	32	2	7	20
	C	13		mg/L			3449	3637	2
	Cl	37		mg/L			2263109	2086108	0
[>	Sc	45		ug/L			186509	198624	1
[	V	51	0.713	ug/L	0.020	2	1972	8312	1
[	V-1	51	0.688	ug/L	0.028	4	2281	8560	1
[	Cr	52	0.102	ug/L	0.014	13	6442	7651	2
[	Cr	53	0.068	ug/L	0.026	39	826	943	1
[	Mn	55	236.678	ug/L	8.122	3	548	3182714	3
[	Co	59	0.248	ug/L	0.008	3	47	2669	2
[>	Ge	72		ug/L			278990	280064	1
[	Ni	60	0.374	ug/L	0.040	10	47	852	8
[	Ni	62	0.829	ug/L	0.088	10	324	590	3
[	Cu	63	0.140	ug/L	0.006	4	325	988	1
[	Cu	65	0.066	ug/L	0.004	6	106	257	3
[	Zn	66	0.064	ug/L	0.020	30	877	976	2
[	Zn	67	0.318	ug/L	0.079	24	208	291	6
[	Zn	68	0.002	ug/L	0.086	4468	8147	8180	1
[	As	75	167.531	ug/L	6.016	3	313	276430	3
[	As-1	75	172.928	ug/L	6.251	3	10586	286124	3
[	Se	82	0.134	ug/L	0.066	49	-5	21	62
[	Se	78	-1.193	ug/L	0.418	35	10757	10247	0
[	Mo	98	0.439	ug/L	0.027	6	24	2842	5
	Y	89		ug/L			266978	271983	0
	Kr	83		ug/L			211	210	3
[>	In	115		ug/L			317040	322091	0
[	Ag	107	-0.003	ug/L	0.000	13	117	91	4
[	Cd	111	-0.001	ug/L	0.005	780	226	228	5
[	Cd	114	0.002	ug/L	0.002	117	36	49	30
[	Sb	121	0.037	ug/L	0.002	6	52	373	5
[	Sb	123	0.037	ug/L	0.003	7	47	291	6
[	Ba	135	9.490	ug/L	0.292	3	24	20285	3
[	Ba	137	9.401	ug/L	0.290	3	41	35090	3
[>	Tb	159		ug/L			346907	355513	0
[	Tl	205	-0.000	ug/L	0.001	214	308	309	4
[	Pb	208	0.003	ug/L	0.001	25	773	895	2
[	Bi	209		ug/L			275682	290237	0
[	Th	232	0.003	ug/L	0.000	13	274	387	3
[	U	238	0.007	ug/L	0.000	6	51	278	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR48 A REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, November 19, 2012 16:32:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	261245	1
[	Be	9	0.010	ug/L	0.007	67	2	5	35
	C	13		mg/L			3449	3608	0
	Cl	37		mg/L			2263109	2085523	0
[>	Sc	45		ug/L			186509	196121	0
[	V	51	0.729	ug/L	0.014	1	1972	8353	1
[	V-1	51	0.710	ug/L	0.005	0	2281	8646	1
[	Cr	52	0.129	ug/L	0.019	14	6442	7763	2
[	Cr	53	0.109	ug/L	0.017	15	826	970	1
[	Mn	55	240.096	ug/L	7.666	3	548	3188701	3
[	Co	59	0.260	ug/L	0.011	4	47	2760	4
[>	Ge	72		ug/L			278990	277177	0
[	Ni	60	0.384	ug/L	0.007	1	47	865	2
[	Ni	62	0.493	ug/L	0.106	21	324	478	6
[	Cu	63	0.339	ug/L	0.014	4	325	1910	3
[	Cu	65	0.271	ug/L	0.022	7	106	715	6
[	Zn	66	u 0.234	ug/L	0.049	21	877	1216	5
[	Zn	67	0.534	ug/L	0.091	17	208	343	7
[	Zn	68	0.184	ug/L	0.045	24	8147	8286	0
[	As	75	174.670	ug/L	3.784	2	313	285235	1
[	As-1	75	180.391	ug/L	3.950	2	10586	294956	1
[	Se	82	0.172	ug/L	0.086	49	-5	28	59
[	Se	78	-0.892	ug/L	0.228	25	10757	10280	0
[	Mo	98	0.473	ug/L	0.013	2	24	3035	2
	Y	89		ug/L			266978	271051	1
	Kr	83		ug/L			211	205	2
[>	In	115		ug/L			317040	315868	0
[	Ag	107	-0.005	ug/L	0.001	26	117	66	21
[	Cd	111	0.015	ug/L	0.012	76	226	266	12
[	Cd	114	-0.001	ug/L	0.000	12	36	28	4
[	Sb	121	0.040	ug/L	0.004	9	52	390	8
[	Sb	123	0.037	ug/L	0.005	13	47	290	11
[	Ba	135	9.931	ug/L	0.260	2	24	20816	2
[	Ba	137	9.695	ug/L	0.196	2	41	35486	1
[>	Tb	159		ug/L			346907	351080	0
[	Tl	205	-0.003	ug/L	0.002	54	308	252	13
[	Pb	208	u 0.012	ug/L	0.001	10	773	1168	3
[	Bi	209		ug/L			275682	286638	0
[	Th	232	0.002	ug/L	0.000	15	274	330	2
[	U	238	0.005	ug/L	0.001	10	51	227	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR48 ASPK REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, November 19, 2012 16:38:36
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

RR Cu

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	257768	0
[	Be	9	5.110	ug/L	0.167	3	2	1394	3
	C	13		mg/L			3449	3525	2
	Cl	37		mg/L			2263109	2079783	0
[>	Sc	45		ug/L			186509	194913	1
[	V	51	5.773	ug/L	0.052	0	1972	51462	2
[	V-1	51	5.764	ug/L	0.022	0	2281	52809	1
[	Cr	52	5.180	ug/L	0.065	1	6442	46238	1
[	Cr	53	5.192	ug/L	0.155	2	826	5655	1
[	Mn	55	240.553	ug/L	2.910	1	548	3174412	0
[	Co	59	5.485	ug/L	0.012	0	47	56830	1
[>	Ge	72		ug/L			278990	275135	0
[	Ni	60	5.861	ug/L	0.053	0	47	12434	0
[	Ni	62	5.869	ug/L	0.057	0	324	2162	0
[	Cu	63	5.839	ug/L	0.071	1	325	27456	1
[	Cu	65	5.799	ug/L	0.064	1	106	13056	0
[	Zn	66	17.966	ug/L	0.429	2	877	27175	2
[	Zn	67	16.769	ug/L	0.140	0	208	4440	0
[	Zn	68	17.727	ug/L	0.274	1	8147	26451	1
[	As	75	174.698	ug/L	0.268	0	313	283200	0
[	As-1	75	180.101	ug/L	0.223	0	10586	292348	0
[	Se	82	15.729	ug/L	0.216	1	-5	3131	1
[	Se	78	15.376	ug/L	0.108	0	10757	17569	0
[	Mo	98	0.442	ug/L	0.004	1	24	2815	1
	Y	89		ug/L			266978	272185	0
	Kr	83		ug/L			211	197	4
[>	In	115		ug/L			317040	316331	0
[	Ag	107	4.038	ug/L	0.026	0	117	42524	0
[	Cd	111	5.091	ug/L	0.088	1	226	13742	2
[	Cd	114	5.168	ug/L	0.043	0	36	31032	0
[	Sb	121	0.039	ug/L	0.002	6	52	388	5
[	Sb	123	0.039	ug/L	0.001	2	47	303	1
[	Ba	135	14.491	ug/L	0.275	1	24	30405	1
[	Ba	137	14.219	ug/L	0.127	0	41	52105	0
[>	Tb	159		ug/L			346907	350384	0
[	Tl	205	6.227	ug/L	0.049	0	308	126084	0
[	Pb	208	5.514	ug/L	0.029	0	773	172887	0
[	Bi	209		ug/L			275682	290000	0
[	Th	232	6.232	ug/L	0.038	0	274	194766	0
[	U	238	6.062	ug/L	0.045	0	51	204825	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VQ67 X REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:44:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			244976	230816	2
[	**Be**	**9**	**0.014**	ug/L	0.021	146	2	5	86
	C	**13**		mg/L			3449	3173	1
	Cl	**37**		mg/L			2263109	8115448	1
[>	**Sc**	**45**		ug/L			186509	183020	3
|	**V**	**51**	**-0.564**	ug/L	0.193	34	1972	-2562	57
|	**V-1**	**51**	**4.221**	ug/L	0.409	9	2281	36980	12
|	**Cr**	**52**	**0.297**	ug/L	0.066	22	6442	8460	8
|	**Cr**	**53**	**14.741**	ug/L	0.741	5	826	13601	7
|	**Mn**	**55**	**30.398**	ug/L	0.910	2	548	376987	1
[	**Co**	**59**	**0.138**	ug/L	0.008	5	47	1383	4
[>	**Ge**	**72**		ug/L			278990	238688	1
|	**Ni**	**60**	**1.409**	ug/L	0.082	5	47	2625	7
|	**Ni**	**62**	**11.500**	ug/L	0.327	2	324	3409	2
|	**Cu**	**63**	**6.106**	ug/L	0.110	1	325	24897	2
|	**Cu**	**65**	**0.534**	ug/L	0.021	3	106	1126	3
|	**Zn**	**66**	**0.809**	ug/L	0.019	2	877	1779	2
|	**Zn**	**67**	**1.718**	ug/L	0.193	11	208	555	9
|	**Zn**	**68**	**0.931**	ug/L	0.191	20	8147	7807	0
|	**As**	**75**	**1.143**	ug/L	0.045	3	313	1873	3
|	**As-1**	**75**	**0.498**	ug/L	0.124	24	10586	9731	0
|	**Se**	**82**	**3.013**	ug/L	0.114	3	-5	516	5
|	**Se**	**78**	**1.550**	ug/L	0.343	22	10757	9810	0
[	**Mo**	**98**	**0.644**	ug/L	0.020	3	24	3545	2
	Y	**89**		ug/L			266978	253063	2
	Kr	**83**		ug/L			211	263	4
[>	**In**	**115**		ug/L			317040	267560	1
|	**Ag**	**107**	**0.002**	ug/L	0.000	18	117	114	1
|	**Cd**	**111**	**-0.702**	ug/L	0.178	25	226	-1385	29
|	**Cd**	**114**	**0.007**	ug/L	0.003	37	36	66	20
|	**Sb**	**121**	**0.012**	ug/L	0.002	16	52	128	11
|	**Sb**	**123**	**0.012**	ug/L	0.000	3	47	103	3
|	**Ba**	**135**	**12.808**	ug/L	0.191	1	24	22734	1
[	**Ba**	**137**	**12.601**	ug/L	0.284	2	41	39056	1
[>	**Tb**	**159**		ug/L			346907	307686	0
|	**Tl**	**205**	**0.003**	ug/L	0.001	44	308	324	7
|	**Pb**	**208**	**0.018**	ug/L	0.001	7	773	1175	3
|	**Bi**	**209**		ug/L			275682	222504	0
|	**Th**	**232**	**0.013**	ug/L	0.001	7	274	590	4
[	**U**	**238**	**0.113**	ug/L	0.003	2	51	3402	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 16:51:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	262199	0
[	Be	9	51.653	ug/L	0.770	1	2	14313	0
	C	13		mg/L			3449	2732	3
	Cl	37		mg/L			2263109	2031595	0
[>	Sc	45		ug/L			186509	173216	0
[	V	51	53.600	ug/L	0.400	0	1972	409384	0
[	V-1	51	53.965	ug/L	0.305	0	2281	421633	0
[	Cr	52	56.093	ug/L	0.889	1	6442	379411	1
[	Cr	53	56.099	ug/L	0.858	1	826	46790	1
[	Mn	55	54.637	ug/L	0.511	0	548	641193	0
[	Co	59	56.700	ug/L	1.522	2	47	521679	2
[>	Ge	72		ug/L			278990	267442	1
[	Ni	60	53.846	ug/L	0.018	0	47	110670	1
[	Ni	62	56.480	ug/L	0.522	0	324	17244	2
[	Cu	63	54.965	ug/L	0.300	0	325	248575	1
[	Cu	65	55.685	ug/L	0.422	0	106	120993	2
[	Zn	66	54.355	ug/L	0.945	1	877	78213	2
[	Zn	67	54.657	ug/L	0.044	0	208	13616	1
[	Zn	68	53.618	ug/L	0.933	1	8147	61944	0
[	As	75	50.967	ug/L	0.707	1	313	80514	1
[	As-1	75	51.177	ug/L	0.933	1	10586	88002	1
[	Se	82	47.761	ug/L	0.153	0	-5	9254	1
[	Se	78	48.155	ug/L	0.907	1	10757	31499	1
[	Mo	98	50.392	ug/L	1.017	2	24	309241	0
	Y	89		ug/L			266978	262189	2
	Kr	83		ug/L			211	210	2
[>	In	115		ug/L			317040	306560	1
[	Ag	107	51.256	ug/L	0.738	1	117	521800	1
[	Cd	111	51.646	ug/L	0.353	0	226	133085	0
[	Cd	114	52.094	ug/L	0.565	1	36	302842	1
[	Sb	121	51.722	ug/L	0.701	1	52	428698	0
[	Sb	123	51.532	ug/L	0.220	0	47	325085	0
[	Ba	135	48.413	ug/L	0.489	1	24	98394	0
[	Ba	137	47.738	ug/L	0.170	0	41	169440	0
[>	Tb	159		ug/L			346907	346451	0
[	Tl	205	60.674	ug/L	0.198	0	308	1212060	0
[	Pb	208	54.008	ug/L	0.214	0	773	1667660	0
[	Bi	209		ug/L			275682	283733	0
[	Th	232	61.313	ug/L	0.251	0	274	1892403	0
[	U	238	55.749	ug/L	3.254	5	51	1862215	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 16:57:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	260902	1
[	Be	9	0.009	ug/L	0.012	143	2	5	66
	C	13		mg/L			3449	3516	2
	Cl	37		mg/L			2263109	2146056	0
[>	Sc	45		ug/L			186509	180740	1
[	V	51	0.006	ug/L	0.019	308	1972	1960	7
[	V-1	51	0.240	ug/L	0.014	5	2281	4156	3
[	Cr	52	-0.023	ug/L	0.013	55	6442	6081	1
[	Cr	53	0.687	ug/L	0.083	12	826	1389	5
[	Mn	55	0.049	ug/L	0.015	29	548	1134	17
[	Co	59	0.005	ug/L	0.006	122	47	95	65
[>	Ge	72		ug/L			278990	280215	0
[	Ni	60	0.011	ug/L	0.010	90	47	71	29
[	Ni	62	0.366	ug/L	0.029	7	324	442	2
[	Cu	63	0.060	ug/L	0.007	12	325	612	5
[	Cu	65	0.020	ug/L	0.012	57	106	153	17
[	Zn	66	-0.056	ug/L	0.019	33	877	798	3
[	Zn	67	0.115	ug/L	0.026	22	208	239	3
[	Zn	68	-0.327	ug/L	0.075	22	8147	7836	1
[	As	75	-0.001	ug/L	0.004	369	313	312	2
[	As-1	75	-0.384	ug/L	0.026	6	10586	10020	0
[	Se	82	0.016	ug/L	0.024	148	-5	-2	184
[	Se	78	-1.322	ug/L	0.068	5	10757	10194	0
[	Mo	98	0.010	ug/L	0.006	56	24	91	41
	Y	89		ug/L			266978	271392	0
	Kr	83		ug/L			211	208	3
[>	In	115		ug/L			317040	318755	0
[	Ag	107	0.005	ug/L	0.005	97	117	176	31
[	Cd	111	0.004	ug/L	0.007	185	226	237	7
[	Cd	114	0.005	ug/L	0.004	74	36	66	33
[	Sb	121	0.012	ug/L	0.007	58	52	155	38
[	Sb	123	0.011	ug/L	0.009	74	47	123	45
[	Ba	135	0.004	ug/L	0.005	117	24	33	30
[	Ba	137	0.005	ug/L	0.004	70	41	61	22
[>	Tb	159		ug/L			346907	352764	1
[	Tl	205	0.020	ug/L	0.004	18	308	711	12
[	Pb	208	0.008	ug/L	0.003	31	773	1041	8
[	Bi	209		ug/L			275682	291255	1
[	Th	232	0.020	ug/L	0.006	31	274	913	23
[	U	238	0.006	ug/L	0.005	89	51	262	73

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:03:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	267351	1
[	Be	9	0.013	ug/L	0.005	37	2	6	20
	C	13		mg/L			3449	3767	1
	Cl	37		mg/L			2263109	2202123	0
[>	Sc	45		ug/L			186509	188843	1
[	V	51	-0.015	ug/L	0.007	48	1972	1871	3
[	V-1	51	0.174	ug/L	0.004	2	2281	3785	1
[	Cr	52	-0.005	ug/L	0.040	788	6442	6482	3
[	Cr	53	0.568	ug/L	0.036	6	826	1344	1
[	Mn	55	0.024	ug/L	0.002	9	548	857	4
[	Co	59	0.008	ug/L	0.008	107	47	125	65
[>	Ge	72		ug/L			278990	289514	0
[	Ni	60	-0.003	ug/L	0.004	171	47	44	22
[	Ni	62	0.161	ug/L	0.131	80	324	390	11
[	Cu	63	0.116	ug/L	0.005	4	325	906	3
[	Cu	65	0.076	ug/L	0.006	7	106	288	5
[	Zn	66	-0.113	ug/L	0.030	26	877	735	6
[	Zn	67	0.123	ug/L	0.100	81	208	249	10
[	Zn	68	-0.510	ug/L	0.211	41	8147	7895	2
[	As	75	-0.006	ug/L	0.005	85	313	315	3
[	As-1	75	-0.436	ug/L	0.095	21	10586	10267	0
[	Se	82	μ0.049	ug/L	0.031	63	-5	4	159
[	Se	78	-1.500	ug/L	0.349	23	10757	10447	0
[	Mo	98	0.001	ug/L	0.001	171	24	29	26
	Y	89		ug/L			266978	280485	0
	Kr	83		ug/L			211	205	3
[>	In	115		ug/L			317040	329298	0
[	Ag	107	-0.006	ug/L	0.000	8	117	57	9
[	Cd	111	0.002	ug/L	0.003	154	226	240	4
[	Cd	114	-0.001	ug/L	0.001	109	36	34	13
[	Sb	121	0.001	ug/L	0.001	91	52	64	13
[	Sb	123	-0.001	ug/L	0.001	94	47	42	16
[	Ba	135	0.001	ug/L	0.003	215	24	28	21
[	Ba	137	-0.001	ug/L	0.001	222	41	41	10
[>	Tb	159		ug/L			346907	362557	0
[	Tl	205	0.005	ug/L	0.001	25	308	420	5
[	Pb	208	-0.007	ug/L	0.000	3	773	574	1
[	Bi	209		ug/L			275682	294536	0
[	Th	232	0.005	ug/L	0.002	41	274	442	14
[	U	238	-0.001	ug/L	0.000	31	51	34	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:10:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	264834	0
[	Be	9	25.548	ug/L	1.245	4	2	7153	5
	C	13		mg/L			3449	3641	3
	Cl	37		mg/L			2263109	2214801	0
[>	Sc	45		ug/L			186509	192061	0
[	V	51	26.908	ug/L	0.826	3	1972	228862	2
[	V-1	51	27.067	ug/L	0.931	3	2281	235622	2
[	Cr	52	27.459	ug/L	1.102	4	6442	212975	3
[	Cr	53	27.903	ug/L	1.444	5	826	26228	4
[	Mn	55	26.717	ug/L	0.950	3	548	347889	3
[	Co	59	28.603	ug/L	1.043	3	47	291846	4
[>	Ge	72		ug/L			278990	290777	0
[	Ni	60	28.540	ug/L	1.163	4	47	63787	3
[	Ni	62	29.076	ug/L	1.052	3	324	9985	3
[	Cu	63	29.793	ug/L	1.220	4	325	146624	3
[	Cu	65	29.923	ug/L	1.636	5	106	70720	4
[	Zn	66	89.565	ug/L	4.251	4	877	139488	3
[	Zn	67	81.636	ug/L	3.641	4	208	21999	3
[	Zn	68	87.787	ug/L	4.648	5	8147	104848	4
[	As	75	27.028	ug/L	1.274	4	313	46568	3
[	As-1	75	26.031	ug/L	1.272	4	10586	54084	3
[	Se	82	75.951	ug/L	2.674	3	-5	16001	2
[	Se	78	78.352	ug/L	2.795	3	10757	48692	2
[	Mo	98	0.006	ug/L	0.001	20	24	67	11
	Y	89		ug/L			266978	283758	1
	Kr	83		ug/L			211	222	2
[>	In	115		ug/L			317040	331464	0
[	Ag	107	26.828	ug/L	1.008	3	117	295309	2
[	Cd	111	25.403	ug/L	1.094	4	226	70881	3
[	Cd	114	25.636	ug/L	1.057	4	36	161116	3
[	Sb	121	0.001	ug/L	0.000	39	52	64	5
[	Sb	123	-0.002	ug/L	0.001	45	47	37	14
[	Ba	135	24.507	ug/L	1.002	4	24	53856	3
[	Ba	137	23.912	ug/L	1.111	4	41	91769	3
[>	Tb	159		ug/L			346907	361883	1
[	Tl	205	30.551	ug/L	1.142	3	308	637603	3
[	Pb	208	27.154	ug/L	1.139	4	773	876148	4
[	Bi	209		ug/L			275682	296902	0
[	Th	232	30.310	ug/L	1.407	4	274	977155	4
[	U	238	28.910	ug/L	1.454	5	51	1008438	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:16:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	268676	1
[	Be	9	0.108	ug/L	0.024	22	2	33	20
	C	13		mg/L			3449	4060	0
	Cl	37		mg/L			2263109	2167268	0
[>	Sc	45		ug/L			186509	210863	0
[	V	51	17.667	ug/L	0.330	1	1972	165757	1
[	V-1	51	17.680	ug/L	0.284	1	2281	169886	1
[	Cr	52	11.931	ug/L	0.106	0	6442	105733	1
[	Cr	53	12.350	ug/L	0.096	0	826	13268	0
[	Mn	55	141.785	ug/L	1.440	1	548	2024590	1
[	Co	59	3.200	ug/L	0.037	1	47	35894	0
[>	Ge	72		ug/L			278990	300024	1
[	Ni	60	17.203	ug/L	0.149	0	47	39703	1
[	Ni	62	21.909	ug/L	0.346	1	324	7849	1
[	Cu	63	4.062	ug/L	0.030	0	325	20935	1
[	Cu	65	4.321	ug/L	0.081	1	106	10636	1
[	Zn	66	29.129	ug/L	0.185	0	877	47457	0
[	Zn	67	27.507	ug/L	0.416	1	208	7799	1
[	Zn	68	27.727	ug/L	0.147	0	8147	40172	1
[	As	75	1.369	ug/L	0.023	1	313	2754	1
[	As-1	75	0.898	ug/L	0.043	4	10586	12918	1
[	Se	82	↓0.004	ug/L	0.049	1307	-5	-5	195
[	Se	78	-1.721	ug/L	0.160	9	10757	10718	1
[	Mo	98	0.038	ug/L	0.001	1	24	289	1
	Y	89		ug/L			266978	339377	0
	Kr	83		ug/L			211	238	0
[>	In	115		ug/L			317040	337895	1
[	Ag	107	0.019	ug/L	0.003	14	117	338	8
[	Cd	111	0.143	ug/L	0.004	3	226	646	1
[	Cd	114	0.033	ug/L	0.003	9	36	251	6
[	Sb	121	0.004	ug/L	0.001	28	52	90	10
[	Sb	123	0.003	ug/L	0.001	30	47	72	9
[	Ba	135	15.497	ug/L	0.188	1	24	34732	0
[	Ba	137	15.340	ug/L	0.079	0	41	60041	0
[>	Tb	159		ug/L			346907	366107	1
[	Tl	205	0.026	ug/L	0.002	6	308	873	5
[	Pb	208	2.956	ug/L	0.040	1	773	97201	0
[	Bi	209		ug/L			275682	299020	1
[	Th	232	0.458	ug/L	0.017	3	274	15209	2
[	U	238	0.094	ug/L	0.002	2	51	3355	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:22:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	270052	1
[	Be	9	0.113	ug/L	0.030	26	2	35	24
	C	13		mg/L			3449	4658	1
	Cl	37		mg/L			2263109	2176098	0
[>	Sc	45		ug/L			186509	210446	1
[	V	51	18.095	ug/L	0.602	3	1972	169381	3
[	V-1	51	18.225	ug/L	0.615	3	2281	174695	3
[	Cr	52	18.863	ug/L	0.696	3	6442	162582	3
[	Cr	53	19.205	ug/L	0.731	3	826	20071	3
[	Mn	55	143.960	ug/L	4.409	3	548	2051417	2
[	Co	59	3.309	ug/L	0.127	3	47	37029	3
[>	Ge	72		ug/L			278990	296590	1
[	Ni	60	18.936	ug/L	1.117	5	47	43166	4
[	Ni	62	23.383	ug/L	1.153	4	324	8254	2
[	Cu	63	4.364	ug/L	0.183	4	325	22198	3
[	Cu	65	4.763	ug/L	0.257	5	106	11575	4
[	Zn	66	31.434	ug/L	1.349	4	877	50535	2
[	Zn	67	29.350	ug/L	1.331	4	208	8207	2
[	Zn	68	29.568	ug/L	0.917	3	8147	41764	1
[	As	75	1.442	ug/L	0.068	4	313	2848	2
[	As-1	75	1.099	ug/L	0.132	12	10586	13105	0
[	Se	82	<0.047	ug/L	0.053	110	-5	3	291
[	Se	78	-1.202	ug/L	0.337	28	10757	10848	1
[	Mo	98	0.038	ug/L	0.005	12	24	282	9
	Y	89		ug/L			266978	340942	0
	Kr	83		ug/L			211	243	4
[>	In	115		ug/L			317040	335527	0
[	Ag	107	0.016	ug/L	0.003	20	117	305	12
[	Cd	111	0.157	ug/L	0.011	6	226	682	4
[	Cd	114	0.036	ug/L	0.004	10	36	265	9
[	Sb	121	0.005	ug/L	0.001	21	52	96	8
[	Sb	123	0.002	ug/L	0.000	25	47	62	5
[	Ba	135	17.755	ug/L	0.650	3	24	39516	4
[	Ba	137	17.320	ug/L	0.658	3	41	67321	4
[>	Tb	159		ug/L			346907	367936	0
[	Tl	205	0.020	ug/L	0.002	11	308	758	6
[	Pb	208	3.032	ug/L	0.138	4	773	100201	4
[	Bi	209		ug/L			275682	295671	0
[	Th	232	0.588	ug/L	0.017	2	274	19569	2
[	U	238	0.100	ug/L	0.004	3	51	3598	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:28:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	266153	0
[	Be	9	25.616	ug/L	0.391	1	2	7206	0
	C	13		mg/L			3449	4045	0
	Cl	37		mg/L			2263109	2146155	0
[>	Sc	45		ug/L			186509	206670	1
[	V	51	42.783	ug/L	1.160	2	1972	390242	1
[	V-1	51	42.733	ug/L	1.210	2	2281	398801	1
[	Cr	52	38.965	ug/L	1.035	2	6442	322188	1
[	Cr	53	39.067	ug/L	1.204	3	826	39144	1
[	Mn	55	170.344	ug/L	4.844	2	548	2383506	2
[	Co	59	29.209	ug/L	0.710	2	47	320609	1
[>	Ge	72		ug/L			278990	293556	0
[	Ni	60	46.827	ug/L	1.269	2	47	105651	2
[	Ni	62	52.671	ug/L	1.230	2	324	17985	2
[	Cu	63	32.414	ug/L	0.501	1	325	161050	1
[	Cu	65	33.171	ug/L	0.552	1	106	79153	1
[	Zn	66	118.931	ug/L	1.384	1	877	186745	1
[	Zn	67	108.301	ug/L	1.115	1	208	29399	0
[	Zn	68	115.800	ug/L	1.945	1	8147	136923	1
[	As	75	27.629	ug/L	0.214	0	313	48066	0
[	As-1	75	26.593	ug/L	0.076	0	10586	55552	0
[	Se	82	73.994	ug/L	1.471	1	-5	15741	1
[	Se	78	76.093	ug/L	1.337	1	10757	48072	1
[	Mo	98	0.046	ug/L	0.004	7	24	337	7
	Y	89		ug/L			266978	346631	0
	Kr	83		ug/L			211	250	3
[>	In	115		ug/L			317040	332754	0
[	Ag	107	23.853	ug/L	0.300	1	117	263646	0
[	Cd	111	25.276	ug/L	0.241	0	226	70826	1
[	Cd	114	25.510	ug/L	0.050	0	36	160986	0
[	Sb	121	0.003	ug/L	0.001	29	52	84	10
[	Sb	123	0.002	ug/L	0.001	41	47	62	8
[	Ba	135	43.164	ug/L	0.134	0	24	95230	0
[	Ba	137	42.326	ug/L	0.147	0	41	163072	0
[>	Tb	159		ug/L			346907	365928	0
[	Tl	205	29.228	ug/L	0.204	0	308	616887	0
[	Pb	208	29.511	ug/L	0.140	0	773	962855	1
[	Bi	209		ug/L			275682	293359	1
[	Th	232	30.004	ug/L	0.186	0	274	978273	0
[	U	238	28.522	ug/L	0.206	0	51	1006217	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:35:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	264870	1
[	Be	9	0.102	ug/L	0.044	42	2	31	38
	C	13		mg/L			3449	6575	2
	Cl	37		mg/L			2263109	2126299	0
[>	Sc	45		ug/L			186509	203169	1
|	V	51	17.846	ug/L	0.235	1	1972	161303	1
|	V-1	51	17.861	ug/L	0.238	1	2281	165338	1
|	Cr	52	16.204	ug/L	0.315	1	6442	135829	1
|	Cr	53	16.357	ug/L	0.326	1	826	16639	2
|	Mn	55	127.342	ug/L	0.628	0	548	1752094	1
[	Co	59	3.509	ug/L	0.019	0	47	37915	1
[>	Ge	72		ug/L			278990	291608 ✓	1
|	Ni	60	20.190	ug/L	0.721	3	47	45266	2
|	Ni	62	25.760	ug/L	0.526	2	324	8910	0
|	Cu	63	5.027	ug/L	0.176	3	325	25091	2
|	Cu	65	5.312	ug/L	0.128	2	106	12684	1
|	Zn	66	64.976	ug/L	1.294	1	877	101751	1
|	Zn	67	58.939	ug/L	1.567	2	208	15990	1
|	Zn	68	63.770	ug/L	1.188	1	8147	78721	1
|	As	75	1.667	ug/L	0.084	5	313	3187	3
|	As-1	75	1.371	ug/L	0.109	7	10586	13338	0
|	Se	82	-0.039	ug/L	0.037	96	-5	-14	55
|	Se	78	-1.075	ug/L	0.240	22	10757	10727	0
[	Mo	98	0.041	ug/L	0.002	5	24	298	5
	Y	89		ug/L			266978	342451	0
	Kr	83		ug/L			211	256	3
[>	In	115		ug/L			317040	329181	0
|	Ag	107	0.022	ug/L	0.002	8	117	364	6
|	Cd	111	0.179	ug/L	0.021	11	226	730	8
|	Cd	114	0.055	ug/L	0.005	9	36	381	7
|	Sb	121	0.004	ug/L	0.001	25	52	87	9
|	Sb	123	0.002	ug/L	0.000	10	47	64	2
|	Ba	135	25.797	ug/L	0.732	2	24	56314	3
[	Ba	137	25.509	ug/L	0.516	2	41	97243	2
[>	Tb	159		ug/L			346907	360645	0
|	Tl	205	0.027	ug/L	0.001	2	308	876	1
|	Pb	208	3.561	ug/L	0.044	1	773	115217	1
|	Bi	209		ug/L			275682	292900	0
|	Th	232	0.614	ug/L	0.020	3	274	20005	3
[	U	238	0.116	ug/L	0.005	4	51	4076	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:41:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	256612	1
[	Be	9	0.096	ug/L	0.015	15	2	28	13
	C	13		mg/L			3449	6655	2
	Cl	37		mg/L			2263109	2110591	0
[>	Sc	45		ug/L			186509	196104	0
|	V	51	16.489	ug/L	0.717	4	1972	144042	4
|	V-1	51	16.579	ug/L	0.597	3	2281	148336	4
|	Cr	52	17.017	ug/L	0.633	3	6442	137376	4
|	Cr	53	17.255	ug/L	0.410	2	826	16896	2
|	Mn	55	131.809	ug/L	4.959	3	548	1750711	4
[	Co	59	4.069	ug/L	0.157	3	47	42439	4
[>	Ge	72		ug/L			278990	281575	0
|	Ni	60	19.946	ug/L	0.608	3	47	43199	3
|	Ni	62	24.760	ug/L	0.905	3	324	8283	3
|	Cu	63	7.983	ug/L	0.298	3	325	38296	4
|	Cu	65	8.141	ug/L	0.278	3	106	18715	3
|	Zn	66	52.357	ug/L	1.824	3	877	79362	4
|	Zn	67	48.372	ug/L	1.043	2	208	12713	2
|	Zn	68	51.088	ug/L	1.315	2	8147	62542	2
|	As	75	3.201	ug/L	0.077	2	313	5622	2
|	As-1	75	3.114	ug/L	0.140	4	10586	15672	1
|	Se	82	-0.032	ug/L	0.065	201	-5	-12	105
|	Se	78	-0.526	ug/L	0.277	52	10757	10612	1
[	Mo	98	0.060	ug/L	0.003	5	24	410	5
	Y	89		ug/L			266978	326886	0
	Kr	83		ug/L			211	248	4
[>	In	115		ug/L			317040	320752	0
|	Ag	107	0.025	ug/L	0.001	4	117	387	3
|	Cd	111	0.232	ug/L	0.012	5	226	854	3
|	Cd	114	0.111	ug/L	0.008	7	36	712	6
|	Sb	121	0.007	ug/L	0.000	2	52	109	1
|	Sb	123	0.007	ug/L	0.002	22	47	97	11
|	Ba	135	33.199	ug/L	0.933	2	24	70609	2
[	Ba	137	32.805	ug/L	0.938	2	41	121844	2
[>	Tb	159		ug/L			346907	349915	1
|	Tl	205	0.045	ug/L	0.003	5	308	1227	3
|	Pb	208	8.489	ug/L	0.314	3	773	265329	2
|	Bi	209		ug/L			275682	285465	0
|	Th	232	0.486	ug/L	0.017	3	274	15431	2
[	U	238	0.120	ug/L	0.005	4	51	4103	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:47:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	261743	1
[	Be	9	0.102	ug/L	0.032	31	2	30	28
	C	13		mg/L			3449	7667	1
	Cl	37		mg/L			2263109	2111551	0
[>	Sc	45		ug/L			186509	197365	1
|	V	51	10.603	ug/L	0.346	3	1972	93932	2
|	V-1	51	10.781	ug/L	0.135	1	2281	97908	0
|	Cr	52	14.681	ug/L	0.113	0	6442	120191	0
|	Cr	53	14.952	ug/L	0.568	3	826	14853	4
|	Mn	55	251.857	ug/L	1.520	0	548	3365622	0
[	Co	59	3.965	ug/L	0.014	0	47	41611	0
[>	Ge	72		ug/L			278990	290053 ✓	0
|	Ni	60	16.151	ug/L	0.351	2	47	36032	1
|	Ni	62	19.187	ug/L	0.442	2	324	6687	1
|	Cu	63	9.401	ug/L	0.103	1	325	46389	0
|	Cu	65	9.601	ug/L	0.067	0	106	22716	1
|	Zn	66	66.844	ug/L	0.776	1	877	104101	0
|	Zn	67	59.980	ug/L	1.355	2	208	16183	1
|	Zn	68	65.222	ug/L	0.114	0	8147	79900	0
|	As	75	5.738	ug/L	0.043	0	313	10120	0
|	As-1	75	5.544	ug/L	0.111	1	10586	20154	0
|	Se	82	u -0.001	ug/L	0.075	5125	-5	-6	243
|	Se	78	-1.179	ug/L	0.352	29	10757	10620	1
[	Mo	98	0.089	ug/L	0.006	6	24	615	5
	Y	89		ug/L			266978	333186	0
	Kr	83		ug/L			211	251	2
[>	In	115		ug/L			317040	330062	2
|	Ag	107	0.018	ug/L	0.003	17	117	317	9
|	Cd	111	0.299	ug/L	0.021	6	226	1062	4
|	Cd	114	0.198	ug/L	0.004	2	36	1275	2
|	Sb	121	0.045	ug/L	0.001	2	52	452	4
|	Sb	123	0.039	ug/L	0.001	2	47	312	3
|	Ba	135	37.624	ug/L	0.948	2	24	82312	0
[	Ba	137	37.005	ug/L	0.768	2	41	141390	0
[>	Tb	159		ug/L			346907	361685	0
|	Tl	205	0.061	ug/L	0.001	0	308	1594	1
|	Pb	208	9.043	ug/L	0.037	0	773	292191	0
|	Bi	209		ug/L			275682	294859	0
|	Th	232	0.316	ug/L	0.003	0	274	10453	0
[	U	238	0.127	ug/L	0.001	0	51	4490	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:54:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	258033	0
[	Be	9	0.183	ug/L	0.021	11	2	52	10
	C	13		mg/L			3449	5217	2
	Cl	37		mg/L			2263109	2067875	0
[>	Sc	45		ug/L			186509	207789	1
[	V	51	42.721	ug/L	0.442	1	1972	391847	0
[	V-1	51	42.298	ug/L	0.505	1	2281	396967	0
[	Cr	52	19.424	ug/L	0.136	0	6442	165123	1
[	Cr	53	19.689	ug/L	0.205	1	826	20296	1
[	Mn	55	277.610	ug/L	0.842	0	548	3905655	0
[	Co	59	9.627	ug/L	0.248	2	47	106273	1
[>	Ge	72		ug/L			278990	284856 ✓	0
[	Ni	60	30.151	ug/L	0.352	1	47	66025	1
[	Ni	62	41.505	ug/L	0.605	1	324	13822	0
[	Cu	63	29.477	ug/L	0.224	0	325	142158	1
[	Cu	65	30.466	ug/L	0.450	1	106	70553	1
[	Zn	66	53.125	ug/L	0.779	1	877	81433	0
[	Zn	67	50.930	ug/L	0.526	1	208	13528	1
[	Zn	68	50.568	ug/L	0.418	0	8147	62709	1
[	As	75	1.747	ug/L	0.002	0	313	3248	0
[	As-1	75	1.285	ug/L	0.030	2	10586	12891	0
[	Se	82	u -0.086	ug/L	0.026	30	-5	-23	22
[	Se	78	-1.568	ug/L	0.107	6	10757	10247	0
[	Mo	98	0.070	ug/L	0.004	5	24	482	5
	Y	89		ug/L			266978	439874	0
	Kr	83		ug/L			211	276	3
[>	In	115		ug/L			317040	320383	0
[	Ag	107	0.069	ug/L	0.000	0	117	856	0
[	Cd	111	0.477	ug/L	0.015	3	226	1511	2
[	Cd	114	0.054	ug/L	0.001	1	36	364	1
[	Sb	121	0.004	ug/L	0.002	36	52	90	14
[	Sb	123	0.003	ug/L	0.001	17	47	67	4
[	Ba	135	35.848	ug/L	0.337	0	24	76153	1
[	Ba	137	35.271	ug/L	0.466	1	41	130839	0
[>	Tb	159		ug/L			346907	360591	1
[	Tl	205	0.024	ug/L	0.002	7	308	822	4
[	Pb	208	3.111	ug/L	0.027	0	773	100742	1
[	Bi	209		ug/L			275682	283643	0
[	Th	232	0.770	ug/L	0.006	0	274	25011	0
[	U	238	0.167	ug/L	0.002	1	51	5870	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:00:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	258855	2
[	Be	9	0.107	ug/L	0.012	11	2	32	12
	C	13		mg/L			3449	5131	1
	Cl	37		mg/L			2263109	2046000	0
[>	Sc	45		ug/L			186509	198648	0
|	V	51	20.410	ug/L	0.173	0	1972	180081	0
|	V-1	51	20.442	ug/L	0.190	0	2281	184673	0
|	Cr	52	18.813	ug/L	0.336	1	6442	153105	1
|	Cr	53	19.014	ug/L	0.196	1	826	18769	1
|	Mn	55	156.442	ug/L	1.170	0	548	2104423	0
[	Co	59	5.696	ug/L	0.048	0	47	60142	0
[>	Ge	72		ug/L			278990	285024	1
|	Ni	60	23.860	ug/L	0.393	1	47	52285	0
|	Ni	62	29.278	ug/L	0.475	1	324	9853	0
|	Cu	63	38.203	ug/L	1.058	2	325	184205	1
|	Cu	65	38.584	ug/L	0.396	1	106	89369	0
|	Zn	66	45.098	ug/L	0.794	1	877	69302	0
|	Zn	67	41.919	ug/L	0.463	1	208	11180	2
|	Zn	68	43.886	ug/L	0.855	1	8147	55545	0
|	As	75	3.471	ug/L	0.036	1	313	6142	0
|	As-1	75	3.147	ug/L	0.093	2	10586	15917	0
|	Se	82	U -0.034	ug/L	0.139	406	-5	-13	219
|	Se	78	-1.419	ug/L	0.303	21	10757	10323	0
[	Mo	98	0.187	ug/L	0.008	4	24	1250	2
	Y	89		ug/L			266978	349789	0
	Kr	83		ug/L			211	242	4
[>	In	115		ug/L			317040	321766	0
|	Ag	107	0.030	ug/L	0.004	14	117	443	10
|	Cd	111	0.230	ug/L	0.021	9	226	850	7
|	Cd	114	0.105	ug/L	0.002	2	36	680	1
|	Sb	121	0.021	ug/L	0.001	4	52	237	2
|	Sb	123	0.021	ug/L	0.003	16	47	184	12
|	Ba	135	27.842	ug/L	0.255	0	24	59406	0
[	Ba	137	27.281	ug/L	0.246	0	41	101655	1
[>	Tb	159		ug/L			346907	359229	0
|	Tl	205	0.032	ug/L	0.003	9	308	984	6
|	Pb	208	5.920	ug/L	0.017	0	773	190261	0
|	Bi	209		ug/L			275682	289229	1
|	Th	232	0.621	ug/L	0.013	2	274	20141	1
[	U	238	0.140	ug/L	0.002	1	51	4904	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 18:06:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	251460	1
[	Be	9	52.765	ug/L	0.308	0	2	14023	1
	C	13		mg/L			3449	2817	1
	Cl	37		mg/L			2263109	2068641	0
[>	Sc	45		ug/L			186509	172796	0
[	V	51	53.946	ug/L	0.538	0	1972	411040	1
[	V-1	51	54.261	ug/L	0.526	0	2281	422929	1
[	Cr	52	53.994	ug/L	0.792	1	6442	371029	0
[	Cr	53	54.944	ug/L	0.479	0	826	45728	0
[	Mn	55	53.007	ug/L	1.125	2	548	620525	1
[	Co	59	56.534	ug/L	0.829	1	47	518848	0
[>	Ge	72		ug/L			278990	274117	0
[	Ni	60	52.709	ug/L	0.635	1	47	111036	0
[	Ni	62	53.650	ug/L	1.223	2	324	17100	2
[	Cu	63	54.758	ug/L	0.643	1	325	253834	1
[	Cu	65	54.714	ug/L	0.716	1	106	121844	0
[	Zn	66	53.760	ug/L	0.837	1	877	79293	1
[	Zn	67	51.904	ug/L	1.924	3	208	13262	3
[	Zn	68	53.486	ug/L	0.909	1	8147	63361	1
[	As	75	51.301	ug/L	0.416	0	313	83070	0
[	As-1	75	51.874	ug/L	0.393	0	10586	91296	0
[	Se	82	46.880	ug/L	0.337	0	-5	9310	0
[	Se	78	48.501	ug/L	0.446	0	10757	32444	0
[	Mo	98	50.359	ug/L	1.021	2	24	316813	1
	Y	89		ug/L			266978	264206	0
	Kr	83		ug/L			211	237	3
[>	In	115		ug/L			317040	311408	1
[	Ag	107	52.089	ug/L	0.787	1	117	538630	0
[	Cd	111	51.674	ug/L	0.861	1	226	135246	0
[	Cd	114	52.036	ug/L	0.610	1	36	307253	0
[	Sb	121	52.141	ug/L	0.908	1	52	438955	0
[	Sb	123	52.078	ug/L	0.721	1	47	333682	0
[	Ba	135	48.720	ug/L	1.608	3	24	100557	1
[	Ba	137	48.159	ug/L	0.673	1	41	173613	0
[>	Tb	159		ug/L			346907	346271	0
[	Tl	205	59.190	ug/L	0.549	0	308	1181808	0
[	Pb	208	52.420	ug/L	0.584	1	773	1617829	1
[	Bi	209		ug/L			275682	277349	0
[	Th	232	59.232	ug/L	0.222	0	274	1827214	0
[	U	238	57.550	ug/L	0.297	0	51	1921221	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 18:13:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\111912A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			244976	245020 ✓	0
[	Be	9	0.011	ug/L	0.012	107	2	5	58
	C	13		mg/L			3449	3307	0
	Cl	37		mg/L			2263109	2078526	0
[>	Sc	45		ug/L			186509	171948 ✓	1
[	V	51	-0.007	ug/L	0.008	115	1972	1766	4
[	V-1	51	0.074	ug/L	0.009	11	2281	2673	1
[	Cr	52	-0.056	ug/L	0.027	48	6442	5564	2
[	Cr	53	0.193	ug/L	0.052	26	826	918	2
[	Mn	55	0.004	ug/L	0.003	59	548	557	6
[	Co	59	0.002	ug/L	0.001	78	47	59	19
[>	Ge	72		ug/L			278990	270532 ✓	0
[	Ni	60	0.004	ug/L	0.003	79	47	54	10
[	Ni	62	-0.528	ug/L	0.054	10	324	151	10
[	Cu	63	-0.015	ug/L	0.006	36	325	246	9
[	Cu	65	-0.009	ug/L	0.006	60	106	83	15
[	Zn	66	-0.078	ug/L	0.011	13	877	738	2
[	Zn	67	0.042	ug/L	0.055	129	208	212	6
[	Zn	68	-0.313	ug/L	0.170	54	8147	7579	1
[	As	75	0.035	ug/L	0.016	46	313	359	6
[	As-1	75	-0.114	ug/L	0.094	82	10586	10088	0
[	Se	82	-0.035	ug/L	0.035	101	-5	-12	55
[	Se	78	-0.419	ug/L	0.318	75	10757	10244	0
[	Mo	98	0.006	ug/L	0.003	47	24	63	28
	Y	89		ug/L			266978	264171	1
	Kr	83		ug/L			211	229	2
[>	In	115		ug/L			317040	311323 ✓	1
[	Ag	107	0.001	ug/L	0.003	272	117	127	24
[	Cd	111	-0.009	ug/L	0.005	53	226	197	5
[	Cd	114	0.000	ug/L	0.001	348	36	38	20
[	Sb	121	0.010	ug/L	0.006	62	52	134	37
[	Sb	123	0.008	ug/L	0.006	75	47	98	38
[	Ba	135	0.004	ug/L	0.002	49	24	33	14
[	Ba	137	0.002	ug/L	0.002	86	41	47	11
[>	Tb	159		ug/L			346907	345232 ✓	0
[	Tl	205	0.007	ug/L	0.001	12	308	448	3
[	Pb	208	0.003	ug/L	0.000	7	773	856	1
[	Bi	209		ug/L			275682	281318	0
[	Th	232	0.013	ug/L	0.003	26	274	677	15
[	U	238	0.002	ug/L	0.001	51	51	126	30

End pkg

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12-5-12 **Analyst:** BA **Page:** 1 of 4

All corrections made by analyst unless otherwise noted. BA 12-6-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2994-2
		1			2996-1
		2			↓ -2
		3			2996-9
		4			↓ -3
		Rinse sample			
		ICV			2955-7
		ICB			Mo↓
		CCV1			BA, 12/6/12
		CCB1			Mo↓
		Low Check			Mo↓
		ICSA			
		ICSAB			
		LR200			
		LR300			
	✓	~~CCV2~~ ZZZZZZ			
	✓	~~CCB2~~ ZZZZZZ			
		CCV3			
		CCB2			As2↓, Mo↓
		VR38 G	SWN	20	Se only
		H	↓	↓	↓
		I			
		J			
		K			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12-5-12 **Analyst:** BA **Page:** 2 of 4

All corrections made by analyst unless otherwise noted. BA 12-6-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS36 ADUP	REN	2 ✓	Zn only
		↓ A	↓	↓	↓
		↓ ASPK		✓	
		VU47 F		↓	~~AS~~ BA 12/6/12
		↓ E	↓	50	
		CCV3			
		CCB3			End VB38
		VT65 MB1	REN	2	Mo↓
		↓ ADUP	↓	✓	Zn (13.3 ug/L) - A.N.
		↓ A			BR Zn
		↓ ASPK		✓	↓ BA 12/6/12
	✓	VT20 A		20	Cu↑ - CAF
		VU18 A		2	RR As Se
		VU22 B		↓	
		↓ C			
		VU18 MBSPK		✓	RR Be
		VT65 MB1SPK	↓	✓	~~BR~~ Cu↑ - CAF
		CCV4			
		CCB4			As2, ^{78}Se, Mo↓ End ~~DT66~~
	✓	VU22 D	REN	2	CCV (ISTD)
	✓	↓ E	↓	↓	↓
	✓	VS66 A		20	
	✓	↓ B		2	
	✓	↓ D	↓	↓	Sc↑

AA 12/6/12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA

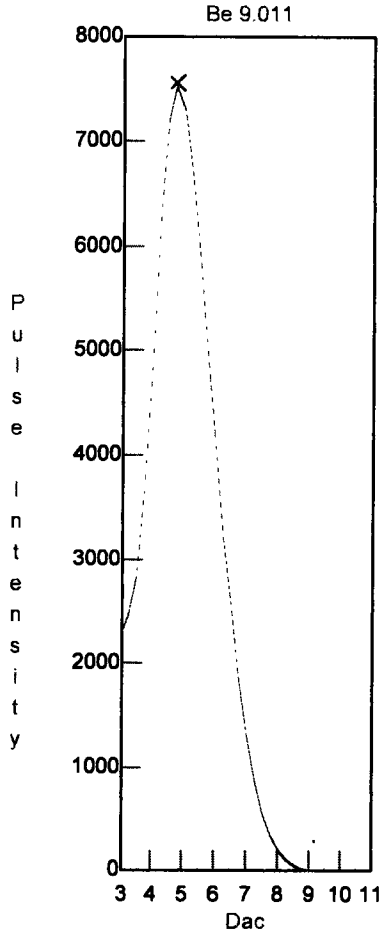
Analysis Date: 12-5-12

MS 1	Analyst BA 12/6/12	Peer	Comment
Logbook:			
Analyst, Date, Method info	✓		
Sample ID's	✓		
Standard/QC solution ID's recorded	✓		
Prep codes	✓		
Dilution factors	✓		
Crossouts/Corrections/Deletions	✓		
Calibration:			
Blank & Standard intensities	✓		
Standard deviations	✓		
Curve fit	✓		
Calibration Verification:			
ICV/CCV	✓		See log
ICB/CCB	✓		↓
Samples:			
RSD's & SD's	✓		
Internal Standards	✓		See log
Carry-over	✓		
Method QC:			
CRI/CRA	✓		See log
ICSA/ICSAB	✓		
Post Spikes/Serial Dilutions	—		
Analytic Spikes	—		
Matrix QC:			
SRM/LCS	✓		See log - VTS3, VT65
Matrix Spikes	✓		
Matrix Duplicates	✓		
Method Blanks	✓		See log - VT65, VT21
Data Distribution:			
Requested elements/isotope identified	✓		
Correct samples identified for distribution	✓		
Raw data match distributed data	✓		
Data filename correct	✓		
Necessary Analysts Notes and CAF's	✓		CAF - VTS3, VT65 AN - VT65, VT21

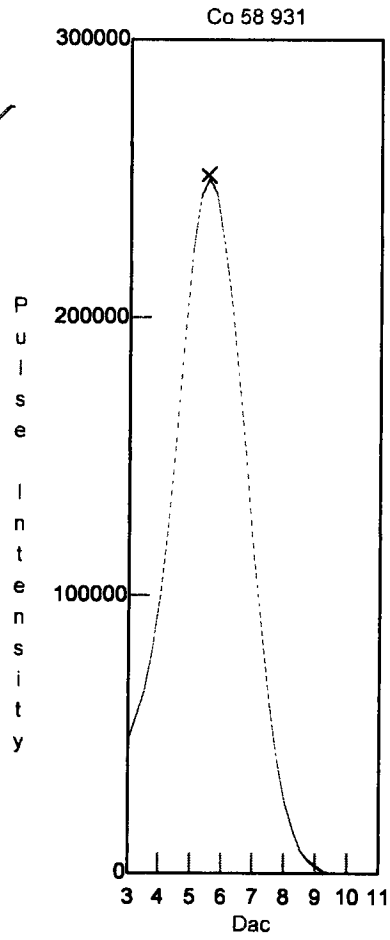
Instrument Tuning Report

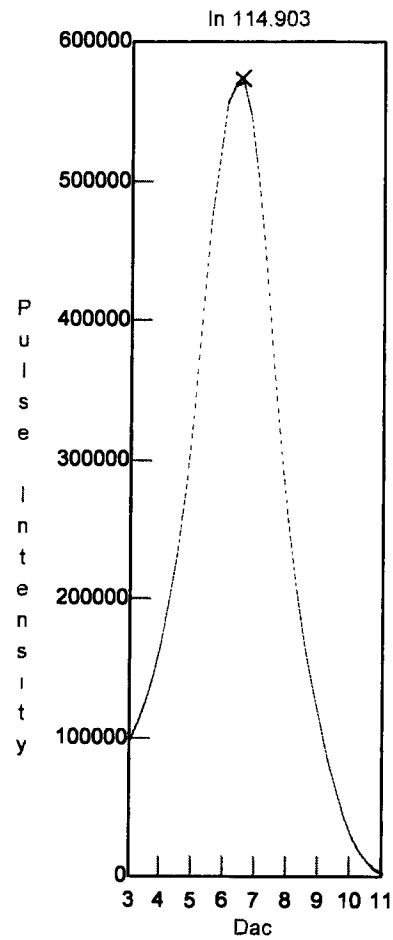
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

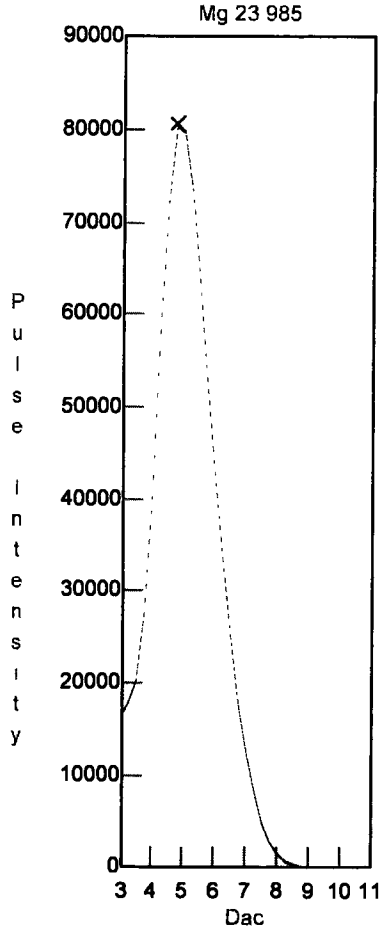
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.026	2034	2158	0.704	
Mg	23.985	23.979	5662	2265	0.702	
Co	58.933	58.979	14156	2532	0.692	
In	114.904	114.928	27793	2979	0.688	
Pb	207.977	207.976	50441	3725	0.711	

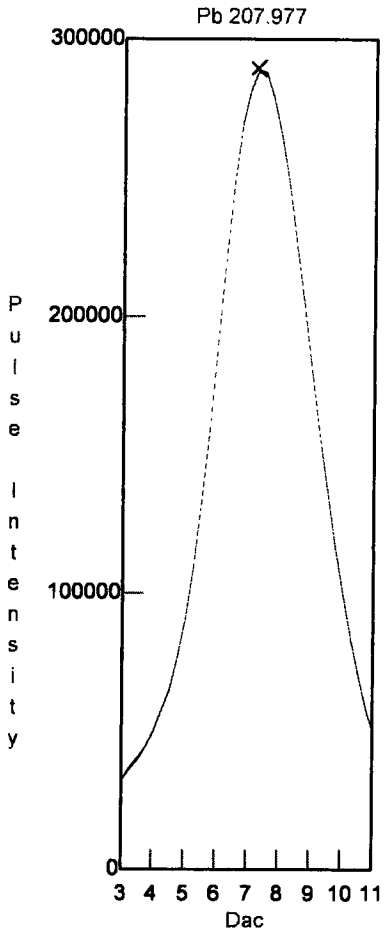

Be 9.011
Pulse Intensity
8000
7000
6000
5000
4000
3000
2000
1000
0
3 4 5 6 7 8 9 10 11
Dac

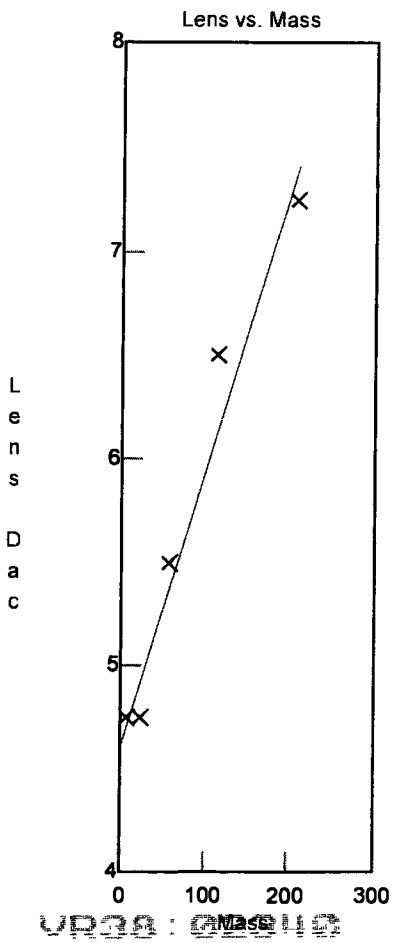
12-5-12


Co 58 931
Pulse Intensity
300000
200000
100000
0
3 4 5 6 7 8 9 10 11
Dac


In 114.903
Pulse Intensity
600000
500000
400000
300000
200000
100000
0
3 4 5 6 7 8 9 10 11
Dac


Mg 23 985
Pulse Intensity
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
3 4 5 6 7 8 9 10 11
Dac


Pb 207.977
Pulse Intensity
300000
200000
100000
0
3 4 5 6 7 8 9 10 11
Dac


Lens vs. Mass
Lens Dac
8
7
6
5
4
0
100
200
300
Mass

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 05, 2012 08:51:41
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1217
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

0.92

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	42491.070	496.120	1.168
	In	115	385924.992	3930.136	1.018
	Pb	208	218356.743	3089.618	1.415
⌈>	Ba	138	269579.174	3063.517	1.136
⌊	Ba++	69	0.014	0.000	1.678
⌈>	Ce	140	322000.202	2025.432	0.629
⌊	CeO	156	0.030	0.001	4.150
	Bkgd	220	23.002	1.896	8.242

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 09:08:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120412.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				356170	1
⌊	Be	9		ug/L				6	78
	C	13		mg/L				4983	0
	Cl	37		mg/L				1965743	0
⌈>	Sc	45		ug/L				278752	2
|	V	51		ug/L				2563	8
|	V-1	51		ug/L				3088	2
|	Cr	52		ug/L				7835	2
|	Cr	53		ug/L				1053	5
|	Mn	55		ug/L				830	7
⌊	Co	59		ug/L				101	12
⌈>	Ge	72		ug/L				354684	0
|	Ni	60		ug/L				102	5
|	Ni	62		ug/L				68	9
|	Cu	63		ug/L				297	2
|	Cu	65		ug/L				116	8
|	Zn	66		ug/L				549	4
|	Zn	67		ug/L				172	16
|	Zn	68		ug/L				9951	0
|	As	75		ug/L				112	18
|	As-1	75		ug/L				11424	1
|	Se	82		ug/L				-14	85
|	Se	78		ug/L				11616	1
⌊	Mo	98		ug/L				3126	26
	Y	89		ug/L				352440	0
	Kr	83		ug/L				150	3
⌈>	In	115		ug/L				396808	1
|	Ag	107		ug/L				33	14
|	Cd	111		ug/L				206	10
|	Cd	114		ug/L				28	22
|	Sb	121		ug/L				23	38
|	Sb	123		ug/L				23	4
|	Ba	135		ug/L				41	19
⌊	Ba	137		ug/L				83	12
⌈>	Tb	159		ug/L				456856	0
|	Tl	205		ug/L				40	13
|	Pb	208		ug/L				620	2
|	Bi	209		ug/L				384269	0
|	Th	232		ug/L				106	7
⌊	U	238		ug/L				55	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 09:14:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120412.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			356170	364109	1
⌊	Be	9	10.000	ug/L	0.251	2	6	4367	1
	C	13		mg/L			4983	4309	2
	Cl	37		mg/L			1965743	1988815	0
⌈>	Sc	45		ug/L			278752	284475	0
|	V	51	10.000	ug/L	0.027	0	2563	131852	1
|	V-1	51	10.000	ug/L	0.049	0	3088	135094	1
|	Cr	52	10.000	ug/L	0.129	1	7835	124535	0
|	Cr	53	10.000	ug/L	0.112	1	1053	15109	0
|	Mn	55	10.000	ug/L	0.043	0	830	198113	0
⌊	Co	59	10.000	ug/L	0.171	1	101	157231	1
⌈>	Ge	72		ug/L			354684	359634	0
|	Ni	60	10.000	ug/L	0.105	1	102	33430	1
|	Ni	62	10.000	ug/L	0.230	2	68	5093	2
|	Cu	63	10.000	ug/L	0.014	0	297	74399	0
|	Cu	65	10.000	ug/L	0.130	1	116	35306	1
|	Zn	66	10.000	ug/L	0.133	1	549	22739	1
|	Zn	67	10.000	ug/L	0.069	0	172	3947	0
|	Zn	68	10.000	ug/L	0.071	0	9951	25274	0
|	As	75	10.000	ug/L	0.083	0	112	21240	1
|	As-1	75	10.000	ug/L	0.071	0	11424	32043	0
|	Se	82	10.000	ug/L	0.199	1	-14	2516	2
|	Se	78	10.000	ug/L	0.210	2	11616	17559	0
⌊	Mo	98	10.000	ug/L	0.182	1	3126	81564	1
	Y	89		ug/L			352440	357787	0
	Kr	83		ug/L			150	159	5
⌈>	In	115		ug/L			396808	407867	0
|	Ag	107	10.000	ug/L	0.206	2	33	140216	1
|	Cd	111	10.000	ug/L	0.151	1	206	34212	0
|	Cd	114	10.000	ug/L	0.189	1	28	79271	1
|	Sb	121	10.000	ug/L	0.080	0	23	105580	0
|	Sb	123	10.000	ug/L	0.068	0	23	79961	1
|	Ba	135	10.000	ug/L	0.099	0	41	25923	1
⌊	Ba	137	10.000	ug/L	0.078	0	83	44392	0
⌈>	Tb	159		ug/L			456856	459837	0
|	Tl	205	10.000	ug/L	0.030	0	40	335923	0
|	Pb	208	10.000	ug/L	0.076	0	620	461829	0
|	Bi	209		ug/L			384269	385784	0
|	Th	232	10.000	ug/L	0.082	0	106	534157	1
⌊	U	238	10.000	ug/L	0.102	1	55	590895	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 09:21:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120412.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	343878	0
[	Be	9	20.063	ug/L	0.123	0	6	8376	0
	C	13		mg/L			4983	4047	0
	Cl	37		mg/L			1965743	2138918	0
[>	Sc	45		ug/L			278752	275671	1
|	V	51	20.026	ug/L	0.378	1	2563	254572	0
|	V-1	51	20.041	ug/L	0.347	1	3088	261355	0
|	Cr	52	19.979	ug/L	0.501	2	7835	232400	1
|	Cr	53	20.028	ug/L	0.410	2	1053	28430	0
|	Mn	55	19.949	ug/L	0.267	1	830	378233	0
[	Co	59	19.941	ug/L	0.518	2	101	300142	1
[>	Ge	72		ug/L			354684	361080	1
|	Ni	60	19.837	ug/L	0.400	2	102	64374	0
|	Ni	62	19.828	ug/L	0.455	2	68	9737	1
|	Cu	63	19.892	ug/L	0.387	1	297	145134	0
|	Cu	65	19.911	ug/L	0.503	2	116	69211	1
|	Zn	66	19.931	ug/L	0.181	0	549	44340	0
|	Zn	67	19.883	ug/L	0.393	1	172	7534	1
|	Zn	68	19.953	ug/L	0.252	1	9951	40268	0
|	As	75	19.974	ug/L	0.148	0	112	42264	0
|	As-1	75	19.951	ug/L	0.276	1	11424	52208	0
|	Se	82	19.867	ug/L	0.497	2	-14	4902	1
|	Se	78	19.758	ug/L	0.915	4	11616	22760	0
[	Mo	98	19.994	ug/L	0.466	2	3126	160341	1
	Y	89		ug/L			352440	343892	0
	Kr	83		ug/L			150	157	4
[>	In	115		ug/L			396808	397490	0
|	Ag	107	19.942	ug/L	0.254	1	33	269337	1
|	Cd	111	20.032	ug/L	0.281	1	206	67014	1
|	Cd	114	20.020	ug/L	0.150	0	28	155259	0
|	Sb	121	20.105	ug/L	0.132	0	23	211262	0
|	Sb	123	20.135	ug/L	0.239	1	23	161240	0
|	Ba	135	20.032	ug/L	0.283	1	41	50887	1
[	Ba	137	20.043	ug/L	0.226	1	83	87385	0
[>	Tb	159		ug/L			456856	445496	0
|	Tl	205	19.971	ug/L	0.136	0	40	646235	0
|	Pb	208	19.946	ug/L	0.103	0	620	882276	0
|	Bi	209		ug/L			384269	373982	0
|	Th	232	19.983	ug/L	0.082	0	106	1030595	0
[	U	238	19.943	ug/L	0.057	0	55	1128718	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 09:27:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120412.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	351984	0
[	Be	9	50.001	ug/L	0.463	0	6	21359	1
	C	13		mg/L			4983	4295	0
	Cl	37		mg/L			1965743	2157282	0
[>	Sc	45		ug/L			278752	279882	1
[	V	51	50.095	ug/L	0.612	1	2563	648916	0
[	V-1	51	50.019	ug/L	0.822	1	3088	658882	0
[	Cr	52	50.173	ug/L	0.693	1	7835	590833	0
[	Cr	53	49.937	ug/L	1.364	2	1053	69951	1
[	Mn	55	50.093	ug/L	0.951	1	830	972086	0
[	Co	59	50.041	ug/L	1.149	2	101	767742	0
[>	Ge	72		ug/L			354684	369196	0
[	Ni	60	49.881	ug/L	0.425	0	102	163430	1
[	Ni	62	49.720	ug/L	0.980	1	68	24190	2
[	Cu	63	49.895	ug/L	0.405	0	297	367960	1
[	Cu	65	49.803	ug/L	0.285	0	116	173458	0
[	Zn	66	49.822	ug/L	0.350	0	549	110527	1
[	Zn	67	49.894	ug/L	0.644	1	172	18863	1
[	Zn	68	49.986	ug/L	0.509	1	9951	87455	1
[	As	75	49.881	ug/L	0.098	0	112	106488	0
[	As-1	75	49.964	ug/L	0.204	0	11424	115437	0
[	Se	82	49.700	ug/L	0.163	0	-14	12198	0
[	Se	78	49.985	ug/L	0.609	1	11616	40344	0
[	Mo	98	50.063	ug/L	0.443	0	3126	408250	1
	Y	89		ug/L			352440	351086	1
	Kr	83		ug/L			150	175	2
[>	In	115		ug/L			396808	398530	0
[	Ag	107	50.026	ug/L	0.177	0	33	679191	0
[	Cd	111	50.119	ug/L	0.497	0	206	169805	0
[	Cd	114	50.038	ug/L	0.530	1	28	390528	0
[	Sb	121	50.149	ug/L	0.518	1	23	536310	0
[	Sb	123	50.152	ug/L	0.232	0	23	408863	0
[	Ba	135	49.986	ug/L	0.676	1	41	127075	1
[	Ba	137	50.083	ug/L	0.176	0	83	220635	0
[>	Tb	159		ug/L			456856	447325	0
[	Tl	205	50.001	ug/L	0.604	1	40	1624713	1
[	Pb	208	49.961	ug/L	0.959	1	620	2209663	2
[	Bi	209		ug/L			384269	371235	0
[	Th	232	50.367	ug/L	0.411	0	106	2707542	0
[	U	238	50.325	ug/L	0.256	0	55	2955908	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 09:33:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120412.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			356170	350287	2
⌊	Be	9	99.617	ug/L	1.589	1	6	41798	0
	C	13		mg/L			4983	4180	3
	Cl	37		mg/L			1965743	2184452	0
⌈>	Sc	45		ug/L			278752	285863	0
|	V	51	100.124	ug/L	0.472	0	2563	1327654	0
|	V-1	51	100.023	ug/L	0.301	0	3088	1343759	0
|	Cr	52	99.567	ug/L	1.047	1	7835	1172939	1
|	Cr	53	99.274	ug/L	0.806	0	1053	137692	0
|	Mn	55	99.545	ug/L	0.648	0	830	1943076	0
⌊	Co	59	99.048	ug/L	1.091	1	101	1504592	1
⌈>	Ge	72		ug/L			354684	361100	1
|	Ni	60	100.126	ug/L	3.068	3	102	322013	1
|	Ni	62	100.372	ug/L	2.366	2	68	48278	1
|	Cu	63	99.723	ug/L	2.109	2	297	712297	1
|	Cu	65	99.996	ug/L	2.054	2	116	340433	1
|	Zn	66	99.865	ug/L	1.147	1	549	215141	0
|	Zn	67	99.990	ug/L	1.894	1	172	36780	1
|	Zn	68	100.089	ug/L	1.237	1	9951	161555	1
|	As	75	100.156	ug/L	1.050	1	112	210083	0
|	As-1	75	100.318	ug/L	0.860	0	11424	217134	0
|	Se	82	100.013	ug/L	2.418	2	-14	24031	1
|	Se	78	100.574	ug/L	1.789	1	11616	68504	0
⌊	Mo	98	100.580	ug/L	0.584	0	3126	814655	0
	Y	89		ug/L			352440	345500	0
	Kr	83		ug/L			150	175	4
⌈>	In	115		ug/L			396808	394243	1
|	Ag	107	100.119	ug/L	1.129	1	33	1349853	0
|	Cd	111	99.894	ug/L	1.666	1	206	333425	1
|	Cd	114	99.817	ug/L	1.683	1	28	765861	0
|	Sb	121	100.169	ug/L	1.253	1	23	1065636	0
|	Sb	123	99.869	ug/L	1.580	1	23	801799	0
|	Ba	135	100.112	ug/L	1.165	1	41	252648	0
⌊	Ba	137	99.918	ug/L	1.138	1	83	434160	1
⌈>	Tb	159		ug/L			456856	443421	0
|	Tl	205	100.415	ug/L	1.002	0	40	3279531	0
|	Pb	208	100.259	ug/L	0.438	0	620	4433010	0
|	Bi	209		ug/L			384269	367949	1
|	Th	232	100.228	ug/L	1.334	1	106	5381938	2
⌊	U	238	100.401	ug/L	0.938	0	55	5924746	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 09:40:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120412.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	362579	1
[	Be	9	-0.011	ug/L	0.004	41	6	2	91
	C	13		mg/L			4983	4863	1
	Cl	37		mg/L			1965743	2223805	0
[>	Sc	45		ug/L			278752	292452	0
[	V	51	-0.011	ug/L	0.022	190	2563	2534	10
[	V-1	51	-0.013	ug/L	0.008	63	3088	3063	2
[	Cr	52	-0.017	ug/L	0.015	91	7835	8017	1
[	Cr	53	-0.022	ug/L	0.030	137	1053	1075	4
[	Mn	55	-0.005	ug/L	0.000	8	830	775	1
[	Co	59	0.001	ug/L	0.001	90	101	118	9
[>	Ge	72		ug/L			354684	373847	0
[	Ni	60	0.006	ug/L	0.009	146	102	127	22
[	Ni	62	0.008	ug/L	0.036	469	68	75	23
[	Cu	63	-0.002	ug/L	0.003	131	297	295	8
[	Cu	65	-0.000	ug/L	0.002	40873	116	122	5
[	Zn	66	-0.015	ug/L	0.009	62	549	546	3
[	Zn	67	-0.011	ug/L	0.036	314	172	177	7
[	Zn	68	-0.368	ug/L	0.061	16	9951	9911	0
[	As	75	0.016	ug/L	0.010	64	112	152	14
[	As-1	75	-0.207	ug/L	0.035	16	11424	11602	0
[	Se	82	0.017	ug/L	0.028	165	-14	-11	61
[	Se	78	-0.804	ug/L	0.088	10	11616	11775	0
[	Mo	98	-0.324	ug/L	0.009	2	3126	584	13
	Y	89		ug/L			352440	361692	0
	Kr	83		ug/L			150	155	4
[>	In	115		ug/L			396808	417982	0
[	Ag	107	0.015	ug/L	0.003	21	33	243	18
[	Cd	111	0.006	ug/L	0.008	134	206	237	11
[	Cd	114	0.000	ug/L	0.002	326	28	33	37
[	Sb	121	0.061	ug/L	0.014	22	23	718	21
[	Sb	123	0.062	ug/L	0.015	23	23	549	22
[	Ba	135	0.009	ug/L	0.004	37	41	68	13
[	Ba	137	0.002	ug/L	0.002	127	83	97	11
[>	Tb	159		ug/L			456856	462136	1
[	Tl	205	0.011	ug/L	0.002	21	40	413	18
[	Pb	208	0.007	ug/L	0.003	45	620	928	13
[	Bi	209		ug/L			384269	392169	1
[	Th	232	0.068	ug/L	0.012	18	106	3887	18
[	U	238	0.003	ug/L	0.001	38	55	221	28

Quantitative Analysis - Calibration Report

Sample Date/Time: Wednesday, December 05, 2012 09:40:03
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0012	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0463	10	20	50	100	
V-1	51	1.0000	0.0469	10	20	50	100	
Cr	52	1.0000	0.0409	10	20	50	100	
Cr	53	0.9999	0.0048	10	20	50	100	
Mn	55	1.0000	0.0683	10	20	50	100	
Co	59	0.9998	0.0531	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0089	10	20	50	100	
Ni	62	1.0000	0.0013	10	20	50	100	
Cu	63	1.0000	0.0198	10	20	50	100	
Cu	65	1.0000	0.0094	10	20	50	100	
Zn	66	1.0000	0.0060	10	20	50	100	
Zn	67	1.0000	0.0010	10	20	50	100	
Zn	68	1.0000	0.0042	10	20	50	100	
As	75	1.0000	0.0058	10	20	50	100	
As-1	75	1.0000	0.0057	10	20	50	100	
Se	82	1.0000	0.0007	10	20	50	100	
Se	78	0.9999	0.0016	10	20	50	100	
Mo	98	0.9999	0.0223	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0342	10	20	50	100	
Cd	111	1.0000	0.0085	10	20	50	100	
Cd	114	1.0000	0.0195	10	20	50	100	
Sb	121	1.0000	0.0270	10	20	50	100	
Sb	123	1.0000	0.0204	10	20	50	100	
Ba	135	1.0000	0.0064	10	20	50	100	
Ba	137	1.0000	0.0110	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0737	10	20	50	100	
Pb	208	1.0000	0.0997	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1211	10	20	50	100	
U	238	0.9999	0.1331	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 09:56:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			356170	373094	1
⌊	Be	9	48.842	ug/L	0.633	1	6	21838	2
	C	13		mg/L			4983	9621	3
	Cl	37		mg/L			1965743	2214896	0
⌈>	Sc	45		ug/L			278752	298182	0
|	V	51	50.089	ug/L	0.609	1	2563	694160	0
|	V-1	51	50.501	ug/L	0.660	1	3088	709300	0
|	Cr	52	49.560	ug/L	0.722	1	7835	613215	1
|	Cr	53	50.863	ug/L	0.584	1	1053	74135	0
|	Mn	55	50.679	ug/L	0.742	1	830	1032264	1
⌊	Co	59	50.673	ug/L	0.385	0	101	802947	0
⌈>	Ge	72		ug/L			354684	380966	0
|	Ni	60	50.298	ug/L	0.704	1	102	170759	1
|	Ni	62	50.536	ug/L	0.720	1	68	25684	0
|	Cu	63	50.900	ug/L	0.042	0	297	383782	0
|	Cu	65	50.051	ug/L	0.083	0	116	179856	0
|	Zn	66	49.514	ug/L	0.183	0	549	112842	0
|	Zn	67	50.031	ug/L	1.055	2	172	19512	2
|	Zn	68	48.779	ug/L	0.686	1	9951	88545	0
|	As	75	50.661	ug/L	0.034	0	112	112179	0
|	As-1	75	49.740	ug/L	0.191	0	11424	119778	0
|	Se	82	80.233	ug/L	0.719	0	-14	20339	0
|	Se	78	79.344	ug/L	0.124	0	11616	59658	0
⌊	Mo	98	48.605	ug/L	0.642	1	3126	417110	1
	Y	89		ug/L			352440	369968	2
	Kr	83		ug/L			150	169	3
⌈>	In	115		ug/L			396808	422142	0
|	Ag	107	49.531	ug/L	0.378	0	33	715135	0
|	Cd	111	48.711	ug/L	0.742	1	206	174211	1
|	Cd	114	49.017	ug/L	0.808	1	28	402773	1
|	Sb	121	48.140	ug/L	0.478	0	23	548439	0
|	Sb	123	47.663	ug/L	0.237	0	23	409810	0
|	Ba	135	49.208	ug/L	0.732	1	41	133008	1
⌊	Ba	137	49.198	ug/L	0.369	0	83	228955	0
⌈>	Tb	159		ug/L			456856	475295	0
|	Tl	205	48.895	ug/L	0.582	1	40	1711759	1
|	Pb	208	49.353	ug/L	0.292	0	620	2339376	0
|	Bi	209		ug/L			384269	394454	1
|	Th	232	50.204	ug/L	0.596	1	106	2889501	1
⌊	U	238	50.216	ug/L	0.392	0	55	3176455	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:03:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	358901	1
[	Be	9	0.001	ug/L	0.007	754	6	7	40
	C	13		mg/L			4983	4897	0
	Cl	37		mg/L			1965743	2227258	0
[>	Sc	45		ug/L			278752	291680	1
[	V	51	-0.010	ug/L	0.006	59	2563	2549	2
[	V-1	51	-0.021	ug/L	0.006	27	3088	2947	1
[	Cr	52	-0.025	ug/L	0.003	11	7835	7898	1
[	Cr	53	-0.059	ug/L	0.021	35	1053	1019	3
[	Mn	55	-0.007	ug/L	0.002	29	830	729	4
[	Co	59	0.001	ug/L	0.001	65	101	119	5
[>	Ge	72		ug/L			354684	374515	0
[	Ni	60	-0.001	ug/L	0.002	219	102	105	6
[	Ni	62	0.001	ug/L	0.024	3715	68	72	16
[	Cu	63	-0.004	ug/L	0.002	54	297	287	4
[	Cu	65	-0.001	ug/L	0.002	260	116	120	5
[	Zn	66	-0.010	ug/L	0.017	166	549	557	6
[	Zn	67	-0.036	ug/L	0.049	133	172	168	10
[	Zn	68	-0.516	ug/L	0.069	13	9951	9697	1
[	As	75	0.028	ug/L	0.010	35	112	180	12
[	As-1	75	-0.225	ug/L	0.028	12	11424	11586	0
[	Se	82	0.033	ug/L	0.042	125	-14	-7	144
[	Se	78	-0.869	ug/L	0.103	11	11616	11757	0
[	Mo	98	-0.363	ug/L	0.004	1	3126	264	12
	Y	89		ug/L			352440	368239	1
	Kr	83		ug/L			150	161	5
[>	In	115		ug/L			396808	416765	1
[	Ag	107	0.008	ug/L	0.002	20	33	155	14
[	Cd	111	0.009	ug/L	0.005	54	206	249	6
[	Cd	114	0.000	ug/L	0.000	866	28	29	9
[	Sb	121	0.012	ug/L	0.003	23	23	160	19
[	Sb	123	0.012	ug/L	0.003	20	23	127	15
[	Ba	135	0.004	ug/L	0.003	92	41	53	16
[	Ba	137	0.001	ug/L	0.004	568	83	91	20
[>	Tb	159		ug/L			456856	469393	0
[	Tl	205	0.005	ug/L	0.001	28	40	203	23
[	Pb	208	0.004	ug/L	0.001	22	620	828	6
[	Bi	209		ug/L			384269	392808	0
[	Th	232	0.039	ug/L	0.006	16	106	2338	16
[	U	238	0.002	ug/L	0.000	10	55	187	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:09:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			356170	357974	1
⌊	Be	9	50.972	ug/L	0.098	0	6	21865	1
	C	13		mg/L			4983	4170	2
	Cl	37		mg/L			1965743	2248040	1
⌈>	Sc	45		ug/L			278752	296729	1
⌈	V	51	49.751	ug/L	0.122	0	2563	686141	1
⌈	V-1	51	49.977	ug/L	0.127	0	3088	698584	1
⌈	Cr	52	49.812	ug/L	0.124	0	7835	613267	1
⌈	Cr	53	50.513	ug/L	0.266	0	1053	73278	1
⌈	Mn	55	49.629	ug/L	0.300	0	830	1005975	1
⌊	Co	59	50.914	ug/L	0.429	0	101	802828	1
⌈>	Ge	72		ug/L			354684	372758	0
⌈	Ni	60	51.300	ug/L	1.104	2	102	170396	1
⌈	Ni	62	50.839	ug/L	0.621	1	68	25281	0
⌈	Cu	63	51.605	ug/L	0.705	1	297	380695	0
⌈	Cu	65	50.360	ug/L	0.253	0	116	177065	0
⌈	Zn	66	51.919	ug/L	0.717	1	549	115751	1
⌈	Zn	67	50.807	ug/L	0.400	0	172	19383	0
⌈	Zn	68	50.501	ug/L	0.478	0	9951	89334	1
⌈	As	75	50.555	ug/L	0.361	0	112	109530	0
⌈	As-1	75	50.352	ug/L	0.377	0	11424	118488	0
⌈	Se	82	51.647	ug/L	0.872	1	-14	12804	1
⌈	Se	78	51.010	ug/L	0.870	1	11616	41885	0
⌊	Mo	98	49.843	ug/L	0.716	1	3126	418426	1
	Y	89		ug/L			352440	363733	1
	Kr	83		ug/L			150	172	5
⌈>	In	115		ug/L			396808	415060	0
⌈	Ag	107	49.941	ug/L	0.580	1	33	708991	1
⌈	Cd	111	49.673	ug/L	0.558	1	206	174658	0
⌈	Cd	114	50.307	ug/L	0.478	0	28	406421	0
⌈	Sb	121	49.402	ug/L	0.623	1	23	553349	0
⌈	Sb	123	49.154	ug/L	0.520	1	23	415522	0
⌈	Ba	135	49.815	ug/L	0.547	1	41	132384	0
⌊	Ba	137	49.455	ug/L	0.958	1	83	226284	1
⌈>	Tb	159		ug/L			456856	461980	1
⌈	Tl	205	49.507	ug/L	0.179	0	40	1684692	1
⌈	Pb	208	49.647	ug/L	0.190	0	620	2287372	1
⌈	Bi	209		ug/L			384269	387857	2
⌈	Th	232	50.725	ug/L	1.081	2	106	2837251	1
⌊	U	238	50.197	ug/L	0.905	1	55	3085731	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:15:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	361474	1
[	Be	9	-0.003	ug/L	0.007	244	6	5	58
	C	13		mg/L			4983	4666	1
	Cl	37		mg/L			1965743	2246943	0
[>	Sc	45		ug/L			278752	294631	1
[	V	51	-0.012	ug/L	0.002	18	2563	2541	2
[	V-1	51	-0.036	ug/L	0.007	18	3088	2766	3
[	Cr	52	-0.015	ug/L	0.008	51	7835	8100	1
[	Cr	53	-0.089	ug/L	0.024	26	1053	987	3
[	Mn	55	-0.013	ug/L	0.001	9	830	625	4
[	Co	59	0.000	ug/L	0.001	399	101	110	10
[>	Ge	72		ug/L			354684	374400	0
[	Ni	60	-0.001	ug/L	0.002	123	102	103	5
[	Ni	62	0.027	ug/L	0.013	48	68	85	7
[	Cu	63	-0.006	ug/L	0.004	57	297	269	9
[	Cu	65	0.003	ug/L	0.003	121	116	132	8
[	Zn	66	-0.007	ug/L	0.010	144	549	565	3
[	Zn	67	-0.000	ug/L	0.055	1257981	172	182	11
[	Zn	68	-0.663	ug/L	0.010	1	9951	9464	0
[	As	75	0.012	ug/L	0.003	22	112	145	4
[	As-1	75	-0.294	ug/L	0.038	12	11424	11434	0
[	Se	82	0.018	ug/L	0.042	227	-14	-10	94
[	Se	78	-1.083	ug/L	0.134	12	11616	11628	0
[	Mo	98	-0.367	ug/L	0.005	1	3126	233	19
	Y	89		ug/L			352440	366774	0
	Kr	83		ug/L			150	160	6
[>	In	115		ug/L			396808	416008	0
[	Ag	107	0.010	ug/L	0.002	24	33	173	19
[	Cd	111	0.005	ug/L	0.003	63	206	235	5
[	Cd	114	-0.000	ug/L	0.002	832	28	28	44
[	Sb	121	0.015	ug/L	0.004	28	23	189	25
[	Sb	123	0.015	ug/L	0.002	16	23	149	13
[	Ba	135	0.002	ug/L	0.005	284	41	47	24
[	Ba	137	0.002	ug/L	0.002	67	83	99	8
[>	Tb	159		ug/L			456856	466337	1
[	Tl	205	0.006	ug/L	0.001	16	40	259	14
[	Pb	208	0.005	ug/L	0.001	24	620	877	7
[	Bi	209		ug/L			384269	399275	1
[	Th	232	0.048	ug/L	0.010	20	106	2834	20
[	U	238	0.002	ug/L	0.001	27	55	178	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:21:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	349252	0
[	Be	9	0.229	ug/L	0.018	8	6	102	7
	C	13		mg/L			4983	4386	1
	Cl	37		mg/L			1965743	2230608	0
[>	Sc	45		ug/L			278752	282746	1
[	V	51	0.204	ug/L	0.011	5	2563	5272	1
[	V-1	51	0.184	ug/L	0.011	5	3088	5576	1
[	Cr	52	0.534	ug/L	0.018	3	7835	14129	1
[	Cr	53	0.460	ug/L	0.016	3	1053	1694	1
[	Mn	55	0.502	ug/L	0.015	2	830	10527	1
[	Co	59	0.212	ug/L	0.006	2	101	3290	3
[>	Ge	72		ug/L			354684	356856	0
[	Ni	60	0.525	ug/L	0.004	0	102	1771	1
[	Ni	62	0.547	ug/L	0.036	6	68	328	4
[	Cu	63	0.546	ug/L	0.005	0	297	4155	0
[	Cu	65	0.546	ug/L	0.009	1	116	1952	1
[	Zn	66	4.286	ug/L	0.018	0	549	9654	0
[	Zn	67	3.654	ug/L	0.040	1	172	1495	1
[	Zn	68	3.827	ug/L	0.060	1	9951	15734	0
[	As	75	0.242	ug/L	0.010	4	112	613	4
[	As-1	75	0.229	ug/L	0.042	18	11424	11957	0
[	Se	82	0.581	ug/L	0.040	6	-14	123	7
[	Se	78	0.590	ug/L	0.212	35	11616	12015	0
[	Mo	98	-0.168	ug/L	0.003	1	3126	1804	1
	Y	89		ug/L			352440	353477	1
	Kr	83		ug/L			150	157	2
[>	In	115		ug/L			396808	396210	1
[	Ag	107	0.211	ug/L	0.006	2	33	2898	2
[	Cd	111	0.116	ug/L	0.006	5	206	593	2
[	Cd	114	0.108	ug/L	0.003	3	28	860	2
[	Sb	121	0.200	ug/L	0.002	0	23	2159	1
[	Sb	123	0.206	ug/L	0.006	2	23	1689	2
[	Ba	135	0.527	ug/L	0.002	0	41	1377	0
[	Ba	137	0.499	ug/L	0.010	2	83	2263	1
[>	Tb	159		ug/L			456856	446937	1
[	Tl	205	0.212	ug/L	0.001	0	40	7028	1
[	Pb	208	0.107	ug/L	0.000	0	620	5369	1
[	Bi	209		ug/L			384269	381734	0
[	Th	232	0.227	ug/L	0.007	2	106	12360	2
[	U	238	0.200	ug/L	0.003	1	55	11951	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:27:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	358036	2
[	Be	9	-0.002	ug/L	0.009	440	6	5	68
	C	13		mg/L			4983	15392	1
	Cl	37		mg/L			1965743	3641898	2
[>	Sc	45		ug/L			278752	281149	0
|	V	51	0.031	ug/L	0.027	85	2563	2992	12
|	V-1	51	0.516	ug/L	0.016	3	3088	9916	2
|	Cr	52	0.505	ug/L	0.015	2	7835	13712	0
|	Cr	53	1.996	ug/L	0.090	4	1053	3764	3
|	Mn	55	0.034	ug/L	0.002	6	830	1483	2
[	Co	59	0.020	ug/L	0.001	6	101	407	3
[>	Ge	72		ug/L			354684	350575	1
|	Ni	60	0.577	ug/L	0.045	7	102	1902	5
|	Ni	62	4.081	ug/L	0.200	4	68	1970	4
|	Cu	63	0.479	ug/L	0.025	5	297	3618	5
|	Cu	65	0.646	ug/L	0.029	4	116	2248	4
|	Zn	66	1.238	ug/L	0.014	1	549	3125	1
|	Zn	67	1.471	ug/L	0.091	6	172	693	6
|	Zn	68	-0.077	ug/L	0.050	64	9951	9722	1
|	As	75	0.072	ug/L	0.033	45	112	258	26
|	As-1	75	-0.085	ug/L	0.038	44	11424	11123	1
|	Se	82	-0.001	ug/L	0.011	2063	-14	-14	17
|	Se	78	-0.426	ug/L	0.169	39	11616	11247	0
[	Mo	98	408.945	ug/L	3.681	0	3126	3206056	0
	Y	89		ug/L			352440	348919	1
	Kr	83		ug/L			150	180	4
[>	In	115		ug/L			396808	386602	1
|	Ag	107	0.026	ug/L	0.002	5	33	379	5
|	Cd	111	0.083	ug/L	0.016	18	206	474	10
|	Cd	114	0.779	ug/L	0.005	0	28	5891	1
|	Sb	121	0.062	ug/L	0.004	7	23	666	6
|	Sb	123	0.061	ug/L	0.003	5	23	502	5
|	Ba	135	0.047	ug/L	0.010	21	41	156	16
[	Ba	137	0.038	ug/L	0.003	6	83	243	4
[>	Tb	159		ug/L			456856	453785	0
|	Tl	205	0.032	ug/L	0.001	4	40	1095	4
|	Pb	208	0.033	ug/L	0.000	0	620	2127	0
|	Bi	209		ug/L			384269	368659	1
|	Th	232	0.093	ug/L	0.017	17	106	5224	17
[	U	238	0.001	ug/L	0.000	21	55	102	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:33:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	**Li**	**6**		ug/L			356170	344372	1
⌊	**Be**	**9**	**0.006**	ug/L	0.003	52	6	8	14
	C	**13**		mg/L			4983	15020	1
	Cl	**37**		mg/L			1965743	3446007	0
⌈>	**Sc**	**45**		ug/L			278752	264483	0
|	**V**	**51**	**-0.456**	ug/L	0.180	39	2563	-3145	70
|	**V-1**	**51**	**0.559**	ug/L	0.013	2	3088	9857	2
|	**Cr**	**52**	**20.194**	ug/L	0.035	0	7835	226030	0
|	**Cr**	**53**	**22.542**	ug/L	0.550	2	1053	29699	2
|	**Mn**	**55**	**19.949**	ug/L	0.173	0	830	360883	0
⌊	**Co**	**59**	**20.329**	ug/L	0.200	0	101	285768	0
⌈>	**Ge**	**72**		ug/L			354684	341450	1
|	**Ni**	**60**	**20.164**	ug/L	0.535	2	102	61411	2
|	**Ni**	**62**	**23.769**	ug/L	0.210	0	68	10863	1
|	**Cu**	**63**	**19.745**	ug/L	0.387	1	297	133602	1
|	**Cu**	**65**	**19.762**	ug/L	0.348	1	116	63712	1
|	**Zn**	**66**	**19.907**	ug/L	0.256	1	549	40979	1
|	**Zn**	**67**	**17.970**	ug/L	0.267	1	172	6387	2
|	**Zn**	**68**	**18.051**	ug/L	0.252	1	9951	35402	1
|	**As**	**75**	**19.490**	ug/L	0.024	0	112	38747	0
|	**As-1**	**75**	**19.613**	ug/L	0.033	0	11424	48992	0
|	**Se**	**82**	**-0.031**	ug/L	0.072	231	-14	-21	77
|	**Se**	**78**	**-1.065**	ug/L	0.055	5	11616	10615	0
⌊	**Mo**	**98**	**406.386**	ug/L	4.492	1	3126	3103375	1
	Y	**89**		ug/L			352440	333246	1
	Kr	**83**		ug/L			150	181	6
⌈>	**In**	**115**		ug/L			396808	376504	0
|	**Ag**	**107**	**19.244**	ug/L	0.129	0	33	247837	1
|	**Cd**	**111**	**19.324**	ug/L	0.239	1	206	61758	1
|	**Cd**	**114**	**20.265**	ug/L	0.089	0	28	148535	0
|	**Sb**	**121**	**0.063**	ug/L	0.003	5	23	658	4
|	**Sb**	**123**	**0.063**	ug/L	0.001	2	23	501	2
|	**Ba**	**135**	**0.034**	ug/L	0.005	15	41	121	10
⌊	**Ba**	**137**	**0.032**	ug/L	0.002	7	83	210	4
⌈>	**Tb**	**159**		ug/L			456856	441944	0
|	**Tl**	**205**	**0.031**	ug/L	0.001	4	40	1038	3
|	**Pb**	**208**	**0.024**	ug/L	0.002	6	620	1676	5
|	**Bi**	**209**		ug/L			384269	363165	0
|	**Th**	**232**	**0.046**	ug/L	0.003	7	106	2576	6
⌊	**U**	**238**	**0.001**	ug/L	0.000	27	55	92	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:39:53
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	360179	0
[	Be	9	191.854	ug/L	1.274	0	6	82787	0
	C	13		mg/L			4983	4743	1
	Cl	37		mg/L			1965743	1842160	1
[>	Sc	45		ug/L			278752	278016	0
[	V	51	204.101	ug/L	2.827	1	2563	2629385	1
[	V-1	51	203.361	ug/L	3.098	1	3088	2653813	1
[	Cr	52	201.003	ug/L	0.562	0	7835	2294939	0
[	Cr	53	198.819	ug/L	1.806	0	1053	267139	1
[	Mn	55	204.536	ug/L	3.581	1	830	3881861	1
[	Co	59	203.695	ug/L	5.403	2	101	3008940	2
[>	Ge	72		ug/L			354684	342402	0
[	Ni	60	199.863	ug/L	4.423	2	102	609528	1
[	Ni	62	198.575	ug/L	3.278	1	68	90516	1
[	Cu	63	193.467	ug/L	1.569	0	297	1310277	1
[	Cu	65	192.852	ug/L	2.533	1	116	622520	1
[	Zn	66	193.323	ug/L	1.776	0	549	394440	0
[	Zn	67	192.952	ug/L	0.634	0	172	67155	0
[	Zn	68	191.073	ug/L	2.377	1	9951	283721	1
[	As	75	198.520	ug/L	0.529	0	112	394774	0
[	As-1	75	199.090	ug/L	0.647	0	11424	397777	0
[	Se	82	204.678	ug/L	1.799	0	-14	46657	0
[	Se	78	207.222	ug/L	1.960	0	11616	121961	0
[	Mo	98	208.223	ug/L	0.787	0	3126	1596005	0
	Y	89		ug/L			352440	343257	0
	Kr	83		ug/L			150	186	3
[>	In	115		ug/L			396808	387616	0
[	Ag	107	199.550	ug/L	2.280	1	33	2645290	0
[	Cd	111	194.559	ug/L	1.626	0	206	638327	1
[	Cd	114	195.149	ug/L	2.368	1	28	1472266	0
[	Sb	121	201.884	ug/L	1.285	0	23	2111835	1
[	Sb	123	195.648	ug/L	0.988	0	23	1544528	0
[	Ba	135	202.032	ug/L	1.125	0	41	501299	0
[	Ba	137	204.098	ug/L	1.691	0	83	871848	0
[>	Tb	159		ug/L			456856	457924	0
[	Tl	205	202.518	ug/L	3.638	1	40	6830256	1
[	Pb	208	202.543	ug/L	1.221	0	620	9247843	0
[	Bi	209		ug/L			384269	358933	0
[	Th	232	202.066	ug/L	2.602	1	106	11204102	1
[	U	238	202.721	ug/L	2.568	1	55	12353704	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:46:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	341136	1
[	Be	9	295.209	ug/L	5.188	1	6	120618	0
	C	13		mg/L			4983	5049	0
	Cl	37		mg/L			1965743	1952392	1
[>	Sc	45		ug/L			278752	277520	1
[	V	51	304.296	ug/L	4.296	1	2563	3911799	1
[	V-1	51	302.996	ug/L	3.247	1	3088	3945473	1
[	Cr	52	301.825	ug/L	7.213	2	7835	3435739	2
[	Cr	53	297.874	ug/L	5.324	1	1053	399007	2
[	Mn	55	298.265	ug/L	2.397	0	830	5650212	0
[	Co	59	303.445	ug/L	4.670	1	101	4474331	0
[>	Ge	72		ug/L			354684	350460	0
[	Ni	60	286.352	ug/L	2.318	0	102	893796	0
[	Ni	62	287.677	ug/L	1.931	0	68	134187	0
[	Cu	63	282.587	ug/L	0.769	0	297	1958711	0
[	Cu	65	281.321	ug/L	2.962	1	116	929382	0
[	Zn	66	279.462	ug/L	3.330	1	549	583336	0
[	Zn	67	280.518	ug/L	4.423	1	172	99842	0
[	Zn	68	279.467	ug/L	1.938	0	9951	420213	1
[	As	75	291.978	ug/L	1.132	0	112	594223	0
[	As-1	75	293.530	ug/L	1.374	0	11424	594900	0
[	Se	82	288.290	ug/L	2.423	0	-14	67267	0
[	Se	78	293.634	ug/L	4.297	1	11616	172093	0
[	Mo	98	313.191	ug/L	1.598	0	3126	2455455	0
	Y	89		ug/L			352440	339454	1
	Kr	83		ug/L			150	228	0
[>	In	115		ug/L			396808	381962	0
[	Ag	107	297.401	ug/L	2.038	0	33	3885080	1
[	Cd	111	292.116	ug/L	1.078	0	206	944302	0
[	Cd	114	305.274	ug/L	1.509	0	28	2269517	0
[	Sb	121	311.156	ug/L	2.292	0	23	3207317	0
[	Sb	123	311.523	ug/L	0.415	0	23	2423411	0
[	Ba	135	297.661	ug/L	2.950	0	41	727771	0
[	Ba	137	300.397	ug/L	3.490	1	83	1264419	0
[>	Tb	159		ug/L			456856	438559	1
[	Tl	205	304.743	ug/L	5.527	1	40	9842432	0
[	Pb	208	306.659	ug/L	3.867	1	620	13407998	0
[	Bi	209		ug/L			384269	335322	0
[	Th	232	305.027	ug/L	5.307	1	106	16195804	0
[	U	238	304.186	ug/L	4.808	1	55	17751355	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~CCV2~~ ZZZZZZ
Sample Dil Factor: BA
Comments: 12/6/12
Sample Date/Time: Wednesday, December 05, 2012 10:53:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			356170	363593	1
⌊	Be	9	50.351	ug/L	0.412	0	6	21936	0
	C	13		mg/L			4983	3992	1
	Cl	37		mg/L			1965743	1972696	0
⌈>	Sc	45		ug/L			278752	277571	1
|	V	51	49.429	ug/L	0.349	0	2563	637681	1
|	V-1	51	49.676	ug/L	0.387	0	3088	649529	1
|	Cr	52	49.548	ug/L	0.208	0	7835	570675	1
|	Cr	53	50.313	ug/L	0.385	0	1053	68275	1
|	Mn	55	50.517	ug/L	0.592	1	830	957845	1
⌊	Co	59	50.441	ug/L	0.362	0	101	744021	1
⌈>	Ge	72		ug/L			354684	360710	0
|	Ni	60	48.981	ug/L	0.750	1	102	157457	2
|	Ni	62	48.976	ug/L	0.284	0	68	23571	0
|	Cu	63	49.360	ug/L	0.731	1	297	352411	1
|	Cu	65	49.102	ug/L	0.875	1	116	167073	2
|	Zn	66	50.257	ug/L	0.605	1	549	108439	1
|	Zn	67	50.058	ug/L	0.756	1	172	18482	1
|	Zn	68	49.463	ug/L	0.281	0	9951	84874	0
|	As	75	50.486	ug/L	0.297	0	112	105846	0
|	As-1	75	50.068	ug/L	0.244	0	11424	114077	0
|	Se	82	51.448	ug/L	0.404	0	-14	12343	1
|	Se	78	49.954	ug/L	0.493	0	11616	39939	1
⌊	Mo	98	49.801	ug/L	0.153	0	3126	404549	0
	Y	89		ug/L			352440	354483	0
	Kr	83		ug/L			150	152	0
⌈>	In	115		ug/L			396808	396843	0
|	Ag	107	49.600	ug/L	0.074	0	33	673205	0
|	Cd	111	50.293	ug/L	0.270	0	206	169082	0
|	Cd	114	50.581	ug/L	0.119	0	28	390710	0
|	Sb	121	50.491	ug/L	0.298	0	23	540751	1
|	Sb	123	50.461	ug/L	0.116	0	23	407861	0
|	Ba	135	50.654	ug/L	0.553	1	41	128710	1
⌊	Ba	137	50.462	ug/L	0.413	0	83	220762	1
⌈>	Tb	159		ug/L			456856	457994	1
|	Tl	205	49.348	ug/L	0.597	1	40	1664574	1
|	Pb	208	50.063	ug/L	0.720	1	620	2286314	0
|	Bi	209		ug/L			384269	384193	0
|	Th	232	51.650	ug/L	0.750	1	106	2863990	0
⌊	U	238	51.314	ug/L	0.988	1	55	3127033	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~CCB2~~ ZZZZZZ
Sample Dil Factor: BA 12/6/12
Comments:
Sample Date/Time: Wednesday, December 05, 2012 10:59:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	**Li**	**6**		ug/L			356170	373660	0
⌊	**Be**	**9**	**-0.007**	ug/L	0.003	37	6	3	33
	C	**13**		mg/L			4983	4399	2
	Cl	**37**		mg/L			1965743	2045929	4
⌈>	**Sc**	**45**		ug/L			278752	282840	0
|	**V**	**51**	**-0.017**	ug/L	0.009	53	2563	2380	4
|	**V-1**	**51**	**-0.012**	ug/L	0.006	47	3088	2976	2
|	**Cr**	**52**	**-0.041**	ug/L	0.010	23	7835	7475	0
|	**Cr**	**53**	**-0.025**	ug/L	0.009	36	1053	1035	1
|	**Mn**	**55**	**-0.013**	ug/L	0.000	2	830	595	1
⌊	**Co**	**59**	**0.001**	ug/L	0.000	34	101	124	6
⌈>	**Ge**	**72**		ug/L			354684	368272	1
|	**Ni**	**60**	**0.005**	ug/L	0.003	67	102	121	8
|	**Ni**	**62**	**-0.000**	ug/L	0.021	11892	68	70	14
|	**Cu**	**63**	**-0.007**	ug/L	0.003	35	297	255	8
|	**Cu**	**65**	**0.001**	ug/L	0.002	142	116	125	5
|	**Zn**	**66**	**0.000**	ug/L	0.009	2579	549	570	2
|	**Zn**	**67**	**-0.008**	ug/L	0.039	508	172	176	7
|	**Zn**	**68**	**-0.984**	ug/L	0.120	12	9951	8812	1
|	**As**	**75**	**0.026**	ug/L	0.014	56	112	171	18
|	**As-1**	**75**	**-0.524**	ug/L	0.049	9	11424	10766	0
|	**Se**	**82**	**0.079**	ug/L	0.017	20	-14	4	99
|	**Se**	**78**	**-1.941**	ug/L	0.220	11	11616	10944	0
⌊	**Mo**	**98**	**-0.356**	ug/L	0.006	1	3126	314	14
	Y	**89**		ug/L			352440	362311	0
	Kr	**83**		ug/L			150	148	2
⌈>	**In**	**115**		ug/L			396808	409093	0
|	**Ag**	**107**	**0.020**	ug/L	0.005	23	33	308	21
|	**Cd**	**111**	**0.001**	ug/L	0.004	296	206	217	6
|	**Cd**	**114**	**-0.000**	ug/L	0.001	383	28	27	25
|	**Sb**	**121**	**0.029**	ug/L	0.004	13	23	349	12
|	**Sb**	**123**	**0.032**	ug/L	0.006	19	23	287	18
|	**Ba**	**135**	**0.004**	ug/L	0.008	192	41	53	38
⌊	**Ba**	**137**	**0.003**	ug/L	0.003	79	83	101	12
⌈>	**Tb**	**159**		ug/L			456856	471181	1
|	**Tl**	**205**	**0.011**	ug/L	0.002	15	40	413	13
|	**Pb**	**208**	**0.008**	ug/L	0.002	20	620	1002	6
|	**Bi**	**209**		ug/L			384269	403355	0
|	**Th**	**232**	**0.073**	ug/L	0.012	15	106	4253	15
⌊	**U**	**238**	**0.003**	ug/L	0.001	25	55	231	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 11:16:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	362628	0
[	Be	9	51.014	ug/L	0.522	1	6	22168	1
	C	13		mg/L			4983	3751	2
	Cl	37		mg/L			1965743	1982850	0
[>	Sc	45		ug/L			278752	278782	1
|	V	51	48.756	ug/L	0.421	0	2563	631769	0
|	V-1	51	48.890	ug/L	0.478	0	3088	642068	0
|	Cr	52	50.014	ug/L	0.285	0	7835	578469	0
|	Cr	53	50.381	ug/L	0.574	1	1053	68660	0
|	Mn	55	50.784	ug/L	0.822	1	830	967035	1
[	Co	59	50.895	ug/L	0.852	1	101	753907	0
[>	Ge	72		ug/L			354684	363148	1
|	Ni	60	49.328	ug/L	0.397	0	102	159622	1
|	Ni	62	49.007	ug/L	0.936	1	68	23740	0
|	Cu	63	49.133	ug/L	0.492	1	297	353129	1
|	Cu	65	49.260	ug/L	0.878	1	116	168699	0
|	Zn	66	49.890	ug/L	0.874	1	549	108367	1
|	Zn	67	49.957	ug/L	0.565	1	172	18568	0
|	Zn	68	49.248	ug/L	0.253	0	9951	85117	1
|	As	75	50.384	ug/L	0.673	1	112	106331	0
|	As-1	75	49.968	ug/L	0.942	1	11424	114621	0
|	Se	82	51.644	ug/L	0.579	1	-14	12473	1
|	Se	78	50.246	ug/L	1.314	2	11616	40365	0
[	Mo	98	49.402	ug/L	0.735	1	3126	404022	1
	Y	89		ug/L			352440	359303	0
	Kr	83		ug/L			150	167	4
[>	In	115		ug/L			396808	402184	1
|	Ag	107	49.129	ug/L	0.377	0	33	675824	1
|	Cd	111	49.957	ug/L	0.289	0	206	170221	1
|	Cd	114	49.981	ug/L	0.195	0	28	391270	0
|	Sb	121	49.614	ug/L	0.382	0	23	538493	0
|	Sb	123	49.509	ug/L	0.546	1	23	405527	0
|	Ba	135	49.995	ug/L	0.944	1	41	128731	1
[	Ba	137	50.540	ug/L	1.134	2	83	224047	1
[>	Tb	159		ug/L			456856	467539	2
|	Tl	205	49.296	ug/L	0.641	1	40	1697359	0
|	Pb	208	49.522	ug/L	0.581	1	620	2308849	1
|	Bi	209		ug/L			384269	392207	1
|	Th	232	50.422	ug/L	1.027	2	106	2853866	0
[	U	238	50.570	ug/L	1.141	2	55	3145822	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 11:23:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	366253	1
[	Be	9	-0.006	ug/L	0.003	53	6	4	34
	C	13		mg/L			4983	4695	1
	Cl	37		mg/L			1965743	1980202	0
[>	Sc	45		ug/L			278752	278502	0
[	V	51	-0.017	ug/L	0.005	29	2563	2335	2
[	V-1	51	-0.032	ug/L	0.006	18	3088	2662	2
[	Cr	52	-0.025	ug/L	0.008	30	7835	7541	0
[	Cr	53	-0.071	ug/L	0.005	6	1053	956	0
[	Mn	55	-0.014	ug/L	0.001	6	830	559	2
[	Co	59	0.002	ug/L	0.001	66	101	127	12
[>	Ge	72		ug/L			354684	367678	0
[	Ni	60	-0.003	ug/L	0.002	47	102	95	6
[	Ni	62	-0.018	ug/L	0.029	162	68	62	22
[	Cu	63	-0.008	ug/L	0.001	17	297	247	4
[	Cu	65	-0.001	ug/L	0.005	727	116	118	13
[	Zn	66	-0.019	ug/L	0.008	41	549	528	2
[	Zn	67	-0.074	ug/L	0.021	29	172	151	4
[	Zn	68	-1.000	ug/L	0.048	4	9951	8775	1
[	As	75	0.032	ug/L	0.012	38	112	184	14
[	As-1	75	-0.512	ug/L	0.032	6	11424	10775	0
[	Se	82	0.026	ug/L	0.057	222	-14	-8	156
[	Se	78	-1.926	ug/L	0.129	6	11616	10936	0
[	Mo	98	-0.371	ug/L	0.004	1	3126	189	19
	Y	89		ug/L			352440	362358	0
	Kr	83		ug/L			150	160	4
[>	In	115		ug/L			396808	404991	1
[	Ag	107	0.013	ug/L	0.003	21	33	207	18
[	Cd	111	0.006	ug/L	0.003	52	206	230	4
[	Cd	114	0.001	ug/L	0.001	89	28	36	20
[	Sb	121	0.027	ug/L	0.007	25	23	324	24
[	Sb	123	0.029	ug/L	0.009	29	23	267	27
[	Ba	135	0.004	ug/L	0.002	52	41	54	12
[	Ba	137	0.001	ug/L	0.002	297	83	88	9
[>	Tb	159		ug/L			456856	468173	0
[	Tl	205	0.007	ug/L	0.001	15	40	270	12
[	Pb	208	0.005	ug/L	0.002	49	620	855	12
[	Bi	209		ug/L			384269	399502	0
[	Th	232	0.052	ug/L	0.011	20	106	3067	19
[	U	238	0.003	ug/L	0.001	27	55	272	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, December 05, 2012 11:32:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	369030	2
[	Be	9	0.105	ug/L	0.004	3	6	53	1
	C	13		mg/L			4983	6656	2
	Cl	37		mg/L			1965743	1942780	0
[>	Sc	45		ug/L			278752	310844	0
[	V	51	23.747	ug/L	0.917	3	2563	344652	4
[	V-1	51	23.704	ug/L	0.873	3	3088	348981	4
[	Cr	52	18.912	ug/L	0.745	3	7835	249369	4
[	Cr	53	18.969	ug/L	0.628	3	1053	29563	3
[	Mn	55	183.199	ug/L	3.015	1	830	3888059	2
[	Co	59	5.007	ug/L	0.164	3	101	82817	3
[>	Ge	72		ug/L			354684	366933	1
[	Ni	60	18.681	ug/L	0.777	4	102	61138	3
[	Ni	62	23.053	ug/L	0.946	4	68	11321	3
[	Cu	63	11.710	ug/L	0.544	4	297	85256	3
[	Cu	65	11.994	ug/L	0.530	4	116	41593	3
[	Zn	66	47.582	ug/L	2.296	4	549	104438	4
[	Zn	67	44.480	ug/L	2.271	5	172	16721	4
[	Zn	68	45.707	ug/L	2.239	4	9951	80541	3
[	As	75	2.729	ug/L	0.149	5	112	5927	4
[	As-1	75	2.172	ug/L	0.197	9	11424	16337	1
[	Se	82	U 0.081	ug/L	0.015	18	-14	4	78
[	Se	78	-2.040	ug/L	0.208	10	11616	10848	0
[	Mo	98	-0.283	ug/L	0.007	2	3126	914	5
	Y	89		ug/L			352440	476411	0
	Kr	83		ug/L			150	182	4
[>	In	115		ug/L			396808	400894	0
[	Ag	107	0.044	ug/L	0.003	7	33	630	6
[	Cd	111	0.286	ug/L	0.033	11	206	1179	9
[	Cd	114	0.133	ug/L	0.005	3	28	1066	3
[	Sb	121	0.029	ug/L	0.001	3	23	335	3
[	Sb	123	0.028	ug/L	0.003	9	23	249	8
[	Ba	135	34.661	ug/L	1.707	4	41	88975	4
[	Ba	137	34.236	ug/L	1.703	4	83	151315	4
[>	Tb	159		ug/L			456856	473038	0
[	Tl	205	0.036	ug/L	0.002	5	40	1312	5
[	Pb	208	6.634	ug/L	0.332	5	620	313507	4
[	Bi	209		ug/L			384269	396744	0
[	Th	232	0.560	ug/L	0.023	4	106	32187	3
[	U	238	0.147	ug/L	0.007	4	55	9305	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, December 05, 2012 11:39:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	358020	2
[	Be	9	0.161	ug/L	0.013	8	6	75	9
	C	13		mg/L			4983	7406	1
	Cl	37		mg/L			1965743	1936999	0
[>	Sc	45		ug/L			278752	317430	1
[	V	51	26.102	ug/L	0.917	3	2563	386475	3
[	V-1	51	26.251	ug/L	0.954	3	3088	394180	3
[	Cr	52	23.346	ug/L	0.730	3	7835	312192	2
[	Cr	53	23.918	ug/L	0.863	3	1053	37742	3
[	Mn	55	220.317	ug/L	6.811	3	830	4773319	2
[	Co	59	4.926	ug/L	0.198	4	101	83165	3
[>	Ge	72		ug/L			354684	365604	1
[	Ni	60	26.005	ug/L	0.871	3	102	84798	4
[	Ni	62	32.025	ug/L	1.228	3	68	15650	4
[	Cu	63	7.928	ug/L	0.247	3	297	57639	4
[	Cu	65	8.245	ug/L	0.201	2	116	28536	3
[	Zn	66	62.121	ug/L	2.479	3	549	135759	5
[	Zn	67	58.032	ug/L	1.548	2	172	21694	3
[	Zn	68	60.087	ug/L	1.981	3	9951	102323	4
[	As	75	2.928	ug/L	0.110	3	112	6333	4
[	As-1	75	2.474	ug/L	0.078	3	11424	16908	2
[	Se	82	U 0.041	ug/L	0.037	91	-14	-5	172
[	Se	78	-1.708	ug/L	0.122	7	11616	10998	0
[	Mo	98	-0.320	ug/L	0.004	1	3126	611	5
	Y	89		ug/L			352440	483584	2
	Kr	83		ug/L			150	187	0
[>	In	115		ug/L			396808	394450	0
[	Ag	107	0.038	ug/L	0.003	9	33	542	7
[	Cd	111	0.295	ug/L	0.033	11	206	1189	8
[	Cd	114	0.119	ug/L	0.002	1	28	941	1
[	Sb	121	0.023	ug/L	0.002	7	23	263	6
[	Sb	123	0.022	ug/L	0.003	13	23	196	11
[	Ba	135	36.453	ug/L	1.448	3	41	92059	3
[	Ba	137	36.810	ug/L	2.074	5	83	160047	4
[>	Tb	159		ug/L			456856	469891	1
[	Tl	205	0.026	ug/L	0.001	4	40	924	3
[	Pb	208	8.498	ug/L	0.499	5	620	398659	5
[	Bi	209		ug/L			384269	391269	0
[	Th	232	1.000	ug/L	0.054	5	106	56994	4
[	U	238	0.179	ug/L	0.010	5	55	11247	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, December 05, 2012 11:45:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	364726	1
[	Be	9	0.137	ug/L	0.009	6	6	66	5
	C	13		mg/L			4983	5857	1
	Cl	37		mg/L			1965743	1932693	0
[>	Sc	45		ug/L			278752	312511	0
[	V	51	26.357	ug/L	2.051	7	2563	384176	7
[	V-1	51	26.389	ug/L	2.040	7	3088	390115	7
[	Cr	52	19.308	ug/L	1.461	7	7835	255728	7
[	Cr	53	19.687	ug/L	1.449	7	1053	30796	6
[	Mn	55	206.536	ug/L	18.210	8	830	4405976	8
[	Co	59	4.703	ug/L	0.310	6	101	78207	6
[>	Ge	72		ug/L			354684	366892	0
[	Ni	60	24.549	ug/L	1.891	7	102	80311	7
[	Ni	62	29.978	ug/L	3.084	10	68	14700	10
[	Cu	63	7.236	ug/L	0.616	8	297	52800	8
[	Cu	65	7.543	ug/L	0.635	8	116	26202	8
[	Zn	66	50.508	ug/L	4.551	9	549	110827	8
[	Zn	67	47.686	ug/L	3.962	8	172	17915	8
[	Zn	68	48.549	ug/L	4.091	8	9951	84914	7
[	As	75	1.976	ug/L	0.154	7	112	4324	7
[	As-1	75	1.531	ug/L	0.176	11	11424	15003	2
[	Se	82	-0.005	ug/L	0.024	506	-14	-16	35
[	Se	78	-1.645	ug/L	0.082	4	11616	11074	0
[	Mo	98	-0.335	ug/L	0.003	0	3126	488	5
	Y	89		ug/L			352440	482517	1
	Kr	83		ug/L			150	186	0
[>	In	115		ug/L			396808	400777	1
[	Ag	107	0.035	ug/L	0.003	7	33	510	6
[	Cd	111	0.202	ug/L	0.027	13	206	893	9
[	Cd	114	0.067	ug/L	0.009	13	28	550	12
[	Sb	121	0.015	ug/L	0.003	17	23	184	14
[	Sb	123	0.015	ug/L	0.002	11	23	146	8
[	Ba	135	32.623	ug/L	2.947	9	41	83672	7
[	Ba	137	32.814	ug/L	3.088	9	83	144899	8
[>	Tb	159		ug/L			456856	469696	0
[	Tl	205	0.027	ug/L	0.002	8	40	975	7
[	Pb	208	6.732	ug/L	0.526	7	620	315852	7
[	Bi	209		ug/L			384269	391014	0
[	Th	232	0.690	ug/L	0.059	8	106	39355	8
[	U	238	0.139	ug/L	0.014	9	55	8740	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, December 05, 2012 11:51:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	385486	2
[	Be	9	0.117	ug/L	0.014	12	6	61	8
	C	13		mg/L			4983	6403	1
	Cl	37		mg/L			1965743	1895039	0
[>	Sc	45		ug/L			278752	322556	1
[	V	51	20.542	ug/L	0.981	4	2563	309636	4
[	V-1	51	20.533	ug/L	1.003	4	3088	314029	4
[	Cr	52	17.123	ug/L	1.096	6	7835	235058	5
[	Cr	53	17.228	ug/L	1.221	7	1053	27966	6
[	Mn	55	245.581	ug/L	13.671	5	830	5406475	5
[	Co	59	4.254	ug/L	0.326	7	101	72996	7
[>	Ge	72		ug/L			354684	365984	1
[	Ni	60	25.369	ug/L	1.752	6	102	82738	5
[	Ni	62	30.699	ug/L	2.217	7	68	15007	5
[	Cu	63	8.691	ug/L	0.541	6	297	63172	5
[	Cu	65	8.982	ug/L	0.579	6	116	31087	5
[	Zn	66	51.919	ug/L	3.229	6	549	113580	4
[	Zn	67	48.001	ug/L	2.748	5	172	17980	4
[	Zn	68	50.246	ug/L	3.010	5	9951	87282	4
[	As	75	1.865	ug/L	0.126	6	112	4077	5
[	As-1	75	1.724	ug/L	0.231	13	11424	15362	2
[	Se	82	U 0.093	ug/L	0.063	67	-14	7	208
[	Se	78	-0.523	ug/L	0.443	84	11616	11684	0
[	Mo	98	-0.301	ug/L	0.008	2	3126	766	7
	Y	89		ug/L			352440	481321	0
	Kr	83		ug/L			150	165	6
[>	In	115		ug/L			396808	412522	0
[	Ag	107	0.046	ug/L	0.002	5	33	687	4
[	Cd	111	0.213	ug/L	0.022	10	206	958	7
[	Cd	114	0.068	ug/L	0.003	3	28	578	3
[	Sb	121	0.023	ug/L	0.003	12	23	279	10
[	Sb	123	0.020	ug/L	0.003	13	23	192	11
[	Ba	135	31.349	ug/L	1.860	5	41	82806	5
[	Ba	137	31.351	ug/L	2.114	6	83	142580	6
[>	Tb	159		ug/L			456856	485511	1
[	Tl	205	0.027	ug/L	0.001	2	40	1000	1
[	Pb	208	6.267	ug/L	0.389	6	620	303875	5
[	Bi	209		ug/L			384269	411285	2
[	Th	232	0.532	ug/L	0.025	4	106	31350	3
[	U	238	0.121	ug/L	0.011	8	55	7859	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR38 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, December 05, 2012 11:58:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	366418	2
[	Be	9	0.181	ug/L	0.019	10	6	86	10
	C	13		mg/L			4983	5468	2
	Cl	37		mg/L			1965743	1896252	0
[>	Sc	45		ug/L			278752	327335	2
[	V	51	28.968	ug/L	1.713	5	2563	442325	7
[	V-1	51	28.965	ug/L	1.679	5	3088	448496	7
[	Cr	52	20.644	ug/L	1.159	5	7835	285981	7
[	Cr	53	20.960	ug/L	1.079	5	1053	34289	7
[	Mn	55	502.908	ug/L	26.738	5	830	11243027	7
[	Co	59	5.600	ug/L	0.358	6	101	97592	8
[>	Ge	72		ug/L			354684	371285	1
[	Ni	60	35.431	ug/L	3.105	8	102	117182	7
[	Ni	62	41.828	ug/L	3.273	7	68	20718	6
[	Cu	63	11.496	ug/L	0.900	7	297	84674	6
[	Cu	65	11.904	ug/L	0.871	7	116	41760	6
[	Zn	66	74.165	ug/L	5.171	6	549	164357	5
[	Zn	67	68.498	ug/L	5.036	7	172	25953	6
[	Zn	68	71.920	ug/L	6.305	8	9951	122226	7
[	As	75	2.648	ug/L	0.193	7	112	5822	5
[	As-1	75	2.237	ug/L	0.301	13	11424	16666	2
[	Se	82	U 0.046	ug/L	0.024	51	-14	-3	148
[	Se	78	-1.511	ug/L	0.398	26	11616	11282	0
[	Mo	98	-0.236	ug/L	0.014	6	3126	1312	8
	Y	89		ug/L			352440	524586	2
	Kr	83		ug/L			150	192	3
[>	In	115		ug/L			396808	404201	0
[	Ag	107	0.041	ug/L	0.004	9	33	598	7
[	Cd	111	0.328	ug/L	0.020	6	206	1332	4
[	Cd	114	0.137	ug/L	0.011	8	28	1107	7
[	Sb	121	0.023	ug/L	0.002	7	23	278	6
[	Sb	123	0.024	ug/L	0.002	7	23	218	5
[	Ba	135	43.223	ug/L	3.982	9	41	111822	8
[	Ba	137	43.096	ug/L	3.595	8	83	191980	7
[>	Tb	159		ug/L			456856	472944	1
[	Tl	205	0.073	ug/L	0.007	9	40	2568	9
[	Pb	208	10.518	ug/L	0.810	7	620	496535	7
[	Bi	209		ug/L			384269	397580	0
[	Th	232	0.677	ug/L	0.061	9	106	38847	8
[	U	238	0.155	ug/L	0.014	9	55	9802	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS36 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, December 05, 2012 12:04:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	365210	1
[	Be	9	-0.001	ug/L	0.005	397	6	6	34
	C	13		mg/L			4983	5883	0
	Cl	37		mg/L			1965743	1931063	0
[>	Sc	45		ug/L			278752	294055	1
[	V	51	1.730	ug/L	0.026	1	2563	26254	2
[	V-1	51	1.661	ug/L	0.020	1	3088	26164	2
[	Cr	52	0.380	ug/L	0.008	2	7835	12837	1
[	Cr	53	0.220	ug/L	0.014	6	1053	1421	0
[	Mn	55	2.636	ug/L	0.014	0	830	53771	1
[	Co	59	0.085	ug/L	0.002	2	101	1441	0
[>	Ge	72		ug/L			354684	374152	0
[	Ni	60	2.669	ug/L	0.083	3	102	9000	2
[	Ni	62	2.635	ug/L	0.025	0	68	1383	0
[	Cu	63	4.660	ug/L	0.054	1	297	34791	1
[	Cu	65	4.620	ug/L	0.034	0	116	16416	0
[	Zn	66	10.212	ug/L	0.103	1	549	23318	1
[	Zn	67	9.002	ug/L	0.040	0	172	3596	0
[	Zn	68	9.280	ug/L	0.119	1	9951	25044	1
[	As	75	1.990	ug/L	0.018	0	112	4440	0
[	As-1	75	1.598	ug/L	0.059	3	11424	15443	0
[	Se	82	0.095	ug/L	0.057	60	-14	8	174
[	Se	78	-1.485	ug/L	0.206	13	11616	11386	0
[	Mo	98	0.203	ug/L	0.014	6	3126	4997	1
	Y	89		ug/L			352440	381175	2
	Kr	83		ug/L			150	158	5
[>	In	115		ug/L			396808	409668	0
[	Ag	107	0.009	ug/L	0.000	1	33	157	0
[	Cd	111	0.036	ug/L	0.007	20	206	339	7
[	Cd	114	0.020	ug/L	0.002	9	28	188	7
[	Sb	121	0.534	ug/L	0.011	2	23	5929	2
[	Sb	123	0.527	ug/L	0.009	1	23	4423	1
[	Ba	135	3.499	ug/L	0.037	1	41	9218	0
[	Ba	137	3.509	ug/L	0.019	0	83	15928	0
[>	Tb	159		ug/L			456856	483497	0
[	Tl	205	0.005	ug/L	0.001	12	40	235	10
[	Pb	208	0.185	ug/L	0.004	2	620	9576	1
[	Bi	209		ug/L			384269	403118	0
[	Th	232	0.027	ug/L	0.003	10	106	1666	9
[	U	238	0.011	ug/L	0.000	2	55	736	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS36 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, December 05, 2012 12:10:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	362996	2
[	Be	9	0.010	ug/L	0.008	78	6	11	29
	C	13		mg/L			4983	5870	3
	Cl	37		mg/L			1965743	1902274	0
[>	Sc	45		ug/L			278752	283890	1
[	V	51	1.749	ug/L	0.008	0	2563	25589	0
[	V-1	51	1.678	ug/L	0.016	0	3088	25486	1
[	Cr	52	0.399	ug/L	0.021	5	7835	12610	1
[	Cr	53	0.233	ug/L	0.034	14	1053	1391	4
[	Mn	55	2.709	ug/L	0.040	1	830	53338	1
[	Co	59	0.087	ug/L	0.003	3	101	1420	3
[>	Ge	72		ug/L			354684	368118	1
[	Ni	60	2.640	ug/L	0.063	2	102	8761	2
[	Ni	62	2.462	ug/L	0.064	2	68	1276	3
[	Cu	63	4.598	ug/L	0.037	0	297	33777	1
[	Cu	65	4.623	ug/L	0.043	0	116	16164	2
[	Zn	66	9.872	ug/L	0.186	1	549	22197	2
[	Zn	67	8.846	ug/L	0.222	2	172	3481	3
[	Zn	68	8.941	ug/L	0.109	1	9951	24116	0
[	As	75	1.970	ug/L	0.053	2	112	4326	1
[	As-1	75	1.645	ug/L	0.061	3	11424	15291	0
[	Se	82	0.086	ug/L	0.019	21	-14	5	82
[	Se	78	-1.261	ug/L	0.034	2	11616	11331	1
[	Mo	98	0.191	ug/L	0.012	6	3126	4818	2
	Y	89		ug/L			352440	371689	1
	Kr	83		ug/L			150	154	2
[>	In	115		ug/L			396808	405256	0
[	Ag	107	0.009	ug/L	0.001	12	33	153	9
[	Cd	111	0.029	ug/L	0.005	17	206	311	5
[	Cd	114	0.025	ug/L	0.003	12	28	228	10
[	Sb	121	0.526	ug/L	0.004	0	23	5778	0
[	Sb	123	0.530	ug/L	0.010	1	23	4400	1
[	Ba	135	3.510	ug/L	0.047	1	41	9148	1
[	Ba	137	3.434	ug/L	0.046	1	83	15420	1
[>	Tb	159		ug/L			456856	470913	0
[	Tl	205	0.004	ug/L	0.000	5	40	180	4
[	Pb	208	0.184	ug/L	0.002	0	620	9286	0
[	Bi	209		ug/L			384269	397519	1
[	Th	232	0.022	ug/L	0.001	3	106	1348	4
[	U	238	0.010	ug/L	0.000	1	55	700	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS36 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, December 05, 2012 12:17:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			356170	355619	1
⌊	Be	9	24.268	ug/L	0.288	1	6	10345	1
	C	13		mg/L			4983	5472	1
	Cl	37		mg/L			1965743	1888048	0
⌈>	Sc	45		ug/L			278752	278562	2
|	V	51	25.428	ug/L	0.553	2	2563	330365	0
|	V-1	51	25.439	ug/L	0.542	2	3088	335224	0
|	Cr	52	24.449	ug/L	0.192	0	7835	286530	1
|	Cr	53	24.522	ug/L	0.175	0	1053	33932	1
|	Mn	55	27.116	ug/L	0.624	2	830	516185	0
⌊	Co	59	24.577	ug/L	0.293	1	101	363798	1
⌈>	Ge	72		ug/L			354684	359594	0
|	Ni	60	26.624	ug/L	0.187	0	102	85369	1
|	Ni	62	26.783	ug/L	0.313	1	68	12882	1
|	Cu	63	30.512	ug/L	0.177	0	297	217273	0
|	Cu	65	30.592	ug/L	0.270	0	116	103806	0
|	Zn	66	86.143	ug/L	0.795	0	549	184902	1
|	Zn	67	77.987	ug/L	1.216	1	172	28611	2
|	Zn	68	83.722	ug/L	0.651	0	9951	136234	1
|	As	75	28.140	ug/L	0.389	1	112	58866	1
|	As-1	75	26.550	ug/L	0.403	1	11424	65752	2
|	Se	82	79.400	ug/L	0.189	0	-14	18999	0
|	Se	78	77.935	ug/L	1.174	1	11616	55523	1
⌊	Mo	98	24.263	ug/L	0.177	0	3126	198110	1
	Y	89		ug/L			352440	363793	0
	Kr	83		ug/L			150	160	2
⌈>	In	115		ug/L			396808	392444	1
|	Ag	107	22.946	ug/L	0.183	0	33	308002	1
|	Cd	111	23.935	ug/L	0.533	2	206	79668	1
|	Cd	114	24.019	ug/L	0.359	1	28	183473	1
|	Sb	121	24.233	ug/L	0.099	0	23	256660	1
|	Sb	123	24.329	ug/L	0.198	0	23	194465	1
|	Ba	135	29.175	ug/L	0.349	1	41	73320	0
⌊	Ba	137	29.362	ug/L	0.700	2	83	127042	1
⌈>	Tb	159		ug/L			456856	467771	1
|	Tl	205	24.590	ug/L	0.480	1	40	847190	1
|	Pb	208	25.048	ug/L	0.316	1	620	1168703	1
|	Bi	209		ug/L			384269	392499	0
|	Th	232	22.626	ug/L	0.486	2	106	1281470	1
⌊	U	238	23.467	ug/L	0.347	1	55	1460802	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU47 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, December 05, 2012 12:23:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	356458	0
[	Be	9	0.010	ug/L	0.015	154	6	10	59
	C	13		mg/L			4983	6126	2
	Cl	37		mg/L			1965743	1810848	1
[>	Sc	45		ug/L			278752	337435	0
|	V	51	0.932	ug/L	0.016	1	2563	17660	1
|	V-1	51	0.883	ug/L	0.013	1	3088	17714	1
|	Cr	52	-0.023	ug/L	0.015	63	7835	9164	3
|	Cr	53	-0.137	ug/L	0.020	14	1053	1053	3
|	Mn	55	29.117	ug/L	0.223	0	830	671624	1
[	Co	59	1.107	ug/L	0.008	0	101	19972	1
[>	Ge	72		ug/L			354684	349250	2
|	Ni	60	12.238	ug/L	0.205	1	102	38162	2
|	Ni	62	12.008	ug/L	0.319	2	68	5646	3
|	Cu	63	4.519	ug/L	0.068	1	297	31498	1
|	Cu	65	4.389	ug/L	0.091	2	116	14561	2
|	Zn	66	2.018	ug/L	0.080	3	549	4737	5
|	Zn	67	2.206	ug/L	0.096	4	172	950	1
|	Zn	68	2.357	ug/L	0.085	3	9951	13248	2
|	As	75	0.452	ug/L	0.004	0	112	1028	2
|	As-1	75	0.094	ug/L	0.102	109	11424	11433	2
|	Se	82	0.392	ug/L	0.046	11	-14	76	15
|	Se	78	-0.830	ug/L	0.377	45	11616	10985	2
[	Mo	98	0.543	ug/L	0.007	1	3126	7318	1
	Y	89		ug/L			352440	381292	1
	Kr	83		ug/L			150	165	3
[>	In	115		ug/L			396808	382727	1
|	Ag	107	0.013	ug/L	0.001	9	33	203	8
|	Cd	111	0.036	ug/L	0.009	25	206	316	8
|	Cd	114	0.042	ug/L	0.003	6	28	338	6
|	Sb	121	0.084	ug/L	0.006	6	23	893	8
|	Sb	123	0.086	ug/L	0.001	1	23	689	2
|	Ba	135	18.608	ug/L	0.171	0	41	45623	1
[	Ba	137	18.406	ug/L	0.233	1	83	77711	2
[>	Tb	159		ug/L			456856	457969	2
|	Tl	205	0.032	ug/L	0.001	3	40	1111	4
|	Pb	208	0.057	ug/L	0.002	4	620	3200	2
|	Bi	209		ug/L			384269	372249	2
|	Th	232	0.051	ug/L	0.013	26	106	2917	27
[	U	238	0.025	ug/L	0.000	1	55	1597	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU47 E REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, December 05, 2012 12:29:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	363186	1
[	Be	9	0.001	ug/L	0.007	1051	6	7	44
	C	13		mg/L			4983	3681	1
	Cl	37		mg/L			1965743	1758038	1
[>	Sc	45		ug/L			278752	260921	2
[	V	51	0.246	ug/L	0.017	6	2563	5367	1
[	V-1	51	0.168	ug/L	0.011	6	3088	4950	1
[	Cr	52	-0.024	ug/L	0.023	97	7835	7078	1
[	Cr	53	-0.255	ug/L	0.011	4	1053	666	3
[	Mn	55	42.033	ug/L	1.051	2	830	749251	3
[	Co	59	0.133	ug/L	0.001	0	101	1945	2
[>	Ge	72		ug/L			354684	348586	0
[	Ni	60	0.307	ug/L	0.013	4	102	1055	3
[	Ni	62	0.281	ug/L	0.063	22	68	197	14
[	Cu	63	0.219	ug/L	0.005	2	297	1799	1
[	Cu	65	0.228	ug/L	0.011	4	116	862	4
[	Zn	66	0.959	ug/L	0.025	2	549	2528	1
[	Zn	67	0.730	ug/L	0.027	3	172	427	2
[	Zn	68	-0.027	ug/L	0.091	343	9951	9740	0
[	As	75	199.957	ug/L	3.121	1	112	404801	1
[	As-1	75	204.216	ug/L	3.267	1	11424	415089	1
[	Se	82	0.127	ug/L	0.043	34	-14	15	67
[	Se	78	-1.363	ug/L	0.296	21	11616	10674	1
[	Mo	98	0.673	ug/L	0.015	2	3126	8312	0
	Y	89		ug/L			352440	348118	0
	Kr	83		ug/L			150	151	3
[>	In	115		ug/L			396808	386368	0
[	Ag	107	0.003	ug/L	0.001	23	33	76	12
[	Cd	111	0.003	ug/L	0.003	104	206	209	4
[	Cd	114	0.004	ug/L	0.002	50	28	56	25
[	Sb	121	1.964	ug/L	0.024	1	23	20502	0
[	Sb	123	1.986	ug/L	0.022	1	23	15648	0
[	Ba	135	0.015	ug/L	0.005	32	41	77	15
[	Ba	137	0.008	ug/L	0.000	5	83	115	1
[>	Tb	159		ug/L			456856	452734	0
[	Tl	205	0.002	ug/L	0.000	23	40	109	14
[	Pb	208	0.007	ug/L	0.000	3	620	915	1
[	Bi	209		ug/L			384269	388418	0
[	Th	232	0.007	ug/L	0.001	12	106	482	9
[	U	238	0.001	ug/L	0.000	5	55	120	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 12:35:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	377506	3
[	Be	9	48.087	ug/L	1.998	4	6	21733	1
	C	13		mg/L			4983	3696	3
	Cl	37		mg/L			1965743	1808851	1
[>	Sc	45		ug/L			278752	276650	2
[	V	51	48.852	ug/L	1.067	2	2563	627969	0
[	V-1	51	49.018	ug/L	1.055	2	3088	638623	0
[	Cr	52	50.273	ug/L	0.626	1	7835	576875	1
[	Cr	53	50.732	ug/L	0.746	1	1053	68594	1
[	Mn	55	50.488	ug/L	0.822	1	830	953874	1
[	Co	59	51.199	ug/L	1.634	3	101	752288	0
[>	Ge	72		ug/L			354684	356595	0
[	Ni	60	50.129	ug/L	1.232	2	102	159296	2
[	Ni	62	49.900	ug/L	1.131	2	68	23739	1
[	Cu	63	49.966	ug/L	0.141	0	297	352648	0
[	Cu	65	49.164	ug/L	1.237	2	116	165358	2
[	Zn	66	50.144	ug/L	0.908	1	549	106958	1
[	Zn	67	49.670	ug/L	0.639	1	172	18131	1
[	Zn	68	49.249	ug/L	0.256	0	9951	83586	0
[	As	75	50.495	ug/L	0.139	0	112	104659	0
[	As-1	75	50.190	ug/L	0.284	0	11424	113025	0
[	Se	82	54.111	ug/L	0.474	0	-14	12835	0
[	Se	78	53.288	ug/L	0.600	1	11616	41338	0
[	Mo	98	50.663	ug/L	0.728	1	3126	406785	1
	Y	89		ug/L			352440	366998	1
	Kr	83		ug/L			150	159	8
[>	In	115		ug/L			396808	396272	0
[	Ag	107	49.921	ug/L	0.447	0	33	676608	1
[	Cd	111	50.208	ug/L	0.053	0	206	168554	0
[	Cd	114	50.785	ug/L	0.912	1	28	391726	1
[	Sb	121	49.101	ug/L	0.543	1	23	525086	0
[	Sb	123	49.190	ug/L	0.628	1	23	397005	0
[	Ba	135	51.322	ug/L	0.590	1	41	130215	1
[	Ba	137	52.334	ug/L	0.116	0	83	228618	0
[>	Tb	159		ug/L			456856	474000	1
[	Tl	205	49.146	ug/L	0.831	1	40	1715718	1
[	Pb	208	49.931	ug/L	0.481	0	620	2360207	1
[	Bi	209		ug/L			384269	395084	1
[	Th	232	49.953	ug/L	1.054	2	106	2866638	1
[	U	238	50.328	ug/L	0.716	1	55	3174429	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, December 05, 2012 12:42:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120512.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			356170	364967	2
[	Be	9	-0.003	ug/L	0.004	126	6	5	35
	C	13		mg/L			4983	4406	1
	Cl	37		mg/L			1965743	1854910	0
[>	Sc	45		ug/L			278752	266273	2
|	V	51	-0.002	ug/L	0.012	527	2563	2422	8
|	V-1	51	-0.080	ug/L	0.009	10	3088	1951	3
|	Cr	52	-0.013	ug/L	0.024	186	7835	7349	5
|	Cr	53	-0.254	ug/L	0.047	18	1053	679	6
|	Mn	55	-0.013	ug/L	0.002	11	830	548	5
[	Co	59	-0.001	ug/L	0.000	50	101	87	7
[>	Ge	72		ug/L			354684	358674	1
|	Ni	60	-0.005	ug/L	0.001	14	102	87	4
|	Ni	62	-0.027	ug/L	0.013	48	68	56	9
|	Cu	63	-0.011	ug/L	0.001	8	297	225	0
|	Cu	65	-0.003	ug/L	0.005	150	116	107	12
|	Zn	66	-0.027	ug/L	0.006	23	549	497	0
|	Zn	67	-0.086	ug/L	0.040	46	172	143	11
|	Zn	68	-1.042	ug/L	0.023	2	9951	8496	1
|	As	75	0.020	ug/L	0.009	46	112	155	12
|	As-1	75	-0.404	ug/L	0.051	12	11424	10730	2
|	Se	82	0.031	ug/L	0.041	130	-14	-7	131
|	Se	78	-1.488	ug/L	0.215	14	11616	10914	2
[	Mo	98	-0.377	ug/L	0.006	1	3126	139	33
	Y	89		ug/L			352440	361520	3
	Kr	83		ug/L			150	155	5
[>	In	115		ug/L			396808	393507	3
|	Ag	107	0.010	ug/L	0.003	34	33	162	27
|	Cd	111	-0.000	ug/L	0.001	182	206	203	2
|	Cd	114	-0.000	ug/L	0.000	341	28	26	8
|	Sb	121	0.023	ug/L	0.007	31	23	264	32
|	Sb	123	0.024	ug/L	0.003	14	23	213	15
|	Ba	135	0.006	ug/L	0.001	24	41	55	9
[	Ba	137	0.002	ug/L	0.001	64	83	89	5
[>	Tb	159		ug/L			456856	464800	2
|	Tl	205	0.007	ug/L	0.002	21	40	283	20
|	Pb	208	0.004	ug/L	0.001	17	620	814	6
|	Bi	209		ug/L			384269	392295	2
|	Th	232	0.043	ug/L	0.008	17	106	2528	19
[	U	238	0.002	ug/L	0.001	40	55	194	30

Mercury Analysis Log

Analyst: DM Date: 11-7-12

Instrument: CETAC Page: 1 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	3MM	1X		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.26	Beg in CLP %R=91 ✓
ICB			-0.01	✓
CCV1			3.49	%R=92 ✓
CCB1			-0.00	✓
CRA			0.10	✓
VSTD MB1			0.01	✓
" MB1SPK			1.90	%R=95 ✓
" A			1.08	
" ADUP			1.05	RPD=2.81 ✓
" ASPK			2.04	%R=96 ✓
" B				
" C				
" D				
" E				
CCV2			3.45	%R=91 ✓
CCB2			0.00	✓
VSTD F				DEL CUTOUT
" G				
" H				
" I				
" J				
" K				
" L				

Chemical/Reagent ID:

10% $SnCl_2$: MP2391 14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7 ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 2 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR37 MB1	5mm	1x	0.00	DEL CN out ✓
" MB1SPK			2.04	%R=102 ✓
" A			0.19	
CCV3			1.76	%R=44 LOW X
CCV4			3.63	%R=91 ✓
CCB3			0.00	✓
VS18 F				
" G				
" H				
" I				
" J				
" K				
" L				
VR37 MB1			0.01	✓
" MB1SPK			1.74	%R=87 ✓
" A			0.16	
CCV5			3.59	%R=90 ✓
CCB4			0.00	✓
VR37 ADUP			0.15	✓
" ASPK			1.12	%R=96 ✓
" B				
" C				
" D				
" E				
" F				
" G				
" H				
" I				
CCV6			3.60	%R=90 ✓
CCB5	↓	↓	0.00	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7

ICV/CCV: SL-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-7-12

Page: 3 of 10

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VR87	J	SMM	1X			
"	K					
"	L					
"	M					
"	N					
"	O					
VR88	MB1			-0.00		✓
"	MB1SPK			1.81	%R=91	✓
"	A			0.11		
"	ADUP			0.10		✓
CCV7				3.64	%R=91	✓
CCB6				0.00		✓
VR88	ASPK			1.07	%R=96	✓
"	B					
"	C					
"	D					
"	E					
"	F					
"	G					
"	H					
"	I					
"	J					
CCV8				3.61	%R=90	✓
CCB7				-0.00		✓
VR82	A					
"	B					
"	C					
"	D					
"	E					
"	F	↓	↓			

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2340

Standard ID:

Standard: 2992-7

ICV/CCV: SL-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 4 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VRB2 G	SMM	1X		
" H				
" I				
CCV9			3.56	%R=89 ✓
CCB8			0.00	✓
VR30 MB1			-0.00	✓
" MB1SPK			1.82	%R=91 ✓
" A			0.92	
" AOUP			0.93	RPD=1.08 ✓
" ASPK			1.78	%R=86 ✓
" B				
" C				
" D				
" E				
" F				
CCV10			3.71	%R=93 ✓
CCB9			-0.00	✓
VR30 G				
" H				
" I				
" J				
" K				
" L				
VR36 MB1			0.00	✓
" MB1SPK			1.89	%R=95 ✓
" A			0.77	
" AOUP			0.74	RPD=3.97 ✓
CCV11			3.72	%R=93 ✓
CCB10			0.00	✓
VR36 ASPK	↓	↓	1.72	%R=95 ✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 5 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR36 B	SMM	1X		
" C				
" D				
" E				
" F				
" G				
" H				
" I				
" J				
CCV2			3.66	%R=92 ✓
CCB11			-0.00	✓
VR36 K				
" L				
VR35 MB1			0.00	✓
" MB1SPK			1.84	%R=92 ✓
" A			0.34	
" ADUP			0.34	✓
" ASPK			1.29	%R=95 ✓
" B				
" C				
" D				
CCV3			3.61	%R=90 ✓
CCB12			-0.03	✓
VR35 E				
" F				
" G				
" H				
" I				
" J				
" K	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 20927

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM Date: 11-17-12

Instrument: CETAC Page: 6 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR35 L	5mm	1x		
CCV14			3.55	%R=89 ✓
CCB13			-0.00	✓
VR32 MB1			0.01	✓
" MBSPK			1.79	%R=90 ✓
" A			0.47	
" ADUP			0.44	✓
" ASPK			1.37	%R=90 ✓
" B				
" C				
" D				
" E				
" F				
CCV15			3.45	%R=86 ✓
CCB14			-0.00	✓
VR32 G				
" H				
" I				
" J				
" K				
" L				
VR65 MB1			0.03	✓
" MB1SPK			1.74	%R=87 ✓
" A			1.22	
" ADUP			1.18	RPD=3.33 ✓
CCV16			3.54	%R=89 ✓
CCB15			0.00	✓
VR65 ASPK			2.08	%R=86 ✓
" B				
" C	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2391 14% NH_2OH/NaCl: MP2380

Standard ID:

Standard: 2992-7 ICV/CCV: SL-R

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 7 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VRLS D	SMM	1X		
" E				
" F				
" G				
" H				
" I				
" J				
CCV17			3.46	%R=87 ✓
CCB16			0.00	✓
VRLS K				
" L				
VR3B MB1			0.01	✓
" MB1SPK			1.64	%R=82 ✓
" A			0.02	
" ADUP			0.03	NO RPD: Undetected ✓
" ASPK			0.86	%R=86 ✓
" B				
" C				
" D				
CCV18			3.65	%R=91 ✓
CCB17			0.00	✓
VR3B E				
" F				
" G				
" H				
" I				
" J				
" K				
CCV19 K DM 11-17-12			3.69	%R=92 ✓
CCB18	↓	↓	0.00	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7

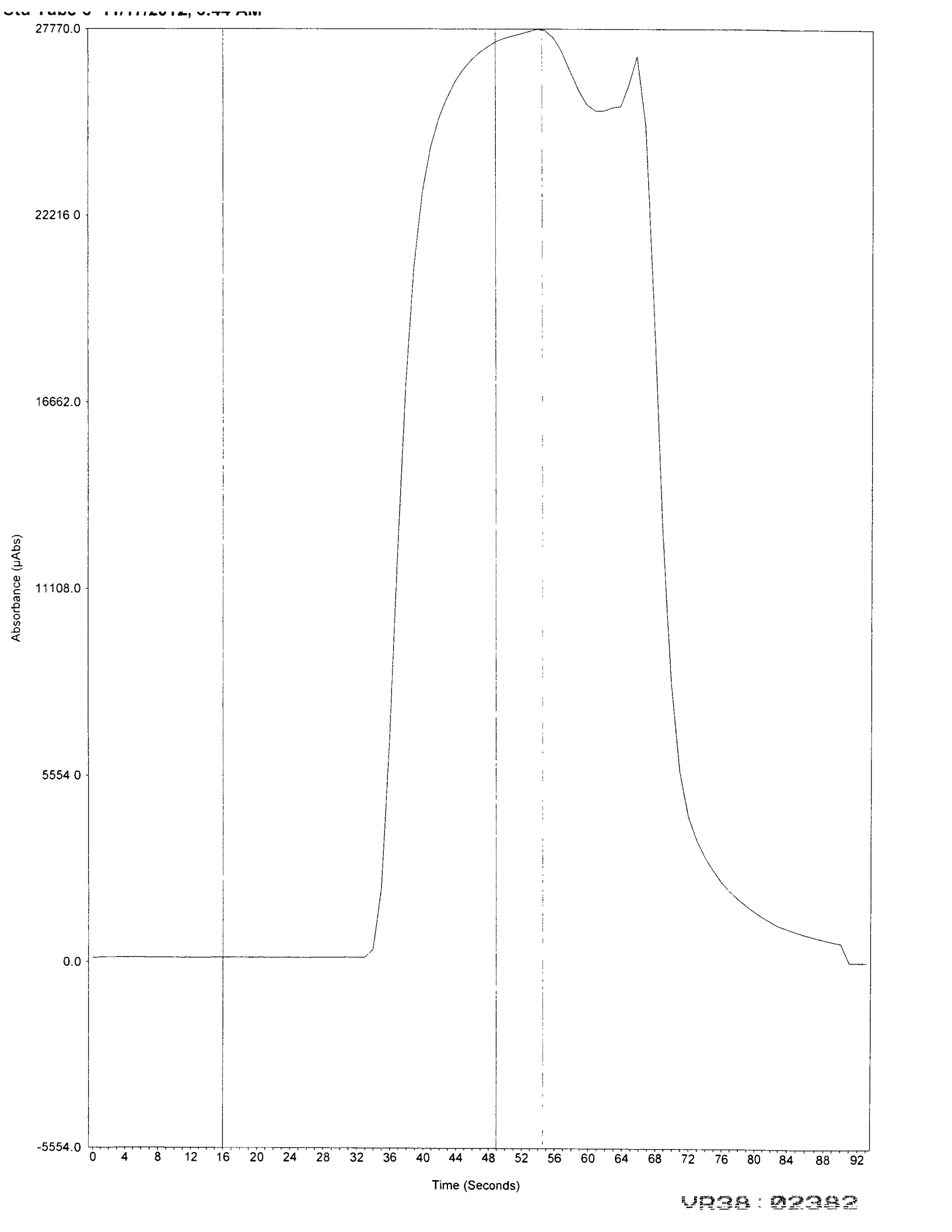
ICV/CCV: 56-18

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 11-17-12

	Analyst 11-17 DM	Peer 11-19	Comment
Logbooks			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓		
Calibration Verification			
ICV/CCV	✓	✓	See RUN LOG
ICB/CCB	✓	✓	
Samples			
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	See VR33 ASPK
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary deliverables present	✓	✓	See CAF


27770.0
22216 0
16662.0
11108.0
5554 0
0.0
-5554.0
Absorbance (µAbs)
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92
Time (Seconds)

CETAC Hg Analysis Report - 12111700.DB - Saturday, November 17, 2012, 2:36:51 PM

✓ 11-19-12 KS

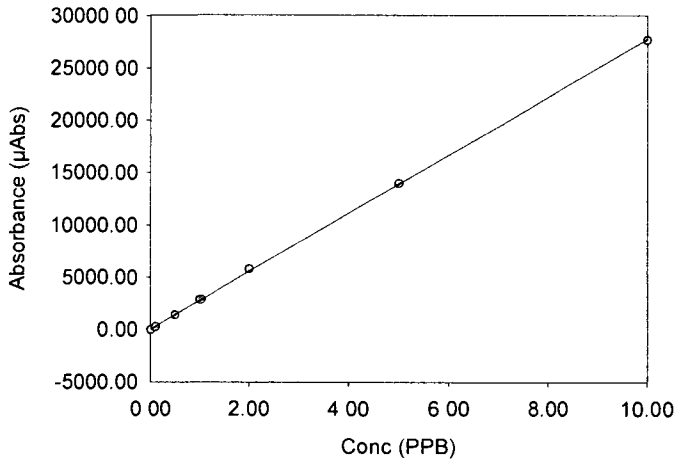
Analyst
Date Started Saturday, November 17, 2012, 06.44:12
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	17-Nov-2012, 06:44	10.00	0 46	27500 00	1.00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	17-Nov-2012, 06:46	0 00	4.58	-33 10	1 00	
Standard #1	17-Nov-2012, 06 47	0 10	0.53	261 00	1.00	
Standard #2	17-Nov-2012, 06:49	0 50	0.24	1400 00	1.00	
Standard #3	17-Nov-2012, 06:51	1 00	0 45	2840 00	1.00	
Standard #4	17-Nov-2012, 06:52	2 00	0 54	5790.00	1.00	
Standard #5	17-Nov-2012, 06.54	5 00	0 29	14000.00	1 00	
Standard #6	17-Nov-2012, 06.56	10.00	0.39	27700 00	1.00	

Calibration Data



Int	0.000
Slope	2778 015
Correlation	0 99994

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	17-Nov-2012, 07:05	7 26	0.75	20200 00	1.00	
ICB	17-Nov-2012, 07:06	-0.01	13.00	-18.40	1.00	

Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07 08	3.69	0.28	10200 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07.09	-0 00	56.00	-2.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	17-Nov-2012, 07:11	0.10	0.42	267.00	1 00	
VS18 MB1 SMM	17-Nov-2012, 07:13	0 01	13.00	20.30	1 00	
VS18 MB1SPK SMM	17-Nov-2012, 07:14	1.90	0.60	5270.00	1.00	
VS18 A SMM	17-Nov-2012, 07:16	1.08	0.64	3000.00	1 00	
VS18 ADUP SMM	17-Nov-2012, 07:17	1.05	0.46	2910 00	1.00	
VS18 ASPK SMM	17-Nov-2012, 07:19	2.04	0.80	5660.00	1 00	
VS18 B SMM	17-Nov-2012, 07:21	0 70	0.68	1940.00	1.00	
VS18 C SMM	17-Nov-2012, 07:22	0.59	0.86	1640.00	1 00	
VS18 D SMM	17-Nov-2012, 07.24	0.77	0 48	2150 00	1.00	
VS18 E SMM	17-Nov-2012, 07:26	0.71	0.45	1970.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:27	3.65	0.49	10100.00	1 00	

Analyst
Date Started Saturday, November 17, 2012, 07:29.22
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:29	0 00	11.10	10 40	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 07:31	0.31	1.08	873.00	1 00	
VS18 G SMM	17-Nov-2012, 07:32	0.25	0 62	691.00	1 00	
VS18 H SMM	17-Nov-2012, 07:34	1.02	1 42	2840 00	1.00	
VS18 I SMM	17-Nov-2012, 07:35	3.94	0 68	10900 00	1.00	
VS18 J SMM	17-Nov-2012, 07:37	2.53	0.19	7030 00	1 00	
VS18 K SMM	17-Nov-2012, 07:38	1 94	0.22	5380 00	1.00	
VS18 L SMM	17-Nov-2012, 07:40	0.88	0.27	2440.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 07 42	0.00	17.70	12.90	1 00	
VR37 MB1SPK SMM	17-Nov-2012, 07 43	2.04	0.47	5660.00	1 00	
VR37 A SMM	17-Nov-2012, 07:45	0.19	0 58	514.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:47	1 76	0 86	4880 00	1.00	Q - Low %R
QC Standard	17-Nov-2012, 07:58	3.63	0.54	10100 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:00	0.00	11.60	11.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 08:02	0.30	0.58	846.00	1 00	
VS18 G SMM	17-Nov-2012, 08.03	0.25	0.72	683 00	1 00	
VS18 H SMM	17-Nov-2012, 08:05	1 00	0.78	2780 00	1.00	
VS18 I SMM	17-Nov-2012, 08:06	3 88	0.67	10800.00	1.00	
VS18 J SMM	17-Nov-2012, 08:08	2 42	0.57	6730.00	1.00	
VS18 K SMM	17-Nov-2012, 08.09	1.81	0.67	5030 00	1.00	
VS18 L SMM	17-Nov-2012, 08 11	0 79	0.94	2190.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 08:13	0 01	4 00	19 20	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 08:14	1.74	0.56	4840 00	1 00	
VR37 A SMM	17-Nov-2012, 08:16	0.16	1.44	442 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08.18	3.59	0.50	9980 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:19	0.00	13.00	9 15	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 ADUP SMM	17-Nov-2012, 08:21	0.15	0.54	416 00	1.00	
VR37 ASPK SMM	17-Nov-2012, 08:23	1.12	0.62	3120.00	1 00	
VR37 B SMM	17-Nov-2012, 08:24	0.09	0 36	242 00	1.00	
VR37 C SMM	17-Nov-2012, 08:26	0.28	1 03	768 00	1.00	
VR37 D SMM	17-Nov-2012, 08:27	1.41	0.61	3910.00	1 00	
VR37 E SMM	17-Nov-2012, 08:29	2.23	0 82	6190.00	1.00	
VR37 F SMM	17-Nov-2012, 08:31	0 79	0 67	2210.00	1.00	
VR37 G SMM	17-Nov-2012, 08:32	2.39	0.51	6630 00	1.00	
VR37 H SMM	17-Nov-2012, 08:34	3 87	0.37	10800.00	1.00	
VR37 I SMM	17-Nov-2012, 08:35	0.48	0.20	1340 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:37	3.60	0.66	9990.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:39	0.00	124.00	1.77	1.00	

Analyst
Date Started Saturday, November 17, 2012, 08.40.49
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 J SMM	17-Nov-2012, 08:40	1 27	0 51	3520.00	1.00	
VR37 K SMM	17-Nov-2012, 08.42	1.51	2.55	4190.00	1.00	
VR37 L SMM	17-Nov-2012, 08:44	1.16	0.58	3220 00	1.00	
VR37 M SMM	17-Nov-2012, 08:45	1.05	0.38	2900.00	1 00	
VR37 N SMM	17-Nov-2012, 08:47	1.19	0.74	3310.00	1.00	
VR37 O SMM	17-Nov-2012, 08:48	0.83	0.81	2300 00	1 00	
VR58 MB1 SMM	17-Nov-2012, 08:50	-0.00	33.50	-6.40	1 00	
VR58 MB1SPK SMM	17-Nov-2012, 08.52	1.81	0.54	5040.00	1.00	
VR58 A SMM	17-Nov-2012, 08:53	0.11	0.89	295 00	1.00	
VR58 ADUP SMM	17-Nov-2012, 08:55	0.10	0.57	281.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:56	3.64	0.48	10100 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:58	0 00	9 27	8.18	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR58 ASPK SMM	17-Nov-2012, 09:00	1.07	0.63	2970.00	1 00	
VR58 B SMM	17-Nov-2012, 09:01	0.10	0.59	283 00	1.00	
VR58 C SMM	17-Nov-2012, 09:03	0 11	0 53	309 00	1.00	
VR58 D SMM	17-Nov-2012, 09 05	0 10	0 66	274.00	1.00	
VR58 E SMM	17-Nov-2012, 09:06	0 11	0 48	304 00	1.00	
VR58 F SMM	17-Nov-2012, 09.08	0 41	0.62	1150 00	1 00	
VR58 G SMM	17-Nov-2012, 09.10	0 06	0 39	175.00	1.00	
VR58 H SMM	17-Nov-2012, 09:11	0.06	0 63	161 00	1.00	
VR58 I SMM	17-Nov-2012, 09.13	0.10	1.03	271 00	1 00	
VR58 J SMM	17-Nov-2012, 09:14	0.05	1 41	126.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09.16	3.61	0.66	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:18	-0.00	300.00	-1 14	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR82 A SMM	17-Nov-2012, 09:19	0.22	0.73	605.00	1.00	
VR82 B SMM	17-Nov-2012, 09:21	0.10	2.50	265 00	1 00	
VR82 C SMM	17-Nov-2012, 09.23	0.08	1.51	214.00	1.00	
VR82 D SMM	17-Nov-2012, 09.24	0.11	1.66	312.00	1.00	
VR82 E SMM	17-Nov-2012, 09 26	0.15	0.65	428.00	1.00	
VR82 F SMM	17-Nov-2012, 09.28	0 16	0 78	453.00	1.00	
VR82 G SMM	17-Nov-2012, 09:29	0 13	0.84	355 00	1.00	
VR82 H SMM	17-Nov-2012, 09:31	0.12	0.60	343 00	1 00	
VR82 I SMM	17-Nov-2012, 09.32	0.12	0.86	328 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:34	3.56	0 61	9900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09 36	0 00	42 80	6 11	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 MB1 SMM	17-Nov-2012, 09:38	-0.00	64.10	-2.94	1.00	
VR30 MB1SPK SMM	17-Nov-2012, 09:39	1.82	0.61	5060.00	1.00	
VR30 A SMM	17-Nov-2012, 09:41	0.92	0.74	2550.00	1.00	
VR30 ADUP SMM	17-Nov-2012, 09.43	0.93	0.60	2590 00	1.00	
VR30 ASPK SMM	17-Nov-2012, 09:44	1.78	0.74	4940.00	1.00	
VR30 B SMM	17-Nov-2012, 09:46	0.58	0.75	1620.00	1 00	
VR30 C SMM	17-Nov-2012, 09:47	0.68	0.60	1890 00	1.00	
VR30 D SMM	17-Nov-2012, 09:49	0.80	0.75	2230.00	1 00	

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Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 E SMM	17-Nov-2012, 09:51	0.55	0 51	1540.00	1.00	
VR30 F SMM	17-Nov-2012, 09:52	0 67	0 54	1860 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:54	3 71	0.80	10300 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:56	-0.00	235.00	-1 21	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 G SMM	17-Nov-2012, 09.57	0.82	0.55	2280.00	1.00	
VR30 H SMM	17-Nov-2012, 09:59	0.58	0 47	1610 00	1.00	
VR30 I SMM	17-Nov-2012, 10:00	0 60	1 07	1670 00	1.00	
VR30 J SMM	17-Nov-2012, 10:02	0 53	3.49	1480.00	1.00	
VR30 K SMM	17-Nov-2012, 10:04	0.67	0.52	1870.00	1.00	
VR30 L SMM	17-Nov-2012, 10:05	0 81	0.51	2260 00	1 00	
VR36 MB1 SMM	17-Nov-2012, 10.07	0.00	24.00	6.55	1.00	
VR36 MB1SPK SMM	17-Nov-2012, 10:08	1.89	0.89	5240 00	1.00	
VR36 A SMM	17-Nov-2012, 10:10	0.77	0.47	2130 00	1 00	
VR36 ADUP SMM	17-Nov-2012, 10:12	0.74	0.37	2050.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10 13	3 72	0.44	10300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:15	0 00	103.00	2 91	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR36 ASPK SMM	17-Nov-2012, 10:17	1.72	0 45	4770 00	1.00	
VR36 B SMM	17-Nov-2012, 10:18	2.59	0.47	7210.00	1.00	
VR36 C SMM	17-Nov-2012, 10:20	1 64	0.64	4540.00	1.00	
VR36 D SMM	17-Nov-2012, 10:22	1.79	0.44	4980 00	1.00	
VR36 E SMM	17-Nov-2012, 10:23	0.37	0.51	1040.00	1.00	
VR36 F SMM	17-Nov-2012, 10.25	0.18	0.87	511 00	1.00	
VR36 G SMM	17-Nov-2012, 10:26	0.13	0.85	371.00	1.00	
VR36 H SMM	17-Nov-2012, 10:28	1.34	0.57	3710.00	1 00	
VR36 I SMM	17-Nov-2012, 10:30	1.20	0.50	3330.00	1.00	
VR36 J SMM	17-Nov-2012, 10:31	1.04	0 35	2890.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:33	3 66	0 32	10200 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:34	-0.00	6.61	-7.46	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR36 K SMM	17-Nov-2012, 10:36	2.70	0 46	7500.00	1.00	
VR36 L SMM	17-Nov-2012, 10:38	0 27	0 35	752.00	1.00	
VR35 MB1 SMM	17-Nov-2012, 10:39	0 00	17 80	8.76	1.00	
VR35 MB1SPK SMM	17-Nov-2012, 10:41	1.84	0.58	5120.00	1.00	
VR35 A SMM	17-Nov-2012, 10:43	0 34	0.50	941.00	1.00	
VR35 ADUP SMM	17-Nov-2012, 10.44	0 34	0 37	935 00	1.00	
VR35 ASPK SMM	17-Nov-2012, 10:46	1.29	0 57	3580.00	1.00	
VR35 B SMM	17-Nov-2012, 10:48	0.42	0.73	1160.00	1 00	
VR35 C SMM	17-Nov-2012, 10:49	0.07	1.65	193.00	1.00	
VR35 D SMM	17-Nov-2012, 10.51	0 06	0.49	162.00	1 00	

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Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:52	3.61	0 66	10000.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:54	-0.03	5.41	-77 80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR35 E SMM	17-Nov-2012, 10:56	0.23	0.62	648.00	1.00	
VR35 F SMM	17-Nov-2012, 10.57	1.55	0 66	4300 00	1.00	
VR35 G SMM	17-Nov-2012, 10:59	1.46	0.62	4060.00	1.00	
VR35 H SMM	17-Nov-2012, 11:01	0.41	0 48	1140 00	1.00	
VR35 I SMM	17-Nov-2012, 11:02	1.17	1 09	3260 00	1.00	
VR35 J SMM	17-Nov-2012, 11:04	0.93	0.51	2590.00	1 00	
VR35 K SMM	17-Nov-2012, 11:06	1.11	0 64	3080.00	1 00	
VR35 L SMM	17-Nov-2012, 11:07	1 31	0.58	3630 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:09	3.55	0 50	9850.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:11	-0.00	33 50	-2 69	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR32 MB1 SMM	17-Nov-2012, 11:13	0.01	3.64	20 40	1.00	
VR32 MB1SPK SMM	17-Nov-2012, 11 14	1 79	0.83	4960.00	1.00	
VR32 A SMM	17-Nov-2012, 11:16	0.47	0.63	1300.00	1.00	
VR32 ADUP SMM	17-Nov-2012, 11.17	0.44	0.66	1220.00	1.00	
VR32 ASPK SMM	17-Nov-2012, 11:19	1 37	0 54	3810.00	1.00	
VR32 B SMM	17-Nov-2012, 11.21	0.82	0.58	2280.00	1 00	
VR32 C SMM	17-Nov-2012, 11:22	0.31	0.79	871.00	1 00	
VR32 D SMM	17-Nov-2012, 11:24	0.43	0 58	1200 00	1 00	
VR32 E SMM	17-Nov-2012, 11:25	0.50	0 71	1390.00	1.00	
VR32 F SMM	17-Nov-2012, 11:27	0.39	0 77	1080 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11.29	3.45	0.56	9570.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:30	-0.00	49.10	-3.41	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR32 G SMM	17-Nov-2012, 11:32	0.31	0 19	870.00	1.00	
VR32 H SMM	17-Nov-2012, 11:34	0.24	0.61	659 00	1.00	
VR32 I SMM	17-Nov-2012, 11:35	0.25	0.45	692.00	1.00	
VR32 J SMM	17-Nov-2012, 11:37	0.17	0.58	483.00	1.00	
VR32 K SMM	17-Nov-2012, 11:38	0.37	0.81	1020.00	1.00	
VR32 L SMM	17-Nov-2012, 11:40	2.05	0.61	5700.00	1.00	
VR65 MB1 SMM	17-Nov-2012, 11:42	0.03	1.01	82.40	1.00	
VR65 MB1SPK SMM	17-Nov-2012, 11:43	1.74	0.69	4820.00	1.00	
VR65 A SMM	17-Nov-2012, 11:45	1.22	0.84	3390.00	1.00	
VR65 ADUP SMM	17-Nov-2012, 11:46	1.18	0.77	3290.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:48	3 54	0 50	9830.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:50	0.00	38.40	2.95	1.00	

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Date Started Saturday, November 17, 2012, 11:51:52
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR65 ASPK SMM	17-Nov-2012, 11:51	2.08	0 62	5780.00	1.00	
VR65 B SMM	17-Nov-2012, 11:53	1.01	0 72	2810.00	1.00	
VR65 C SMM	17-Nov-2012, 11:55	0.57	0.33	1590 00	1.00	
VR65 D SMM	17-Nov-2012, 11.56	1.38	0.44	3830.00	1.00	
VR65 E SMM	17-Nov-2012, 11:58	0.62	0.57	1710 00	1.00	
VR65 F SMM	17-Nov-2012, 11:59	0.15	0.48	430 00	1.00	
VR65 G SMM	17-Nov-2012, 12:01	0.66	0.75	1850.00	1.00	
VR65 H SMM	17-Nov-2012, 12.03	1 49	0.49	4150.00	1 00	
VR65 I SMM	17-Nov-2012, 12.04	0.94	0.57	2620.00	1.00	
VR65 J SMM	17-Nov-2012, 12.06	0.33	0.59	923.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 12.08	3 46	0.61	9620.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 12:09	0.00	19.40	6 15	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR65 K SMM	17-Nov-2012, 12:11	0 82	0.46	2270.00	1.00	
VR65 L SMM	17-Nov-2012, 12.12	0.01	6.57	28 80	1 00	
VR38 MB1 SMM	17-Nov-2012, 12:14	0.01	9 72	16.80	1 00	
VR38 MB1SPK SMM	17-Nov-2012, 12:16	1 64	0.46	4560 00	1.00	
VR38 A SMM	17-Nov-2012, 12:17	0.02	1.49	62 50	1 00	
VR38 ADUP SMM	17-Nov-2012, 12 19	0.03	4.02	73 90	1.00	
VR38 ASPK SMM	17-Nov-2012, 12:21	0.86	0.81	2400.00	1.00	
VR38 B SMM	17-Nov-2012, 12 22	0.04	2 90	113.00	1 00	
VR38 C SMM	17-Nov-2012, 12:24	0.09	1.73	248.00	1 00	
VR38 D SMM	17-Nov-2012, 12:25	0 62	0.51	1720 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 12:27	3 65	0.73	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 12:29	0.00	34.90	3 76	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR38 E SMM	17-Nov-2012, 12:30	0.03	1.86	89 20	1.00	
VR38 F SMM	17-Nov-2012, 12:32	0 06	0.77	165 00	1.00	
VR38 G SMM	17-Nov-2012, 12:34	0.07	0.74	181.00	1.00	
VR38 H SMM	17-Nov-2012, 12.35	0.04	2.13	112 00	1.00	
VR38 I SMM	17-Nov-2012, 12:37	0.04	2.85	103.00	1.00	
VR38 J SMM	17-Nov-2012, 12:39	0 08	1.09	209.00	1.00	
VR38 K SMM	17-Nov-2012, 12:40	0 05	1.89	137 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 12:42	3.69	0.38	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 12.44	0.00	13.10	11 50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR33 MB1 SMM	17-Nov-2012, 12:46	0.01	6.76	21 20	1.00	
VR33 MB1SPK SMM	17-Nov-2012, 12:48	1.83	0.58	5070.00	1.00	
VR33 A SMM	17-Nov-2012, 12:49	1 41	0 59	3920 00	1.00	
VR33 ADUP SMM	17-Nov-2012, 12:51	1.38	0.56	3820 00	1.00	
VR33 ASPK SMM	17-Nov-2012, 12:52	2.15	0.53	5980.00	1.00	- LOW %R
VR33 B SMM	17-Nov-2012, 12:54	0.73	0.47	2030.00	1 00	
VR33 C SMM	17-Nov-2012, 12:55	1.77	0.52	4930.00	1 00	
VR33 D SMM	17-Nov-2012, 12:57	0.79	0.75	2190.00	1 00	
VR33 E SMM	17-Nov-2012, 12:59	0.96	0.59	2680.00	1.00	
VR33 F SMM	17-Nov-2012, 13.00	0.51	0.95	1420 00	1 00	

AK 12/6/12

VR38 : 02388

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5 00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5 0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 . 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Prep Code: SMM Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°C Start Time: 1213 End Time: 1243

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	3
STD1	2992-7	0.01	↓	0.1	2
STD2	↓	0.05	↓	0.5	2
STD3	↓	0.10	↓	1.0	2
STD4	↓	0.20	↓	2.0	2
STD5	↓	0.50	↓	5.0	2
STD6	↓	1.00	↓	10.0	2
CRA	↓	0.01	↓	0.1	1
ICB/CCB	—	0.00	↓	0.0	3
ICV/LCS	56-18	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:
HNO_3: IT633 H_2SO_4: IT677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: TLM Digested 20.0mL Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°C Start Time: 1247 End Time: 1447

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2992-8	0.02	↓	0.02	1
STD2	↓	0.05	↓	0.05	1
STD3	↓	0.10	↓	0.1	1
STD4	↓	0.20	↓	0.2	1
STD5	↓	~~0.50~~ 0.4	↓	0.4	1
STD6	↓	1.00	↓	1.00	1
CRA	↓	002	↓	0.02	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	2992-9	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:
HNO_3: IT633 H_2SO_4: IT677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SHM
Analyst: DM
Bath Temp: 95°C
Start Time: 1520
Matrix: Soil
Date: 11-12-09
End Time: 1550

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR358 A	1	—	0.205	50.0	1 1/2 1	Y	
" ADUP	1	—	0.200		1		
" ASPK	1	—	0.202		1		
" B	1	—	0.288		1		
" C	1	—	0.261		1		
" D	1	—	0.262		1		
" E	1	—	0.275		1		
" F	1	—	0.296		1		
" G	1	—	0.257		1		
" H	1	—	0.290		1		
" I	1	—	0.264		1		
" J	1	—	0.288		1		
" K	1	—	0.228		1		
" MBL	—	—	—		1		
" MBLSPK	—	—	—	50.0	1	Y	
			11-13-09 SM				

Chemical/Reagent ID:

HNO_3: I7833
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2875
5% $KMnO_4$: MP2876
Digest Tube Lot: 1205256

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: VR38

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/8/2012

ANALYST: CDE 17:03

Instrumentation

Drying Ovens: 12

Muffle Furnace: 62790918520

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/8/2012 17:03 date/time in oven CDE

11/9/2012 9:39 date/time out CDE

elapsed hrs = 16.6

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02					
	Date & Time	11/8/12 16 34	11/8/12 15:18	11/9/12 9 56					11/9/12 12:17	11/9/12 13:33					
Cal Wt (g)	10.0000	10.0000	10.0000	10 0000					10.0000	10 0000					
record weights to 4 places		*Cal OK!*	*Cal OK!*	*Cal OK!*					*Cal OK!*	*Cal OK!*					

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank		0.0000	1.1229	1.1227			0.00		1.1228	1.1228	OK	0.00		
VO93 AN1		6.5045	1.1186	6.3747			5.26	**97.6%**	6.1183	6.1086	OK	4.99	**50,627**	5.06%
VO93 Y1		6.3103	1.1093	6 2714			5.16	**99.3%**	5.9758	5.9710	OK	4.86	**58,193**	5.82%
VR02 A2		5.4340	1.1113	1.6550			0.54	**12.6%**	1 2376	1.2369	OK	0.13	**768,990**	76.90%
VR02 A2 dup		5.8159	1.0955	1.6858			0.59	**12.5%**	1.2352	1.2350	OK	0.14	**763,679**	76.37%
							RPD =	0 58%				RPD =	0.69%	
VR38 A2		7 2517	1.1108	5.8596			4.75	**77.3%**	5.8295	5.8279	OK	4.72	**6,675**	0.67%
VR38 A2 dup		6.7690	1.0874	5.5143			4.43	**77.9%**	5.4866	5.4851	OK	4.40	**6,596**	0.66%
							RPD =	0.75%				RPD =	1.20%	
VR38 A2 trp		7.8524	1.1161	6.3775			5.26	**78.1%**	6.3435	6 3411	OK	5.23	**6,918**	0.69%
							RSD =	0.52%				RSD =	2.50%	
VR38 B2		7.0967	1.1084	5.8273			4.72	**78.8%**	5 7611	5.7586	OK	4.65	**14,558**	1.46%
VR38 C2		6.6667	1.0796	4.7511			3.67	**65.7%**	4.4940	4 4919	OK	3.41	**70,598**	7.06%
VR38 D2		5.8808	1.0869	3.5292			2.44	**50.9%**	3.0495	3.0482	OK	1.96	**196,946**	19.69%
VR38 E2		6.9335	1.0861	5.7878			4.70	**80.4%**	5.6959	5.6916	OK	4.61	**20,461**	2.05%
VR38 F2		7.2152	1.0917	5.8174			4.73	**77.2%**	5.7508	5.7471	OK	4.66	**14,876**	1.49%
VR38 G2		7.9058	1.1183	5.7025			4.58	**67.5%**	5.5876	5.5848	OK	4.47	**25,675**	2.57%
VR38 H2		6.1939	1.1211	5.1895			4.07	**80.2%**	5.1439	5.1414	OK	4.02	**11,823**	1.18%
VR38 I 2		6.7353	1.0957	5.8282			4.73	**83.9%**	5.7883	5.7853	OK	4.69	**9,065**	0.91%
VR38 J2		6.0860	1.0886	4.8259			3.74	**74.8%**	4.7697	4.7683	OK	3.68	**15,412**	1.54%
VR38 K2		6 6815	1.1065	5.5961			4.49	**80.5%**	5.5209	5 5187	OK	4.41	**17,240**	1.72%
VQ99 A1		7.3766	1.0936	4 8523			3.76	**59.8%**						
VQ99 A1 dup		7.7694	1 1059	5.1101			4.00	**60.1%**						
							RPD =	0.45%				RPD =	NA	
VQ99 A1 trp		7.1712	1.0679	4.7412			3.67	**60.2%**						
							RSD =	0.31%				RSD =	NA	
VQ99 B1		7.6585	1.0895	5.8631			4.77	**72.7%**						
VR53 A1		6.4133	1.1305	5.7383			4.61	**87.2%**						
VR53 A1 dup		7.1317	1.0899	6.3892			5.30	**87.7%**						
							RPD =	0.56%				RPD =	NA	

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TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Lowest ID: 6J0918520

Analyst:		Date:	11-8-12	Oven ID:	12	Balance ID:	1123230597
Time in Oven:	17:03	Time Out of Oven:	11-9-12 9:39	Elapsed Time (> 12 Hrs):			

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time.		11-8-12 16:34	11-8-12 15:18	11-9-12 9:56				11-9-12 12:17	11-9-12 13:33	
Cal Weight (10 0000).		10.0000 gm	10.0000 gm	10.0000 gm				10.0000 gm	10.0000 gm	
Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	1	Ø	1.1229	1.1227				1.1228	1.1228	
VR93 A1	2	6.5045	1.1186	6.3747				6.1183	6.1086	
" A1 dup	3	6.3103	1.1093	6.2714				5.9758	5.9716	
VR102 A1	4	5.4340	1.1113	1.6550				1.2376	1.2369	
" A2 dup	5	5.8159	1.0955	1.6858				1.2352	1.2350	
VR38 A2	6	7.2517	1.1108	5.8596				5.8295	5.8274	
A2 dup	7	6.7690	1.0874	5.5143				5.4866	5.4851	
A2 trip	8	7.4524	1.1161	6.3775				6.3435	6.3411	
B2	9	7.0967	1.1084	5.8273				5.7611	5.7586	
C2	10	6.6667	1.0796	4.7511				4.4940	4.4919	
D2	11	5.8803	1.0869	3.5292				3.0495	3.0482	
E2	12	6.9335	1.0861	5.7878				5.6959	5.6916	
F2	13	7.2152	1.0917	5.8174				5.7508	5.7471	
G2	14	7.9058	1.1183	5.7025				5.5876	5.5848	
H2	15	6.1939	1.1211	5.1895				5.1439	5.1414	
I2	16	6.7353	1.0957	5.8282				5.7883	5.7853	
J2	17	6.0860	1.0886	4.8259				4.7697	4.7683	
K2	18	6.6845	1.1065	5.5961				5.5209	5.5187	
VR99 A1	20	7.3766	1.0936	4.8523						
A1 dup	21	7.7694	1.1059	5.1101						
A1 trip	22	7.1712	1.0679	4.7412						
B1	23	7.6585	1.0895	5.8631						
VR53.2	36	6.4133	1.1305	5.7383						
6053F A1 dup	37	7.1317	1.0899	6.3892						

TOC Solids Prep Log

DATE:	11/8/2012
ANALYST:	CDE 17:18

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.1840	0.0000	13.1841	0.1 mg	
VO93 Y1 (PE)		-	13.1209	18.5012	18.5088	100.14%	
VR38 A2		-	13.0974	19.5794	18.4584	82.71%	
VR38 A2 dup		-	13.0932	20.2083	18.7038	78.85%	RPD = 4.77%
VR38 A2 trip		-	13.1782	20.5658	19.0410	79.36%	RSD = 2.61%
VR38 B2		-	13.0939	19.6020	18.4258	81.93%	
VR38 C2		-	13.0649	17.5260	16.1538	69.24%	
VR38 D2		-	13.1689	17.5812	15.5196	53.28%	
VR38 E2		-	13.1197	20.3981	19.2068	83.63%	
VR38 F2		-	13.1893	19.1949	17.7920	76.64%	
VR38 G2		-	13.1352	19.0097	17.2095	69.36%	
VR38 H2		-	13.0335	19.6298	18.6008	84.40%	
VR38 I 2		-	13.2058	20.0174	19.0543	85.86%	
VR38 J2		-	13.0883	18.3660	17.1980	77.87%	
VR38 K2		-	13.1343	20.5315	19.1318	81.08%	
VQ99 A1		-	13.2078	18.6264	16.6420	63.38%	
VQ99 A1 dup		-	13.1404	19.0848	16.9964	64.87%	RPD = 2.32%
VQ99 A1 trip		-	13.1423	18.5362	16.5442	63.07%	RSD = 1.51%
VQ99 B1		-	13.1133	18.7675	17.4556	76.80%	

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TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CAS Date 11-8-12 17:18

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1340		13.1341		
~~VQ93A1~~	(PE)		~~13.1309~~				~~Not Requested~~ 11-8-12
↓ Y1		-	13.1209	18.5012	15.5088		dust
VR38A1		-	13.0974	19.5794	18.4584		Sand + water
A^2_{DW}		-	13.0932	20.2083	18.7038		
A^2_{TP}		-	13.1782	20.5658	19.0410		
B^2		-	13.0939	19.6022	18.4258		
C^2		-	13.0649	17.5260	16.1538		~~thick sed~~
D^2		-	13.1689	17.5812	15.5196		+ ~~Rocks~~ Dark sed
E^2		-	13.1197	20.3981	19.2068		+ Rocks
F^2		-	13.1893	19.1949	17.7920		+ Rocks & wood
G^2		-	13.1352	19.0097	17.2095		
H^2		-	13.0335	19.6298	19.6003		
I^2		-	13.2058	20.0174	19.0543		
↓ J^2		-	13.0883	18.3660	17.1980		
K^2		-	13.1343	20.5315	19.1318		
VQ99A1		-	13.2078	18.6264	16.6428		
A'_{DW}		-	13.1404	~~19.0878~~	19.0848	16.7961	
↓ A'_{TP}		-	13.1423	18.5362	16.5442		
~~VR53A1~~							
VQ99B1		-	13.1733	18.7675	17.4556		

W
11-15-12

TOC, Solids Data Analysis

DATE: 11/12/2012
ANALYST: KE 10:38

Instrument: Apollo 1
Mode: NPOC *Inlet:* Boat
Spike Std = 2,500 *ppm C*
Balance ID:

Calibration Data

Cal Curve ID: 10/12/2012 *Conc:* 5,000 *ppm*
Calibration Curve Standard: 00130-01 *Curve Date:* 10/12/12
CalFact: 1.401E+05 *intercept:* 296750 *r2 :* 0.99850
Curve Range (ppm) 200 *to* 2,500
Curve Range (µgC): 8 *to* 100 *40 µL injections of designated standard*

Verification Standard

Source: ERA# 0409-12-01 *Conc:* 5,000 *ppm*
dilution : 10 *mL to* 50 1,000 *ppm*

Standard Reference Material

Source: NIST 8704 *Conc:* 33,510 *ppm*
Source: NIST 1941B *Conc:* 29,900 *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
ICV				1.00		40.0	958	958	95.80%
Blank				1.00		40.0	-43.78	-44	Blank OK
NIST 1941B				1.00		1.8	27783	27,783	92.92%
VQ99 A1				1.00		1.2	25290	25,290	Range OK!
VQ99 A1 dup				1.00		1.1	26409	26,409	RPD=4.3%
VQ99 A1 trp				1.00		1.2	30644	30,644	RSD=10.3%
VQ99 A1 ms				1.00	10	0.8	58871	58,871	Range OK!
Spike =	*0.025*	*mg C to*	*0.8*	*mg samp=*	*31,250*	*ppm*		*107%*	
VQ99 B1				1.00		1.7	16548	16,548	Range OK!
~~CCV~~				~~1.00~~		~~40.0~~	~~880~~	~~880~~	~~88.00%~~
CCV				1.00		40.0	963	963	96.30%
Blank				1.00		40.0	-50.05	-50	Blank OK
VR38 A2				1.00		5.1	2244	2,244	Range OK!
~~VR38 A2 dup~~				~~1.00~~		~~5.0~~	~~2942~~	~~2,942~~	~~RPD=26.9%~~
VR38 A2 dup				1.00		4.9	2391	2,391	RPD=6.3%
VR38 A2 trp				1.00		5.4	2429	2,429	RSD=4.1%
VR38 A2 ms				1.00	10	5.0	8336	8,336	Range OK!
Spike =	*0.025*	*mg C to*	*5.0*	*mg samp=*	*5,000*	*ppm*		*122%*	
VR38 B2				1.00		7.1	4657	4,657	Range OK!

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
VR38 C2				1.00		4.0	7302	7,302	*Range OK!*
VR38 D2				1.00		0.8	59211	59,211	*Range OK!*
VR38 E2				1.00		3.9	5104	5,104	*Range OK!*
VR38 F2				1.00		0.9	31042	31,042	*Range OK!*
CCV				1.00		40.0	1026	1,026	*102.60%*
Blank				1.00		40.0	-44.35	-44	*Blank OK*
VR38 G2				1.00		0.8	20744	20,744	*Range OK!*
VR38 H1				1.00		2.2	18159	18,159	*Range OK!*
VR38 I 2				1.00		2.7	4455	4,455	*Range OK!*
VR38 J 2				1.00		2.8	11987	11,987	*Range OK!*
VR38 K1				1.00		3.3	17048	17,048	*Range OK!*
NIST 1941B				1.00		1.6	28894	28,894	*96.64%*
CCV				1.00		40.0	999	999	*99.90%*
Blank				1.00		40.0	-43.34	-43	*Blank OK*

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(1) 11-12-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 1

Set-Up Parameters MODE: NPOC				INLET: Boat Sampler	
Standards:	Source		Conc (ppm)	Analyst:	(W)
Calibration:	ARI - D0128-03		5000	Date:	11-12-12
Verification:	ERA - 0409-12-01		5000 to 1000 for CVS	Time:	10:38
SRM:	NBS - 1941b or 8704		Method: PSEP 1986-MOD	Balance ID	B146454145
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 1941B			1.8			
VQ99 A'			1.2			
dpA'			1.1			
msA'			1.2			
msA'			0.8	2500	10	
B'			1.7			
CCV			40			
CCB			40			
VR38 A'			~~2.9~~ 5.1			
dpA'			5.0			
dpA'			4.9			
dpA'			5.4			
msA'			5.0	2500	10	
B'			7.1			
C'			4.0			
D'			0.8			
E'			3.9			
F'			0.9			
CCV			40			
CCB			40			
VR38 G2			0.8			
H2			2.2			
I2			2.7			
J2			3.8			
(2) NBS 1941 B			1.6			
CCV			40			
CCB			40			
			11-12-12 (W)			

(2) $K^2 - 3.3$ 11-12-12 (W)

11-12-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/12 18:24:05

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11121038
Cal. Curve: 10122012 BOAT CAL Timestamp: 2012/11/12 10:42
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	958.2724	38.3309	5666933	15.200	16.199	122

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11121056
Cal. Curve: 10122012 BOAT CAL Timestamp: 2012/11/12 10:59
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-43.7751	-1.7510	51434	13.567	13.548	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11121102
Cal. Curve: 10122012 BOAT CAL Timestamp: 2012/11/12 11:06
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	27782.9629	50.0093	7303090	13.692	14.692	201

Sample ID: VQ99 A1 Mode: TOC
Method: Boat Sampler Filename: 11121147
Cal. Curve: 10122012 BOAT CAL Timestamp: 2012/11/12 11:50
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25290.3379	30.3484	4251831	13.750	14.746	136

Sample ID: VQ99 A1 DL Mode: TOC
Method: Boat Sampler Filename: 11121153
Cal. Curve: 10122012 BOAT CAL Timestamp: 2012/11/12 11:56
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26409.1699	29.0501	4069936	13.853	14.850	131

Sample ID: VQ99 A1 DP Mode: TOC
Method: Boat Sampler Filename: 11121158
Cal. Curve: 10122012 BOAT CAL Timestamp: 2012/11/12 12:02
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30643.9043	36.7727	5151877	13.660	14.659	134

Sample ID: VQ99 A1 MW5 Mode: TOC
Method: Boat Sampler Filename: 11121205
Cal. Curve: 10122012 BOAT CAL Timestamp: 2012/11/12 12:08
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	58871.0234	47.0968	6598294	13.626	14.623	141

Sample ID: VQ99 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11121214
Cal. Curve: 10122012 BOAT CAL | Timestamp: 2012/11/12 12:18
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16548.1191	28.1318	3941284	13.609	14.607	140

Sample ID: ICV/CCV BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11121230
Cal. Curve: 10122012 BOAT CAL | Timestamp: 2012/11/12 12:37
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	880.2269	35.2891	5229565	14.200	15.197	125

Last Message: Out of Calibration

Sample ID: ICV/CCV BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11121240
Cal. Curve: 10122012 BOAT CAL | Timestamp: 2012/11/12 12:43
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	962.5629	38.5025	5690978	13.888	14.888	150

Sample ID: ICB/CCB BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11121246
Cal. Curve: 10122012 BOAT CAL | Timestamp: 2012/11/12 12:50
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-50.0521	-2.0021	16257	13.936	13.869	120

Last Message: Low Sample Detected

Sample ID: VR38 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11121440
Cal. Curve: 10122012 BOAT CAL | Timestamp: 2012/11/12 14:44
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2244.4575	11.4467	1603695	12.855	13.855	108

Sample ID: VR38 A1 DP | Mode: TOC
Method: Boat Sampler | Filename: 11121448
Cal. Curve: 10122012 BOAT CAL | Timestamp: 2012/11/12 14:51
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2942.3064	14.7115	2061095	12.720	13.716	127

Sample ID: VR38 A1 DP | Mode: TOC
Method: Boat Sampler | Filename: 11121455
Cal. Curve: 10122012 BOAT CAL | Timestamp: 2012/11/12 14:59
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2391.2441	11.7171	1641573	12.972	13.966	117

Sample ID: VR38 A1 TRIP
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121504
Timestamp: 2012/11/12 15:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2428.9231	13.1162	1837586	12.770	13.769	113

Sample ID: VR38 A1 MS
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121512
Timestamp: 2012/11/12 15:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8335.9043	41.6795	5839328	12.597	13.597	157

Sample ID: VR38 B1
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121523
Timestamp: 2012/11/12 15:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4657.0205	33.0648	4632406	12.636	13.635	154

Sample ID: VR38 B1
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121533
Timestamp: 2012/11/12 15:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7302.3809	29.2095	4092273	12.312	13.312	140

Sample ID: VR38 D1
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121546
Timestamp: 2012/11/12 15:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	59210.5547	47.3684	6636349	12.533	13.532	148

Sample ID: VR38 E1
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121608
Timestamp: 2012/11/12 16:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5103.6738	19.9043	2788609	12.450	13.447	127

Sample ID: VR38 F1
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121616
Timestamp: 2012/11/12 16:20
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31041.5156	27.9374	3914043	12.418	13.411	125

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121622
Timestamp: 2012/11/12 16:25
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1025.8149	41.0326	6045444	12.187	13.185	139

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121627
Timestamp: 2012/11/12 16:30
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-44.3521	-1.7741	48200	12.211	12.347	120

Last Message: Low Sample Detected

Sample ID: VR38 G2
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121635
Timestamp: 2012/11/12 16:41
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20744.0176	16.5952	2325000	12.348	13.347	106

Sample ID: VR38 H2
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121643
Timestamp: 2012/11/12 16:46
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18158.8359	39.9494	5596942	12.216	13.211	139

Sample ID: VR38 I 2
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121651
Timestamp: 2012/11/12 16:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4454.9019	12.0282	1685163	12.087	13.086	111

Sample ID: VR38 J 2
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121708
Timestamp: 2012/11/12 17:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11987.2568	33.5643	4702383	12.197	13.195	148

Sample ID: VR38 K2
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121717
Timestamp: 2012/11/12 17:22
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17047.6270	56.2572	7881665	12.133	13.133	178

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121729
Timestamp: 2012/11/12 17:35
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28893.6953	46.2299	6773591	12.560	13.556	214

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121746
Timestamp: 2012/11/12 17:50
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	999.3164	39.9727	5896945	12.664	13.662	147

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11121806
Timestamp: 2012/11/12 18:08
Sample Type: Cal. Verification

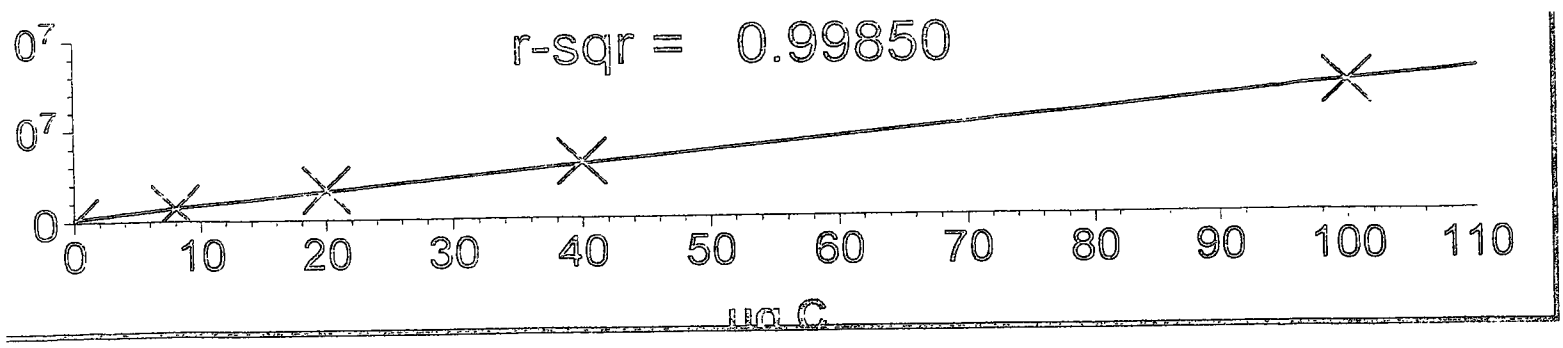
Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-43.3417	-1.7337	53862	12.986	13.979	46

Last Message: Out of Calibration

Calibration Report Print Date/Time: 2012/10/12 17:13:26

Cal. Curve ID: 10122012 BOAT CAL
Created: 2012/10/12 17:10
Calibration Factor (m): 1.401e+05
Y Intercept (b): 296750
r-squared: 0.99850

Standard ID	Raw Data	Expected ug C	Measured ug C	Message	Date & Time
DI Water	16824	0.000	-1.998	Low Sample De	2012/10/12 15:12
200 ppm	1399171	8.000	7.869		2012/10/12 15:26
500 ppm	3292181	20.000	21.381		2012/10/12 15:49
1000 ppm	6137616	40.000	41.690		2012/10/12 16:28
2500 ppm	14174867	100.000	99.058		2012/10/12 17:09


r-sqr = 0.99850
0
0
10
20
30
40
50
60
70
80
90
100
110

Detailed Analysis Report Print Date/Time: 2012/10/12 17:11:47

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: CASEY TRINA

Mode: TOC
Filename: 10121459
Timestamp: 2012/10/12 15:12
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12370	7.556	7.549	120
2			28042	7.465	7.263	120
3			10061	7.331	7.122	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 16824 Std Dev: 9783 RSD: 58.15

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: ~~CASEY~~ TRINA

Mode: TOC
Filename: 10121514
Timestamp: 2012/10/12 15:26
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1383607	7.157	8.157	87
2			1438922	6.832	7.827	91
3			1374983	6.697	7.695	90

<<<Statistics>>> Mean: 1399171 Std Dev: 34695 RSD: 2.48

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: ~~CASEY~~ TRINA

Mode: TOC
Filename: 10121527
Timestamp: 2012/10/12 15:49
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			3219952	6.630	7.630	128
2			3308299	6.520	7.519	128
3			3348291	6.389	7.388	130

<<<Statistics>>> Mean: 3292181 Std Dev: 65670 RSD: 1.99

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: ~~CASEY~~ TRINA

Mode: TOC
Filename: 10121554
Timestamp: 2012/10/12 16:28
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5734963	6.865	7.861	138
2			6237301	6.708	7.704	155
3			6440584	7.069	8.066	154

<<<Statistics>>> Mean: 6137616 Std Dev: 363219 RSD: 5.92

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 10122012 BOAT CAL
Operator ID: ~~CASEY~~ TRINA

Mode: TOC
Filename: 10121630
Timestamp: 2012/10/12 16:44
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			14018165	6.784	7.784	218
2			11364300	7.893	8.893	166

<<<Statistics>>> Mean: 12691232 Std Dev: 1876566 RSD: 14.79

UP38 : 02407

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: VR38

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: A Client Sample No.: HT-01-S-C-121106

Set-up Date: 11-16-2012 Sample Description: sand w/ some gravel

SOLIDS CONTENT

Moisture Content	Initials: ey
Container No.	153
Tare Weight	1.5439
Wet Weight + Tare	98.1868
Dry Weight + Tare	79.8028

Test Sample	Initials: ey
Container No.	153
Tare Weight	49.0223
Wet Weight + Tare	200.4271
Dry Weight + Tare	168.1473

Calgon Batch #: 276

11/23/2012

Temp:23

PIPETTE ANALYSIS

Initials: kb

TIME	Tare ID	Tare Wt	Dry Wt & Tare
12:47:00			
12:47:20	A1	1.5157	1.5259

SIEVE ANALYSIS

Sieve Date: 11-23-2012

Sieve Set #: 2 Initials: ey

Sieve Size	Weight Retained
Tare	49.0225
4	58.0638
10	63.8141
18	68.1579
35	75.8993
60	105.1208
120	160.4893
230	167.9500
PAN	0.1336

3.7g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: B Client Sample No : HT-02-S-C-121106

Set-up Date: 11-16-2012 Sample Description: sand w/some gravel

SOLIDS CONTENT

Moisture Content	Initials: eg
Container No.	170
Tare Weight	1.5036
Wet Weight + Tare	70.1784
Dry Weight + Tare	55.5610

Test Sample	Initials: eg
Container No.	170
Tare Weight	49.3844
Wet Weight + Tare	200.9090
Dry Weight + Tare	168.7296

Calgon Batch #: 276

11/23/2012

Temp:23

TIME

PIPETTE ANALYSIS

Initials: kb

12:50:00	Tare ID	Tare Wt	Dry Wt & Tare
12:50:20	B1	1.5248	1.5961

SIEVE ANALYSIS

Sieve Date: 11-23-2013

Sieve Set #: 1 Initials: eg

Sieve Size	Weight Retained
Tare	49.3893
4	76.1543
10	84.9594
18	86.8894
35	89.7010
60	103.1799
120	145.2092
230	166.3193
PAN	2.3165

SALT CORRECTION (2) 0.6gr 2.3

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: C Client Sample No.: HT-03-SC-121106

Set-up Date: 11-16-2012 Sample Description: sand, some organic fines & debris

SOLIDS CONTENT

Moisture Content	Initials: lg
Container No.	179
Tare Weight	1.4973
Wet Weight + Tare	100.0331
Dry Weight + Tare	67.5208

Test Sample	Initials: lg
Container No.	179
Tare Weight	50.6372
Wet Weight + Tare	201.7623
Dry Weight + Tare	150.6999

Calgon Batch #: 22

SIEVE ANALYSIS

Sieve Date. 11-23-2012

Sieve Set #: 2 Initials: eg

Sieve Size	Weight Retained
Tare	50.6434
4	51.6553
10	56.3255
18	57.9883
35	60.0625
60	73.2653
120	956.1849 eg
230	145.4828
PAN	5.2175

11/23/2012

Temp:23

PIPETTE ANALYSIS

Initials: kb

TIME	Tare ID	Tare Wt	Dry Wt & Tare
12:32:00	C1	1.5193	1.6177
12:32:20	C2	1.5095	1.5206
12:33:46	C3	1.5147	1.5249
12:39:05	C4	1.5086	1.5174
13:00:18	C5	1.5097	1.5189
14:25:00	C6	1.5100	1.5183
17:58:00	C7	1.5231	1.5306
11:08:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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Rev. 01

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: D Client Sample No.: HT-04-S-C-121106

Set-up Date: 11-16-2012 Sample Description: sand w/ organic ~~fines~~ fines

SOLIDS CONTENT

Moisture Content	Initials: eg
Container No.	185
Tare Weight	1.5309
Wet Weight + Tare	60.6886
Dry Weight + Tare	31.9803

Test Sample	Initials: eg
Container No.	185
Tare Weight	50.0617
Wet Weight + Tare	199.5846
Dry Weight + Tare	126.0066

Calgon Batch #: 276

SIEVE ANALYSIS

Sieve Date: 11-23-2012

Sieve Set #: 1 Initials: eg

Sieve Size	Weight Retained
Tare	50.0781
4	50.2151
10	50.3660
18	50.7241
35	51.3642
60	54.6631
120	74.8505
230	116.5634
PAN	9.2267

11/23/2012

Temp:23

PIPETTE ANALYSIS

Initials: kb

TIME	Tare ID	Tare Wt	Dry Wt & Tare
12:35:00	D1	1.5324	1.7014
12:35:20	D2	1.5366	1.5468
12:36:46	D3	1.5144	1.5233
12:42:05	D4	1.5188	1.5274
13:03:18	D5	1.5162	1.5199
14:28:00	D6	1.5186	1.5272
18:01:00	D7	1.5070	1.5149
11:11:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: E Client Sample No.: HT05-S-C-121106

Set-up Date: 11-16-2012 Sample Description: sandy gravel

SOLIDS CONTENT

Moisture Content	Initials: eg
Container No.	197
Tare Weight	1.5295
Wet Weight + Tare	88.5456
Dry Weight + Tare	74.5833

Test Sample	Initials: eg
Container No.	197
Tare Weight	50.6605
Wet Weight + Tare	203.6952
Dry Weight + Tare	177.3394

Calgon Batch #: 2710

11/23/2012

Temp:23

TIME

PIPETTE ANALYSIS

Initials: kg

12:53:00	Tare ID	Tare Wt	Dry Wt & Tare
12:53:20	E1	1.5147	1.5528

SIEVE ANALYSIS

Sieve Date: 11-23-2012

Sieve Set #: 2 Initials: eg

Sieve Size	Weight Retained
Tare	50.6790
4	101.0666
10	131.4770
18	142.4965
35	152.9284
60	169.2499
120	175.3736
230	176.5744
PAN	0.8744

2.log

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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Rev. 01

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: F Client Sample No.: HT-08-S-C-121106

Set-up Date: 11-16-2012 Sample Description: sand w/ gravel & organic fines

SOLIDS CONTENT

Moisture Content	Initials: eg
Container No.	200
Tare Weight	1.4846
Wet Weight + Tare	118.5229
Dry Weight + Tare	98.1063

Test Sample	Initials: eg
Container No.	200
Tare Weight	49.8931
Wet Weight + Tare	201.6581
Dry Weight + Tare	171.6664

Calgon Batch #: 276

11/23/2012

Temp:23

TIME

PIPETTE ANALYSIS

Initials: kf

12:56:00	Tare ID	Tare Wt gg	Dry Wt & Tare
12:56:20	F1	1.5340	1.6000

SIEVE ANALYSIS

Sieve Date: 11-23-2012

Sieve Set #: 1 Initials: eg

Sieve Size	Weight Retained
Tare	49.9023
4	85.5309
10	97.5049
18	100.2835
35	102.5006
60	128.1925
120	163.8771
230 eg	1701.1554
PAN	0.6836

4.0gr

SALT CORRECTION

Date. _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: G Client Sample No.: HT-09-S-C-121106

Set-up Date: 11-16-2012 Sample Description: sand w/ organic fines

SOLIDS CONTENT

Moisture Content	Initials: lg
Container No.	204
Tare Weight	1.5767
Wet Weight + Tare	96.4676
Dry Weight + Tare	70.0579

Test Sample	Initials: lg
Container No.	204
Tare Weight	49.8493
Wet Weight + Tare	202.3243
Dry Weight + Tare	149.4296

Calgon Batch #: 276

SIEVE ANALYSIS

Sieve Date: 11-23-2012

Sieve Set #: 2 Initials: eg

Sieve Size	Weight Retained
Tare	49.8568
4	63.4097
10	70.9051
18	73.1395
35	75.2518
60	91.9329
120	132.9837
230	147.9576
PAN	1.5182

11/23/2012

Temp:23

PIPETTE ANALYSIS

Initials: kb

TIME	Tare ID	Tare Wt	Dry Wt & Tare
12:38:00	G1	1.5265	1.6981
12:38:20	G2	1.5343	1.6468
12:39:46	G3	1.5187	1.6031
12:45:05	G4	1.5252	1.5869
13:06:18	G5	1.5274	1.5665
14:31:00	G6	1.5041	1.5294
18:04:00	G7	1.5367	1.5518
11:14:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: H Client Sample No.: HT-10S-LFP-121106

Set-up Date: 11-16-2012 Sample Description: sand w/gravel

SOLIDS CONTENT

Moisture Content	Initials: lg
Container No.	221
Tare Weight	1.5630
Wet Weight + Tare	99.7797
Dry Weight + Tare	84.2626

Test Sample	Initials: lg
Container No.	221
Tare Weight	49.2754
Wet Weight + Tare	201.5526
Dry Weight + Tare	177.1029

Calgon Batch #: 276

11/23/2012

Temp:23

PIPETTE ANALYSIS

Initials: kb

TIME	Tare ID	Tare Wt	Dry Wt & Tare
12:59:00			
12:59:20	H1	1.5360	1.5554

SIEVE ANALYSIS

Sieve Date: 11-23-2012

Sieve Set #: 1 Initials: lg

Sieve Size	Weight Retained
Tare	49.2822
4	73.0789
10	912.0398
18	106.1468
35	134.6062
60	167.7096
120	175.3181
230	176.8377
PAN	0.3535

0.7g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
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PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: I Client Sample No.: HT-11-S-LFP-121106

Set-up Date: 11-16-2012 Sample Description: sand w/gravel

SOLIDS CONTENT

Moisture Content	Initials: lgf
Container No.	224
Tare Weight	~~1.5268~~ 1.5436
Wet Weight + Tare	~~91.8471~~ 90.5640
Dry Weight + Tare	~~92.9326~~ 79.095

Test Sample	Initials: lgf
Container No.	224
Tare Weight	50.7186
Wet Weight + Tare	203.7983
Dry Weight + Tare	183.5552

Calgon Batch #: 276

11/23/2012

Temp:23

TIME

PIPETTE ANALYSIS

Initials: lgf

13:02:00	Tare ID	Tare Wt	Dry Wt & Tare
13:02:20	I1	1.5223	1.5348

SIEVE ANALYSIS

Sieve Date: 11-23-2012

Sieve Set #: 2 Initials: lgf

Sieve Size	Weight Retained
Tare	50.7217
4	103.9603 lgf
10	119.2386
18	130.0279
35	150.9570
60	176.6310
120	182.9300 lgf
230	183.5207
PAN	0.1227

0.6g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: J Client Sample No.: HT-06-S-E-121106

Set-up Date: 11-16-2012 Sample Description. sand w/ some gravel & organic fines & Debris

SOLIDS CONTENT

Moisture Content	Initials: lg
Container No.	226
Tare Weight	1.5096
Wet Weight + Tare	110.5467
Dry Weight + Tare	83.3497

Test Sample	Initials: lg
Container No.	226
Tare Weight	49.8510
Wet Weight + Tare	202.6002
Dry Weight + Tare	159.6129

Calgon Batch #: 276

SIEVE ANALYSIS

Sieve Date: 11-23-2012

Sieve Set #: 1 Initials: lg

Sieve Size	Weight Retained
Tare	49.86666
4	55.6174
10	59.4055
18	62.2463
35	70.1188
60	111.1091
120	147.9930
230	157.5561
PAN	lg 2.0123

11/23/2012

Temp:23

PIPETTE ANALYSIS

Initials: ht

TIME	Tare ID	Tare Wt	Dry Wt & Tare
12:41:00	J1	1.5314	1.6389
12:41:20	J2	1.5415	1.6041
12:42:46	J3	1.5464	1.5928
12:48:05	J4	1.5446	1.5786
13:09:18	J5	1.5511	1.5757
14:34:00	J6	1.5412	1.5572
18:07:00	J7	1.5230	1.5346
11:17:00			

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

1115F-A
Rev. 01

PSEP GRAIN SIZE ANALYSIS

ARI Job No.: VR38 ARI Sample Letter: K Client Sample No.: HT-07-S-E-121106

Set-up Date: 11.16.2012 Sample Description: sand w/ gravel

SOLIDS CONTENT

Moisture Content	Initials: eg
Container No.	227
Tare Weight	1.4842
Wet Weight + Tare	97.4368
Dry Weight + Tare	79.5412

Test Sample	Initials: eg
Container No.	227
Tare Weight	50.4530
Wet Weight + Tare	201.5763
Dry Weight + Tare	170.5984

Calgon Batch #: 276

11/23/2012

Temp:23

TIME

PIPETTE ANALYSIS

Initials: kb

13:05:00	Tare ID	Tare Wt	Dry Wt & Tare
13:05:20	K1	1.5243	1.6009

SIEVE ANALYSIS

Sieve Date: 11.23.2012

Sieve Set #: 2 Initials: eg

Sieve Size	Weight Retained
Tare	504585
4	789.0614 eg
10	100.92798
18	113.7495
35	129.37769
60	152.0498
120	165.6665
230 eg	1670.0646
PAN	0.6590

3.3g

SALT CORRECTION

Date: _____ Initials: ____

Tare Weight	
Dry Weight + Tare	

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Rev. 01

Calgon Batch #276

11/8/12 gc

	Tare wt	Dry Wt + Tare	Calgon Wt.
1	1.5682	2.0251	0.4569
			0
2	1.5554	2.1560	0.6006
3	1.5235	1.9825	0.4590
4	1.5783	2.0485	0.4702
5	1.5240	1.9800	0.4560

AVERAGE = 0.4885